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New Member States of the EU: Current Trends in Regional Disparities

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New Member States of the EU: Current Trends in Regional Disparities

Josef Abraham, Milan Vosta

1. New EU Member Countries: Regional Difference

For new EU member countries economical disparities among particular regions are characteristic. The most obvious is the imbalance between metropolitan areas and the rest of the surface of particular states. At present it is possible to notice the risk of further increase in differences between fast developing areas and low developed regions. The metropolitan most economic developed regions are characterised by advanced infrastructure, high level of urbanization, small distances between a producer and a market and by decisive inflows of foreign investments to a country.

When evaluating basic economic and social disparities one can on the territory of the new EU member states determine the developed and unadvanced areas and split its space into the core and peripheral areas. For the classification of particular areas, the administrative units called NUTS were used, which are also used in the uniform classification of the Eurostat. The main economic indicator of the following differentiation of the regional structure was the values of GDP/per capita in PPP compared to the average value of GDP/per capita in the EU 25.

The characteristic feature of regional structure of Poland is indeed a big difference between the core area represented by the central region Mazowieckie and the rest of the country, but compared to the other new countries it is a considerably lower difference, namely thanks to the existence of a greater number of comparable centres. The territory of Poland can be split into the western, more developed half, where 10 Polish regions overtake 40% proportion of the EU average according to GDP/per capita. The central region Mazowieckie is mounting to 75% of the EU average (72, 8), two further regions oscillate on the frontier of 50% of the EU 25 average (Slaskie and Wielkopolskie). While the majority of the most advanced regions are located primarily close to the borders on Germany, the most advanced central region is with regard to its traditional potential on the eastern edge of the more developed half of Poland. The rest of Polish territory is separated from the advanced part roughly by the river Visla and the least developed regions are located mostly on its right bank in the eastern part of the country on boundaries with Ukraine, Belorussia, Lithuania, and Russia (Kaliningrad) The periphery of the territory is thus composed of 6 unadvanced regions,

the economic level of which is on 33, 2-37, 3% of average the EU GDP/cap. (with Lubuskie region on the lowest level).

Significant differentiation in the regional structure of Hungary is influenced, like in Poland, by geographical position of particular regions. Three most developed ones are located in the west part of the country on boundaries with advanced Austria, the most developed Slovak region Bratislava and on the river Danube. Only two regions get over 60% of the EU 25 average according to GDP/cap.-Central Hungary (**Közép Magyarország – 94,9 %**) and Western Danube (**Nyugat-Dunántúl – 64,5 %**). The **Közép Magyarország** region is even approaching the average value of the EU 25. Central Danube (**Dél-Dunántúl**) reaches 42,5% of the EU 25 average. Four remaining regions in the south-east part of Hungary form peripheral area, which is partially separated from the developed regions of Danube and it borders on Croatia, Serbia, Romania, Ukraine and less developed Slovak regions. The economic level of the peripheral Hungarian regions moves between 38-40% of the EU 25 average.

The clear dichotomy East-West forms the regional structure of Slovakia. The west part of the country is composed of two most developed regions Bratislava and West Slovakia (Zapadné Slovensko). Bratislava, as the only Slovak region, even gets over the EU 25 average according to GDP/capita (115,9%). The central region thus represents a dominant core of the regional structure of Slovakia and it takes the advantage of its traditional social and economic potential and also a fair position on borders on Austria, near Czech boundaries and on the river Danube. The West Slovakia region shows less than 50% of the EU average in GDP/capita. The East regions Central Slovakia (Stredné Slovensko) and East Slovakia (Východné Slovensko) form a periphery of Slovak state, which is separated from the more developed West by the river Hron and the mountain range High and Low Tatra. Another important factor of the different development of the east and west parts of Slovakia is the regional position of the regions that border on Ukraine and the least developed regions in Hungary and Poland. Both least developed Slovak regions oscillate between 39-43% of GDP/capita of the EU 25.

One cannot track such a strong dichotomy east-west on the territory of the Czech Republic. The clear dominance in economic maturity of the regional structure is represented by the Prague region, which is considerably above the EU average (GDP/per capita) with the value 138,2%. Further seven Czech regions NUTS 2 fluctuate between 53,4-64,2 % of the EU 25 average. In this regard there is an economic balance in the regional structure on the remaining part of Czech state. Though the significance of the exposition of

regions not far from the developed areas of EU 15 is not so obvious, we can claim that two least developed regions (Central Moravia and Moravia-Silesia) are located outside the reach of the borders on the developed EU 15 countries. As the other new EU member countries always represent just one NUTS 2 region, for the distinction of regional disparities and determination of core and peripheral areas we need to use the classification of a lower degree-NUTS 3. None of the NUTS 2 regions mentioned gets over the average of the EU 25. The most developed Slovenia is on 76% of the EU 25 average, Baltic countries Estonia, Lithuania and Latvia reach the values between 41-48% of the EU 25 average.

Regional structure of Slovenia shows, on the level NUTS 3, significant differences. The core area was constituted in the surroundings of the capital Lublaň and is represented by the region Central Slovenia, according to Slovenian classification identical to Lublaň region, which produces the critical share of state GDP (35%) and overtakes by more than 40% the national average of GDP/per capita. In the case of Slovenia, the territory cannot be so simply split into the west and developed part and the east peripheral part, but we can claim, that 6 Slovenian regions, the economic level of which makes at least 90 % of the national average, are located in the west half of the country. These are the coastal regions near the borders on developed Italy or Austria, with a great potential in tourism (both the seaside and mountain environment), with the sophisticated infrastructure and traditional potential and with the magnetism of the capital. The peripheries of Slovenian state are thus created by the regions with inferior location, the distant and rural and those tackling with structural problems. These are namely four regions in the east half of the country bordering on Hungary and Croatia: Spodnjeposavska, Podravska, Koroška a Pomurska.

The character of the regional structure of Estonia reflects basic social and economic disparities, which are represented in Estonia by the difference between the dominant region of the capital, Northern Estonia and the rest of the country. In the case of Estonia the space of the state territory can be split into the core area, in which there is the capital Talin and the peripheral area of the rest of the country. The central region makes up more than a half on the total GDP of the county (58,7) and its economic level reaches more than 150% over the national average value. The core area represents the industrial, business, financial and administrative centre of the country. There is an international airport there; very important role is played by a port and road links to the south towards Latvian Riga, to the south-east towards Estonian Tartu and Russian Pskov and in the east direction to Petersburg. On the constitution of the core area in the north of Estonia namely, in the long term the

geographical position of the region with the access to sea and the factors relating closely to a fair position took part.

The regional structure of Latvia is characterised by a similarly strong dominance of the capital like in Estonia. The capital Riga gets over 180% of the Latvian average. The core area is created by the most developed Latvian region Riga, which its dominant position within Latvian economy proves by more than 60% proportion on the total GDP of the country. Riga takes the advantage of its positive geographical position and the critical part of foreign investments into the country flows there and at the same time it is an important traffic point with an international airport. Also the the most west situated region Kurzeme can be counted among to more developed areas of Latvia... it is situated, like Riga on the coast of the Baltic Sea. The centre of this region represented especially by the port Ventspils, which serves for the transport of Russian oil and the rest of the foreign investments inflows there.

The regional structure of Lithuania shows unlike Estonia and Latvia a bigger balance, namely thanks to the existence of a greater number of regional centres, which in a significant way limit the dominance of the metropolitan region Vilnius. Despite relatively smaller differences between particular regions, we can identify within the surface of Lithuania the developed and the peripheral regions like we did with the previous countries. The polycentric structure, however, does not enable to determine a more continuous zone of developed regions... the core area is created by the central region I the surroundings of the capital Vilnius , which shows the GDP/capita value some 150% of the national average. The region borders on Belorussia and on one of the least developed regions in the country Alytus. The second most developed region, situated sole in the west of the country and on the coast of the Baltic Sea , is strategically located region Klaipėda, which reaches the national average with regard to GDP/per capita. This region disposes of a great developing potential and the majority of foreign investments inflows there, namely into a port and infrastructure

2. Regional disparities and convergence: an empirical study

Methodical bases

In the following text we will take up to the previous part and on basis of empirical statistical figures we will evaluate the major trend in the development of regional disparities and convergent processes in the selected new EU member countries. As a surveyed sample of countries these four new member states were chosen: the Czech Republic, Hungary, Poland

and Slovakia, the regional structure of which enables us to compare the differences on the level of a regional unit NUTS 2. The territory of other new member states creates as a whole the region NUTS 2 according to Eurostat classification and therefore it is impossible to judge regional disparities on that level.

Convergence of the regions will be analysed in two dimensions, partly we look on the process of the approaching to the economic level of the enlarged EU (EU 25) and in the second stage we evaluate the development of the regional differences in GDP/per capita within the particular countries. We always start from the Eurostat database during the spell 1995-2003 in order to keep the comparability of the data both throughout the spell and the countries. The figure GDP is evaluated in Purchasing Power Parity (PPP), which is more suitable in the view of the elimination of the exchange rate influence.

As a research method we used verbal evaluation of data from the years 1995 and 2003 while watching the convergence of the regions with the EU. For the evaluation of regional disparities within the particular countries we used basic statistical indexes of variability – variation coefficient and variation span. The variation coefficient represents the proportion of standard deviation (numerator) to arithmetic average (denominator), in case of the percentage formulation, it is multiplied by 100 (in our evaluation we use percentage formulation see Table 2). The standard deviation can be simply interpreted as the average deviation from the arithmetic average. In our case it is from the arithmetic average of GDP/per capita. The variation coefficient thus represents the average deviation from the average in relative (percentage) formulation to the mean. The reason for the choice of more complicated variation coefficient than using standard deviation was the fact, that when we use average deviation in relative formulation we eliminate deformations caused by a significant change of the surveyed variable throughout the evaluated period. The variation span represents the difference between the highest and the lowest value in the surveyed sample of countries. In our case we used the variation span as a proportion so that we could eliminate the possible distortions arising from the increase in the value of the figures during that period.

To make some findings more precise the both indexes were applied either on all regions or only on the regions without a central one, so that the impact of a capital on regional differentiation was found out. In the case of the variation span was then calculated the proportion between the region with the second highest and lowest value of GDP/per capita. When interpreting the results we stemmed from the nature of particular indexes for which it is true that the higher value they reach, the greater disparities occur within the surveyed assemblage.

The conclusion of the analysis

We can conclude following from the done analysis and calculations:

The majority of all four analyzed regions tended to the average EU 25 level during the spell 1995 -2003. The exceptions were represented only by the regions South-east and North-west in the Czech Republic, Opolskie and Kujawsko-Pomorskie in Poland and Dél-Alföld in Hungary (in more detail see Table 1), the level of which in comparison to the EU average dropped by several percentage points. The other group of countries, where the divergent tendencies were obvious, is represented by Prague in the Czech Republic and Bratislava in Slovakia, the economic level of which overtakes the EU average and during the surveyed spell their positions got continuously better.

The process of convergence of economic level to the EU average is, however, a long term phenomenon and namely unbalanced in the view of the particular regions. The best results achieve the central regions (GDP/per capita in Prague went up from 126% of the EU 25 average in 1995 up to 138,2 in 2003, for Bratislava from 94% to 115%, for Közép-Magyarország region in Hungary from 71% to 94% and for Mazowieckie region in Poland from 52% to 72%. On contrary as the least prosperous so far and also for future we can name the east regions of Poland, Hungary and Slovakia.

If we evaluate the regional difference inside the particular states, all the values of calculated indexes of variation indicate, **on the level of NUTS 2 regions, the deepening of disparities on the economic level of all four analysed countries.**

The variation coefficient calculated for GDP/per capita went up within Polish regions between 1995 and 2001 from 15,4 to 22,4 %, in case of Hungarian regions from 24,3 to 35 %, for the Czech republic from 31 % to 38 % and in the case of Slovakia from 42,8 % to 51 %. The similar results are obvious when we compare the proportion of the most developed and the least developed regions in a country. The proportion between the regions with the highest and lowest GDP/per capita has increased in the case of the Czech republic from 2,4 to 2,6, for Poland from 1,6 to 2,2, for Hungary from 2,0 to 2,5 and for Slovakia from 2,5 to 3,0.

The greatest dominance of the region of the capital can be seen in Slovakia, where the value of GDP/per capita of Bratislava is 3 times higher than the value of the least developed region East Slovakia and 3 times higher than the value of the second most developed region West Slovakia. **The lowest difference in the deviation of the central region shows Poland (see table 2).**

Table 1: Regional GDP per capita, PPS (EU_25=100)

<i>State</i> , region NUTS 2	1995	2003
Praha	126.3	138.2
Strední Cechy	53.1	64.2
Jihozápad	65.4	62.0
Severozápad	65.4	56.0
Severovýchod	59.3	59.0
Jihovýchod	61.5	61.9
Strední Morava	58.3	54.4
Moravskoslezsko	64.9	53.4
Közép-Magyarország	71.2	94.9
Közép-Dunántúl	44.7	55.3
Nyugat-Dunántúl	50.8	64.5
Dél-Dunántúl	40.3	42.5
Észak-Magyarország	35.9	38.1
Észak-Alföld	35.2	39.0
Dél-Alföld	41.0	40.3
Lódzkie	37.0	43.4
Mazowieckie	52.0	72.8
Malopolskie	35.7	40.4
Slaskie	48.3	51.2
Lubelskie	31.8	33.2
Podkarpackie	31.1	33.2
Swietokrzyskie	32.0	36.7
Podlaskie	31.4	35.7
Wielkopolskie	40.0	49.3
Zachodniopomorskie	41.9	44.6
Lubuskie	39.9	40.6
Dolnoslaskie	42.7	48.2
Opolskie	39.8	37.3
Kujawsko-Pomorskie	40.6	42.1
Warminsko-Mazurskie	32.6	37.0
Pomorskie	41.4	46.3
Bratislavský	94.7	115.9
Západné Slovensko	42.4	48.8
Stredné Slovensko	36.4	43.2
Východné Slovensko	33.5	38.8

Source: EUROSTAT

The calculations of the variation coefficient while omitting the region with the highest GDP/per capita (central regions), of the proportion of the region with the highest GDP/per capita within the given sample to the region with the second highest GDP/per capita and the proportion of the regions with the second highest and lowest GDP/per capita indicate that **the growth of regional disparities is in case of Polish, Czech and partially in case of Slovak regions** caused namely by more significant **growth of GDP/per capita in the central region compared to the other regions**. The regional **difference of the Hungarian regions** between 1995 and 2001 was supported also **by the more rapid growth of the west regions the West and Central Danube**.

Table 2: Regional disparities in GDP per capita (PPS)

Indicator	Year	Czech Republic	Hungary	Poland	Slovakia
Coefficient of variation v %	1995	31,6	25,3	15,4	42,8
	2003	38,5	35,9	22,4	51,1
Coefficient of variation v % (excluded central region)	1995	6,9	12,2	13,2	6,8
	2003	6,5	21,1	13,7	9,4
Difference between the highest and the lowest value in the surveyed sample (1995	2,4	2,0	1,6	2,5
	2003	2,6	2,5	2,2	3,0
Difference between the highest and the second highest value in the surveyed sample	1995	1,9	1,4	1,1	2,1
	2003	2,2	1,7	1,4	2,4
Difference between the second highest and the lowest value in the surveyed sample	1995	1,2	1,4	1,6	1,2
	2003	1,2	1,7	1,5	1,3

Source: Eurostat, + own calculations

The stated conclusions confirm both the changes of the variation coefficient when excluding a central region and in the case of and Poland there is only a moderate growth (from 13,2 to 13,7%) and in the case of the Czech Republic there is even a drop from 6,9 to 6,5% compared to Hungary and Slovakia, where the same variation coefficient went up. The same fact is confirmed by the changes of proportions between the regions with the second highest and lowest value of GDP/per capita, as this proportion in the Czech Republic stagnated and in

Slovakia and Poland even dropped by a little. On the contrary in Hungary it grew from 1,4 to 1,6. Another argument for the statement is the development of the proportions between the highest value of GDP/per capita and the second highest value within particular countries. That figure went up only moderately in the Hungarian regions from 1,4 in 1995 to 1,5 in 2001 and significantly went up in the case of Polish regions (from 1,01 to 1,4), Czech regions (from 1,9 to 2,2) and Slovak regions (from 2,1 to 2,5).

Bibliography

Abrahám, J. (2002): Regionální diferenciace Polska před vstupem do EU. Současná Evropa a Česká republika, č. 1, Praha : VŠE.

Abrahám, J. (2003): Vybrané aspekty přistupujících států. Současná Evropa a Česká republika, č. 1, Praha : VŠE.

Day, A. J., East, R., Thomas, R. (2002): A Political and Economic Dictionary of Eastern Europe. London : Europa Publications.

Eurostat news release (2006), 63/2006, (www.epp.eurostat.ec.eu.int/pls/portal/dosc) (18.5. 2006)

Regions: Statistical Yearbook 2005 (2005): Luxembourg : Office for Official Publications of the European Communities.

Second progress report on economic and social cohesion (2003): 1/2003, Brussels : Commission on the European Communities

Statistical Yearbook of Lithuania 2004, dostupné z www.std.lt/web/main.php?parent=694 (28.1. 2005)

Statistical Yearbook of the Republic of Slovenia 2004 (2004), Statistical Office of the Republic of Slovenia, dostupné z www.stat.si/letopis/2004/33_04 (28.1. 2005)

Statistical Yearbook on Candidate and South-East European Countries (2002): Luxembourg : Office of Official Publications of the European Communities.

Third report on economic and social cohesion (2004): Luxembourg: Office for Official Publications of the European Communities, dostupné z www.europa.eu.int.

Vošta, M. (2003): Regional Disparities of Selected Countries of European Union. In: Kol. (2003): European Economic Integration: Introduction to Theory and Practice, Praha : VŠE.

Vošta, M. (2004): Diferenciace nových členů EU: regionální aspekty. Současná Evropa a Česká republika, č. 2, Praha : VŠE.