

THE IMPACT OF INCOME INEQUALITY ON ECONOMIC GROWTH: LITHUANIAN CASE



Manta Liberyte

Master, School of Economics and Business,
Kaunas University of Technology, Kaunas, Lithuania
ORCID iD: <https://orcid.org/0000-0003-2530-744>



Valentinas Navickas

Dr.Sc. (Economics), Professor, School of Economics and
Business
Kaunas University of Technology, Kaunas, Lithuania
ORCID iD: <https://orcid.org/0000-0002-7210-4410>

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Abstract. Income inequality has a profound impact on both microeconomics and macroeconomics. According to the data of *Oxfam*, only 62 people around the world own as much wealth as the world's 3.5 billion poorest people. Many of the various problems that occur in urban or rural areas are identified as side effects that can be *positive* or *negative*. Importantly, a negative side effect can affect the economy by reducing or slowing its growth. Comparing the Gross Domestic Product (GDP) per capita in Lithuania in 2010 with the third quarter of 2019 it can be noticed that the average GDP has increased by 1.959 times. Economic growth in Lithuania is evident, however demographic problems have persisted not only in Lithuania but worldwide.

Keywords: *income inequality, economic growth.*

Introduction

Economic growth is one of the most important tasks and goals in every country, in order to improve the standard of living of the population and to ensure the well-being of the whole country. One of the most important components of the economy is income, which is often unequal between countries and regions. Income inequality affects both microeconomics and macroeconomics. Income differentiation breaks down societies, creates tension between cities and regions, and threatens sustainable economic growth and well-being of the population. One of the consequences of income

inequality may be the unsustainable development of economic growth. Having analysed the impact of income inequality on the economy and its growth the real threats to the economy can be assessed. The purpose of this chapter is to discuss the importance and impact of income inequality on economic growth, to review factors that reduce economic growth and to provide a method to assess the impact of income inequality on economic growth in Lithuania.

The Importance of Income Inequality for Economic Growth. The global economy has grown tremendously over the last 30 years, but it still lacks equality. The greatest inequalities are found among the richest and poorest people in the world. According to *Oxfam*, only 62 people around the world own as much wealth as the world's 3.5 billion poorest people. 1 per cent of the wealthiest American population receives nearly a quarter of the nation's income each year [1]. The author states that this inequality between the richest and the rest of the society exists because the aforementioned 1 per cent of the country's population is seeking for it. These figures show that income inequality in the world is extremely high and has become a global problem. The World's poorest countries are found in the African continent, in some parts of the South American continent and in the southern Asia. The richest countries are in North America, Western Europe and in some parts of the Asian continent [2].

Gross domestic product (GDP) per capita is an indicator that helps to objectively assess the economic situation in a country, level and situation of the state, as well as perfectly reflects the economic development of the economy. As it can be seen in Figure 1, the global GDP indicator is extremely contrasting. The United States (USA) and China are the leading countries in terms of GDP, with more than \$13 million. The second-ranked countries such as France or Germany have more than twice smaller gross domestic product (GDP) index, which appears from 2.5 million up to 5 million US dollars. The countries in the South America, most of the African continent and a large part of the European continent hold the lowest position in the world. According to *Reddit.com* data, Lithuania ranks among the countries with the lowest GDP, which is less than 50,000 US dollars.

Since 2010 gross domestic product in Lithuania has increased slightly but steadily (see Figure 1). Comparing 2010, when the average GDP per capita was less than 2.5 thousand EUR with the third quarter of 2019, the average GDP increased by 1.959 times [3,4].

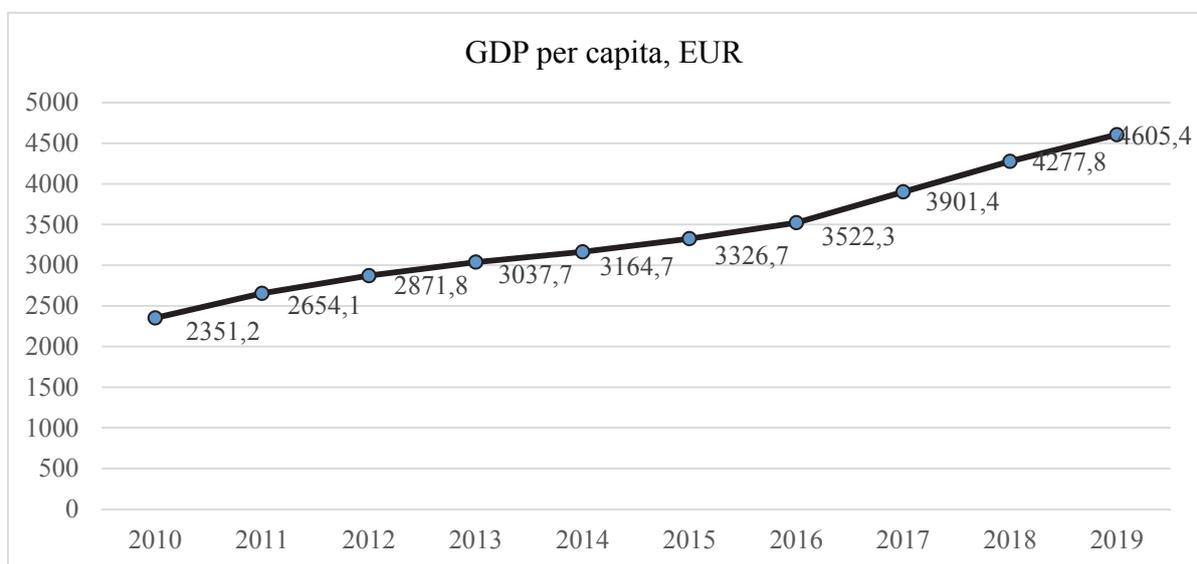


Figure 1. Gross Domestic Product per Capita in Lithuania at Current Prices

Although economic growth is obvious in Lithuania, demographic problems remain both in Lithuania and worldwide. One of the biggest problems in Lithuanian is emigration unemployment. The majority of working-age citizens emigrate from Lithuania for one reason or another. The number of employed people is particularly important in economic terms. The more people are employed, the greater the country's population contributes to the country's economic prosperity (GDP). The

population of Lithuania is constantly decreasing and this indicator influences on the number of employed people change (see Table 1).

Table 1.

Population and Working Population in Lithuania

Indicator/ year	2010	2012	2014	2016	2018	2019	2020
Population,	3 141 976	3 003 641	2 943 472	2 888 558	2 808 901	2 794 184	2 794 329
Working population, thousands.	1 541,5	1 462,0	1 470,2	1 470,4	1 463,4	1466,9	-

As Table 1 shows, the population has been falling steadily over the last decade. In 2010, the number of people living in Lithuania was over 3 million, while in 2020 the number of inhabitants decreased to 2 794 329. Similar indicators can be seen in the working-age population as well. Although the population of working age increased in 2012 - 2016, however the result - in 2019 - the number of employed was almost 100 thousand lower compared to 2010, and the number of working citizens in Lithuania made only 49 per cent of the total population of Lithuania [5].

The economy and its growth are more or less affected by various environmental factors: population, number of working people, number of educated people, birth rate, etc. Various socio-demographic variables influence the size and differentiation of personal income and it is therefore important to consider income and *income inequality* when assessing economic growth.

Income is one of the most important components of the economy. At the Economic Conference in October 2017, Vitas Vasiliauskas, Chairman of the Board of the Bank of Lithuania, expressed his views on the Lithuanian economy, its growth and income. Although the economy has been growing recently, the benefits of the growth are certainly not felt by the entire population, income disparities have widened, which could have a severe impact on the country's future economic development [6]. The problem is identified in the country, when the indicator exceeds 30 per cent, while in Lithuania the income inequality indicator is constantly increasing and in 2014 even reached 35 per cent.

The Gini coefficient is the most widely used in the world when measuring income inequality. As it can be seen in Figure 2 [7], according to the Gini coefficient, income inequality is among all the compared countries.

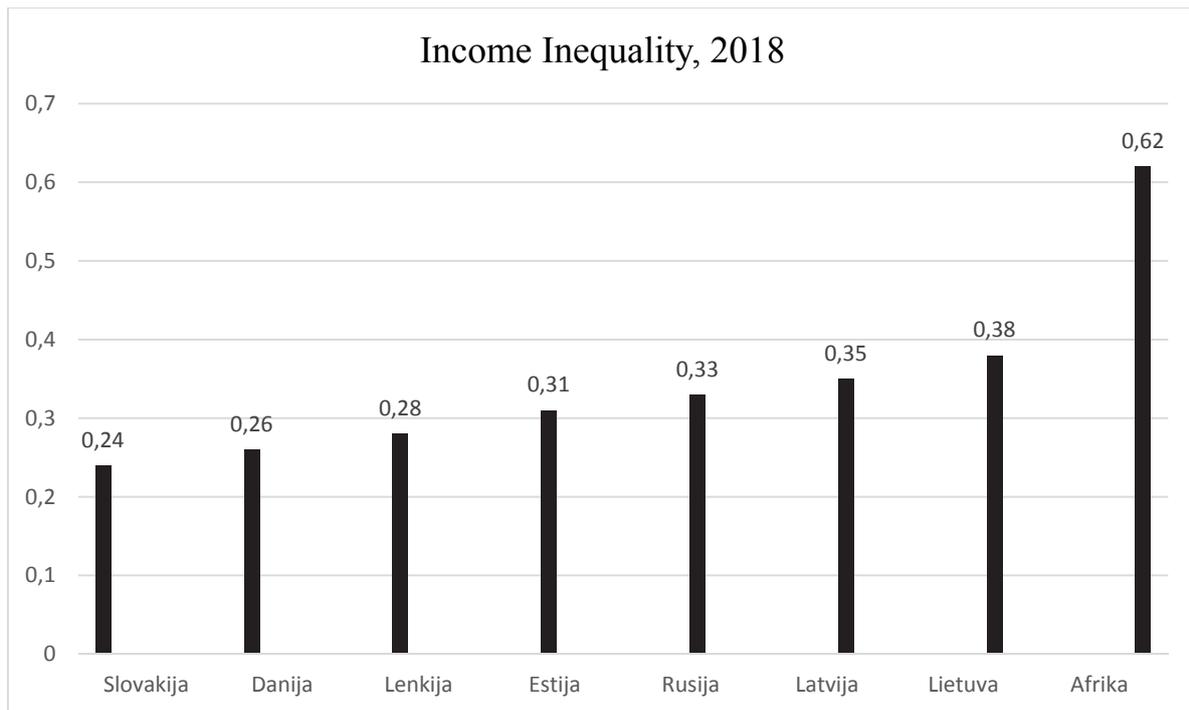


Figure 2. World Income Inequality Expressed by the Gini Coefficient

South Africa is ranked the first, with a coefficient of 0.62. The lowest income inequality of 0.24 is recorded in Slovakia. In Lithuania the Gini coefficient reaches almost 0.4.

Economics is a term that summarizes all social, demographic, financial and other changes taking place in the world. Every indicator and its change more or less affects the economy and changes its situation in the country. The economy and its level are best reflected by gross domestic product (GDP), which has almost doubled in Lithuania since 2010, but during this time the emigration rates have been increasing (population rate has decreased in Lithuania) and the number of employed people has been decreasing, what are some of the main factors influencing on the income, its size and inequality in the country [7].

The Impact of Income Inequality on Economic Growth in Different Regions of Lithuania.

The main function of income is to satisfy one's own or other people's various material needs, so the amount of income they receive will be spent on *personal consumption* (to meet both necessary and non-essential needs), and what portion of the income will be allocated to *savings*. Residents do not spend all their income on consumption. Frequently citizens save part of their income for the future, hoping to use it in the future. The purpose of savings can also be interpreted as raising money to meet future needs [8]. However, it can be concluded that the more a person gets income, the greater its share becomes expenditure.

Household expenditure is considered to be a crucial economic variable. These costs allow defining the overall economic level and well-being of the world, country or region. Household expenditure has an impact on the aggregate demand, which includes government, investment and consumption expenditures and is the most significant in terms of aggregate demand [9].

It is noticed that the level of consumer spending depends on the amount of income they receive, so it is necessary to pay attention to what income may be in Lithuania and what income inequality prevails.

Household income can be divided into several groups. Received income can be divided into income from *self-employment*, *employment and social benefits*. The difference between income from self-employment and employment is that income from self-employment directly depends on the level of profits. Otherwise, this income is referred to as the result of self-employment. Employment income includes salaries, holiday pay, overtime bonuses, allowances, daily subsistence allowances. Social benefits – it's a group of income that includes pensions and benefits, sickness benefits, unemployment benefits, and other social benefits.

Income can be divided into the following larger groups (see Figure 3).

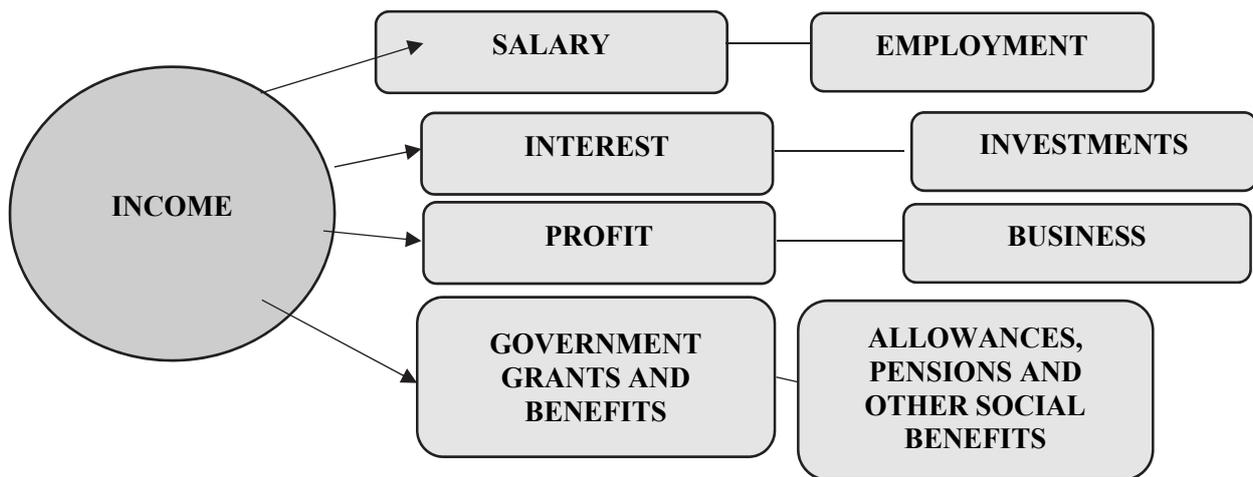


Figure 3. Income Groups

The Figure 3 shows the main income groups: wages, interest, profits and government benefits (grants and social benefits). The group – self-employment work - submitted by the Department of Statistics of Lithuania is divided into even smaller groups: interest and profit [10]. These income groups are not equal, often wages and social income constitute the major part of income. Household income composition rates differ in the ten analyzed regions of Lithuania (see Figure 4) [11].

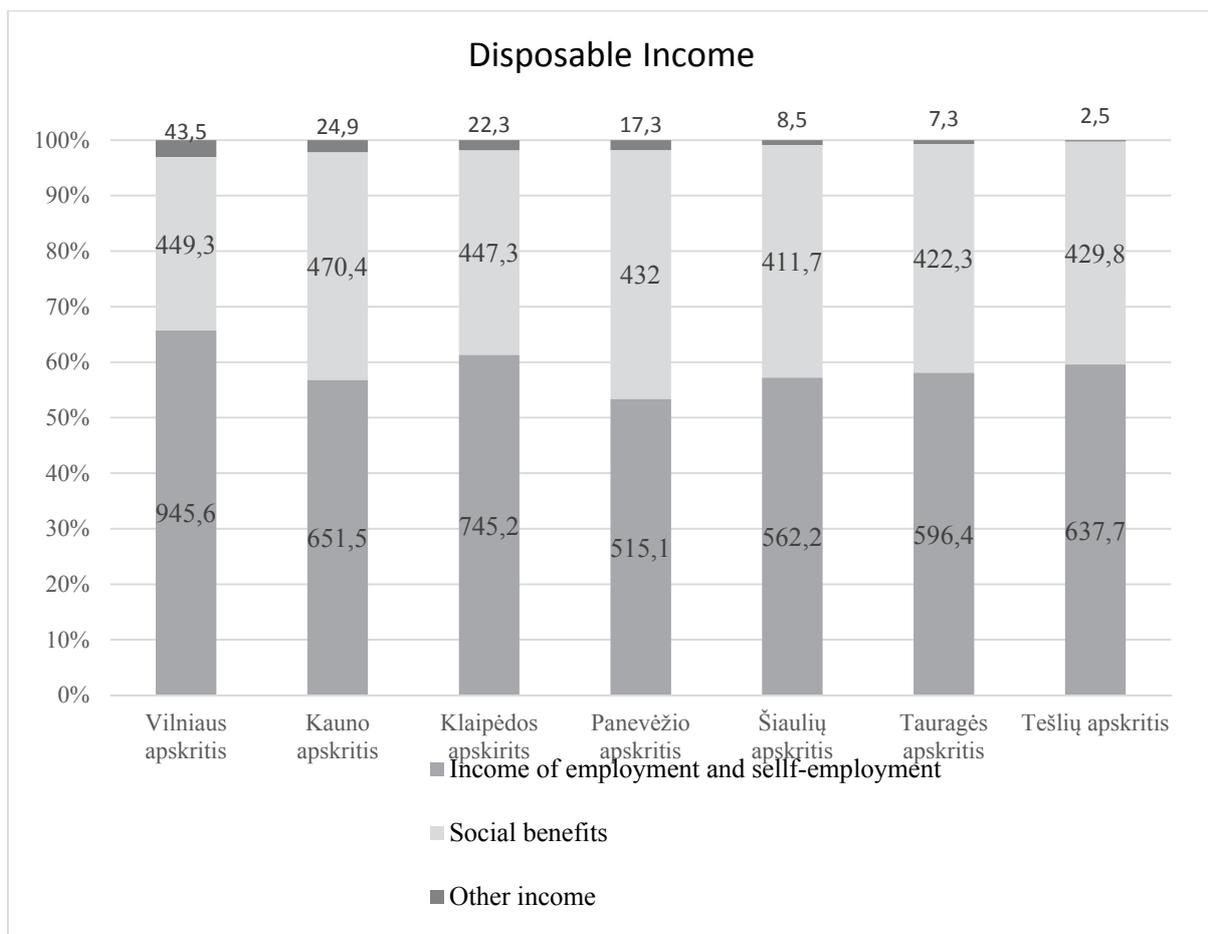


Figure 4. Composition of Disposable Income by Regions of Lithuania

As shown in the figure, wages account for the largest share of income. This indicates that the bulk of the household income is derived from paid employment. The largest part of salary income is in Vilnius County, which amounts to EUR 809.8. This group in Taurage County has the lowest income. Comparing the size of Taurage County and the Lithuanian capital - Vilnius County, the income differs 2.4 times. It is also important to note that people living in Taurage County have the main source of livelihood - social benefits amounting to EUR 422.3.

Summarizing the data in the figure, it can be concluded that wage income is the most important group in Lithuania, and therefore the size and inequality of this income draw attention and concern. It is important to consider that the territory of the Lithuanian state is not large in global terms, but income inequality, and especially wage inequality among the Lithuanian regions is quite large (see Figure 5).

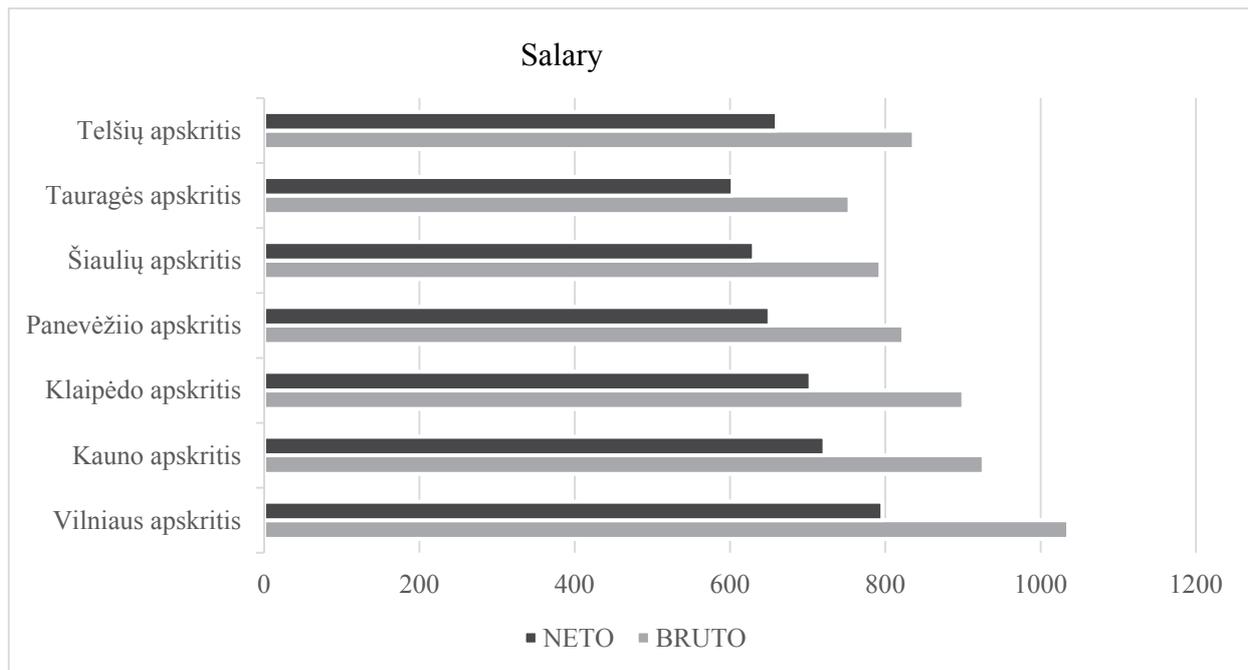


Figure 5. Neto and Bruto Gross Earnings in Lithuanian Regions, EUR

The numbers in the figure show that the highest gross earnings before tax are in Vilnius County. Vilnius County is the only county with a salary of over EUR 1000 and a total of EUR 1035.5. Lithuania's provisional capital, Kaunas, is not far behind - the salary in its county amounts to EUR 926.6. The minimum gross wage in Taurage County is EUR 754 - and behind Vilnius County it is EUR 281.5. Household income, its size and inequality can influence the economy and its growth in Lithuania, therefore it is important to look at whether the economic situation and its growth in the regions of Lithuania have common links with the size of income.

According to the data of Statistics Lithuania, all counties can be ranked in descending order of economic indicators. Vilnius County ranks first in terms of average wage and GDP. In second and third places are Kaunas and Klaipeda County. Telsiai, Panevezys and Siauliai counties share fourth to sixth places. According to the wages and GDP data provided by the Lithuanian Department of Statistics, Taurage region occupies the last place in the regions of Lithuania, with a GDP ratio of less than 2.6 times and a gross wage rate of 1.37 times.

Income, its composition and size are crucial components of the economy, potentially affecting overall economic growth. Statistics Lithuania provides data showing not only the differentiation between income levels, but also differences in the economy comparing regions of Lithuania. The existing income inequality between counties and the corresponding economic differentiation (gross domestic product) confirm that income and inequality between them can be linked to the economy upon which the growth of the whole economy depends on.

Factors Preventing Economic Growth. Various economic analyzes are extensively described and analyzed in various scientific literature. Economic growth is driven by a variety of environmental

factors that can accelerate or slow down economic growth. The focus is on various phenomena that have a negative impact on economic growth. The literature analyzes the problems, their effects and attempts to find possible solutions to reduce or even eliminate the influence of negative factors on economic growth.

Many of the various problems that occur in Lithuania are identified as secondary factors, which are categorized as *positive* or *negative*. Importantly, every negative factor can affect the economy by dampening its growth. Factors that slow down economic growth may be different, but in most of the countries these particular factors are distinguished (see figure 6).

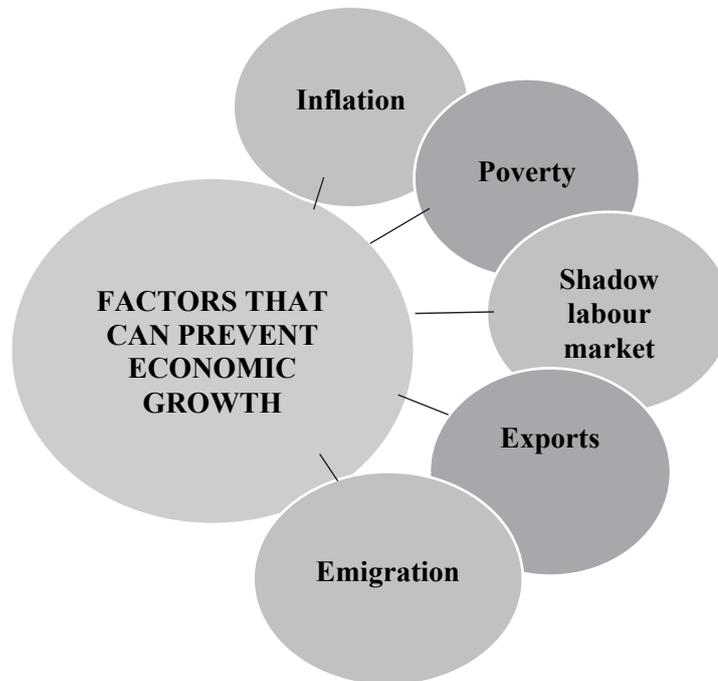


Figure 6. Factors Preventing Economic Growth.

Inflation. Inflation is described as a social and economic problem that has as much impact on the national economy as unemployment. Economists agree that the consequences of inflation often depend on its pace and preparation. The unexpected consequences of inflation for the economy are severe: they redistribute income and wealth between different economic entities and different population groups. Firstly, income is redistributed between borrowers and lenders. Secondly, unexpected inflation helps to gain wealth from land, as prices rise significantly. A much more pronounced and painful consequence of inflation is the fall in wages, which leads to a fall in household income and a negative trend in living standards, which can lead to poverty.

Poverty. Poverty occurs only over the particular circumstances. Often these circumstances are unemployment, low income or inflation. Although poverty is considered to be a 21st century problem, it still prevails in the world before the third millennium. Poverty indicators in the country help to estimate the income of the population, which determines the size of the country's GDP.

Table 2.

Poverty Rate in Lithuania, per cent					
	2013	2014	2015	2016	2017
City and village	30,8	27,3	29,3	30,1	29,6
City	25,9	24,9	36,7	25,2	24,7
Big cities	23,8	22,2	22,5	21,3	19,8
Village	40,8	32,2	34,9	40,4	39,5

Table 2 shows that while poverty in all areas of Lithuania is decreasing between 2013 and 2017, its level is still high. The percentage of people living in poverty or social exclusion has a major impact on the country's economy and economic growth. It is the extent of poverty and inadequate income that can lead to the emergence and prosperity of the shadow labor market or emigration.

Shadow labor market. One of the main goals of every person is income. Often people agree to work for partially hidden wages, to contribute to corporate tax evasion. Secret income is not accounted for, the state tax is not paid, so this way of generating income and related activities is called the *shadow economy*. It is an activity that adds to the gross value of the product being produced in the country, but is not included in any national reports and is not reflected anywhere in GDP calculations (Jakutis et al., 2016). The existing shadow helps entrepreneurs and employees avoid paying taxes or minimizing them, thereby generating higher incomes. The result of this shadow labor market is the creation of the shadow economy's GDP that is nowhere officially declared [12].

Emigration. Emigration is one of the biggest social problems in Lithuania, which has a direct impact on the overall economic growth of the country. Although most emigrants are working and experienced people who leave abroad because of the potentially higher income, young people are also increasingly emigrating. Young people emigrate not only after completing their higher education, they often choose to study in another country where they often stay. This public behavior affects the country's demographic situation, reduces labor resources, weakens labor market characteristics and strengthens the aging population in Lithuania. The assessment of migration is contradictory: while emigration lowers unemployment, it also causes the state to lose its workforce, which contributes to unbalanced wage volatility, which increases income inequality. By choosing to work in a foreign country, residents also choose to pay taxes and contribute to the economic growth in the country where they live and work. Such an increase in emigration not only leads to population decline, but also affects domestic demand and reduces GDP.

The economy is affected by many factors. Some of them have a negative impact and lead to a weakening of the economy. Each factor more or less affects the economy and its growth rate. Various factors also influence each other's change, fluctuation. It can be argued that the economy and its growth depend not only on financial indicators, but also on social, demographic or psychological factors.

Conclusions

The world economy is growing steadily, and a particularly marked change in the economy has been seen over the last thirty years, with the boom in industry, people's incomes and people's wealth. While noticeable changes in the economy are moving in the right direction, there is still a significant global problem, the great inequality between the richest and poorest people in the world. Income earned by the population is one of the most important components of the economy, so economists pay a lot of attention to income inequality resulting from various environmental factors, such as the ratio of population to employment, emigration, education, expectations and so on. World income inequality is measured by the Gini coefficient, which increases to reflect the increase in income inequality. Applying the Gini coefficient to the analysis of various economic data helps to evaluate the existing income inequality in the analyzed area.

Household income can be divided into several groups: income from self-employment, employment and social benefits. By comparing the amounts of named income, it is possible to determine the current income inequality between regions. The largest part of income is made up of wages, which is the highest in Vilnius County and the lowest in Taurage County. The difference between these counties is even 2.4 times. Such unequal distribution of income in Lithuania records the existence of income inequality. The regions of Lithuania are similarly distributed in comparing GDP figures. The highest GDP is in Vilnius County and the lowest is in Taurage region. The uneven distribution of income between counties has a negative impact on the size of GDP and its growth. The data provided by Statistics Lithuania clearly reflects the existing income inequality and significant differences across the economy in comparing the Lithuanian counties. The existing income inequality in the counties and the corresponding differentiation of gross domestic product confirm that income and its inequality can be linked to the economy, which not only affects the regional economy, but also the growth and welfare of the whole country.

References

1. Jakutis, A., Andriušienė, D., Drejeris, R., Petraškevičius, V., Stepanovas, A. (2016), *Ekonomikos teorija*. Vilnius: VGTU leidykla Technika.
2. Jėčiuvienė, M. (2002), *Ekonomikos loginės struktūrinės schemos*. Vilnius: Senamiesčio spaustuvė.
3. Lietuvos statistikos departamentas. (2017), *BVP rodiklio dimensijos to meto kainomis. Požymiai: statistiniai rodikliai ir metai* [paveikslas]. [žiūrėta 2019-02-23]. Prieiga per internetą: <https://osp.stat.gov.lt/statistiniu-rodikliu-analize?hash=ea58e9da-e493-4a1c-8de8-522da602f9dc#/>
4. Lietuvos statistikos departamentas. (2018), *Bedarbiai. Požymiai: statistiniai rodikliai ir metai* [lentelė]. [žiūrėta 2019-02-19]. Prieiga per internetą: <https://osp.stat.gov.lt/statistiniu-rodikliu-analize?indicator=S3R050#/>
5. Lietuvos statistikos departamentas. (2018). *BVP vienam gyventojui, eurais. Požymiai: statistiniai rodikliai ir metai* [grafikas]. [žiūrėta 2019-02-19]. Prieiga per internetą: <https://osp.stat.gov.lt/statistiniu-rodikliu-analize?hash=9e735d0d-6f0f-4582-9cfd-1342e2976a1e#/>
6. Lietuvos statistikos departamentas. (2019), *Valstybinio socialinio draudimo pensijų, mokamų užsienio valstybėse gyvenantiems Lietuvos piliečiams, gavėjai metų pabaigoje. Požymiai: statistiniai rodikliai ir metai*. [žiūrėta 2019-08-20]. Prieiga per internetą: <https://osp.stat.gov.lt/statistiniu-rodikliu-analize#/>
7. OECD. (2017), *Income inequality. Požymiai: statistiniai rodikliai ir šalys* [grafikas]. [žiūrėta 2019-02-23]. Prieiga per internetą: <https://data.oecd.org/inequality/income-inequality.htm#indicator-chart>
8. Rakauskienė, O. G., Bikas, E. (2007), Lietuvos gyventojų santaupos: moterų ir vyrų taupymo elgsenos modeliai. *Ekonomika*. 79, 124-141. [žiūrėta 2019-02-25]. Prieiga per internetą: <http://etalpykla.lituanistikadb.lt/fedora/objects/LT-LDB-0001:J.04~2007~1367178429694/datastreams/DS.002.0.01.ARTIC/content>
9. Ramanauskas, T., Jakaitienė, A. (2007), Namų ūkių vartojimo modeliavimas. *Pinigų studijos*. [žiūrėta 2019-02-25]. Prieiga per internetą: https://www.lb.lt/uploads/documents/docs/publications/ramanauskas_1.pdf.
10. Reddit.com (2018), Gross Domestic Product (GDP) of countries in 2018 [7752x3840] [OC]. [žiūrėta 2019-02-20]. Prieiga per internetą: https://www.reddit.com/r/MapPorn/comments/7teyh0/gross_domestic_product_gdp_of_countries_in_2018/
11. Stiglitz, J.E. (2015), Inequality and economic growth. *The political quarterly*, 86(1), 134-155. doi: 10.1111/1467-923X.12237
12. Vasiliauskas, V. (2017), Pajamų nelygybė Lietuvoje. Lietuvos banko valdybos pirmininko kalba ekonomikos konferencijoje. Vilnius.