

Remeikiene, Rita; Gaspareniene, Ligita

Article

Assessment of the impact of emigration on the origin economy

Verslas: Teorija ir praktika / Business: Theory and Practice

Provided in Cooperation with:

Vilnius Gediminas Technical University

Suggested Citation: Remeikiene, Rita; Gaspareniene, Ligita (2019) : Assessment of the impact of emigration on the origin economy, Verslas: Teorija ir praktika / Business: Theory and Practice, ISSN 1822-4202, Vilnius Gediminas Technical University, Vilnius, Vol. 20, pp. 187-195, <https://doi.org/10.3846/btp.2019.18>

This Version is available at:

<https://hdl.handle.net/10419/247971>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<https://creativecommons.org/licenses/by/4.0/>



ASSESSMENT OF THE IMPACT OF EMIGRATION ON THE ORIGIN ECONOMY

Rita REMEIKIENĖ¹, Ligita GASPARĖNIENĖ²*Lithuanian Institute of Agrarian Economics, Vilnius, Lithuania**E-mails: ¹rita.remeikiene35@gmail.com (corresponding author); ²ligita.gaspareniene@laei.lt**Received 22 August 2018; accepted 08 March 2019*

Abstract. Our article concentrates to the main aim – to assess the impact of emigration on an origin economy. This topic was chosen because the theoretical research has disclosed that the positive impact of emigration usually manifests through monetary transfers to a native country while the negative impact mainly emerges as a reduction in the labour force, which, in its turn, causes deterioration of a country's demographic and economic situation. It has been found that the growing flows of emigration significantly reduce Lithuanian population and cause “brain drain”. High emigration rates also have a negative impact on Lithuanian national economy, in particular, its unemployment rate (the opposite effect). To reduce the rates of emigration from the country, Lithuania must develop and improve such ALPM's elements as combination of work and dual vocational training, targeted selection of the industries for arrangement of an apprenticeship, manual training, dual vocational training and workplace training, segmentation of the unemployed by the indications of employment impediment, individual work with the unemployed to restore their basic skills (motivation, practice, health improvement), vocational guidance of young people (students) and early involvement of students into the labour market by combining studies and work.

Keywords: emigration, economics, macroeconomic indicators, Lithuania.

JEL Classification: J11, O15.

Introduction

Topic relevance. A country's socio-economic development and emigration rates are closely causatively interconnected. According to Sipavičienė and Stankūnienė (2013), on one hand, socio-economic and economic problems are the main causes of emigration. On the other hand, emigration, especially massive (as in Lithuanian case) directly and indirectly affects a country's potential of socio-economic development and often leads to further emigration.

Many scientific studies (Awojobi 2016, Feridun 2005, Kerr and Kerr 2011, Kim and Cohen 2010, etc.) thus far have addressed the impact of immigration rates on host economies, while the impact of emigration on origin economies has received far less scientific attention. Therefore, it is purposeful to research what economic effects emigration might have on an origin economy, especially considering the possible variation of wages and employment rates.

The causes of emigration were and have been analysed in various decision-making theories. For instance, Kumpikaitė-Valiūnienė and Žičkutė (2017) lean on the neoclassical migration theories, such as economic equilibrium theory (originated by Heckscher 1949), early decision-making theory (originated by Lee 1966) and dual labour market theory (originated by Doeringer and Piore 1971). Following these theories, the main sources of emigration include personal living conditions, which are linked to the level of a country's development, unemployment rate, minimal or average gross earning, income gaps, general income, purchase power, taxation system, etc. “Early neoclassical economics theories of migration envisioned that individuals acted rationally to the end of maximising utility; individuals would be expected to move when the benefit of moving (or the cost of staying) generated the highest financial return on labour” (European Asylum Support Office 2016, p. 10).

Although European experience shows that most people prefer to stay in their native countries rather than emigrate,

the degree of population's mobility increases when emigration benefits exceed emigration costs (Banik and Bhaumik 2006).

Previous scientific studies analyse how emigration affects a country's optimal tax and expenditure policies (Backlund et al. 2014), what impact it has on "brain drain" (Clemens 2016) and how it influences national economies through monetary transfers at micro and macro levels (Brzozowski 2012). The impact of emigration at micro-environmental level manifests through the usage of individual savings on acquisition of real estate or other property in a native country, while its impact at macro-environmental level emerges as the usage of money transfers from abroad for daily consumption.

The object of this article – emigration.

The purpose of this article is to assess of the impact of emigration on Lithuanian economy. For fulfilment of the defined purpose, **the following objectives were raised:** 1) to select and present the methodology of the research; 2) to analyse the concept of emigration from theoretical point of view; 3) to empirically assess the impact of emigration on the origin (source) economy (Lithuanian case).

The research methods include comparative and systematic literature analysis and correlation analysis.

1. The concept of emigration

Vaitkevičiūtė (2004) defines emigration as movement of people from their homeland to other states for economic, political or religious reasons. Dapkus and Matuzevičiūtė (2008) note that emigration refers to any movement of people inside a country or crossing its borders for a long or short term in search of another workplace (legal or illegal) and/or with a view to changing their political, social or cultural environment. Literature analysis has revealed that theoretical concepts of emigration are not uniform, but they share a few basic criteria: the concept of emigration incorporates the changes in space (i.e. change of residence), time (movement for a long or short term) and the dimension of individual aims (higher wages, better labour or life conditions, etc.).

While analysing microeconomic determinants of emigration, it should be noted that emigration is largely determined by an individual decision and consideration of personal strategies, when a person expects higher life standards than his/her current ones. In accordance with the aims of emigration, the main personal strategies may include: accumulation of capital for a stable adaptation to the conditions of free market economy; a "new start" strategy; assurance of the livelihood for retirement age; income increase, diversification or prevention of potential economic risks; the strategy of better education; the strategy of relative welfare increase; the strategy of skills and career; family reunion (when emigrants have the aim to live together with

their family members or relatives) (Lithuanian Free Market Institute 2006, Damulienė 2013).

The decision to emigrate is also determined by the factors of "push" and/or "pull" in a country of origin and a host country (a country of aim). Some studies (World of Statistics, 2014) focus on the macroeconomic factors, classified as economic, demographic, socio-cultural and political:

Economic factors. In developing economies, low income and unemployment rates are treated as the main "push" factors of emigration (people are inclined to move to developed economies with wider employment opportunities). "Push" factors are the factors that motivate a person to leave his/her place of residence and move to another place. The general "push" factors include low productivity, unemployment, poor economic conditions, unavailability of natural resources, natural calamities, lack of development opportunities, etc. "Pull" factors include the factors (e.g., better opportunities of employment, higher wages, better work conditions, attractive conveniences, etc.) that attract emigrants to particular places.

Demographic factors. Different rates of population growth, fertility and birth in different regions also affect the flows of emigration. "Some empirical evidence confirms a statistically significant impact of indicators of demographic pressure such as population growth, total fertility rates, and population density or size on human mobility" (European Asylum Support Office 2016, p. 27).

Socio-cultural factors. Conflicts in families and pursuit of financial independence (especially visible among the representatives of younger generations) promote emigration. Advanced communications, transportation, TV sets, media networks and more qualitative education in host countries attract young people, which positively affects their decision to emigrate.

Political factors. Political instability in a country of origin, frequent changes in political decisions, in particular, with respect to business people, along with corruption, bureaucracy and an unfriendly taxation framework are also attributable to the list of emigration determinants.

"Push" and "pull" factors may cover evaluation of employment opportunities, political-economic environment, infrastructure, the development of healthcare and education systems, life standards, geographical location, psychological and cultural climate, leisure and self-expression opportunities (Damulienė 2013, Asch 1994). While "push" and "pull" factors positively affect a person's inclination to emigrate, some other factors, for instance, travel expenses, time and resources for settling down and looking for a job in a foreign country, and psychological factors, such as separation from family, reduce this inclination. Geographic distance between origin and host economies magnifies travel expenses, but locally-established communities of emigrants may help to reduce them.

2. The links between emigration and competitiveness

High emigration rates may weaken an origin economy in terms of competitiveness. The impact of emigration on competitiveness of a country is assessed by employing different theories and methods, but in terms of the global economy, this process is considered as a positive mechanism which equalises labour market imperfections and surpluses, this way ensuring the balance and forming the preconditions for the overall wage and welfare rises (Damulienė 2013). Nevertheless, classification of countries as the ones of emigration origin and aim as well as division of the emigration process into short and long terms may highlight both positive and negative effects of emigration on particular economies (see Table 1).

The main positive effect of economic emigration is freeing of work places, which, in its turn, increases the demand for labour force and allows the unemployed to occupy vacancies. The lack of labour force prompts employers to increase staff loyalty and improve work conditions: raise wages, employ motivation systems, etc. This way, the overall employment rate in the country rises along with the impact of social support. Growing employment rates determine higher life standards and increased consumption. The latter factor as well as the decrease in the total number of population in a country lead to the growth of GDP per capita. Another positive aspect is expectation that a part of emigrants will return to their country of origin with the money earned, and will contribute to domestic investment and consumption (Civil Society Institute 2005). The data in Table 1 show that emigration has more negative than positive effects on the country of its origin. The main negative effect of emigration is the decrease in

the overall number of population: young people make a part of the population that is most likely to emigrate; loss of young people leads to a lower birth rate and a faster pace of society aging. A lower number of the employed leads to reduction of contributions to the social insurance fund; as a result, one employed person has to maintain more unemployed people. Emigration of young families with children and emigration of families that have children in host countries reduce contributions of social insurance even further. The negative impact of the process of society aging is a growing need for health care and long term nursing, although economic costs of society ageing might be partly covered by the emigrants who transfer money to pay for the care of their elderly parents (Civil Society Institute 2005).

Money transfers made by emigrants to the countries of their origin is one of the most significant factors affecting national economies. According to Giuliano and Ruiz-Arranz (2009), money transfers from abroad may have a number of short-term, long-term, microeconomic, macroeconomic and social effects. Nevertheless, it is important to note that these effects are more dramatic in developing rather than developed economies. The money obtained in the form of transfers can be used for individual needs (such as consumption, saving or investment) and state needs (for example, a state charges taxes for money transfers, and later the funds can be used for various public purposes). This approach is based on the presumption that the taxes charged for money transfers will be used for building of infrastructure or spent on creation or maintenance of various kinds of public goods, which, in their turn, will help reduce poverty and raise population's life standards.

Table 1. The impact of short and long term emigration on origin and aim economies (source: Civil Society Institute 2005, World Migration 2003, Abubakar and Normaz 2013)

Term	Advantages/ Disadvantages	The impact on an origin economy	The impact on an aim economy
Long term emigration	Disadvantages	Loss of the money, which was invested in young people's education, loss of professionals; poor demographic situation; aging society; lack of labour force; brain drain; poor condition of public and personal services; underemployment; lack of research and other facilities; inefficient institutions;	Adaptation challenges and adaptation-related costs
	Advantages	Remigration – return with a new experience	Immigrants are inclined to invest in their skill development and adaptation to new conditions; improved collection of taxes; growing GDP; higher revenues; better research and other facilities; availability of skilled staff
Short term emigration	Disadvantages	Reduction of social insurance contributions; sudden rise of wages in the sectors from which labour force flows	Money transfers from a country; immigrants are economic consumers who buy little and save much with the aim to accumulate capital and return to the country of their origin
	Advantages	Reduction of unemployment rate (fewer people need jobs); return of emigrants with a new experience	Growing GDP; improved collection of taxes; filling of vacancies which are unwanted by local people

On balance, although the rise in population's income improves national economies, the strive to raise income abroad has a negative effect on domestic business companies due to higher costs of labour force. In order to cover these costs, domestic business companies often choose to save on investment, which partly determines emergence of another negative factor – brain drain, i.e. high-skilled people refuse to work under poor conditions and sell their skills in foreign markets. Hence, high-skilled labour force cannot contribute to economic, scientific and social development of their native countries (Kazlauskienė and Rinkevičius 2006).

Population's emigration from Lithuania started during the first years of independence, gathered pace over 2004 – 2006, and reached its peak in 2009–2010 after the country had faced the challenges of the global economic crisis. According to Sipavičienė and Stankūnienė (2011), ever since the period of the First World War, Lithuania has shown high rates of population mobility. Some analysts even call this phenomenon “Lithuanian gene”, but actually, such position can be treated as a reluctance to look deeper and search for the real causes of emigration. Sipavičienė and Stankūnienė (2011) argue that modern emigration cannot be referred to as continuation of historical migration: their analysis of the macroeconomic indicators revealed that emigration has direct links with unemployment, i.e. growing unemployment rates determine the growth of emigration. Such results speak about the tendency that emigration from Lithuania can be interpreted as economic labour emigration based on so-called “strategy of survival”. During the periods of crises (and under the conditions of a growing unemployment rate), the country was not able to care about its unemployed, so a significant share of population was forced to emigrate, this way contributing to both the rise in their personal welfare and the welfare of host economies. The strive to emigrate is particularly noticeable among young people, especially considering the fact that young people's unemployment rate in the country is extremely high, i.e. although the state funds a large number of study places, young graduates, who represent skilled and qualified labour force, are not able to find jobs or refuse to work for low

wages. Young jobless people prefer emigration as an alternative. As a result, the country faces the problems of brain drain, which gradually turn into the problems of brain loss. Nevertheless, when the period of crisis is coming to an end, the strategy of survival is changing into the strategy of the search for appealing opportunities, which is becoming the basic motive for emigration. With reference to the findings of the research conducted by Rudžinskienė and Paulauskaitė (2013), over the period 2001–2012, Lithuania lost nearly 6 percent of its population, and the share of the elderly people in the country increased by 12 percent. This statistics shows that Lithuania is facing the problem of ageing society, when the number of working people who also pay social insurance contributions, is dramatically decreasing, while the number of retired people with the right to retirement benefit is soaring. Although the flows of money transfers to the country from abroad are comparatively large, the amounts of losses (i.e. calculations on how much money the country lost due to high emigration rates, presuming that all the population of working age could have stayed in Lithuania, earned average wages and paid average income taxes) are bigger in comparison to the benefits gained from money transfers (Rudžinskienė and Paulauskaitė 2013). Hence, theoretically, the impact of emigration on Lithuanian economics can be considered as negative minding the crises of the birth rate drop, brain drain, brain loss and ageing society.

3. Research methodology

Considering topicality of the issue, the authors of this article will assess the impact of emigration on Lithuanian economy. The correlation analysis, which will reveal interdependence between emigration rate and particular indicators of competitiveness, will be employed (see Table 2).

Correlation analysis discloses the links which emerge as interdependence between random variables, i.e. it shows to which extent the changes in one variable determine distribution of the other.

Pearson's correlation coefficient allows to evaluate the strength of a linear relation. It can be employed when

Table 2. Description of the determinants of national competitiveness included in the correlation analysis (source: compiled by the authors with reference to the data of Lithuanian Department of Statistics 2017, Eurostat 2017, OECD 2016, Investopedia 2016, UNESCO 2017a, 2017b)

X	Independent variable	Description
1	Consumer Price Index (further CPI)	CPI is a relative indicator reflecting the overall change in prices for consumer goods and services purchased by households to their consumption needs over a certain period of time. It is the main indicator of consumer price inflation. The CPI can be understood as an indicator showing the amount the average consumer would have to spend in a given year to buy the same basic goods and services for which one would have to pay 100 monetary units in the reference period (source: Lithuanian Department of Statistics (2018))
2	Gross Domestic Product per capita (further GDP)	GDP at market prices is the total gross value added of all industries at basic prices, plus taxes, less subsidies on products (source: Lithuanian Department of Statistics (2018))

End of Table 2

X	Independent variable	Description
3	Remittances	Remittances is household income being generated by an economic activity in another than the home economy, which subsequently is transferred to or earned on the account of the household in the home economy. As a consequence, remittances can be either based upon long-term residence in another country (usually combined with an economic activity as a migrant worker), or upon short-term work engagements as a seasonal worker or upon permanent work as a border worker without being a resident of the host economy (source: Eurostat database (2018)).
4	Foreign Direct Investment (further FDI)	FDI is the category of international investment that reflects the objective of obtaining a lasting interest by an investor in one economy in an enterprise resident in another economy (source: Eurostat (2018)).
5	Actual individual consumption (further AIC)	AIC refers to all goods and services actually consumed by households. It encompasses consumer goods and services purchased directly by households, as well as services provided by non-profit institutions and the government for individual consumption (e.g., health and education services) (source: Eurostat (2018)).
6	Exports of goods of Lithuanian origin	The goods which were made in Lithuania and transported outside the country (source: Lithuanian Department of Statistics (2018)).
7	Unemployment rate	Unemployment rate is an indicator expressed as a ratio of the unemployed to the labour force (source: Lithuanian Department of Statistics).
8	Average gross earning	Gross earnings are remuneration in cash covering the basic wage and bonuses, payable by an employer to an employee directly, including state social insurance contributions and income tax payable by an employee (source: Lithuanian Department of Statistics (2018)).
9	The number of private enterprises	It is a number of business units established, owned, and operated by private individuals for profit (source: Investopedia (2018)).
10	Labour force	Labour force refers to the total employed and the unemployed population (source: Lithuanian Department of Statistics (2018)).
11	Bankrupt enterprise	Bankrupt enterprise means an enterprise declared bankrupt by the court or, in case of extrajudicial bankruptcy proceedings, by the resolution of the creditors' meeting and put into liquidation due to bankruptcy (source: Lithuanian Department of Statistics (2018)).
12	Research & Development (further R&D)	Research and development (R&D) refers to the work a business conducts toward the innovation, introduction and improvement of its products and procedures. Simply, it is a series of investigative activities to improve existing products and procedures or to lead to the development of new products and procedures (source: Investopedia (2018)).
13	Turnover of innovative enterprises	An innovative enterprise is a business company that aims at gaining a competitive advantage by combining scientific, technological and organisational tendencies in order to develop advanced products, production and service methods. Turnover refers to the typical income of an entity earned from sales of goods and (or) service provision during a specific period of time (source: Lithuanian Department of Statistics (2018)).
14	Population	Population means all persons having their usual residence in the Republic of Lithuania at the reference time (source: Lithuanian Department of Statistics (2018)).
15	Dependent population ratio	The dependent population ratio is the ratio of the population defined as dependent (the population aged 0–19 and 65 and over) divided by the population aged 20–64, and multiplied by 100 (source: the OECD (2018))
16	Birth rate	The number of live births per 1000 inhabitants (source: Lithuanian Department of Statistics (2018)).
17	Economic sentiment indicator (further ESI)	ESI is a composite indicator made up of five sectoral confidence indicators with different weights: industrial confidence indicator (40%); construction confidence indicator (5%); services confidence indicator (30%); consumer confidence indicator (20%); retail trade confidence indicator (5%) (source: Eurostat (2018)).
18	Poverty threshold per capita	A minimum income level below which a person is officially considered to lack adequate subsistence and to be living in poverty (source: Eurostat (2018)).
19	Government expenditure on social protection	Monetary and non-monetary governmental support for the poor in accordance with the provisions of the Republic of Lithuania's Law on Cash Social Assistance for Poor Families and Single Residents (source: the Republic of Lithuania's Law on Cash Social Assistance for Poor Families and Single Residents 2011-12-11 No. XI-1772)
20	Government expenditure on tertiary education	Expenditure on tertiary education is expressed as a percentage of total general government expenditure on education. General government usually refers to local, regional and central governments (source: United Nations Educational, Scientific, and Cultural Organization (UNESCO) Institute for Statistics 2017a).
21	The number of arriving tourists	International inbound tourists (overnight visitors) are the number of tourists who travel to a country other than that in which they have their usual residence, but outside their usual environment, for a period not exceeding 12 months and whose main purpose in visiting is other than an activity remunerated from within the country visited (source: UNESCO 2017b).

the values of random variables X and Y are measurable at an interval or a relation scale, and the two-dimensional distribution of these values is normal. The point estimate of Pearson's correlation coefficient (the sample Pearson's correlation coefficient) for population is estimated by the formula:

$$r_{XY} = \frac{\sum_{i=1}^n (X_i - \bar{X})(Y_i - \bar{Y})}{\sqrt{\sum_{i=1}^n (X_i - \bar{X})^2} \sqrt{\sum_{i=1}^n (Y_i - \bar{Y})^2}} \quad (1)$$

The linear relation is stronger when value $|r|$ is closer to 1. If $r > 0$, increasing values of one random variable linearly raise the values of the other. If $r < 0$, increasing values of one random variable linearly reduce the values of the other. Finally, if $r = 0$, the variables do not show any linear relation, but they may show a non-linear relation. The larger is the sample, the closer to an unknown population correlation coefficient ρ is the sample correlation coefficient r .

In accordance with direction of the relationship development, correlation can be treated as positive (direct) or negative (inverse). Positive correlation is the relationship when the values of the variables change in the same direction – increase or decrease. Negative correlation shows that the values of the variables change in different directions – when the value of one variable is increasing, the value of the other is decreasing, and vice versa (Gabrevičienė 2012).

The statistical data for estimations was extracted from the database of Lithuanian Department of Statistics (2016).

4. The impact of emigration on the indicators of Lithuanian economy

In this section, we will present the results of the correlation analysis. The correlation analysis disclosed which economic determinants had the direct impact on emigration rates in the country over the period 2007–2017. It also revealed whether the variables positively or negatively correlated

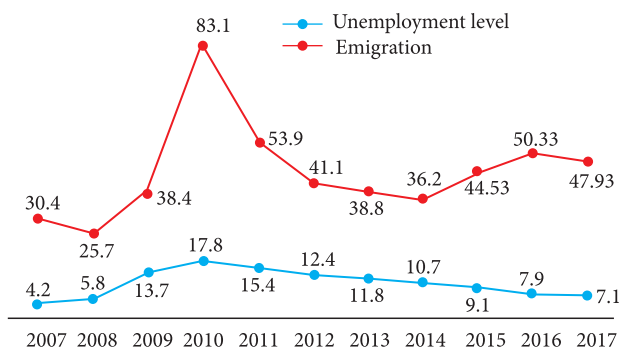


Figure 1. The dynamics of emigration (thousand people) and unemployment rates (percent) in Lithuania over the period 2007 to 2017 (source: Lithuanian Department of Statistics (2018))

with each other and whether the links between them were statistically significant.

A statistically significant medium strong correlation ($p = 0.021$; $p < 0.05$) was found only between emigration (thousand people) and unemployment rate (percent) with r equal to 0.681, which proposes that when the unemployment rate in the country is increasing, emigration flows are also increasing, and vice versa. The interdependence between emigration and unemployment rate calls for more detailed research.

Figure 1 depicts the statistical data on the dynamics of emigration and unemployment rates in Lithuania over the period under consideration.

The statistical analysis of the data on emigration and unemployment rates in Lithuania over the period 2007–2017 disclosed the similar trends of the changes in both variables: in 2010 (i.e. during the period of the financial crisis), unemployment rate reached its peak of 17.8 percent, which, in its turn, “pushed” the largest number of people (83.1 thousand citizens) to emigrate from the country; between 2010 and 2014, while the unemployment rate was gradually decreasing, emigration flows were also slowing down. The similar trends of the changes in both variables all over the period under consideration imply that the effect of unemployment is long-termed, i.e. emigration is affected by the rate of unemployment. One of the possible explanations of the long-term effect of unemployment on emigration is that the largest proportion of emigrants contains a large share of the population sensitive to higher than average risks of unemployment, i.e. population groups with higher unemployment risks (e.g., young people who typically face higher unemployment risks due to the lack of experience and skills as well as sensitivity to the changes in general economic conditions, fluctuations in aggregate demand and minimum wages) have more incentives to emigrate. In other words, people in search of a job are “pushed” to move from high-unemployment areas to the ones where the chances of finding a job are more favourable. Thus, as it was noted by Moraru and Muntele (2015), “an unemployed person moves to another area, another country, if does perceive chance of finding a job there more than in the origin country, area” (p. 149).

Minding the correlation between emigration and unemployment rates in Lithuania, it can be stated that the negative effects of emigration cannot be reversed by employing a direct legal and (or) administrative path. The situation could be improved by creating new workplaces, reducing unemployment and expanding the opportunities of employment and self-employment for Lithuanian people. These measures would gradually slacken the economic determinants of emigration (unemployment, wage differences, disproportionate labour force distribution in different economic sectors, the level of the country's economic development,

etc.) and promote return migration (the right to return to their country of origin is granted by the Constitution for all the citizens of the Republic of Lithuania, and this right is not impaired by any legal or administrative barriers). Promotion of return migration and reintegration should be primarily directed towards young working-aged people who can successfully join the Lithuanian labour market with their new skills, qualifications and international experience, which, adjusted to the conditions of the national economy, can become the key factors of the country's progress.

In order to expand the opportunities of employment in the national economy, a gap between labour force supply and demand should be reduced by applying the measures of an active labour market policy (ALMP). The target measures of an ALMP must be directed towards reduction of the segmentation in the labour market, creation of workplaces in fast-growing industries, and promotion of labour force mobility.

The European Commission (2016) emphasises the need to strengthen the human capital of the unemployed by implementing the systems of apprenticeship, manual training and dual vocational training. The most vulnerable population groups (young people, women, disabled, 55 and older-aged unemployed) should be offered more individualised employment services. In addition, the measures of an efficient ALPM must be combined with adequate social support and training.

The final report of "The Research in the Strategies to Combat Unemployment and Poverty" (Vilnius University, Mykolas Romeris University, Social Research Centre, 2014) proposes that an efficient ALMP in Lithuania should consider:

- an individualised approach towards the employment promotion services;
- combination of the measures of an efficient ALPM with adequate social support;
- orientation to the needs and prospects of the labour market;
- reprioritization of the measures of an ALPM.

An individualized approach towards the employment promotion services should manifest through identification of the needs and opportunities of the unemployed, segmentation of the unemployed by the indications of employment impediment, individual work with the unemployed, individual selection of targeted training, inclusion of highly-skilled professionals (mentors, psychologists, social workers, career advisors, etc.), restoration of the basic skills of an unemployed person (motivation, practice, health improvement). Combination of the measures of an efficient ALPM with adequate social support should manifest through payment of adequate unemployment benefits, grants for training and compensations for employers for recruitment of the unemployed. Orientation to the needs

and prospects of the labour market should manifest through targeted selection of the industries for arrangement of an apprenticeship, manual training and dual vocational training, workplace training, active involvement of communities (e.g., purchase of goods/services from local entrepreneurs), vocational guidance of young people (students), and early involvement of students into the labour market by combining studies and work. Finally, reprioritization of the measures of an ALPM should manifest through reduction of the gap between labour force supply and demand and the gap between regional unemployment and unemployment in cities (or reduction of the segmentation between low-skilled and low-paid population and higher-skilled and higher-paid population).

With reference to the Employment Promotion Program of the Republic of Lithuania for 2014–2020 (resolution of the Government of the Republic of Lithuania "On Confirmation of the Employment Promotion Program for 2014–2020" No. 878, dated September 25, 2013), the employment rate of 20–64 year-olds should increase by 6.3 percent (i.e. from 38.5 to 72.8 percent) between 2012 and 2020 on the basis of implementation of the above-introduced target measures, which, in their turn, should contribute to reduction in the country's emigration rate.

Conclusions

Assessment of the impact of emigration on an origin economy (Lithuanian case) was based on the concept of social welfare, in accordance with which residents of a state of social welfare should stay motivated to exploit their abilities and generate higher value added. Hence, the most obvious indicator of population's life satisfaction is their direct contribution to a home economy or the decision to emigrate and raise the level of a host economy.

It has been found that a substantial part of the indicators of Lithuanian economy show different trends than those which are described in scientific literature: the correlation was found only between emigration and unemployment rate. This finding discloses the complexity and otherness of the situation in the country which is worsened by sustainability of high unemployment rate (this tendency opposes to the theoretical presumptions proposing that countries with high emigration rates usually have low unemployment rates).

Lithuania really needs to start caring about its demographic resources because different types of statistical prognoses warn about the potential decrease in the country's population and labour force, and notify about the increase in the number of over-60-year-olds. The trends of the low birth-rate and ageing society will ultimately cause the problems of social protection and tax burden for the employed population. These problems may, in their turn, serve as additional weighty reasons to emigrate.

To reduce the rates of emigration from the country, Lithuania must develop and improve such ALPM's elements as combination of work and dual vocational training, targeted selection of the industries for arrangement of an apprenticeship, manual training, dual vocational training and workplace training, segmentation of the unemployed by the indications of employment impediment, individual work with the unemployed to restore their basic skills (motivation, practice, health improvement), vocational guidance of young people (students) and early involvement of students into the labour market by combining studies and work. What is more, an ALPM's measures should be reprioritized by reducing gaps between labour force supply and demand as well as between regional unemployment and unemployment in cities. To make the effects stronger, an ALPM's measures should be combined with adequate social support which should manifest through payment of adequate unemployment benefits, grants for training and compensations for employers for recruitment of the unemployed. In other words, with consideration of the real labour supply-demand ratio, implementation of an ALPM's measures in Lithuania should be based on identification of the characteristics of the unemployed and employers, deeper differentiation of the support and concentration on the most urgent problems in territorial labour markets.

The main limitation of this research is linked to finding of a medium strong correlation between emigration and unemployment rates in Lithuania, which proposes that the flows of emigration from the country are affected not only by the unemployment rate, but also by some other statistically unjustified factors, which could be identified and addressed in future studies.

References

- Abubakar LN, Normaz WI (2013) The determinants of brain drain in developing countries. *International Journal of Social Economics* 40 (8): 744-754. <https://doi.org/10.1108/IJSE-05-2013-0109>
- Asch BJ (1994) Emigration and its effects on the sending country. Monograph. RAND, p. 234 https://www.rand.org/content/dam/rand/pubs/monograph_reports/2006/MR244.pdf
- Awojobi ON (2016) The economic impact of immigration on Kassel, Germany: an observation. *International Journal of Economics, Commerce and Management* IV (II): 142-157.
- Backlund K, Sjögren T, Stage J (2014) Optimal tax and expenditure policy in the presence of emigration: Are credit restrictions important? *Indian Growth and Development Review* 7 (2): 98-117. <https://doi.org/10.1108/IGDR-09-2012-0040>
- Banik A, Bhaumik PK (2006) Aging population, emigration and growth in Barbados. *International Journal of Social Economics* 33 (11): 781-788. <https://doi.org/10.1108/03068290610705689>
- Brzozowski J (2012) International migration and economic development http://www.scielo.br/pdf/ea/v26n75/en_09.pdf
- Civil Society Institute (2005) Lietuvių emigracija: problema ir galimi sprendimo būdai [Lithuanian emigration: the problem and possible solutions] <http://www.civitas.lt/research/lietuviu-emigracija-problema-ir-galimi-sprendimo-budai/>
- Clemens AM (2016) Losing our minds? New research directions on skilled emigration and development. *International Journal of Manpower* 37 (7): 1227-1248. <https://doi.org/10.1108/IJM-07-2015-0112>
- Damulienė A (2013) Migracijos problema Lietuvoje ir jos įtaka šalies ekonomikai [The problem of migration in Lithuania and its impact on the national economy]. Vilnius: Mykolas Romeris University.
- Dapkus M, Matuzevičiūtė K (2008) Lūkesčių įtaka emigracijai: Lietuvos atvejis [The impact of expectations on migration: the case of Lithuania]. *Economics and Management* 3 (1).
- Doeringer PB, Piore MJ (1971) *Internal Labor Markets and Manpower Analysis*. M.E. Sharpe Inc., London.
- European Asylum Support Office (2016) The Push and Pull Factors of Asylum-Related Migration. A Literature Review <https://www.easo.europa.eu/sites/default/files/publications/The%20Push%20and%20Pull%20Factors%20of%20Asylum%20-%20Related%20Migration.pdf>
- European Commission (2016) Active labour market policies https://ec.europa.eu/info/sites/info/files/european-semester_thematic-factsheet_active-labour-market-policies_en.pdf
- Eurostat (2017) Glossary: Remittances <http://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Remittances>
- Feridun M (2005) Investigating the economic impact of immigration on the host country: the case of Norway. *Prague Economic Papers* 4: 350-362. <https://doi.org/10.18267/j.pep.270>
- Gabrevičienė A (2012) Bendroji statistika [General statistics]. Marijampolė: Piko valanda.
- Giuliano P, Ruiz-Arranz M (2009) Remittances, financial development and growth. *Journal of Development Economics*, 90. <https://doi.org/10.1016/j.jdeveco.2008.10.005>
- Government of the Republic of Lithuania (2013) Dėl užimtumo didinimo 2014–2020 metų programos patvirtinimo Nr. 878 [On Confirmation of the Employment Promotion Program for 2014–2020 No. 878] <https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.456810?jfwid=-je7i1t1yb>
- Heckscher EF. (1949) The effect of foreign trade on the distribution of income, in Ellis, HS. and Metzler LA. (Eds), *Reading in the Theory of International Trade*, Chapter 13, Blakiston Company, Philadelphia, PA.
- Investopedia (2016) R&D <https://www.investopedia.com/terms/r/randd.asp>
- Kazlauskienė A, Rinkevičius L (2006) Lithuanian “brain drain” causes: push and pull factors. *Engineering Economics* 46 (1).
- Kerr SP, Kerr WR (2011) Economic impacts of Immigration: a Survey. Working Paper 09-013 https://www.hbs.edu/faculty/Publication%20Files/09-013_15702a45-fbc3-44d7-be52-477123ee58d0.pdf
- Kim K, Cohen JE (2010) Determinants of international migration flows to and from industrialized countries: A Panel data approach beyond gravity. *International Migration Review* 44 (4): 899-932. <https://doi.org/10.1111/j.1747-7379.2010.00830.x>

- Kumpikaitė-Valiūnienė V, Žičkutė I (2017) Emigration after socialist regime in Lithuania: why the West is still the best? *Baltic Journal of Management* 12 (1): 86-110. <https://doi.org/10.1108/BJM-02-2016-0053>
- Lee ES (1966) A theory of migration. *Demography* 3 (1): 47-57.
- Lithuanian Department of Statistics (2016) Lietuvos gyventojų tarptautinė migracija [International migration of Lithuanian population] <https://osp.stat.gov.lt/services-portlet/pub-edition-file?id=3032>
- Lithuanian Department of Statistics (2018). Consumer Price Index (CPI). Retrieved from https://osp.stat.gov.lt/documents/10180/0/VKI_metainfo-EN
- Lithuanian Department of Statistics (2010) Development of innovation activity <https://osp.stat.gov.lt/services-portlet/pub-edition-file?id=22218>
- Lithuanian Department of Statistics (2017) Main Lithuanian indicators <https://osp.stat.gov.lt/en/pagrindiniai-salies-rodikliai>
- Lithuanian Free Market Institute (2006) Migracija: pagrindinės priežastys ir gairės pokyčiams [Migration: the main causes and guidelines for changes] <http://www.llri.lt/naujienos/ekonomine-politika/darbo-santykiai/tyrimas-migracija-pagrindines-priezastys-ir-gaires-pokyciams/lrinka>
- Moraru A, Muntele I (2015) Emigration and unemployment in Bacau country, Romania: to what extent is there an interaction between the two phenomena? *Ecoforum* 2 (7): 148-153.
- OECD (2016) Dependent population ratio <https://stats.oecd.org/glossary/detail.asp?ID=587>
- Rudžinskienė R, Paulauskaitė L (2013) Lietuvos gyventojų emigracijos priežastys ir padariniai šalies ekonomikai [Causes of the emigration of Lithuanian population and its impact on the national economy] http://www.zurnalai.vu.lt/files/journals/180/articles/2661/public/emigracijos_prieastys.pdf
- Sipavičienė A, Stankūnienė V (2011) Lietuvos gyventojų (e) migracijos dvidešimtmetis: tarp laisvės rinktis ir išgyvenimo strategijos [Twenty years of the emigration of Lithuanian population: between the freedom to choose and the strategy to survive] <http://www.lmaleidykla.lt/filosofijasociologija/2011/4/6485>
- Sipavičienė A, Stankūnienė V (2013) The social and economic impact of emigration on Lithuania, in OECD. Coping with Emigration in Baltic and East European Countries. OECD Publishing: 45-64. <https://doi.org/10.1787/9789264204928-6-en>
- UNESCO (2017a) Expenditure on tertiary education (% of government expenditure on education) <https://data.worldbank.org/indicator/SE.XPD.TERT.ZS?view=chart>
- UNESCO (2017b) International tourism, the number of arrivals <https://data.worldbank.org/indicator/ST.INT.ARVL>
- The Republic of Lithuania's Law on Cash Social Assistance for Poor Families and Single Residents 2011-12-11 No. XI-1772 <https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.413828>
- Vaitkevičiūtė V (2004) Tarptautinių žodžių žodynas [Dictionary of international words]. Vilnius: Žodynas leidykla.
- Vilnius University, Mykolas Romeris University, Social Research Centre (2014) Kovos su nedarbu ir skurdo mažinimo strategijų tyrimas [The Research in the Strategies to Combat Unemployment and Poverty] <http://www.socmodelis.lt/wp-content/uploads/1-2-dalis-GALUTINE.pdf>
- World Migration (2003) Managing migration: Challenges and responses for people on the move. International Organisation for Migration (IOM), Geneva.
- World of Statistics (2014) Push and Pull factors of migration: a case study in the urban area of Monywa township, Myanmar <http://www.worldofstatistics.org/files/2014/03/Pull-and-Push-Factors-of-Migration-Thet.pdf>