

Active Labour Market Policies of Selected European Countries and Their Competitiveness

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Abstract

Creating balance conditions in the labour market is a result of the state efforts in the form of implementation of ALMP to incorporate job-seekers. The structural reforms of ALMP are complementary greater than some of the effects of each of them taken individually. The structure, efficiency and competitiveness of costs expended on ALMPs in selected EU countries show the strengths and weaknesses of the labour market as well as its ability to stabilise after adverse macroeconomic development. At the same time, the labour demand strengthens the level of competitiveness on product markets. The main objective of the contribution is to analyse the expenditures on ALMPs in the context of changes in unemployment and to evaluate their competitiveness in selected European countries in 2007, 2009, 2011, 2013, and 2015. The partial aim is to capture and evaluate Slovakia's position in the context of used ALMPs measures, to evaluate the effects of the most important and competitive ALMPs measures of Slovakia at the macroeconomic level and to deal with the monitoring of the measures in terms of their applicability in practice. To achieve the objective, there are descriptive statistical methods, comparative analysis, and cluster analyses used. The results show that the effectiveness of expenditure on ALMP affects the development of unemployment in selected EU countries differently.

Keywords: active labour market policies, competency, unemployment, anti-crisis measures, expenditures
JEL Classification: E240

1. INTRODUCTION

The human capital has always played an important role in the social development and the achievement and stabilisation of economic growth (Smith, 1996; Gavurová & Šoltés, 2016). With an emphasis on stabilisation of economic growth, it is an essential part of the modern state to provide more incentives for job searching and to increase the competitiveness of ALMP. These activities are the basis for modern European active labour market policies.

Over the past ten years, when the global economic crisis has occurred and widened, the employment indicator has reached its historical minimum in all EU countries. In 2007, the European Commission presented a key concept of Flexicurity in Europe, part of the Europe 2020 Strategy, with the aim “to promote flexibility combined with employment security” and to implement ALMPs aimed at achieving full employment, improving quality and productivity at work. The enlargement of the EU 2020 Strategy is gaining an importance of ALMPs, their competitiveness as well as the effectiveness of expenditures in determining the changes in the structure of human capital. One of the objectives of the Europe 2020 Strategy is to create efficient and competitive ALMPs that would help people to reduce unemployment spells and ease the transition to new jobs (EC, 2013). Eurostat introduced that the average employment rate dropped to



69.8% in 2007 and later to 68.4% in 2012. Despite the turbulent ten-year trend, EU countries have committed to raise the employment rate of the population (aged 20-69) to 75% by 2020 and to increase the competitiveness of their ALMPs as well as the efficiency of expenditures in order to reach the optimal rate of employment. In 2016, the employment rate in the EU-28 was 71.1% (aged 20-64).

Employment is one of the main economic issues in Europe and a dominant feature of economic debates. The motivation of this focus is that economists are stating empirical support for the effectiveness of ALMPs as a tool to raise employment. Selected authors (Calmfors, Forslund & Hemstrom, 2002; Laporšek & Dolonc, 2012) assume that increasing spending on ALMPs and the coordination of European Employment Strategy (EES) can lead to an increase in employment rates, both short-term and long-term (Van Vliet & Koster, 2011). A country that supports expenditures on ALMP in long-term has a more stable employment development than a state that provides smaller contributions for labour market measures, particularly in the times of negative economic development.

The main objective of the contribution is to analyse the expenditures on ALMPs in the context of the change in an indicator of unemployment and to evaluate their competitiveness in selected European countries. The partial aim is to capture and evaluate the position of Slovakia in the context of used ALMPs measures, the evaluation of effects of the most relevant and competitive ALMPs measures of Slovakia at the macroeconomic level, dealing with the monitoring of the measures in terms of their applicability in practice.

The rest of the paper is organized as follows: the literature background in the context of role and effectiveness of ALMPs, classification of ALMP measures appropriate for a systematic analyses are in Section 2, the materials and methods that have been used in the analytical part are discussed in Section 3, the analytical part of the paper that is focused on the descriptive summary of the empirical evidence on ALMP expenditures and their effectiveness and competitiveness, cluster analyses of selected European countries based on specific input variables, captured and evaluated development of Slovakia's position in the context of cluster analysis and descriptive qualitative analysis are in Section 4. Section 5 discusses the findings and competitiveness of ALMPs expenditures in the context of unemployment decrease. The conclusion summarises the key elements of ALMPs measures for the unemployment decrease and findings from the main part of this contribution in Section 6.

2. THEORETICAL BACKGROUND

The role of ALMPs measures is to provide opportunities for the unemployed and to find their use in the labour market. The aim of the social-oriented state and ALMP is to know the effects of government taxes and transfer programs and to evaluate their impact on employment and wages within the short-term program, medium- or long-term estimate. This aim of ALMPs fulfils two important tasks: focus on the unemployed or real wage increase among this population (Card, Kluge & Weber, 2010). Estevão (2003) mentions four channels through which ALMPs affect the business employment in the selected EU countries. Firstly, ALMPs may generate more efficient matching between job vacancies and unemployed workers. Secondly, employees' pro-



ductivity may increase through training programs. Thirdly, ALMPs may keep unemployed workers attached to the labour force. Fourthly, employment programs may generate windfall effects. Moreover, ALMPs may lower the disutility of being unemployed (Madsen, 2017). Expenditures on ALMPs and their effectiveness, especially on training programs, seem to have been largely ineffective.

The change in the perception of ALMPs role as well as the effectiveness of the expenditures spent on its measures occurred especially at the time of the crisis formation. Brown & Koettl (2015) draw attention on five purposes that a country should focus on in the times of crisis. The first purpose is to provide incentives for maintaining the existing employment with the purpose to reduce the outflow of employees. The second purpose is to provide incentives for creating new jobs. The third purpose is to provide incentives leading to the growth of knowledge. The fourth and fifth purposes are to increase the employment in order to increase the productivity and employees' skills. The authors pointed out that at a time of deep economic recession ALMPs measures aimed at maintaining employment should be used.

Expenses on ALMPs, their effectiveness and their size should be monitored from a time perspective, economic, integration, institutional and political point of view. Heidenreich & Bischoff (2008) or Van Vliet & Koster (2011) claim that particularly politicians influence national action plans and expenditures on ALMPs. The authors expect that high involvement of social partners in the national employment strategy processes leads to a higher effort of ALMPs. The elevated levels of involvement of finance ministries lead to relatively lower ALMPs spending. Problems of employment and efficiency of ALMPs are also presented at European level, at a time of growing European integration. Heidenreich & Bischoff (2008) come to conclusions that the open method of coordination presents one of possibilities of competitiveness of ALMPs, mainly at the time of integration. In the field of employment policies, the interest of the social partners seems to be unsuccessful, primarily because of the bureaucracy. On the sample of 22 OECD countries, Armingeon (2007) studied international impacts of ALMPs expenditures on domestic policy developments. Countries seem to be effective in the development of ALMPs within greater integration, but the level of implementation of ALMPs shows worse results. The literature states that the Economic and Monetary Union affects national labour market policies in the form of economic shocks, when the flexibility of AMLPs changes as well as the achievement of convergence criteria, which lead to cuts in social expenditures (Scharpf, 2002). On the other hand, the government can use increasing taxes to secure sufficient government revenue and a large share of the public expenditures (Featherstone, 2004).

From a time perspective, it is necessary to break down the effectiveness of the ALMPs into measures that are appropriate for the short term and those that are appropriate for the long term. Card, Cluve & Weber (2010) or Kluve (2010) confirm that employment services have a positive impact in the short term while training programs are more favourable in the long term. In the medium term of several years, the development adapts to changes in the effective labour supply, which suggests that the effects of the ALMP disappear in the medium term. The importance of the targets of ALMPs increases in the context of long-term employment that is affected by the effect of duration, and the level of the implementation of new tools of this policy that are combining the effects: fall in the ratio of vacancies to employed and a higher proportion of the unemployment being a long-term unemployment.

We assume that, particularly after a big recession, countries are shifting the employment strategy from active to passive LMP. Such strategies need to be complemented by institutional and ideological impacts of ALMPs, influenced by the size of expenditures, constantly changing economic developments and existing interactions between labour market policies. Consequently, at the time of domestic economic reassurance, after the turbulent development in 2007 and 2009, countries are changing their labour market strategies and declining unemployment rates into ALMPs. This development should be seen in the change in rising expenditure on ALMPs, and consequently in the shift of the level of unemployment. Within the literature, we observe that in most cases, authors focus on the complex impact of ALMPs and the change in employment, but there are only few studies that focus on the specific amount of spending and on the specific ALMP measures that have been funded in the country and led to a change in the unemployment rate, or more precisely, only a few studies look at the specific ALMPs program in a specific country and its impact on the development of a number of job-seekers.

2.1 ALMPs measures

ALMPs are different from common employment policies because they are focused on a specific, not general group. They either provide active or passive measures. This is to ensure a higher probability of employment or a chance to earn money for the problematic group of job-seekers who are either long-term unemployed or unemployable. The OECD classifies four categories of active measures: public employment services and administration (PES) as job search assistance, training, public sector job creation as employment incentives and subsidised employment in the private sector as sheltered and supported employment and rehabilitation, divided into direct job creation and start-up incentives. Eurostat compiles seven categories of active measures for the cross-country evidence: public employment services and administration as labour market services, training, employment incentives, supported employment and rehabilitation, direct job creation, and start-up grants and incentives.

Many ALMPs are targeted on young workers among the unemployed. From the point of ALMPs, the most used ones are the PES and program participation (Martin, 2014). Martin & Grubb (2001) consider PES and administration to be the most efficient measure too. The second most used ALMPs measure is training. They are used for the on-the-job training and are effective mostly from the long-term view. They are intended to provide general education or specific skills in order to increase the productivity and employability of market participants. They represent one of the core ALMPs programs. Employment incentives are programs supporting, in particular, the private sector and individual workers. Typical examples are wage subsidies that help employers to recruit new workers. However, these programs are limited in time and are intended primarily for long-term unemployed job-seekers. There are also grants for self-employment and counselling. Supported employment and rehabilitation are programs targeted on the long-term unemployed, disadvantaged or unemployable job-seekers, and only private services focus on the more privileged employees. Usually, the costs of these programs are not high. Advantages of sanctions, e.g. the cut of unemployment aids, are established in some countries if the observed behaviour of unemployed in job search is inadequate. Sometimes new job opportunities are created directly (e.g. public works, public services), but the effectiveness of direct job creation is not very high, especially in terms of the future employment of the job-seekers. Those jobs are far from the regular labour market. Therefore, if such a measure is implemented, it usually focuses



only on the most problematic group of unemployed people in order to keep their positive attitude towards work and protect from a higher unemployment rate. Start-up grants and incentives, another type of sponsored private sector employment, is self-employment subventions. Job-seekers who decide to engage in commerce and start their own business have a chance not only to be given grants but also some consultancy.

The microeconomic impact of ALMPs measures demonstrated a significant influence on employment of targeted individuals. The overall macroeconomic impact of ALMPs measures on employment is, therefore, according to some authors, very little (Gerfin & Lechner, 2002). Often, an increase of employment in OECD countries is achieved through a combination of macroeconomic and microeconomic reforms. Martin & Grubb (2001) considered the importance of these changes in the short and long term, separately for closed and open economies. Layard, Nickell & Jackman (2005) emphasise the positive relationship between measures of institutions and selected macroeconomic variables. In the current period, the connection of ALMPs with activation strategies and structures is highlighted (Eichhorst & Rinne, 2015). Countries ALMP programs combine more of mentioned categories because a strict classification is not always feasible.

3. RESEARCH OBJECTIVE, METHODOLOGY AND DATA

The main objective of the contribution is to analyse the expenditures on ALMPs in the context of the change in the unemployment rate and to evaluate their competitiveness in selected European countries in 2007, 2009, 2011, 2013, and 2015. The partial aim is to capture and evaluate Slovakia's position in the context of the ALMPs measures used and to evaluate the effects of the most relevant and competitive ALMPs measures at the macroeconomic level.

Two partial analyses were set up to achieve the main objective of the contribution, and the objects of the investigation were 21 EU Member States. The reason for selecting those countries was the integration of the countries in one cluster and a common strategy for the development in the field of unemployment. The sources of information used were from the databases Eurostat. The first observed year is 2007 due to the great recession, followed by 2009 when countries took measures to reduce the unemployment and increased the spending on ALMPs, then, 2011 when the debt crisis enlarged in Europe and we saw a change in the status of the countries as a response to macroeconomic conditions. We observe 2013 to maintain a comprehensive two-year gap in development, and lastly, the 2015.

The first part of the analysis brings macroeconomic facts in the fight against the job crisis. In the first part of the analysis, we followed the development of the expenditures on ALMPs in % of GDP, an indicator of participation rate as participants stocks to ALMPs in % of the labour force (like Van Vliet & Koster, 2011; Medeiros, 2007; Martin, 2014). EES aims at lower unemployment and higher employment levels by real targeting of ALMPs. We observed the development of indicators of ALMPs in comparison to the development of a long-term unemployment rate, seasonally adjusted data as % of the active population.

The second part of the analysis provides information on the competitiveness of individual funded measures and ALMPs in countries, based on the selected clusters. In the second part of the analysis, we chose the method of non-hierarchical clustering. It is an econometric method that is

most commonly used to organise, aggregate, and modify data so that data belonging to the same cluster is as similar as possible, and vice versa, the data in different clusters are remote, different. The results of non-hierarchical clustering depend on the distance used between the matrices. In practice, the most commonly used one is Euclidean distance. In this analysis, the Mahalanobis distance was used, which suppresses the effect of correlated input variables among the variables, and at the same time for the distance. It is necessary to know the number of clusters a priori (R-Manual: Non-hierarchical Clustering). The input variables for the non-hierarchical cluster analysis were spending on ALMPs measures, in particular, training (TRA), employment incentives (EMP_IN), supported employment and rehabilitation (SUP_EMP), direct job creation (DIR_JOB), start-up incentives (ST_UP), as a % of GDP, and unemployment rate (UNE) and long-term unemployment rate (LOG_UNE), as a % of the total labour force. The output of the analysis is a graphical representation of the clusters in the dendrogram. It represents individual clusters of patterns, similarity levels at which grouping change. The inside of the dendrogram shows the set number of clusters in boxes. The names of the countries are on the horizontal axis, and on the vertical axis, the values of clustering levels are plotted in the form of a numerical value. This part of the analysis was performed in the R program environment using package hcluster, kmeans, and rmgarch. Based on the input variables, we constructed five dendrograms, which make up three clusters of countries (in 2011) or four clusters of countries (in 2007, 2009, 2013, and 2015). The breakdown of countries into individual clusters is shown in the tables of the average values of input variables for clusters.

4. ANALYSIS

In order to analyse the expenditures on ALMPs in the context of change in the unemployment indicator and to assess their competitiveness, in the next part, we monitor the trends in the development of expenditures on ALMPs in % of GDP over the time. The figure below (Fig. 1) shows that there is a large heterogeneity in expenditures on ALMPs across selected European countries.

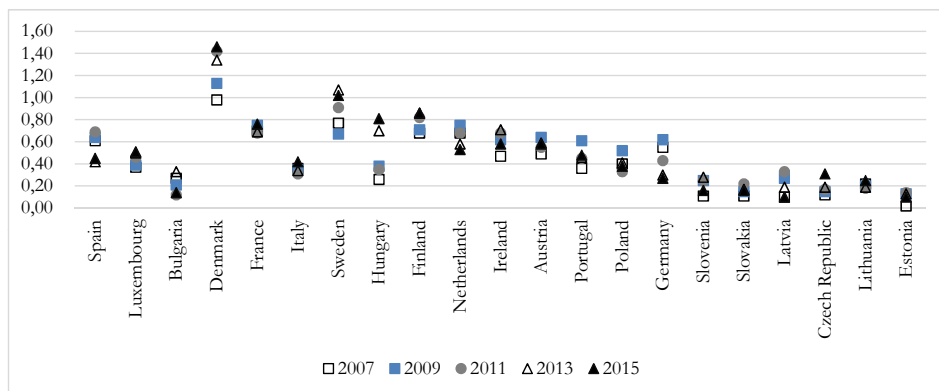


Fig. 1 – Expenditures on ALMPs, 2007 – 2015, % of GDP. Source: Eurostat (2017).

The public expenditures on ALMPs in 2007 before the job crisis were low in many European countries. Less than 0.2% of GDP was spent in Estonia, the Czech Republic, Latvia, Slovakia, and Slovenia. The highest ALMPs expenditures in 2007, over 0.6%, were shown in Denmark, France, Sweden, Finland and the Netherlands. On the one hand, we can expect that before the crisis, the countries would invest more on ALMPs in which it is important to invest in the neutral period. At the same time, the labour market strategy evolved from other than economic context, mainly from political and social. Over the next years, the expenditures on ALMPs in the EU countries have changed across countries and over time. The average ALMPs expenditures in selected European countries were at 0.35% of GDP (2007) and 0.43% of GDP in the following years. Estonia, Lithuania, the Czech Republic, Latvia, Slovakia, Slovenia and Italy were below the average ALMPs expenditures (less than an average of a given year) in a long-term. On the other side, in the long-term, the ALMPs expenditures in Denmark, France, Sweden, Finland, the Netherlands and Austria were above the average (the average of a given year).

Active spendings, about 30% of total expenditures on labour market policies, are shown in 2013 and 2015. Kluve (2010) describes positive effects of the transfer of finances on ALMPs, in particular on measures aimed at the private sector, like wage subsidies or training programs. Van Vliet & Koster (2011) says, “on the one hand, it can be expected that a rising unemployment leads to retrenchments in ALMP expenditure, since financing ALMPs at the existing levels becomes more costly. On the other hand, increasing levels of unemployment may lead to stronger political demands for ALMP expenditures”.

An indicator of ALMPs usage effectiveness is the participation rate on ALMPs, the indicator of the size of activation efforts. Fig. 2 shows participants stocks to ALMPs on average in the period of 2007 – 2015 in % of the labour force.

An indicator exhibits large differences across countries. On average across the selected European countries, 2% of the labour force participated on ALMPs (2007 – 2015). The size of the participation expenditures on ALMPs varied widely across countries, ranging from as high as 8% in Spain to as low as around 1% or less in Slovenia, Latvia, the Czech Republic, Lithuania, and Estonia. The data in the Figure are not adjusted for the average duration of the spell in ALMPs. Despite that, comparing the participation rate data with the expenditures on ALMPs, we get implicit results of the average duration of ALMPs funding. Martin (2014) states that the variety of ALMPs expenditures among the countries are the result of differences in the average duration of ALMPs measures. A decrease in ALMPs expenditures, respectively their stagnation, may reflect the pressure on the sustainability of fiscal consolidation, the pressure on reduction of public debts or state budgets deficits. Nevertheless, such a development and inefficient use of ALMPs may lead in a long-term to a worsen access of job-seekers to the labour market, also to a decline in long-term employment rate, as well as the future perspective of employment rate increase.

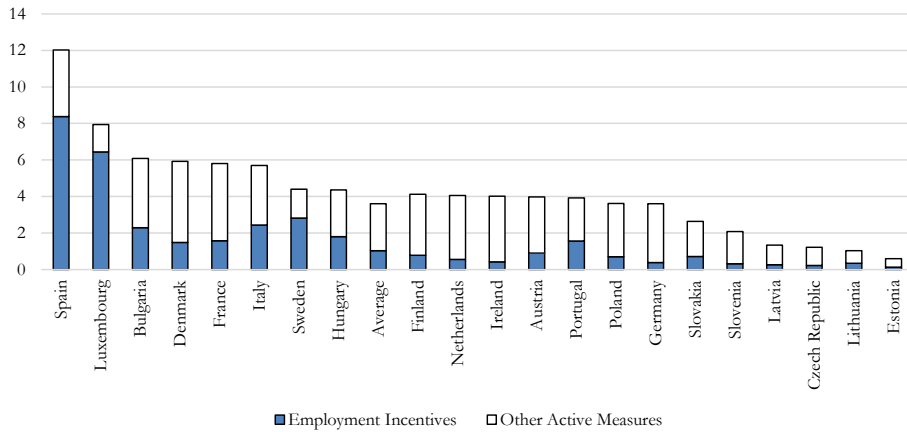


Fig. 2 – Participants stocks to ALMPs, 2007 – 2015, % of labour force. Source: Eurostat (2017).

The literature provides a confirmation of a hypothesis that the effective activation of ALMPs programs may lead to a decline in unemployment rate (Baily & Tobin, 1977; Martin, 2014). Murtin, De Serres & Hijzen (2013) confirm that the expenditures on ALMPs targeted mainly on PES category may lead a decrease in unemployment and an increase in employment. Later, de Serres & Murtin (2013) widen the study and claim that the ALMPs expenditures lead to a decrease in unemployment rate, which is persistent over the time. The OECD produced a study in 2009 to monitor the impact of ALMPs on unemployment dynamics. It turns out that the more efficient the ALPMs expenditures are, the more dependent the growth of unemployment rate is on development of the business cycle. In addition, labour demand policies and effectiveness of a job-seeker support decrease while training becomes more effective. The effective use of ALMPs funding may lead to activation of job-seekers, which leads to a drop in unemployment rate and a decline in long-term unemployment rate.

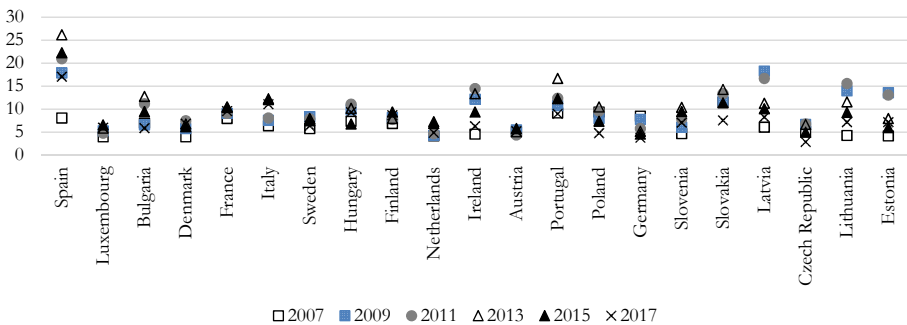


Fig. 3 – Unemployment rate, seasonally adjusted data 2007 – 2017 (June), % of labour force. Source: Eurostat (2017).

The unemployment rate is defined as a number of people who are unemployed expressed in relation to the total labour force. Fig. 3 shows the level of unemployment rate in selected European countries in the years 2007, 2009, 2011, 2013, 2015, and 2017 in % of the total labour force.

At the time of formation of the economic and financial crisis in 2007, the unemployment rate in selected EU countries was on average at 6.4%. Later, in 2013, the average unemployment rate increased to 10.5%, which was the historical maximum over the 10-year period. In 2015 as well as in 2017 (June), the unemployment rate declined to an average of 8.9% to 7.4%. In 2017, the unemployment rate continued to fall in the selected countries, yet remained above pre-crisis levels. Over the long-term, the above average unemployment rates are observed in Spain, Portugal and Slovakia. There are no significant changes in the unemployment indicator observed in Luxembourg, France, Finland and Austria. The countries that have supported ALMPs expenditures and in which the participation rate on ALMPs has been above average in a long-term do not report any significant changes in unemployment.

The long-term unemployment rate is the share of those (aged 15-74) that have been without work for at least twenty months in the total unemployment population. Fig. 4 shows the long-term unemployment rate, where the number of people unemployed for a period of twenty months or longer as a % of the total labour force is.

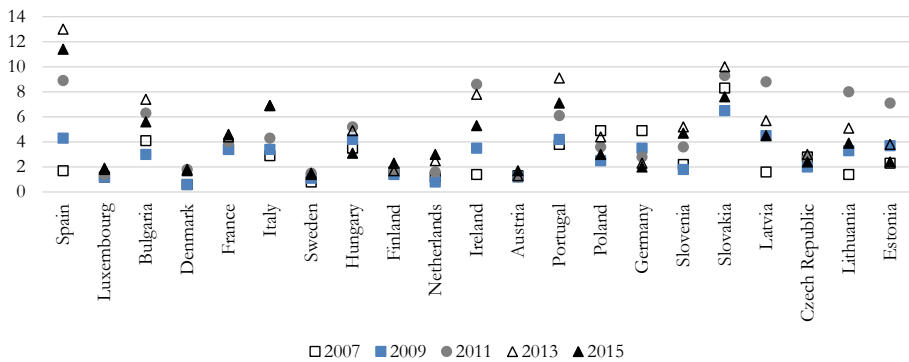


Fig. 4 – Long-term unemployment, 2007 – 2015, % of active population. Source: Eurostat (2017).

In 2009, one third of the unemployed in selected countries had been without work, and this share increased each year. The lowest long-term unemployment rate was in Nordic Member States, Denmark, Sweden, and Finland. Austria and Luxemburg registered minor increases in long-term unemployment. The strongest decrease over the period can be seen in Germany. On the contrary, the highest long-term unemployment was reported in Spain, Bulgaria or Slovakia. Insignificant changes in the development of the long-term unemployment occurred in Luxembourg, Sweden, and Austria. Significant fluctuations of the indicator were in Spain, Ireland, Latvia and Lithuania

The following dendrograms (Fig. 5) display the groups of countries in 2007 (on the left) and 2009 (on the right) according to selected input variables listed in Section 3. The characteristics of individual clusters (from left to right) are shown in Tab. 1.

In 2007, there is the lowest unemployment rate (4.61%) and the lowest long-term unemployment rate (1.52%) shown in the countries from cluster 2 where is the highest share of expenditures on supported employment and rehabilitation measures (0.13%) and direct job creation measures (0.06%). The cluster includes the following countries: the Czech Republic, Slovenia, Estonia, Sweden, Austria, Denmark, Ireland, Lithuania, Luxembourg and the Netherlands. On the contrary, the highest unemployment rate (11.50%) and also the highest long-term unemployment rate (8.30%) is in cluster 3 which consists only of Slovakia. The expenditures on all ALMPs measures are the lowest here (except start-up support).

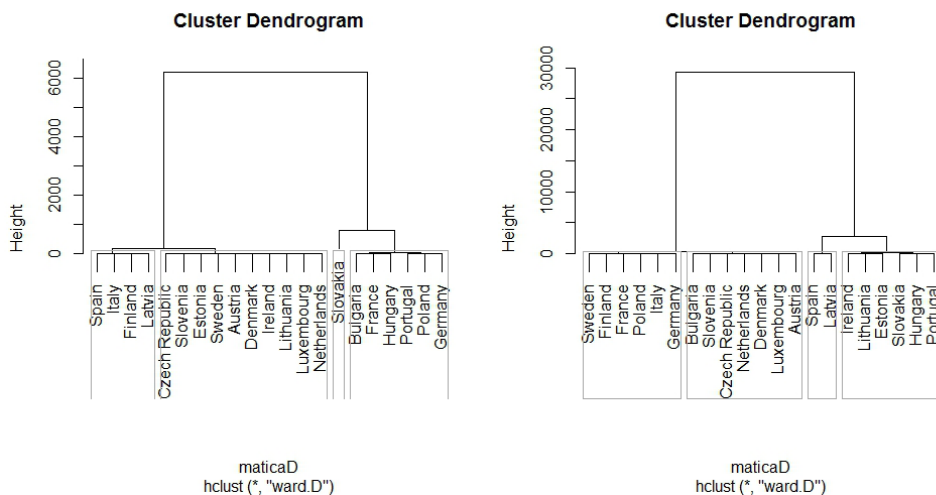


Fig. 5 – The dendrogram based on the selected variables 2007(left) and 2009 (right). Source: Own estimation.

Tab. 1 – Average values of variables from clusters in 2007 and 2009. Source: Own estimation.

Year	No.	TRA	EMP_IN	SUPP_EMPL	DIR_JOB	ST_UP	LOG_UNE	UNE
2007	1.	0.18	0.15	0.04	0.04	0.04	1.95	6.88
	2.	0.14	0.12	0.13	0.06	0.02	1.52	4.61
	3.	0.01	0.02	0.01	0.04	0.04	8.30	11.50
	4.	0.17	0.08	0.06	0.10	0.03	4.10	8.25
2009	1.	0.24	0.16	0.11	0.06	0.04	2.55	8.18
	2.	0.15	0.11	0.18	0.07	0.02	1.51	5.76
	3.	0.16	0.13	0.04	0.09	0.05	4.40	18.10
	4.	0.17	0.06	0.02	0.09	0.02	4.23	12.05

In 2009, at the time of the great recession enlargement, the position of countries changed. The lowest unemployment rate (5.76%) and also the lowest long-term unemployment rate (1.52%) was reported in the countries from cluster 2, with a higher share of expenditures on supported

employment and rehabilitation (0.18%) and employment incentives (0.11%). This cluster consists of following countries: Bulgaria, Slovenia, the Czech Republic, the Netherlands, Denmark, Luxembourg and Austria. On the other side, the highest unemployment rate (18.10%) and the highest long-term unemployment rate (4.40%) was in cluster 3, in Spain and Latvia.

The following dendrograms (Fig. 6) show clusters of countries in 2011 (on the left) and 2013 (on the right). The characteristics of individual clusters (from left to right) are displayed in Tab. 2. In 2011, at the time of debt crisis enlargement, the optimal number of clusters in dendrogram was 3 (Fig. 6).

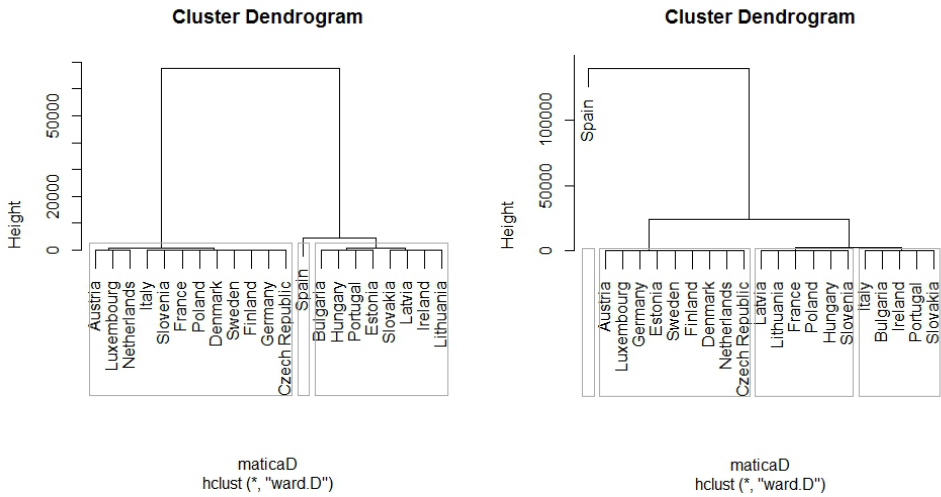


Fig. 6 – The dendrogram based on the selected variables in 2011 (left) and 2013 (right). Source: Own estimation (2017).

Tab. 2 – Average values of variables from clusters in 2011 and 2013. Source: Own estimation.

Year	No.	TRA	EMP_ IN	SUPP_ EMPL	DIR_ JOB	ST_UP	LOG_ UNE	UNE
2011	1.	0.20	0.17	0.15	0.05	0.03	2.52	7.03
	2.	0.18	0.26	0.08	0.06	0.11	8.90	21.00
	3.	0.12	0.07	0.01	0.09	0.02	7.43	13.50
2013	1.	0.12	0.07	0.06	0.06	0.11	13.00	26.20
	2.	0.22	0.20	0.17	0.05	0.01	2.18	6.78
	3.	0.10	0.07	0.05	0.16	0.03	4.95	10.73
	4.	0.17	0.09	0.02	0.12	0.02	8.24	13.86

In cluster 1, the lowest unemployment rate (7.03%) and the lowest long-term unemployment rate (2.52%) is in countries with the highest share of expenditures on training and supported employment and rehabilitation measures (0.15%). This cluster is created by Austria, Luxembourg,

the Netherlands, Italy, Slovenia, France, Poland, Denmark, Sweden, Finland, Germany and the Czech Republic. The highest unemployment rate (21.00%) and also the highest long-term unemployment rate (8.90%) start to show in 2013 in Spain. This is the country that has the lowest ALMPs expenditures also in 2015. The year 2013 confirms the fact that the countries with the higher expenditures on ALMPs in long-term, especially on training and supported employment and rehabilitation, report low long-term unemployment rate (2.18%) and unemployment rate (6.78%), e.g. cluster 2, which consists of Austria, Luxembourg, Germany, Estonia, Sweden, Finland, Denmark, the Netherlands and the Czech Republic.

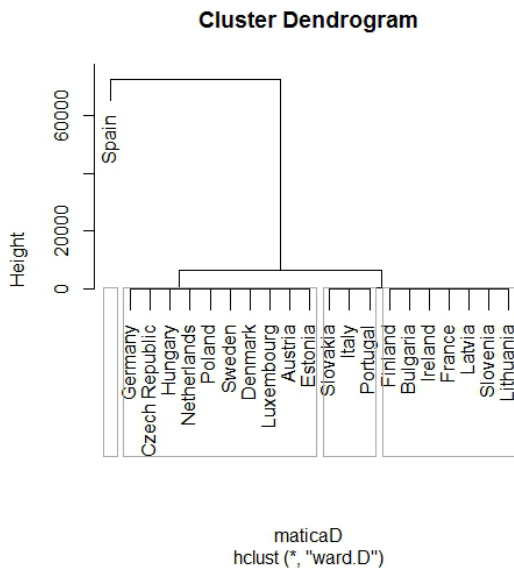


Fig. 7 – The dendrogram based on the selected variables in 2015. Source: Own estimation.

Tab. 3 – Average values of variables from cluster 2015. Source: Own estimation.

Year	Cluster	TRA	EMP_ IN	SUPP_ EMPL	DIR_ JOB	ST_UP	LOG_ UNE	UNE
2015	1.	0.11	0.07	0.07	0.10	0.10	11.40	22.30
	2.	0.14	0.17	0.18	0.11	0.02	2.27	6.28
	3.	0.15	0.16	0.02	0.02	0.01	7.20	12.00
	4.	0.19	0.06	0.04	0.12	0.01	4.41	9.67

In 2015, the first cluster consisted of only Spain, with the highest unemployment rate (22.3%) and the highest long-term unemployment rate (11.40%). The expenditures on individual measures are not the lowest in this country, on the contrary, e.g. in case of support start-up programs, are the highest (0.10%). The development reflects mainly previous under-financing of ALMPs. The lowest unemployment rate (6.28%) and also the lowest long-term unemployment rate (2.27%) are reported in cluster 2. The cluster 2 is represented by Germany, the Czech Republic,

lic, Hungary, Poland, the Netherlands, Sweden, Denmark, Luxembourg, Austria and Estonia. These countries provide the highest average expenditures on employment incentives (0.17%) and supported employment and rehabilitation measures (0.18%).

4.1 ALMPs in Slovakia

During the great recession of the latest crises, the government of Slovakia adopted three packages with the intention to overcome the global crises. Under the influence of decreasing indicator employment in 2009, the government adopted the first package of anti-crisis measures. As the labour market situation remained unsatisfactory, the second package of anti-crisis measures was adopted in 2009. The subsequent negative initial development in the late third phase was accompanied by a reduced number of employees with a higher education level. The development was stabilized in the first half of 2010 (NBS, 2015).

Measuring the allocation of funds to ALMPs as a percentage of GDP, Slovakia is among the countries which spent 0.11% of GDP in 2007 and 0.16% of GDP in 2015. The development is comparable to countries such as Slovenia, Estonia or Bulgaria. From the perspective of participants' stocks to ALMPs, Slovakia provided 0.70% of labour force to employment incentives and 1.92% of labour force to other active measures. Such development was comparable to the countries like Slovenia, Latvia or the Czech Republic. The unemployment rate in Slovakia ranged from 8% (2017) to 14% (2013), a similar development of indicator was typical for Spain, Portugal and Latvia. The long-term unemployment rate was in Slovakia at 8.34%, which is the highest rate among the selected countries, followed by Portugal (6.06%), Ireland (5.32%) and Bulgaria (5.28%).

As part of the cluster analysis, Slovakia appears in the separate cluster in 2007 (cluster 3), which is characterized by the highest unemployment rate and under-average expenditures on ALMPs. The latest crisis has highlighted the disadvantaged and peripheral areas with high long-term unemployment rate, affected not only by structural changes in Slovakia. The decline in the number of unemployed people and unemployment rate constitutes a significant factor affecting the efficiency of job-seekers placement. The country increased the ALMPs expenditures in 2009. Despite the measures taken and increased funding, the country was ranked among the countries (cluster 4) with the high unemployment rate (12.05%) and low expenditures on ALMPs, mainly on supported employment and rehabilitation and start-up programs. A similar trend is also observed in years 2011 (cluster 3), 2013 (cluster 4) and 2015 (cluster 4). Despite the significant growth of total expenditures in the recent years, Slovakia remains one of the EU Member States with the lowest expenditures on ALMPs. The anti-crisis measures of labour market, an increase in employability and help to the employers were carried out from 2009 with effect until 2011. Some measures remained in force in 2013. The most significant measures in terms of sustainability of job were the training for the labour market and contributions to support employment.

We focused on the change in the number of job-seekers for the period of 2007 – 2015, especially from the point of age structure and duration of their registration at labour offices. During the reporting period, the number of job-seekers increased and its structure by the length of registration at labour offices changed too. At the beginning of the crisis, we see the growth in a category of job-seekers who had been registered with the labour office up to three months. The results

got worse for long-term unemployed job-seekers and job-seekers under the age of 24. This may indicate two reasons - either a high percentage of them are students, which has a positive impact on the future of economy of country. In terms of a structure of job-seekers, according to their age, a year after the crisis, an increase in the unemployment was seen mostly in the category of young job-seekers, followed by the category of 55+. During the selected period, the Government of Slovakia significantly changed ALMPs, with the emphasis on categories of people of age 24, long-term unemployed and above the age of 50.

5. DISCUSSION

Unemployment has an increasing trend in the European countries due to unemployment benefits that last long and are set too high as well as tax wedges, and regulations of the product market that shows no signs of competitiveness. During the global crisis, the ALMPs measures had an increasing importance because of their effectiveness to raise employment. The research focused on the analysis of ALMPs expenditures in the European countries, which were influence by the great recession. In our analysis, we used traditional indicators applied in international comparisons of ALMPs, in the form of expenditures on ALMPs as percentage of GDP and participants stocks to ALMPs as percentage of labour force. From the macroeconomic point of view, there is an effort of several countries to fight the increasing development of unemployment. The importance of measures was growing in a post-crisis situation. The results of increased ALMPs support have not been significantly reflected in the unemployment rate change. Countries where the ALMPs expenditures are at the lower amount show no stabilization of unemployment rate or the decrease in the long-term unemployment rate. The examples are Spain, Slovakia or Latvia.

In our research, we have also carried out the cluster analysis, in which the individual countries were grouped into selected clusters with the most similar variables characteristics. The most competitive and effective measure was financing of employment incentives, supported employment and rehabilitation. Providing the programs to ensure a decrease in unemployment rate is considered to be an important factor in mitigating the social impacts or social exclusion. In the next analysis, it would be appropriate to include other variables among the input variables, reflecting the competitiveness and efficiency of ALMPs (e.g. the number of job-seekers, alternative options of including job-seekers or measures of passive labour market). There might be also other determinants of indicator of the labour force, such as lack of educated workforce, lack of housing in the regions with available jobs or levels of work remuneration.

In our paper, we evaluate the position of Slovakia within the integration group of selected countries. The international comparison shows that Slovakia spends relatively low amounts of financial sources to its GDP on the labour market measures. In a perfectly competitive labour market, workers would be expected to bear the entire tax burden through lower net wages, leaving equilibrium unemployment unchanged. However, this may not be the case in practice, provided some conditions. The labour market must be imperfect, in the sense that wages can be set above market-clearing levels. Slovakia, as well as other countries, was selected for the analysis based on its redundancy in the European Union. The selected countries were also chosen for the reason of an insufficient database of other member states. In the further research, it would be appropriate



to include all countries of EU-27 that create one integration group. Furthermore, the development of ALMPs expenditures, mainly in turbulent times, are affected by the size of state debt, the public finance deficit, fiscal consolidation rate or tax burden, which significantly influence the integration process between the countries (Wang, 2007).

6. CONCLUSION

The article evaluates the latest development of the ALMPs measures in the field of unemployment, the labour market in selected European countries in the post-crisis situation, its effectiveness and competitiveness. The evaluation of development was performed in analytical parts, which focused on the labour market and on the qualitative analysis of the indicator of unemployment. The non-hierarchical cluster analysis was applied on identifying the clusters of countries with similar ALMPs expenditures. We found out that the most effectively spent resources and the lowest unemployment rates were in the Nordic countries and Luxembourg. There were countries like Slovakia, Latvia and Spain whose spending on ALMPs was deficient throughout the whole monitored period. Despite the significant growth of the total expenditures in the recent years, Slovakia remains one of the EU Member States with the lowest expenditures on ALMPs. In the further examination of competitiveness of ALMPs within the cluster analysis, it would be advisable to increase the number of indicators, such as the number of job-seekers placed within the ALMPs or the public finance deficit, and to extend the data base to all countries within the integration group.

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