

## **Analysis of Disparities between Regional GDP Per Capita by Region**

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**Abstract:** This paper aims at making a comparative analysis between GDP per capita by region. GDP per capita varies greatly between country level and by region, due to the specific conditions existing within them. GDP per capita is important because small increases in GDP per capita by region, but for a long period of time, can lead to an increase in the living standards of future generations.

**Keywords:** - GDP, GDP per capita; GDP per capita by region

**JEL Classification:** E27

### **1. Introduction**

GDP per capita is defined by Word bank as “gross domestic product divided by midyear population. GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products.”<sup>2</sup>

Regional GDP per capita by region (PIBR/capita) in Romania is an annual statistical data calculated of Romanian National Institute of Statistics. It is a dependency relationship between growth of GDP per capita by region, inflation and rate of unemployment. The specialists considers “that if the rate of growth of real GDP per capita would remain at 2% per year, then consider that GDP per capita would double every 35 years and so each generation can hope at life double than at present. If, however, GDP per capita would increase by 1% per annum will be needed 70 years for doubling the living.” (Pripoaie & Pripoaie, 2009 )

Thus, even small increases in GDP per capita by region, but for a long period of time, can lead to an increase in the living standards of future generations.

### **2. Statistical Data**

According to the data provided by the [www.insse.ro](http://www.insse.ro) the evolution of GDP per capita by region in Romania for the period 2012 - 2014 with adjusted data based seasonally, synthesised in the following tables.

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<sup>2</sup> <https://data.worldbank.org/indicator/NY.GDP.PCAP.KD.ZG>.

**Table 1. GDP per capita by region**

GDP per capita by region (RON/capita)	2012	2013	2014
Romania	29.679,1	31.890,8	33.552,8
Region North - East	18.682,1	19.948,8	20.527,8
Region South -East	25.615,7	28.667,9	30.079,6
Region South Muntenia	22.806,9	25.120,0	28.242,6
Region South - West - Oltenia	22.482,4	23.518,7	23.870,8
Region West	31.861,6	33.227,5	33.791,7
Region North - West	26.028,7	27.654,7	29.608,6
Region Center	28.696,7	29.901,0	31.107,0
Region București - Ilfov	69.141,6	74.835,5	78.345,9

Sources: [http://www.insse.ro/cms/files/Web\\_IDD\\_BD\\_ro/index.htm](http://www.insse.ro/cms/files/Web_IDD_BD_ro/index.htm)

*Analysis of Statistical Data*

Analyse of disparities between regions for GDP per capita by region in period 2012 - 2014 centralised as well as:

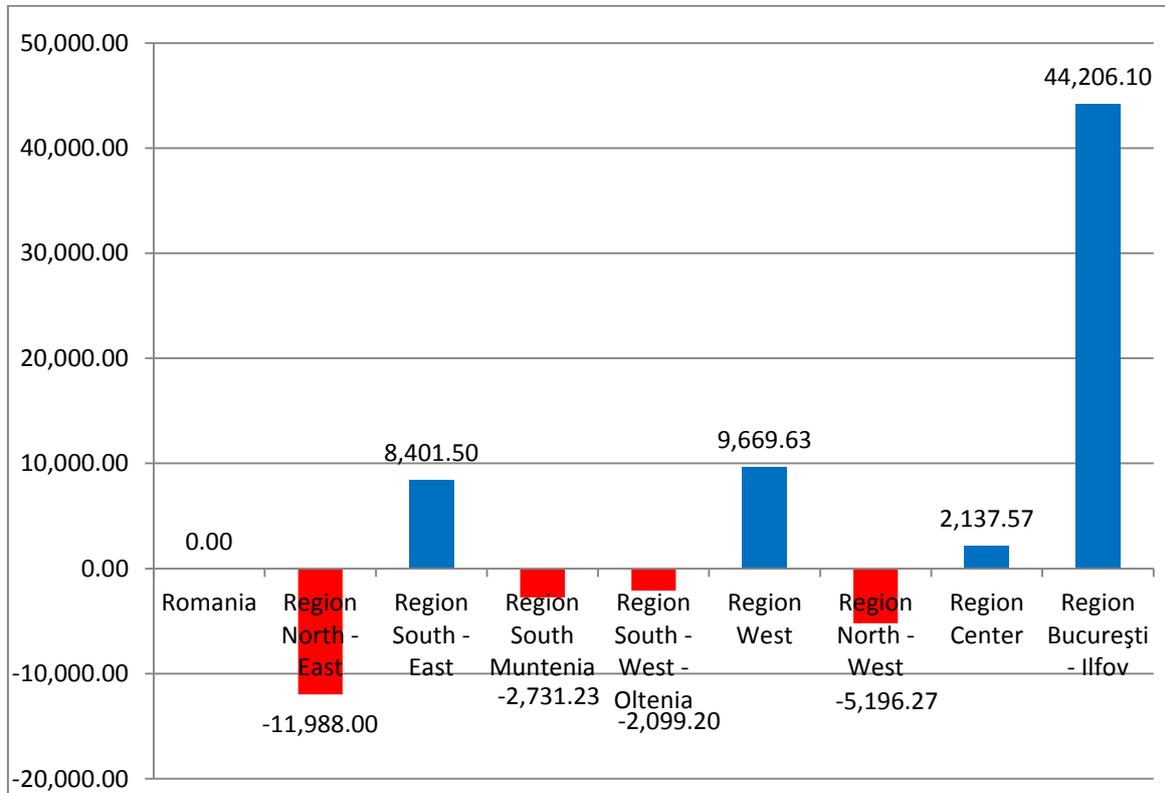
**Table 2**

	2012	2013	2014	Average	AVEDEV	
Romania	29.679,1	31.890,8	33.552,8	31.707,57	1.352,31	0,00
Region North - East	18.682,1	19.948,8	20.527,8	19.719,57	691,64	-11.988,00
Region South -East	25.615,7	28.667,9	30.079,6	28.121,07	1.670,24	8.401,50
Region South Muntenia	22.806,9	25.120,0	28.242,6	25.389,83	1.901,84	-2.731,23
Region South – West Oltenia	22.482,4	23.518,7	23.870,8	23.290,63	538,82	-2.099,20
Region West	31.861,6	33.227,5	33.791,7	32.960,27	732,44	9.669,63
Region North - West	26.028,7	27.654,7	29.608,6	27.764,00	1.229,73	-5.196,27
Region Center	28.696,7	29.901,0	31.107,0	29.901,57	803,62	2.137,57
Region București - Ilfov	69.141,6	74.835,5	78.345,9	74.107,67	3.310,71	44.206,10

Sources: Own calculations

*Graphical Evolution*

The graphical evolution of disparities between regions for GDP per capita by region in period 2012 – 2014 is the following:



**Graphic 1. Disparities between region of GDP per capita (RON/capita)**

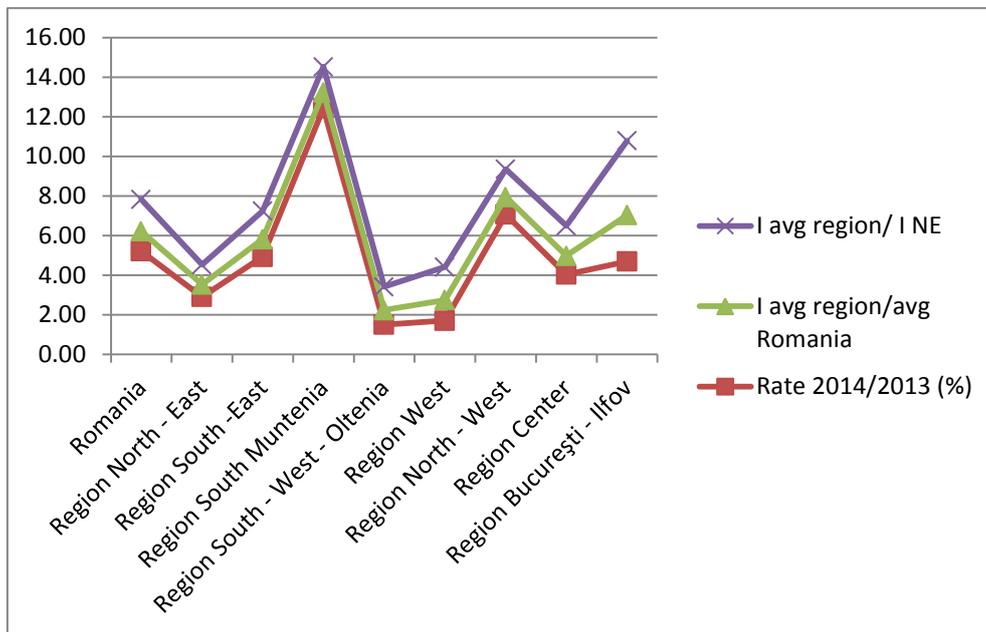
Sources: Own calculations

We can see from the previous graphic, with red, regions that have obtained a GDP per capita lower than the national average, and with blue regions that have realised a bigger value than national average. “The red regions”, like North-East is the poorest regions of Romania, and “blue regions” that București - Ilfov is the region with the highest incomes per capita. The fundamental objective of regional development policies is to reduce territorial disparities, achieving a balance between levels of economic and social development of different regions and facilitate access to structural funds for restructuring economy. However, should we consider the difficulties caused by regional disparities and the possibilities for solving them. Romania is a region of the European Union and the instruments and funds managed by the Union are aimed at developing this region. In turn, Romania is the sum of the internal regions, so the economic growth of Romania depends on the evolution of these regions. As in the EU there are different levels of country-to-country development and between the regions of Romania there are also gaps.

**Table 3. Analysis of disparity indices of GDP per capita by region**

	I <sup>2014/2013</sup>	Rate <sup>2014/2013</sup> (%)	I <sup>average region/average Romania</sup>	I <sup>average region/I<sup>average NE</sup></sup>
<b>Romania</b>	1.05	5.21	1.00	1.61
<b>Region North - East</b>	1.03	2.90	0.62	1.00
<b>Region South - East</b>	1.05	4.92	0.89	1.43
<b>Region South - Muntenia</b>	1.12	12.43	0.80	1.29
<b>Region South - West - Oltenia</b>	1.01	1.50	0.73	1.18
<b>Region West</b>	1.02	1.70	1.04	1.67
<b>Region North - West</b>	1.07	7.07	0.88	1.41
<b>Region Center</b>	1.04	4.03	0.94	1.52
<b>Region București - Ilfov</b>	1.05	4.69	2.34	3.76

Sources: Own calculations



**Graphic 3. Analysis of disparity indices of GDP per capita by region**

From the analysis of GDP indices and rates, the South Muntenia region recorded the highest growth of 12.43% in 2014 compared to 2013, although the region with the most average growth compared to the national average is Bucharest-Ilfov region, which is more than double, and compared to the lowest average of the North - East region was more than 3.75 times higher, which shows that there are large disparities between regions.

### 3. Conclusions

This work is trying to analyse the disparities in Romania between Regional GDP per capita by region. After analyzing the series we can say as have different structures that make them also record different growth rates and the GDP per capita growth rate is very different from one region to another, which gives increase to great disparities between them. The regions in Romania have certain economic and social characteristics. Thus, the South - East, South - Muntenia, South - West Oltenia regions have large agricultural areas, which in the years with drought or natural calamities, such as hail or floods, causes GDP growth to be affected. Also, the North - East region in the Bucovina area as well as the South - East region, the Black Sea coast and the Danube Delta, have a high tourist potential, making them dependent on the future evolution of this untapped sector to its true value to date.

These disparities could be decreased by a concerted policy of supporting less-favored areas and attracting European funds and horizontal state aids to them.

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<https://data.worldbank.org/indicator/NY.GDP.PCAP.KD.ZG>