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MASTER THESIS**

Globalizacijos poveikis Lietuvos, Baltarusijos ir Ukrainos ekonomikos augimui	The impact of globalization on economic growth in Lithuania, Belarus, and Ukraine
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INTRODUCTION

Relevance of the topic. There are two opposing viewpoints on globalization perspectives. The pro-globalizers (neo-liberals) state that the domination of the free market (in finance and trade) brings a lot of benefits to society. Globalization enhances people's material well-being as well as promotes economic growth. While the anti-globalizers (hyper-globalizers) point out that globalization has a detrimental impact on people as it leads to inequalities. Free markets, which globalization has triggered, are the cause of the general decline in human well-being. Markets represent the interests of the majority of the population and should be regulated (Dicken,2015). These two opposing viewpoints highlight the importance of assessing globalization, particularly how it affects economic growth, as it is a key macroeconomic indicator of countries' prosperity.

The level of exploration of the topic. According to academic literature, scholars have not reached a consensus on how globalization affects economic growth. To determine and evaluate the effect of globalization on economic growth, extensive empirical analyses are required. For this reason, the studies are divided into two groups based on indicators used to examine the impact of globalization on economic growth. The first group of studies relies on a particular economic theory and uses specific indicators that partly reflect the globalization process to analyse the impact of globalization on economic growth. For example, FDI, landlockedness, human capital, labor force, capital, the openness of trade, export growth, the unemployment rate, information flow, economic restrictions, debt, and public and domestic private investments are commonly applied indicators to measure the impact of globalization on economic growth. The second group of studies uses the KOF globalization index, which is a particular set of measurements of globalization that considers diverse aspects of the process of globalization and enables to analyse them. The KOF globalization index was introduced by Dreher in 2002 and revised in 2018. The index includes political, economic, and social sub-indexes. Dreher (2006) examined the effect of globalization on economic growth in 123 different countries from 1970 to 2000 and concluded that globalization positively impacts economic growth in the investigated countries.

According to Diaconu, Bodislav, and Iovițu (2014), globalization is an engine of economic growth. Additionally, the authors concluded that there is a relationship between economic growth and globalization. Kilic (2015) examined the impact of globalization on economic growth using a panel data analysis considering seventy-four countries and concluded that the political and economic dimensions of globalization have a positive effect on economic growth, while the social

dimension of globalization impacts it negatively. Furthermore, the scholar found 2 types of causality relations. The first type is two-way causality relation between economic growth and social and political dimensions of globalization, and the second type is one-way causality relation between globalization and economic growth. Shaikh and Shah (2008) investigated the impact of globalization on economic growth in Pakistan, considering three dimensions of globalization, and summed up that economic and social dimensions affect economic growth positively while the political dimension of globalization impacts it negatively. The different results were obtained by Stela and Olimpia (2017), who examined the effect of globalization on economic growth in Romania. The research results demonstrate that the political and economic dimensions of globalization influence economic growth positively, whereas social globalization impacts it negatively.

The research results vary substantially, and a possible explanation for such different results could be that countries have different economic development stages. Furthermore, membership in international organizations and the period of investigation are highly important. Most of the study covers periods of significant economic and political events, such as the financial crisis in 2008, and it could impact the final results. Moreover, it was noted that the majority of scholars ignore mentioned above arguments and, as a result, are not able to provide an adequate explanation of why a particular dimension of globalization has a positive or negative impact on economic growth in the investigated countries.

The novelty of the Master thesis. The majority of the studies focus only on the economic dimension of globalization, while social and political dimensions remain ignored. Moreover, there hasn't been a lot of research done on the impact of globalization on economic growth in Lithuania, Belarus, and Ukraine. This study evaluates the impact of globalization on economic growth, considering the political, social, and economic sides of globalization in Lithuania, Belarus, and Ukraine. According to Tavares and Lang (2006), three dimensions of globalization have a positive impact on economic growth if the country conforms to certain presumptions, such as having a liberal and open market economy. Therefore, key social and economic indicators will be analysed to provide insight into countries' economic development. Additionally, the analysis of key social and economic indicators will help to explain why a particular dimension has a positive or negative impact on economic growth in Belarus, Lithuania, and Ukraine.

The problem of the Master thesis raises a question that should be answered:

What is the impact of social, economic, and political globalization on economic growth in Lithuania, Belarus, and Ukraine?

The aim of the Master thesis. The research aims to evaluate the impact of social, political, and economic dimensions of globalization on economic growth in Lithuania, Belarus, and Ukraine.

The objectives of the Master thesis.

- to define globalization and measurements of its dimensions;
- to analyze economic growth and scientific literature on the relationship between globalization and economic growth;
- to develop a methodology for the evaluating the impact of social, economic, and political globalization on economic growth;
- to evaluate the impact of social, political, and economic globalization on economic growth in Lithuania, Belarus, and Ukraine.

The methods deployed by the Master thesis. The Ordinary Least Squares method is used to estimate the impact of social, political, and economic globalization on economic growth in selected countries. The EViews 12.0 software is utilized for data processing.

The description of the structure of the Master thesis. The research aim, questions, and objectives have been discussed in the introductory chapter. Chapter 1 provides key aspects of globalization and economic growth. Moreover, this chapter analyses empirical studies on the relationship between globalization and economic growth. Chapter 2 describes the methodology for researching the impact of globalization on economic growth. The evaluation of the impact of globalization on economic growth is indicated in Chapter 3. The results of the analysis are summarized and explained in the conclusion.

1. THEORETICAL ASPECTS OF GLOBALIZATION AND ECONOMIC GROWTH

This chapter describes the theoretical aspects of globalization and economic growth. Sections 1.1–1.2 describe globalization and its measurements. Section 1.3 discusses economic growth. Moreover, the section presents the analysis of empirical studies on the relationship between globalization and economic growth.

1.1 Defining globalization

Globalization is not a new phenomenon. Since the Exploration Age in the sixteenth century, globalization has been a component of the global economy. Additionally, it was a characteristic of many ancient systems, including the Roman Empire (Henderson, Held, and Barnett, 2013). In the latter three decades of the 20th century, the globalization of the international economy changed gradually due to the increase in consumption, distribution, and production (Dicken, 2015). At the end of the 1970s, domestic markets liberalization, international trade spread, and the elimination of foreign exchange restrictions expanded worldwide. Globalization was promoted by the spread of economic liberal policies that encouraged the free movement of capital, services, goods, and people.

While it is commonly understood that globalization is referred to the integration of countries in social, environmental, economic, and political spheres, there is no indisputable and generally accepted definition of globalization. There are two primary meanings of globalization: ideological and empirical. The first one is related to the globalization project with free market ideology, while the second one includes structural shifts in the global economy's organization and integration. According to Stiglitz (2002), globalization is the integration of peoples and countries of the world, which brought the substantial reduction of communication and transportation costs and the breaking down of artificial barriers to the flows of people, knowledge, services, capital, services, and goods across borders. Norris and Clark (2000) describe globalization as the process that creates connecting networks among actors at intracontinental distances, generated by the flow of goods, capital ideas, and information. Additionally, globalization is the process that breaks

boundaries, combines governance, technologies, cultures, and economies, and creates mutually dependent relationships.

Globalization is different from the terms such as Westernization, universalization, liberalization, and internationalization (Caselli, 2012; Scholte,2009). However, these terms are closely related and sometimes utilized alternately. Internationalization is defined as the expansion of international trade and interdependence among nations. The process of internationalization is more related to economic globalization. Liberalization refers to the process of removing restrictions on the international movement of information, services, people, goods, and capital. Subsequently, there is a borderless, global economy. Universalization is defined as the process of disseminating diverse experiences and objects to all inhabited regions of the planet. Westernization is viewed as a specific form of universalization in which the foundations of Western cultures are disseminated across the globe. Globalization is the process of the expansion of supra-territorial and trans-planetary links between individuals. The relationship to space makes globalization different from mentioned above concepts (Scholte, 2008).

According to political science, globalization is defined as the growing interconnectedness of national economies in macroeconomic policy, finance, and trade (Gilpen, 1987). While Gullen (2001) states that globalization is a process that leads to mutual awareness and higher interdependence among social, political, and economic units. Additionally, this definition is associated with the networks of cross-border advocacy and different organizations that protect the planet, human rights, and particularly women's right and promote global peace (Gullen, 2001).

Although the emphasis of these definitions varies, they all support the major aspects of globalization, such as interconnectedness, space shrinkage, and interdependence, and highlight different globalization dimensions.

There are two opposing viewpoints on globalization perspectives. The pro-globalizers (neo-liberals) state that the domination of the free market (in finance and trade) brings a lot of benefits to society. Globalization enhances people's material well-being as well as promotes economic growth. While the anti-globalizers (hyper-globalizers) point out that globalization has a detrimental impact on people as it leads to inequalities. Free markets, which globalization has triggered, are the cause of the general decline in human well-being. Markets represent the interests of the majority of the population and should be regulated (Dicken,2015). These two opposing

viewpoints highlight the importance of assessing globalization, particularly how it affects economic growth, as it is a key macroeconomic indicator of countries' prosperity.

1.2 The measurement of the dimensions of globalization: KOF Globalization Index

According to the literature review, a lot of indexes were created to estimate the impact of globalization. G-Index, NGI, MGI, CSRG, KOF, and KFP are the most popular indexes. However, among discussed indices, KOF Globalization Index is considered the best globalization measure since the index estimates economic, political, and social dimensions of globalization more precisely and extensively compared to other indexes (Buang, Lim, and Samimi, 2011). Moreover, it enables it to cover high trade levels as well as portfolio investment, international reserves, and income payments. The major advantage of the KOF Globalization Index is that it is computed for different countries and for a more extended period of time (Jenatabadi and Samimi, 2013).

The KOF globalization index was introduced by Dreher in 2002 and was updated in 2018. The updated KOF Globalization Index illustrates the difference between de jure and de facto and measurements of globalization. De jure indicators consist of variables that indicate policies that allow activities and flows, whereas de facto indicators consist of variables that demonstrate activities and flows in general. The revised KOF Globalization Index computes the size of the economy or particular country by splitting variables by the number of people or GDP, and it includes the data for more than two hundred regions. Furthermore, the index has forty-two sub-indexes (Sturm and Haelg, 2018).

Political, economic, and social globalization have been measured by this index since 1970 for the majority of countries (Lee and Heshmati, 2010). Three sub-indices (political, social, and economic) are comprised by the KOF globalization index. The overall globalization level of the country is measured by 3 dimensions annually. Economic globalization consists of financial globalization and trade globalization. Social globalization includes cultural proximity, the flow of information, and personal contact, where each contributes a third. The overall KOF Globalization Index and its sub-indexes are computed as the average of the de jure and the de facto Globalization Index (KOF Globalization Index, 2023).

The sub-indexes of the KOF globalization index have particular weights. Each variable that contributes to creating the KOF globalization index is converted into a value between 1 and

100. The maximum value for a particular variable is 100, and the minimum value is 1. More globalization is indicated by the index's high values. Table 1 presents the weights, variables, and structure of the Globalization Index.

Various data sources are used in the calculations of the KOF globalization and its sub-indexes. The World Bank database is used to calculate economic globalization de facto (KOF Globalization Index, 2023). The International Monetary Fund is used to calculate financial globalization, de facto, and social globalization, de facto (KOF Globalization Index, 2023). The data from the department of Peacekeeping Operations (UN) and Europe World Yearbook is utilized to compute political globalization de jure.

Table 1

The weights, variables, and structure of the Globalization Index

The de jure Globalization Index	Weights	The de facto Globalization Index	Weights
the de jure economic globalization	33.3	the de facto economic globalization	33.3
<i>the de jure trade globalization</i>	50	<i>the de facto trade globalization</i>	50
the agreements of trade	17.5	trade partner diversity	19.3
tariffs	26.3	trade in services	42.6
trade taxes	28.1	trade in goods	38.1
the regulations of trade	27.9		
<i>the de jure financial globalization</i>	50	<i>the de facto financial globalization</i>	50
the agreements of international investment	30.5	international income payment	27.5
capital account openness	38.7	international reserve	0.9
investment restriction	30.6	international debt	29
		portfolio investment	16.6
		foreign direct investment	26.4
the de jure social globalization	33.3	the de facto social globalization	33.3
<i>the de jure interpersonal</i>	33.3	<i>the de facto interpersonal</i>	33.3

<i>globalization</i>		<i>globalization</i>	
international airports	27.6	migration	17.2
freedom to visit	33.7	international students	18.6
telephone subscriptions	38.7	international tourism	21.3
		transfer	22.1
		international voice traffic	20.6
<i>the de jure informational globalization</i>		<i>the de facto informational globalization</i>	
	33.3		33.3
the freedom of press	18.2	the export of high technology	29.1
internet access	43.6	international patent	30.2
television access	38.2	Used internet bandwidth	40.4
<i>the de jure cultural globalization</i>		<i>the de facto cultural globalization</i>	
	33.3		33.3
civil liberty	36.2	Ikea stores	20.5
human capital	42.7	McDonald's restaurant	24.3
gender parity	21.1	international trademark	3
		trade in personal services	24.5
		trade in cultural goods	27.3
the de jure political globalization		the de facto political globalization	
	33.3		33.3
treaty partner diversity	30.8	international NGOs	38.2
international treaty	32.6	UN peace keeping mission	24.5
international organisations	36.6	embassies	37.3

Source: KOF Globalization Index, 2023.

1.3 Economic growth. The analysis of empirical studies on the relationship between globalization and economic growth

Economic development is the most important purpose of almost all economies – not so much as an end in itself, but rather as a means of achieving enhancements in welfare. The latter

include GDP per capita growth but also broader notions of sustainability and human development. Economic growth and sustainable economic development as narrower development objectives are closely related, and without growth, there would be no development. Economic growth is the increase in the inflation-adjusted market value of the services and goods produced by an economy over time. Economic growth is measured as the percent rate of increase in real gross domestic product (GDP), usually in per capita terms (Weil, 2012).

Economic growth is the main indicator of a country's economic development, which is explained by the following:

- Economic growth contributes to an increase in the material product, increasing the standard of living;
- Economic growth makes it possible to deal most effectively with education, poverty, the environment, and other issues without reducing the standard of living already achieved;
- Real economic growth means that society's costs of production are falling and productivity is rising (Weil, 2012).

Since economic growth is a significant macroeconomic indicator that is used to measure the prosperity of a country, numerous theories and ideas have been presented to identify the growth's major advantages and factors. According to the ideas of Adam Smith, the labor division is the central explanation of economic growth because it leads to the accumulation of capital and profit reinvestments. Classical growth theory encouraged individual entrepreneurship and free trade between countries. The formation of endogenous and neoclassical growth theories represented two significant developments in the evolution of economic growth theories (Howitt and Aghion, 1997). Endogenous theory improved the equitation of growth by adding technology developments and productivity, while the neoclassical theory of growth considered human capital as a major factor for economic growth (Plesoianu and Mihut, 2014).

Rosenstein-Rodan (1956) presented the "big-push" theory of economic growth. The key ideas of the "big-push" theory are that foreign direct investment into healthcare, education, and infrastructure lead to economic development and growth since the prosperity of the country is dependent on the well-being of its population. Furthermore, Rosenstein-Rodan points out that the attractiveness of the country (safety, education system, healthcare) is highly significant, as well as being open to the world. The economist Seen (1999) presented identical ideas. The economist mentioned that stability, safety, and education contribute to economic development and growth

not just because they enhance people's well-being but also because they're crucial to the country's advancement.

Swan and Solow (1956) presented some of the most notable ideas concerning growth. The authors examined how technical progress, labour growth, and accumulation of capital affect economic growth. Solow's model provided the necessary mathematical basis for analysing the main factors of economic growth on which many more sophisticated models have subsequently been created by researchers, and it is therefore considered the starting point for all modern studies of economic growth (Verspagen and Fagerberg, 2003). The model has had an impact on all macroeconomic theories (Fagerberg et al., 2003). The proposed model was gradually enhanced by including human capital as the factor of economic growth (Weil, Romer, and Mankiw, 1992). Roodan, Easterly, and Levine (2003) added foreign aid and institutional quality as factors of economic growth to Solow's model. More factors were added to Solow's model, and more would be included since the world is rapidly changing, affecting the global environment and living conditions (Osteikaite and Pereira, 2019).

The relationship between economic growth and globalization tends not to always be straightforward due to the complexity of both concepts (Osteikaite and Pereira, 2019). According to Husain (2000), economic growth can be impacted by globalization through the following channels: social or cultural sphere, politics, and economics. While globalization has a positive impact on culture, politics, and economics, it also impacts economic growth positively. Additionally, these spheres interact and have an impact on each other, as it is shown in Figure 1. For instance, being a member of an international organization might impact economic channels (international trade, tariffs, etc). These relations are highly significant as three globalization dimensions are connected, and it is still not clear if the three globalization dimensions impact overall globalization in the same direction or not (Kilic, 2015).

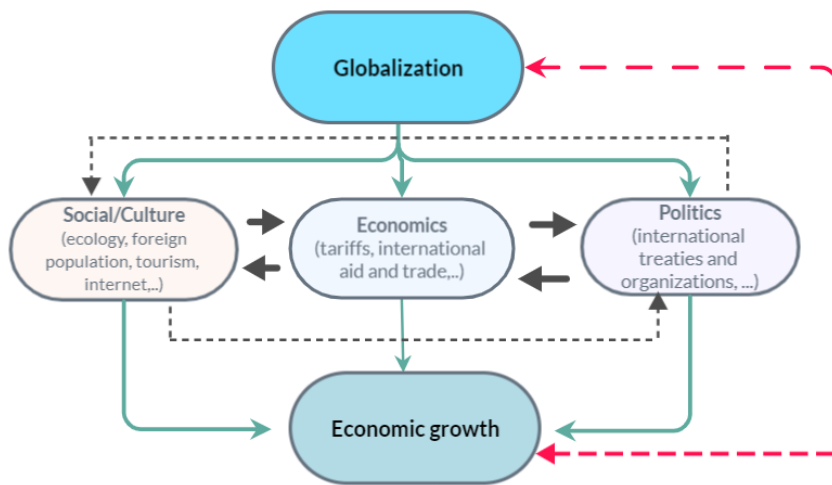


Figure 3. Relationship between economic growth and globalization

Source: Husain, 2000

According to the literature, there are two opposing perspectives on how economic growth is affected by globalization: negative and positive point of view. The economic growth of the countries is impacted positively by globalization due to openness and trade. Particularly, globalization contributes to the efficiency of domestic market operations and leads to a surge of productivity, investments, and competitive power, as well as a higher volume of foreign trade. Furthermore, it reduces poverty and economic disparity. This view was mentioned in the Washington Consensus (Vadlamannati and Rao, 2011).

The change and advancement in technologies that are the cause of globalization, the lower information and processing costs, as well as financial market integration, contribute to the growth of investment and higher productivity, efficient allocation of resources, and as a result, promote economic growth (Lach and Gurgul, 2014). The question is whether all countries can benefit from it remains answered (Savrul and Incekara, 2011).

On the other hand, economic growth is impacted negatively by globalization. According to Turedi (2016), income inequalities are increased by globalization and, as a result, lead to lower social and environmental standards. Additionally, the probability of economic crisis might be higher due to the substantial volatility of capital flows as the countries become weaker and more sensitive to external shocks.

Currently, the scholars have not reached a consensus on how to measure the impact of globalization on economic growth. For this reason, the studies are divided into two groups based on indicators used to examine the impact of globalization on economic growth. The first group of studies relies on a particular economic theory. It uses a specific indicator that partly reflects the globalization process to analyse the impact of globalization on economic growth. The following indicators are commonly used in the first group of studies: FDI, landlockedness, human capital, labour force, capital, the openness of trade, export growth, the unemployment rate, information flow, economic restrictions, debt, public and domestic private investments.

Osteikaitė, Pereira, and Didžgalvytė-Bujauskė (2019) examined the impact of globalization on economic growth in one hundred twenty-five countries. In the research, foreign aid, landlockedness, human capital, labour force, capital, economic and overall globalization were used as independent variables, and economic growth as the dependent variable. The outcome of the research shows that the economic dimension of globalization has a negative impact in the short term but a favorable influence on economic growth in the long run, whereas overall globalization has a direct detrimental impact on economic growth. The openness of trade, export growth, and FDI are used as independent variables in the study conducted by Anupam Kumar Das, Shameema Ferdausy, and Md. Sahidur Rahman (2008). The authors aim to analyse the impact of globalization over the past twenty-eight years on economic growth in developing countries. The outcome of the research demonstrates that economic growth is impacted by globalization positively as trade liberation enables to promote international competitiveness and sustainable development in ninety-three countries.

Marco Neuhaus (2006) concludes that FDI is a crucial mechanism for technology transfer and generation of international capital as well as a powerful driver of economic development. Moreover, the author points out that economic growth is accelerated by FDI in countries in the transition of Eastern and Central Europe. Patrick Mutua Kioko (2012) used FDI and the unemployment rate to analyse the impact of globalization in developing countries, particularly in African countries. The author points out that the process of globalization and its impact is complicated since there are advantages and disadvantages. The benefits start from lower import prices that are for goods producer and consumers, which provides inexpensive products regardless of quality. Although this leads to a competitive environment in which local producers fail, and this extends to businesses that fail due to a lack of resources to compete, resulting in the loss of

employment. Mahutga, Matthew, Curwin, and Kevin (2014) examined the impact of FDI on economic growth in ten countries in transition by using the panel regression model. The results of the study demonstrate that FDI decreases economic growth in the long and short term in countries in transition.

Nasreen, Shahbaz, and Kandil (2015) investigated the impact of globalization on economic development using FDI, dept, and openness of trade as independent variables in thirty-two countries and concluded that globalization prevents financial growth and economic development. Similar results are obtained in the research conducted by Ayodele, Folorunso, Mete Olusi, and Feridun (2006). The authors aim to analyse the impact of globalization on economic development in Nigeria using debt, the openness of trade, financial integration, and public and domestic private investments as independent variables. The outcome of the research demonstrates that economic development is impacted by financial integration negatively.

Trade, FDI, and financial flows are used as independent variables in the study conducted by Kimatu, Nguhi, Wengjing, Rongcheng, and Ayenagbo (2012) to examine the impact of globalization on economic growth in African countries. The outcome of the research demonstrates that globalization promotes economic growth in African countries. High growth rates are observed in countries that are globally integrated. Open trade and the absence of financial barriers promote economic integration and sustainable growth in African nations. A detailed description of the studies is presented in Annex 1.

The second group of studies uses the KOF globalization index, which is a comprehensive set of globalization measures that allow the examination of various aspects of the globalization process. The results of the studies vary substantially depending on countries, investigation period, and selected index (overall or economic, social, and political sub-components of the KOF index).

Elsherif (2016) examined the impact of globalization on economic development in MENA countries. The author concluded that economic growth is impacted negatively by economic globalization, and FDI and trade openness do not bring any economic benefits in the MENA region. Different results are obtained in the research conducted by Sakyi (2011). The author investigates how democracy and economic globalization impact the income levels in African countries by applying the panel data analysis. The results of the research show that income levels are affected by economic globalization in the long perspective positively, while democracy has a

negative impact on income levels in the long run. A possible explanation for such results could be that in African countries, democratic institutions are weak.

Muhammad Maqbool-ur-Rahman (2015) applied the ordinary least square method to analyse the impact of globalization on economic growth in Bangladesh, Pakistan, and India. The author finds that economic growth is affected positively by globalization in selected countries. Furthermore, the author recommends considering not only economic integration but also political and social to see the broader impact of globalization on economic growth.

Lee and Chang (2010) used the panel cointegration technique to analyse the impact of three dimensions of globalization on economic growth in twenty-three countries. The outcome of the research demonstrates that economic growth is impacted positively by economic and social globalization and negatively by political globalization in the long run. Nuno Carlos Leitão (2012) investigates the impact of three dimensions of globalization on economic growth in five countries applying the GMM approach. The author points out that economic growth is promoted by economic globalization, while the social dimension of globalization negatively impacts economic growth.

The study conducted by Kilic (2015) aims to analyse the impact of political, economic, and social globalization on economic growth in seventy-four developing countries. The outcome of the research demonstrates that the economic and political dimensions of globalization have a positive impact on economic growth in developing countries, while the social dimension of globalization has a negative impact on economic growth. Similar results are obtained by Chen-Hsun LEE, Koyin CHANG, Yung-Hsiang Gurgul, and Lach (2014). The authors analyse the impact of globalization on economic growth in ASEAN countries. The authors conclude that economic growth elasticity in relation to economic globalization is 1.48, demonstrating that economic growth is impacted by globalization positively. Furthermore, economic growth is impacted by social globalization negatively, whereas there is no impact with respect to political globalization.

The impact of globalization on economic development in Romania applying the least squares method was investigated by Dima and Neagu (2017). The authors consider three sub-components of the KOF globalization index. The outcome of the research demonstrates that economic development is positively impacted by political and economic globalization while it is negatively impacted by social globalization in Romania. The impact of globalization considering political, social, and economic integration on economic growth in Turkey for the period 1980-

2015 is analysed by Dumrul and Kılıçarslan (2018) using the least squares method. The results of the research demonstrate that economic growth is impacted positively by social and economic globalization. However, economic growth is impacted negatively by political globalization. The authors recommend developing policies that aim to decrease the negative effect of political integration. Similarly, the impact of economic and social globalization in Turkey for the period 1970-2008 is investigated by Mert and Açıkgöz (2011), applying the ARDL cointegration technique. The authors conclude that there is a strong correlation between social and economic globalization and economic growth. Economic growth is impacted by economic globalization in the long -run positively in Turkey.

Dreher (2006) analysed the impact of overall globalization as well as political, social, and economic integration on economic growth by applying the GMM approach. The research outcome demonstrates that overall globalization triggers economic growth in selected countries. Economic growth is positively impacted by social and economic integration. Political integration does not impact economic growth in selected countries. Also, the GMM approach is used in the study conducted by Maza and Villaverde (2011) to analyse the connection between globalization and economic growth, considering all dimensions of globalization. The authors conclude that globalization is the primary driver of economic growth since it promotes the growth of international trade.

Jenatabadi and Samimi (2014) aim to analyse the impact of economic globalization on economic growth in the countries of the Organisation of Islamic Cooperation, which consists of 57 fifty-seven members. Furthermore, the study analyses whether the impact of globalization is affected by the stage of economic development. The authors conclude that the positive impact of economic globalization is observed in countries with strong financial systems and highly educated employees. There is a correlation between the stage of a country's economic development and the impact of economic globalization. Countries with middle and high incomes are affected by globalization positively, while countries with low-income do not benefit from it.

Maqbool-ur-Rahman (2015) points out that not only economic integration matter but also social and political globalization. The author highlights the significance of analysing social and political globalization since they impact economic growth. Vadlamannati, Rao, and Tamazian (2011) studied the impact of globalization on economic growth, considering the political and social dimensions of globalization in the Philippines, India, Thailand, Malaysia, and Singapore. The

outcome of the research demonstrates that there is a correlation between economic growth and the political and social dimensions of globalization. Mulatsih, Suci, and Asmara (2016) analyse the impact of globalization on economic growth in ASEAN countries, considering three dimensions of globalization. The outcome of the research demonstrates that economic growth is impacted positively by overall globalization in ASEAN countries. There is a strong and positive correlation between economic and social globalization and economic growth.

Raza, Abbas, and Syed (2021) analysed the impact of globalization and governance on economic development in Asian countries. The Worldwide Governance Indicator and the overall KOF index of political, economic, and social dimensions of globalization were selected as independent variables for the study, and the GDP growth rate as the dependent variable. The outcome of the research demonstrates that economic development is positively impacted by globalization leading to political stability. Furthermore, the authors indicate that transparent, feasible, practical policies substantially lead to economic development in Asian countries and, as a result, the development of sustainability. Table 2 indicates a summary of the studies utilizing the KOF globalization index. A detailed description of the studies utilizing the KOF globalization index is presented in Annex 2.

Table 2

Analysis of empirical studies on the relationship between globalization and economic growth using the KOF globalization index and its sub-components as independent variables and (Real GDP/annual GDP growth) as the dependent variable

Author, year of the paper	The amount of investigated Countries;	The investigated period	The method	The main results
Lukasz, Lach, Henryk and Gurgul ; 2014.	10	1990-2009	panel regression analysis	POL has no impact on economic growth; ECO has a pos. impact on economic growth; SOC has a pos. impact on economic growth.
Nuno Carlos Leitão;2012.	5	1995-2011	GMM approach	POL has a pos. impact on economic growth;

Cuneyt Kilic;2015.	74	1981-2011	panel regression analysis	ECO has a pos. impact on economic growth; SOC has a pos. impact on economic growth. SOC has a neg. impact on economic growth; POL has a pos. impact on economic growth; ECO has a pos. impact on economic growth; ECO has a pos. impact on economic growth;
Lee, Koyin CHANG, Yung-Hsiang Gurgul and Lach;2014.	10	1970 - 2008	panel regression analysis	POL has not impact on economic growth; SOC has a neg. impact on economic growth.
Jenatabadi and Samimi ;2014.	33	1980–2008	panel regression analysis	ECO has a pos. impact on economic growth
Shahbaz and Kandil;2015.	32	1989–2012	panel regression analysis	ECO has a pos. impact on economic growth; ECO has a pos. impact on economic growth; SOC has a neg. impact on economic growth;
Dima and Neagu;2017.	1	1990-2013	OLS	POL has a pos. impact on economic growth.
Elsherif;2016.	13	2001-2014	GMM approach	POL has a pos. impact on economic growth; ECO has a neg. impact on economic growth
Muhammad Maqbool-ur-Rahman;2015.	3	1981-2011	OLS	ECO has a pos. impact on economic growth; POL has a pos. impact on economic growth;

				SOC has a pos. impact on economic growth.
Chien-Chiang Lee and Chun-Ping Chang;2010.	23	1970-2006	panel cointegration test	ECO has a pos. impact on economic growth; SOC has a pos. impact on economic growth; POL has a pos. impact on economic growth;
Raza, Abbas, and Syed;2021.	45	2003-2017	GMM approach	ECO has a pos. impact on economic growth. POL has no impact on economic growth;
Suci and Asmara;2016.	10	1970 - 2015	the IPS and LLC tests	SOC has a pos. impact on economic growth. ECO has a pos. impact on economic growth. ECO has a pos. impact on economic growth;
Vadlamannati, Rao and Tamazian ;2011.	5	1970-2006	panel regression analysis	POL has a pos. impact on economic growth; ECO has a pos. impact on economic growth. SOC has a pos. impact on economic growth.
Dumrul and Kılıçarslan;2018;	1	1980-2015	OLS	ECO has a pos. impact on economic growth. ECO has a pos. impact on economic growth;
Maza and Villaverde;2011.	101	1970-2006	GMM approach	SOC has a neg. impact on economic growth; POL has a pos. impact on economic growth
Dreher;2006.	123	1970-2000	GMM approach	SOC has a pos. impact on economic growth;

ECO has a pos. impact on economic growth; POL has no impact on economic growth.
--

SOC- the social dimension of globalization (the overall social globalization index), POL - political dimension of globalization (the overall social globalization index), ECO- economic dimension of globalization (the overall economic globalization index), pos.-positive, neg.-negative.

Source: developed by the author

To sum up, the majority of scholars consider the social, political, and economic dimensions of globalization to evaluate the impact of globalization on economic growth. The results of the research vary substantially. The possible explanation for such different results could be the fact that countries have different economic development stages. Moreover, membership in international organizations matters, as well as the period of investigation. The majority of the study covers periods of significant economic and political events, such as the financial crisis in 2008, and it could impact the final results.

2. METHODOLOGY FOR RESEARCHING THE IMPACT OF GLOBALIZATION ON ECONOMIC GROWTH

2.1 The research hypotheses

The research aims to evaluate the impact of the social, political, and economic dimensions of globalization on economic growth in Lithuania, Belarus, and Ukraine. According to Tavares and Lang (2006), the social, political, and economic dimensions of globalization have a positive impact on economic growth if the country conforms to certain presumptions, such as having a liberal and open market economy. Therefore, the following hypotheses are raised:

1. The political dimension of globalization has a positive statistically significant impact on growth in Lithuania, Belarus, and Ukraine.
2. The social dimension of globalization has a positive statistically significant impact on economic growth in Lithuania, Belarus, and Ukraine.
3. The economic dimension of globalization has a positive statistically significant impact on economic growth in Lithuania, Belarus, and Ukraine.

2.2 The research method

Investigating the impact of social, political, and economic dimensions of globalization on economic growth is a very extensive exercise. Thus, to get a deeper understanding of the study problem, quantitative and qualitative methods were used to do the research.

Firstly, the application of the qualitative method in the initial part of the research provides an understanding of key aspects of globalization and economic growth as well as illustrates the relationship between them. Secondly, quantitative methods are used for the processing and analysing of data in the second part of the research. It includes statistical analyses of key social and economic indicators in selected countries. Taking into account the nature and main aim of the study, the ordinary least squares method is used to yield the final results.

Thus, these methods were selected to examine the impact of globalization on economic growth, considering the political, social, and economic sides of globalization in selected countries.

2.3 Countries' selection

Lithuania, Belarus, and Ukraine are selected for the pilot study since they have different levels of globalization, economic development stages, and different institutions. Lithuania is a member of NATO and the EU, while Belarus is a member of the Eurasian Economic Union (EAEU). The Lithuanian economy is oriented around the manufacturing and service industries (particularly shared service centres) and ranked as one of the fastest-growing economies in the European Union pre-Covid-19. Belarus adheres to the concept of a socially-oriented market economy, while the economy of Ukraine is an emerging free-market economy. Moreover, key social and economic indicators such as demographics, annual GDP growth, the rate of inflation and unemployment, and exports of goods and services vary substantially in these countries. Therefore, from economic, political, and social perspectives, it is essential to comprehend how globalization impacts the economic development of such distinct countries.

2.4 Model specification

The empirical analysis consists of the following parts:

- The analysis of key social and economic indicators in selected countries;
- The regression analysis.

The analysis of key social and economic indicators in selected countries.

The analysis of key social and economic indicators as well as descriptive statistics, are performed to provide insight into the stage of countries' economic development for the period from 2001-2019. The source of data is The World Bank database.

The following key social and economic indicators are analysed (Table 3):

Table 3

Key social and economic indicators

SOCIAL AND ECONOMIC INDICATORS
Population, total
Population ages 0-14 (% of total population)
Population ages 65 and above (% of total population)
Exports of goods and services (% of GDP)
Central government debt, total (% of GDP)
Inflation, consumer prices (annual %)
Unemployment, total (% of total labour force)
GDP, PPP (current international \$)
GDP per capita (current US\$)

Source: developed by the author

The regression analysis

According to academic literature, scholars have not reached a consensus on how globalization affects economic growth. To determine and evaluate the effect of globalization on economic growth, extensive empirical analyses are required. For this reason, the studies are divided into two groups based on indicators used to examine the impact of globalization on economic growth. The first group of studies relies on a particular economic theory and uses specific criteria that partly reflect the globalization process to analyse the impact of globalization on economic growth. For example, FDI, landlockedness, human capital, labour force, capital, export growth, the unemployment rate, information flow, economic restrictions, debt, and public and domestic private investments are commonly applied indicators to measure the impact of globalization on economic growth. The main drawback of this method is that it ignores all sides of the globalization process and considers only one side. The second group of studies uses the KOF globalization index, which is a particular set of measurements of globalization that considers diverse aspects of the process of globalization and enables to analyze them. Moreover, the selection of the KOF globalization index to measure the impact of globalization on economic growth provides more precise results of the effect of globalization on economic growth since the KOF

globalization index reflects three sides of the globalization process (KOF Globalization Index, 2023). Therefore, the overall KOF political globalization index, the overall KOF social globalization index, and the overall KOF economic globalization index, which are components of the overall globalization index, are used in the research as independent variables and economic growth as dependent variable.

The following model is used in the research:

$$GDP = f(POL, SOC, ECO)$$

Econometric model is described below:

$$y_i = \beta_0 + \beta_1 \cdot X_i + \beta_2 \cdot X_i + \beta_3 \cdot X_i + \dots \beta_p \cdot X_{ip} + \varepsilon \quad (1)$$

where for $i = n$ observations;

y_i - dependent variable;

X_i -independent variables;

β_0 - y-intercept;

β_p - slope coefficients for each independent variable;

ε – the residuals or error term of the model.

$$GDP_t = \alpha_i + \beta_1 \cdot ECO_t + \beta_2 \cdot POL_t + \beta_3 \cdot SOC_t + \varepsilon_t \quad (2)$$

where,

ECO_t - the overall economic globalization index;

POL_t - the overall political globalization index;

SOC_t - the overall social globalization index;

GDP_t – annual GDP growth rate;

ε_t - error term.

The ordinary least squares (OLS) method is used to estimate the relationship between social, economic, and political dimensions of globalization and economic growth.

The relationship between the overall political globalization index, the overall social globalization index, the overall economic globalization index, and economic growth is investigated for every country separately.

According to Osborne and Waters (2002), the multiple linear models should be checked for three main assumptions. Therefore, the estimated models are tested for the heteroskedasticity of errors by applying the ARCH test, for errors autocorrelation using the Breusch-Godfrey Serial Correlation LM test, and for the normality of the residues by applying the Jarque-Bera Normality test. The results of diagnostic checking demonstrate the statistical efficiency of the models.

The EViews 12.0 software is utilized for data processing. The EViews software is considered an effective tool in the econometrics study since it enables the construction of models using a broad variety of diagnostic tests that are automatically computed by the program (Brooks, 2014).

Table 4

The description of variables used in the study

	Variable	Symbol used in the analysis	The source of data
Dependent	annual real GDP growth rate	GDP	The World Bank
Explanatory	the overall social globalization index;	SOC	The KOF
	the overall political globalization index	POL	Globalization Index
	the overall economic globalization index	ECO	database

Source: developed by the author

This study's data collection spans from 2001 to 2019 on an annual basis. 2020 and 2021 were not included in the analysis since, during the COVID-19 pandemic, the countries experienced economic shocks that could affect the results of the analysis. The sources of data and the description of variables are presented above (Table 4).

3. THE EVALUATION OF THE IMPACT OF GLOBALIZATION ON ECONOMIC GROWTH

3.1 The analysis of key macroeconomic indicators in Lithuania, Belarus, and Ukraine

Lithuania, Belarus, and Ukraine were all members of the former Soviet Union, and their cultural and geographical ties bind them together. After the collapse of the Soviet Union, these countries pursued distinct paths of development. Social and economic indicators illustrate that countries underwent different stages of economic development for the period 2001 -2019 (Table 5).

Table 5

Key social and economic indicators in Lithuania, Belarus, and Ukraine

	Lithuania	Belarus	Ukraine
Population (in millions from 2001 to 2019)	3.47 to 2.79, declined by 19 %	9.93 to 9.42, declined by 5%	48.66 to 44.39, declined by 8%
Membership in the WTO and the WB	1992	Observer (the WTO); 1992 (the WB)	2008 (the WTO); 1992 (the WB)
Monetary policy and currency	the European Central Bank; Euro	the National Bank; the Belarusian rubble	the National Bank; Hryvnia
Membership in EU	May 2004	No	No
Membership in the European Monetary Union	2015	No	No
Ease of doing business rank (0-100), higher is better, in 2019	82	74	70
Sensitivity to the financial crisis in 2008/2009	GDP PPP declined by 13.5%	GDP PPP increased by 0.8%	GDP PPP declined by 14.6%

Source: developed by author and based on World Bank data

Despite the major differences that are presented in Table 5, all countries face a devastating population decline and demographic collapse, which can affect at least the next two decades of

economic growth and fiscal spending (Figures 2-5). The decline in population growth is mainly caused by net emigration and lower birth rates.

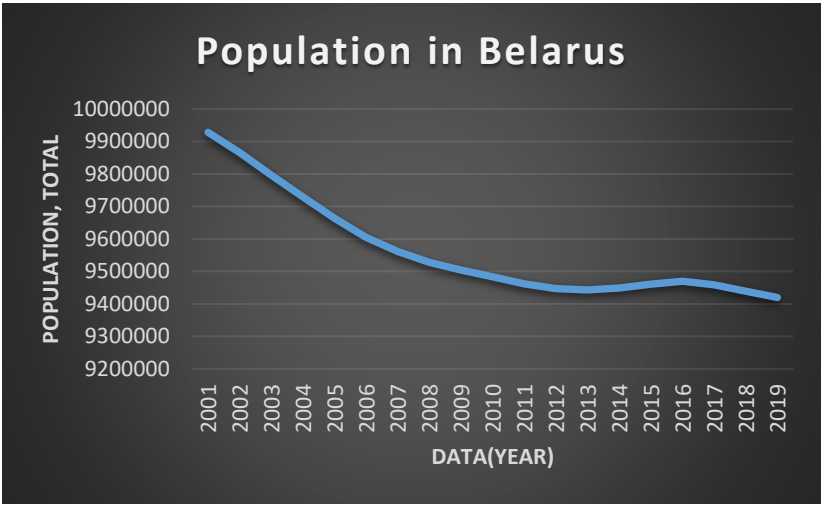


Figure 4. The total population of Belarus

Source: developed by author and based on World Bank data

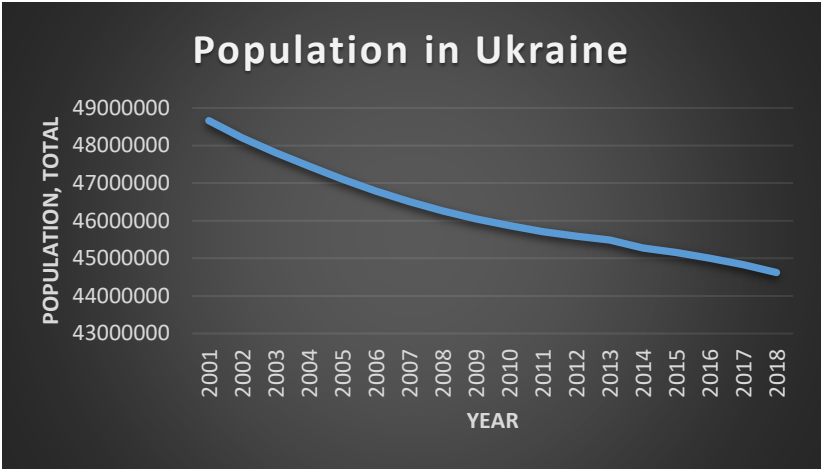


Figure 3. The total population of Ukraine

Source: developed by author and based on World Bank data

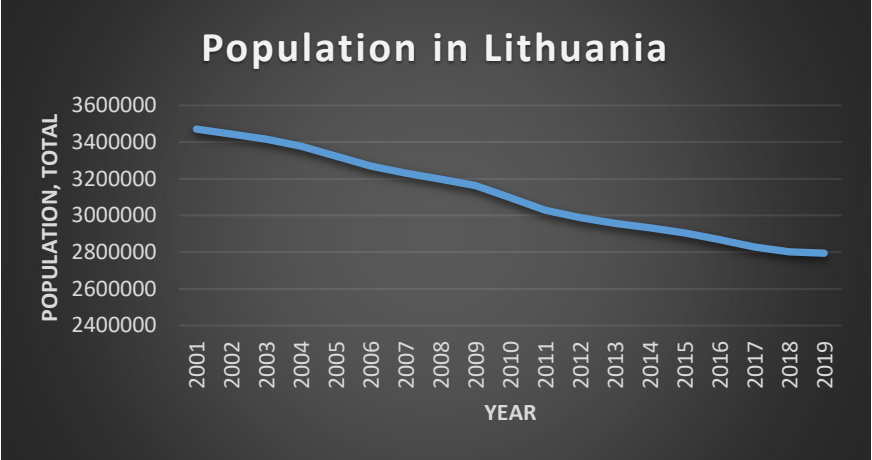


Figure 4. The total population of Lithuania

Source: developed by author and based on World Bank data

In Lithuania, the percentage of the population ages 0-14 years decreased from 19 to 15, in Belarus from 18 to 17 (lowest figure in 2008, 15), and in Ukraine from 17 to 15 (lowest figure in 2008, 14). In the same period, the percentage of the population ages 65 years and above increased in Lithuania from 14 to 20, in Belarus from 14 to 16, and in Ukraine from 14 to 17 (Annex 3 and Annex 4). An aging population can increase the pressure on pension and healthcare systems.

In the period from 2001 to 2019, the GDP PPP (in current international \$) in Lithuania increased by an impressive 240.4%, despite a decline of 13.5% during the financial crisis in 2008/2009 (Figures 5-7).



Figure 5. GDP, PPP in current billion international \$ in Ukraine

Source: developed by author and based on World Bank data

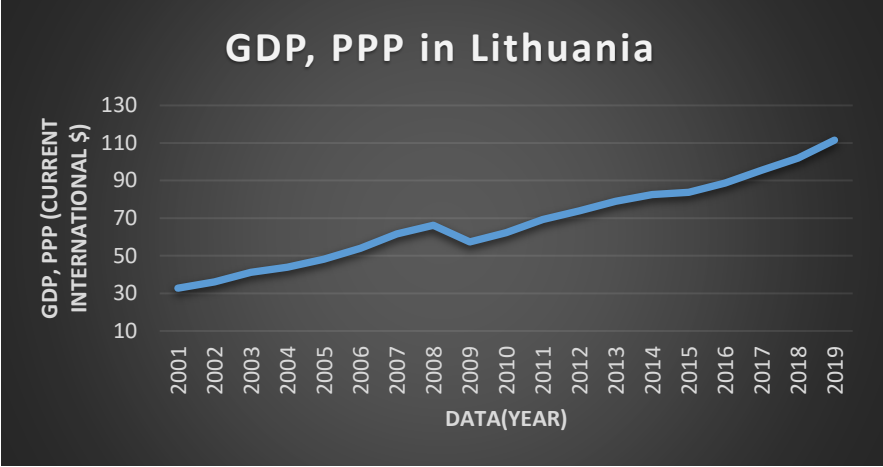


Figure 6. GDP, PPP in current billion international \$ in Lithuania

Source: developed by author and based on World Bank data

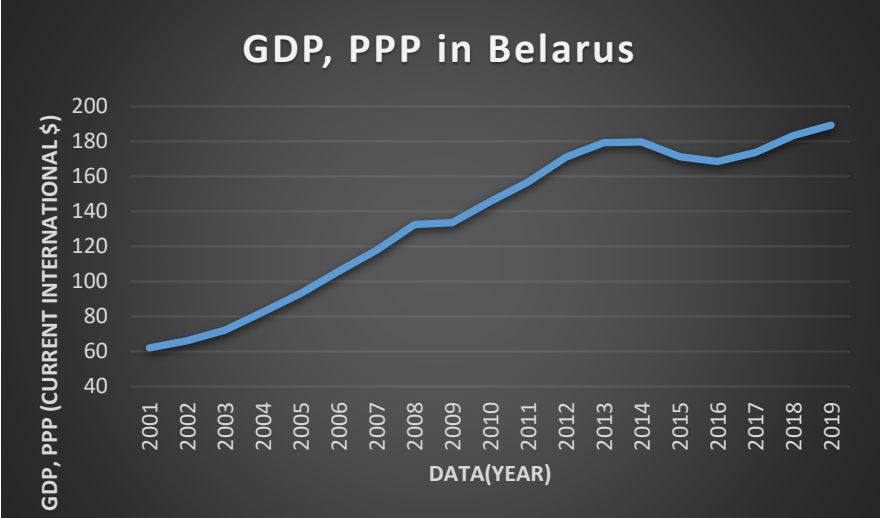


Figure 7. GDP, PPP in current billion international \$ in Belarus

Source: developed by author and based on World Bank data

During the same timeframe, the Belarusian economy increased by 205.3%, with stable growth until 2013 (189.3%) and stagnation from 2014 to 2019 (5.5%) (Figure 9). While Belarus was almost immune to the global financial crisis in 2008/2009 (GDP PPP + 0.8%), the Belarusian ruble depreciated massively by 85.9% against the USD from 2011 to 2019 (Figure 8). Geopolitical tension rose in the region with the election of Victor Yanukovych in Ukraine in 2010, the Ukrainian withdrawal from EU talks in November 2013, and the annexation of Crimea by

Russia in February/March 2014. Global sanctions towards Russia also affected Belarus, which is Belarus's most important trading partner (41.8% exports in 2019).



Figure 8. The currency dynamics US Dollar to Belarussian ruble

Source: Google Finance, 2023

Ukraine's economy was troubled by the orange revolution in 2004, growing tensions with Russia in 2006 (gas shutdown), the global financial crisis in 2008/2009 (-14.6% GDP PPP), and the withdrawal of EU talks in 2013, and annexation of Crimea in 2014 was the least growing economy of the three, GDP PPP increased from 2001 to 2019 only by 140.6%, 41.5% less than Lithuania and 31.5% less than Belarus (Figure 9). The Ukraine Hryvnia depreciated against USD by 77.8% from 2004 until 2019, which is a reflection of the ongoing crisis in the country (Figure 11).

United States Dollar to Ukrainian hryvnia

36.9243 ↑ 611.74% +31.7364 MAX

May 17, 11:19:56 AM UTC · Disclaimer

1D 5D 1M 6M YTD 1Y 5Y MAX



Figure 9. The currency dynamics of the US Dollar to Ukrainian hryvnia (USD/UAH)

Source: Google Finance, 2023

The Lithuanian economy gained more stability by joining the European Monetary Union in 2015. From 2001 until 2019, the Euro appreciated against the USD by 16.1%, with a maximum appreciation of 64.2% in 2008 during the global financial crisis (Figure 10).

United States Dollar to Euro

0.9225 ↓ 16.16% -0.1778 MAX

May 17, 6:32:56 PM UTC · Disclaimer

1D 5D 1M 6M YTD 1Y 5Y MAX



Figure 10. The currency dynamics of the US Dollar to Euro (USD/EUR)

Source: Google Finance, 2023

According to Figure 11, the unemployment rate in Belarus was around 4.16 percent of the total force in 2019. In Ukraine was 8.19 percent, while in Lithuania was around 6.26 percent in 2019. In 2008, Lithuania experienced an increase in the unemployment rate due to the financial crisis, but after 2011 the indicator tended to stabilize.

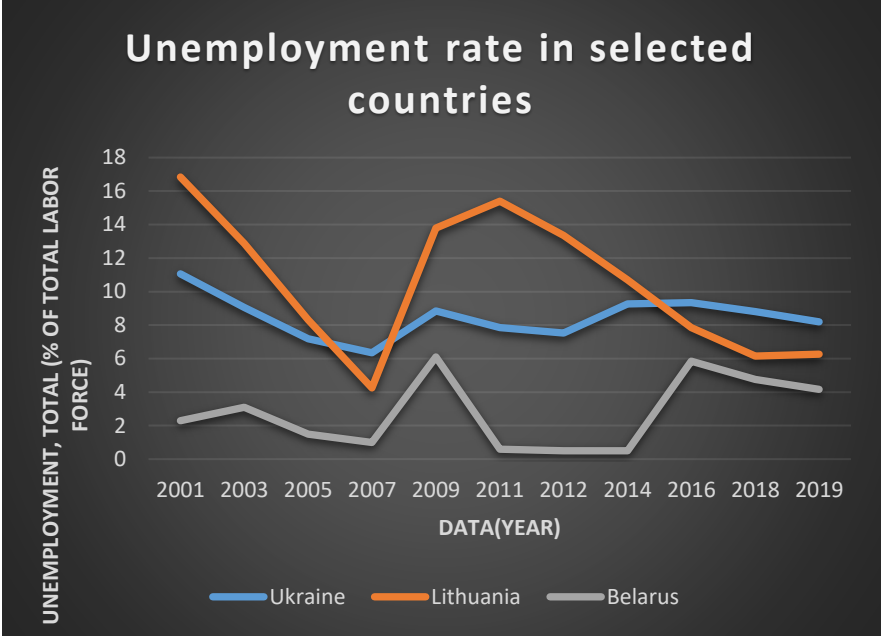


Figure 11. Unemployment rates in Lithuania, Belarus, and Ukraine

Source: developed by author and based on World Bank

According to Figure 12, the inflation rate in Lithuania amounted to about 2.33 percent in 2019. Ukraine had a high inflation rate from 2007 -2009 and 2017-2019. The average inflation rate in Belarus is 21.16 percent, reaching the highest rate of 61 percent in 2001 and a record low of 4.08 percent in 2018. Depreciation of the local currencies against majors in the 2010s additionally fired up inflation in Ukraine and Belarus.

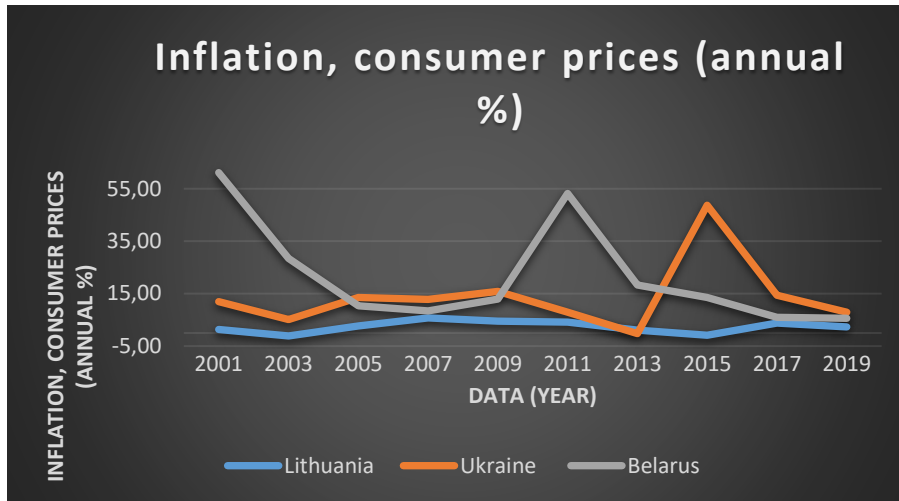


Figure 12. Inflation rates in Lithuania, Belarus, and Ukraine

Source: developed by author and based on World Bank

In Lithuania, the top exports were led by refined petroleum, furniture, rolled tobacco, wheat (\$770 million), and polyacetals (\$621 million), while in Belarus, the top exports were led by refined petroleum, potassic fertilizers, cheese, delivery trucks, and crude petroleum in 2019. Exports of goods and services from Ukraine are relatively low, amounting to an average of 47% of GDP in 2019 compared to Lithuania (77% of GDP) and Belarus (65% of GDP). The termination of the free trade agreement in 2016 and an embargo on agricultural products hit the Ukrainian economy hard, leading to a sharp decline in bilateral trade and a significant decrease in the volume of deliveries of Ukraine's main export commodities, including goods with high added value. The main exports were led by corn, seed oils, iron, wheat, and semi-finished Iron in 2019.

The main destinations for export of Lithuania in 2019 were Russia (13.1%), Latvia (9.11%), Poland (7.63%), and Germany (7.29%) (Figure 11). While Belarus exported goods and services to Russia (41%), Ukraine (13.1), and the United Kingdom (7.1%) in 2019, and Ukraine exported to Russia (7%), Egypt (6.3 %), Poland (6.07%), and China (6.7%) (Figures 13-15).

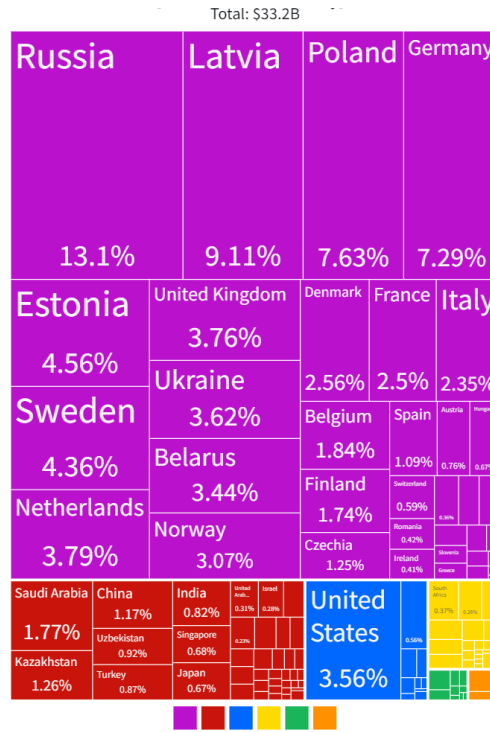


Figure 13. Destinations for the exports of Lithuania in 2019

Source: www.oec.world, 2023

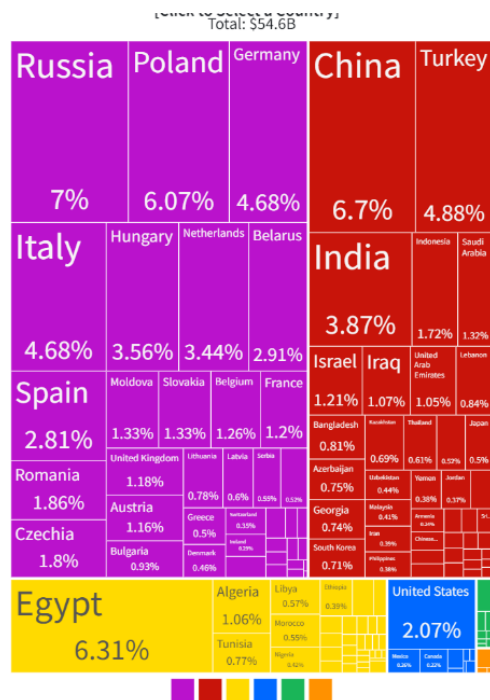


Figure 14. Destinations for the exports of Ukraine in 2019

Source: www.oec.world, 2023

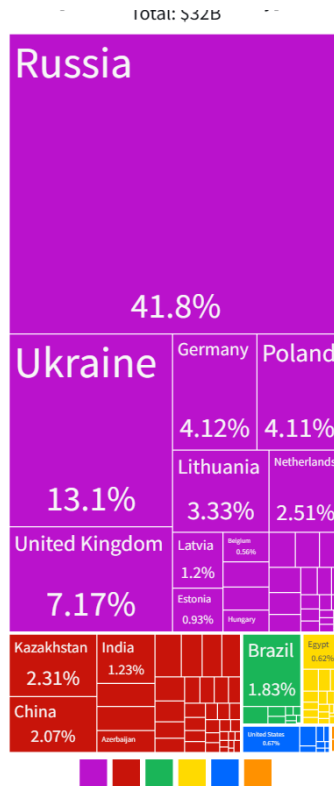


Figure 15. Destination for the exports of Belarus in 2019

Source: www.oec.world, 2023

In Belarus, central government debt increased from single digit numbers before the global financial crisis in 2008/2009 to 39.4 % in 2011. It decreased to 24% in 2012 and spiked again to almost 40% in 2017. Central government debt to GDP in Ukraine increased by 444% from 2008 until 2016, reaching the highest rate of 71.8% of GDP in 2016. In the following 3 years, debt decreased to 48.3%. In Lithuania, central government debt had a real roller coaster in the first 2 decades of this century. It went from 31.7% in 2001 to 14.8% in 2008 and spiked to 41.2% in the aftermath of the global financial crisis in 2010. In the following years, the Lithuanian government kept debt stable in a corridor between 40 and 50% of GDP (Figure 16).

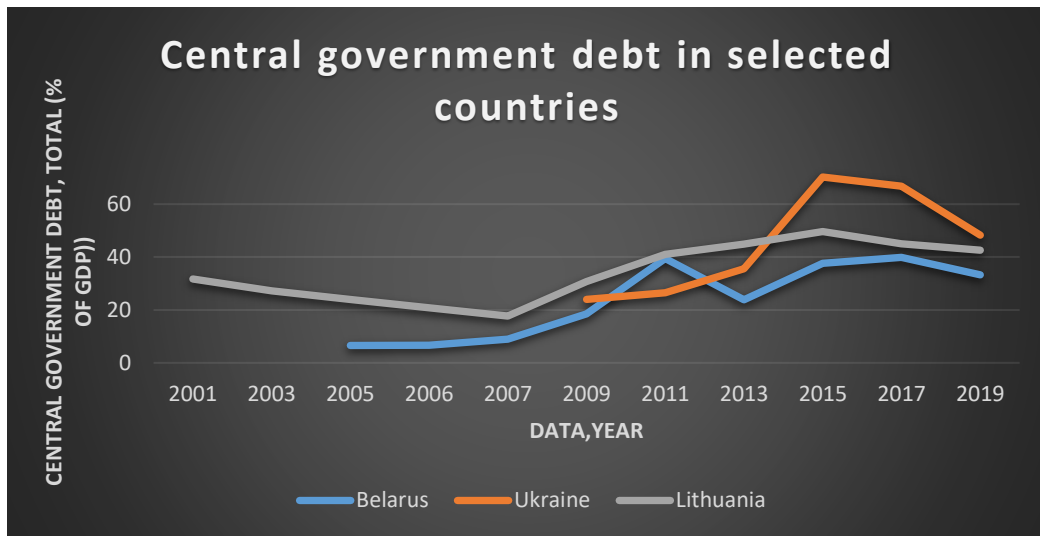


Figure 16. Central government debt in Ukraine, Belarus, and Lithuania

Source: developed by the author based on World Bank

To sum up, Lithuania, Belarus, and Ukraine for the period 2001-2019 had a shrinking population and demographic collapse, which are detrimental to economic growth. Belarus and Ukraine are not members of the EU and, thus, do not have access to free trade in significant economic area. Furthermore, Lithuania has an advantage over Ukraine and Belarus by joining the European Monetary Union, which has a major impact on the quality of government debt and currency stability. In 2019, Lithuania demonstrated the highest economic growth, the highest indicator of exports of goods and services, and the lowest rate of inflation compared to Belarus and Ukraine. While Belarus had the lowest rate of unemployment in 2019.

3.2. Regression analysis. The case of Lithuania

Table 6

Descriptive statistics of the model

R^2	0.88
Adjusted R-squared	0.82
F-statistic	15.4
Prob (F-statistic)	0.00
Schwarz criterion	5.05

Source: author's own

Table 7

Descriptive statistics of the model

Variables	Coefficient	t-statistics	p-value
C	-0.35	-0.38	0.7
DLOG(ECO)*100	1.35	5.1	0.000
DLOG(SOC)*100	1.33	3.7	0.004
DLOG(POL(-2))*100	-1.26	-3.039	0.012

Source: author's own

According to Table 6, independent variables such as social, economic, and political dimensions of globalization can explain the variation in Lithuania's economic growth by 88% (=0.88). Table 7 demonstrates that the economic dimension of globalization has a significantly positive impact on economic growth. The positive impact of economic globalization on economic growth could be explained by favorable taxation policies, low import barriers, the increasing amount of foreign direct investment, and the growth of international trade in Lithuania. Similarly, the social dimension of globalization has a significantly positive impact on economic growth. The coefficient of the economic dimension of globalization is close to the coefficient of the social dimension of globalization and, thus, demonstrates a similar impact on economic growth in Lithuania. The political dimension of globalization has a negative impact on economic growth in Lithuania. A potential explanation for this negative impact of the political dimension of globalization on economic growth in Lithuania can be that the independent variable is related to international NGOs, United Nations peacekeeping missions, diverse embassies, a

variety of treaty partners, and international treaties and organizations, has evolved in the opposite direction to the GDP rate.

Thus, the first hypothesis is rejected in Lithuania since the political dimension of globalization has a negative impact on the GDP rate. While the second and third hypotheses are accepted since the economic and social dimensions of globalization have a positive impact on economic growth. The outcome of regression analysis on the impact of globalization on economic growth for Lithuania is presented in Annex 6.

The form of the estimated equation of regression in the case of Lithuania is described below:

$$GDP_t = -0.35 + 1.35LOG \cdot (ECO_t) - 1.26LOG \cdot (POL_t) + 1.33LOG \cdot (SOC_t) + \varepsilon_t$$

The estimated model is tested for the heteroskedasticity of errors by applying the ARCH test. According to Figure 17, there is no heteroscedasticity problem in this model since the probability is 0.9.

Heteroskedasticity Test: ARCH			
F-statistic	0.007739	Prob. F(1,13)	0.9312
Obs*R-squared	0.008924	Prob. Chi-Square(1)	0.9247

Figure 17. The outcome of the Heteroskedasticity Test in Lithuania

Source: made by the author through EViews 12.0

Furthermore, the model is tested for the autocorrelation of errors using the Breusch-Godfrey Serial Correlation LM test. The results demonstrate that there is no autocorrelation problem in the model since the probability is 0.9. The results of the Breusch-Godfrey Serial Correlation LM Test are provided in Annex 7.

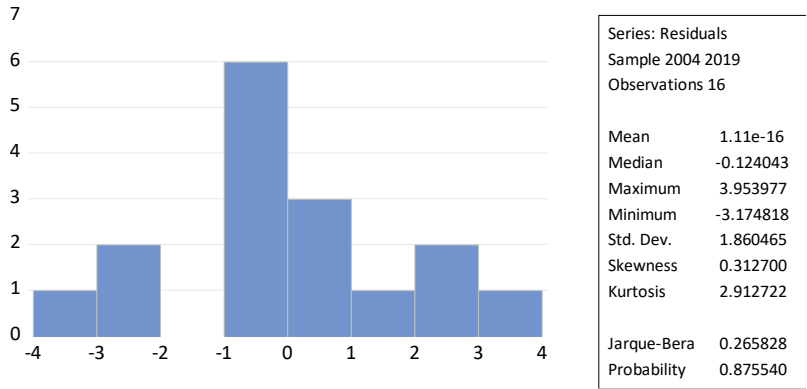


Figure 18. The outcome of the Jarque-Bera Normality Test in Lithuania

Source: made by the author through EViews 12.0

Finally, the model is tested for the normality of the residues by applying the Jarque-Bera Normality test. According to Figure 18, the requirements for the normality of the residues are perfectly met since the probability (0.8) is higher than $\alpha = 0.10$.

The results of the Jarque-Bera Normality test, Breusch-Godfrey Serial Correlation LM test, and Heteroskedasticity test demonstrate that the estimated model is statistically efficient and correctly explains the impact of independent variables.

3.3 Regression analysis. The case of Ukraine

Table 8

Descriptive statistics of the model

R^2	0.72
Adjusted R-squared	0.66
F-statistic	12.02
Prob (F-statistic)	0.00
Schwarz criterion	5.96

Source: author's own

Table 9

Descriptive statistics of the model

Variables	Coefficient	t-statistics	p-value
C	-2.04	-1.76	0.1
DLOG(ECO)*100	-1.08	5.1	0.003
DLOG(POL)*100	2.96	2.6	0.01
DLOG(SOC)*100	1.52	4.3	0.000

Source: author's own

According to Table 8, $R^2 = 0.72$, and it means that independent variables such as social, economic, and political dimensions of globalization can only explain the variation in Ukraine's economic growth by 72 %. Table 9 demonstrates that the economic dimension of globalization has a negative impact on economic growth. A potential explanation for this negative impact of the economic dimension of globalization on economic growth in Ukraine can be that independent variable related to trade in services and goods, international income payments, international debt, trade agreements, tariffs, and investment restrictions has evolved in the opposite direction to the GDP rate. Moreover, the sensitivity of Ukraine to the financial crisis in 2008 and the annexation of Crimea by Russia in 2015 had a negative impact on economic growth. However, more research is required to determine which indicators of economic globalization had a more or less detrimental impact on the economic growth of the country. The political dimension of globalization has a significantly positive impact on economic growth in Ukraine. The positive impact of the political dimension of globalization could be explained by the fact that a lot of embassies are located in the country. Additionally, the country is a member of many international organizations and participates in many International Nation peace missions. The coefficient of the social dimension of globalization is close to the coefficient of the political dimension of globalization and, thus, demonstrates a similar impact on economic growth in Ukraine.

Thus, the first and the second hypotheses are accepted in Ukraine since the political and social dimensions of globalization have a positive impact on the GDP rate. While the third hypothesis is rejected as the economic dimension of globalization has a negative impact on the GDP rate. The outcome of the estimated equation in Ukraine is presented in Annex 8.

The form of the estimated equation of regression in Ukraine is described below:

$$GDP_t = -2.04 - 1.08LOG \cdot (ECO_t) + 2.9LOG \cdot (POL_t) + 1.5LOG \cdot (SOC_t) + \varepsilon_t$$

The estimated model is tested for the heteroskedasticity of errors by applying the ARCH test. According to Figure 19, there is no heteroscedasticity problem in this model since the probability is 0.2.

Heteroskedasticity Test: ARCH

F-statistic	1.636750	Prob. F(1,15)	0.2202
Obs*R-squared	1.672487	Prob. Chi-Square(1)	0.1959

Figure 19. The outcome of the Heteroskedasticity Test in Ukraine

Source: made by the author through EViews 12.0

Furthermore, the model is tested for autocorrelation errors using the Breusch-Godfrey Serial Correlation LM test. The results demonstrate that there is no autocorrelation problem in the model since the probability is 0.9. The results of the Breusch-Godfrey Serial Correlation LM Test are provided in Annex 9.

Finally, the model is tested for the normality of the residues by applying the Jarque-Bera Normality test (Figure 20). The requirements for the normality of the residues are perfectly met since the probability (0.5) is higher than $\alpha = 0.10$.

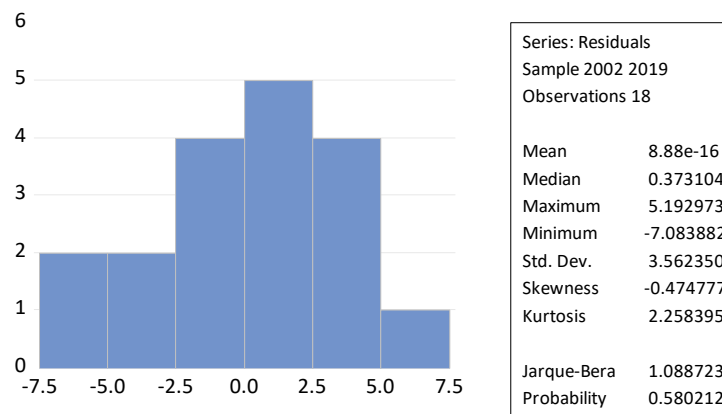


Figure 20. The outcome of the Jarque-Bera Normality Test in Ukraine

Source: made by the author through EViews 12.0

The results of the Jarque-Bera Normality test, Breusch-Godfrey Serial Correlation LM test, and Heteroskedasticity test demonstrate that the estimated model is statistically efficient.

3. 4 Regression analysis. The case of Belarus

Table 10

Descriptive statistics of the model

R^2	0.60
Adjusted R-squared	0.50
F-statistic	6.04
Prob (F-statistic)	0.00
Schwarz criterion	5.67

Source: author's own

Table 11

Descriptive statistics of the model

Variables	Coefficient	t-statistics	p-value
C	3.8	3.34	0.00
DLOG(ECO)*100	-0.8	-3.1	0.008
DLOG(SOC(-1))*100	1.2	3.39	0.005

Source: author's own

The political dimension of globalization did not demonstrate any correlation towards economic growth after multiple adjustments and, thus, was removed from the equation. According to Table 10, $R^2 = 0.6$, and it means that independent variables such as social and economic dimensions can only explain the variation in Belarus's economic growth by 60 %. Table 11 demonstrates that the economic dimension of globalization has a negative impact on economic growth. A potential explanation for this negative impact of the economic dimension of globalization on economic growth in Belarus can be that the independent variable is related to trade in services and goods, international income payments, international debt, trade agreements, tariffs, and investment restrictions has evolved in the opposite direction to GDP rate. Moreover, geopolitical tension in the region and global sanctions towards Russia also affected the Belarussian economy, which is Belarus's most important trading partner (41.8% exports in 2019). The social dimension of globalization has a significantly positive impact on economic growth in Belarus. The positive impact of social globalization could be explained by increased

trade in personal services and cultural goods, a high number of international trademarks, the growth of international tourism, and a high amount of McDonald's restaurants. Additionally, Belarus is located in the center of Europe and uses its geographical position to facilitate its integration into the global society.

Thus, the second hypothesis is accepted in Belarus since the social dimension of globalization has a significantly positive impact on the GDP rate. While the third hypothesis is rejected as the economic dimension of globalization has a negative impact on the GDP rate. The outcome of regression analysis on the impact of globalization on economic growth for Belarus is presented in Annex 10.

The form of the estimated equation of regression in Belarus is described below:

$$GDP_t = 3.88 - 0.8 LOG \cdot (ECO_t) + \beta_2(POL_t) + 1.2LOG \cdot (SOC_t) + \varepsilon_t$$

The estimated model is tested for the heteroskedasticity of errors by applying the ARCH test. According to Figure 21, there is no heteroscedasticity problem in this model since the probability is 0.6.

Heteroskedasticity Test: ARCH

F-statistic	0.274349	Prob. F(1,13)	0.6092
Obs*R-squared	0.310014	Prob. Chi-Square(1)	0.5777

Figure 21. The outcome of the Heteroskedasticity Test in Belarus

Source: made by the author through EViews 12.0

Furthermore, the model is tested for autocorrelation errors using the Breusch-Godfrey Serial Correlation LM test. The results demonstrate that there is no autocorrelation problem in the model since the probability is 0.83. The results of the Breusch-Godfrey Serial Correlation LM Test are provided in Annex 11.

Finally, the model is tested for the normality of the residues by applying the Jarque-Bera Normality test. According to Figure 22, the requirements for the normality of the residues are perfectly met since the probability (0.4) is higher than $\alpha = 0.10$.

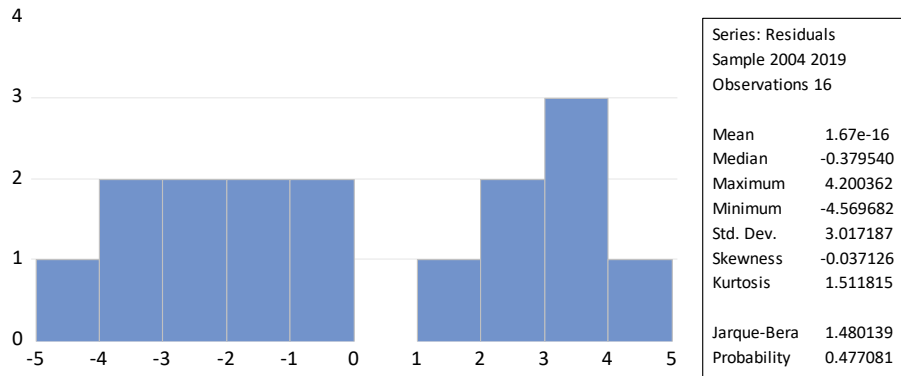


Figure 22. The outcome of the Jarque-Bera Normality Test in Belarus

Source: made by the author through EViews 12.0

The results of the Jarque-Bera Normality test, Breusch-Godfrey Serial Correlation LM test, and Heteroskedasticity test demonstrate that the estimated model is statistically efficient.

CONCLUSIONS AND RECOMMENDATIONS

The main aim of the master thesis was to evaluate the impact of social, political, and economic dimensions of globalization on economic growth in Lithuania, Belarus and Ukraine. To pursue the aim, the following conclusions were made based on the objectives that were set up at the beginning of the work:

1. Globalization is a complex concept and can be defined as the integration of peoples and countries of the world, which brought the substantial reduction of communication and transportation costs and the breaking down of artificial barriers to the flows of people, knowledge, services, capital, services, and goods across borders. KOF Globalization Index is the best globalization measure since the index estimates economic, political, and social dimensions of globalization more precisely and extensively compared to other indexes.
2. Economic growth is a significant macroeconomic indicator used to measure a country's prosperity. The relationship between economic growth and globalization tends to not always be straightforward due to the complexity of both concepts. Economic growth is affected by globalization through the following channels: social or cultural sphere, politics, and economics. The results of empirical studies on the relationship between globalization and economic growth vary substantially, and a possible explanation for such different results could be that countries have different economic development stages. Moreover, membership in international organizations and the period of investigation are highly important. The majority of the study covers periods of significant economic and political events, such as the financial crisis in 2008, and it could impact the final results.
3. The methodology was developed to investigate the impact of social, economic, and political globalization on economic growth in Lithuania, Belarus, and Ukraine. The empirical part includes the analysis of key social and economic indicators in Lithuania, Belarus, and Ukraine to provide insight into countries' economic development and the regression analysis. The EViews 12.0 software was utilized for data processing. The sources of data were the World Bank and KOF Globalization Index databases. The estimated period was from 2001 to 2019.

4. The regression analysis was performed to evaluate the impact of social, economic, and political dimensions of globalization on economic growth in Lithuania, Belarus, and Ukraine. Each country was evaluated separately.

The results of regression analysis in Lithuania's case indicate that globalization's economic dimension has a significantly positive impact on economic growth. The positive impact of economic globalization on economic growth could be explained by favourable taxation policies, low import barriers, the increasing amount of foreign direct investment, and the growth of international trade in Lithuania. In the period from 2001 to 2019, the GDP PPP (in current international \$) in Lithuania increased by an impressive 240.4%, despite a decline of 13.5% during the financial crisis in 2008/2009. Similarly, the social dimension of globalization has a significantly positive impact on economic growth. The coefficient of the economic dimension of globalization is close to the coefficient of the social dimension of globalization and, thus, demonstrates a similar impact on economic growth in Lithuania. The political dimension of globalization has a negative impact on economic growth in Lithuania. A potential explanation for this negative impact of the political dimension of globalization on economic growth in Lithuania can be that the independent variable is related to international NGOs, United Nations peacekeeping missions, diverse embassies, a variety of treaty partners, and international treaties and organizations, has evolved in the opposite direction to the GDP rate.

The results of the regression analysis in case of Belarus demonstrate that the economic dimension of globalization has a negative impact on economic growth. A potential explanation for this negative impact of the economic dimension of globalization on economic growth can be that the independent variable is related to trade in services and goods, international income payments, international debt, trade agreements, tariffs, and investment restrictions has evolved in the opposite direction to GDP rate. Moreover, geopolitical tension in the region and global sanctions towards Russia also affected the Belarussian economy, which is Belarus's most important trading partner (41.8% exports in 2019). The social dimension of globalization has a significantly positive impact on economic growth in Belarus. The positive impact of social globalization could be explained by increased trade in personal services and cultural goods, a high number of international trademarks, the growth of international tourism, and a high amount of McDonald's restaurants. Additionally,

Belarus is located in the centre of Europe and uses its geographical position to facilitate its integration into the global society.

The results of the regression analysis in the case of Ukraine indicate that the economic dimension of globalization has a negative impact on economic growth. A potential explanation for this negative impact of the economic dimension of globalization on economic growth in Ukraine can be that independent variable related to trade in services and goods, international income payments, international debt, trade agreements, tariffs, and investment restrictions has evolved in the opposite direction to the GDP rate. Moreover, Ukraine's economy was troubled by the orange revolution in 2004, growing tensions with Russia in 2006 (gas shutdown), the global financial crisis in 2008/2009 (-14.6% GDP PPP), and the annexation of Crimea in 2014, an increase in tariffs and trade taxes, had a negative impact on economic growth. However, more research is required to determine which indicators of economic globalization had a more or less detrimental impact on the economic growth of the country. The political dimension of globalization has a significantly positive impact on economic growth in Ukraine. The positive impact of the political dimension of globalization could be explained by the fact that a lot of embassies are located in the country. Additionally, the country is a member of many international organizations and participates in many International Nation peace missions. The coefficient of the social dimension of globalization is close to the coefficient of the political dimension of globalization and, thus, demonstrates a similar impact on economic growth in Ukraine.

Overall, the main aim was achieved. The performed analysis revealed that three dimensions of globalization impact economic growth differently in Lithuania, Belarus, and Ukraine. The possible explanation for such results could be the fact that countries were in different stages of economic development, and the analysis of macroeconomic indicators illustrated it. Moreover, the financial crisis in 2008 could have had an impact on the results since some countries were more and less sensitive to it.

Future research direction is required to explain the impact of globalization of each variable of the KOF globalization index (political, economic, and social) on economic growth by analysing their structure (trade openness, international debt, foreign direct investment, international tourism, international treaties, human capital). Also, it is possible to divide each sub-indexes into de facto social, political, and economic globalization and de jure three sides of globalization and investigate

the impact as they reflect different economic, political, and social indicators. Another suggestion for extending the current research is to investigate the impact of globalization on economic growth by dividing countries based on similarities (developed or developing) and applying panel data methods to obtain suggestions for economic policymakers and government.

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SUMMARY IN LITHUANIAN

GLOBALIZACIJOS POVEIKIS LIETUVOS, BALTARUSIJOS IR UKRAINOS EKONOMIKOS AUGIMUI

Lilia AUSIANIKAVA

Magistro darbas

Globalus Verslas ir Ekonomikos Studijų Programa

Vilniaus universitetas

Ekonomikos ir verslo administravimo fakultetas

Darbo vadove Rima Rubčinskaitė, Vilnius, 2023

SANTRAUKA

82 puslapiai, 14 lentelės, 33 paveikslėlių, 77 literatūros šaltinių, 11 priedas

Magistro darbą sudaro keturios pagrindinės dalys: literatūros analizė, metodologija, tyrimas ir jo rezultatai, išvados ir rekomendacijos.

Pagrindinis magistro darbo tikslas - ištirti globalizacijos socialinių, politinių ir ekonominių aspektų poveikį ekonomikos augimui Lietuvoje, Baltarusijoje ir Ukrainoje. Siekiant šio tikslo teorinėje dalyje išanalizuoti pagrindiniai globalizacijos ir ekonomikos augimo aspektai bei ryšys tarp jų.

Po literatūros išnagrinėjimo autorius atliko regresinę analizę, siekdamas įvertinti globalizacijos poveikį Lietuvos, Baltarusijos ir Ukrainos ekonomikos augimui, taikydamas paprastųjų mažiausių kvadratų metodą. Duomenims apdoroti buvo naudojama EViews 12.0 programinė įranga. Duomenų šaltiniai buvo Pasaulio banko ir KOF globalizacijos indekso duomenų bazės. Vertinimo laikotarpis nuo 2001 m. iki 2019 m.

Atlikta analizė parodė, kad trys globalizacijos dimensijos skirtingai veikia ekonomikos augimą tiriamose šalyse. Tokius rezultatus galima paaiškinti tuo, kad šalys yra skirtinguose ekonominės raidos etapuose. Be to, 2008 m. finansų krizė galėjo turėti įtakos rezultatams. Rekomendacijos tolimesniam tyrimui buvo pasiūlytos remiantis patirtimi, įgyta atliekant nagrinėjamą tyrimą.

SUMMARY IN ENGLISH

THE IMPACT OF GLOBALIZATION ON ECONOMIC GROWTH IN LITHUANIA, BELARUS, AND UKRAINE

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Master Thesis

Global Business and Economics

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SUMMARY

82 pages, 14 tables, 33 figures, 77 references, 11 annexes

The master thesis consists of four main parts: the analysis of literature, methodology, the research and its findings, conclusions, and recommendations.

The main aim of the master thesis is to evaluate the impact of social, political, and economic dimensions of globalization on economic growth in selected countries. To achieve the aim, key aspects of globalization and economic growth, as well as their relationship, were analysed in the theoretical part.

Following the literature review, the author conducted the regression analysis to estimate the impact of globalization on economic growth in Lithuania, Belarus, and Ukraine by applying the ordinary least squares method. The EViews 12.0 software was utilized for data processing. The sources of data were the World Bank and KOF Globalization Index databases. The estimated period was from 2001 to 2019.

The regression analysis revealed that three dimensions of globalization impact economic growth differently in the investigated countries. The possible explanation for such results could be the fact that countries are in different stages of economic development. Moreover, the financial crisis in 2008 could have had an impact on the results. The recommendations for further research were proposed based on experience obtained by conducting the study.

ANNEXES

Annex 1. Analysis of empirical studies on the relationship between globalisation and economic growth using different indicators as the independent variable

Table 12

Analysis of empirical studies on the relationship between globalization and economic growth using different indicators as the independent variable

Author, year of the paper, and citation quantity	Number of countries investigated	Sample size (Years of investigation, frequency)	TS, P	Aim of the paper, Main Research Question, Hypothesis	Dependent variables**	Independent variables**	Main methods	Main Results and Conclusions
Osteikaitė, Pereira and Didžgalvytė-Bujauskė 2019;8.	125	1970–2017	P	The purpose of the study is to determine how globalization impacts economic growth through the use of econometric analysis Does globalization affect the economic growth of developing countries? H1: globalization affects positively economic growth of developing countries	Economic growth (Change of GDP per capita (current US\$))	Foreign aid, landlockedness, human capital, labour force, capital, globalisation(KOF index)	The analysis of the literature review, GMM method, econometric analysis, statistical analysis, and comparative analysis of the literature	The economic dimension of globalization has a negative impact in the short term but a favourable influence on economic growth in the long run, whereas overall globalisation has a direct detrimental impact on economic growth.
Anupam Kumar Das, Shameema Ferdousy and Md. Sahidur Rahman;2008;1.	93	1970-2008	-	The purpose of the study is to analyse globalization's impact over the past twenty-eight years on economic growth in developing countries. Does economic globalization has an impact on economic growth? H1: globalization affects positively economic growth of developing countries	Economic growth (Change of GDP per capita)	Globalisation (KOF index), FDI, the openness of trade, and export growth.	The analysis of literature review, GMM method, econometric analysis, statistical analysis	Twenty-four countries integrated into the world economy over twenty years. The countries demonstrated better education, income growth, and increased life expectancy rate. 69 countries demonstrated substantial GDP growth per capita for the last twenty years. Even though globalization poses significant problems, such as the possibility of marginalization and instability, the experience indicates that globalization provides new opportunities for the integration of developing nations into the global economy. Thus, international cooperation, continuous economic growth, and long-term prosperity can be achieved through globalization. Furthermore, considering the particular developing country's circumstances, trade liberation enables to promote of international competitiveness and sustainable development.

Marco Neuhaus;2006;206	11	1994 - 2002	P	<p>The purpose of the study is to analyse FDI impact on economic growth in the countries in transition (Eastern and Central Europe)</p> <p>Had FDI a positive effect on economic growth in the transition countries of Central and Eastern Europe?</p> <p>H: Countries in transition have experienced economic growth due to the high concentration of domestic and foreign capital</p>	Economic growth (Change of GDP per capita)	Foreign Direct Investment	The analysis of literature review, statistical analysis (Panel Unit Root Tests, Panel Cointegration Tests)	FDI is a crucial mechanism for technology transfer and generation of international capital as well as a powerful driver of economic development. The use of FDI in countries in the transition of Eastern and Central Europe has shown substantial economic growth. For all nations that have benefited from substantial FDI inflows, FDI indicates a significant transitional milestone. The authors highly recommend considering FDI while creating policies that would facilitate a favorable business climate and lead to economic growth.
Patrick Mutua Kioko;2012;1.	62	2000 - 2010	-	<p>The purpose of the study is to analyse the impact of globalization in developing countries, particularly in African countries.</p> <p>What is the definition of globalization? How do countries define globalization? What are the advantages and disadvantages of globalization? What could be learned from globalization?</p> <p>H: globalization has a positive impact on economic development in African countries, but there are gains and losses alongside it.</p>	Economic growth (Change of GDP per capita)	Globalisation (FDI, the unemployment rate)	The statistical analysis, theoretical analysis of the literature	The process of globalization and its impact is complicated since there are advantages and disadvantages. The benefits start from lower import prices that are for goods producer and consumers, which provides inexpensive products regardless of quality. Although this leads to a competitive environment in which local producers fail, and this extends to businesses that fail due to a lack of resources to compete, resulting in the loss of employment. Trade liberation must be controlled in order to avoid negative consequences of globalization, such as acts of terrorism, crimes, the cultural identity loss, and unemployment. It is not an easy undertaking, but it is worthwhile to attempt, given the advent of globalization.
Mahutga, Matthew, Curwin and Kevin;2014;71	29	1990 - 2010	P	<p>The aim of the study is to analyse the relationship between economic growth and FDI.</p> <p>Is the impact of FDI on economic development negative or positive?</p> <p>H: FDI has a positive impact on economic growth in Post-Socialist Transition Countries</p>	Economic growth (change of GDP per capita)	FDI (rate and penetration)	The analysis of literature review, statistical analysis, and panel regression model.	FDI decreases economic growth in the long and short run and is resistant to alternate measurement and econometric formulation.
Samia Nasreen, Muhammad Shahbaz and Magda Kandil;2015;30	32	1989– 2012	P	<p>The aim of the study is to investigate the impact of globalization on financial development.</p> <p>Does financial development impact globalization in a positive way?</p> <p>H: Globalization has an impact on institutional reforms that facilitate financial development and economic growth.</p>	Economic growth (change of GDP per capita)	Financial indicators (liquid liabilities, private sector credit, and domestic)	The analysis of literature review, statistical analysis, auto-regression methodology (PVAR))	Financial development has an impact on globalization, but globalization prevents financial growth and economic development. Globalization could ease external finance constraints, diminishing incentives for financial growth. Quality institutions are led by financial development since it creates incentives to organize efforts in favor of institution quality.
Ayodele, Folorunso, Olusi and Feridun;2006;18.	1	1986 - 2003		<p>The purpose of this study is to analyse the impact of globalization on economic development in Nigeria. Why is the country so rich in resources, but the majority of the population remains so poor?</p> <p>Will globalization be advantageous for the population in Nigeria?</p> <p>H1: Globalization promotes economic development in Nigeria.</p>	Economic growth (Real GDP per capita)	Globalisation (debt, the openness of trade, financial integration, public and domestic private investments)	The analysis of literature review, statistical analysis, Error Correction Modelling (ECM))	The outcome of the research demonstrates that debt, public and private investments, financial integration, and the openness of trade are not stationary. Economic development is impacted by the openness of trade positively (the significance at the rate of ten percent). Furthermore, economic development is impacted by financial integration negatively. The country can benefit from globalization in the case of full economic

								integration with the world. (Free capital movement and trade barriers elimination).
Shi and Baek ;2016;20	78	1990– 2010	P	<p>The purpose of the study is to analyse the impact of globalization on income inequality by dividing economic globalization into financial integration and trade intensity. The authors investigate the impact in developing and developed countries.</p> <p>Does economic globalization has an impact on income inequality in developing and developed countries?</p> <p>H1: Economic globalization causes income inequalities.</p>	Inequality (Gini index)	Globalisation (knowledge dissemination, migration, investment, and capital movements, transactions, and trade)	The analysis of literature review, statistical analysis, and panel regression model.	The outcome of the research demonstrates that the integration of finance impacts income inequality depending on the intensity of the trade, and the impact is different in developing and developed countries. In developing countries surge in the intensity of the trade would decrease inequality, while in developed countries, it would lead to higher income inequalities. The rapid trade openness of financial markets or high dependence on FDI would increase income inequality in developing countries.
,Kimatu, Nguhi, Wengjing , Rongcheng and Ayenagbo; 2012;17	62	1983- 2004	P	<p>The purpose of this article is to examine the impact of globalization on economic growth in African countries.</p> <p>Does globalization promote economic growth in African countries?</p> <p>H1: Globalization has contributed to economic growth in African countries.</p>	Economic growth Real GDP Growth (annual %)	Globalization (Trade, FDI, Financial Flows)	The analysis of literature review, statistical analysis, and panel regression model.	The outcome of the research demonstrates that globalization promotes economic growth in African countries. High growth rates are observed in countries with higher rates of globalization. The lack of trade and capital constraints leads to economic integration and contributes to sustainable development in African countries.

Source: author's own

Annex 2. Analysis of empirical studies on the relationship between globalisation and economic growth using the KOF globalization index and its sub-components as the independent variable

Table13

Analysis of empirical studies on the relationship between globalisation and economic growth using the KOF globalization index and its sub-components as the independent variable

Author, year of the paper, and citation quantity	Number of countries investigated	Sample size (Years of investigation, frequency)	TS, P	Aim of the paper, Main Research Question, Hypothesis	Dependent variables**	Independent variables**	Main methods	Main Results and Conclusions
Lukasz, Lach, Henryk and Gurgul,2014;147	10	1990-2009	P	<p>The study aims to analyse the different dimensions of globalization and their impact on economic development in 10 countries.</p> <p>Is increased globalization a substantial and favourable factor that causes rapid economic growth in 10 countries?</p> <p>H1: Overall globalization leads to GDP growth in 10 countries in the first decades of the transition.</p> <p>H2: The increase in economic globalization (the rise of actual flows and the reduction of trade barriers) played a major role in GDP growth in 10 countries in the first decades of the transition.</p> <p>H3: Increase in social globalization, particularly the surge of information flows), played a major role in GDP growth in 10 countries in the first decades of the transition.</p>	Economic growth (Gross domestic product (Gross capital formation, total labour force, inflation, consumer prices (annual %)), FDI, government consumption.	Globalisation (Overall globalization, political, social, and economic globalization, information flow, economic restrictions).	The analysis of literature review, statistical analysis, and panel regression model.	The outcome of the research demonstrated that increased globalization has a positive impact on economic growth in 10 countries. The economic and social dimensions of globalization have the strongest impact on economic development. Furthermore, the outcome of the empirical analysis showed that the political dimension of globalization has no impact on economic growth. In general, globalization enables 10 countries to maximize their potential more efficiently, which was impossible during the era of centrally controlled economies.

Nuno Carlos Leitão;2012;28.	5	1995-2011	P	<p>The purpose of this work is to analyze the impact of three dimensions of globalization and trade on economic growth in five countries.</p> <p>Is economic growth impacted by three dimensions of globalization and trade in five countries? H1: economic growth is impacted positively by three dimensions of globalization and trade in five countries</p>	Economic growth (Real GDP per capita)	Globalisation ((political globalization, social globalization and economic globalization)	The analysis of literature review, statistical analysis, GMM approach	The outcome of the research demonstrates that there is a correlation between economic growth and the three dimensions of globalization. Furthermore, the author points out that economic growth is promoted by economic globalization. Solow model assumptions are supported by the results of the study.
Cuneyt Kilic;2015;65	74	1981-2011	P	<p>The purpose of this study is to analyze the impact of political, economic, and social globalization on economic growth in selected countries.</p> <p>Do political, social, and economic dimensions of globalization impact economic growth? H1: ECO causes GDP positively H2: POL causes GDP positively H3: SOC causes GDP positively</p>	Economic growth (real GDP Growth (annual %))	Economic globalization index (ECO), social globalization index (SOC), political globalization index (POL)	The analysis of literature review, statistical analysis, squares method, and Granger causality test	The outcome of the research demonstrates that the economic and political dimensions of globalization have a positive impact on economic growth in developing countries, while the social dimension of globalization has a negative impact on economic growth.
Lee, Koyin CHANG, Yung-Hsiang Gurgul and Lach;2014;61	10	1970 - 2008	P	<p>The purpose of the study is to analyze the long and short-run impact of globalization on economic growth in ASEAN countries.</p> <p>Do economic, social, and political globalization impact economic growth in ASEAN countries positively? H1: ECO causes GDP positively H2: POL causes GDP positively H3: SOC causes GDP positively</p>	Economic growth (Real GDP)	Political Globalization, Social Globalization, Economic Globalization.	The analysis of literature review, statistical analysis, Panel Unit Root Tests, and Panel Cointegration Tests)	Economic growth elasticity in relation to economic globalization is 1.48, demonstrating that economic growth is impacted by globalization positively. Furthermore, economic growth is impacted by social globalization negatively, whereas there is no impact with respect to political globalization.
Hashem Salarzadeh Jenatabadi and Paris Samimi ;2014;151	33	1980–2008	P	<p>The purpose of the study is to analyze the impact of economic globalization on economic growth in the countries of the Organisation of Islamic Cooperation. Furthermore, the study analyses whether the impact of globalization is affected by a country's income level.</p> <p>Does globalization impact economic growth in OIC countries positively? Is the impact of globalization affected by a country's income level? H1: Globalization impacts economic growth in low-income countries positively H2: Globalization impacts economic growth in middle and high-income countries positively</p>	Economic growth (Real GDP per capita)	Globalization (Consumer prices index, government consumption, economic globalization, gross capital formation)	The analysis of literature review, statistical analysis, the generalized method of moments	The outcome of the research demonstrated that the positive impact of economic globalization is observed in countries with strong financial systems and highly-educated employees. There is a correlation between the income level of the country and the impact of economic globalization. Countries with middle and high incomes are affected by globalization positively, while countries with low-income do not benefit from it.
Samia Nasreen, Muhammad Shahbaz and	32	1989–2012	P	<p>The aim of the study is to investigate the impact of globalization on financial development.</p>	Economic growth (change of GDP per capita)	Financial indicators (liquid liabilities, private	The analysis of literature review, statistical analysis, auto-	Financial development has an impact on globalization, but globalization prevents financial growth and economic development. Globalization could ease external finance constraints, diminishing incentives for

Magda Kandil;2015;30				Does financial development impact globalization in a positive way? H: Globalization has an impact on institutional reforms that facilitate financial development and economic growth.		sector credit, and domestic)	regression methodology (PVAR))	financial growth. Quality institutions are led by financial development since it creates incentives to organize efforts in favour of institution quality.
Dima and Neagu;2017;20.	1	1990-2013		The purpose of the study is to examine the impact of globalization on economic development in Romania. Is economic development impacted by globalization in Romania? H1: Economic development is impacted by globalization in Romania.	Economic growth Real GDP Growth (annual %))	Globalisation (Political globalization, social globalization, and economic globalization)	The analysis of literature review, statistical analysis, Least Squares	The outcome of the research demonstrates that there is a strong correlation between the overall globalisation index and GDP per capita. Furthermore, economic development is positively impacted by political and economic globalization, while it is negatively impacted by social globalization in Romania.
Elsherif;(2016);32	13	2001-2014	P	The purpose of the study is to analyze the impact of globalization on economic development in MENA countries. Is economic development impacted by globalization positively in MENA countries? h1: economic development is impacted by globalization positively in MENA countries	Economic growth (GDP per capita)	Globalisation (overall globalization, consumer price index, FDI, overall freedom index, government consumption expenditure)	The analysis of literature review, statistical analysis, GMM approach	The outcome of the research demonstrates that economic growth is impacted negatively by economic globalization. Furthermore, education and political unrest positively impact economic growth in MENA countries. The authors point out that FDI and trade openness did not bring any economic benefits in the MENA region.
Muhammad Maqbool-ur-Rahman;2015;19.	3	1981-2011		The purpose of the study is to analyze the impact of globalization on economic development in Bangladesh, Pakistan, and India. Is economic growth impacted by globalization positively in selected countries? H1: globalization leads to economic growth in Bangladesh, Pakistan, and India.	Economic growth (Real GDP)	Globalisation (KOF index, labour force, gross capital formation)	The analysis of literature review, statistical analysis, ordinary least square, PP, and ADF tests	The outcome of the research demonstrates that economic growth is impacted positively by globalization, particularly in India. Furthermore, the author recommends considering political and social globalization for future studies since not only economic integration is significant but also social and political.
Chien-Chiang Lee and Chun-Ping Chang (2010);128.	23	1970-2006	P	The purpose of the study is to analyze the impact of three dimensions of globalization on economic growth in twenty-three countries using the panel cointegration technique. Is economic growth impacted by three dimensions of globalization positively in selected countries? H1: economic growth is impacted positively by three dimensions of globalization	Economic growth (Real GDP)	Globalisation ((political globalization, social globalization, economic globalization, overall globalization)	The analysis of literature review, statistical analysis, and the panel cointegration technique.	The outcome of the research demonstrates that economic growth is not impacted significantly by the three dimensions of globalization in the short run. In comparison, there is a strong correlation between economic growth and the three dimensions of globalization in the long run. Economic growth is impacted positively by economic and social globalization and negatively by political globalization in the long run.
Ali Raza, ,Mohsin Abbas, and Xiaodong Xu Hafiz Syed;2021;2.	45	2003-2017	P	The purpose of the study is to analyze the impact of governance and globalization on economic development in Asian countries.	Economic growth Real GDP Growth (annual %))	Globalisation (institutional indicators and KOF index)	The analysis of literature review, statistical analysis, Two-	The outcome of the research demonstrates economic development is positively impacted by globalization leading to political stability. Furthermore, the authors indicate that transparent, feasible, practical policies substantially lead to economic development in Asian

				Is economic development impacted by governance and globalization positively in Asian countries? H1: economic development is impacted by governance and globalization positively in Asian countries.			step System GMM	countries and, as a result, the development of sustainability.
Sri Mulatsih, Stannia Cahaya Suci and Alla Asmara; 2016; 5.	10	1970 - 2015	P	The purpose of the study is to analyze the impact of globalization on economic growth in ASEAN countries. Is economic development impacted by globalization in ASEAN countries positively? H1: economic development is impacted by globalization in ASEAN countries positively	Economic growth (Real GDP per capita)	Globalisation (overall globalization index, social, political, and economic globalization)	The analysis of the literature review, statistical analysis, the IPS and LLC tests	The outcome of the research demonstrates that economic growth is impacted positively by overall globalization in ASEAN countries. There is a strong and positive correlation between economic and social globalization and economic growth. However, economic growth is impacted insignificantly by political globalization.
Vadlamannati, Rao and Tamazian ; 2011;	5	1970-2006	TS	The purpose of the study is to analyze the impact of globalization on economic growth, considering the political and social dimensions of globalization in the Philippines, India, Thailand, Malaysia, and Singapore. Is economic growth impacted by globalization in selected countries positively? H1: economic growth is impacted by globalization in selected countries positively	Economic growth (Real GDP per capita)	Globalisation (overall globalization index, social, political, and economic globalization)	The analysis of the literature review, the statistical analysis, and country specific time series	The outcome of the research demonstrates that there is a correlation between economic growth and the political and social dimensions of globalization. Furthermore, the authors indicate that higher economic growth is observed in countries with higher globalization levels.
Sakyi; 2011; 36.	31	1980-2005	P	The purpose of the study is to investigate democracy and economic globalization impacts on the income levels in African countries applying PCT. Are the income levels impacted by democracy and economic globalization in selected countries positively? H1: the income levels are impacted by democracy and economic globalization in selected countries positively	Economic growth (Real GDP per capita)	Globalisation (economic globalization and the democracy index)	The analysis of the literature review, the statistical analysis, panel FMOLS	The outcome of the research shows that income levels are impacted by economic globalization in the long perspective positively, while democracy has a negative impact on income levels in the long run. The authors recommend that the reforms of policy must be aimed to enhance democratic institutions in African countries.
Mert and Açıkgöz; 2011; 3.	1	1970-2008	-	The purpose of the study is to analyze the impact of economic and social globalization on economic growth in Turkey by applying the ARDL method. Is economic growth impacted by economic and social globalization positively in Turkey? H1: economic growth is impacted by economic and social globalization positively in Turkey	Economic growth (Real GDP per capita)	Globalization (economic and social dimensions of globalization)	The analysis of the literature review, the statistical analysis, ARDL	The outcome of the research demonstrates that there is a strong correlation between social and economic globalization and economic growth. Economic growth is impacted by economic globalization in the long run positively in Turkey.
Maza and Villaverde; 2011; 11.	101	1970-2006		The purpose of the study is to estimate disparities in globalization in selected countries. Additionally, the authors aim to investigate the connection between globalization and economic growth, considering all dimensions of globalization.	Economic growth Real GDP Growth (annual %)	Globalization ((overall globalization index, social, political and	The analysis of the literature review, the statistical	The outcome of the research demonstrates that there is a globalization convergence process. The authors conclude that globalization is the primary driver of economic expansion, promoting per capita income convergence.

						economic globalization)	analysis, GMM approach	
Dreher;2006;99 9.	123	1970-2000		The purpose of the study is to create globalization index considering three main dimensions of globalization. Furthermore, the author aims to analyze the impact of overall globalization as well as political, social, and economic integration on economic growth.	Economic growth Real GDP Growth (annual %)	Globalization ((overall globalization index, social, political and economic globalization)	The analysis of the literature review, the statistical analysis, GMM approach	The outcome of the research demonstrates that overall globalization triggers economic growth in selected countries. Social and economic integration positively impacts economic growth. Political integration does not impact economic growth in selected countries.
Dumrul and Kılıçarslan;2018; 55.	1	1980-2015		The purpose of the study is to analyze the impact of globalization, considering political, social, and economic integration on economic growth in Turkey. Is economic growth impacted by globalization positively in Turkey? H1: economic growth is impacted by globalization positively in Turkey	Economic growth Real GDP Growth (annual %)	Globalization (social, political, and economic globalization)	The analysis of the literature review, the statistical analysis, the FMOLS cointegration test	The outcome of the research demonstrates that economic growth is impacted positively by social and economic globalization. However, economic growth is impacted negatively by political globalization. The authors recommend developing policies that aim to decrease the negative effect of political integration.

Source: author's own

Annex 3. Macroeconomic indicators

Table 14

Macroeconomic indicators in Belarus, Ukraine, and Lithuania

Data(year)	Belarus				Ukraine				Lithuania			
	Inflation, consumer prices (annual %)	Unemployment, total (% of total labor force)	Central government debt, total (% of GDP)	Exports of goods and services (% of GDP)	Inflation, consumer prices (annual %)	Unemployment, total (% of total labor force)	Central government debt, total (% of GDP)	Exports of goods and services (% of GDP)	Inflation, consumer prices (annual %)	Unemployment, total (% of total labor force)	Central government debt, total (% of GDP)	Exports of goods and services (% of GDP)
2001	61.10	2.30	11.40	66.70	12.00	11.10		50.60	1.40	16.80	31.73	44.10
2002	42.50	3.00	12.30	63.60	0.80	10.10		50.10	0.30	13.00	30.52	47.40
2003	28.40	3.10		65.20	5.20	9.10		52.50	-1.10	12.90	27.26	46.20
2004	18.10	1.90		67.90	9.00	8.60		58.70	1.20	10.70	26.13	48.80
2005	10.30	1.50	6.60	59.80	13.60	7.20		47.70	2.70	8.30	23.94	55.10
2006	7.00	1.20	6.60	60.10	9.10	6.80		43.20	3.70	5.80	20.82	57.00
2007	8.40	1.00	8.90	60.90	12.80	6.40		41.30	5.70	4.30	17.69	51.60
2008	14.80	0.80	10.70	60.90	25.20	6.40	13.23	43.30	10.90	5.80	14.77	57.60
2009	12.90	6.10	18.60	48.90	15.90	8.80	23.99	42.90	4.50	13.80	30.74	51.80
2010	7.70		18.90	51.40	9.40	8.10	28.87	46.50	1.30	17.80	41.23	63.90
2011	53.20	0.60	39.40	78.50	8.00	7.90	26.48	49.40	4.10	15.40	41.05	72.90
2012	59.20	0.50	24.40	78.80	0.60	7.50	32.45	47.40	3.10	13.40	47.20	78.20
2013	18.30	0.50	23.80	58.30	-0.20	7.20	35.63	42.90	1.00	11.80	44.84	78.70
2014	18.10	0.50	24.50	54.90	12.10	9.30	63.67	48.60	0.10	10.70	48.33	72.30
2015	13.50	1.00	37.60	58.00	48.70	9.10	70.26	52.60	-0.90	9.10	49.65	68.80
2016	11.80	5.80	40.00	62.50	13.90	9.40	71.81	49.30	0.90	7.90	47.74	67.60
2017	6.00	5.70		66.80	14.40	9.50	66.73	48.10	3.70	7.10	44.98	73.60
2018	4.90	4.80		70.50	11.00	8.80	56.91	45.20	2.70	6.20	38.99	75.20
2019	5.60	4.20		65.10	7.90	8.20	48.33	41.20	2.30	6.30	42.65	77.30
Average	21.20	2.50	20.30	63.10	12.10	8.40	44.86	47.50	2.50	10.40	35.28	62.50

Source: The World Bank database, 2023

Annex 4. Population ages 0-14 in Ukraine, Belarus, and Lithuania

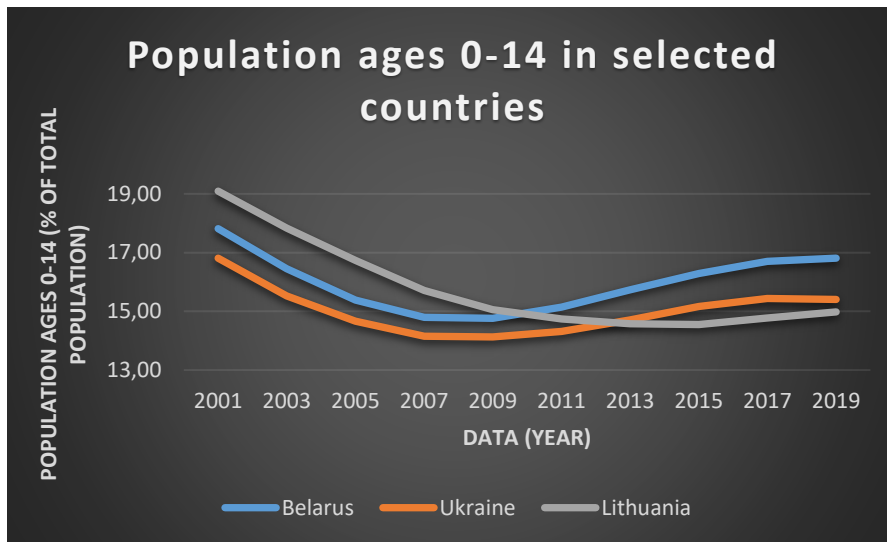


Figure 23. Population ages 0-14 in Ukraine, Belarus, and Lithuania

Source: developed by author and based on World Bank data

Annex 5. Population ages 65 and above in Ukraine, Belarus, and Lithuania

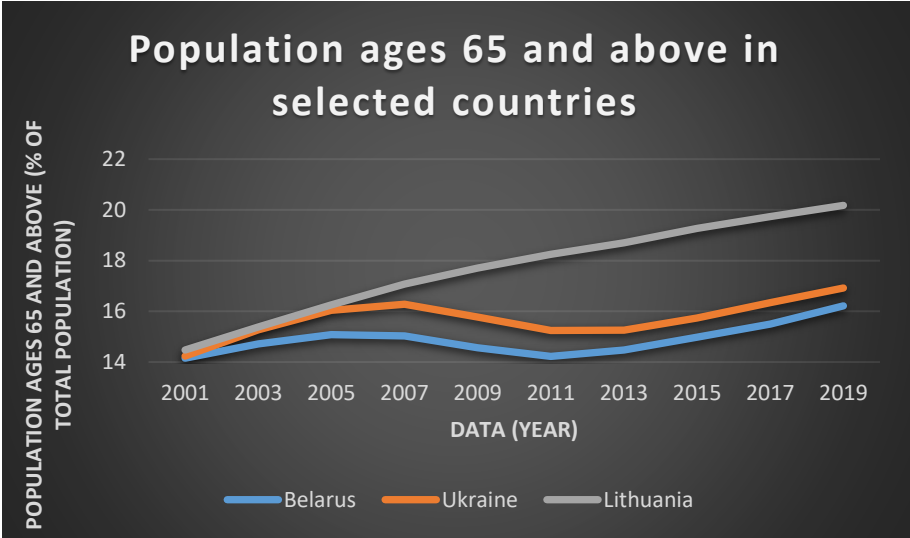


Figure 24. Population ages 65 and above in Ukraine, Belarus, and Lithuania

Source: developed by author and based on World Bank data

Annex 6. The outcome of the estimated equation in Lithuania

Dependent Variable: GDP
 Method: Least Squares
 Date: 12/07/21 Time: 18:50
 Sample (adjusted): 2004 2019
 Included observations: 16 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.353588	0.908773	-0.389083	0.7054
DLOG(ECO)*100	1.350251	0.263072	5.132635	0.0004
DLOG(SOC)*100	1.336776	0.359612	3.717275	0.0040
DLOG(ECO(-1))*100	0.917772	0.276700	3.316844	0.0078
DLOG(SOC(-1))*100	0.745137	0.311849	2.389413	0.0380
DLOG(POL(-2))*100	-1.267044	0.416887	-3.039300	0.0125
R-squared	0.885195	Mean dependent var	3.520137	
Adjusted R-squared	0.827792	S.D. dependent var	5.490867	
S.E. of regression	2.278596	Akaike info criterion	4.764992	
Sum squared resid	51.91998	Schwarz criterion	5.054713	
Log likelihood	-32.11994	Hannan-Quinn criter.	4.779828	
F-statistic	15.42082	Durbin-Watson stat	1.438719	
Prob(F-statistic)	0.000201			

Figure 25. The outcome of the estimated equation in Lithuania

Source: made by the author through EViews 12.0

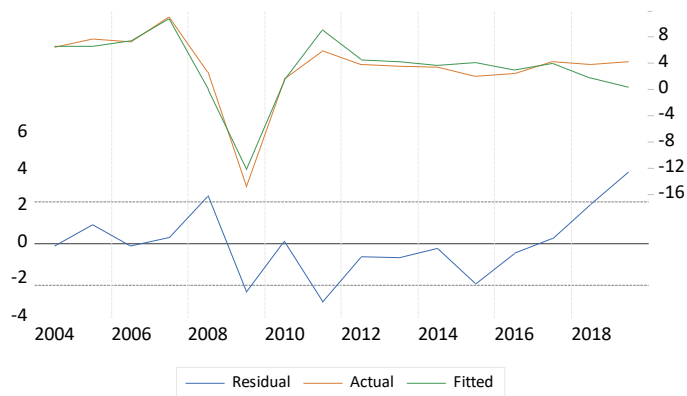


Figure 26. Residual graph for Lithuania

Source: made by the author through EViews 12.0

Annex 7. The outcome of the estimated equation in Ukraine

Dependent Variable: GDP
 Method: Least Squares
 Date: 04/07/22 Time: 17:07
 Sample (adjusted): 2002 2019
 Included observations: 18 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.047029	1.162566	-1.760785	0.1001
DLOG(ECO)*100	-1.083123	0.312502	-3.465967	0.0038
DLOG(POL)*100	2.969691	1.129818	2.628468	0.0198
DLOG(SOC)*100	1.521659	0.350963	4.335664	0.0007
R-squared	0.720471	Mean dependent var	1.073173	
Adjusted R-squared	0.660572	S.D. dependent var	6.737883	
S.E. of regression	3.925518	Akaike info criterion	5.766004	
Sum squared resid	215.7357	Schwarz criterion	5.963864	
Log likelihood	-47.89404	Hannan-Quinn criter.	5.793286	
F-statistic	12.02811	Durbin-Watson stat	2.258554	
Prob(F-statistic)	0.000364			

Figure 27. The outcome of the estimated equation in Ukraine

Source: made by the author through EViews 12.0

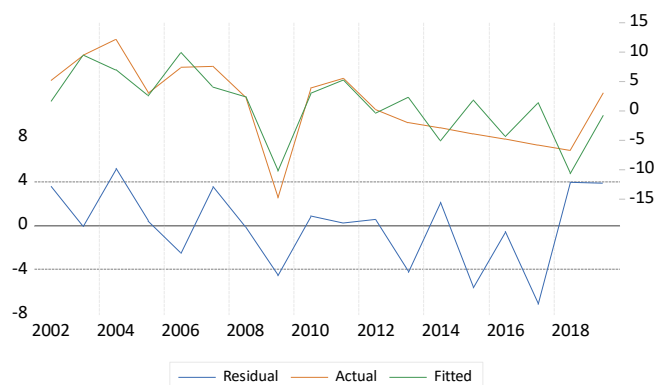


Figure 28. Residual graph for Ukraine

Source: author's own

Annex 8. The outcome of the estimated equation in Belarus

Dependent Variable: GDP
 Method: Least Squares
 Date: 04/07/22 Time: 20:04
 Sample (adjusted): 2004 2019
 Included observations: 16 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.882446	1.159720	3.347746	0.0058
DLOG(ECO)*100	-0.802071	0.252991	-3.170359	0.0081
DLOG(SOC(-1))*100	1.299469	0.382750	3.395081	0.0053
DLOG(ECO(-2))*100	-0.759390	0.252437	-3.008240	0.0109
R-squared	0.601860	Mean dependent var	4.260567	
Adjusted R-squared	0.502325	S.D. dependent var	4.781722	
S.E. of regression	3.373317	Akaike info criterion	5.481988	
Sum squared resid	136.5512	Schwarz criterion	5.675135	
Log likelihood	-39.85591	Hannan-Quinn criter.	5.491879	
F-statistic	6.046718	Durbin-Watson stat	1.272088	
Prob(F-statistic)	0.009474			

Figure 29. The outcome of the estimated equation in Belarus

Source: made by the author through EViews 12.0

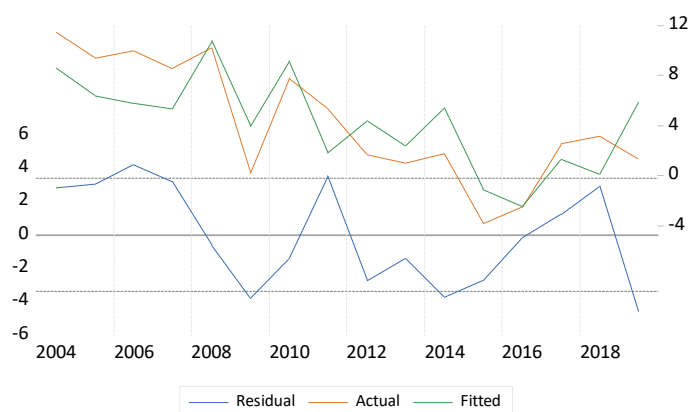


Figure 30. Residual graph for Belarus

Source: made by the author through EViews 12.0

Annex 9. The results of the Breusch-Godfrey Serial Correlation LM Test in Lithuania

Breusch-Godfrey Serial Correlation LM Test:
Null hypothesis: No serial correlation at up to 4 lags

F-statistic	0.207367	Prob. F(4,10)	0.9285
Obs*R-squared	1.378685	Prob. Chi-Square(4)	0.8479

Test Equation:
Dependent Variable: RESID
Method: Least Squares
Date: 04/07/22 Time: 17:35
Sample: 2002 2019
Included observations: 18
Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.074945	1.711421	-0.043791	0.9659
DLOG(ECO)*100	-0.196536	0.424316	-0.463182	0.6532
DLOG(POL)*100	0.225070	1.359675	0.165532	0.8718
DLOG(SOC)*100	0.048178	0.604747	0.079667	0.9381
RESID(-1)	-0.256458	0.399073	-0.642635	0.5349
RESID(-2)	0.035884	0.403480	0.088935	0.9309
RESID(-3)	-0.013682	0.522843	-0.026169	0.9796
RESID(-4)	0.210112	0.519776	0.404236	0.6945
R-squared	0.076594	Mean dependent var	8.88E-16	
Adjusted R-squared	-0.569791	S.D. dependent var	3.562350	
S.E. of regression	4.463314	Akaike info criterion	6.130763	
Sum squared resid	199.2117	Schwarz criterion	6.526483	
Log likelihood	-47.17686	Hannan-Quinn criter.	6.185327	
F-statistic	0.118495	Durbin-Watson stat	1.830200	
Prob(F-statistic)	0.995104			

Figure 31. Breusch-Godfrey Serial Correlation LM Test

Source: made by the author through EViews 12.

Annex 10. The results of the Breusch-Godfrey Serial Correlation LM Test in Ukraine

Breusch-Godfrey Serial Correlation LM Test:
Null hypothesis: No serial correlation at up to 4 lags

F-statistic	0.207367	Prob. F(4,10)	0.9285
Obs*R-squared	1.378685	Prob. Chi-Square(4)	0.8479

Test Equation:
Dependent Variable: RESID
Method: Least Squares
Date: 04/07/22 Time: 17:35
Sample: 2002 2019
Included observations: 18
Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.074945	1.711421	-0.043791	0.9659
DLOG(ECO)*100	-0.196536	0.424316	-0.463182	0.6532
DLOG(POL)*100	0.225070	1.359675	0.165532	0.8718
DLOG(SOC)*100	0.048178	0.604747	0.079667	0.9381
RESID(-1)	-0.256458	0.399073	-0.642635	0.5349
RESID(-2)	0.035884	0.403480	0.088935	0.9309
RESID(-3)	-0.013682	0.522843	-0.026169	0.9796
RESID(-4)	0.210112	0.519776	0.404236	0.6945
R-squared	0.076594	Mean dependent var	8.88E-16	
Adjusted R-squared	-0.569791	S.D. dependent var	3.562350	
S.E. of regression	4.463314	Akaike info criterion	6.130763	
Sum squared resid	199.2117	Schwarz criterion	6.526483	
Log likelihood	-47.17686	Hannan-Quinn criter.	6.185327	
F-statistic	0.118495	Durbin-Watson stat	1.830200	
Prob(F-statistic)	0.995104			

Figure 32. Breusch-Godfrey Serial Correlation LM Test

Source: made by the author through EViews 12.0

Annex 11. The results of the Breusch-Godfrey Serial Correlation LM Test in Belarus

Breusch-Godfrey Serial Correlation LM Test:
Null hypothesis: No serial correlation at up to 4 lags

F-statistic	0.357669	Prob. F(4,8)	0.8321
Obs*R-squared	2.427271	Prob. Chi-Square(4)	0.6577

Test Equation:
Dependent Variable: RESID
Method: Least Squares
Date: 04/07/22 Time: 20:11
Sample: 2004 2019
Included observations: 16
Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.134207	1.486331	-0.090294	0.9303
DLOG(ECO)*100	0.094126	0.358245	0.262743	0.7994
DLOG(SOC(-1))*100	-0.006693	0.792327	-0.008448	0.9935
DLOG(ECO(-2))*100	-0.068411	0.373878	-0.182977	0.8594
RESID(-1)	0.442495	0.482756	0.916602	0.3861
RESID(-2)	-0.096474	0.495932	-0.194531	0.8506
RESID(-3)	-0.272737	0.570572	-0.478006	0.6454
RESID(-4)	0.140116	0.492759	0.284351	0.7834

R-squared	0.151704	Mean dependent var	1.67E-16
Adjusted R-squared	-0.590554	S.D. dependent var	3.017187
S.E. of regression	3.805191	Akaike info criterion	5.817462
Sum squared resid	115.8358	Schwarz criterion	6.203756
Log likelihood	-38.53970	Hannan-Quinn criter.	5.837243
F-statistic	0.204382	Durbin-Watson stat	1.860308
Prob(F-statistic)	0.974912		

Figure 33. Breusch-Godfrey Serial Correlation LM Test

Source: made by the author through EViews 12.0

