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TRENDS IN UNEMPLOYMENT AND EMIGRATION OF LABOR FORCE

Abstract:

The situation on the labour market can be influenced by other factors apart from economic development. Equally as important are political decisions, qualification of labor force, its values and attitudes, flexibility of labour jurisdiction and flexible forms of employment, demographic swings in population, employee relations and social aspects within their implementation. The study explores trends in economic development, unemployment and in the migration flow of labor force abroad during the period of economic growth before the onset of global financial crisis. Geographically it covers countries of Central Europe. We look into causal dependence between economic growth, decrease in unemployment rate and migration flows of labor force. Moreover we argue that a significant drop of unemployment rate during the studied period was not predominantly the result of economic growth but it was caused by emigration of labor force.

Keywords:

economic growth, investments, employment, unemployment, emigration, labor force.

JEL Classification: F22, J61, J62

Introduction

Classical approaches clearly dominate when it comes to explaining the unemployment and its development - economic development (or economic recession) causes decrease (or increase) in unemployment (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 mainly lies in the combination of the inflow of direct foreign investments and economic growth (Stiglitz, 2008; Dagiliene, et al., 2014). However, the economic growth in the Central and Eastern European countries (including those that have joined European Union in this period) resembled classical concepts about the relation between economic development and unemployment only minimally. According to many economists, even in the developed countries of Western Europe it can be observed that the actual development does not necessarily match the classical macroeconomic concepts (Stiglitz, 2003; Ressler, 2008 and others).

The situation on the labour market can be influenced by other factors apart from economic development. Equally as important are political decisions, qualification of labor force, its values and attitudes, flexibility of labour jurisdiction and flexible forms of employment, demographic swings in population, employee relations and social aspects within their implementation etc. (Martinkus, et al, 2009; Schaeffer, 2010; Havierniková, et al, 2014; Krajňáková, 2015). In addition, the final interpretation of the reasons causing unemployment remains unclear; similarly as it is with the factors influencing the unemployment, effectiveness of measures proposed and implemented within the state policy of employment and so on (Baccaro, Rei 2007; Schaeffer, 2010; Berzinskiene, Juozaitiene, 2011 and others).

The study mainly aims to determine, to what extent the trends in the unemployment rate were influenced by the emigration of labour force. These findings apply predominantly to the period preceding the recent global financial crisis and subsequent economic recession. During this period Slovakia and other Central and Eastern European countries were experiencing post-reform stabilization and economic growth. Therefore the trends in the unemployment rate their potential connection with the emigration flows of labor force are the main subjects of this analysis.

Main goal of the article is to determine to what extent emigration of labor force and economic growth influenced the trends in the unemployment. We do not aim to determine the relations between above mentioned variables in the conditions of common economic growth, but in the specific conditions of expanding economic growth in Slovakia that could be observed from the beginning of the past decade up until the onset of economic recession caused by global financial crisis.

We have used following research methods: theoretical analysis of macroeconomic indicators of the economic development and the trends in the unemployment rate, theoretical analysis of the emigration flows of labor force; analysis of the statistical indicators of unemployment rate and migration flows of labor force abroad; correlation analysis.

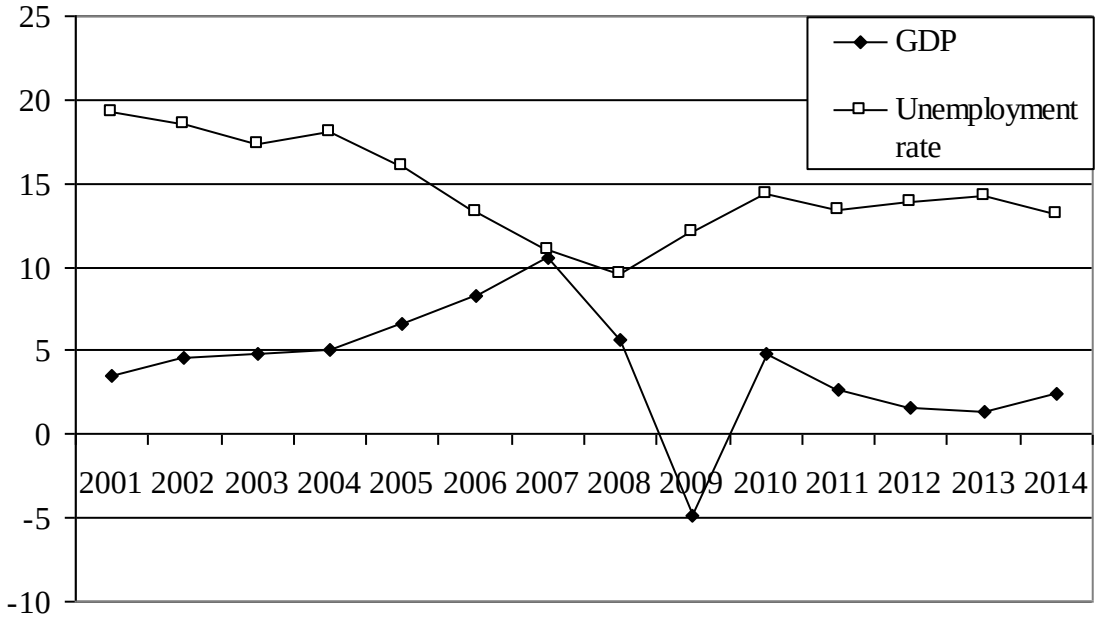
Trends in the economic development and employment

The most pronounced changes in the Slovak economic development were taking place in the beginning of 1990s. 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 rather than economic reasons. That meant that decrease of production in these fields of industry was not a result of the falling demand for the products they manufactured. Simultaneously, a lot of energetically and technologically demanding fields interconnected with mining and primary processing of raw materials came to an end because of lack of their competitiveness on international markets. Unsurprisingly, we can observe a steep rise of unemployment during this period, which in 1992 reached 11 % (UPSVAR, 2015).

After parliamentary elections and political changes in 1998 Slovakia started to take part in the European integration process and created conditions for the inflow of DFI. Unemployment in Slovakia culminated in 1999 when it peaked at the level of 20.1 %. In 1998 Slovak GDP started to grow – by 4.1 %. In this year out of overall number of 2.6 mil. economically active citizens over 428 thousand were unemployed (16.4 %). In the following year GDP grew again – this time by 1.9 %, but despite this the unemployment rate rose to 20.1 % (UPSVAR, 2011). GDP continues to grow in the next years. While in 2000 GDP grew only moderately by 1.4 %, in the following year the GDP growth reached 3.5 %. In every consecutive year the dynamics of economic growth accelerated and reached its peak in 2007, when the GDP growth reached 10.5 % (UPSVAR, 2015).

On the other hand, unemployment in Slovakia culminated in 1999 at the level of 20.1 %. Only a moderate drop and fluctuation between 17 and 19 % could be observed in the following years. 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).

Figure 1: GDP and unemployment rate in Slovakia (change in %)



Source: Own adjustment based on IMF data

Only during the short period of 2004-2007 there is a strong indirect correlation between GDP growth and unemployment rate – correlation coefficient has the value minus 0.99 when p = 0.05. In the period since 2000 to 2004 there was a weaker correlation between GDP growth and unemployment rate at the level of r = - 0.54, when p = 0.01. 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 = 0.01). Similarly, in the whole studied period since 2000 stronger correlation between GDP growth and unemployment rate is also missing (r = - 0.11, when p = 0.06).

When we look into the development of above discussed variables in other countries of Central Europe (Table 1), we can conclude that the indirect correlation between economic growth and unemployment is almost entirely absent. Correlation between GDP macroeconomic indicators and unemployment rate can be observed only in Hungary (r = -0.65, when p = 0.05). When it comes to Poland, we find that there is only weak indirect correlation between GDP indicators and unemployment rate (r = - 0.23, when p = 0.01). And even weaker correlation is between studied indicators in cases of Slovakia and Czech Republic (r = - 0.14, when p = 0.01 and r = - 0.11, when 0.06, respectively).

Table 1: GDP and unemployment rate in the countries of Visegrad Group (change in %)

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Czech Republic														
GDP %	3.1	2.1	3.8	4.7	6.7	7.0	5.7	3.1	-4.7	2.7	1.6	0.1	-0.7	2.0
Unempl.%	8.2	7.3	7.8	8.3	7.9	7.1	5.3	4.4	6.7	7.3	6.7	7.0	6.9	6.1
Hungary														
GDP %	3.7	4.5	3.9	4.8	4.0	3. 9	0.1	0.9	-6.8	1.2	1.7	0.0	1.5	3.6
Unempl.%	5.6	5.9	5.5	6.3	7.3	7.5	7.7	8.0	10.0	11.2	10.9	11.5	10.2	7.7
Poland														
GDP %	1.2	1.4	3.9	5.3	3.6	6.2	6.8	5.1	1.6	3.9	4.3	2.6	1.7	3.3
Unempl.%	18.3	19.9	19.6	18.9	17.7	13.8	9.6	7.2	8.2	9.6	9.6	9.4	10.3	9.0
Slovakia														
GDP %	3.5	4.6	4.8	5.0	6.6	8.3	10.5	5.7	-4.9	4.2	3.3	2.4	1.4	2.4
Unempl.%	19.3	18.5	17.4	18.1	16.1	13.3	11.0	9.6	12.1	14.4	13.4	13.9	14.2	13.2

Source: Own adjustment based on IMF data

The reasons why the economic development in the studied countries differed are specific for each country and they would require deeper analysis of economic and social factors. We look into the case of Slovakia more closely and try to define these specificities.

Emigration of labor force and employment

One of the specific factors which played the role on the labor market in Slovakia was the migration of labor force abroad. This issue in the countries of Central 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 (Drinkwater, et all, 2009; Daugėlienė, 2007).

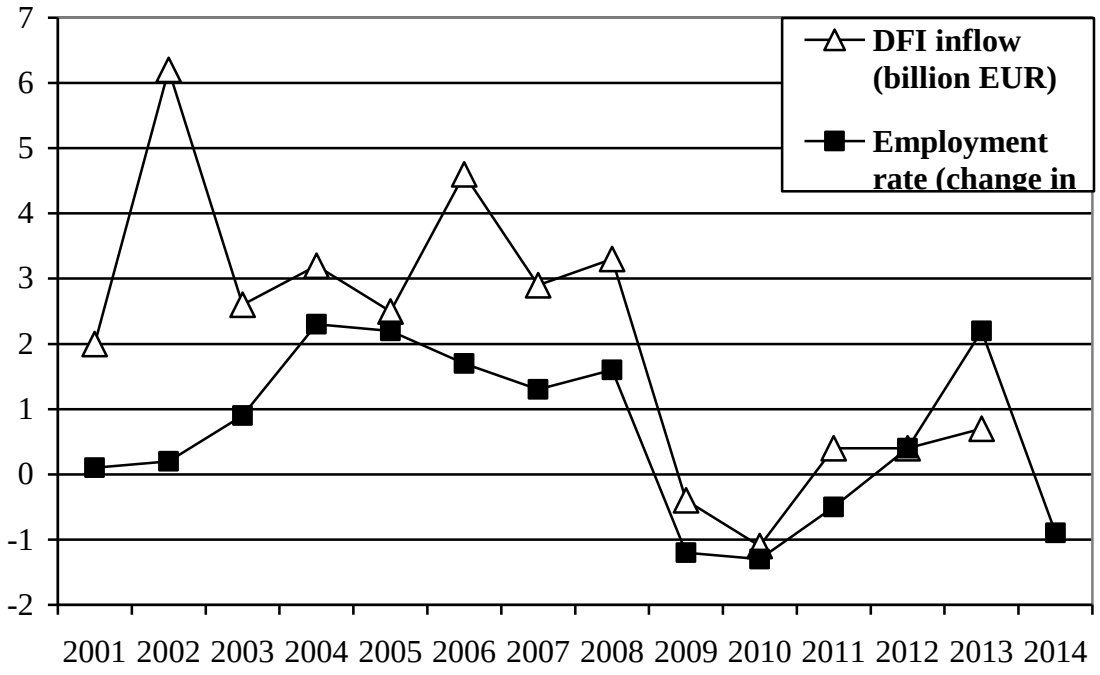
Heightened dynamics of emigration was perceived as a result of spreading implementation of the free movement of workers on the European labour market (Adepoju et al., 2010). Reasons and factors of emigration for work as such have become the subject of many research projects (Daugeliene, 2007; Thaut, 2009). 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” (Daugėlienė, 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 (Schaeffer, 2010).

Emigration of labor force from Slovakia, whose intensity and scale have significant impact on the social and economic development of society, is 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 labor emigration is raised is the so called “brain drain” (Le, 2008). However, moving abroad and subsequent employment are not necessarily caused only by the lack of job 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 an incentive for emigration these factors are, is still absent. Similarly, there is no research on how the scale and intensity of migration flows of labor force abroad are influenced by the economic factors, trends on the labor market and in the field of hiring new employees, just as the research on the causal relations and connection between emigration of labor force and unemployment rate.

Emigration flows of labor force are mostly analyzed only concerning the issue of already mentioned “brain drain“ and as such are not related to the trends in the development of unemployment rate. Both expert publications and public opinion alike often focus on and take the medialized and simplified stance that the most efficient solution to the unemployment issue is a job creation which is the result DFI inflow (Martinkus et al., 2009). This approach is further fostered by the politicians. At the same time, this reasoning is supported by the trends in the inflow of foreign capital, which historically reached its highest values (see Figure 2). This inflow is connected with such investors as PSA Peugeot Citroen and Korean company KIA Motors, both with a considerable amount of subcontractors.

Figure 2: DFI inflow and changes in employment rate in 2001 – 2014



Source: Own adjustment based on National Bank of Slovakia and Slovak Statistical Office data
Note: DFI inflow in 2013 is preliminary data

However, the correlation coefficient (r = 0.61) between DFI inflow (X) and employment growth (Y) shows only moderately strong dependence. While employment grew yearly by 1 – 1.5 %, the unemployment during the same period was decreasing by 2 – 3 %. Linear regression line describing the employment growth (Y) as a function of DFI inflow in mil. EUR (X) can be written as a mathematical formula Y = -0.9781 + 0.00069*X. That means that in case of zero DFI inflow the employment should yearly

fall by 0.9781 %. At the same time if the DFI inflow yearly grew by 1 million EUR, the employment should also grow, specifically by 0.00069 %.

The growth of employment in Slovakia has been very low – its yearly growth was mostly between 1 and 2 %, in many years it did not even reach the value of 1 %. On the other hand the unemployment rate dropped quite significantly to 8 %. As mentioned above, unemployment in Slovakia peaked in 2000 -2001, when it exceeded 19 % (536 thousand). From 2000 till 2005 it was slightly falling and then up until 2007 it was significantly decreasing, with in 2007 there being 239 thousand unemployed. That means that during this period, 297 000 Slovak citizens found a job. But according to the expert estimates, there were only 60 000 new jobs created within the Slovak economy; the biggest investors being PSA Peugeot Citroen and KIA Motors, which employed roughly 3 000 workers each. Naturally a question arises: Where have the remaining 237 thousand found their jobs?

The selective survey of labor 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 (Slovstat, 2015) (see Table 2).

Table 2: Number of unemployed and number of Slovak citizens working abroad during 2000 – 2007 (in thousand)

Year	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
Unemployed	536.8	533.6	504.1	452.2	383.1	333.8	273.4	239.9
Working abroad	49.3	64.1	78.4	69.3	103.6	125.4	158.1	177.3 270.6*

Source: Own adjustment based on Slovak Statistical Office and UPSVAR data
**According to UPSVAR in 2008 there were 270 637 Slovak citizens working abroad.*

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 Labor, 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 60 thousand could find employment owing to the newly created jobs and the remaining 240 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 (509 thousand) will be very close to the number of the unemployed in 2000 (see Table 3). Because of this, the emigration of the labor force 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 3: Number of unemployed and number of Slovak citizens working abroad during 2000 – 2007 (in thousand)

Year	2000	2007	Change in thousand	Changein %
Unemployed	536.8	239.9	- 296.9	- 44.7
Working abroad	49.3	270.6	221.3	548.8

Source: Own adjustment based on Slovak Statistical Office and UPSVAR data

These data implicate that out of the total number of the unemployed during the studied period 55 % (296 thousand) found employment on the labor market. Out of them, more than 236 thousand (79 %) did so abroad, and only 21 % found a job on the domestic labor market. That implies that the 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 EU.

That means that the economic growth in Slovakia from 2000 to 2007 took place without any distinctive increase in number of the employed in domestic economy. Similarly as in 2000, when the GDP growth reached 1.4 % with 536 thousand unemployed people in the country, in 2007 when the 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 emigration of the labor force, 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 $p = 0.05$).

Conclusions

The conducted analysis of the economic growth and its impact on the employment shows that the expected strong correlation between the GDP growth and unemployment rate is absent. While the GDP growth was accompanied by a proportional employment growth and unemployment drop in the preceding period, this soundness stops to apply in the conditions of economic growth caused by the DFI inflow. As a result a strong correlation between the GDP growth, employment growth and decrease of unemployment rate is missing. At the same time the drop in the unemployment rate strongly correlates with the growth of emigration flows of labor force.

In the conditions of economic recession we can observe that the trends in the labor force emigration and the unemployment rate development have their specific

characteristics, and as such they influence the situation on the labor 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.

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