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MASTER THESIS

THE IMPACT OF POLITICAL AND ECONOMIC INSTITUTIONS ON THE LONG-TERM ECONOMIC DEVELOPMENT

POLITINIŲ IR EKONOMINIŲ INSTITUCIJŲ POVEIKIS ILGALAIKEI EKONOMIKOS PLETRAI

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INTRODUCTION

Relevance of the topic. To start with, I want to define the relevance of this topic. According to (North, 1990a; Acemoglu, Johnson, & Robinson, 2004b) We live in a very globalized world where everything has become international, where every aspect of political and economic institutions is interdependent, and it determines the quality of life, not only inside the country but between countries. Foreign countries' politics can impact other countries, so it means that economic and political institutions matter not only inside but outside the country. Every country needs to understand how institutions can shape economic outcomes; this gives an opportunity to effectively design and implement policies that will have a positive impact on long-term economic growth. North (1991a), presents institutions as the "rules of the game", including limitations that people create for each other to influence interaction between them. These can be rules, laws or regulations which are accepted in a specific society.

To be more specific, determining the relationships between economic institutions and economic development can help create and specify policy approaches to the concrete needs of a country's economy. Additionally, it gives opportunities for controlling the development of the economy.

As for the Economic institutions, different papers offer different definitions, for example paper by Acemoglu, Johnson, and Robinson (2004a), defines Economic institutions as "the rules and norms governing economic interactions". They indicate the importance of these institutions for economic development since they create opportunities and incentives for economic activity.

According to North (1991a), Economic institutions are defined as "the humanly devised constraints that structure political, economic, and social interactions." These limitations include both official laws and constitutions, and informal norms, which include specific norms in society, also cultural norms.

In the paper Rodrik, Subramanian, and Trebbi (2002), economic institutions appear as a primary driver of economic performance because they create the fundament for everything from contract enforcement to property rights.

Political and economic institutions reinforce with each other to make each other stronger and more efficient. For example, political institutions get their legitimacy and long-term stability from good economic governance and Economic institutions can't be efficient without the appropriate legal framework from political institutions (Flachaire, García-Peñalosa, & Konte, 2011b; Mo, 2001a).

The level of investigation. While various studies claim that political and economic institutions have an impact on economic development, mostly with the channels such as Rule of law, control of corruption (Acemoglu, Johnson, & Robinson, 2004b), however challenges such as measuring quality and effectiveness of these institutions still remains. According to (Docquier, 2013a) there can also be limitations such as reverse causality between dependent and independent variables and also measurement biases. Research goes deeper into the measurements of both the effectiveness of institutions and economic development, research provides all the different dependent and independent variables and measurements for the institutions and Long-term economic growth and offers variety of perspectives of how those variables influence each other, also it shows what degree of impact they have on each other.

The novelty: Over the years, there have been many variables such as property rights, rule of law, corruption and GDP per capita with which people tried to find the relationship between institutions and long-term economic development. As we see from the literature, almost all the measures during the years are the same. I aim to find new measures that can define the relationship in more precise and innovative ways, measures that can find a stronger relationship between them, and measures that can provide more obvious links. Also, looking at the past studies mainly they are focused on only institutions or growth separately, I tried to investigate also the strength and direction of the relationship using cross-country data.

The main question of the master thesis is if political and economic institutions impact long-term economic growth, in what ways they can make an impact, and what can be the measures of effective work of institutions. This is very important. Without finding the relevant measurements, we can't find the link between institutions and development because we can't determine whether they work effectively or not. Also, one of the main questions will be whether they impact development directly and indirectly and to what extent they can shape it. One of the main aims of the thesis is to identify the relationships between the different types of institutions and their impact on economic development, to specify how they can affect and what can have an impact on the effectiveness of the institutions themselves. It will help us to show the whole cycle, starting from specific measurements impacting institutions and ending with long-term economic growth. This will ultimately allow for more targeted policy interventions and improvements in governance structures.

The objectives The master's thesis aims to investigate the relationship between political and economic institutions and long-term economic development to do so one of the objectives is to find the correct measurements to evaluate the effectiveness of institutions; Also another main objective is to analyze the literature, which will be different papers of the popular authors, which will give us understanding of what exactly the political and economic institutions are, what can be the best variables to use to determine their impact on long-term economic growth. Analyzing the literature will also give us to get to know past experiences, information about some empirical evidence which shows this relationship in numbers. One of the objectives is also to get trusted data from trusted sources such as IMF, World Bank, Fred etc. which will help me to see how changes in institutions affect long-term economic development. Conducting research with relevant methodology for my topic is also one of the main objectives to achieve my main goal.

Another objective is to determine the direction and strength of the relationship between institutions and economic development, but it is also important to find out if the results we get can be trusted and whether the impact is caused by changes in the actions of institutions. This can be done by completing multiple tests, such as regression analyses, covariance tests, correlograms, and normality tests, which will all be held during research.

The main methods used during research are:

During my research, I will use a variety of quantitative and other types of methodologies, such as case studies and surveys, which will help me to reveal the results of my research paper in a more clear and mannered way, but I think these two main methods will help me most during my research.

1) Panel regression (fixed effects) will be effective because it is very important to determine whether the relationship between dependent and independent variables is linear or non-linear. Also, as I already mentioned, factors such as democracy, property rights, and the rule of law will be discussed in terms of their impact on institutions and economic development; We can see from the literature Panel regression is one of the widely used methods to analyze the relationship. Additionally, as our thesis includes panel data such as cross-country and time dimension, it is a best fit for this kind

of data. Also, fixed effects method specifically addresses the unobservable differences between countries.

Structure of the thesis

The structure of the thesis simply starts with an introduction, which gives us a brief understanding of the topic's main aim, relevance, objectives, novelty, method, etc. In introduction art, we can also get more specific information about what directions the thesis will go and what specific aims it should achieve. After this comes the theoretical part, which includes a literature review. This part concentrates on analyzing the chosen research papers, from which the main information will be taken. Almost all the relevant questions will be answered according to the analyzed literature review. After this section comes Methodology, where the main methods used during the research will be reviewed. The last part of the thesis is the conclusion and references

1. LITERATURE ANALYSIS

1.1 Defining Long-term Economic Growth

According to Rodrik et al. (2002b), Long-term Economic growth is defined as consistent growth in an economy's output of goods and services over a specific period (usually 5 years or more). This is known as long-term economic growth, which is usually indicated by an increase in real GDP or real GDP per capita. However, a paper by Romer, P. M. (1994b) defines long-term economic growth as balanced expansion in an economy's ability to produce over a prolonged period, which raises output per capita and the quality of life. The increase in real GDP (gross domestic product) per capita, which indicates the economy's capacity to provide more products and services over time, is used to gauge this growth. Economic growth is important since it impacts how quality of life is improved, including living conditions, health, and education. According to the paper, there are variables, including capital accumulation, innovation, and the development of human capital, that have a significant impact on long-term growth. These elements support economies in raising productivity, which is essential for greater rise in production and economic expansion. The author also offers us a different type of theory, which is called "endogenous growth theory." It was created in opposition to neoclassical theory, which offers labor and capital accumulation as main stimulators for long-term economic growth; however, this theory suggests that long-term economic growth comes from internal processes of the economy. This theory sees innovation, investment, and policy as the main drivers of economic growth.

Economic definition of long-term Economic growth, which is used widely by economists, is a long-term increase in output and supply of goods and services. A long-term period is usually considered from 5 to 10 years. There are many ways and many variables that can be used to determine long-term economic growth, but finding the variable that will be most effective for determining the dependent variable precisely is hard. In all literature, GDP per capita growth is used as a variable to measure long-term economic growth. GDP per capita growth is one of the most important variables for the country. GDP initially is used all over the world as the measurement of whether a country is rich or not, but GDP per capita growth shows the condition of the economy more precisely; it also shows the dynamics of the country'seconomy over time. The fact that GDP per capita growth shows us the data over time makes it more useful for long-term economic growth.

Alesina and Özler (1992b), Note the political role as GDP per capita growth rate comes as a very important variable for the government because voters tend to pay particular attention to GDP per capita growth, so low rates can cause the likelihood of dissatisfaction. In an economic context, GDP can be defined as the gross value provided by all resident producers; as for the GDP per capita, it is the gross value provided by all resident producers divided by the mid-year population; and as for the GDP per capita growth, it shows the rate of GDP per capita growth in a year for one mid-year citizen.

According to Aisen and Veiga (2010a), GDP per capita growth is defined as the growth rate of real GDP per capita over time. The author calculates GDP per capita growth by estimating dynamic panel data models for GDP per capita growth using a GMM approach. The formula used is based on the difference between the logarithm of GDP per capita at the end of one period and at the beginning of the next. This way we can see the difference between the end and start of one period, so we can see the growth rate.

Glaeser et al. (2004a) offer diverse types of variables for long-term economic growth: Human capital, which includes education levels such as literacy rates and average years of schooling, can also be measured as the amount of physical capital, which includes investments in infrastructure and capital stock accumulations, which itself relate to growth in machinery and other types of capital. Third variable for long- term Economic growth can be technological innovation, which can be measured by levels of investments in research and development. Another variable can be demographic indicators, which are expressed by the growth rate of the population. Other variables that are more fundamental and connected to political and economic institutions and can change the rate of growth are: rule of law, property rights, corruption, and inequality. All these variables can have an influence on growth rates in different ways. There can be many varied factors that influence growth, such as capital accumulation, which includes investment in machinery, technology, etc. It can also be technological innovation, which can boost efficiency, create new products and services, Institutional quality, which includes governance, property rights, and some regulatory framework, is also one of the key prerequisites for achieving growth.

1.2 Defining Political and Economic Institutions

The main aim of this part of my master’s thesis is to define independent variables.

Firstly, I want to define economic institutions. It can be seen in two ways: first as some public private agencies, entities that are working on collecting and analyzing economic data, which helps decision-makers to make their decisions based on more precise and trusted information. On the other hand, economic institutions can be seen as some set of rules or structures, such as property rights or "rules of law“ which are crucially important to creating economic welfare.

To show the importance of economic institutions, I should indicate what role they play in fostering economic growth, according to Acemoglu et al. (2004b). Economic institutions are endogenous, and they can be determined as choices that society makes, so there can be many different choices for a set of economic institutions. They also note a big role that they have in reaching economic growth because they shape incentives for key players in the economy and they can influence investments in physical and human technology. They also indicate that economic institutions are one of the key reasons for economic growth; they are also needed for economic outcomes, including aggregate growth. They play a crucial role in the development of a country's economy through different channels and variables.

However, their roles and goals can quite differ and make an impact through different channels. The main goal of economic institutions is to organize production and distribution of goods, to allocate the resources in hand equally among the population, to get these resources to those in need, and to influence the structure of economic incentives. Even if a country has large economic growth, without proper allocation it will be just gone. Another goal is delivering secured property rights, which can result in a rise in capital investment because owners of capital feel more secure and more insured with the risks. This can also lead to an investment in R&D. Economic institutions can also have the role of market healers, as they can deal with some market failures, such as information asymmetry between actors of the market. All these roles clearly show the goals and importance of the economic institutions for long-term economic growth and prosperity.

According to Rodrik (2000b) There are institutions that matter the most: The first of them is property rights, which we have already discussed, and it expresses whether investors can have control over their assets and return on them. If property rights are good in a country, it makes the country more attractive for investors, as they have a guarantee that no one will interfere in their decisions, and they will have full control over their business. Regulatory institutions are also on that list; their goal is to eliminate any kind of fraudulent or anti-competitive behavior from the market and ensure that all the members of the market are treated equally. They also sometimes deal with information asymmetries. The third one is institutions for macroeconomic stability whose main goal is to stabilize the economy, and they do it by implementing different fiscal and monetary policies according to the needs of the economy.

The paper by Acemoglu and Robinson (2012) defines economic institutions as the laws and regulations that determine economic behavior and activity. These institutions influence how markets operate, how resources are allocated, and make an impact on economic relationships and organization within society. A country's economic outcomes and direction are greatly influenced by its economic institutions. They can be extractive, consolidating money, and encouraging development and innovation. According to the paper, there are two types of economic institutions: extractive and inclusive.

Extractive economic institutions: this type of institution is known for lack of law and regulation, insecure property rights, and entry barriers that hinder the proper functioning of the market. An example of that can be Colonial Latin America, which had a forced labor regime and wealth, and power was concentrated in the hands of a minority.

Inclusive economic institutions—this type of institution can be considered the reverse of extractive economic institutions; they are known for their secured property rights, laws, and regulations, and they also support the idea of a free market without any barriers for entry.

As I already mentioned, there is a clear relation between political and economic institutions, and this paper supports this idea. Extractive political institutions are political structures in which a small number of people have all the power without any limitations, undeserving legal protections, or other forms of priorities. Because they support the rise of more inclusive systems that would give power to the elite to control, extractive political institutions often support extractive to have a helping hand from economic institutions when the power of elites is under threat. As for the connection between inclusive political and economic institutions, inclusive political institutions create a framework for economic institutions development, and finally it all leads to a sustained economic outcome.

1.3 Economic institutions and political power

According to According to Acemoglu et al. (2004b), one of the definitions of economic institutions is the different choices that people make, but if there are different thoughts about economic structure, but how it will be decided which structure should be accepted and implemented, political power is the answer to that; it gives economic institutions power to decide the allocation and distribution of resources; without political power, decisions can’t be made, and that also creates some problems because people who have the political power are prone to use it in their best interests. So, by this, we can conclude that economic institutions can be effective when they are given political power, and this power is used according to the needs of the economy and not people who hold this power.

Political institutions can be defined as structures and systems that organize and govern political activities, manage public policies, and have the power to implement and enforce rules and have control over them. Main results from their activity are maintained stability; they also have the power to create an economic landscape on the markets; they make decisions about certain regulations and determine the distribution of power among actors of the economy. There can be two types of political institutions: de jure and de facto institutions. De jure political power comes from political institutions in society, whereas De jure refers to groups and organizations within political systems; they can be without any formal or legal status. The power of de facto political institutions can sometimes be even more powerful and influential than De jure; they can affect political outcomes and decisions. Because they usually act behind the scenes, it is harder to regulate such institutions, which also makes them more powerful. Political and economic institutions can also have an impact on each other. One good example of that if all the political power is given to a small group or an individual, it makes it harder for economic institutions to sustain property rights, equal distribution, and opportunities for the population.

Acemoglu et al. (2004b), political institutions are also endogenous, and there can be many cases where, even though some individuals, even if they are given political power by constitution, still cannot have it if they are not allocated by political institutions. Usually, de facto political power is determined by their financial resources, which gives them the ability to use political institutions according to their needs. Political institutions can determine economic institutions in both direct and indirect ways. A direct way is to give political power to some small group of individuals, and an indirect way can be by certain regulatory laws. We can say that there is also a similarity between them, as political institutions can also be a collective decision, and these decisions can give authority to anything and anyone. De jure, political power is the most common way for political institutions to impact economic institutions, which itself impacts economic outcomes. This leads us to the importance of political institutions; the key role of them is to give authority and political power to a correct individual who will use this authority according to the economic needs of the country and not their own. They also give power to economic institutions to make decisions, so everything comes and starts with political institutions; they are the source of power for making decisions. Political institutions are the source of enforcing laws and ensuring justice; for example, they can ensure property rights, which is one of the economic institutions; this specific variable is fully dependent on their decisions and on laws taken by them. They can also create a comfortable environment for potential investors by ensuring that nobody will interfere in their decisions and try to control them totally with strict regulations.

North (1990a) offers some distinct functions of political institutions in fostering long-term economic growth. The author defines political institutions as human created limitations that can be formal and informal. Formal constraints include property rights, constitutions, and laws, and informal constraints can be more specific social norms, customs, and traditions. According to the writer, there are specific functions of political institutions that have an impact on long-term economic growth, such as

Specifying and enforcing economic rules: It includes enforcement of formal economic rules, which we have already discussed, and by that creates a framework for effective and efficient competitive markets.

Creating Stable Governance: Limiting the use of power by rulers, avoiding confiscation of assets, or unpredictable reductions of asset values. This creates a stable and predictable environment for economic transactions.

Providing security of property rights: This is one of the main functions mentioned in the paper. This is necessary for the development of capital markets and investments.

Shaping the direction of economic change: Political institutions can determine the trajectory of economic development by determining the structure that guides economic behavior. In the paper, the writer also suggests seeing what we can lose in the absence of political institutions. Political institutions can be crucial in terms of the development of society towards more effective economic systems; when institutions do not develop these systems, they just stay inefficient. Weak political institutions can cause the stagnation of economic progress because of the lack of required legal, administrative, and regulatory frameworks. This can also have an impact on economic exchanges. Tribal societies can be a good example of that; in such societies they prioritize group over individual; innovations are seen as a threat, which can result in resistance to institutional change and that can lead to efficient economic systems. In Bazaar economics, underdeveloped political institutions can lead to deregulated and uninsured risks, and it can also cause difficulties in enforcing contracts. It can also lead to domination of informal constraints such as social networks, which leads to delayed economic growth and institutional development.

1.4 Political institutions and political power

According to North (1990a), constitutions, legal frameworks, laws, and norms, which can be formal and informal, are examples of formal structures and regulations that have the power to control the political processes. These are referred to as political institutions. The author also argues that institutions can be called "rules of game" that determine human interactions. Institutions play a crucial role in shaping the incentives that influence political and economic behavior, which in turn affects power maintenance. Institutions, according to the North, not only ensure stability but also react to changes in the balance of power.

According to Acemoglu et al. (2004b), there are certain elites with political power that have the power to maintain authoritarian control or decide to transit into democracy. They often design institutions in a way to keep or enhance their power. As a summary, I want to mention that political institutions and political power reinforce each other; while those in possession of power have an impact on the structure and activities of institutions, political power can itself shape power allocation and usage. Political systems' directions are shaped by the interaction of these forces, which determines whether nations move to autocracy or democracy.

1.5 Are political and economic institutions interdependent?

The relationship between political and economic institutions is overly complicated and specific, with each of them having a decisive impact on each other. Social stability and economic outcomes are based on their connection. Understanding this relationship is important to deeply understand what the distribution and management of power, wealth, and resources in a society are and in what ways they should be distributed to have equal opportunities across society.

Effect of Political Institutions on Economic Systems: Governments, legal frameworks, and regulatory agencies are examples of political institutions that significantly impact the economic environment. Through laws, policies, and regulations that impact economic activities, they set the game rules. There are specific spheres in which they influence the most, such as: Regulation and Law Enforcement: The legal framework that is created by political institutions and economic operations based on this legal framework is created and enforced by political institutions. As I have already discussed, the rules of law, property rights, and contract enforcement are some of the main functions of political institutions. Investment is encouraged by a strong legal system, which also attracts foreign and local investments. Political factors can also influence decisions about taxation, public spending, and money supply, all of which have significant economic outcomes.

Market regulation: To avoid monopolies, maintain fair competition, and safeguard consumers, governments regulate certain industries. It is always a matter of disagreement what level of regulation the government should have.

Inequality elimination: Progressive taxation, welfare programs, and universal healthcare can be good examples of policies that try to reduce inequality. Political decisions have a direct influence on all these decisions.

Economic institutions' impact on political institutions and systems. Markets, businesses, and financial systems are examples of economic institutions that dramatically impact political institutions. Businesses, financial elites, and other economic actors have the power to influence political decisions and results in many ways, such as: Wealth and Power Concentration: Businesses with large wealth can concentrate on power among a small number of people, and by that they can influence these people and impact political outcomes. Economic players can use their power to suit their interests through lobbying, campaign funding, and in many other ways. Political Stability and Economic Performance Political stability may be directly impacted by the state of the economy. Inflation, unemployment, and economic downturns frequently spark demonstrations, political upheavals, and government upheavals. On the other hand, a robust economy can support political systems and guarantee long-term governance. Globalization and Political Sovereignty: International trade agreements and multinational businesses are the main drivers of economic globalization, which poses a threat to national political institutions' sovereignty. International investment, trade reliance, and global supply networks can restrict a nation's capacity to implement autonomous economic policies free from market forces. Mutual reinforcement of economic and political institutions. Certain patterns of political and economic institutions are often connected by feedback loops created by their interaction. For example, political and economic institutions that work well together often provide institutional quality together. Common work ensures lower corruption, more accountability, and a strong market economy that is supported by a democracy, and this is all achieved with transparent institutions. A robust economy, in turn, supplies the means required for stable politics and efficient government.

Path Dependency: As political and economic institutions have evolved historically, they have created a system of interdependence that is hard to modify once they are in place, which can result in long lasting political and economic trends.

Crisis and Reform: Political reforms can benefit from economic crises, and vice versa.

Difficulties and Disagreements in Interdependence: Political and economic institutions can have differences and contradictions even if they are interdependent. Problems occur when economic goals conflict with the interests of political elites or when political stability is threatened by economic discrepancy. Then political and economic institutions start to use all their power at hand to do what is better for their goals, and in this clash, the most damaged side is the country's economy.

Corruption: Corruption can be a result of political institutions being taken over by wealthy individuals who want to take money off from the economy. Both institutions and economic progress are compromised by this.

Domestic Politics and Global Economic Pressures: Financial crises and competition from low-cost labor markets are two examples of how globalization may put pressure on domestic political systems. Governments may have to make the tough decision to preserve competitive economies in the global market or to defend domestic industry.

1.6 Are Institutions and Long-term economic growth interdependent

In this part I will discuss the Interdependence of institutions and long-term Economic growth. Firstly, I want to mention that as I already discussed institutions create the framework for economic activity, both formal (laws, regulations) and informal (social norms, practices). They set the rules of the game, which influence economic behaviors, financial incentives and in the end all this together have an impact on economic results. This connection is essential because, while strong and qualified institutions promote long-term economic progress, high and stable growth also helps institutions by creating the kind of stable conditions which is necessary for institutional reforms and development.

Institutions as fuel for economic growth: Institutions are essential in creating and structuring the economic framework because they protect property rights, ensure contract enforcement, and regulate the market.

According to Acemoglu et al. (2004b), institutions are the primary drivers of steady economic growth. Innovation and entrepreneurship are fostered by inclusive institutions which I already discussed; they also provide equal access to resources. Strong institutions develop an economic atmosphere that fosters progress and outcomes.

On the other hand, high and stable economic growth can strengthen institutions; it can be a good support for them. The demand for effective institutions grows together with economic expansion and becomes more complicated. When Economies are growing so the quality of institutions should walk with them, rule of law, legal frameworks, property rights and more responsible political institutions are demanded because of successful economic development, if institutions cannot keep up with the economic growth it will result in decreasing the speed and size of economic growth. This establishes a positive relationship between institutional development and economic growth, which in turn encourages even more growth because it is in both interests.

For example, Henisz (2000a), explains how economic expansion promotes institutional stability by providing the resources essential for governance and lowering the possibility of unsettling political shifts. Long-term Economic growth also leads to a political stability in the country which is also a one of the key factors that could give institutions an opportunity to improve their quality.

Aisen & Veiga (2010a) discusses the negative role of Political instability in the process of fostering economic growth. First, according to the paper it generates uncertainty, which discourages investment and other forms of economic activity. Sustaining the trust of investors and entrepreneurs is critical for strong political institutions, such as stable governments and efficient legal frameworks, to have an opportunity of fostering sustained economic growth.

According to Flachaire, García-Peñalosa, and Konte (2011b), analysis of the relationship between political and economic institutions. This mutually beneficial interaction highlights the significance of a comprehensive development strategy that considers the quality of political and economic institutions.

According to Rodrik (2004a) Economic growth can also boost institutional reforms by raising the demand for more effective institutions. Economic activities get more complicated along with economic expansion, causing the need for more advanced and qualified institutions to handle this complexity. Longer economic expansion continuously creates demand for institutional changes that can provide future development opportunities. Long-term economic outcomes highly depend on having high-quality institutions that are transparent, accountable, and responsible. Corruption comes as one of the main and most disrupting institutional failures that has a direct impact on long-term growth. According to Mo (2001b), corruption has a negative impact on incentives for investment and innovation, it can also raise transaction costs, which slows economic growth. Funds are lead from beneficial purposes to wasteful ones, so it disables one of the key functions of institutions to equally allocate resources. Corruption also decreases the efficiency of institutions. Institutions and long-term economic progress are related. Sustained economic growth depends on quality institutions, and steady economic growth can create framework and provide all required resources for quality institutions.

This mutually important relationship shows how crucial it is to create and maintain strong institutions to foster sustained economic growth.

On the other hand, institutional reform can be fueled by economic growth, resulting in positive results for both institutional quality and economic performance. So, I can finally say that supporting each other is mutually beneficial for both institutions and economic growth and finally for the country, they are interdependent, and they can both have negative and positive effects on each other.

1.7 How do institutions affect economic growth?

After reviewing the influence and dependence of political institutions on economic growth. It is a fact that strong political and economic institutions in the country are one of the key aspects of maintaining and boosting economic growth. Political and economic institutions can affect the indicators such as investments, consumption, and savings; they can also affect the exchange rates when a country has political stability. Economic growth and development are the only thing people, and the government are worried about.

From the research paper of Aisen and Veiga (2010a), we can see that political instability leads policymakers to make an accent only on short-term goals; it also forces them to have quick changes in policies, which has a negative effect on effectiveness because it takes time for institutions to fit into these policies. This specific paper concentrated on determining the relationship between political instability and economic growth and what the channels are by which the economy is affected. From the paper, we see that political instability leads to lower rates of productivity growth and to less physical and human capital accumulation. Political instability doesn't mean that the government changes every year and different parties come to government; it can also be a change inside the party, ministry cabinet, or prime minister. Of course, the political course stays the same, but all individuals have different approaches to how to do the work, so these changes bring instability, and it is not time-efficient either.

In this paper, Aisen and Veiga (2010a), the data of 169 countries was collected. The main objective was to determine if there is a negative effect between economic instability and GDP per capita growth. As it came up from the results, there is a very clear negative correlation between economic instability and GDP per capita growth. Economic instability leads to reducing the economic growth of the country. It means that having stable political institutions, which do not change the course very often and there are not many fundamental changes, can help you stabilize the GDP per capita growth in a country. In the economic model, indexes are included, such as economic freedom, and statistics show that it affects economic growth positively in the country. This uncertainty is predicted on future economic policy; different cabinets can bring different economic strategies, so that directly affects the investments in the country. Business is very sensitive to changes in economic policy, and instability brings fear to the investors whose will is to invest in the country. Uncertainty can also affect productivity in the country. We all know that businesses plan future stocks according to the market situation, according to the demand forecast, but instability makes it hard for the companies to have an approximate and exact number of stocks for the future, so they avoid raising stocks, which results in a loss of economies of scale and can also result in a price increase. Political instability is a very general term; there are a variety of indicators that can lead to this; some of them are also mentioned in this paper, such as cabinet changes and the regime instability index. But all these instabilities are connected to political institutions and, most importantly, come from them. It depends on decisions made by political institutions; all the regulations and laws adopted can create or avoid instability. We can say that political institutions have an impact on political instability, which affects GDP per capita growth, but not directly; cabinet changes and regime instability are variables that bring this instability. I already mentioned that one of the main channels through which instability affects GDP growth is total factor productivity, but moving on to the numbers in the paper, it is indicated that 52.13% of negative effects from 58.40% of all effects come from this channel, so we can say that TFP is the main channel through which GDP growth is affected.

However, the paper of Glaeser et al. (2004a) offers quite different results from the previous paper; it showed that in OLS regression, there is no precise evidence that institutions can cause economic growth and vice versa. Variables that were taken as measures of institutions had no predictive power for the per capita income growth. So, this brings to the fact that there are significant challenges because of the issues of the measurements; there are some limitations, which leads to the fact that there is no connection between variables and economic growth. We can call this effect a secondary effect. There were some examples, such as China, that even under authoritarian regimes economic prosperity can be reached, and sometimes even it can be reached more easily than in a democratic country, but the equality of this prosperity is a different topic of discussion. To conclude, this paper shows that human and social capital are more important factors for economic growth, and economic growth can bring improved institutions as a result.

Knack and Keefer (1995a), discuss the connection between institutions and economic performance, and they use cross-country tests and institutional indicators to determine that impact. This paper, as the previous ones, also argues that property rights, contractual rights, and efficiency of public provision are fundamentals to foster economic growth. Insecure property can lead to the daunt of investment and specialization, which itself leads to stagnation and underdevelopment. So, what can affect property rights? With what can we ensure that property rights are defended well in the country? Of course, it is political stability in the country and policies that will properly defend property rights. The variables that are chosen to measure property and contract rights are rule of law, repudiation of contracts by the government, corruption, and quality of bureaucracy. There are also variables that measure institutional environments; it is important because their quality impacts property and contract rights. By the analysis from the paper, we find out that these new variables can significantly improve understanding of the institutional roots of growth. Higher scores of these variables indicate that conditions for investment are associated with higher growth rates and more private investment. The study clearly shows the importance of secure property rights and efficient public goods provision for economic performance. To evaluate the importance of institutional quality, the authors use new institutional variables such as political violence indicators (e.g., revolutions, coups, assassinations) and the Gastil indices, which I already mentioned, like political freedoms and civil liberties. They use data from two private investment risk services, International Country Risk Guide (ICRG) and Business Environmental Risk Intelligence (BERI), which offer detailed ratings on specific dimensions of property rights security and government efficiency. They used correlation analyses, and the result was that there is a low correlation between the new institutional variables and traditional proxies. Also, it became clear that the new variables explain variations in private investment rates better, once again underscoring the importance of property rights and government policies for investment attraction.

According to this paper, we can say that the Knack & Keefer (1995b), study highlights the close relationship between institutions in economic growth. The new institutional variables from ICRG and BERI provide insights into how the security of property and contractual rights can be ensured and what are the variables that can ensure that. They also show the need for further research into institutional factors and their impact on economic development.

Henisz (2000a), argues that while private sector recognition influences investment decisions, a strong link between investment and political institutions must be created. The paper demonstrates that needed commitments from governments significantly impact cross-national economic growth by reducing investor uncertainty and preventing inequal resource allocation; these institutional factors are essential for boosting long-term investments crucial for economic development. The findings also highlight that unstable policy reduces investment, especially in important sectors such as infrastructure and technology, which delays economic growth. The study underlines the necessity of stable and reliable political institutions for sustainable economic development. In this paper, empirical research was conducted to test the hypothesis that political institutions strongly impact economic growth by commitment to private property rights. In the research, three types of institutional measures are used: The first one is Democracy and Civil Liberties Measures: Examples include the Gastil indexes, which I already discussed, and it measures the degree of democracy in a country.

However, as discussed in the paper by Knack & Keefer (1995b), these measures do not strongly correlate with the protection of private property rights. For instance, unstable democracies with power or stable autocracies under the rule of law can result in a detachment between the quality of democracy and property rights security. Another measurement for political instability includes counts of events. such as riots, strikes, or protests. While they can consistently perform better than civil rights measurements, their effectiveness declines when the sample includes autocratic regimes where weak property rights may remain stable. As for the Country risk index we can mention the International Country Risk Guide (ICRG) once again, these indexes aim to evaluate the risks investors face, including government expropriation and corruption. Despite being broader and subjective, and limited only for the past 15 years, studies have shown these measures correlate with international measures in private investment and growth. The main challenge is to link them closely to a government's credible commitment to protecting property rights, overcoming their subjective nature and extending the available data period. Studies which I discussed before support the hypothesis that institutional measures clearly correlate with private investment and growth.

Durham (1999b) finds out that the number of effective policies implemented by institutions does not precisely predict growth or investment. There are limitations like current empirical measures are subjective, have limited availability, and lack of theoretical grounding. This paper develops a more objective and theoretically acknowledged measure of institutional commitment. While constraints on policy change can sometimes lead to excessive inertia and entrenchment of bad policies, the literature supports the view that the benefits of these limitations, in terms of providing credible commitments, outweigh the costs. Future research should find the measures of good or bad policies and the costs or benefits of them. Results of the study conclude that structurally obtained measures of political constraints are significant predictors of cross-national variations in economic growth. While traditional risk indexes are significant, they are limited by their subjectivity. This paper highlights the importance of political institutions in economic performance and suggests avenues for further microanalytic research. From all the papers which we already discussed the main concentration was on the variables such as property rights protection, rule of law and others.

Paper by Mo (2001a) offers a different variable such as corruption which can influence Economic growth, but main question here is what the connection between institutions and corruption is, this paper suggests that high level of political and economic institutions can prevent high corruption levels by different ways such as Rule of law, which means that strong legal and regulatory framework which are applied fairly. Checks and Balance system can also be an effective way of preventing corruption, because it helps to avoid the concentration of power in only one hand. Political institutions can also provide transparency and accountability with certain regulations and laws. They can make it mandatory to fill out declarations every year or even in a short period, which leads to a reduction in corruption rates. However, there are some interplays between Political and Economic institutions, when they must unite their power to fight with corruption and there are variety of ways of doing that such as Integrated reforms: once again it will be political reforms which will provide transparency and accountability can help and make a ground for economic reforms which will lead to improved regulatory frameworks and better market conditions. The second way these institutions can interact with each other is Institutional constructive collaboration: Political institutions which support strong economic regulations and economic institutions which applies democratic principles can create an environment which will be less prone to corruption. In summary, political and economic institutions have a decisive influence on corruption by shaping the environment in which corrupt practices can grow or be avoided.

There is some good Empirical evidence in the paper by Acemoglu et al. (2004b) in this paper they argued that institutions, especially Economic institutions are the fundamental cause of long-term Economic growth, and their research showed that countries with better institutions experienced higher Economic growth, also research showed that European strategies which established a high-quality institution in some regions had a long-lasting effect on Economic outcomes. However, there is still a big discussion about whether corruption affects economic growth negatively or not. This paper suggests two perspectives: one is pro-corruption view and the second one anti-corruption view. Pro-corruption view indicates that corruption can improve governments efficiency by acting like a peace-rate, anti-corruption view is the opposite it considers that corruption negatively impacts innovation, it creates a very unattractive environment for investments, it can also rise costs for innovators because of the bribes, also it can result in misallocation of talent and of course it can cause inequality and instability. As empirical evidence they examined the connection between corruption and investment across 58 countries and as measurement for corruption they used degree to which business transactions involve corruption. The result came up that corruption has a negative correlation on investment-to-GDP ratio, so it is harmful for economic growth.

In the paper by Robinson (2011a) there are much empirical evidence which clearly show the influence of institutions on long-term economic growth starting from Constitutional Drift and the British Institutions which Became Inclusive:

The Glorious Revolution (1688) and the Magna Carta (1215) in Britain come as examples of how institutional change can occur step by step and create inclusive political and economic systems. Sustainable economic growth was kept by this structure. Further evidence of the importance of institutional quality and development in promoting economic outcomes comes with the formation of a new reform following the growth of the Atlantic economy (1492).

Another evidence of the influence of institutions comes from Spain, and Britain's institutions differed slightly at the start, but there were big differences in long-term economic effects. The reason for this was that the monarchy in Spain monopolized trade and colonization, and this increased wealth and power only for them; on the other hand, Britain's institutions, which were more inclusive, promoted economic opportunities for a larger part of the population, which resulted in promoting economic growth. The spread of the industrial revolution is also one of the good examples; as we see from the paper, distinctive characteristics of institutions were one of the causes of the industrial revolution. Russia and Eastern Europe can also be a good example to show the difference between the countries with low- and high-quality institutions because of their fear of the elite's extractive institutions in Austria-Hungary and Russia rejected industrialization, and because of that, economic progress was delayed. This can also be a good example of how political power can be used not in favor of a country but just in favor of some elites and privileged people

Catrinescu et al. (2006) concentrates on the impact of remittances on economic growth, which has been a subject for a long time, having mixed results. The pros of remittances are that they are seen as a tool for poverty reduction, providing capital for household investments and savings. They can make an important contribution to macroeconomic growth, and they can increase national income. There is empirical evidence that suggests that remittances can lead to positive economic growth by their impact on consumption, savings, and investment. Remittances have accelerated investment, according to case studies from Morocco, Pakistan, and India that Lucas 2005b cited.

This article by Chang (2011) questions the popular narrative in institutional economics, which offers that economic development depends on more and more liberalized institutions, with maximum level of free market and ensured private property rights. Ha-Joon Chang argues that this perspective is conceptually and empirically incorrect.

Firstly, he questions the causality by pointing out that economic growth usually results in institutional quality development rather than only the reverse. He emphasizes that most of today's high-income nations created the institutions currently considered essential only after they were already industrialized.

Second, he questions the belief that free markets and robust private property rights in every case lead to development. Chang contends that so-called "liberalized" institutions are generally accepted context-dependent and could even pause progress in particular nations or phases of development.

Third, he challenges the interpretation and validity of the empirical data behind the perspective. Much of this data ignores the differences among nations and time periods and is mostly based on cross-sectional data and faulty measuring indexes.

Finally, the article investigates how the dominant context provides either unrealistic optimism (that institutions can be easily reformed to fit a standard model) or fatalism (that institutions are immutable due to culture or geography), both of which overlook the complicated, path-dependent character of institutional change, which can be different based on geography and time-frame, we can’t universally say that institutions cause the economic development.

We can see from Flachaire et al. (2011b) that there is a clear difference between the impacts of economic and political institutions on economic growth. As we see from the paper, just the simple correlations suggest that there is a close relationship between institution quality and growth. There is no exact evidence of this connection. This paper differentiates the impact of economic and political institutions. The key findings of this paper are that political institutions, but in indirect ways, such as property rights rules of law, which we already discussed, have an impact by determining a country’s growth regime; as for economic institutions, they directly impact growth rates within these regimes. So, this paper suggests that even though political institutions do not have a direct impact on growth, they are the foundation to create an effective environment for economic institutions, which then directly affects growth.

Demetriades and Law (2006) discuss connections between finance, institutions, and economic development; for that, they used the data for 72 countries for the period 1978-2000. This paper suggests that financial intermediaries play a crucial role in economic development, and they do it by effectively allocating resources to productive uses to correct people. Financial development and differentiated financial instruments are in a positive correlation with economic growth. But this impact is not the same in all countries; it varies across countries. The interaction between institutional quality and financial development is separate drivers of economic growth. This hypothesis offers that the combined effect of institutional quality and financial development is greater than the sum of their individual effects. Empirical testing of this hypothesis necessitates data spanning several decades, which are available for a limited set of countries. Therefore, cross-sectional and panel econometric methods are employed to examine this relationship. One of the main aims of the paper is to provide evidence of whether they positively influence economic growth. The results of the papers suggest that they separately impact economic growth in direct and indirect ways also, but their impact is stronger when they are interacting together.

To conclude all the papers that I already discussed in the thesis, we can surely see that there are some patterns that are ensured by the empirical evidence from the paper. However, in different papers there are different approaches about the impact of political and economic institutions on economic growth. The theoretical evidence varies in different papers, for example,

North (1991a) offers us different types of institutions (formal and informal); they both impact long-term economic growth in different ways, such as shaping incentive structures that can drive economic behavior; they can also influence transaction costs and regulate the feasibility of productivity. They create a framework of rules and norms; effective institutions, specifically those that enforce property rights and ensure contract security, are crucial for fostering an environment that is likely to sustain economic growth. On the other hand, weak or ineffective institutions can lead to stagnation or failing to resolve the problems of cooperation and coordination in an economy. I want to mention that all of the papers agree on the fact that the impact of political institutions is not direct; there are no such channels with which they can impact growth, but they can create a framework by implementing effective policies for economic growth. For efficient working of economic institutions, we need the proper work of the political ones. What can be the ways through which they can do that? The first and most important way of doing that, which is mentioned many times in the papers, is property rights; ensuring them by policies can create a wealthy economic environment in the country and attract investments in the country. Another such variable for the quality of the political institutions is the rule of law, no corruption, economic freedom, and price regulation. All these political institutions can ensure healthy competitiveness on the market, which then leads to economic growth. As for the rule of law, it is a guarantee for the investors and for the market that their rights will be defended fairly against anyone. As for the price regulations, we saw from the example of African countries that sometimes the government needs to intervene in that because it can bring inequality between populations. As for the economic institutions, we saw many examples that even in the authoritarian countries they still manage to maintain the economic country as in free countries, so what can be the goal of economic institutions and how they can affect economic growth?

From the papers, it is obvious that the main aim of the economic institutions is to ensure equal allocation of resources across the country. This is very important for every country as it boosts economic growth. When money gets into the right hands, it certainly will bring more money in the future. So proper working of the economic institutions can be a guarantee for equality in the market.

The paper by Docquier (2013a) critically examines if and how and to what extent institutions can affect economic development. Docquier (2013a) uses different types of measurements for economic and political institutions such as ICRG and Polity IV, from world bank governance indicators, also Corruption perception index from Transparency international, doing business and freedom house. Author uses Log of GDP per capita in purchasing power parity as a dependent variable. Cross-country data is used to measure the relationship between dependent and independent variable. As results show in the paper there is a strong correlation between economic development and institutions, however Correlation does not imply causation and there are certain reasons for that such as: Reverse causality which means that Economic development can also lead to better institutions, also there can be some unobserved historical and geographic factors which should be considered. So as a conclusion from this paper we can say that Institution really does matter, but causality is still under debate due to the challenges of identification in exactly what way they make impact, or if it is reverse causality or not. Institutional changes are very slow and so the results from these changes, so the effects from this shift can impact Economic development in a long-term period.

Another theoretical argument of how institutions influence economic growth can be from the paper Rodrik (2004b), where the author shows the clear roles of institutions in shaping economic growth. First, he pays attention to the role of securing property rights, alignment of private incentives, the rule of law, protection of civil liberties, and others. As for the influence of institutional reforms, the author suggests that improving institutional quality can lead to a sustainable increase in productive capacity. Specifically, protecting property rights and reducing corruption can boost economic growth by creating a more secure and predictable environment for investors and local entrepreneurs. The author also underlines the challenges in measuring and understanding institutions. The first problem is that most of the literature relies on indices, which measure perceptions rather than real practices, and perceptions don't always show the real quality of institutions. The second problem is that institutions are complex, which means that institutions can reach their outcomes in various ways. There are many examples in history where countries reached good economic outcomes even without secured property rights, high corruption rates, etc. So even with much theoretical and empirical evidence, there can still be issues with measuring institutional qualities and their impact on economic growth. As for the empirical evidence, I think the best empirical evidence was given in the paper of

Acemoglu et al. (2004a), where they discussed two different experiments (the Korean Natural Experiment and the Colonial Experiment), and they also used data on property rights to conduct a regression that showed a cross-country relationship between the log of GDP per capita and "protection against expropriation risk," which is a measurable for property rights averaged over 1985 for more than ten years. This data shows that countries with high property rights have higher average incomes and higher growth in GDP per capita over time. Another paper that can be used for the empirical evidence can be

Glaeser et al. (2004a) In this paper, different political regimes are taken as an example, and the data is taken from a variety of countries with different political regimes, and it shows that highly educated countries tend to be more stable democracies, while dictatorships are mainly associated with lower levels of education. As we already discussed, level of education can be one of the variables of long-term economic growth. This data also shows us that there is a strong link between human capital and economic growth; countries with important levels of human capital tend to grow faster. In the period of 1960–2000, countries with a high level of human capital in 1960 grew at twice the rate of those with a lower rate. So, we see from the text that both institutions impact growth in direct and indirect ways, but as per my understanding, political institutions should ensure the proper working of economic institutions. If there is no political will to create a democratic and free country with equality among the markets, economic institutions alone cannot do much. I want to also mention that some of the functions or political and economic institutions are similar, and an example of that can be Reducing transaction costs, facilitating cooperation, encouraging innovation—both types of institutions have these fundamental functions that are most important for the long-term economic growth, which can be impacted by both of them in the case of property rights. Both political and economic institutions can have an impact on that. The main aim of this paper is to determine the relationship between institutions and economic development and the exact channels through which institutions can impact growth and to find precise measurements to evaluate the quality of the institutions. Also, the most important what political institutions have in their hands is political power; it is the foundation of everything. The people who have political power make decisions on everything; they adopt the laws that impact the political institutions themselves and economic institutions. These decisions, which are made by political institutions with political power, influence all variables that I mentioned before, such as the corruption index; they can also impact economic institutions themselves, property rights, and the rule of law.

1.8 Conclusion

As a Conclusion I want to point out that this thesis aims to investigate the relationship and impact between political and economic institutions and long-term economic growth. Driven by the increasing debate that institutional quality can strongly influence a nation's economic performance, the study used various theoretical insights, literature review, and empirical analysis to study how different institutional variables affect GDP per capita growth across a panel of nations. The study confirms that institutions clearly are on of the key drivers of sustainable, long-term economic. by drawing on both foundational and modern academic contributions from North’s (1990b)and institutional theory to empirical work by Acemoglu et al. (2004b), and others. The Literature analysis showed that institutions whether it is formal such as(laws, constitutions, regulatory bodies) or informal (social norms, power structures) serve as the creator of rules that defines lower uncertainty, and shape economic behavior. Economic institutions which includes property rights, contract enforcement, and regulatory systems create an environment required for capital creation, innovation, and entrepreneurship. Political institutions then create legal framework, allocate and exercise power and by that enabling or limiting context within which economic institutions can function. Moreover, literature analysis discussed the problems of causation and measurement complexity, hence recognizing that although institutions affect growth, economic progress may also enhance institutions—implying a interdependent interaction. Various studies, including those based on natural experiments, showed how historical changes in institutional framework had long-term effects on economic results.

Literature analyzes also points out the need to evaluate both direct and indirect pathways by which institutions affect economic growth—ranging from property rights enforcement and corruption control to macroeconomic stability and investor confidence. We can also see from the analyzes how political power often taken by the certain elites can influence economic institutions and the path that is chosen to reach the economic development, that once again points out the fundamental importance.

From a policy standpoint, the results support the need of institutional reforms meant to strengthen legal integrity, lower corruption, and increase regulatory efficiency. This does not mean that government should only concentrate on some material and infrastructural investments, but on the design and fundamentals of institutions, which will itself result in more effective market operation, by ensuring competitiveness, better allocation of resources and effective regulations.

Ultimately, literature confirms that political and economic institutions are important drivers of long-term economic development rather than just supportive structures. The effectiveness, speed and sustainability of development are mostly shaped by the quality of governance, openness, and legal systems.

2. RESEARCH METHODOLOGY

This chapter of my master's thesis provides a detailed and organized description of the complete process of research. It also ensures that the research is reliable, and valid, it also explains why certain decisions were made, it also explains why specific techniques, and tools were used. It also shows some limitations by which research findings can be impacted and in what ways they can impact findings. This part also gives us the information about data collection methods, data analysis methods, Justifications why the specific methods were chosen to conduct research, and it can also show the influence of this research.

All those processes include a part within them, for example data collection methods include justifying the source of data, what techniques were used to get data and sampling methodologies. Research design should show the type of research I am conducting and framework of it, Data analyses include quantitative and qualitative analyses.

2.1 Hypothesis

Considering their validity for the research topic and the research questions that will be covered, methods such as panel fixed effects regression and approaches were determined to be the best choice to help cover all these questions.

In this part I am going to determine the specific hypotheses which will be the main answers of my thesis, and the main aim of the paper will be to agree or disagree with this specific hypothesis. The aim of the thesis is to answer specific research questions and examine the relationship between them, showing if political and economic institutions can have an impact on-long term Economic growth and in what ways can that be made.

Additionally, it also shows us if Political and Economic institutions can have an impact on each other and if that can impact long term economic growth in the end. Paper also shows key variables by which it can measure dependent and independent variables such as GDP per capita growth, property rights, rule of law etc. The main question of my master's thesis is whether Political and Economic institutions can have an impact on Long-term Economic growth? According to this the following hypothesis can be proposed: Political and Economic institutions can have a positive impact on long-term economic growth. I think these hypotheses can cover the main question of my master best, the reason of it is that I want to determine causality between my dependent and independent variables, so I need to choose causality hypotheses, also one of the key is having data availability, theoretical framework which means that hypotheses must be aligned with the literature I am using in analyses and it should help me reaching goals and objectives of thesis. The rationale of my hypotheses is that if Political and Economic institutions can impact Long-term economic growth, changes in institutions should cause changes in in Economic growth.

2.2 Model of specification

This part of my thesis defines and describes in detail the model specification of my master's thesis, more specifically it describes testing your hypotheses empirically and understanding the empirical relationships between variables, this part is particularly important as it is something like a framework of how my empirical research will be conducted.

In summary, this part is the basis for analyzing data in the model specification part of the thesis. It explains the steps involved in conducting an empirical test of my hypotheses, including selecting the variables, using an estimation approach, and validating and testing the model. This section ensures that my analysis is reliable. In this section, I must indicate my dependent, independent and control variables and show the equation representing their influence. The dependent variable of my thesis will annual GDP per capita over time which will also show us the growth over-time, as it is used almost in all the literature which I analyzed during the paper, it is the best indicator when you want to evaluate the impact over the specific time of the period and generally GDP per capita is one of the most useful variable to measure countries economic development..

According to literature, control variables of GDP per capita can be log (GDP per capita), which shows us the growth rate of GDP in time, which is specifically what is needed to see the relationship between long-term economic development and institutions. Also, R&D expenditure can be a good control variable as it is used in some of the literature and it can be one of the good indicators if country's economy is growing or not, especially when we are discussing a long-term period because R&D tend to influence economic growth after specific period of time. Human capital can also be one of the best control variables for the long- term economic growth, as it has a significant effect on it, also paper by Glaeser et al. (2004a) describe the meaning of human capital for long-term economic growth very clearly.

As For the independent variables they are quality of political and economic institutions which have their own measurements such as Control of Corruption Index, Rule of law index.

As for the control variables which can also be used for measuring the impact of my variables, they can be (RQ) which is Regulatory quality index published by International monetary fund (IMF), it can be a good measurement as it shows the ability of the government to formulate and implement regulations. The reason why I choose this variables is that in almost all of the papers these are the variables which are selected as independent, to be more specific according to Glaeser et al. (2004a) rule of law, property rights and inequality are all variables which can have an impact on growth rate in different ways, also according to Rodrik (2000b), regulatory institutions are one of the main institutions which can impact economic growth, as there main goal is to eliminate any kind of anti-competitive and fraudulent behavior from market, which impacts long-term economic growth.

As for the long-term Economic growth, it will be GDP per capita. The reason for the effectiveness of this variable is that sometime countries with a lower GDP can grow faster because of the "catch-up" effect. Investments rate can also be a good indicator, cause rise of investments in physical capital supports long-term economic growth directly. The equation will be GDP per capita $growth\ it = \beta 0 + \beta 1(\text{ROL}) + \beta 2(C\text{OC}) + \beta 4(\text{RQ})$

GDP per capita it - indicates annual GDP per capita for i country for t period.

$\beta 1$(ROL) – represents measurement of rule of law which is one of the main variables for political institutions. It is a World Bank's Worldwide Governance indicator and indicates to what extent does agents of economy have confidence and acceptance of rules of society, and it includes property rights, contract enforcement etc.

$\beta 2(C$OC) - The Control of Corruption index from Worl Bank ranks countries on a range from 0 (very corrupt) to 100 (very clean) based on people's belief how corrupt the public sector is. Higher levels of accountability and openness are connected to lower levels of corruption.

$\beta 4$(RQ) – RQ is a regulatory quality index by IMF which measures the regulatory qualities of institutions.

2.3 Clear "Data sources" for each variable

Reliable and trusted information is one of the key prerequisites for conducting proper empirical research to test my hypotheses and get answers on main questions. In this section I will indicate specific data sources which I will use throughout my research, ensuring that these sources are reliable and help thesis to get its validity. I will use various sources for specific variables such as: World Bank database- World Bank is one of the most reliable and trusted sources, as it is most used source in statistics all over the world, also it provides extensive data on the economic variables which I have in my research including 38 countries for 1996-2023 years.

Data from the World Bank includes annual GDP per capita, general economic performance variables, also statistics for institutional quality, and rule of law. I will use the data from world banks for institutional quality measures, economic growth rates and some governance indicators. One of my sources will also be the International Monetary Fund (IMF) which offers several types of economic data such as fiscal policies, this source will help me to measure specific policies' effectiveness and get data such as GDP per capita, some fiscal policy indicators etc. As for the Political institutions my main source for that will be Freedom house, as it provides data about specific regulations and regulatory environment in general, also it can give us the data about some political rights, and it can help us to determine quality of democratic institutions and whether they can have an impact on long-term Economic growth or not.

Table 1.

Dependent and Independent variables

Variables		Acronyms	Indicators	Sources
Independent	Corruption Control	COC	Corruption Control Index	World Bank
Dependent	GDP per capita	GDPpc	World Bank	World Bank
Control Variables	Regulatory Quality	RQ	Regulatory Quality index	World Bank
	Rule of law	ROL	Rule of law index	World Bank

3. Regression analyses

3.1 Descriptive statistics

My regression analyzes starts with checking descriptive statistics and the distribution after this when I see that according to descriptive statistics data can be trusted I run the regression with the equation GDP per capita $growth\ it = \beta 0 + \beta 1(\text{ROL}) + \beta 2(C\text{OC}) + \beta 4(\text{RQ})$, after tunning the equation it was clearly visible that there was a non-normal distribution of my dependent variable. So to address that challenge I decided to logarithm the dependent variable, to make it normally distributed Descriptive statistics as per Table 2.

Table 2.

Descriptive statistics

	Log (GDP_PCG)	COC	ROL	RQ
Mean	37405.91	0.886494	0.952643	0.999433
Median	30592.13	0.906772	1.067665	1.149895
Maximum	226052.0	2.435494	2.124762	2.308591
Minimum	1347.519	1.245373	-0.938726	-0.928135
Std. Dev.	31689.43	0.947260	0.802761	0.712076
Skewness	2.097460	-0.234326	-0.529358	-0.641229
Kurtosis	10.22796	1.857808	2.054857	2.477119
Jarque-Bera	1690.727	36.89926	48.75979	46.43405
Probability	0.000000	0.00000	0.000000	0.000000
Sum				
Sum Sq. Dev.	21732835	515.0532	553.4859	580.6703
Observations	585	585	585	585

LOG(GDP_PCG) - shows a clear positive skewness with number of 2.10, also Kurtosis 10.23 indicates the many extreme values and outliers. P value of 0 shows that variable is not normally distributed

COC - shows a fairly symmetric distributions with slightly Moderate spread, slightly negative skewed with a number -0.23 and p value of 0 indicates that it is not normally distributed.

ROL – This variable is slightly left skewed, it is spread across the countries fairly with a number of 0.94, it is clearly skewed left side -0.52, but this variable still fails the normality test, RQ – this variable has more negative skewness -0.64, a kurtosis of 2.47 which is close to normal, but also this variable is not normally distributed.

3.2 Correlation analyses

According to table 4 we can see the correlation coefficients between variables:

GDP_PCG vs. COC (0.285323): The correlation is strongly positive between GDP per capita growth and Control of Corruption, implying big influence. With the high f-statistics of 7.25 and p-value less than < 0.01 we can say that relationship is significant and robust.

GDP_PCG vs. ROL (0.83) - This number shows a very strong positive correlation between GDP per capita growth and Rule of Law. This suggests that as rule of law increases by 1 point, GDP Per Capita growth increases by 83%. The high F-statistic and p value less than 0.01 confirms that the relationship is statistically significant.

GDP_PCG vs. RQ (-0.17) – This number shows a strong negative correlation between regulatory quality and GDP Per Capita growth, meaning that increasing regulatory quality by 1 point will result in decreasing GDP per capita growth by 17%. P value of 0.0307 indicates that relationship is statistically significant.

Table 3

Correlation analyzes

	GDP_PCG	ROL	COC	RQ
GDP_PCG	1	0.83	0.285323	-0.17
ROL	0.83	1	0.938223	0.944367
COC	0.285323	0.938223	1	0.906526
RQ	-0.17	0.944367	0.906526	1

After seeing the results of correlation analyses, it is quite clear that there is a strong correlation between independent variables and it suggests multicollinearity between them, so I will conduct multicollinearity analysis as per table 4.

Table 4

Multicollinearity

Coc as dependent variable

Variable	Coefficient	Std. Error	T-Statistic	Prob.	R-squared
C	-0.21941	0.023589	-9.30155	0	0.895338
ROL	0.896007	0.050624	17.69933	0	
RQ	0.251682	0.056973	4.417528	0	
Variable	Coefficient	Std. Error	t-Statistic	Prob.	R-squared
C	0.220561	0.015613	14.12681	0	0.884
COC	0.128902	0.02918	4.17528	0	
ROL	0.696398	0.034435	20.22352	0	

According to the tables, there is a clear multicollinearity between the variables , as for the rule of law case with other two independent variables we have VIF of 12.75, and for two other variables approximately the same, which is not acceptable but given the fact that I have a big number of observations 585, it can be considered as a normal fact. But, still because of the fact that we have a multicollinearity I decided to run series of regressions where I removed one of the independent variables, to show the difference in statistics when one of the variable is removed. See the results in Table 6.

Table 5

Robustness analyses

Model	Independent Variables Included	R-squared	Significant Variables
Full Model	ROL, COC, RQ	0.7549	ROL, COC, RQ (all significant)
Excluding RQ	ROL, COC	0.7425	ROL, COC
Excluding ROL	COC, RQ	0.7187	COC, RQ
Excluding COC	ROL, RQ	0.7452	ROL only

To interpret the results which we see in the table , I can say that when RQ was removed from the equation COC and ROL remained significant and robust, model fit remained high which suggests that Regulatory quality might not be adding too much explanatory power. When Rule of law was removed from the regression RQ turned to a positive and significant, which is more likely to be due to correlation with Rule of law, also we must mention that there is a slightly reduced R-squared which indicates ROL's explanatory power. In the third regression when COC was removed RQ became insignificant, which means that most likely COC explains some of the variation of RQ, and it confirms COC as the key variable. So, based on the results of the robustness analyzes I decided to remove Regulatory quality from my equation as it has a high multicollinearity with both independent variables, also it is unstable as it turned positive when Rule of law was removed from the regression and at last as we can see from the results RQ does not really has a high marginal contribution to the models explanatory power. So as I removed regulatory quality from my equation it became GDP per capita $growth\ it = \beta 0 + \beta 1(\text{ROL}) + \beta 2(COC)$

After this I ran the Hausman test to determine if I should use fixed or random effects model. See the results in table 6.

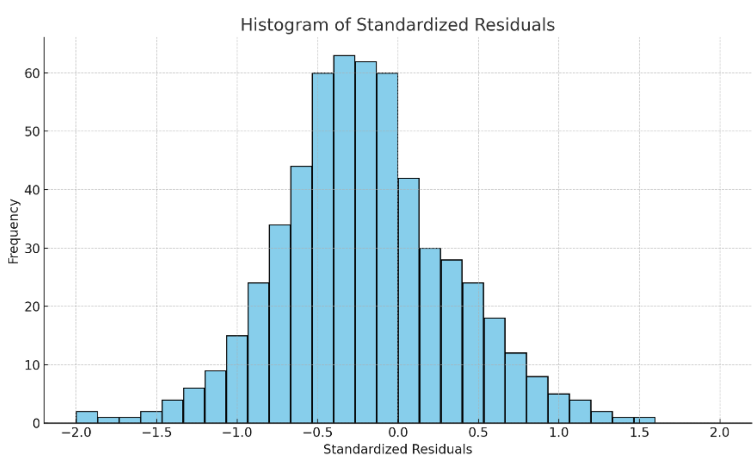
Table 6

Hausman test

Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
44.36397	3	0

Table 7

Histogram



After running the regression, I checked it for normality with histogram normality test so as the results show skewness is within normality with he coefficient of -0.28 which is close to 0, with Kurtosis we have a coefficient of 5.46 which is high suggesting that regression is more peaked than normal, Jarque-Bera coefficient 154.7487 and probability coefficient suggests that Residuals are not normally distributed. Because of the non-normality of residuals I will conduct various tests such as white test for heteroskedasticity, and Wooldridge test for autocorrelation. We can see the regression results in table 8.

3.3 Regression

In this section, I am going to discuss the results of my regression and conduct different type of tests to ensure that data and results are trustful.

Table 8

Regression results

Method*: Panel Least Squares*
Sample*: 2009–2023*
Periods included*: 15*
Cross-sections included*: 40*
Total observations*: 589*

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.870714	0.0571	172.8791	0
ROL	0.132868	0.0701	1.895497	0.0586
COC	0.152541	0.05386	2.831986	0.0048

Continiuation of table 8

R-squared	0.97145
Adjusted R-squared	0.96931
S.E. of regression	0.17133
Sum squared resid	16.0574
Log likelihood	225.109
F-statistic	453.882
Prob(F-statistic)	0
Mean dependent var	10.1279
S.D. dependent var	0.97794
Akaike info criterion	-0.6218
Schwarz criterion	-0.3095
Hannan-Quinn criter.	-0.5001
Durbin-Watson stat	0.34706

According to the both table we can say that Rule of law is marginally significant at 10% level and one-unit increase in rule of law results in 13.3% increase in LOG (GDP per capita) As for R-squared coefficient we can see that it is 0.97145 r-squared which means that model explains 97.1% of the variation in GDP growth and it is a very high number, 589 can be considered as a good sample size with F-statistic of 453.882 and associated probability with 0, we can confirm that model is highly statistically significant. Control of corruption is statistically significant and has a clearly strong and positive impact on economic growth, one unit change in control of corruption results in 15.2% increase in LOG (GDP per capita). The model clearly has a problem with Durbin-Watson coefficient which addresses the problem of autocorrelation and heteroskedasticity, with a statistic of 0.34706 we can clearly say that there is a positive autocorrelation, which is far from accepted number of 2. To address this problem, I decided to use the white-cross section test and if we have a heteroscedasticity or not. This test is used to detect cross-sectional and period-cluster heteroskedasticity across countries and to resolve it. After conducting the White period cluster and White cross-section cluster tests, I received the results below in the table 9 and table 10.

Table 9

White period cluster

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ROL	0.132868	0.165519	0.848891	0.4011
COC	0.152541	0.126608	1.204826	0.2355

As we can see from table, after running regression with white period cluster, Rule of law and Control of Corruption became insignificant at 5% level, which suggests that there is a serial correlation or cross-section dependence within each country over time.

Table 10

White cross-section cluster

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ROL	0.132868	0.090922	1.461341	0.166
COC	0.152541	0.05719	2.667277	0.0184

As for the White cross-section cluster based on the results from the table we can say that Control of corruption remains statistically significant, but rule of law becomes insignificant with p value of 0.166, this means that while impact of control of corruption remains robust across the countries, the effect of rule of law might be sensitive or vary to country specifics. After applying these two tests and running regression with robust standard error we can say that Heteroskedasticity is addressed, according to the tables we can see that output shows "white cross-section (period cluster) standard errors & covariance (d.f) corrected" which means that regression is already corrected for cross-sectional and period heteroskedasticity and for now we can trust the results that we got, but still we can say that COC is more statistically significant and we can trust the impact of Control of corruption and economic development, in case of rule of law as it loses it's significance under robust standard errors, we can say that it has certain limitations which can be caused by multicollinearity or some overlapping effects between variables.

After conducting the test on heteroskedasticity I conducted the Wooldridge test to check autocorrelation, the specific reason why I chose this test for my regression is that it is specifically very good when conducting regression fixed effects model, also it addresses autocorrelation over time and it is specifically very good when using panel-data as in our case. For the results of the Wooldridge tests see table 10.

Table 11

Wooldridge test for autocorrelation

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.032805	0.005321	6.165332	0
DRESID_LAG	-0.01678	0.04802	-0.34949	0.7269

Statistic	Value
R-squared	0.000248
Adjusted R-squared	-0.00178
S.E. of regression	0.114101
Sum squared resid	6.405316
Log likelihood	372.36
F-statistic	0.122142
Prob(F-statistic)	0.726873
Mean dependent var	0.032316
S.D. dependent var	0.113999
Akaike info criterion	-1.49943
Schwarz criterion	-1.48242
Hannan-Quinn criter.	-1.49275
Durbin-Watson stat	1.902303

The regression of residuals was conducted on their lagged values in order to test for autocorrelation in the panel data model. According to the results, we can see that there is no first-order serial correlation and the lagged residual (DRESID_LAG) is not statistically significant ($p = 0.7269$).

The absence of autocorrelation is also supported by the Durbin-Watson statistic of 1.902. As a result, time-dependent autocorrelation is not an issue for the model.

3.4 Interpretation of results

To interpret the results which we got from the regression. We should address the relationship between dependent and independent variables, why the results are as they are and what can be the reason for that and also provide the results of equation as per below:

log(GDPPC)=9.870714+0.132868ROL+0.152541COC+εit

Log(GDP_PCG) and COC (0.152541)– We can see from the result from regression that change in one unit of COC changes log(GDPPC) by 15%, from my point of view positive correlation between these two variables is very logical, as reducing corruption can help fostering economic growth in many ways. For example, by misallocating public resources away from needed investment, raising costs of transactions, and destroying fair market competition, corruption reduces economic efficiency. Reducing corruption allows public funding to be more effective, leading funds to needed infrastructure, education, and health which also has a positive impact on long-term production. A low corruption rate can of course also increase investor confidence by lowering uncertainty, this can drive both domestic and foreign direct investment. The results of the regression, which clearly show a statistically significant and positive link between control of corruption and GDP per capita growth, supports all these trends. According to (Mo, 2001a), control of corruption reduces the uncertainty, ensures that public resources are not allocated ineffectively and it can also reduce transaction costs and all this combined together it can impact the long-term economic development. Rodrik (2004b) notes out that improved institutional quality, especially reducing corruption can help to create a stable policy environment and can also raise the confidence of investors which significantly affects the long-term economic development. (Docquier, 2013a) suggests that countries which have low level of corruption perform better in terms of quality of institutions and economic development, as corruption destroys transparency, accountability and reduces efficiency which are all necessary for economic development.

Log(GDP_PCG) and ROL (0.132868) – From the regression results we can see that change in one unit of Rule of Law causes the rise in log(GDP_PCG) by 13%. As per my view the positive relationship between these two variables is also very logical, as Rule of law is considered as one of the basic conditions that can guarantee the stability, predictability, and effective enforcement of legal and institutional frameworks according to which economic activity runs. The main obligation of the rule of law is to ensure protected property rights, make contracts enforcement easier, and to allow all the market players to run in a safe and competitive environment. This can encourage both domestic and foreign investors to make an investment confidently by reducing the risks which are connected to investment and entrepreneurial activity. Moreover, rules of law can also be connected to control of corruption as it clearly discourages corruption, and ensures competition, all of which helps to create more efficient markets and fair resource distribution. Results in the regression clearly show that nations where laws are applied consistently and judicial institutions are autonomous, economic development is much higher. Rule of law has a statistically significant and strong positive influence on GDP per capita growth. This implies that enhancing legal institutions is not only a concern of legal reform but also a major driver of institutional quality and economic performance in a competitive worldwide economy. According to (North, 1990a), rule of law and other institutional variables are defined as “humanly devised constraints”, and specifically rule of law has an impact on economic development as strong legal framework which can be created by it can lead to reduced transaction costs and stable environment to run a business which are critically important for the long-term economic development. Also, (Acemoglu, Johnson, & Robinson, 2004b) notes out the importance of rule of law as it supports inclusive institutions by ensuring that economic outcomes are delivered to a wider segment of population, so we can say that this paper also indicates the impact of rule of law long-term economic development.

4 Conclusions and recommendations

Emphasizing GDP per capita growth as the dependent variable, Thesis explores the relationship between political and economic institutions and their impact on long-term economic development. The study uses a panel data model based on regression analysis for 43 nations for the period of 1996–2023 and investigates both theoretical and empirical aspects.

Relevance of this topic comes from the increasingly globalized nature of economies, where institutional qualities not only impact domestic development, but also influences international economic relationships. Institutions can be the main across in shaping promoting market efficiency, having a stable environment on the market for investors, reducing uncertainty and creating compatible legal framework for market players. According to most academics in the literature analyzes, institutions are very important for economic development, they use independent variables such as rule of law, control of corruption to stimulate investment, innovation and lead country to economic development. However, there are some of the academic papers which doubt this effect, such as Glaeser et al. (2004) which challenges the direction of causal relationship, pointing out the need of detailed empirical testing, to ensure that there is no interdependence between dependent and independent variables. Based on works by academics such as North (1990), Acemoglu et al. (2004), Rodrik (2004), institutions create the "rules of the game" and by that affect economic incentives, create lower uncertainty, and impact the performance of economies. While political institutions are discussed for their function in terms distributing power, adopting laws, and being a guarantee of political stability, economic institutions are investigated with variables including property rights, rule of law, corruption control, and regulatory quality. The thesis presents an idea of a strong relationship between the quality of institutions and long-term economic growth. The model specification included Rule of Law (ROL), Control of Corruption (COC), and Regulatory Quality (RQ) as main independent variables and GDP per capita as the dependent one. But After conducting the specific tests for multicollinearity, because of unstable nature of Regulatory quality I decided to remove from the equation. Descriptive statistics and diagnostic tests show non-normality, multicollinearity, and heteroskedasticity in the dataset. Transforming the dependent variable (logarithmic transformation), running the Hausman test (which supported the Fixed Effects model), and using White cross-section standard errors to reduce heteroskedasticity help to solve these problems. The empirical results confirm the basic hypothesis: political and economic institutions have important impact on growth of GDP per capita. As for the recommendations, we can say that based on the results, institutional qualities are one of the main determinants in influencing long-term economic development, which raises up the opinion that countries should care about them more and more and they should do anything in their power to ensure the high quality of the institutions. To be more specific they should improve institutional frameworks, improve governance, bring the balance in regulation levels. Countries should fortify the rule of law to raise up investor confidence and economic activity by supporting them by a stable and fair legal framework, by improving judicial independence. In order to lower conflict resolution time, countries should strengthen legal enforcement capabilities, specifically in both civil and commercial law. Investing in legal infrastructure, such as digitalization of courts can also bring an improvement in lowering conflict resolution time and most importantly in reducing bureaucracy. As for the control of corruption it is very important to bring systematic reforms to help fight with corruption, which clearly undermines public confidence and messes up resource distribution, for that efficient and balanced control systems are needed in order to fight with corruption, but on the other way there should be a balance to not cause overregulation. Creating self-controlled anti-corruption bodies with the power to investigate and prosecute in order to decentralize the power to some local authorities which will reduce the time of decision making. Increasing regulatory quality is also one of the recommendations even though results show that relationship is unstable between Regulatory quality and economic development, as unclear and messy rules and regulations can bring a huge uncertainty on the market, reducing the motivation of domestic and international investors. High bureaucracy is also connected to raised expenses, raised transaction time, so government should find a balance between effective regulation and overregulation. It can also be effective to reduce entrance barriers from SME's and startups by making registration and licensing procedures easier. Maintaining clear and regular communication with market players is also very important to address the specific mistakes which they have, that way uncertainty can be avoided and effective regulations can be created on the market. As a final reflection I can sat that institutional reforms is a very long and continuous process, which is not completed just by one-time intervention, from the literature it is quite obvious that having high quality institutions just for one or two years is not enough. All this reforms need political will, public involvement and continuous investment, countries which methodologically step by step follow the path, create a strong basis for institutional changes and make it their top priority always have the results in long-term period.

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VILNIUS UNIVERSITY

THE IMPACT OF POLITICAL AND ECONOMIC INSTITUTIONS ON THE LONG-TERM ECONOMIC DEVELOPMENT

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MASTER THESIS

GLOBAL BUSINESS AND ECONOMICS

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SUMMARY

41 puslapis, 1 diagrama, 9 paveikslai, 24 nuorodos.

Pagrindinis šio magistro darbo tikslas - nustatyti, ar ekonominės ir politinės institucijos turi įtakos ilgalaikiam ekonomikos vystymuisi, ar ne, o pagrindinis rodiklis - BVP vienam gyventojui augimas. Tyrime ketinama įvertinti institucinių kintamųjų, tokių kaip teisinė valstybė (angl. Rule of Law, ROL), korupcijos kontrolė (angl. Control of Corruption, COC), įtaką ilgalaikiam augimui skirtingose valstybėse per tam tikrą laiką.

Magistro darbą sudaro trys pagrindinės dalys: literatūros studija, empirinis tyrimas, jo rezultatai ir interpretacijos bei išvados su rekomendacijomis. Literatūros apžvalgoje, pabrėžiant North (1990), Acemoglu, Rodrik ir kitų geriausių tyrėjų darbus, aptariama institucinės ekonomikos teorinė sistema. Joje institucijos pristatomos kaip „žaidimo taisyklės“, taigi jos padeda formuoti ekonomines paskatas ir valdžios sistemas, atkreipiant dėmesį į jų svarbą. Pabrėžiant jų įtaką ir funkciją užtikrinant ilgalaikį stabilumą ir gerovę, disertacijoje išsamiai nagrinėjamos politinės ir ekonominės institucijos. Empiriniame tyrime, naudojant 43 valstybių duomenis, apimančius 1996-2023 m. laikotarpį, naudojamas fiksuotų efektų panelinės regresijos modelis. Pagrindiniai nepriklausomi kintamieji yra ROL ir COC, o priklausomas kintamasis - BVP vienam gyventojui augimas. Siekiant užtikrinti

rezultatų patikimumą, buvo atlikti keli diagnostiniai testai. Statistiniai koregavimai, tokie kaip baltosios skerspjūvio standartinės paklaidos ir priklausomo kintamojo logaritminė transformacija, padėjo nustatyti ir ištaisyti tokias problemas kaip multikolinearumas, heteroskedastiškumas. Išvados rodo statistiškai reikšmingą institucinių savybių poveikį ilgalaikiam ekonomikos vystymuisi. Teisinė valstybė ir korupcijos kontrolė patvirtina savo svarbą kuriant vystymuisi palankią aplinką, nes daro reikšmingai teigiamą poveikį. Disertacija baigiama siūlymu, kad ilgalaikis ekonominis vystymasis pasiekiamas stiprinant institucinę sistemą. Tai reiškia, kad būsimuose tyrimuose daugiausia dėmesio reikėtų skirti priežastiniam ryšiui, dinaminiams modeliams ir geografiniams palyginimams. Siekiant geresnių ekonominių rezultatų, politikos formuotojai raginami kurti stabilią ir teisingą teisinę sistemą, antikorupcinę politiką ir veiksmingas reguliavimo sistemas.