

REGIONAL DISPARITIES IN SLOVAKIA FROM THE ASPECT OF AVERAGE NOMINAL WAGE

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1. Theoretical and Practical Aspects of Regional Disparities

In the recent time, the uneven development of regions has been perceived as a problem of a growing international character. The development of regions is examined from different theoretical aspects and is the object of research of several disciplines and practical economic policies. Regional politics on a national level can take a specific character due to the profoundness of the problems to be solved. In principle, in its fundamental features, regional politics is getting harmonized common politics, which is obvious from the documents and steps of EU member states. In spite of an effort to find common solutions to regional disparities on the EU level, the major responsibility for diminishing regional differences is, naturally, still on national governments.

For a long time, Slovakia has been characteristic for markedly big regional differences on the levels of NUTS 2 and NUTS 3 that result from a number of factors - geography, history, culture and ethnic groups. In addition to these factors, there are different parameters of economic development resulting from the politics before 1989 (see Hampel, Gardavský, Kühnl, 1989). We should suppose that new conditions for the functioning of the whole social system, based on market mechanism, liberalization of trade and free allocation of resources will automatically remove deformations of the past development and will lead to the establishment of an optimal structure of the whole economic development in Slovakia. However, this assumption was an oversimplification of the whole problem, which is evidenced by the results of advanced economies. The market as an automatic regulator cannot guarantee the requirement of a balanced, long-term sustainable development of the economy as a whole and its individual regions, and thus a goal-directed intervention of the state is inevitable. In the European

Union, regional politics is done on several levels. „Multinational level (regional politics is carried out rather independently, directly by the European Union), national level (markedly differentiating regional politics carried out by individual member states, gradually taking over some common regulations), regional level (in most countries, bolstered for a long time).“ (Wokoun, 2003, p. 116)

According to Vanhoven - Klaassen (1980, p.28), regional politics is a sum of all public interventions leading to an improvement of geographic displacement of economic activities aimed at eliminating negative spatial consequences of a pure market economy to meet two mutually interdependent goals - to improve economic growth and social division of economic effects. The question is if a particular economic policy fosters eliminating of regional disparities and how successful it is in this area.

One of the stimuli for the authors to deal with regional disparities from the aspect of nominal wage on the NUTS 3 level is so far low performance of regional politics in the Slovak Republic, which can be seen from a set of socio-economic indicators. If the trend is continued, it can aggravate regional disparities, cause social tension and slow down the economic development of the whole national economy. The issue of regional disparities is the content of a VEGA project 1/0726/08 „The Impact of Decentralization of Public Administration in Slovakia on the Functioning of Local Government Authorities and the Possibilities of their Endogenous Development“ run by the Department of Regional Development and Public Administration of the Faculty of Economics at Matej Bel University in Banská Bystrica. This paper is one of the partial outputs of the project.

The impact of paying little attention to the solving of regional disparities, which can be classified as a failure of regional politics in the Slovak Republic, has several dimensions. One of them

is the fact that the regional politics enforced so far caused splitting of the country in two so-called geographical directions West-East and North-South with serious socio-economic differences inside giving evidence about totally different positions of the West against the East and the North against the South. The direction West-East is characteristic for a more advanced West and a backward East, and the direction North-South for a better developed North compared to the South. Naturally, the division of the territory of the Slovak Republic in a cross shape and along its axes indicating cardinal points has some pitfalls and restrictions. However, it serves to express and highlight the deepening regional disparities in Slovakia from the geographic point of view.

The division of the territory of Slovakia in the two directions reflects the persisting inter-regional disparities that can be measured and assessed with several indicators. A team of authors (Víturka, Žitek, Halánek, Klímová, Tonev, 2005, p. 63-67) has worked out a clear system of indicators that can be used to assess the level of the development of regions or to compare them and express inter-regional differences. The indicators are divided into five basic groups.

1. An overall characteristics of the region, based on indicators such as number of districts, number of villages, number of towns, area of the region, distance of the regional capital from the national capital, length of the state border, number of inhabitants, density of population, proportion of urban population of the total population of the region, gross domestic product of the region, proportion of the regional GDP of the national GDP, GDP per one employee, GDP per one inhabitant of the region, tax yield in the region, amount of foreign investment, share of the region of the country's export, regional export share of regional GDP, gross added value in the region, especially in manufacturing industry, construction, agriculture and services, disposable income of households.

2. The economic potential of the region, i.e. the proportion of economically active population of the number of inhabitants of the region, proportion of labour in manufacturing industries of the number of inhabitants of the region, proportion of labour in construction of the number of inhabitants of the region, proportion of labour in agriculture on the number of inhabitants of the region,

proportion of labour in services on the number of inhabitants of the region, number of companies (with more than 25 employees) per 1000 inhabitants, number of foreign companies, proportion of small and medium-sized businesses (up to 250 employees) of the regional GDP, number of private entrepreneurs per 1000 inhabitants, share of investment in the region of overall investment in the economy, tangible investment, intangible investment, investment in the protection of the environment, overall expenses on science and research, amount of agricultural produce, number of farms - plants, number of incoming tourists to the region out of the total number of tourists to the country, income from tourism, number of accommodation facilities, number of beds, loading capacity of accommodation facilities, number of foreigners out of the total number of staying tourists.

3. Human potential, representing the proportion of the people between 0 and 14, 15 and 59 and over 60 years old, balance of migrating population, average wage in the region, in particular average wage in manufacturing industry, construction, agriculture, services, proportion of yearly savings of the population of the total yearly income of the population, proportion of the people with incomplete elementary education, complete elementary education, industrial education, secondary education, higher education, life expectancy of men and women, infant mortality, rate of unemployment, number of applicants per one job vacancy, proportion of long-term unemployed people (over 6 months) of the total number of unemployed, average monthly amount of social benefits per one inhabitant, number of inhabitants over 60 years old per one bed in old people's homes.

4. Technical equipment and utility of the region, specified by factors such as the length of railways per 1 km², length of highways and motorways per 1 km², length of other roads per 1 km², number of international airports for passengers, capacity of public transport, number of cars per 1000 inhabitants, number of telephone landlines per 1000 inhabitants, number of internet users per 1000 inhabitants, percentage of households connected to gas pipeline, percentage of inhabitants connected to water mains, percentage of inhabitants connected to sewerage system with a sewage plant, percentage of households connected to

central heating system, number of started and finished flats, number of 1st class flats, number of flats with one household per the total number of flats in the region.

5. Environment, characterized on the basis of the share of the region of SO₂ emission, average yearly concentration of NO_x, 95 % of quantiles of daily averages of NO_x concentration, average yearly concentration of dust aerosol, proportion of SSJV profiles of type IV and V of the number of SSLV profiles, share of the region of producing dangerous waste, percentage of the liquidated waste of total waste production in the region, percentage of the population exposed to excessive noise, proportion of arable soil of the total area of the region, proportion of agricultural land of the total area of the region, proportion of large protected areas of the total area of the region, proportion of damaged forests of the total area of the region.

Among the most important and most frequently monitored indicators (as given for example by Čajka, Rýsová, Pešout (2005), Ivaničková, Vlčková (2000), Rajčáková (2004), Skokan (2003, 2004), Wokoun (1991, 2003), Žitek, Haláček (2003, 2004) a others) are gross domestic product per head, employment and unemployment, dynamics of inflow of foreign direct investment and the level and development of wages. The indicators are very often given in absolute numbers calculated to a certain basic indicator, or period, or, as a relative quantification, i.e. proportion of, for example, national average.

Measuring and assessing of the development of regional disparities is not an end in itself. It is done to find suitable measures and instruments for eliminating disparities or stopping their further aggravating and creating conditions for a balanced growth of the economy as a whole. However, at first it is necessary to get thorough knowledge and identify and classify the reasons causing the deepening disparities. Owing to the fact that the causes of inter-regional disparities are specific and variable in every particular region, we believe they are difficult to identify and subsequently, eliminate. We believe that there is no ideal and universal manual for eliminating them. It is thus necessary to sensitively evaluate the causes of the region's lagging behind, eliminate them and with suitable stimuli start up an economic growth and development of the region.

The reasons for existing regional disparities in Slovakia are a focus of a number of authors. With regard to the aim of our paper, we will pay only little attention to the causes of disparities, being aware of their influence and the need to respect them. Different authors distinguish a variety of causes of regional disparities. Tvrdoň, Hamalová, Žárska (1997, p. 33-34) have divided the causes into two groups:

1. The regions are not equally equipped with the factors of growth in one particular moment.
2. In the course of time, particular growth factors are used in different amount and with different intensity.

Regional disparities in the Czech Republic have several reasons, as suggested by Žitek (2004, p. 125). The most significant of them are decrease of production and employment in heavy industry (coal mining, metallurgy, engineering, chemistry and others), reduction of labour in agriculture, concentration of the tertiary sector in big towns and conurbations, uneven development of private enterprise, above all small and medium-sized enterprises, low mobility of labour among individual regions and long-lasting bad state of the environment.

The above-mentioned causes of regional disparities in the Czech Republic can be, with some modifications, observed also in the Slovak Republic.

2. Inter-regional Disparities in Slovakia and Development of Nominal Wages

Assessment of the economic development of the individual regions in the Slovak Republic requires the use of a whole set of indicators. From among these, an important role belongs to the wage level and tendency of its development, which should reflect the development of labour productivity as well as the level of the population qualification structure, situation at the labour market and the total potential of the economically active labour force, willing and able to work for the given wages. In general, wage has many functions, being the result of the labour supply and demand; therefore it should encourage optimum allocation of labour force, while having a significantly stimulating effect on the individuals deciding between their working time and free time.

Tab. 1: Average regional nominal monthly wage (in SKK)

| Region/Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Bratislava | 13 022 | 14 133 | 14 882 | 16 260 | 17 626 | 18 877 | 21 016 | 23 212 | 24 860 |
| Trnava | 9 502 | 10 201 | 10 584 | 11 413 | 12 486 | 13 360 | 14 670 | 16 086 | 17 610 |
| Trenčín | 9 150 | 9 821 | 10 378 | 11 190 | 12 175 | 12 735 | 13 907 | 15 121 | 16 383 |
| Nitra | 8 891 | 9 477 | 9 681 | 10 436 | 11 427 | 12 147 | 13 252 | 14 257 | 15 395 |
| Žilina | 9 010 | 9 627 | 10 218 | 10 931 | 12 057 | 12 600 | 13 930 | 15 172 | 16 437 |
| Banská Bystrica | 9 342 | 9 751 | 9 898 | 10 660 | 11 641 | 12 246 | 13 309 | 14 541 | 15 657 |
| Prešov | 8 338 | 8 917 | 9 087 | 9 892 | 10 802 | 11 385 | 12 535 | 13 185 | 14 087 |
| Košice | 10 158 | 10 605 | 11 121 | 11 771 | 13 054 | 14 138 | 15 440 | 16 768 | 17 930 |
| Slovak republic | 10 212 | 10 945 | 11 430 | 12 365 | 13 511 | 14 365 | 15 825 | 17 274 | 18 761 |

Source: Štatistický úrad Slovenskej republiky [online]. <<http://www.statistics.sk/webdata/ks/ksbrat/mesacmzda.htm>>, own adaptation.

Note: all figures are exclusive of business income.

It is also an instrument of redistribution of income and the major determinant of consumption and the living standard of majority of population. For our purposes we have chosen the indicator of the average nominal monthly wage of an employee which, on the one hand, allows comparison of the income amount of the population (exclusive of business income) and, on the other hand, allows identification of the situation and development of regional disparities with emphasis put on one of the living standard determinants. The choice of the average nominal wage can also be justified by the fact that if its level and trend of its development cannot stabilize labour force in a given region, or motivate them for creation of new values and higher production, a nominal wage does not fulfill one of its important functions. What can be the causes of such a situation in the regions of Slovakia and what needs to be done to alter it - those are the questions which we shall try to answer by comparing the nominal wage development in the NUTS 3 between 1998 and 2006 and by formulating the selected recommendations in the conclusion of the article.

Study of the nominal wage development in the NUTS 3 between 1998 - 2006 while using and adapting the secondary statistic data, as well as the application of the scientific abstraction, comparison and deduction methods, has been done in the following order of the steps:

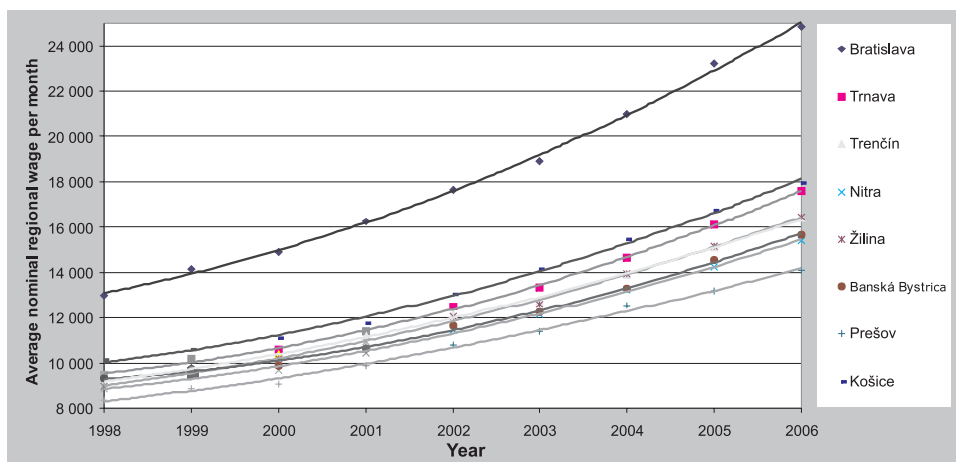
- expression and comparison of the average nominal wages in the NUTS 3 in absolute monetary units,

- comparison of the development of the average nominal wages in the NUTS 3 in relative units (percentage) and in relation to the average nominal wages in Slovakia,
- year-on-year monitoring and comparison of the dynamics of the average nominal wages variation in the NUTS 3,
- absolute and relative expression of the disparities change through the change of the average nominal wages and comparison of the two regions (the least and the most developed ones) to the all-Slovakia average.

By this method we have been pursuing two basic goals: to compare the situation at the level of the average nominal wages in the individual NUTS 3 in 1998 and 2006 by catching the trend of their change, and to find out whether these changes were reflected in balancing of the regional disparities. We have relied on the hypothesis that in this period the instruments and measures of the regional policy did not significantly contribute to the balancing of the regional disparities, which was reflected also in undesirable deepening of the disparities at the level of nominal wages.

Average monthly wage per an employee, as emphasized above, is one of the important economic and social indicators which are monitored not only at the level of economy as a whole but also at the regional, i.e. NUTS 3 level. In the Slovak Republic, along with the trend of the continual increasing of the average wage, the significant wage disparities in the regions still survive and

Fig. 1: Average regional nominal monthly wage (in SKK)



Source: Štatistický úrad Slovenskej republiky [online]. <<http://www.statistics.sk/webdata/ks/ksbrat/mesacmzda.htm>>, own adaptation.

tend to be deeper, which is proved mainly by the dominant position of the Bratislava Region (see figures in Table 1).

Graphical interpretation of the figures presented in the Table 1 points out, still the more significantly, the unfavorable tendency towards the increase of disparities in the development of the average nominal monthly wage, even after Slovakia joined EU in 2004 and after adoption of several common practices and steps in application of the common regional policy principles, or in making use of the advantages following out of the full membership of Slovakia in the EU. The Bratislava Region has continually kept the by-far highest average nominal gross monthly wage and in comparison with this most advanced region of Slovakia all the other ones lag behind, the Prešov Region most of all (see Fig. 1).

The average regional monthly wage does not reach the average levels of monthly wage in Slovakia (in 1998 average monthly wage in Slovakia was SKK 10,212 and in 2006 SKK 18,761) in none of the NUTS 3 regions, except for the Bratislava Region (in 1998 the average monthly wage in this region was SKK 13,022 and in 2006 SKK 24,860). During the monitored period the lowest average nominal monthly wage was kept in the Prešov Region, which lags behind not only the most advanced Bratislava Region, but also all the other regions in Slovakia. In relation to the Prešov

Region we consider this fact to be critical, calling urgently for solution. As the other results of the average nominal wage monitoring can prove, the Prešov Region represents the „epicentre“ of cumulated and unsolved problems from both the previous and present social and economic development in Slovakia. They are mainly unsuitable structure of industry and other economic sectors, its geographical location and underdeveloped infrastructure, low portion and low inflow of foreign direct investment, but also traditions, culture and lifestyle of the population and its demographic structure. Given the main development factor in the region should be human potential and its skills, the Prešov Region is characteristic with such demographic features that can be regarded as a barrier of its development. Primarily we mean high birth rate and low average productive age that are connected with the high proportion of the Roma population, their low education level and specific lifestyle, attitude to work including their reluctance or economic limits to labour migration.

From the aspect of the year-on-year change of the average gross monthly wage in the NUTS 3 regions and in the Slovak Republic, we can deduce that between 1998 - 2006, apart from the tendency towards gradual growth of this indicator in all regions, the highest average dynamics of its growth can be seen in the Bratislava Region,

Tab. 2: Year-on-year change of the average regional nominal monthly wage index (in %)

| Region/Index | 99/98 | 00/99 | 01/00 | 02/01 | 03/02 | 04/03 | 05/04 | 06/05 | Average |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
| Bratislava | 108,5 | 105,3 | 109,3 | 108,4 | 107,1 | 111,3 | 110,4 | 107,1 | 108,4 |
| Trnava | 107,4 | 103,8 | 107,8 | 109,4 | 107,0 | 109,8 | 109,7 | 109,5 | 108,0 |
| Trenčín | 107,3 | 105,7 | 107,8 | 108,8 | 104,6 | 109,2 | 108,7 | 108,3 | 107,6 |
| Nitra | 106,6 | 102,2 | 107,8 | 109,5 | 106,3 | 109,1 | 107,6 | 108,0 | 107,1 |
| Žilina | 106,8 | 106,1 | 107,0 | 110,3 | 104,5 | 110,6 | 108,9 | 108,3 | 107,8 |
| Banská Bystrica | 104,4 | 101,5 | 107,7 | 109,2 | 105,2 | 108,7 | 109,3 | 107,7 | 106,7 |
| Prešov | 106,9 | 101,9 | 108,9 | 109,2 | 105,4 | 110,1 | 105,2 | 106,8 | 106,8 |
| Košice | 104,4 | 104,9 | 105,8 | 110,9 | 108,3 | 109,2 | 108,6 | 106,9 | 107,4 |
| Slovak republic | 107,2 | 104,4 | 108,2 | 109,3 | 106,3 | 110,2 | 109,2 | 108,6 | 107,9 |

Source: Štatistický úrad Slovenskej republiky [online]. <<http://www.statistics.sk/webdata/ks/ksbrat/mesacmzda.htm>>. own adaptation.

Note: all figures are given exclusive of business income.

if compared with all other territories. This trend implies the process of further deepening of the wage disparities in the regions. Particularly in the last five years (2002 - 2006) there was a gradual deepening of wage disparities between the Prešov Region and all other regions in Slovakia. Dynamics of the average monthly wage increase, as shown in Table 2, is the lowest in this region, together with the Banská Bystrica Region (averagely between 1998 - 2006: 106.7 in Banská Bystrica Region and 106.8 in Prešov Region).

Average growth rate of the gross monthly wage in Slovakia reached 7.9% per year between 1998

and 2006. This growth rate was outrun only by the Bratislava Region by 0.5% and the Trnava Region by 0.1%. On the contrary, Prešov and Banská Bystrica regions lag behind the all-Slovakia average again (on average by 1.1% and 1.2% per year).

In the inter-regional comparison of the level and development of nominal wages we have so far used and adapted the data in their absolute expression (in Slovak crowns). The view of the same indicators development in relative expression is much more important as it can disclose even larger regional disparities. With this aim in focus

Tab. 3: Relative expression of average regional nominal monthly wage in SR (in %)

| Region/Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Bratislava | 127,5 | 129,1 | 130,2 | 131,5 | 130,5 | 131,4 | 132,8 | 134,4 | 132,5 |
| Trnava | 93,0 | 93,2 | 92,6 | 92,3 | 92,4 | 93,0 | 92,7 | 93,1 | 93,9 |
| Trenčín | 89,6 | 89,7 | 90,8 | 90,5 | 90,1 | 88,7 | 87,9 | 87,5 | 87,3 |
| Nitra | 87,1 | 86,6 | 84,7 | 84,4 | 84,6 | 84,6 | 83,7 | 82,5 | 82,1 |
| Žilina | 88,2 | 88,0 | 89,4 | 88,4 | 89,2 | 87,7 | 88,0 | 87,8 | 87,6 |
| Banská Bystrica | 91,5 | 89,1 | 86,6 | 86,2 | 86,2 | 85,2 | 84,1 | 84,2 | 83,5 |
| Prešov | 81,6 | 81,5 | 79,5 | 80,0 | 79,9 | 79,3 | 79,2 | 76,3 | 75,1 |
| Košice | 99,5 | 96,9 | 97,3 | 95,2 | 96,6 | 98,4 | 97,6 | 97,1 | 95,6 |
| Slovak republic | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 |

Source: Štatistický úrad Slovenskej republiky [online]. <<http://www.statistics.sk/webdata/ks/ksbrat/mesacmzda.htm>>. own adaptation.

Note: all figures are given exclusive of business income.

we have calculated the proportion of the average monthly wage in the NUTS 3 regions on the average monthly wage in the SR between 1998 and 2006 (see figures in Table 3).

The figures in the Table 3 imply that the dominant position of the Bratislava Region is clear also in observation of the relative proportion of the average wage in the regions on the average wage in Slovakia. While since 2000 the proportion of wages in the Bratislava Region has represented over 130 % on the all-Slovakia average, in the Prešov Region it has been just 75 %. It is rather interesting that, according to the statistics, only in the Bratislava and Trnava Regions relative growth of the average wage on the average wages in Slovakia can be seen. In all other NUTS 3 regions this proportional (relative) indicator has been declining, while the sharpest decline can be seen in the Prešov Region, which is another demonstration of the deepening regional disparities in Slovakia and particularly lagging of the Prešov Region behind not only the most advanced Bratislava Region, but also all the other regions of Slovakia.

From the aspect of year-on-year changes of the of average nominal monthly wage proportion in the regions on the average monthly wage in the SR (see Table 4) we can confirm the tendency towards deepening of the regional disparities in Slovakia. Higher level of the average year-on-year change, compared to the average in Slovakia, can only be found in the Bratislava Region (0.5 %) and the Trnava Region (0.1 %). As for the dynamics of the monitored indicator development, all other regions lag behind both the most advanced region and the all-Slovakia average. This fact confirms stagnation or slight deepening of the inter-regional disparities at the NUTS 3 level. Traditionally, the regions that lag behind are Banská Bystrica and Prešov. As for

monitoring of the year-on-year change of the average nominal monthly wage proportion on the average wage in Slovakia, Žilina Region also falls to this group. In this region, however, a positive change can be expected shortly as a result of developing production in automobile industry.

3. Comparison of the Regional Disparities and Their Development through an Average Monthly Nominal Wage

In previous monitoring of the state and development of the regional differences in the Slovak republic, we focused on a development of the average nominal monthly wage (excluding business incomes) in its absolute and relative formulation. From the analysis emerged that the biggest differences exist between Bratislava and Prešov Districts that we will further consider the most developed and the least developed region, and we will try to formulate their mutual differences though the average monthly wage and subsequently we will compare these differences to the average monthly wage in Slovakia, its growth rate in a period from 1998 to 2006. The stats about level and development of the average nominal monthly wage in Bratislava and Prešov Districts and the Slovak republic as a whole are stated in the table no. 4. Line no. 4 and 5 include the interregional differences between the most developed and the least developed region and the differences between amount of the average wage in the least developed region in the Slovak republic in average.

Regional differences in the average wages for each individual year show the continuous deepening differences between the monitored regions in

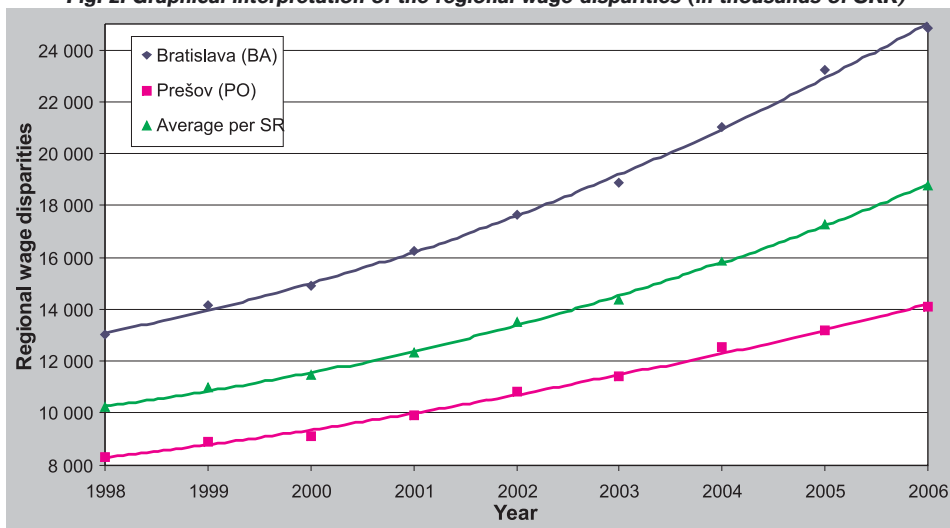
Tab. 4: Quantification of the regional wage disparities (in thousands of SKK)

| Region/Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Bratislava (BA) | 13 022 | 14 133 | 14 882 | 16 260 | 17 626 | 18 877 | 21 016 | 23 212 | 24 860 |
| Prešov (PO) | 8 338 | 8 917 | 9 087 | 9 892 | 10 802 | 11 385 | 12 535 | 13 185 | 14 087 |
| Average per SR | 10 212 | 10 945 | 11 430 | 12 365 | 13 511 | 14 365 | 15 825 | 17 274 | 18 761 |
| Difference BA-PO | 4 684 | 5 216 | 5 795 | 6 368 | 6 824 | 7 492 | 8 481 | 10 027 | 10 773 |
| Difference SR-PO | 1 874 | 2 028 | 2 343 | 2 473 | 2 709 | 2 980 | 3 290 | 4 089 | 4 674 |

Source: Štatistický úrad Slovenskej republiky [online]. <<http://www.statistics.sk/webdata/ks/ksbrat/mesacmzda.htm>>, own processing.

Note: all the data are showed excluding the incomes coming from business activities.

Fig. 2: Graphical interpretation of the regional wage disparities (in thousands of SKK)



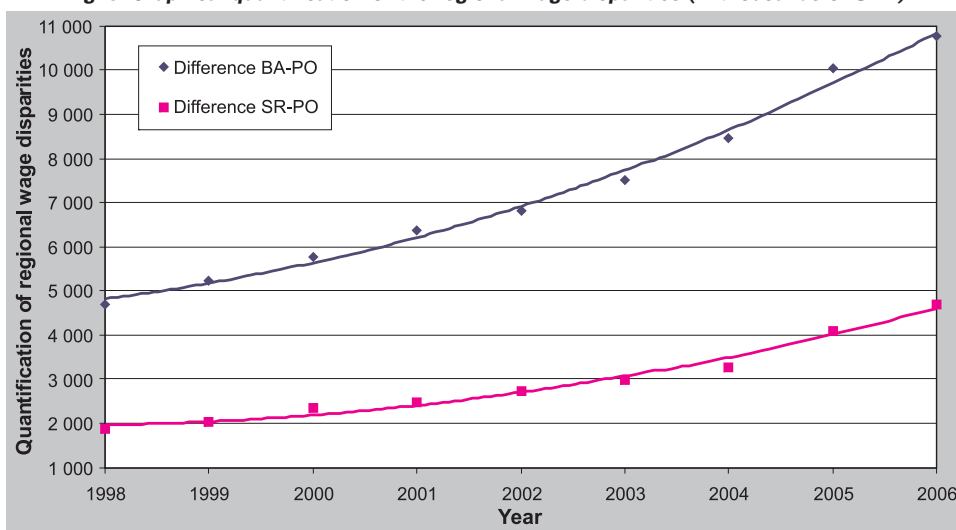
Source: Štatistický úrad Slovenskej republiky [online]. <<http://www.statistics.sk/webdata/ks/ksbrat/mesacmzda.htm>>, own processing.

Note: all the data are showed excluding the incomes coming from business activities.

Slovakia mutually, but also in a relation to the national average whereas the growth dynamics of the wages is again higher in Bratislava District than in Prešov District. Given fact is interpreted by the state and development of the wage regional differences in the Fig. 2.

From Fig. 2 emerged that Prešov District lags in the wage development not only behind the most developed region of Slovakia, Bratislava District, but also behind the average wage level in the Slovak republic as a whole. Increase of the wage

Fig. 3: Graphical quantification of the regional wage disparities (in thousands of SKK)



Source: Štatistický úrad Slovenskej republiky [online]. <<http://www.statistics.sk/webdata/ks/ksbrat/mesacmzda.htm>>, own processing.

Note: all the data are showed excluding the incomes coming from business activities.

Tab. 5: Quantification of the relative regional wage disparities (in %)

| Region/Index | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Bratislava (BA) | 127,5 | 129,1 | 130,2 | 131,5 | 130,5 | 131,4 | 132,8 | 134,4 | 132,5 |
| Prešov (PO) | 81,6 | 81,5 | 79,5 | 80,0 | 79,9 | 79,3 | 79,2 | 76,3 | 75,1 |
| SR together | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 |
| Difference BA - PO | 45,9 | 47,6 | 50,7 | 51,5 | 50,6 | 52,1 | 53,6 | 58,1 | 57,4 |
| Difference SR - PO | 18,4 | 18,5 | 20,5 | 20,0 | 20,1 | 20,7 | 20,8 | 23,7 | 24,9 |

Source: Štatistický úrad Slovenskej republiky [online]. <<http://www.statistics.sk/webdata/ks/ksbrat/mesacmzda.htm>>, own processing.

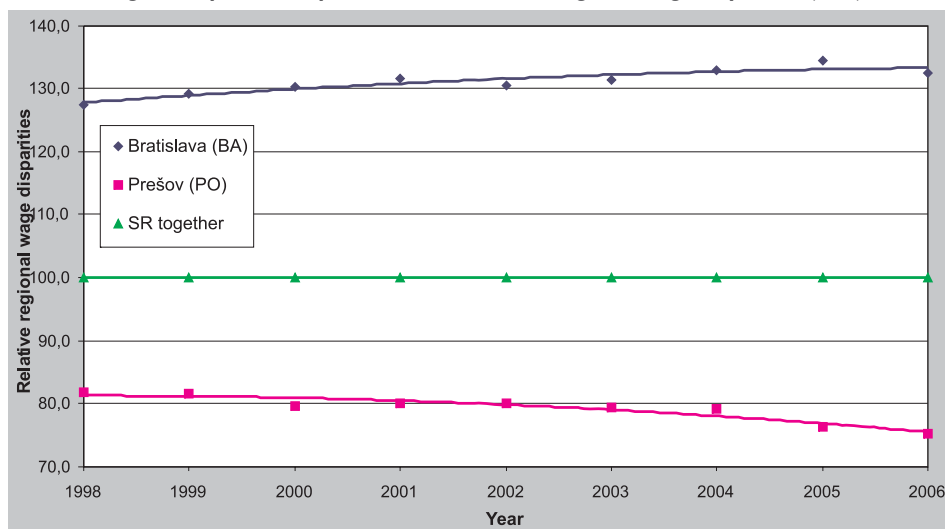
Note: all the data are showed excluding the incomes coming from business activities.

differences is also evident from the Fig. 3 that shows a mutual comparison of the wage differences between Bratislava and Prešov Districts and Prešov District and the national average.

All tendencies in the development of the regional differences through indicator of the average nominal monthly wage graphically represented and given above prove unambiguously that in the period from 1998 to 2006 the regional disparities deepened. Difference in the wages between Bratislava and Prešov Districts almost doubled from 1998 to 2006 (in 1998 from almost 5.000 SKK to almost 11.000 SKK in 2006) whereas the wage differences in a relation to the Slovak

average increased in Prešov District from approximately 2.000 SKK in 1998 to almost 4.700 SKK in 2006. In order to meet the stated methodology of the process and its complexity, we calculated a relative share of two regions (Bratislava and Prešov) on the wage development in the Slovak republic, namely through a percentual share of the absolute statistical indicators on the Slovak average. This formulation of the disparities allows to determine how the state and development of the regional differences from a viewpoint of the relative share of the average wages in the single regions on the national average of the nominal monthly wages. Table no. 5 includes the 100 %

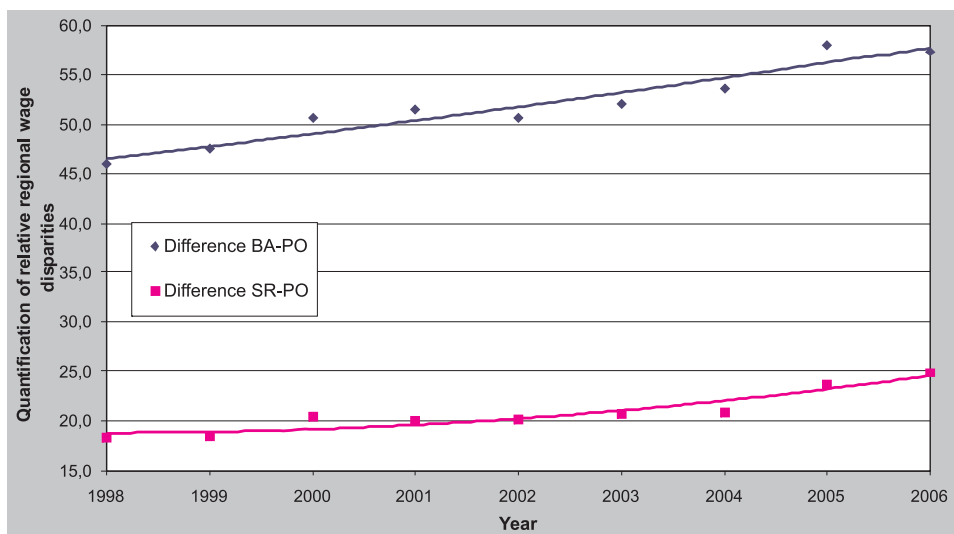
Fig. 4: Graphical interpretation of the relative regional wage disparities (in %)



Source: Štatistický úrad Slovenskej republiky [online]. <<http://www.statistics.sk/webdata/ks/ksbrat/mesacmzda.htm>>, own processing.

Note: all the data are showed excluding the incomes coming from business activities.

Fig. 5: Graphical quantification of the relative regional wage disparities (in %)



Source: Štatistický úrad Slovenskej republiky [online]. <<http://www.statistics.sk/webdata/ks/ksbrat/mesacmzda.htm>>, own processing.

Note: all the data are showed excluding the incomes coming from business activities.

value for the Slovak republic, which is the basis for calculation of the regional disparities.

Percentual shares of Bratislava and Prešov Districts in a relation to the national average (100%) show a trend of increasing share of Bratislava District (from 127.5% in 1998 to 132.5% in 2006) on one hand and a trend of decreasing share of Prešov District (from 81.6% in 1998 to 75.1% in 2006) on the other hand. This trend is proved by the differences data between Bratislava and Prešov Districts mutually (45.9% in 1998 and 57.4% in 2006), as well as the differences data between the average of the Slovak republic and Prešov District (18.4% in 1998 and 24.9% in 2006) which development is represented and interpreted in the Fig. 4.

During the analyzed period from 1998 to 2006, the relative share of Bratislava District on the average wages in the Slovak republic continually increases unambiguously. Despite the fact that the inter-yearly increase has been decreasing during the last years, Bratislava District maintains its domination. Negative trend of the development is the gradual and continual decrease of Prešov District's share on the wages in the Slovak republic. This development has been having a higher

dynamics of the decrease since 2002 compared to the dynamics of the wage increase in the most developed Bratislava District. In comparison to the Slovak average (100%), a level of the wage development has been differentiating more and more whereas Bratislava District recedes from the Slovak average upwards. On the contrary Prešov District recedes from the average downwards. In the certain sense of the word, we can talk about the constantly bigger 'opening up regional scissors' (see Fig. 5) that can raise a tension between the requirements of a balanced economical growth as a whole and the possibilities of this requirement meeting by the single regions and regional policy.

If the difference between Bratislava and Prešov Districts was 'only' 45.9% in 1998, this difference increased to 57.4% in 2006. There is an evenly negative development in the relation to the national average when the difference of the average monthly wages increased excluding the business incomes in a relative formulation from 18.4% to 24.9% during the monitored period. One of the most serious issues of this negative tendency is a fact that the preconditions for more radical changes in the existing wage differences have not been created yet.

Summary and Conclusion

From monitoring of the regional disparities in the Slovak republic through the development of the nominal wage in the period from 1998 to 2006 emerged several conclusions. They include:

- regional disparities in the Slovak republic deepen, it is documented by the state and development of the nominal wages in NUTS 3 regions,
- deepening of the regional disparities is the most intensely showed between Bratislava and Prešov Districts as well as by the lagging of Prešov District behind the national average and its comparison to other regions of Slovakia,
- share increase dynamics of the nominal wages in Bratislava District secures its domination in Slovakia, on the contrary the share decrease dynamics of the nominal wages in Prešov District recedes this district not only from the national average, but also from the average and share of other districts on the average nominal wage that is the indicator of the population's standard of life,
- increasing trend of Bratislava District's share and decreasing trend of Prešov District's share from the nominal monthly wages development viewpoint 'open up the scissors' of the regional differences that can work in a future period.

In order to achieve a balanced social-economical development of economy as a whole, it is necessary to exercise the regional policy that takes the relevant region's particularities into consideration in larger degree, and particularly the influence of non-economical factors that affect the region's development in the long term and that have a tendency to remain and strengthen in a further period. It is natural that the differences in the wage development are the outcomes of many reasons and factors that work specifically in the single regions. Moreover, differentiation that is a result of the economical factors (e.g.: productivity of labour and innovative potential of the region) may be considered reasonable and in the certain sense fair and motivational.

In case that an excessive divergence in the development of the regions is a result of other (social, cultural, historical, demographical and other) factors that determine the regions' development significantly (situation of Prešov District), it

is necessary to adjust the regional policy in such a way that it helps a faster development of the falling behind and less developed regions. Way in which the excessive differences between the regions will be decreased does not lie in an artificial balancing of the wages level, but in a creation of the conditions for the productivity of labour growth, educational level increase of population, including conditions for living, protection and improvement of health, as well as the whole complex of care for citizens. However, a specific regional policy and an interest of its bearers have to correspond with this. Regional policy that has to take into consideration the limited possibilities as well as the poles of relevant region's development including using of a certain degree of 'rich', developed regions' solidarity with 'poor' and less developed regions, i.e. those that fall behind the national average in the long term.

Regional policy and its effective implementation in practice is a key instrument in the hands of state, state authorities and organizations as well as regional and local self-government. Help and support offered to the Slovak republic by the European Union in the next years (2007-2013) is one of the opportunities that has not been offered to many countries that deal with similar problems with balancing of the regional disparities.

References:

- [1] ČAJKA, P., RÝSOVÁ, L., PEŠOUT, I. *Praktické prístupy ku štúdiu regionálnej politiky*. 1. vyd. Banská Bystrica: Fakulta politických vied a medzinárodných vzťahov, Univerzita Mateja Bela, 2005. ISBN 80-8083-075-4.
- [2] FOGAŠ, A. *Regionálna politika Európskej únie, Geografické aspekty stredoeurópskeho priestoru*. Brno: Pedagogická fakulta, Masarykova univerzita, 2003. ISBN 80-210-3208-1.
- [3] HAMPL, M., GARDAVSKÝ, V., KÜHNEL, K. *Regionální struktura a vývoj systému osídlení ČR*. Praha: Univerzita Karlova, 1989.
- [4] HOLEŠOVÁ, H. *Regionálna politika a štrukturálne nástroje*. Bratislava: Úrad vlády SR a Slovenská obchodná a priemyselná komora, 2003. ISBN 80-969006-5-X.
- [5] IVANIČKOVÁ, A., VLČKOVÁ, V. *Nové inštitucionálne rámce a regionálny rozvoj*. Bratislava: Ekonomická univerzita, 2000.
- [6] KOŽIAK, R. *Ciele a nástroje regionálnej politiky Európskej únie na programovacie obdobie*

- 2007 - 2013. *Acta Academica Karviniensia*, 2006, Iss. 2, pp. 65-78. ISSN 1212-415X.
- [7] KOŽIAK, R., ŠVANTNEROVÁ, L. Tendencie vývoja regionálnych disparít v Slovenskej republike. In *Zborník z medzinárodnej vedeckej konferencie Zvyšovanie konkurenceschopnosti aneb Nové výzvy pro rozvoj regionů, států a mezinárodních trhů*. Ostrava: Ekonomická fakulta, Vysoká škola banská, 2007. ISBN 978-80-248-1457-5.
- [8] MARTINČÍK, D. Ekonomicko-sociální úroveň krajů - komplexní srovnávací analýza. *E+M Ekonomie a Management*, 2008, Vol. 11, Iss. 1, pp. 14-25. ISSN 1212-3609.
- [9] Národná banka Slovenska [online]. [cit. 2007-08-15]. <<http://www.nbs.sk/>>
- [10] RAJČÁK, M. *Región a regionalizácia ako pojem a metóda vedeckého poznávania v geografii*. Bratislava: Geografický ústav SAV, 1988.
- [11] RAJČÁKOVÁ, E. Štrukturálna politika EU a rozvoj regiónov. *Geografické informácie 8, Stredoeurópsky priestor, Geografia v kontexte nového regionálneho rozvoja*. Nitra: Univerzita Konštantína filozofa, 2004. pp. 508-513. ISBN 80-8050-784-8.
- [12] SKOKAN, K. *Evropská regionální politika v kontextu vstupu ČR do Evropské unie*. Ostrava: Repronis, 2003. ISBN 80-7329-023-5.
- [13] SKOKAN, K. *Konkurenceschopnost, inovace a klastry v regionálním rozvoji*. 1. vyd. Ostrava: Repronis, 2004. ISBN 80-7329-059-6.
- [14] Slovak Investment and Trade Development Agency [online]. [cit. 2007-10-17]. <<http://www.sario.sk>>
- [15] Štatistický úrad Slovenskej republiky [online]. [cit. 2007-09-02]. <<http://www.statistics.sk/webdata/ks/ksbrat/mesacmzda.htm>>
- [16] TVRDOŇ, J., HAMALOVÁ, M., ŽÁRSKA, E. *Regionálny rozvoj*. Bratislava: Ekonóm, 1995. ISBN 80-225-0671-0.
- [17] URAMOVÁ, M. *Sociálno-ekonomické súvislosti nezamestnanosti*. *Studia oeconomica* 24. 1. vyd. Banská Bystrica: Ekonomická fakulta Univerzity Mateja Bela, 2005. ISBN 80-8083-057-6.
- [18] VANHOVE, N., KLAASEN, L. H. *Regional Policy - A European Approache*. 1st ed. Montclair: Allanheld Osmun&Co Publishers, 1980. ISBN 0-916672-49-2.
- [19] WITKOWSKI, J., RODAWSKI, B. Logistic infrastructure as factor of regional development. *E+M Ekonomie a Management*, 2006, Vol. 8, Iss. 1, pp. 67-72. ISSN 1212-3609.
- [20] WOKOUN, R. *Vybrané kapitoly z regionálního rozvoje a regionální politiky*. 1. vyd. Brno: Masarykova univerzita, 1991.
- [21] WOKOUN, R. *Česká regionální politika v období vstupu do Evropské unie*. 1. vyd. Praha: Oeconomica, Vysoká škola ekonomická, 2003. ISBN 80-245-0517-7.
- [22] ŽÍTEK, V., HALÁMEK, P. a kol. *Teoreticko-metodologická východiska hodnocení regionálních rozvojových projektů*. 1. vyd. Brno: Masarykova univerzita, Ekonomicko-správní fakulta, 2003. ISBN 80-210-3291-X.
- [23] ŽÍTEK, V. *Regionální ekonomie a politika*. 1. vyd. Brno: Masarykova univerzita, Ekonomicko-správní fakulta, 2004. ISBN 80-210-3478-5.

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ABSTRACT

REGIONAL DISPARITIES IN SLOVAKIA FROM THE ASPECT OF AVERAGE NOMINAL WAGE**Mária Uramová, Radoslav Kožiak**

One of the basic preconditions of successful regional politics and its effective implementation in a particular economic environment is knowledge of this environment - the region, its strengths and weaknesses, opportunities for development as well as threats. Regional politics should be regulated by a set of rules respecting the figures indicating the position of the region in the economy, its dimensions or obstacles to its development, its relationship to other regions and the possibility to be compared to other regions. Practical regional politics is expected to contribute to eliminating disparities among individual regions, above all by identifying the causes of the disparities and choosing appropriate means of elimination. The current theory of regional politics provides several approaches to identifying, measuring and evaluating the causes of disparities, and diminishing them. In spite of that, the real social and economic development gives evidence that disparities continue to grow and result in a mismatch between the needs and the sources of development, especially in those regions of Slovakia that have been under-developed for a longer time. The paper highlights the problem of deepening regional disparities in Slovakia on the level of NUTS 3 resulting from the development of average nominal wage, which is a major indicator of social and economic development of regions and living standard of the population. The growing differences in average nominal wage lead to negative stimuli at work and in business, and aggravate the lagging behind of the region and have a negative impact on the other regions and politics of their development.

Key Words: regional disparities, regional politics, NUTS 3 region, European Union, Slovak Republic, average nominal wage

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