Global problems of the employment in V4 region

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Abstract.

Research background: Unemployment presents one of the most important macroeconomic indicators, which is basic economic and social problem and number of countries fights with this problem. Unemployment is presently considered as serious economic problem and V4 countries have big problem to employ people. Young people, which are unemployed, show the serious problem to find the job in time of school termination, confirming that they would be willing to migrate due to the job. Job Offices has therefore a task to create sufficient working posts for young and adult people.

Purpose of the article: The goal of the contribution is to make the analysis of the unemployment development and to determine the ways for its decreasing in V4 countries, as well as to identify the main problems of unemployment and to suggest the ways to solve the problems.

Methods: Object of searching are individual countries in V4 region in 2011-2019. The unemployment is different in individual countries from the view of the state economy development, as well as from the view of GDP and job market development.

Findings & Value added: The results of the analysis are profitable for determination of unemployment decreasing in V4 countries through governmental measurements, such as for example European projects. Presently the situation is improving, leading to promising future. Improved situation is caused by various factors, such as governmental measurements, in the frame of which taxes decreased and by this way organizations could employee more employees.

Keywords: Job market; Employment; Measure of unemployment; Working posts; V4 region

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1 Introduction

Unemployment presents one of the most important macroeconomic indicators, which is basic economic and social problem and number of countries fights with this problem. Unemployment is developed from various factors, as for example demand and offer of products and services at the job market, development of single job market, present economy of the state, GDP, etc. Employment and unemployment at the job market are appearing at the same time. Society invests to the unemployment vast finances and unemployed people are not re-evaluating such investment. On the other hand they are reliant to the state help. The next reason of high unemployment is termination of working posts and not creation of new ones. Therefore it is necessary that any inhabitant, who is able to make works in any country, could find any free working post. Presently it is not important what job somebody wants to make or what study branch did he study, but mainly what working post at the job market is actually available. Free working posts in the country are publicly available and anybody who is looking for the job can find them, as well as anybody, who is interesting to work.

The goal of the contribution is to make analysis and evaluation of unemployment development in V4 countries. The research results from the V4 countries comparing between themselves in area of disposal number of employees, total number of inhabitants, measure of employment and unemployment, number of active and inactive inhabitants. The object of searching is individual job market in V4 countries during 2011-2019. The evaluation results by the way of unemployment development during the analysed period with aim to find the ways for its decreasing. The contribution brings suggestions for possible solving of unemployment in individual V4 countries by the way of various projects and programs, by, which governments and other organizations can decrease their unemployment.

1.1 Present state of problem solving – literature review

Unemployment can present accompanying fact of the developed market economy; therefore it cannot be connected only with less developed economy [1]. Unemployment together with inflation is generally considered as very serious macroeconomic problem that governments of the countries must solve by the tools of economic policy. High unemployment is extraordinary costly for the economy. The effort to create new working possibilities, as well as the effort to decrease burden of unemployment is serious economic, social and political problem. The unemployment is also reflection of micro structural adaptation of the economy due to the technological progress, leading to the rising, termination and limitation of production activity and connected working posts [2], [3]. It is also connected with mobility of working power and part of the working power is adapted to the technological changes by re-qualification, or by migration due to the work. Such unemployment is assumption of adaptation processes and it enables structural changes [4].

Unemployment is one of the basic indexes of so-called magic quadrangle, which represents macroeconomic balance [5]. Any economy must make balance with this fact that cannot be solved without certain interventions of the state. Problem of unemployment is the biggest challenge, when majority of the European states and global economies must solve it [3]. Therefore it presents serious economic and social problem, as well as very big political problem. Unemployment presents one of the present time phenomena. It means natural consequence of the market economies development, connected with the globalization of world economy, based on the free decisions and democracy, connected with necessity of working power mobility. At the same time it presents reflection of cyclic economy development, but it can also achieve uncontrolled dimensions, which could have not only economic, but also social consequences. In real economy the unemployment is connected with recession in the economy as one of its most serious consequences [6]. Unemployment
is measured by the way of unemployment measure, which evaluates number of unemployed people, divided by total working power [7]. Formal measure of unemployment is not given by extend of the unemployment, since it does not accept „frustrated“, which means those that are giving up the possibilities to obtain the employment. It does not include employees, which working posts are transmitted to the lower working positions or employees, which must work part time [8].

In connection to the certain country in expert literature [9] there is given level 3-12% as the level of natural measure of unemployment. To decrease measure of unemployment, Ministry of Job uses active and passive steps. The most important passive steps mean contribution to the unemployment with the aim to maintain living level of unemployed people at the certain common level. To fight with unemployment active measurements are considered as the most effective. Active measurements that have the aim to contribute to the rising of new working posts, are for example strengthening of the competition of small and medium enterprises, simplification of establishment of the trade, etc. [10]. V4 countries, similarly as any other European countries, had been affected by financial and economic crisis not only by the way of unemployment measure, loss of performance, but also by the decreasing of the ability of the country economy to create new working posts [11]. Between most important aspects, reflecting at the job market belongs problematic defining of national job market relation with economic growth. It is more proper to define total volume of demographical sources that influence total employment [12]. At the same time defining of the demand on job at the national level is problematic, which is connected with structure and total volume, due to the influence of transnational corporations. The majority of the production of big companies is not connected with the sale in the national economy, but it is connected with the global consumption development. Also reviving cannot be evaluated only at the national level, but also by important aspect – generation of employment at the national job market by reviving of global economy that lead to the growth of global need of working power. V4 countries present economies that are considerably connected with great European economies [13], [14]. The consumption at the domestic market loss its importance. Crisis brought the knowledge that in the process of reviving the renovation of working posts is considerably slowly and more structualized and it does not lead to rapid decreasing of unemployment and reviving of domestic consumption. The main reason of employment loss is long-term ongoing exhausting of abilities of individual sectors due to the growing productivity. Historically always new sector had been rising that could absorb redundant working power, which means agriculture, industry, services and state. Presently the new sector is not appearing since developed economies exhausted from the view of employment every four economic human activities – production of food, production of things, services providing, and “doing nothing“ [15].

2 Methodology

The main goal of the research is to evaluate according to the analysis development of unemployment in V4 countries during analysed period 2011-2019 and to find out the ways for its decreasing from the view of main problems of the unemployment. The main goal of the research is achieved by following process: a) determination of unemployment, job market, demand and offer of working posts, b) analysis of unemployment development from the Job Market database, Eurostat, Database of Ministry of School and social policy of the country, c) to compare development of unemployment measure in V4 in 2011-2019, d) to suggest possibilities for unemployment decreasing in V4. Object of searching are individual countries in V4 region in 2011-2019. The unemployment is different in individual countries from the view of the state economy development, as well as from the view of GDP and job market development [16]. Macro economically based approach to unemployment on the job
market demanded practical measurement of unemployment and the change of working power. Total unemployment is measure by two ways: 1. number of unemployed people – sometimes marked also as stock, expressing the rate between volume of working power (in thousands) and number of employed working power in any time horizon, 2. percentage measure of unemployment – presenting number of unemployed in rate to total number of working power.

The calculation is then:

\[ u = \frac{U}{L} \times 100\% \]  

(1)

where: \( u \) – measure of unemployment, \( U \) – number of unemployed, \( L \) – number of working power, \( L = E + U \), sum of employed and unemployed [6].

Both ways of measurement register influence of factors, influencing demand on working power and its offer. Factor from the side of offer change the volume and structure of working power, which either is employed or which is looking for the job, while factors from the side of demand influence volume and structure of working power. Similarly we calculated measure of economic activity of the inhabitants that expresses the rate of economically active population in percentage [8] as follows:

\[ \text{Measure of unemployment in } \% = \frac{\text{number of unemployed people}}{\text{number of economically active population}} \times 100\% \]  

(2)

Presently there is great problem to employ in area that was studied. Employers do not want to give graduates high wage, since they do not have skills and demanded practice [17]. On the other hand people with practice and skill do not have knowledge and qualification to the given position. Therefore employment of graduates, people over 50-ties, mothers and inhabitants without education in all countries is problematic and heavily to be solved. EU states make government measurements that are orientated to the problems solving by state donation, financial sources for education of such unemployed people. During the research we considered law of employment, and law of Poland, Czech Republic, Hungary and Slovakia.

The analysis is done by the way of employment development at the job market, with consequent synthesis of the results, connected to the single result with aim to determine mutual connections between individual elements of analysis and to enable deeper searching. By the synthesis we found out the country with highest and lowest unemployment. Through the process of comparison we compared measure of unemployment and its consequent development in V4 countries at the job market during the analysed period.

### 3 Results

The results are achieved by the research of the economic development in the V4 countries from the view of unemployment, which is solved by GDP, demand and offer at the job market, free working posts, etc. The results are presented by table illustrations, based on official statistics, published by Statistic Office. Unemployment on the job market is calculated and analyzed by various ways. To make the analysis we resulted from the following information: total number of inhabitants in the country, economically active and inactive inhabitants, measure of unemployment and measure of employment. Table 1 illustrates data of total number of inhabitants in the analyzed period in V4 countries.
Table 1. Total number of inhabitants in V4 region during the analyzed period

| Year | Czech Republic | Hungary | Poland | Slovakia |
|------|----------------|---------|--------|----------|
| 2012 | 10 462 088     | 10 014 324 | 38 022 869 | 5 390 410 |
| 2012 | 10 486 731     | 9 985 722 | 38 062 718 | 5 392 446 |
| 2013 | 10 505 445     | 9 931 925 | 38 063 792 | 5 404 322 |
| 2014 | 10 516 125     | 9 908 798 | 38 062 535 | 5 410 836 |
| 2015 | 10 512 419     | 9 877 365 | 38 017 856 | 5 415 949 |
| 2016 | 10 538 275     | 9 855 571 | 38 005 614 | 5 421 349 |
| 2017 | 10 553 843     | 9 830 485 | 37 967 209 | 5 426 252 |
| 2019 | 10 578 820     | 9 857 561 | 37 972 964 | 5 435 343 |

Source: [18]

From the table 1 we can calculate total number of inhabitants in V4 countries, the biggest number was in Poland with incredible 37 972 964 inhabitants in 2019, but this number present the decreasing in comparing with previous years, which could mean outflow of working power or decreasing of birth-rate in the country. Such problems can cause problems with employment. Second country with biggest number of inhabitants belong to Czech Republic with 10 578 820 inhabitants in 2019. Czech Republic has low birth-rate, but against Poland inhabitants are not migrated from the Czech Republic due to the job or existence problems. The next position belong to Hungary with number 9 857 561 in last year. Hungary is not country with high migration; the reason can be good and qualitative tourism, attracting tourists. This means inhabitants can find the job more easily in comparing with other countries. The last position belong to Slovakia, registered the least number of inhabitants. In Slovakia there is high inflow of inhabitants, mainly those that come to Slovakia to study. Number of students of universities stays in Slovakia to live, mainly Americans, Indians, Russians, Arabs, etc. But such situation worsens the possibility to work for domestic inhabitants and therefore the situation of the unemployment in Slovakia is the worst. Table 2 summarizes development of unemployment measure.

Table 2. Development of the unemployment measure

| Year | Measure of unemployment in % |
|------|------------------------------|
|      | Czech Republic | Hungary | Poland | Slovakia |
| 2011 | 7,3            | 11,2    | 9,7    | 14,5     |
| 2012 | 6,7            | 11,0    | 9,7    | 13,7     |
| 2013 | 7,0            | 11,0    | 10,1   | 14,0     |
| 2014 | 7,0            | 10,2    | 10,3   | 14,2     |
| 2015 | 6,1            | 7,7     | 9,0    | 13,2     |
| 2016 | 5,1            | 6,8     | 7,5    | 11,5     |
| 2017 | 4,0            | 5,1     | 6,2    | 9,7      |
| 2018 | 2,9            | 4,2     | 4,9    | 8,1      |
| 2019 | 3,8            | 3,8     | 4,5    | 7,5      |

Source: [18]
From the table 2 we calculated measure of unemployment during the analyzed period in V4 countries. The biggest measure of unemployment is registered during the whole analyzed period in Slovakia, but the situation in last years is improved, decreasing in 2019 to 7,5%, but the situation is still not enough against the next V4 countries. Second place from the view of high measure of unemployment belong to Hungary and Poland, when from 2011 to 2014 the highest unemployment was recorded in Hungary. In 2015 breakpoint had been recorded and the second place of highest measure of unemployment belongs to Poland with value 9%. Decrease of unemployment in Hungary in 2015 with value 7,7% is caused by employment of young people, when Job Office created sufficient working posts for young people. The best situation belongs to Czech Republic, which had the lowest measure of unemployment during the whole analyzed period. In 2018 Czech Republic had the lowest measure of unemployment with incredible value - 2,9%. But in 2019 the measure increased to 3,8%, which caused few qualified people in production and inflow of new qualified working power from other countries. Czech Republic has a problem with expensive working power, and the companies solved the problem by production automation, which could cause future replacement of less qualified workers from the job market. The unemployment can increase in the future period due to the pandemic situation and the government must try to create direct free working posts. Figure 1 illustrated development of unemployment measure in V4 countries during the analyzed period.

Figure 1. Measure of unemployment in V4 countries during the analysed period in %
Source: [18]

From the figure 1 we can see that development of unemployment during last 10 years is improved in all V4 countries. It can be caused by governmental measurements that contribute to the better employment and also Institutions, such as Institute of job, social affairs and families in individual V4 countries are trying to provide sufficient free working posts at the job market. The development at the graph (see Figure 1) illustrates the biggest measure of unemployment had been recorded in Slovakia and the least measure of unemployment had been recorded in Czech Republic. The worst measure of unemployment in Slovakia is registered in 2011 with percentage value 14,5%. The high measure of unemployment in Slovakia is also in 2013-2014 – around 14%. On the other hand the measure of unemployment in Czech Republic in 2018 is only 2,9%. Table 3 compares total measure of employment between V4 countries.
Table 3. Measure of employment in 2011-2019 in V4 countries in %

| Year | Czech Republic | Hungary | Poland | Slovakia |
|------|----------------|---------|--------|----------|
| 2011 | 65.0           | 54.9    | 58.9   | 58.8     |
| 2012 | 65.7           | 55.4    | 59.3   | 59.3     |
| 2013 | 66.5           | 56.7    | 59.7   | 59.7     |
| 2014 | 67.7           | 58.1    | 60.0   | 59.9     |
| 2015 | 69.0           | 61.8    | 61.7   | 61.0     |
| 2016 | 70.2           | 63.9    | 62.9   | 62.7     |
| 2017 | 72.0           | 66.5    | 64.5   | 64.9     |
| 2018 | 72.1           | 67.0    | 65.2   | 65.5     |
| 2019 | 72.6           | 67.3    | 66.3   | 67.0     |

Source: [18]

From the Table 3 we can see development of employment in V4 countries during the analyzed period. Measure of employment in the country describes the rate of inhabitants in productive age, which have employment. Measure of employment can be analyzed from various forms of inhabitants employment, for example according to the age, gender, level of education, as well as according the time of the work or according to the professional group of the employees. Mentioned development of employment is given by Figure 2.

Figure 2. Measure of employment in V4 countries in analyzed period in %
Source: [18]

The highest measure of employment is obviously in Czech Republic, which in 2019 achieved level yet 72.6%. Other V4 countries competed to have second place. From 2011-2014 Slovakia and Poland achieved almost the same measure of employment. Measure of employment moved between level 60% (Poland in 2014) to 59.9% (Slovakia in 2014). From 2016 the second place belonged to Hungary till present time. In 2019 Hungary succeeded to increase the value to 67.3%, but Slovakia is very close to the level with its value 67%. The worst situation from the view of employment measure from 2011 ((54.9%) to 2014 (58.1%) was recorded in Hungary. But from 2015 (61%) to 2016 (62.7%) Slovakia recorded the worst situation. From 2017 (64.5%) Poland had the lowest measure of employment till present time with percentage value 66.3%. Unemployment is presently considered as serious economic problem and V4 countries have big problem to employ people, beginning in 2011,
consequently rising in 2014, when the situation was alarming. From 2015 the situation started to be improved and presently the development of unemployment is promising also to the future. Due to the worst situation in Slovakia we made deeper analysis of the employment development in Slovakia by comparing of unemployment in 2011 and 2019. The results are presented in Table 4.

**Table 4. Unemployment in Slovakia at the beginning and at the end of the analysed period**

| Region         | Year | Economically active population | Disposal number of employment applicants | Measure of unemployment on total number of applicants (%) | Measure of registered unemployment (%) |
|----------------|------|--------------------------------|-------------------------------------------|----------------------------------------------------------|-----------------------------------------|
| Bratislavský   | 2011 | 344 980                        | 16 910                                    | 5,02                                                     | 4,69                                    |
|                | 2019 | 350 998                        | 11 685                                    | 3,62                                                     | 3,33                                    |
| Trnavský       | 2011 | 296 599                        | 23 452                                    | 9,16                                                     | 7,91                                    |
|                | 2019 | 296 274                        | 8 134                                     | 3,45                                                     | 2,75                                    |
| Trenčiansky    | 2011 | 300 823                        | 28 486                                    | 10,54                                                    | 9,47                                    |
|                | 2019 | 303 588                        | 10 917                                    | 4,41                                                     | 3,60                                    |
| Nitranský      | 2011 | 345 675                        | 39 933                                    | 12,98                                                    | 11,55                                   |
|                | 2019 | 348 020                        | 14 847                                    | 5,39                                                     | 4,27                                    |
| Žilinský       | 2011 | 331 646                        | 34 954                                    | 11,68                                                    | 10,54                                   |
|                | 2019 | 343 513                        | 16 537                                    | 5,75                                                     | 4,81                                    |
| Banskobystrický| 2011 | 316 207                        | 58 904                                    | 20,80                                                    | 18,63                                   |
| Prešovský      | 2011 | 384 925                        | 67 289                                    | 20,20                                                    | 17,48                                   |
|                | 2019 | 401 819                        | 40 009                                    | 11,76                                                    | 9,96                                    |
| Košický        | 2011 | 366 193                        | 60 992                                    | 19,37                                                    | 16,66                                   |
|                | 2019 | 360 294                        | 36 392                                    | 12,07                                                    | 10,10                                   |
| Slovensko      | 2011 | 2 687 048                      | 330 200                                   | 13,23                                                    | 12,29                                   |
|                | 2019 | 2 725 838                      | 167 278                                   | 7,35                                                     | 6,14                                    |

Source: [19]

From the table 4 results the highest measure of unemployment at the beginning of the analysed period was in region Banskobystrický kraj (18,63%), Prešovský kraj (17,48%) and Košický kraj (16,66%). In this regions there were number or economically active population, looking for the job. The least measure of unemployment was in Bratislavský kraj (4,64%) and Trnavský kraj (7,91%). The situation at the end of the analysed period changed as follows: Measure of unemployment decreased in 2019 to 6,14%. The highest measure had been registered in Košický kraj (10,1%) and Prešovský kraj (9,96%). The lowest measure of unemployment was in Trnavský kraj (only 2,75%). Slovak republic in 2019 the highest number of economically active population in comparing with whole analysed period.

### 4 Discussion

Unemployment is decreasing in all V4 countries since 2014 year by year, since governments support and creates new projects that help to decrease the unemployment. The most successful during the unemployment decreasing by the state interventions is in Poland, which created support of unemployed inhabitants and the worst situation is in Slovakia [20]. In Slovakia governmental process during unemployment decreasing is very vast, but it is not enough in comparing with other V4 countries.

Unemployment in V4 countries is solved by various institutions, for example Job Office, Institute of job, social affairs and family, Ministry of Job, Statistical Office (Slovakia),
Ministry of National Sources (Hungary), Ministry of Job and Social Affairs (Czech Republic), Ministry of Job and Social Policy (Poland). The institutions help to create at the job market sufficient number of free working posts, yet in private or public sector [21]. In 2015 all countries tried to fight with increasing unemployment by state interventions and measurements, leading to unemployment decreasing, mainly for self-employed people. V4 countries changed some conditions in employment in Labor Code. Fees on employees had been decreased, during first year of employment at the new working post, during adaptation at the working post, which caused also decrease of unemployment and consequently it led to the improvement of employment and quality increasing in private sector. Unemployment in V4 countries had been in analyzed period too high, but since 2014 year by year the value is decreasing till present time. The highest growth of unemployment is in Slovakia. The reasons of unemployment in V4 countries can be: shortages of achieved skills and experiences (Slovakia), often appearance of working agreement per time limit (Poland), insufficient preparation for finding of employee from the side of education institutions, low number of qualified workers (Hungary).

The biggest problems in V4 countries to find the job near the residence have young people to 29 years, due to the low wages [22]. Young people, which are unemployed, show the serious problem to find the job in time of school termination. Young people to 29 years confirmed that they would be willing to migrate due to the job to have working post with permanent employment [23], [24]. Great number of unemployed inhabitants, mostly from Poland and Slovakia, had been migrated to western European countries after EU entrance. Young people have also higher possibilities to be employed at the job market, because for example they can start to make business, to be more educated or they can use career advisory [25].

Unemployment in V4 countries had been gradually developed during the analyzed period in any country. The analysis shows the unemployment in present time does not present big macroeconomic problem. All countries decreased measure of unemployment to acceptable value, there is sufficient number of free working posts in the countries, but applicants do not have possibility to choose the area of the employment, they can chose only from the available areas of free working posts, which are actually available at the job market, provided by various public organizations. Governments of the countries support employment trying all active inhabitants would be applied at the job market. Therefore they create various possibilities of the employment.

5 Conclusion

The contribution deals with problem of unemployment in V4 countries, when unemployment is seen as involuntary and long-term interruption of any work, in spite there can be people, which are not willing to work (as it is in case of Slovakia and Hungary), causing increasing of unemployment. The unemployment had been in analyzed countries the biggest and most serious problem of the economy. Presently the situation is improving, leading to promising future. Improved situation is caused by various factors, such as governmental measurements, in the frame of which taxes decreased and by this way organizations could employee more employees. Also there was increasing of the free working posts, creation of projects, which could help school graduates to apply at the job market, state financial contribution for employers in case they would create working post for unemployed people.

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