

## THE LABOR MARKET – NATIONAL AND REGIONAL PROBLEMS

*The article presents the trends in the main labour market indicators before and after the economic crisis in 2009 at national and regional level. It outlines the most specific features in the relation between economic and employment growth. At a regional level the article studies the deviations from the average values of economic activity, employment rate and unemployment rate on the regional and intra-regional level, pointing out the increasing deviations at intra-regional level as one of the main feature of labour market misbalances. It also defines some of the factors, causing these misbalances. Particular attention is paid on the role of regional employment programs and measures as an instrument to encourage labor integration through training and qualification; policies that have no alternative and aim at decreasing the social disparities and at the inclusion of risk groups in labor activity and at sustainable employment as a way to improve the standard of living.*

*JEL: J2; J4; J18*

The main objective of the present study is to analyze the tendencies in the development of the labor market after the crisis of 2008 and to highlight the national and regional specificities in its development, to outline the main factors for existing disparities and to point out the possibilities for undertaken respective policy that stems from them.

### 1. Economic and employment dynamic: does the growth stimulate employment?

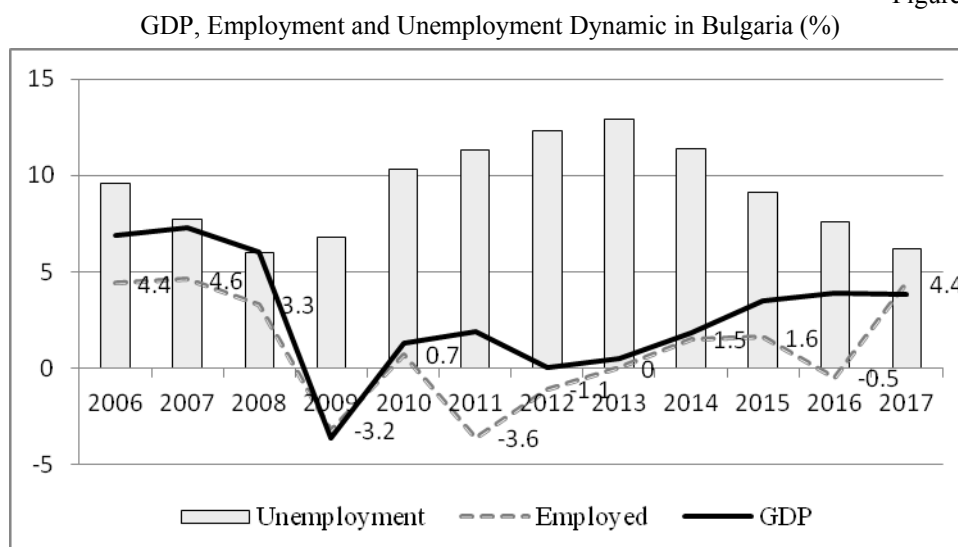
The period after the economic crisis reflects a change in the growth model - from growth, which stimulates employment (2000-2008) towards growth that generates an unsustainable dynamic of employment (2009-2017).

The GDP growth decreased by minus 3.6% in 2009. While it's recovery is even since 2010 (when the growth rate is 1.3% and 1.9% in 2011), the dynamic of employment remains negative until 2012 (with the exception of 2010 when the growth of 0.7% is registered). It is only in 2014 and 2015 that employment increases more significantly – by 1.6% and 1.7% respectively and by 4.4% in 2017 (Figure 1).

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Figure 1



Source: data from NSI, *Macroeconomic statistics, Labor market, annual data*, [https://infostat.nsi.bg/infostat/pages/reports/result.jsf?x\\_2=1169](https://infostat.nsi.bg/infostat/pages/reports/result.jsf?x_2=1169)

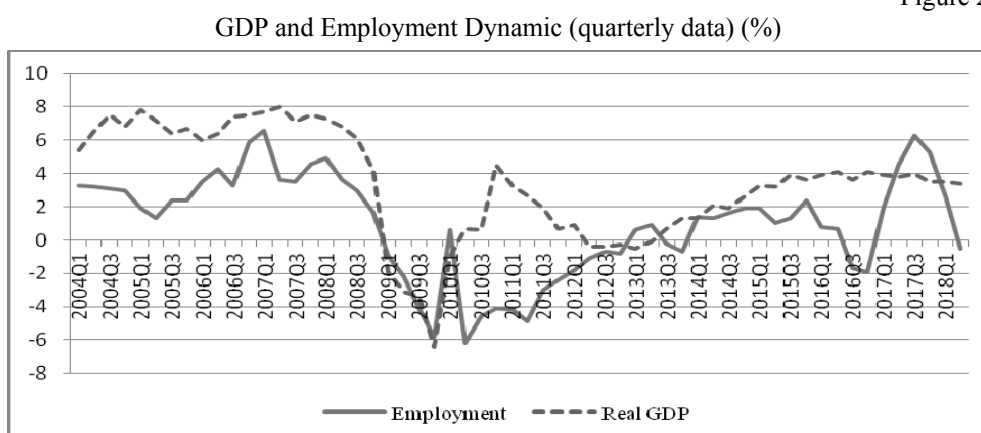
The comparison between two nine-year periods indicates that the growth in employment in 2000-2008 is 5.4 on average per annum, which definitely characterizes the economic dynamic as favorable and encouraging for employment. In the period 2009-2017 the average annual growth in employment is zero. The absolute number of the employed – 3150.3 thousand persons (in 2017) remains lower than the one in 2008 when employment amounted to 3360.7 thousand persons. In this context, the growth in the period after the crisis can be characterized as non-encouraging/unfavorable for employment (jobless growth).

Another feature to be outlined is the decreasing time lag in which GDP dynamic influenced employment, i.e. the time, in which the growth of the economy begins to generate employment. The specificities of the link between growth and employment can be traced in greater detail via the quarterly fluctuations in the dynamic of GDP growth and employment (Figure 2). The data about the rate of GDP growth are expressed in 2010 prices, seasonally adjusted and compared to the same quarter of the preceding year, while the data for employment come from the NSI monitoring of "Employment and Unemployment" and include the employed persons ages 15 and up, relative to the same quarter of the preceding year.

Figure 2 pointed out that, for example, the growth that began in 2000 only managed to generate growing and stable employment between 2005-2007. It indicates that the collapse in the GDP dynamic in 2009 (-3.0%) manifests in decreasing employment (-3.2%) during the same year, in two-three quarters time lag. The discontinuation of the tendency in 2010 showed that the rates in which GDP revives leave behind that of employment. The recovery

of GDP growth begins in the second quarter of 2010, when a positive change in the growth of 0.7 is registered. On the other hand, employment continues to decrease until the second quarter of 2011, i.e. one more year after the change in the direction of GDP growth; yet despite that it remains negative until the end of 2012. I.e. a specific feature with regard to employment is its *very slow recovery in comparison to the recovery of the dynamic of GDP growth*. This specificity is not observed for the EU, where the expectation for continuous stagnation of employment are refuted by a significantly more dynamic recovery of employment.

Figure 2



Source: NSI, Macroeconomic statistics and Labor market, [www.nsi.bg](http://www.nsi.bg)

The slower restoration of employment after the crisis could be seen also in the correlation between the GDP growth index and the employment growth index. The comparison indicates that for the entire period 2000-2017 it is high  $-0,735461$ , however, in the period 2000-2008 it was very high  $0,805266$ , which shows that the factors of growth and investments, in particular, have impacted employment extremely favorably. In the period 2013-2017 the strength of the link between growth and employment is moderate  $-0,615129$ , i.e. in the post-crisis period it weakens, possibly impacted by other internal factors, such as, for example, the lack of structural changes and/or impacts external to the system – declining labor supply due to demographic crisis and further emigration of the labor force, or changes in prices levels on international markets, etc.

The third specific feature of the link between growth and employment is the seasonality in the dynamic of the two indicators. At the basis of this seasonality is the significance of tourism and agriculture, both for generating Gross Domestic Product (GDP) and employment. In the period 2007-2017 employment increases in both sectors – respectively by 17 670 persons in agriculture and by 15 249 persons in tourism. However, the increase in employment in agriculture is accompanied by a significant decrease in its share in GDP – from 12.6 to 4.7% in the period 2000-2016, which indicates the decreasing labor productivity. The change in the share of the "tourism" sector in total GDP is insignificant –

2.2- 2.4%, but, as a whole, the increase in employment also leads to an increase in its' labor productivity.

*The comparison of the dynamic of employment and economic growth indicates that economic growth is more sustainable – since the fourth quarter of 2013 GDP growth increases continuously and there is no change in the direction of its positive development, while the growth in employment is more unsustainable – after 2013 it decreases twice, hence changing the direction of its development, namely in the end of 2013 and in the end of 2016. One reason for this unstable employment growth is the increasing regional disparities.*

## **2. Deviations from the average values of main economic parameters on a regional scale, defining factors and risks for the future development of the labor market**

### *Economic activity*

The dynamic of economic activity at the national and regional level, expressed by the coefficient of economic activity, is analyzed based on data of the national survey "Employment and Unemployment" of NSI.

The coefficient of economic activity (persons aged 15-64) increases in the years after the crisis to 71.3%, while the crossing of the threshold of 70% can be regarded as significant progress in the development of economic activity, caused by high demand for labor in the last years (Table 1).

Table 1  
Coefficient of economic activity of persons aged 15-64 – total, by region and by district (%)

Years	North-West	North-Central	North-East	South-East	South-West	South-Central	Total
2008	<b>63.8</b>	<b>64.2</b>	<b>67.9</b>	<b>66.2</b>	<b>73.1</b>	<b>65.8</b>	<b>67.8</b>
2009	62.6	63.3	66.2	65.6	70.1	65.3	67.2
2010	61.8	62.5	66.6	66.1	71.7	64.9	66.7
2011	61.5	62.9	66.0	65.3	70.3	63.8	65.9
2012	61.2	64.8	67.4	66.5	70.9	66.1	67.1
2013	63.5	65.7	68.0	66.2	72.1	68.7	68.4
2014	64.2	66.3	68.6	66.0	72.7	69.9	69.0
2015	63.8	67.6	70.4	67.7	72.9	68.0	69.3
2016	61.4	67.9	69.8	67.7	72.6	66.7	68.7
2017	<b>65.5</b>	<b>68.5</b>	<b>72.2</b>	<b>70.8</b>	<b>74.6</b>	<b>70.7</b>	<b>71.3</b>

Source: NSI, *Demographic and Social statistics, Labor Market*, [www.nsi.bg](http://www.nsi.bg).

Two regions exceed the average levels of economic activity for the country in 2017 (71.3) – these are the North-east region (72.2%) and the South-west region (74.6%). At the other extreme are the North-west (65.5%) and the North-central region (68.5%), where the level of economic activity is lowest.

*The inter-regional disparities* are traced via the range and coefficient of variation:

The range of the variation represents the difference between the lowest and highest level of the indicator.

The coefficient of variation is the ratio between the standard deviation, divided by the average value of the indicator and indicates the difference in comparison to the average.

At the regional level the range of the variation is exceptionally dynamic - during the years it ranges from 8.5 (the lowest value) to 11.2 (the highest value), but its decrease in 2017 (on an year to year base) and in comparison to 2010 year can be characterized as a positive tendency (Table 2).

Table 2

Range and coefficient of variation of inter-regional disparities in economic activity, measured by the economic activity coefficient

Regional	2010	2011	2012	2013	2014	2015	2016	2017
Range	9.9	8.8	9.7	8.6	8.5	9.1	11.2	9.2
Coefficient of variation (%)	5.5	4.8	4.8	4.4	4.5	4.4	5.5	4.5

*Source: Calculations based on data from NSI, Labor market.*

The decrease in the deviation from the average value, reflected by the dynamic of the coefficient of variation, indicates positive tendencies of decrease in the inter-regional disparities in economic activity. To a large extent, these are anticipated tendencies caused by the intensified inter-regional migration of the labor force in the country in recent years in accordance with the demand for labor, incl. in other regions. Still, the North-west and North-central regions register lower values of the indicators for economic activity, while the South-west region is characterized by the highest economic activity, stimulated by higher labor demand therein.

The intra-regional disparities indicate significantly more unfavorable levels of economic activity (Table 3).

Table 3

Range and coefficient of variation of intra-regional differences of economic activity, measured by the economic activity coefficient

Districts	2010	2011	2012	2013	2014	2015	2016	2017
Range	25.2	19.6	17.1	16.8	19.2	20.5	18.8	15.5
Coefficient of variation (%)	8.0	6.4	6.3	6.9	7.1	7.7	7.8	6.1

*Source: Calculations based on data from NSI, Labor market.*

The disparities between the districts (the range of the variation) are high – *almost two times higher than the inter-regional disparity*. The positive tendency is its decrease, but despite that the range of the variation remains high and indicates that the economic activity differs significantly between the districts. The reasons for that are various, such as the demand for labor; the level of its remuneration, which may encourage or discourage economic activity,

the different level of employability and the aging of the labor force. However, as a whole, low inter-district mobility reflects the different level of “the fixed way of life” of the labor force. The specific reasons for that need to be examined locally and, depending on the results, policies need to be elaborated and implemented that address the stimulation of economic activity. The low economic activity of part of the young labor force as well as its absence from employment and training, i.e. from the labor market, raises a series of questions relating to specific ethnic and cultural specificities of a part of the labor force, such as hidden employment, livelihood by engaging in illegal activities, etc.

*Coefficient of employment (employment rate)*

The coefficient of employment is used for the purposes of the analysis of employment and is reported by the monitoring of “Employment and Unemployment” conducted by NSI (Table 4).

Table 4  
Coefficient of Employment of persons aged 15-64 – total and by regions and districts (%)

Years	North-West	North-Central	North-East	South-East	South-West	South-Central	Total
2008	<b>59.3</b>	<b>58.6</b>	<b>62.0</b>	<b>62.3</b>	<b>71.0</b>	<b>62.4</b>	<b>64.0</b>
2009	57.5	57.9	59.2	61.2	70.4	60.5	62.6
2010	54.9	55.3	56.8	59.1	66.7	57.4	59.8
2011	53.6	54.9	55.8	57.7	65.0	55.5	58.4
2012	53.6	55.5	55.0	58.5	65.1	56.9	58.8
2013	59.5	55.5	56.5	57.5	65.0	59.4	59.5
2014	61.0	57.4	59.8	58.0	66.1	61.5	61.0
2015	62.9	60.4	63.1	60.6	68.0	61.6	62.9
2016	63.4	61.5	62.9	62.3	68.7	61.9	63.4
2017	<b>66.9</b>	<b>63.7</b>	<b>65.4</b>	<b>65.7</b>	<b>72.1</b>	<b>67.0</b>	<b>66.9</b>

Source: NSI, *Demographic and Social statistics, Labor Market*, [www.nsi.bg](http://www.nsi.bg)

During the period 2008-2017 employment increases in all regions of the country. The highest dynamic of employment is registered in the North-west region – more than seven percentage points during the analyzed period. The changes in the employment rate clearly outline the crisis period, while the decrease in the coefficient of employment begins to be registered in 2009 and continues throughout 2010. In the following two years employment stagnates; it starts to increase in 2013 and the following four years are characterized by stable increase.

The South-west region registers the highest level of employment in 2017, followed by the South-central region. The lowest employment level is registered in the North-central region, while the North-east and North-west region have almost identical coefficients of employment.

Despite the general tendency of growth, the range of the variation indicates significant disparities between the regions (Table 5). Furthermore, *the disparities in the growth in employment increases in 2017*. The uneven economic development by regions in the

country is a negative tendency, which continues to develop and intensify over the last twenty years, which by itself leads to significant social and demographic problems, such as desolation of settlements, concentration of poverty, social isolation and marginalization.

Table 5  
Range and coefficient of variation of inter-regional differences of employment, measured by the employment coefficient

Regions	2010	2011	2012	2013	2014	2015	2016	2017
Range	11.8	11.4	11.5	10.4	11.1	11.9	13.9	14.2
Coefficient of variation (%)	7.6	7.3	7.3	6.5	6.5	6.4	7.2	7.2

*Source: Calculations based on data from NSI, Labor market.*

The increase in the range of the variation indicates that the disparity between the regions with regard to the possibilities for finding employment are becoming more severe, while the advantages of the South-west and South-central region and limited possibilities in the North-central and North-west regions are becoming more pronounced.

The coefficient of variation after 2016 increases, which underlines the instability of the tendency of decrease in the disparities in comparison to the average for the preceding years. The further analysis of the inter-regional disparities highlights the investment intentions and the distribution of investments by regions as even more significant factors for them as well as the uneven distribution of labor resources, which turns them into a factor for limiting investment activity. The attractiveness of the individual regions for investors and the availability of sufficient labor resources are determining factors for the development of the regions, but, alongside that, the significance of other factors, such as the availability of infrastructure, incl. educational and healthcare, also increases. For example, the poor condition of rural transport infrastructure impedes the development of the small and medium-sized businesses in both the industry and in agriculture and tourism.

These problems are exacerbated even more at the intra-regional level, where the disparities are even more clearly pronounced (Table 6).

Table 6  
Range and coefficient of variation of intra-regional differences of employment, measured by the employment coefficient

Districts	2010	2011	2012	2013	2014	2015	2016	2017
Range	22.6	17.2	16.2	19.3	19.2	22.5	22.5	19.3
Coefficient of variation (%)	9.6	7.8	7.7	8.2	7.9	8.7	8.6	8.0

*Source: Calculations based on data from NSI, Labor market.*

At the intra-regional level, the differences between the regions are more than 5 percentage points higher in comparison to the inter-regional; the same deviations are registered from the average value, indicated by the coefficients of variation.

What are the main factors, which impede the even development and growth in employment at the regional and municipal level? First and foremost, the capacity of the districts (natural,

labor, capital) differs significantly. These objective differences are supplemented by geographical specificities, which make certain districts more favorable than others with regard to transportation as well as the initiative and entrepreneurship of the local population and government. One study of the reasons for the limited investment initiatives among the districts indicates as *problematic the unresolved structural issues* (landfills, roads, water supply, power supply, schools, hospitals) as well as the inability of local authorities to actively cooperate in the process of attracting investors. The still *underdeveloped financial decentralization* significantly limits the economic initiative of district authorities, which once again raises the issue of the need for the development of financial decentralization by provision of part of the revenue (incl. corporate) generated at the district level.

*Coefficients of unemployment (unemployment rate)*

In 2017 unemployment is at the same level as in the pre-crisis year – 6.2%; this is one of the lowest levels of unemployment that the Bulgarian economy has had during the years of transition and market economy (Table 7).

Table 7  
Coefficients of Unemployment for persons aged 15-64 – total, by regions and by districts (%)

Years	North-West	North-Central	North-East	South-East	South-West	South-Central	Total
<b>2008</b>	<b>7.1</b>	<b>8.6</b>	<b>8.7</b>	<b>5.9</b>	<b>3.0</b>	<b>5.1</b>	<b>5.7</b>
2009	8.1	8.4	10.5	6.7	4.2	7.3	6.9
2010	11.2	11.6	14.7	10.5	7.0	11.6	10.3
2011	12.8	12.8	15.5	11.6	7.5	13.0	11.4
2012	12.4	14.5	18.4	12.1	8.3	14.0	12.4
2013	14.1	15.5	16.9	13.1	9.9	13.5	13.0
2014	14.2	13.4	12.7	12.0	9.0	12.1	11.5
2015	12.1	10.7	10.4	10.5	6.7	9.3	9.2
2016	10.8	9.4	9.8	8.0	5.5	3.3	7.7
<b>2017</b>	<b>11.4</b>	<b>7.0</b>	<b>9.4</b>	<b>7.1</b>	<b>3.3</b>	<b>5.3</b>	<b>6.2</b>

Source: NSI, *Demographic and Social statistics, Labor Market*, [www.nsi.bg](http://www.nsi.bg)

The disparities in both the level and dynamic of the development of unemployment are significant at both the regional and intra-regional level. For example, at the regional level the Northern regions of the country are clearly characterized by high unemployment, while the Southern regions register low unemployment rates and the difference between them is more than two times (North-west and South-central region in 2017). It is important to note the high dynamics, with which the unemployment rate decreases in the South-central region – from 14% in 2012 to 5.3% in 2017.

It is interesting to note that the South-east region manages to decrease its unemployment level to a single digit value in 2017 from the highest regional level of 18.4% registered in 2012. There are various policies, which underlie these disparities in the dynamic of the fluctuations in the unemployment rates, which are implemented at the regional level in as



far as the national anti-crisis policy puts the regions on equal grounds. The national anti-crisis policy of two governments Stanishev (2008) and Borissov (2009) targeted the stimulation of demand. For that purpose an investment fund was set up to the amount of BGN 500 million and allocated by the BNB; efforts were made to protect employment by transitioning to part-time employment and unpaid leaves of absence; nearly 60 anti-crisis measures to the amount of BGN 1.6 billion were implemented with the aim of stabilizing the state budget; additional expenditures are made for the purposes of social protection, repayment of government debt to companies and setting up an Intercompany Lending Assistance Fund.

Table 8  
Range and coefficient of variation of inter-regional differences of unemployment, measured by the coefficient of unemployment

Regions	2010	2011	2012	2013	2014	2015	2016	2017
Range	7.7	8.0	10.1	7.0	5.2	5.4	5.3	8.1
Coefficient of variation (%)	21.7	19.8	23.9	16.6	13.1	16.3	20.2	32.0

Source: Calculations based on data from NSI, Labor market.

The deviations from the average unemployment rate for the country are very significant, reaching 32% in 2017. The tendency of those deviations increasing over time indicates the unequal positions, in which the different regions find themselves with regard to economic revival and recovery of the economy and employment.

The dynamic of the range of the variation is significant. After 2012 the range of the variation decreases and in 2016 it is already in half (5.3%). However, in 2017 it once again begins to increase, which cannot be regarded as a positive occurrence. It remains to be seen whether this tendency will be sustainable and will continue in 2018 and only then can the factors that cause this tendency be analyzed.

The inter-regional disparities in the unemployment level highlight tremendous inequality between the districts and deep economic and social problems, manifesting on the regional level (Table 9).

Table 9  
Range and coefficient of variation of intra-regional differences of unemployment, measured by the coefficient of unemployment

Districts	2010	2011	2012	2013	2014	2015	2016	2017
Range	23.9	21.9	20.3	19.2	17.7	19.7	15.7	17.7
Coefficient of variation (%)	46.7	40.5	34.6	28.9	33.9	41.8	42.3	53.4

Source: Calculations based on data from NSI, Labor market.

A positive tendency is the decrease in the range of the variation, but its level is still rather high – 17.1. The disparity between the districts with regard to the deviation from the average level of unemployment for the country is extremely high – 53.4% and it reflects the fact that in some of the districts employment is at a very low level, while the demand for

labor is limited employment within the framework of the programs for subsidized employment implemented under the National Employment Action Plan.

### **3. Significance of the regional programs for temporary employment as an instrument for decreasing the disproportions in the demand and supply of labor**

The National Employment Action Plan 2018 identifies the main objective of the regional employment programs as an instrument for increasing employment, decreasing unemployment and improving the quality of the labor force in the regions. In essence, they ensure subsidized employment for a period of up to 6 months.

The target group is broadly defined: youngsters, which are out of training, education and labor; unemployed persons aged 55 and above; unemployed persons with lower or no education; unemployed persons with disabilities.

The objective set for 2017 by the regional employment programs is for 2000 unemployed persons to be included in employment with a budget of BGN 7 920 thousand. All 28 districts in the country receive resources under this program, the highest budget is allocated to Vratsa district (BGN 454 619), the lowest is allocated to Gabrovo district – BGN 47925. According to the report of the Employment Agency in 2017 employment has been ensured under these programs for 1719 persons, while the allocated resources amount to BGN 6 609 thousand.

As the data in Table 10 indicate, the announced jobs under programs and measures from the active labor market policies vary: measured as a percentage of the total number of unemployed persons, the districts rank as follows: Montana (12.45%), Vidin (11.9%) and Vratsa (9.7%) and at the bottom of the ranking – Pazardjik (4%), Plovdiv (4%) and Stara Zagora (4.1%). This ranking can be anticipated in view of the high level of labor demand in Southern Bulgaria and the significantly slower revival of the labor market in Northern Bulgaria. In absolute terms employment under programs and measures from the active labor market policy encompasses around 1000 persons in the districts where the announced needs are highest, while the lowest number of requests for participation in regional employment programs have been submitted from Gabrovo district – 140 persons.

At the national level the regional employment programs in 2017 have included 12 699 unemployed persons, which represents an increase of 5.9% of all registered unemployed persons in the country and 7.7% of announced jobs on the primary market. These data show that the assessments of the scale of the regional programs is not ambiguous if it is conducted from a national or district standpoint. On a local scale, however, their existence has a more significant impact, since creating temporary employment constitutes significant support for the labor market as in the case of Montana – for 1000 persons given total unemployment of 7852 persons and demand for labor on the primary market of 2780.

Table 10

Announced jobs within programs and measures by district in 2017

Districts	Announced jobs /number and as % of total unemployed /*		Districts	Announced jobs /number and as % of total unemployed /*		Districts	Announced jobs /number and as % of total unemployed /*	
Sofia capital	626	4,4	Razgrad	298	5,1	Veliko Tarnovo	466	7,2
Pernik	239	7,4	Targovishte	311	5,2	Gabrovo	140	6,2
Sofia district	620	7,5	Dobrich	189	4,5	Burges	473	6,4
Blagoevgrad	831	5,6	Shumen	456	5,2	Sliven	531	6,1
Kustendil	313	6,1	Varna	432	5,0	Yambol	221	5,5
Plovdiv	632	4,0	Montana	975	12,4	Stara Zagora	309	4,1
Pasardjik	448	4,0	Vidin	720	11,9	Haskovo	348	7,9
Smolyan	333	5,7	Vratsa	990	9,7	Kardjali	270	4,2
Russe	356	5,8	Lovech	284	4,6			
Silistra	257	4,5	Pleven	631	5,7			

\* up to 1.09.2017

Source: National Action Plan on Employment 2018. Appendix 6.

The significance of the regional programs for supporting employment may also be traced through the conducted assessments of the effect of the active labor market policy. According to one study from 2015 the share of the persons who have found realization on the labor market after participation in regional programs is 43.5%, which ranks them in 13<sup>th</sup> place among all 19 national programs. The largest share is registered by program “Start of the career” (81.4%).<sup>2</sup>

The assessment of the net effect from these programs (the net estimate of gross effects, substitution effects and displacement of "deadweight" effects) is 5.6 p.p. and is the lowest among the 19 national programs and projects.

It is interesting to note the regional aspect of the assessment of all 19 national programs and projects for active labor market policies conducted in the same study. Whether the effect of one program or project will be large or small depends, to a large extent, on the general condition of the labor market in the given region, i.e. on what the opportunities are to find work without participation in programs or projects. In that sense the more depressed the demand for labor in a given regional market, the lower the effectiveness of the active labor market policy. In that sense, on a regional scale, the lowest net effect from the active programs is evidenced in Sofia (5.3 p.p.), followed by Pernik (5.8) – the explanation for that stems from the intensified migration to the capital.

It can be concluded that the significance of the regional employment programs most clearly manifests at the level of the municipalities and individual settlements as well as in districts,

<sup>2</sup> Conducting assessments of the effect of the active labor market policy, financed with resources from the State budget, at the individual level, MLSP, 2017.

where there is bigger demand for labor and the labor market is significantly depressed. Their effect is temporary since they ensure employment for a certain period of time, while a little more than *one-third of the participants* in them find successful realization on the market after participating in such a program.

#### 4. Sectoral changes as a factor for increasing the dynamic of employment

The structural changes are one of the main ways to overcome economic crises through recovery of the imbalances that are beyond the control of the market.

Table 11

Distribution of employed persons by main sectors – total and by regions

Regions		Total	Agriculture	Industry	Construction	Services
Total	2012	100.00	19.7	20.3	5.4	55.3
	2016	100.00	18.0	20.2	5.0	56.6
South-West	2012	100.00	7.2	15.9	6.3	70.5
	2016	100.00	6.1	15.9	5.9	72.7
South-Central	2012	100.00	26.7	25.0	4.3	43.7
	2016	100.00	25.3	26.0	4.0	44.5
South-East	2012	100.00	23.2	22.1	6.1	48.5
	2016	100.00	21.1	23.3	5.5	49.9
North-East	2012	100.00	23.8	16.0	6.5	53.6
	2016	100.00	24.0	15.6	6.1	54.1
North-Central	2012	100.00	25.3	26.4	3.4	44.6
	2016	100.00	26.5	25.7	3.4	44.2
North-West	2012	100.00	26.6	23.8	3.6	42.1
	2016	100.00	28.5	23.4	3.1	44.7
Sofia-capital	2012	100.00	1.1	10.9	5.4	55.3
	2016	100.00	1.1	10.2	5.0	56.6

Source: NSI, *Macroeconomic statistics, Employed, regional level, www.nsi.bg*

The sectoral specificities of the restructuring of employment during the period 2012-2016 may be summarized as follows:

- Decreasing share of the employed in agriculture (from 19.7 to 18%) in total for the country and for the regions SW, SE, SC.
- Significant disparities in the employment level in agriculture by regions – given an average level for the country of 18% (2017), while for the capital this share is 1.1, and 6.1% in SW region.
- The dynamic of employment in the industry is almost unchanged at the national level (20.3% in 2012 and 20.2% in 2016).
- Increase in the share of the persons employed in the industry in SC and SE regions. The South-west region registers minimal decrease in the number of the employed as does the

Capital. The same applies to NW region, while the decrease is more significant in WC and WE regions, but it still remains below 1 p.p.

- The restructuring of the industry has not been a factor for significant fluctuations in the economic dynamic after the crisis, while the preservation of the employment level in it can be regarded as a good sign of post-crisis development.
- In the construction sector employment decreases and both for the economy as a whole and for all regions in the country, however, this sector is particularly strongly affected in the SE and NW regions.
- The development of the services sector and transition of employed persons towards it is a main feature of the restructuring of employment (55.3 in 2012 and 56.6% in 2016).
- The Capital, followed by SW region are characterized by the highest level of job openings and concentration of employment in the services sector – in 2017, 83.5% are employed in that sector, while their share in SW region is 72.7%.
- The other regions also register an increase (with the exception of NC region), but this increase is smaller and the level of employment in the service sector remains way below the average for the country. The assessment of these processes is not ambiguous, because the uneven development of the services furthers inter-regional imbalances and motives people to move to the Capital, which also exacerbate all resulting urban problems.

The intra-regional changes in the structure of the employed highlight even more clearly the movement of the labor resource between the main sectors of production and activities as a reaction to the influence of the crisis and as a means to escape it.

***The development of the services*** is a main factor for creating jobs and increasing the dynamic of employment. Furthermore, the current development of the services is linked to higher labor productivity as a result of a higher technological level. In the period 2012-2016 the South-west region leads in the development of the services as the number of the employed in the sector increases by nearly 56 thousand persons. The Capital has the main contribution to this increase; therein the persons employed in the service sector increases from 703 thousand to 769 thousand. The number of the persons employed in the services increases in Blagoevgrad district (by 2 thousand persons), while in the other districts from the region this share decreases – by nearly 3 thousand in Sofia district and by a little bit less than a thousand persons in Kustendil and Pernik districts. The decrease in the number of persons employed in the service sector in the smaller districts (Pernik, Kustendil and Sofia) and the registered increase in the larger ones (Capital, Blagoevgrad) characterizes the on-going processes.

An active intra-regional mobility of the persons employed in the services sector is also registered in the other regions. In SC region employment in this sector remains almost unchanged – around 289.5 thousand persons during the two periods, but the intra-regional mobility is very active – the persons employed in the service sector in Plovdiv district increase in number by nearly 4 thousand persons, in Haskovo district – by nearly 2 thousand persons, while that number decreases in Kardjali district (by a thousand persons),

in Pazardjik district (by 12 thousand person) and in Smolyan district (by 2 thousand persons).

In the North-east region the number of persons employed in the service sector increases in Varna district, remains almost unchanged in the districts Dobrich and Shumen and decreases in Targovishte district.

In the South-east region employment in the service sector increases in the districts Burgas, Sliven and Yambol; however, a significant decrease is registered in Stara Zagora district (by nearly 30 thousand persons).

In the NW region employment in the service sector decreases in all districts with the exception of Pleven district, where its level remains almost unchanged. Employment in the service sector also remains unchanged in the NC region, where insignificant increase is registered by the districts Razgrad and Russe, while a slight decrease is registered in the districts Veliko Tarnovo, Gabrovo and Silistra.

**The industry** is of chief significance for the restructuring of employment in periods of crisis on the basis of technological modernization and increasing the labor productivity. The share of the persons employed in the industry in the post-crisis period remains almost unchanged – 20.2% (2017), while in 2012 it was 23%. This sustainability of employment in the sector at the national level is accompanied by an increase in the share of the persons employed in the industry in SC (from 25 to 26%) and SE (from 22.1 to 23.3%) and minimal decrease in the other regions.

The intra-regional changes reflect the decrease in employment in the enterprises, which are situated on the territory of the district, as well as of the closing or opening of new such enterprises. In the post-crisis period they are characterized by the decreasing share of the persons employed in the industry in all districts from the NW and NC region, slight increase in district Varna in NE region (while it decreases in all other districts); significantly more dynamic changes in the SC region, where increase in employment in the industry is registered in the districts Pazardjik, Plovdiv, Smolyan, while minimal decrease is registered in the other districts (Haskovo and Kardzali). SE region also registers increase in employment in the industry by nearly 6 thousand persons as a result of the increase registered in the districts Burgas, St. Zagora and Yambol; a minimal decrease is registered in Sliven district. SW region loses employment in the industry as a result of a decrease registered in the districts Blagoevgrad, Kustendil, Pernik and Sofia (Capital), while an increase is only registered in Sofia district.

**The agriculture** is a sector, employment in which decreases at the national level to 18% of total employment (2016) as a result of a decrease in SW region (districts Blagoevgrad, Kustendil, Pernik, Sofia), SE region (Burgas, Sliven, Yambol districts), SC region (Kurdjali, Pazardjik, Plovdiv, Smolyan), NE region (Varna), NC region (Silistra) and Vidin, Vratsa and Lovech districts in NW region.

The share of the persons employed in the agricultural sector increases in the districts Stara Zagora and Haskovo as well as in the three Northern regions of Bulgaria, incl. Dobrich, Turgovishte and Shumen in NE region; Turnovo, Gabrovo, Razgrad, Russe in NC region and the districts Montana and Pleven in the NW region.

**The construction sector** decreases in terms of the persons employed therein in the period of the crisis from 5.4 to 5.0%; a decrease is registered in the majority of regions and districts with the exception of Vidin and Montana (NW); Tarnovo, Russe and Silistra (NC); Kardjali (SC); Blagoevgrad, Pernik and Sofia (capital) (NW). The difficulty in overcoming this trend of decrease in investments in the county conditions the stagnation in this sector and the difficult recovery of the pre-crisis dynamic; a main source for maintaining it are the investments made under the Operational Programs and, as is evidenced by the presented data, they are focused mainly on the capital, where more large-scale projects are implemented.

As a whole, the summary of the sectoral changes at the national, regional and district level indicates the following:

- A significant change at the national level is the increase in the share of persons employment in the service sector with 1 p.p., a significant increase in this share in the Capital and South-west region and slow changes in the other regions.
- The intra-regional changes mainly boil down to changes in the balance between the districts – the increase in some is at the expense of a decrease in the same shares in others and this applies to changes both in the service sector and the sectors of the industry and agriculture.
- There is a tendency of profiling of the Southern and Northern part of the country as the Southern is differentiated as the industrial part, while Northern – as the more agricultural. Such division is unfavorable, because it faces problems with active mobility of the labor force and the stemming disparities in labor remuneration and standard of living.

## **Conclusion**

The conducted study indicates that while GDP growth in the years before the crisis was very favorable for employment, in the post-crisis period this tendency is not preserved, growth is slow, unsustainable and has a clearly pronounced seasonal character.

The comparison of the dynamic of main indicators of the labor market at the national, inter-regional and intra-regional level indicates that, while at the national level there are positive tendencies of increase in economic activity and employment and a decrease in unemployment, the inter-regional disparities are indicative of significant polarization in the direction North-South, i.e. the Southern regions register better values of the indicators and better tendencies in the development of the labor markets.

The intra-regional disparities are more significant and the range and variation of the analyzed indicators show significant disparities and clearly outline the strongly depressed municipalities with regard to the chronically low economic activity, employment and high unemployment.

There are policies on the labor market, which aim at a more balanced development at the regional level, but the effects from them are not particularly significant, since these policies are tied with the overall strategy for development of the regions of the country.

The restructuring of the economy is progressing slowly and could not be identified as a factor of main importance for the economic recovery after the 2008-2009 economic crisis.

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