

## The Impact of Emigration on Unemployment in Slovakia

Sergej Vojtovich

University of A. Dubcek in Trencin  
Studentska 3, 911 50 Trencin, Slovakia  
e-mail: sergej.vojtovich@tuni.sk

**crossref** <http://dx.doi.org/10.5755/j01.ee.24.3.3173>

*This study deals with one of the current and relatively often discussed phenomenon, which accompanies economic and social development in both developed and economically struggling countries. The economic development of Slovakia is no exception. The analysis of both unemployment as an economic and social phenomenon and unemployment trends is conducted in relation to the period of stabilization and relative economic growth, which followed after the transformation of economic systems in countries of Central and Eastern Europe. The main objects of this analysis are primarily trends in the economic development, trends in the job creation, and the impact of direct foreign investments on the development of unemployment.*

*Migration of labour force abroad is another important variable entering the analysis. The focus is placed predominantly on the migration flows into foreign countries and also on their impact on the development of unemployment rate. From the previous analyses and observations of real processes occurring in this particular field we know that under certain circumstances high unemployment rate results in the growth of migration flows of labour force abroad. But during the studied period under the conditions of relatively quick economic growth in Central and Eastern Europe we can observe different trends when it comes to the connection between unemployment rate, economic growth and migration flows. Trends in the economic development during this period, in the development of unemployment rate and in the emigration flows and their causality do not match our knowledge and ideas about these phenomena and processes in the entrepreneurial, political or academic environment. Therefore, this study aims to conduct an analysis of the above mentioned phenomena and processes and offer a reasoned and adequate concept about the trends in their development.*

**Keywords:** *Economic growth, gross domestic product, employment, unemployment, migration of labour force abroad.*

### Introduction

Classic approaches clearly dominate when it comes to the reasons for unemployment and the characteristic of its development - economic development (or economic recession) causes decrease (or increase) in unemployment (Samuelson & Norghaus, 1991; Tuharska, 1998; McConnell & Brue, 1999; Martinkus *et al.*, 2009). In the countries of Central and Eastern Europe it is commonly accepted that a solution for an unemployment problem is mainly connected with the inflow of direct foreign investments and economic growth (Shapiro & Stiglitz, 1984; Belot, & van Ours, 2001; Berzinskiene & Martinkus, 2001; Sileika & Andriusaitiene, 2006; Sikula, 2008; Bucek *et. al.*, 2008). However, economic growth in the Central and Eastern European countries (including those which joined European Union in this period) resembled classic concepts about the relation between economic development and unemployment only minimally. According to quite a few of the economists even in Western European developed countries, it can be observed that actual development does not necessarily match the classic macroeconomic concepts (Albert & Hahnel, 1991; Stiglitz, 2003; Altvater & Mahnkopf, 2007; Skidelsky, 2008; Stiglitz, 2008; Ressler, 2008 and others).

It is known that the situation on the labour market can be influenced by more factors and not only exclusively by economic development. Equally as important there are political decisions, qualification of labour force, its values

and attitudes, flexibility of norms belonging to the labour jurisdiction and flexible forms of employment, demographic swings in population, employee relations and social aspects within their implementation etc. (Startiene & Remeikiene, 2009; Sileika & Andriusaitiene, 2006; Valackiene, 2009; Simanaviciene & Uzkyryte, 2009; Ketkar & Sett, 2010; Krajnakova, 2004; Navickas & Kontautiene, 2012). In addition, the interpretation of the reasons causing unemployment remains questionable, as well as factors, which have an impact on unemployment, effectiveness of measures proposed and implemented within the state policy of employment and so on (Nickell *et al.*, 2005; Berzinskiene, 2006; Baccaro & Rei, 2007; Grecikova & Spankova, 2011; Berzinskiene & Juozaitiene, 2011; Kolvekova & Krajnakova, 2010).

Economic development in the countries of Western and Central and Eastern Europe significantly differs. While countries of Central and Eastern Europe had to transform their economy from centrally planned to market economy, the Western European countries have been practicing market economy for centuries. In addition to the revolutionary changes in Central and Eastern Europe, there are also the evolutionary ones – involvement of not only equity capital but also external investments, and the influence of not only internal economic factors and political decisions but also external ones. Therefore, it is possible to assume that economic development and trends on the labour market (and unemployment rate) did not simply and linearly mirror the pace of economic

development under these difficult economic, social and political conditions, and causal relationship between economic development and unemployment level is much more complex.

Therefore the study mainly aims to determine, to what extent the factors of economic development influenced the unemployment level, and how the migration of labour force abroad could affect the unemployment trends in Slovakia. These findings apply predominantly to the period of time preceding financial and subsequent economic recession in 2008. It was during this period, when Slovakia and other Central and Eastern European countries were experiencing post-reform stabilization and subsequent economic growth. That implies that the trends in the unemployment rate and factors which could have some influence on them (economic growth expressed in GDP value, labour productivity, direct foreign investments inflow, new jobs creation and labour force emigration) are the **main subject** of the analysis.

Analysis of these trends and factors bears importance not only in understanding the unemployment itself. The current situation in economic development is almost the same as the one preceding 2000. The value of GDP indicators and unemployment rate in the past few years are almost identical to the values of 2000. Therefore, analyzing the trends in unemployment and factors which were influencing it could provide some answers for the solution of the current problems in economic development and unemployment.

**The main goal** of the article is to determine to what extent migration of labour force abroad influenced the trends in the unemployment rate in 2000-2010, when Slovakia was experiencing firstly the stabilization, then a period of economic growth and lastly the recession caused by the global economic crisis. In addition, this study also looks at the influence of other factors, such as the GDP growth, labour productivity, direct foreign investments inflow and new jobs creation. Following **research methods** have been used: theoretical analysis of macroeconomic indicators of economic development, of the trends in the unemployment levels and emigration flows of labour force; analysis of the statistical indicators of unemployment rate and migration flows of labour force abroad; correlation analysis (the MX Excel function CORREL was used for the calculation of correlation coefficients and the function LINREGRESSE was used to calculate linear regression).

**Scientific originality** of the article is in:

- defining new causal relations between GDP growth and the unemployment rate in the pre-crisis period of economic growth in Slovakia;
- determining the influence of direct foreign investments inflow and job creation on the unemployment rate;
- reasoning of the causal correlation between the unemployment trends and migration flows of labour force abroad.

**Practical significance of the article is:**

- the results of the research can be used to create specific principles and measures in the employment policy;
- determined connection between unemployment rate and emigration flows of labour force can be an effective aid in the process of finding unconventional tools

and mechanisms to solve unemployment problem and to eliminate its negative impact on economic and social development.

### Trends in the development of unemployment in Slovak economy

In the Western European context, the level of unemployment derives from the discrepancy in the qualification and skills possessed by the labour force and what the structure of the job market and job opportunities demands. That means that people with lower qualification are the ones having difficulties to find a job, while those with higher level of education and qualification enjoy much higher probability of finding a satisfying job and lower risk of unemployment. Therefore, the main focus of the employment policy is placed on the development of education and efforts to keep a big part of young population in the system of higher education. In this case it is also presumed that the mobility of labour force will increase along with its possibilities of success on the labour market (Bielensky et al., 2002).

Unemployment in Slovakia culminated in 1999 when it peaked at the level of 20.1 %. Only a moderate decrease or fluctuation between 17 and 19 % could be observed ever since. Steeper decrease in unemployment was documented only after 2005 – in 2005 by 2 %, by 3 % in 2006 and by almost 2 % in the two following years, even though the trends in the dynamics of economic growth did not change when compared with previous period (see Figure 1). This can be explained by lagging of the economic processes. Unemployment fell to its lowest point since 1992 in 2008 (see Table 1).

Table 1

**GDP and unemployment in Slovakia in 2000 - 2010 (%)**

Year	GDP (%)	Unemployment rate (%)
2000	1.4	18.7
2001	3.5	19.3
2002	4.6	18.5
2003	4.8	17.4
2004	5.0	18.1
2005	6.6	16.1
2006	8.3	13.3
2007	10.5	11.0
2008	5.7	9.6
2009	-4.9	12.1
2010	4.2	14.4

Source: [www.ifm.org](http://www.ifm.org)

The number of the unemployed reached 535 200 in 1999. Similarly, in the following two years the count of the unemployed fluctuated around the value slightly higher than half a million. The first significant decrease in the number of the unemployed can be observed only in 2003 and 2004, when it dropped by 50 and 70 thousand respectively. Each one of the next three years also brought another drop in unemployment by approximately 25 thousand. Unemployment in Slovakia hit its historically lowest point in 2007, when there were 239 thousand unemployed. But the influence of the crisis could be seen already in 2008, when this number increased by 10 000, and then in much bigger scale in 2009, when it increased by 131 thousand. The count of unemployed was around 380 thousand at the end of 2012 (14 %).

In order to solve the problems with unemployment, we have to understand the unemployment. And to understand the unemployment, it is essential to understand the factors which have an influence on it. Therefore, it is very important to answer the question, what economic or other factors substantially influenced the drop of the unemployment rate during the pre-crisis period of dynamic economic growth. Therefore, we conduct the analysis of trends in the development of unemployment in Slovakia. We will study the influence of the following factors on the unemployment: GDP growth, DFI inflow, increase of the labour productivity and labour force emigration flows.

### **Trends in economic development and direct foreign investments (DFI) inflows**

The most pronounced changes in the Slovak economic development were taking place in the beginning of 90s. This period brought to a halt relatively technologically advanced fields of industry connected with the manufacturing of military ammunition, which was caused by political decisions without any economic basis. That means that decrease of production in these fields of industry was not a result of the falling demand for manufactured products. Simultaneously, a lot of energetically and technologically demanding fields interconnected with mining and primarily processing raw materials came to an end because of lack of their competitiveness on international markets. And exactly during this period a steep rise of unemployment could be observed, which reached 11 % in 1992 (UPSVAR, 2011).

When it comes to GDP development in the past decade, we can observe accelerated dynamics of growth since 2000. The preceding period of eight years after the transformation to market economy could be characterized by economic downfall and following stagnation. While in 2000 GDP grew only moderately by 1.4 %, the following year GDP growth reached 3.5 %. In every consecutive year dynamics of economic growth accelerated and reached its peak in 2007, when GDP growth reached 10.5 %. GDP growth from 2000 to 2007 seems even more striking when compared with the economic development of Slovakia (respectively Czechoslovakia) in the 80s and 90s. During these eight years GDP was constantly annually growing, the growth reaching up to 10.5 % in its peak. During this period the number of the unemployed decreased by 55 % - it fell from 536 thousand to 297 thousand.

The Slovak economy started to take part in the European integration process and create conditions for the inflow of DFI only after parliamentary elections and political changes in 1998. The amount of investments was negligible up until 1998. But in 2000 almost 3 billion euros were invested in Slovakia and additional 6 billion in 2002. In the following years the invested amount fluctuated from 2 500 million to 4 625 million euros. Even in 2008 when the global financial crisis already started, the investments in Slovakia amounted to 3 323 million euros. Totally, during the studied period there were almost 27.5 billion euros invested into Slovak economy (Statistics, 2011).

At the same time the government was implementing structural reforms and there was also a measurable growth of the labour productivity. While the labour productivity

growth in Slovakia was only at the level of 0.7 % in 2000, in 2007 it reached 7.9 % (Statistics, 2011). Other macroeconomic indicators were no exception from this positive trend – inflation during this period fell from 12 % to 2.3 %, work efficiency rose measurably, along with average monthly wages. In addition, the index of economic freedom in Slovakia and therefore the appeal of business environment improved. As a result, Western countries referred to the Slovak economy as a small European economic tiger (Karbach, 2005; Strunz, 2007).

The development of the above listed economic indicators in Slovakia during the studied period was accompanied by a measurable decrease of the unemployment rate from 20 to 9.6 %. That means that during this period in Slovakia there were created such economic conditions that could significantly contribute to the employment growth and therefore also to the decrease of the unemployment rate.

### **Migration flows of labour force abroad**

One of the specific factors which played the role on the labour market in Slovakia was the migration of labour force abroad. This issue in the countries of Central and Eastern Europe began to appear in media and got the attention within expert and scientific publications only in the last decade, in particular after beginning the process of integration and joining the EU (Adepoju, 2006; Kazlauskiene & Rinkevicius, 2006; Honekopp *et al.*, 2008; Drinkwater *et al.*, 2009; Daugeliene, 2007; Daugeliene, 2007a; Rosenow, 2009; Thaut, 2009; Divinsky, 2009; Adepoju *et al.*, 2010; Schaeffer, 2010). During this period, gaining the job abroad and working there was seen mostly as a positive phenomenon not only for the country the worker was from, but also for the foreign country where the worker found a job, especially when looked at from the long-term perspective (Cekanavicius & Kasnauskiene, 2009).

Heightened dynamics of emigration was perceived as a result of spreading implementation of the free movement of workers on the European labour market (Sramkova, 2005; Bujnovska, 2009). Reasons and factors of emigration for work as such have become the subject of many research projects (Daugela *et al.*, 2000; Kazlauskiene & Rinkevicius, 2006a). But apart from the positive views, emigration is also seen as a certain social and economic problem – as a loss of capable and talented young people, or the process also known as „Brain Drain“ (Kazlauskiene & Rinkevicius, 2006a; Daugeliene, 2007; Le, 2008). As a result, a great deal of attention is dedicated to the problematic impacts of this kind of emigration on the state social policy, on specific social, demographic, or even ethnic problems, motivation of employees and so on (Karabinos & Balga, 1997; Adepoju, 2006; Schaeffer & Refugees, 2010). Migration of labour force from Slovakia to foreign countries, intensity and scale of which have significant impact on social and economic development of society, is mostly not seen as an object of interest – either by politicians or expert and scientific community in Slovakia. For example, the losses and gains for economy, society and the citizens themselves resulting from work of Slovak citizens abroad are still not documented. As a rule,

the only context in which the discussion about labour emigration is raised is the so called “brain drain” (Balaz & Kollar, 2003; Divinsky, 2005; Jurcova, 2008; INECO, 2012; Odliv mozgov, 2012).

Moving abroad and subsequent employment are not necessarily caused exclusively by the lack of vacancies at home. There are other factors that need to be taken into consideration as well, such as for instance low income, bureaucratic hindrances, weak law enforcement, “slimmed down” social policy and other negative economic and social phenomena. The answer to the question, how big incentive for emigration these factors are, is still absent. Similarly, there is no research on how the scale and intensity of migration flows of labour force abroad are influenced by the economic factors, trends on the labour market and in the field of hiring new employees, just as the research on the causal relations and connection between emigration of labour force and unemployment rate.

But if we abstract from these additional factors and evaluate emigration of labour force (including “brain drain”) only as a result of work opportunities on the domestic labour market, or respectively the lack of thereof, then it is possible to conclude that this phenomenon has long-term positive effects for both countries (Cekanavicius & Kasnauskiene, 2009, p. 36). This scenario assumes that the emigrating workers gain experience and new skills and then they eventually return to their home country. But further research on social factors and mechanisms of labour force migration abroad (social nets and social connections) shows other, less positive side of migration for the country which workers emigrate from (Klvanova, 2010). We have to take into account (Kazlauskienė & Rinkevicius, 2006) that social connections between migrants and non-migrants play important role in migration flows. Social relations can function as a “sponsor” in the emigration process and thus simplify, accelerate and amplify the emigration flow, decrease emigration risks and maximize future gains of emigrants. And when asked about their intentions, 40 % of the Slovak citizens with tertiary education, who already had experience with living and working abroad, said that they would stay abroad permanently (Balaz & Kollar, 2003).

Ever since the split of Czechoslovakia, a considerable number of Slovak citizens have looked for the employment in the Czech Republic. The substantial majority of all emigrants that left Slovakia for work found a job in this country. According to the Statistical Office of the Slovak Republic, there were 106.4 thousand Slovak citizens working in the Czech Republic. The above stated trends in the labour force emigration could be partially explained by the continuing process of liberalization of the labour markets in the EU. As it has already been mentioned, in the beginning the emigration of labour force was directed mostly to the Czech Republic. Free movement of labour force still applied even after Czechoslovakia was divided into two states. The second wave of emigration of Slovak workers is connected with the fact that Slovakia joined the European Union in 2004 and following the liberalization of labour markets in other member states. The first country to open its labour market was the United Kingdom followed by Ireland and later on by other countries, such as Austria and Germany. Similarly, the highest number of Slovak

employment-based emigrants is registered in the Czech Republic (153.5 thousand) followed by the United Kingdom (58 thousand), Ireland (40.9 thousand), Austria (42.3 thousand) and Germany (27.1 thousand) (Statistics, 2011). But the pace of liberalization of the labour markets in Western European countries is not the only factor playing the role in which country Slovak emigrants seek for employment. These other factors include cultural closeness or gained language skills, since the Slovak educational system is mostly focused on English and German and not on French or Italian.

The total number of Slovak citizens working abroad rose annually by roughly 15 000 in 2001 and also in 2002. Even though this growing trend was interrupted in 2003 when this number slightly dropped, in 2004 it was rising again and reached the value 104 thousand. The annual growth by approximately 20 000 continued in the next years and in 2008 it reached 206 thousand (Statistics, 2011). But there is a discrepancy between these data and the selective survey of the labour force conducted by the Statistical Office of the Slovak Republic. According to this survey there were more than 270 thousand Slovak citizens working abroad already in 2007 (VZPS, 2012). It is plausible to assume that some part of these almost 300 thousand Slovak citizens now working abroad was previously probably registered as unemployed in Slovakia. Therefore, it is possible that extensive migration flows of labour force from Slovakia to other countries during the studied period of time could hypothetically influence the unemployment rate in Slovakia.

## **Discussion and Results**

As it has already been mentioned, unemployment in Slovakia peaked in 1999-2001, when it reached 19 % (536 000 people). In the next five years it marked a slightly decreasing trend, which only further intensified in 2007 and 2008. GDP growth indicators showed a similar development – there was a constant measurable growth from 2000 up until 2008 (Table 1). And if we accepted that this growth was based on the extensive factors (and therefore also on the bigger amount of labour force), it would imply that it necessarily had to influence the unemployment rate, even though there is no simple arithmetic correlation between the employment and unemployment rate. Table 1 demonstrates if there is a correlation between GDP growth and unemployment rate drop in the studied period of time.

Only during the short period of 2004-2007 there is a strong correlation between GDP growth and unemployment rate – correlation coefficient has the value minus 0.99 when  $p > 0.05$ . Since 2000 to 2004 there was a correlation between GDP growth and unemployment rate at the level of  $r = -0.54$ , when  $p > 0.05$ . Since the beginning of the economic recession in 2008 up until 2012 the correlation between GDP development and unemployment rate is almost entirely absent ( $r = -0.07$ , when  $p = 0.05$ ). But the correlation between GDP indicators and unemployment level is missing in the entire period from 2000 until 2012, since  $r = -0.15$  with  $p = 0.05$ . These calculations imply that GDP growth had no direct influence on the decrease of the unemployment rate. That

means that there are probably other factors which could have a certain impact on the drop of unemployment, and which could also contribute to GDP growth.

GDP growth was accompanied by DFI inflow during the studied period. But the calculations of the correlation indicate that DFI inflow had no influence on GDP growth. For instance, the coefficient of correlation between DFI inflow and GDP growth indicators during the studied period equals to 0.15 when  $p = 0.05$ . That suggests that there is only a very slight correlation between DFI inflow and economic growth. And from the regression line with GDP growth in % (Y) as a function of DFI inflow (X) we can derive that DFI contributed to GDP growth only by 2.7 % (value  $r^2$ ) (Table 2). Even if we assumed zero value of DFI, GDP would still grow annually by 3.74 % during the studied period. At the same time, each increase of DFI by 1 million euros would lead to GDP growth by 0.00034 %. Therefore, we can conclude that DFI inflow contribution to GDP growth was only minor and thus this growth had to be influenced by other factors.

Table 2

**The correlation of DFI inflow and economic growth in SK in 2000-2010**

	Average	Standard deviation	r (X,Y)	r <sup>2</sup>
GDP growth %	4.7	3.6631	0.1512	0.0271
DFI inflow in mil. EUR	2941.2	1894.613		

Source: *www.statistics.sk* (own calculations)

Next, it is necessary to determine if DFI inflow and subsequent job creation could affect the unemployment rate decrease. In this relation it is important to emphasize that expert publications and public opinion often demonstrate the domination of the publicized and simplified opinion that the most effective solution of unemployment is the job creation based on the inflow of foreign direct investments (Tuharska, 1998; Balaz, 2001; Dudas, 2006; Sikula, 2008). This line of thinking is being supported by laic public and especially by politicians. At the same time it has to be admitted that even the trends in the inflow of foreign capital, which reached its peak in this period (see Table 3), support this theory.

Table 3

**DFI inflow and unemployment rate in 2000 – 2010**

Year	DFI inflow (mil. EUR) <sup>1</sup>	Unemployment rate(%) <sup>2</sup>
2000	3304.7	18.7
2001	2039.6	19.3
2002	6160.5	18.5
2003	2636.6	17.4
2004	3244.7	18.1
2005	2500.6	16.1
2006	4625.7	13.3
2007	2935.3	11.0
2008	3323.1	9.6
2009	4.3	12.1
2010	107.3	14.4

Source: <sup>1</sup>*www.statistics.sk*, <sup>2</sup>*www.ifm.org*

The trend of DFI inflow is connected with big investors (especially when considering the scale of the Slovak economy) coming to Slovakia, such as the automobile holding PSA Peugeot Citroen and Korean company KIA Motors along with a number of their subcontractors.

But the calculated correlation coefficient ( $r = 0.23$ ) between DFI inflow (X) and trends in the unemployment rate (Y) shows that in the studied period there was only a slight correlation between the above mentioned variables. When we use the equation for linear regression line and calculate the unemployment rate decrease in % (Y) as a function of DFI inflow in mil. EUR (X), the result is that even when there is a zero inflow of DFI into national economy, the unemployment rate would still drop by 0.9856 % annually. At the same time, the annual growth of DFI inflow by 1 million euros would result in the drop of unemployment by 0.00076 %. Moreover, during the period 2000-2010 there were supposed to be created only 40 000 vacancies in Slovakia, based on the contracts signed by the Slovak government and foreign investors (Statistics, 2012). That would account only for 7 % of the unemployed.

It follows that similarly to GDP growth, the decrease of the unemployment rate was not caused by DFI inflow. It is obvious that the labour productivity had much bigger influence on GDP growth during studied period (Table 4).

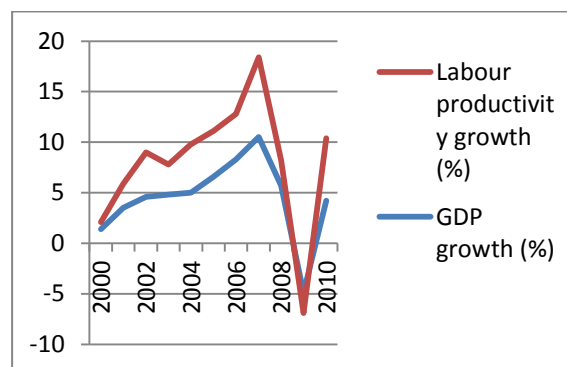
Table 4

**GDP growth and labour productivity (%)**

Year	GDP change (%) <sup>1</sup>	Labour productivity growth (%) <sup>2</sup>
2000	1.4	0.7
2001	3.5	2.4
2002	4.6	4.4
2003	4.8	3.0
2004	5.0	4.8
2005	6.6	4.5
2006	8.3	4.5
2007	10.5	7.9
2008	5.7	2.5
2009	-4.9	-2.0
2010	4.2	6.2

Source: <sup>1</sup>*www.ifm.org*, <sup>2</sup>*www.statistics.sk*, (own calculations)

The calculated coefficient of correlation indicates a rather strong correlation between GDP growth and labour productivity growth ( $r = 0.87$ , when  $p = 0.05$ ). A regression line describing GDP growth in % (Y) as a function of the labour productivity growth (X) shows that even if the labour productivity growth were zero, GDP would still grow annually by 0.04 % on average. Simultaneously, annual labour productivity growth by 1 % would contribute to GDP growth by 1.3 %. That means that GDP growth was predominantly caused by the labour productivity growth. Figure 1 illustrates the correlation between the labour productivity growth and GDP growth.



**Figure 1.** GDP and labour productivity development  
Source: *www.ifm.org* *www.statistics.sk*, (own calculations)

## Sergej Vojtovich. The Impact of Emigration on Unemployment in Slovakia

On the other hand, both GDP growth and labour productivity growth showed only a slight correlation with the unemployment rate indicators. The correlation coefficient between the above listed variables equals to  $-0.08$  when  $p = 0.05$ , even though the labour productivity growth can be accompanied by layoffs, which could increase the unemployment rate. The drop in the unemployment rate is not necessarily connected with the factors of economic development, be it GDP growth or DFI inflow and subsequent job creation or labour productivity growth.

That means that during this eight-year period, 297 000 Slovak citizens found a job. But according to the expert estimates, there were only 40 000 new vacancies created within the Slovak economy during the analyzed period; the biggest investors being PSA Peugeot Citroen and KIA Motors, which employed roughly 3 000 workers each. Naturally the question arises: Where did the remaining 237 thousand find their jobs?

Analyses of emigration flows are primarily conducted by using the so called "Brain Drain" approach while neglecting the trends in unemployment. The selective survey of labour force (VZPS) conducted by the Statistical Office of the Slovak Republic concluded that the number of Slovak citizens leaving Slovakia for work tends to grow. While in 2000 there were approximately 50 000 people working abroad, this number already doubled (103 thousand) in 2004, tripled (158 thousand) in 2006 and further increased by roughly 20 000 in 2007 (see table 5).

Table 5

**Number of the unemployed and number of persons working abroad in 2000 – 2008 (in thousands)**

Year	Unemployed (thousand)	Working abroad (thousand)
2000	506.5	49.3
2001	533.6	64.1
2002	504.1	78.4
2003	452.2	69.3
2004	383.1	103.6
2005	333.8	125.4
2006	273.4	158.1
2007	239.9	177.3
2008*	248.6	206.4

Source: Statistical office of Slovak Republic, VZPS.

\*According to UPSVAR there were 270 637 Slovak workers employed abroad in 2008.

The above listed data are taken from the available statistical sources, but according to the expert estimates more than 50 000 Slovak citizens worked illegally only in Austria in 2007 (ÚPSVaR, 2012). Therefore, it seems that the data provided by the Central Office of Labour, Social Affairs and Family (ÚPSVaR SR) appear to be more adequate than the data provided by the Statistical Office of the Slovak Republic, and according to the former more than 270 thousand Slovak citizens worked abroad in 2008 (ÚPSVaR, 2012).

That implies that out of the total number of 536 thousand unemployed in 2007, 239 thousand kept looking for a job, roughly 40 thousand could find employment owing to the new vacancies created and the remaining 257 thousand resorted to working abroad. When we combine the number of the unemployed in 2007 (239 thousand)

with the number of people working abroad (270 thousand), the resulting number of the unemployed (536 thousand) will be very close to the number of the unemployed in 2000 (see Table 6). Because of this, the issue of migration of the labour force abroad can be used to explain the missing number of the unemployed, who did not manage to find employment during the studied period of time.

Table 6

**Number of the unemployed and working abroad in 1999 and 2007**

	2000	2007	Change in thousands	Change in %
<b>Unemployed</b>	536.8	239.9	296.9	- 44.7
<b>Working abroad</b>	49.3	270.6	254.8	548.8

Source: VZPS, Statistical Office of the Slovak Republic, UPSVAR SR

These data implicate that out of the total number of the unemployed during the period of eight years 55 % (296 thousand) found employment on the labour market. Out of them, almost 300 thousand found a job, more than 257 thousand (86 %) did so abroad, and only 14 % found a job on the domestic labour market. That implies that DFI inflow and subsequent GDP growth accompanied by job creation contributed to the drop in the unemployment rate only by 21 %, and that the remaining 79 % is the result of migration for work to foreign countries. The conditions necessary for migration abroad were improved by the admission of Slovakia into the European Union in 2004 and subsequent processes of liberalization implemented by the old member states of the EU.

That means that economic growth in Slovakia from 2000 to 2008 took place without any distinctive decrease in number of the unemployed in domestic economy. Similarly as in 2000, when GDP growth reached 1.4 % with 536 thousand unemployed people in the country, in 2007 when GDP growth peaked at 10.5 % there was still half a million of economically active citizens, whose work was excessive. A significant drop in unemployment was caused by migration of the labour force abroad, which is supported by the fact that the pace of the emigration increase is very similar to the unemployment decrease. The coefficient of correlation between the indicators of unemployment rate decrease and the increase of the number of migrants for work demonstrates a very strong dependence during the studied period ( $r = -0.974$ , when  $p = 0.05$ ).

Under the conditions of economic recession we can observe that the trends in the labour force emigration and the unemployment rate development have their specific characteristics, and as such they influence the situation on the labour market in general. The identified trends in the employment and in the migration of workers abroad did not change in any significant way - neither during economic recession nor during the moderate economic growth which followed. Expected return of the Slovak citizens working abroad resulting from economic recession did not occur. Only a minor number of workers working abroad came back to Slovakia during the crisis. Economic recession had impact predominantly on industry and the most of Slovak citizens working abroad, who lack tertiary education, are employed in the service sector, in particular social services. Jobs in this sector were not influenced by

the crisis in any major ways. Therefore, the growth in the unemployment rate during the economic crisis was caused predominantly by lay-offs occurring in domestic economy.

## Conclusions

The results of our analysis imply that GDP growth in Slovakia during the studied period of time was caused mostly by the increase of labour productivity and only to a very small extent by DFI inflow and subsequent creation of vacancies. None of the above mentioned economic factors showed strong correlation with the unemployment trends. DFI inflow did not result in the creation of a substantial number of vacancies. Modern, highly productive technologies do not require the employment of a high number of workers. Productivity growth and subsequent GDP growth have taken place without using a bigger share of the labour force. A significant decrease of the unemployment rate was caused by the migration of labour force abroad, since the increase in emigration is almost identical with the decrease of unemployment. But in the period of economic growth from 2000 to 2008 this soundness ceases to apply. It follows that there is no strong correlation between GDP growth and unemployment rate drop.

The conducted analysis of the unemployment trends shows that the expected strong correlation between GDP growth and unemployment rate is absent. While GDP growth was accompanied by a proportional employment growth and unemployment drop in the preceding period, this soundness stops to apply under the conditions of economic growth caused by DFI inflow. As a result a strong correlation between GDP growth and

decrease of unemployment rate is missing. If this trend continued to apply and was further confirmed by other findings, it would require a specification of classical macroeconomic concept of economic theory, which explains the relationship between GDP and employment. Simultaneously, it would also be necessary for the government economic and employment policy to change the rules and proceedings on how specific measures are created and taken. Assuming that GDP growth does not solve the unemployment problem, the change in the principles of the state employment policy is called for along with planning of such measures, which would be effective in the process of solving the unemployment problems and which would eliminate its negative impacts on economic and social development.

Therefore, the assumption that economic growth automatically solves unemployment cannot be applied under the present conditions. The economic production of today is based on sophisticated and highly efficient technologies, which do not require a lot of labour force. As a result, economic growth is not influenced by the involvement of a large number of labour force. Precisely this situation characterizes the economic development not only in Slovakia, but also in other countries of Central and Eastern Europe. Increase in labour productivity and GDP growth occurs without them being accompanied by proportionally adequate employment growth or unemployment drop. A significant drop of the unemployment rate in Slovakia was caused predominantly by the migration of labour force abroad.

## References

- Adepoju, A. (2006) Placing International Migration in the Context of the 3D's: Demography, Development, and Democracy. *Journal of International Migration*, 44(4), 3-12. <http://dx.doi.org/10.1111/j.1468-2435.2006.00376.x>
- Adepoju, A., Van Noorloos, F., & Zoomers, A. (2010). Europes Migration Agreements with Migrant-Sending Countries in the Global South: A Critical Review. *Journal of International Migration*, 48(3), 42-75. <http://dx.doi.org/10.1111/j.1468-2435.2009.00529.x>
- Albert, M., & Hahnel, R. (1991). Looking Forward – Participatory Economics for the Twenty First Century. Boston.
- Altvater, E., & Mahnkopf, B. (2007). Grenzen der Globalisierung. Munster.
- Baccaro, L., & Rei, D. (2007). Institutional Determinants of Unemployment in OECD Countries: Does the Deregulatory View Hold Water? *International Organization*, 61 (Summer), 5, 27-69.
- Balaz, P. a kol.(2001). *Medzinarodne podnikanie*. Bratislava: Sprint.
- Balaz, V., & Kollar, D. (2003). Unik mozgov sa stava vaznym problemom. Available from internet: <http://www.ads.sk/dokumenty/unik-mozgov-hn.pdf>
- Berzinskiene, D., & Juozaitiene, L. (2011). Impact of Labour Market Measures on Unemployment. *Inzinerine Ekonomika-Engineering Economics*, 22(2), 186-195.
- Berzinskiene, D. (2006). Presumptions of the Development of Labour Market Differences in a Homogenous Group of Countries. *Inzinerine Ekonomika-Engineering Economics*(5), 26-32.
- Bielensky, H., Bosch, G., & Wagner, A. (2002). Wie die Europaer Arbeiten Wollen. Erwerbs- und Arbeitszeitwünsche in 16 Landern. Frankfurt/Mein: Campus.
- Bujnovska, D. (2009). Pracovna migracia v krajinach OECD. Bratislava. Avialable from internet: [http://www.mfa.sk/zu/index/open\\_file.php?file=paris/Pracovn%C3%A1%20migr%C3%A1cia%20v%20krajinach%20OECD.doc&lang=sk](http://www.mfa.sk/zu/index/open_file.php?file=paris/Pracovn%C3%A1%20migr%C3%A1cia%20v%20krajinach%20OECD.doc&lang=sk)
- Bucek, M., et. al. (2008). Regionalny rozvoj. Bratislava: Ekonom.
- Cekanavicius, L., & Kasnauskiene, G. (2009). Too High or Just Right? Cost-Benefit Approach to Emigration Question, *Inzinerine Ekonomika-Engineering Economics*(1), 28-36.

- Daugela, V., Kazlauskienė, A., & Snieska, V. (2000). The Determinants and Nature of Labor Migration in Lithuania. *Inžinerine Ekonomika-Engineering Economics*(5), 31-42.
- Daugeliene, R. (2007). The Peculiarities of Knowledge Workers Migration in Europe and the World. *Inžinerine Ekonomika-Engineering Economics*(3), 57-64.
- Daugeliene, R. (2007a). The Position of Knowledge Workers in Knowledge-Based Economy: Migration Aspect. *European Integration Studies*, 1, 103-112.
- Divinsky, B. (2009). Migracne trendy v Slovenskej Republike po Vstupe do EU (2004-2008). Bratislava: International Organization for Migration.
- Divinsky, B. (2005). *Zahranicna Migracia v Slovenskej Republike - Stav, Trendy, Spolocenske suvislosti*. Bratislava: Friedrich Ebert Stiftung, 216.
- Drinkwater, S., Eade, J., & Garapich, M. (2009). Poles Apart? EU Enlargement and the Labour Market Outcomes of Immigrants in the United Kingdom. *Journal of International Migration*, (47) 1, 161-190. <http://dx.doi.org/10.1111/j.1468-2435.2008.00500.x>
- Dudas, T. (2006). *Priame zahranicne investicie vo svetovom hospodarstve*. Bratislava: Ekonom.
- Grencikova, A., & Spankova J. (2011). Nove trendy pri prepustani zamestnancov. *Aktualni otazky socialni politiky – teorie a praxe*. V. rocnik. S. 23-27.
- Honekopp, E., Martin, P., & Plewa, P. (2008). Report of the Seminar on Migration and Development on the Polish-Ukrainian Border. *Journal of International Migration*, (46) 4, 199-209. <http://dx.doi.org/10.1111/j.1468-2435.2008.00477.x>
- International Monetary Fund. (2012). *World Economic Outlook Databases*. Available from internet: <http://www.imf.org/external/pubs/ft/weo/2012/01/weodata/weoselser.aspx?c=936&t=1>
- INECO. (2012). *Unik mozgov nezastavi administrativa, ale rozvoj ekonomiky*. Available from internet: <http://www.ineko.sk/ostatne/unik-mozgov-nezastavi-administrativa-ale-rozvoj-ekonomiky>
- Jurcova, D. (2008). *Pracovne migracie v SR*. Bratislava: Edicia Akty.
- Karabinos, F., & Balga, J. (1997). *Migracna Politika SR*. Bratislava: APZ.
- Karbach, R. (2005). Stop to Manage, Start to Lead. *Zeitschrift der Eberle-Butschkau-Stiftung*, Jahrgang 20, Nr.3, Bonn.
- Kazlauskienė, A., & Rinkevicius L. (2006). The Role of Social Capital in the Highly-Skilled Migration from Lithuania. *Inžinerine Ekonomika-Engineering Economics*, 4, 69-75.
- Kazlauskienė, A., & Rinkevicius, L. (2006a). Lithuanian “Brain Drain” Causes: Push and Pull Factors. *Inžinerine Ekonomika-Engineering Economics*(1), 27-37.
- Ketkar, S., & Sett, P.K. (2010). Environmental Dynamism, Human Resource Flexibility, and Firm Performance: Analysis of a Multi-Level Causal Model. *The International Journal of Human Resource Management*, (21)8, 1173-1206. <http://dx.doi.org/10.1080/09585192.2010.483841>
- Klvanova, R. (2010). Moving Through Social Networks: The Case of Armenian Migrants in the Czech Republic. *Journal of International Migration*. (48) 2, 103-132. <http://dx.doi.org/10.1111/j.1468-2435.2009.00565.x>
- Kovekova, G., & Krajnakova, E. (2010). Zmeny v Struktore Pracovnych Miest na Regionálnom Trhu Prace. *Social and Economic Review*, 3(8), 40-49.
- Krajnakova, E. (2004). Flexibilne Formy Zamestnavania na Europskom Trhu Prace. *Social and Economic Review*, 1(2), 40-47.
- Le, T. (2008). Brain drain or Brain Circulation: Evidence From OECD’s International Migration and R&D Spillovers. *Scottish Journal of Political Economy*, 5, 81-92.
- Martinkus, B., Stoskus, S., & Berzinskiene, D. (2009). Changes of Employment through the Segmentation of Labour Market in the Baltic States. *Inžinerine Ekonomika-Engineering Economics*(3), 41-48.
- Melnikas, B. (2008). Integration Processes in the Baltic Region: the New Form of Regional Transformations in the European. *Inžinerine Ekonomika-Engineering Economics*(5), 54-64.
- McConnell, C. R., & Brue, S. L. (1999). *Economics. Principles, Problems and Policies*. Irwin McGraw-Hill.
- Navickas, V., & Kontautiene, R. (2012). The use of Corporate Social Responsibility for the Enhancing Motivation of Employees. *Social and Economic Review*, 4(10), 62-69.
- ETREND. (2012). *Odliv Mozgov Brzdi Slovensku Ekonomiku*. Available from internet: <http://ekonomika.etrend.sk/ekonomika-slovensko/odliv-mozgov-brzdi-slovensku-ekonomiku.html>
- Ressler, O. (Hrsg.). (2008). *Alternative Okonomien, Alternative Gesellschaften*, Wien.
- Rosenow, K. (2009). The Europeanisation of Integration Policies. *Journal of International Migration*. (47)1, 133-159. <http://dx.doi.org/10.1111/j.1468-2435.2008.00499.x>
- Samuelson, P. A., & Norghaus, W. D. (1991). *Ekonomie*. Praha: Nakladatelstvi Svoboda.



- Sikula, M. (2008). Dlhodoba Vizia Rozvoja Slovenskej Spolocnosti. Bratislava: EU SAV.
- Schaeffer, P. (2010). Refugees: on the Economics of Political Migration. *Journal of International Migration*, (48)1, 1-22. <http://dx.doi.org/10.1111/j.1468-2435.2009.00539.x>
- Sileika, A., & Andriusaitiene, D. (2006). Problems of Identifying and Regulating the Structure of the Labour Market in Depressive Lithuanian Regions. *Journal of Business Economics and Management*, 7(4), 223-233.
- Simanaviciene, A., & Uzkuryte, L. (2009) Changes of Labour Market During the Recession: in Case of Lithuanian. *Ekonomika ir vadyba-Economics and Management*, 14, 940-946.
- Skidelsky, R. (2008). The End of Neo-Classicism. *The Vienna Review*, 10, 25-26.
- Sramkova, I. (2005). *Praca v EU, krok za krokom*. Bratislava: SEVT, a.s. 116.
- Startiene, G., & Remeikiene, R. (2009). The Influence of Demographical Factors on the Interaction between Entrepreneurship and Unemployment. *Inžinerine Ekonomika-Engineering Economics*(4), 60-70.
- Stiglitz, J. E. (2003). *Jina Cesta k Trhu - Hledani Alternativy k Soucasne Podobe Globalizace*. Praha: PROSTOR.
- Stiglitz, J. E. (2008). Neviditena Ruka je Ochrnuta. *The New Republic*. Available from internet: <http://www.salon.eu.sk/article.php?article=671-neviditelna-ruka-je-orchnuta-esej>
- Statistics. (2011). *Statisticky Urad SK*. Available from internet: <http://portal.statistics.sk/showdoc.do?docid=9613>
- Strunz, H. (2007). Internationale Wirtschaft – Entwicklungen, Trends & Kritik. *Die Zeitschrift für internationale Politik*, IV/2007, S. 45-46.
- Thaut, L. (2009). EU Integration & Emigration Consequences: The Case of Lithuania. *Journal of International Migration*, (47)1, 191-233. <http://dx.doi.org/10.1111/j.1468-2435.2008.00501.x>
- Tuharska, E. (1998). *Investicna teoria a politika*. Bratislava: Ekonóm.
- UPSVAR. (2012). Available from internet: [http://www.upsvar.sk/statistiky/nezamestnanost-stvrtrocnestatistiky/2012.html?page\\_id=170879](http://www.upsvar.sk/statistiky/nezamestnanost-stvrtrocnestatistiky/2012.html?page_id=170879)
- Valackiene, A. (2009). Theoretical Model of Employee Social Identification in Organization Managing Crisis Situations, *Inžinerine Ekonomika-Engineering Economics*(4), 95-102.
- VZPS (2012). *Statisticky urad SR*. Available from internet: <http://portal.statistics.sk/showdoc.do?docid=18985>

Sergej Vojtovich

### Emigracijos įtaka nedarbui Slovakijoje

Santrauka

Šio darbo tikslas buvo nustatyti, kokių mastu ekonominė plėtra daro įtaką nedarbo lygiui pastaruju dešimtmečiu Slovakijoje, taip pat kokią įtaką darbo jėgos emigracija galėtų padaryti nedarbo kryptims. Norint atlikti šią užduotį buvo būtina išanalizuoti tam tikrus ryšius tarp ekonominės plėtros kryptių ir darbo rinkos bei nedarbo lygio tendencijų. Pagrindiniai analizės objektai daugiausia buvo nedarbo lygio tendencijos ir veiksniai, kurie gali daryti joms įtaką: ekonominis augimas, užsienio investicijų įplaukos, darbo vietų kūrimas, darbo jėgos migracija į užsienį ir t.t. Pagrindinis šio *straipsnio tikslas* buvo nustatyti darbo jėgos migracijos į užsienį įtaką nedarbo atsiradimui. Tam buvo atlikta teorinė analizė makroekonomikos sąvokų, susijusių su ekonominiu augimu ir nedarbo tendencijomis, taip pat įdarbinimo lygio bei darbo jėgos migracijos į užsienį rodiklių statistinė analizė.

Nedarbo, kaip ekonominio ir socialinio reiškinio, plėtros tendencijų tyrimas pradėtas stabilizacijos ir santykinio ekonominio augimo metu, po kurio sekė Slovakijos ekonominės sistemos keitimasis, kuris baigėsi ekonomine recesija 2008 metais. Kaip šios analizės objektas, buvo nustatytos svarbiausios tendencijos plėtojant ekonomiką, kuriant darbo vietas ir didinant įdarbinimo galimybes, kurios atsirado dėl tiesioginių investicijų įplaukų iš užsienio, ir darbo jėgos migracijos į užsienį.

Kitas svarbus kintamasis, kuris buvo nagrinėtas, yra priežastinis ryšys tarp darbo jėgos emigracijos ir nedarbo lygio rodiklių. Iš ankstesnių šioje srityje jau atliktų tyrimų žinoma, kad aukštas nedarbo lygis susijęs su darbo jėgos migracijos į užsienį srautų didėjimu. Taigi galima matyti skirtingą nedarbo ir darbo jėgos emigracijos raidą tiriamuoju laikotarpiu. Pavyzdžiui, mūsų analizės rezultatai rodo, kad daugelyje tirtų šalių nėra beveik jokios koreliacijos tarp ekonominio augimo rodiklių ir nedarbo lygio.

Užtenka trumpai žvilgtelėti į tokių šalių kaip Čekijos respublika ir Slovakija raidą, kad būtų galima nustatyti, jog ekonominė plėtra ir įdarbinimo lygis parodo skirtingas kiekvienos šalies tendencijas ir raidą. Skirtumams atskleisti pasirinktas Slovakijos pavyzdys. Nedarbas Slovakijoje buvo didžiausias 2000 - 2001 metais, kai jis viršijo 19 %, tai reiškė, kad šalyje buvo 536 tūkstančių bedarbių. Laikotarpiu nuo 2000 iki 2005 metų, nedarbas lėtai mažėjo. Nedarbo mažėjimas pagreitėjo per kitus dvejus metus. 2007 metais Slovakijoje buvo 239 tūkstančiai bedarbių. Tai reiškė, kad per tuos septynerius metus, 297 tūkstančiai anksčiau buvę bedarbiai pakeitė savo statusą. Tačiau, remiantis ekspertų hipotezėmis, Slovakijoje buvo sukurta tik 60 000 naujų darbo vietų. Didžiausi "žaliosios srities" investuotojai (tokie kaip *Siemens, PSA Peugeot Citroen* ir *KIA Motors*) įdarbino maždaug po 3 000 darbuotojų. Todėl kilo klausimas: kur likę 237 tūkstančiai rado darbą?

Remiantis *Slovakijos Statistikos ministerijos* atlikta atrankinės apklausos išvada, Slovakijos gyventojų migracija į užsienį dirbti tuo metu didėjo. 2000 metais užsienyje dirbo apytiksliai 50 000 Slovakijos gyventojų, 2004 metais šis skaičius padvigubėjo (103.6 tūkstančių), 2006 patrigubėjo (158.1 tūkstančių) ir 2007 metais pasiekė 270 tūkstančių (VZPS, 2011). Tačiau ekspertai apskaičiavo, kad vien tik Austrijoje 2007 metais nelegaliai dirbo daugiau nei 50 tūkstančių Slovakijos darbininkų (ŪPSVaR, 20011). Todėl atrodo, kad duomenys, kuriuos pateikė Darbo, Socialinių reikalų ir Šeimos centrinė valdyba (ŪPSVaR SR) yra patikimesni nei tie, kuriuos pateikė Slovakijos respublikos Statistikos ministerija. Taigi remiantis jais, 2008 metais užsienyje dirbo daugiau nei 270 tūkstančių Slovakijos gyventojų (ŪPSVaR, 2012).

Remiantis duomenimis matyti, kad iš 2007 metų visų bedarbių, t. y. 536 tūkstančių, 239 tūkstančiai toliau ieškojo darbo, apytiksliai 40 tūkstančių galėjo įsidarbinti naujai sukurtose darbo vietose, o likę 257 tūkstančiai ėmėsi darbo užsienyje. Tokiu būdu, darbo jėgos migracija į užsienį gali paaiškinti trūkstantį skaičių bedarbių, kurie nesugebėjo įsidarbinti ekonominio augimo laikotarpiu. Šie duomenys rodo, kad iš bendro bedarbių skaičiaus, per septynerių metų laikotarpį 55 % (296 tūkstančiai) rado darbą darbo rinkoje. Iš šių, beveik 300 tūkstančių, kurie rado darbą, daugiau nei 257 tūkstančiai (85 %) susirado jį užsienyje, ir tik 14 % įsidarbino vietinėje darbo rinkoje. Vadinasi tiesioginių užsienio investicijų įplaukos ir paskesnis BVP augimas, lydintas darbo vietų kūrimo, prisidėjo prie nedarbo mažėjimo tik 14 %, o likę 85 % yra darbuotojų migracijos į užsienio šalis rezultatas. Migracijai į užsienį būtinos sąlygos buvo sudarytos 2004 metais Slovakijai įstojus į Europos Sąjungą ir vykdant senujų ES šalių narių įdiegtus liberalizacijos procesus.

## Sergej Vojtovich. The Impact of Emigration on Unemployment in Slovakia

Taigi Slovakijos ekonominio augimo metu (nuo 2000 iki 2007 m.) nedaugėjo žmonių, įdarbintų vietinėje rinkoje. Panašiai kaip ir 2000 metais, kai BVP augimas pasiekė 1.4 % ir šalyje buvo 536 tūkstančių bedarbių, 2007 metais, kai BVP augimas pasiekė savo viršūnę ties 10.5 %, vis dar buvo pusė milijono gyventojų, kurių nedarbas buvo pernelyg didelis. Žymų nedarbo lygio kritimą sukėlė darbo jėgos migracija į užsienį, kurią lėmė faktas, kad emigracijos didėjimo tempas yra labai panašus į nedarbo mažėjimo tempą. Koreliacijos tarp nedarbo lygio mažėjimo ir darbo migrantų skaičiaus didėjimo, rodiklių koeficientas rodo labai stiprią priklausomybę tiriamuoju laikotarpiu ( $r = -0.974$ , kai  $p = 0.05$ ).

Ekonomikos recesijos sąlygomis matyti, kad darbo jėgos emigracijos srautų ir nedarbo lygio plėtos tendencijos turėjo joms būdingų savybių, kurios darė bendrą įtaką situacijai darbo rinkoje. Šios nustatytos įdarbinimo ir darbuotojų migracijos į užsienį tendencijos nepasikeitė nei ekonomikos recesijos metu, nei vėlesniu, saikingo ekonominio augimo laikotarpiu. Laukiama, užsienyje įsidarbinusių Slovakijos gyventojų grįžimo, dėl ekonominės recesijos, neįvyko. Tik mažai užsienyje dirbančiųjų grįžo į Slovakiją krizės metu. Ekonominė recesija labiausiai paveikė pramonę, todėl dauguma užsienyje dirbančių Slovakijos gyventojų, neturintys aukštojo išsilavinimo, įsidarbino paslaugų sektoriuje (ypač socialinių paslaugų srityje), nes ši sritis nebuvo paliesta krizės. Taigi nedarbo lygio augimą ekonominės krizės laikotarpiu, daugiausiai lėmė pristabdyta gamyba.

Raktažodžiai: *Ekonominis augimas, bendrasis vidaus produktas, įdarbinimas, nedarbas, darbo jėgos migracija į užsienį.*

The article has been reviewed.

Received in December, 2012; accepted in June, 2013.