

The Evolution of Overall Development in the Central and Eastern Europe Countries in the Context of E.U. Accession

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Abstract

In the EU there are some differences in development between western countries and those of Central and Eastern Europe, that joined the EU starting with 2004. The EU cohesion policy aims to minimize these differences by providing significant financial assistance to the underdeveloped areas. The present paper analyzes the general development level of these countries in the context of the EU accession. The evolutions are observed both at the states and regions level and reveal a growing GDP in these countries after the EU integration - which caused a reduction in the existing disparities in the EU.

Keywords: EU integration, overall development, Gross Domestic Product, regions, cohesion policy

JEL Classification: O11, O18

Introduction

The eastward expansion of the EU has brought about growing development gaps within the EU. To reduce these gaps and prevent their increase, a regional development policy has been created. Essentially, this policy is based on special funds meant for poorer regions, which find, in this way, the premises to thrive. The absorption of these funds occurs in NUTS 2 regions, and in this context the regionalization has gained increasing importance in the EU. The *region* term roots in the Latin word "regionem" and it is present in most European languages meaning land, geographical area with boundaries and with more or less accurate characteristics¹. It can be considered that the region has a material component, the territory cutout, on which the relational component, of the institutional competences, is designed, both being in an indissoluble association². It is appreciated that, due to its large extent, the state can not conduct effective development policies. This is the reason why certain powers of the central government were transferred to the regions. To standardize the regional statistics and to effectively apply the

¹ Platon, D., „Regiunile din unghiul politicilor de dezvoltare ale UE”, în Pârlog C., Constantin D.L. (coord.), *Dezvoltare regională și integrare europeană, Lucrările celui de-al Doilea Simpozion Național al Asociației Române de Științe Regionale, 4-5 aprilie 2002, București*, Oscar Print Publishing House, Bucharest, 2003, p.43

² Pușcașu, V., *Dezvoltarea regională*, Economic Publishing House, Bucharest, 2000, p.10

regional policies of the EU, Eurostat created the Nomenclature of the Statistical Territorial Units (NUTS). A state (NUTS 0) consists of one or more macro-regions (NUTS 1), each macroregion being composed of one or more NUTS 2 regions. Similarly, there are NUTS 3 units as well. Even if the EU countries present a tendency towards regionalization, there are states where regions are non-administrative units (being made of a juxtaposition of smaller administrative units), which restricts their participation at decision-making process. The purpose of this paper is to see if the financial assistance contributed to the increase of the development level and if the regional disparities have decreased after the EU accession.

Disparities in the E.U. and the Cohesion Policy

The main problems³ of regional development refer to the forces that drive the development of a region, to the influence of external decisions on these forces, to the trend of space toward homogenization or differentiation. Along with developing regional development policy, the idea that territorial redistribution of economic growth may contribute to decrease the regional socio-economic disparities has been more and more accredited. In the current period it is considered that only creating competitive capacity within regions can lead to diminishing development gaps.

Regarding the financial assistance available, ERDF and ESF are meant for all European regions, but the amount allocated depends on the level of GDP per capita in these regions. According to this level, the regions are divided into less developed regions, transition regions and more developed regions. Helping the less developed regions (with GDP<75% of the EU-27 average) is one of the objectives of the cohesion policy, therefore they were supposed to receive a higher amount of these funds, to ensure the decrease of disparities. The transition regions have a GDP between 75% and 90% of the EU-27 average, replacing the system existing before 2013 of a progressive elimination and introduction of the financial assistance⁴. There is also financial assistance for more developed regions (with GDP>90% of the EU-27 average), given in order to help them face the challenges of global competition, economy based on knowledge, pollution etc. The cohesion funds are for the countries that have a gross national income per capita below 90% of the EU-27 average, for investments in trans-European transport networks and in environment field.

For the next years, the reformed cohesion policy will make available up to 351,8 billion Euro to invest in Europe's regions, cities and the real economy, in order to achieve the Europe 2020 goals: creating growth and jobs, tackling climate change and energy dependence, and reducing poverty and social exclusion⁵. Among the priorities of the European Regional Development Fund is the support for small and medium-sized enterprises, aiming at doubling support from 70 to 140 billion Euro during 2014-2020.

As with the previous period (2007-2013), the period between 2014-2020 has also received a considerable amount allocated to the less developed regions, but the most significant allocations are directed mainly to the countries of Central and Eastern Europe that joined the EU beginning with 2004 (except for Cyprus and Malta). Poland has by far the highest amount, but there are substantial allocations to other countries, too, older EU states (Italy, Portugal and Greece), which have underdeveloped regions.

³ According to Antonescu, D., *Dezvoltarea regională în România – concept, mecanisme, instituții*, Oscar Print Publishing House, Bucharest, 2003, p.12

⁴ Comisia Europeană, *Politica de coeziune 2014–2020. Investiții în creștere economică și ocuparea forței de muncă*, Luxemburg: Oficiul pentru Publicații al Uniunii Europene, 2011, p.5, available at: http://ec.europa.eu/regional_policy/sources/docoffic/official/regulation/pdf/2014/proposals/regulation2014_leaflet_ro.pdf

⁵ http://ec.europa.eu/regional_policy/what/future/index_en.cfm

Of the total financial resources which the cohesion policy is based on, over 50% are directed to less developed regions, 15% to more developed regions, 10% to transition regions and 18% to the Cohesion Fund.

The Evolution of the Development Level in the E.U. Countries of Central and Eastern Europe

One of the most important development indicators is the *Gross Domestic Product* (GDP), which measures the output of a country or region. It reflects the total value of goods and products, without the value of goods and services used for intermediary consumption of their production.

The evolution of GDP per capita, both in the EU and in Central and Eastern Europe has been upward, except in 2009. The countries which joined the EU after 2004 have a GDP per capita lower than the EU average. The highest value is registered in Cyprus, followed by Slovenia, Malta, the Czech Republic and Slovakia. Other Eastern and Central European countries have values of GDP per capita smaller than half the EU average. The lowest values are recorded in Romania and Bulgaria (about $\frac{1}{4}$ of the EU average) (Fig. 1).

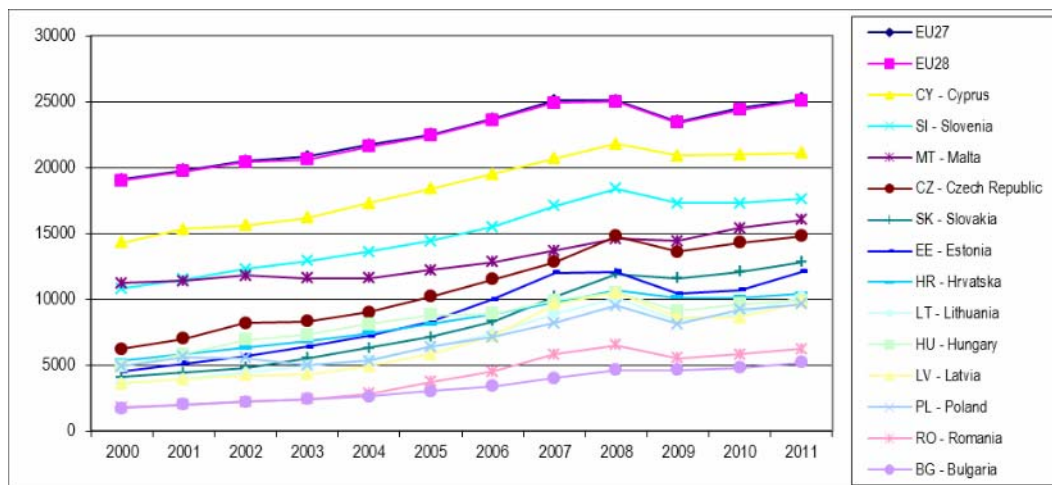


Fig. 1. The GDP (Euro/inhabitant) evolution in the Central and Eastern European countries

Source: elaborated using Eurostat data

(<http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>)

To better highlight the trends in the context of the EU accession and the influence of the integration process on the overall development, we calculated the GDP values relative to the EU average. They were calculated choosing symmetric periods of two years pre- and post-accession⁶. We note that GDP/inhabitant relative to the EU average greatly intensified in the Czech Republic, Hungary, Estonia, Slovakia and Lithuania (Table 1). These facts show that overall the EU integration has had beneficial effects on development, favoring the increase of GDP per capita relative to the EU average.

⁶ The data for the year 2003 are calculated until 31st December 2003 and the EU accession of Czech Republic, Slovenia, Latvia, Lithuania, Estonia, Malta, Cyprus, Hungary, Poland and Slovakia took place at January 1st, 2004. So, the period 2001-2003 include exactly the two years preceding the EU accession (31st December 2001 – 31st December 2003), and the period 2003-2005 include the first two years after EU accession (31st December 2003 – 31st December 2005). The case of Romania and Bulgaria is a similar one, they joined UE at 1st January 2007, and the ante and post-accession periods considered are 2004-2006 and 2006-2008, respectively.

Taking into account the EU average, two years before accession as compared to the two years after accession, we can see that the values kept increasing (the increases moving from 11.98%-77.27% to 18.33%-81.78%). Considering the EU average, in the period under discussion, most countries registered rising values, except Malta (Table 1). In subsequent years the GDP per capita in these countries has got nearer to the EU average, Cyprus reaching 83.73 in 2011. Only in the case of Romania, the average remains around 25%, but the lowest value, compared to the EU average, was in 2011 corresponding to Bulgaria - 20.63%.

Table 1. Evolution of GDP (Euro/inhabitant) relative to the EU average in the Central and Eastern Europe countries

No.	Country	% of the EU-27 average - 2001	% of the EU-27 average - 2005	% of the EU-27 average - 2011
1	CY - Cyprus	77.27	81.78	83.73
2	SI - Slovenia	58.08	64.00	69.84
3	MT - Malta	57.58	54.22	63.49
4	CZ - Czech Republic	35.35	45.33	58.73
5	HU - Hungary	29.29	39.11	39.29
6	EE - Estonia	25.76	36.89	48.02
7	SK - Slovakia	22.22	31.56	50.79
8	PL - Poland	28.28	28.44	38.10
9	LT - Lithuania	19.70	28.00	40.48
10	LV - Latvia	19.70	25.78	38.89
		% of the EU-27 average – 2004	% of the EU-27 average - 2008	% of the EU-27 average - 2011
11	RO - Romania	12.90	25.90	24.60
12	BG - Bulgaria	11.98	18.33	20.63
13	HR - Croatia	*		41.27

* Croatia joined EU in 2013, so, at the time there is no data available for 2014 in order to calculate the post-accession indicators.

Source: elaborated using Eurostat data

(<http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>)

NUTS 2 regions differ both in area and population, as well as in the general prices level. Hence the fact that sometimes the comparability of GDP data expressed in Euro/capita is affected. For this reason, it is often used the GDP expressed in purchasing power per capita instead of the classic indicator expressed in Euro/capita. GDP in purchasing power is used even within the EU regional policy for determining the eligibility of NUTS 2 regions in the allocation process of Structural Funds.

Expressing GDP in purchasing power standard (PPS) excludes differences in price levels between countries. Thus, using GDP in PPS per capita, it becomes possible to compare the economies of the significantly different regions. In order to calculate, the total value of goods and services produced in an economy is divided by the number of inhabitants; the quantification of GDP in PPS per capita occurs in conventional currency that eliminates the influence of interstate differences that exist in prices.

Given that prices are not identical in the EU, it imposes an observation of GDP expressed in PPS. Compared to the previous chart, these data are slightly smoothed. Besides the existence of a positive trend, both at EU level and in Eastern and Central Europe, we notice a closeness to the EU average, which means a reduction of disparities. Cyprus and Malta have values close to the EU average, followed by Slovenia, the Czech Republic and Slovakia. Romania and Bulgaria rank last, but it is noted that, if at the beginning of 2000, the GDP expressed in PPS was less than one third of the EU average, in 2011 it has grown to be about 50% (Fig. 2).

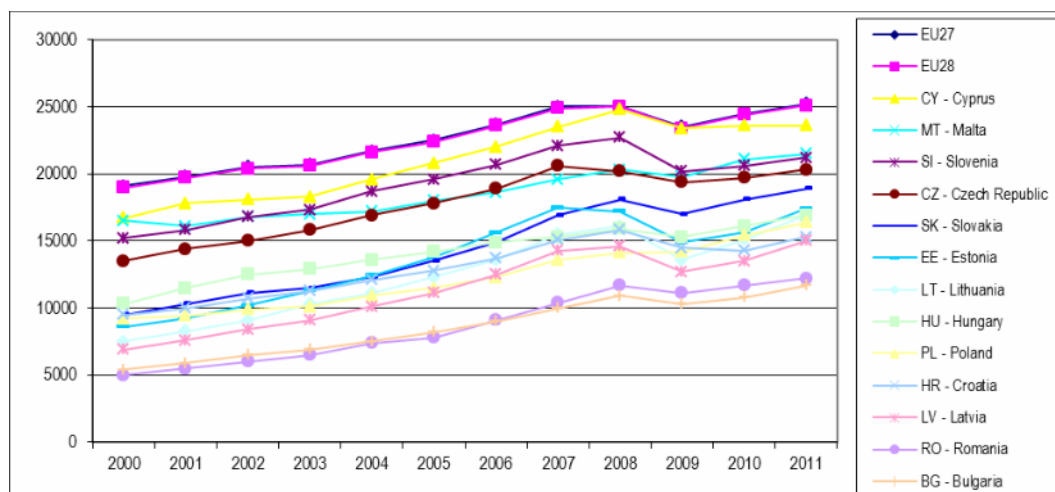


Fig. 2. Evolution of regional GDP (PPS/inhabitant) in the Central and Eastern European countries

Source: elaborated using Eurostat data

(<http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>)

The evolution of the GDP expressed in PPS in the context of EU accession is positive: in most Central and Eastern European states there is an increase in GDP along with the EU integration. Considering the EU average, the countries that have experienced notable increases during accession, getting closer by over 10% to the average, are Estonia, Latvia, Lithuania and Romania. This shows that there has been some progress in reducing disparities between the East and the West within the EU (Table 2).

Table 2. Evolution of GDP (PPS/inhabitant) relative to the EU average in the Central and Eastern Europe countries

No.	Countries	% of the EU-27 average - 2001	% of the EU-27 average - 2005	% of the EU-27 average - 2011
1	CY - Cyprus	89.90	92.44	93.65
2	SI - Slovenia	79.80	87.11	84.13
3	MT - Malta	81.31	80.00	85.32
4	CZ - Czech Republic	72.73	79.11	80.56
5	HU - Hungary	58.08	63.11	67.06
6	EE - Estonia	46.46	61.33	69.05
7	SK - Slovakia	52.02	60.00	75.00
8	LT - Lithuania	41.92	54.67	67.06
9	PL - Poland	47.47	51.11	65.08
10	LV - Latvia	38.38	49.33	59.52
		% of the EU-27 average - 2004	% of the EU-27 average - 2008	% of the EU-27 average - 2011
11	BG - Bulgaria	34.56	43.60	46.43
12	RO - Romania	34.10	46.80	48.41
13	HR - Croatia		*	60.71

* Croatia joined EU in 2013, so, at the time there is no data available for 2014 in order to calculate the post-accession indicators.

Source: elaborated using Eurostat data

(<http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>)

In subsequent years the gaps have decreased, so that the analyzed countries have recorded GDP in PPS values which are getting closer to the EU average. Considering the EU average,

substantial increases are to be noted in Slovakia, Latvia, Lithuania and Poland. The only countries whose GDP in PPS remains low (below 50% of the EU average) are Romania and Bulgaria.

The Evolution of the Development Level in the Regions of the E.U. Countries from Central and Eastern Europe

A clearer picture of the differences between the EU regions in terms of GDP is shown by Fig. 3. This presents GDP expressed in PPS compared to the EU-28 average. The level of the indicator value is represented on the map by different colours. Typically, lower values than the EU-28 average are found in the Eastern EU countries. The lowest values are in Romania, Bulgaria, Hungary, Croatia, Slovakia, Poland, Latvia, Lithuania and Estonia. Some higher values are recorded in the regions which include capitals of Poland, Hungary, Slovakia, Slovenia, Czech Republic and Romania. Among Eastern countries, only Cyprus has a value close to the EU average. It is also to be noticed that in the same country there may be notable interregional differences in terms of GDP. Such differences exist in Poland, Spain, Portugal and Italy. The GDP expressed in PPS is higher in Western countries, except for some regions in Southern Italy, Spain and Portugal, and in the northern United Kingdom, which have lower values of the GDP expressed in PPS- between 62% and 80% of the average .

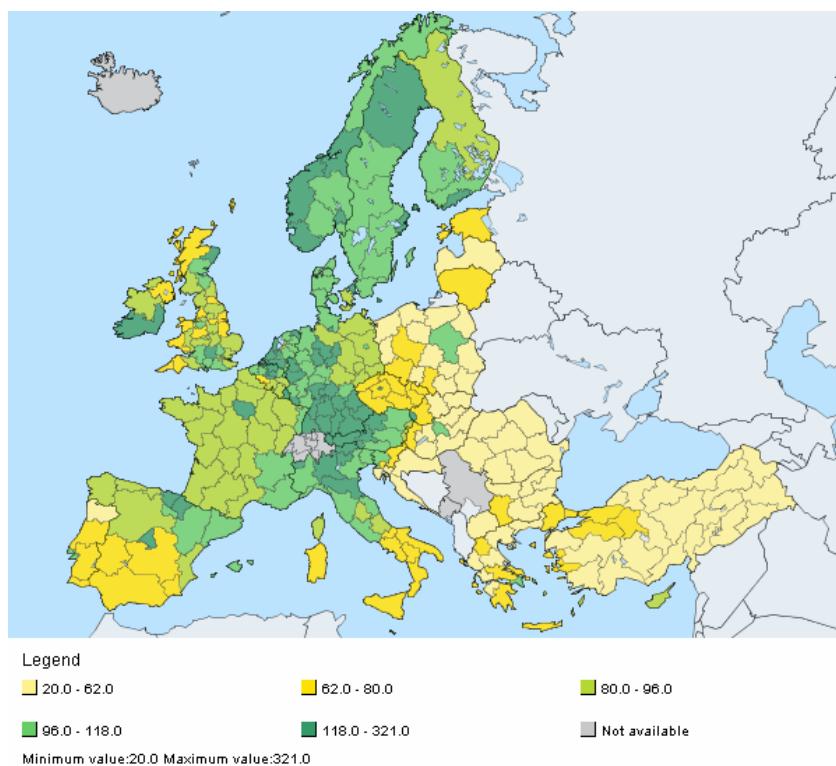


Fig. 3. Regional GDP (PPS/inhabitant in % of EU-28) in the NUTS 2 regions – 2011

Source: Eurostat

(<http://epp.eurostat.ec.europa.eu/tgm/mapToolClosed.do?tab=map&init=1&plugin=1&language=en&pcode=tgs00006&toolbox=types>)

The analysis of the overall development level is continued by observing the trends that have occurred in the NUTS 2 regions in the context of the EU accession. From Table 3 it can be seen that the regional GDP (in PPS), expressed as a percentage of the EU-27 average, has registered remarkable increases in the period of EU accession. The lowest value in 2004 was 22.58% and

in 2008 it reached 28%. If two years before accession there were only two regions that exceeded the EU average of the GDP expressed in PPS (Prague and Bratislava), 2 years after accession there were already five regions that exceeded the EU average, while in 2011 there were six. These are the regions which include capitals of the Czech Republic, Slovakia, Slovenia, Romania, Hungary and Poland. The six regions together with Cyprus and Malta recorded a GDP in PPS higher than 75% of the EU average, thus getting out of the category of underdeveloped regions. In the case of the states that have more NUTS 2 regions, the area that includes the capital has a GDP expressed in PPS above the EU average.

Table 3. Evolution of GDP (PPS/inhabitant) relative to the EU average in the NUTS 2 regions of Central and Eastern European countries

No.	Region	% of the EU-27 average - 2001	% of the EU-27 average - 2005	% of the EU-27 average - 2011
1	CZ01 - Praha	147.98	165.78	170.24
2	CZ02 - Strední Cechy	68.69	72.00	72.22
3	CZ03 - Jihozápad	67.17	73.33	69.84
4	CZ04 - Severozápad	59.60	64.00	62.30
5	CZ05 - Severovýchod	65.15	66.67	66.27
6	CZ06 - Jihovýchod	66.16	69.78	73.02
7	CZ07 - Strední Morava	59.09	61.33	65.48
8	CZ08 - Moravskoslezsko	57.07	67.11	70.63
9	EE00 - Eesti	46.46	61.33	69.05
10	CY00 - Kypros	89.90	92.44	93.65
11	LV00 - Latvija	38.38	49.33	59.52
12	LT00 - Lietuva	41.92	54.67	67.06
13	HU10 - Közép-Magyarország	90.91	101.78	109.52
14	HU21 - Közép-Dunántúl	54.04	59.56	58.73
15	HU22 - Nyugat-Dunántúl	59.60	63.11	67.86
16	HU23 - Dél-Dunántúl	42.93	44.00	44.44
17	HU31 - Észak-Magyarország	38.38	41.78	39.68
18	HU32 - Észak-Alföld	39.39	40.44	42.46
19	HU33 - Dél-Alföld	42.93	43.56	44.05
20	MT00 - Malta	80.81	80.00	85.32
21	PL11 - Łódzkie	42.42	47.11	60.32
22	PL12 - Mazowieckie	74.24	80.89	105.95
23	PL21 - Malopolskie	39.90	44.00	55.95
24	PL22 - Slaskie	51.01	55.56	70.24
25	PL31 - Lubelskie	33.84	35.11	44.05
26	PL32 - Podkarpackie	33.84	35.56	44.05
27	PL33 - Swietokrzyskie	35.86	38.22	48.41
28	PL34 - Podlaskie	36.36	37.78	46.83
29	PL41 - Wielkopolskie	50.51	54.67	67.46
30	PL42 - Zachodniopomorskie	46.46	47.11	54.76
31	PL43 - Lubuskie	41.92	46.22	53.57
32	PL51 - Dolnoslaskie	47.47	52.89	73.41
33	PL52 - Opolskie	37.88	42.22	51.98
34	PL61 - Kujawsko-Pomorskie	43.43	44.44	53.17

Table 3 (cont.)

35	PL62 - Warminsko-Mazurskie	36.36	39.11	46.83
36	PL63 - Pomorskie	46.97	50.67	61.90
37	SI01 - Vzhodna Slovenija	67.17	72.00	70.24
38	SI02 - Zahodna Slovenija	94.95	104.89	99.60
39	SK01 - Bratislavský kraj	115.15	146.22	184.92
40	SK02 - Západné Slovensko	48.48	56.89	71.83
41	SK03 - Stredné Slovensko	43.43	46.22	58.73
42	SK04 - Východné Slovensko	39.90	42.67	50.79
		% of the EU-27 average - 2004	% of the EU-27 average - 2008	% of the EU-27 average - 2011
43	BG31 - Severozapaden	26.73	28.00	28.57
44	BG32 - Severen tsentralen	27.19	30.00	30.95
45	BG33 - Severoiztochen	30.41	37.60	37.30
46	BG34 - Yugoiztochen	31.80	36.00	37.70
47	BG41 - Yugozapaden	50.69	72.40	77.78
48	BG42 - Yuzhen tsentralen	26.73	30.40	32.14
49	RO11 - Nord-Vest	32.26	42.00	41.67
50	RO12 - Centru	33.64	44.40	45.24
51	RO21 - Nord-Est	22.58	28.80	28.57
52	RO22 - Sud-Est	30.41	37.20	39.29
53	RO31 - Sud - Muntenia	28.57	38.40	39.68
54	RO32 - Bucuresti - Ilfov	70.97	116.40	121.83
55	RO41 - Sud-Vest Oltenia	28.11	34.80	36.90
56	RO42 - Vest	37.79	51.20	53.57
57	HR03 - Jadranska Hrvatska		*	58.33
58	HR04 - Kontinentalna Hrvatska		*	61.90

* Croatia joined EU in 2013, so, at the time there is no data available for 2014 in order to calculate the post-accession indicators.

Source: elaborated using Eurostat data

(<http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>)

The regional GDP expressed in PPS continued to approach the EU average in the years that followed, the disparities decreasing more or less, depending on the growth rate of the GDP recorded in each region.

Conclusions

Along with the eastward expansion of the EU, the differences in development between the EU states and regions have become more pronounced. The EU cohesion policy has been created just for reducing these disparities, the most significant allocations being meant for the underdeveloped regions.

From the analysis carried out, we noticed that Central and Eastern European states, that joined the EU beginning with 2004 have values of GDP per capita (expressed in Euro and PPS) significantly lower compared to the EU average. The differences are larger for GDP per capita expressed in Euro (ranging up to 20% of the average), but if we consider the prices level, the GDP per capita expressed in PPS ranges from 46% of the community average. In terms of GDP (expressed in Euro/capita or PPS/capita), from the countries analyzed, the one that has the

maximum value is Cyprus. Malta, Slovenia and the Czech Republic also have high values, but Romania and Bulgaria rank last.

Regarding the regional GDP in PPS it is noted that, typically, the regions which include capitals have higher values than the EU average. In general, the evolution is positive, the EU accession has had a positive influence, the growth intensifying in most regions, and so the regional values begin to approach the EU average. This is also due to the absorption of the Structural Funds, which aim to fulfil the *Convergence* objective and are directed towards the regions with a GDP below 75% of the Community average.

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