

## Economic and social analyses at a regional level in the light of competitiveness

~ Ph. D. Nicoleta Maria Gogâltan (Romanian-American University, Bucharest)

E-mail: mariaburac@yahoo.com

~ Ph. D. Harda Stelica (Directorate for public health of Bucharest)

**Abstract:** *In most economic studies, competitiveness is considered a key issue of the political success/failure. A major element which contributes to regional inequalities is the level of competitiveness. This element has been the subject of numerous studies over the past years, even though more attention was given to the national level and less to the regional one. Moreover, the purpose of these regional analyses is the correlation of territorial objectives and problems with possible sources of financing, seeing to ensure optimal combinations between regional demand and supply, the optimal distribution of the income and of the results obtained, regional competitiveness, the location of clusters, etc.*

**Key words:** region, competitiveness, research-development, innovation

In the literature regarding the field of regional science, the economic growth is one of specialists' favourite topics, because solving problems relating to employment, infrastructure, economic and social imbalance, environment, etc. is aimed at reaching a certain level of development (including

the well-being of the inhabitants). Thus, the main topics of research covered are correlated with the identification of the sources of regional growth, the optimal combinations between regional demand and supply, the optimal distribution of the income and of the results obtained, regional competitiveness,

the location of clusters, full employment, etc.

In a national or regional economic system, the growth process is regarded and interpreted as an increase of the results in a certain period of time, measured usually with the help of the real gross national product regional (adjusted with the deflator) or of the gross domestic product (total or per capita). The economic growth is a favourite subject of the regional analyses and studies, because it tries to bring answers to a series of current problems related to employment, infrastructure, economic and social imbalance, environment, etc. Moreover, the purpose of these regional analyses is the correlation of territorial objectives and problems with possible sources of financing, seeing to ensure optimal combinations between regional demand and supply, the optimal distribution of the income and of the results obtained, regional competitiveness, the location of clusters, etc. The regional policy is aimed both at reducing the relatively high lag between the level of economic and social development of the old member States/regions compared to the national level, as well as at reducing the relatively low regional inequalities from inside the country. The process of regional development is regarded as a necessary step for the creation of an adequate framework for the significant and especially sustainable improvement of the living standard, the diversification of the economic activities, private investments incentives, reducing unemployment, etc.

In order to identify the level of the current economic and social inequalities recorded between the eight growth regions of Romania, we will perform a series of specific analyses regarding different aspects of the evolution of this process in a regional context.

A major element which contributes to regional inequalities is the level of competitiveness. This element has been the subject of numerous studies over the past years, even though more attention was given to the national level and less to the regional one. In most economic studies, competitiveness is considered a key issue of the political success/failure. According to the definition, regional competitiveness refers to those characteristics of the region/nation which affect both the business environment, as well as the economic structure and the ability to encourage innovation and the learning process. The competitiveness notion is beginning to have a growing importance and new valences, together with the idea of well-being and productivity.

In the paper *Cities, Regions and Competitiveness* (Turok, 2004) the importance of competitiveness is underlined from more perspectives:

- first of all, it can be regarded as a selection mechanism (only the regions/companies with better products and more efficient production processes survive);

- second of all, it is considered a stimulating mechanism (the need to improve technology and organisation to remain in competition); it also highlights the difference between the competition at company level and the one at territorial, regional level.

Regardless of the level at which is being analysed (national, regional and local), the decision factors consider competitiveness as a major objective of their activity, being associated to the „success of the competition between regions and cities for winning market shares at a domestic level, but especially internationally” (Kitson, Martin, Tyler, 2004).

In the studies regarding the evaluation of competitiveness, one of the indicators

used (most frequently) is per capita GDP (including constituents), shown in the formula below:

$$\text{GDP/ total population} = \text{GDP/ total no. of hours worked} \times \text{Total no. of hours worked / employed population} \times \text{Employed population / Working age population} \times \text{Working age population / Total population}$$

Even though labour productivity is considered a key indicator for the characterization of regional competitiveness, the research-development costs, together with the innovation capacity, the education level, the human capital investment costs (schooling, continuous learning) have significant implications upon it, thus:

- the differences in technology and human capital determine differences in productivity;
- the human capital and the improvement of the technologies can be considered the engine of economic growth;
- the investments in research and development are vital.

In the present context of the knowledge based economy, a major importance is given to innovation, considered a decisive factor of

sustainable economic growth. The study of regional competitiveness and the creation of hierarchies require the use of indicators such as the level of employment and of productivity, the sectoral structure of employment, the demographic evolutions, the investments, the provision of infrastructure, the level and nature of education, the innovation and research-development. The analysis of per capita GDP at a regional level in Romania shows the following:

- there are large regional inequalities regarding per capita GDP between Bucharest-Ilfov region, on the one side, and the other regions, on the other side; in Bucharest-Ilfov region it is recorded a more than double GDP compared to the national average;
- considering the national average, only Bucharest-Ilfov region and the West region are above the national average regarding per capita GDP level;
- The North-East region is at the last place at per capita GDP value (is 55,6% from the national average), followed by the South-West region Oltenia, with approximately 76% from the national average in the year 2011 (Table 1).

Table 1: Gross Domestic Product (GDP) - (Euro/inhabitant)

	2003	2004	2005	2006	2007	2008	2009	2010	2011
North - West	2.300	2.700	3.500	4.200	5.600	5.800	5.000	5.000	5.300
Centre	2.500	2.800	3.600	4.500	5.900	6.200	5.300	5.300	5.800
North - East	1.700	1.900	2.500	2.900	3.700	4.000	3.400	3.400	3.600
South - East	2.100	2.600	3.200	3.800	4.700	5.200	4.400	4.400	5.000
South - Muntenia	1.900	2.300	3.100	3.800	4.700	5.400	4.700	4.700	5.100
Bucharest - Ilfov	4.800	5.600	8.100	9.900	12.900	16.200	13.000	13.000	15.500

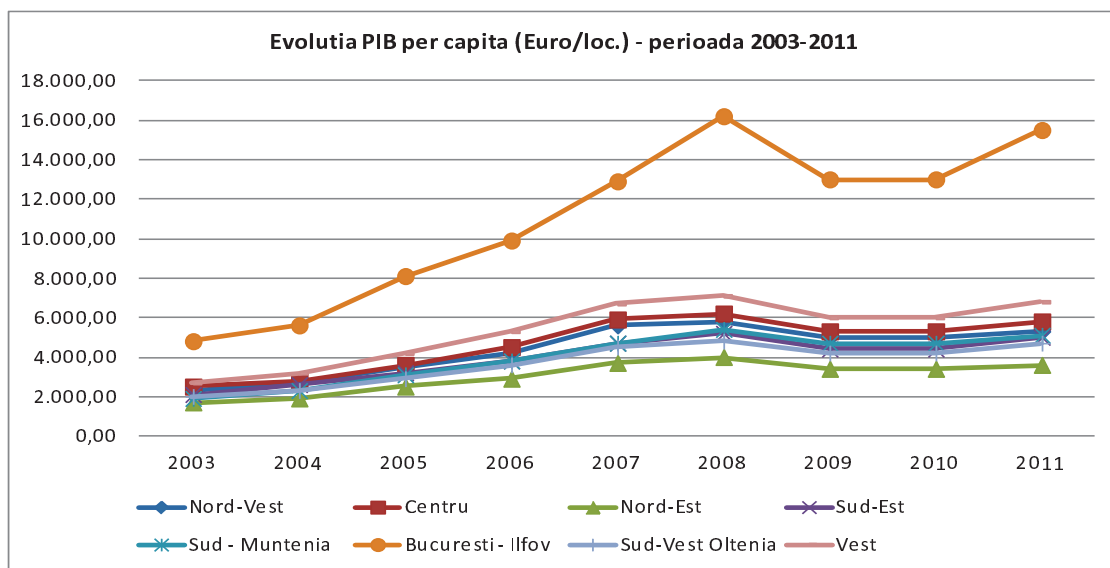
South - West Oltenia	2.000	2.300	2.900	3.600	4.500	4.800	4.200	4.200	4.700
West	2.700	3.200	4.200	5.300	6.700	7.100	6.000	6.000	6.800
National average	2212,5	2587,5	3450	4225	5387,5	6112,5	5125	5125	6475

Source: Eurostat, <http://appsso.eurostat.ec.europa.eu/nui/setupDownloads.do>

In the period 2003-2011, the inequalities kept expanding in most regions, the largest growth rate of per capita GDP being recorded in Bucharest-Ilfov (the richest region). Besides Bucharest-Ilfov region, only the

South - Muntenia region made progresses in reducing the gap towards the national average. All the other regions recorded decreases, the lowest growth rate of the indicator being in the North-East region (Figure 1).

Figure 1: The evolution of regional per capita GDP in the period 2003-2011

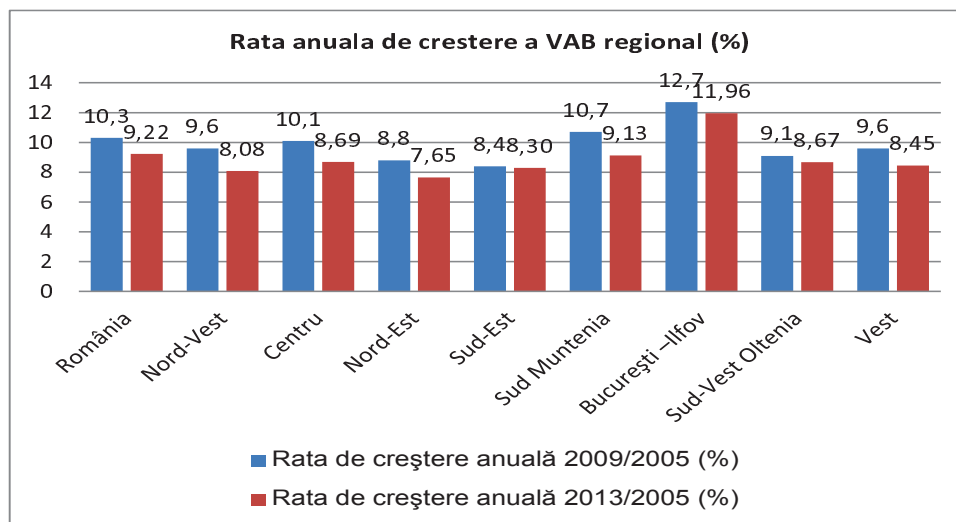


Source: Eurostat, <http://appsso.eurostat.ec.europa.eu/nui/setupDownloads.do>

A detailed image of the regional level performances is also given by the gross value

added (GVA) - Bucharest-Ilfov region reflects the highest annual growth rate (Figure 2).

Figure 2: The annual growth rate of the regional GVA (%)



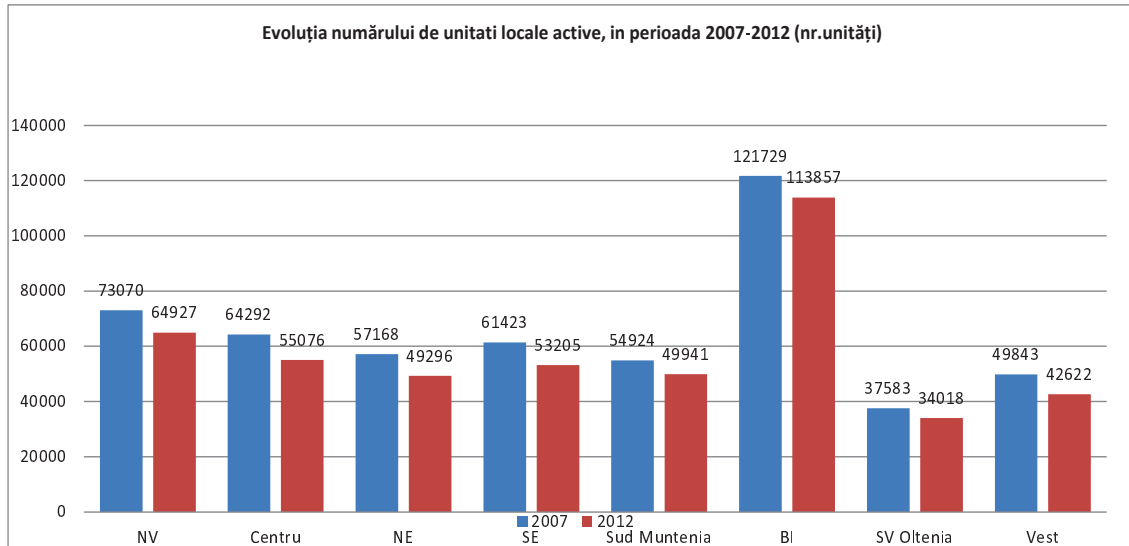
Source: Own calculations

In the above figure it can be noticed that all regions recorded different growth rates for the two periods analysed: over the 2005-2009 period, the growth rates were superior to those recorded for the 2005-2013 period, this fact showing the negative influence of the global economic crisis, which affected all the regions. It can also be seen that the least developed region – North-East – also had the most important GVA decrease (from 8,8% to 7,65%).

A analysis of the competitiveness of development regions in Romania can also be made with the help of other indicators: Number and density of enterprises, Direct foreign investments, Research and innovation, Employment, Basic infrastructure, Transport infrastructure.

In the year 2012, the total number of active local units was 462942, their highest rate being recorded in Bucharest-Ilfov region (24,59% of the total), followed by the North-West region (14,01%) and Centre (11,9%). The last place was occupied by the South-West Oltenia region, with only 7,36% from the total of the units. Compared with the first year of Romania’s integration into the European Union, it is found that the number of active local units recorded a global decrease of 10,9%, which might mean a decrease of the appetite for small local investments. By regions it is found the same tendency of reduction of the business sector’s share. Figure 3 shows the evolution of the number of active local units at a regional level, in the period 2007-2012.

Figure 3: The evolution of the number of active local units at a regional level, in the period 2007-2011



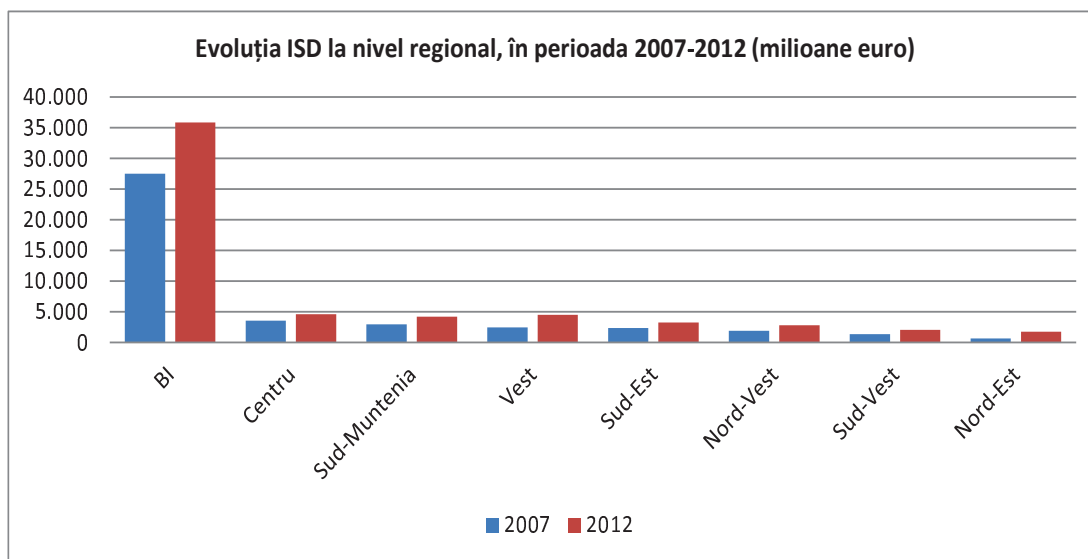
Source: Own processing

Direct foreign investments (DFI) hold an important role in the development of Romania's economy, for all sectors and domains of activity, but especially for those with a large value added. In the period 2007-2012, Romania has attracted direct foreign investments in the amount of 59.12 billion Euros. In this period, Romania's integration into the European Union left its mark on the increase of local attractiveness, considering that Bucharest-Ilfov region attracted 60,65%

from the total DFI. This percent is mainly due to the fact that the branches of the main foreign companies are located in Bucharest-Ilfov region.

In the year 2012, Romania ranked in the first places among the european countries with the highest attractiveness for foreign investments. At national level, besides Bucharest-Ilfov region, the Centre and West regions also attracted the attention of foreign investors (Figure 4).

Figure 4: DFI evolution at regional level, in the period 2007-2012



Source: Own processing

According to a study made by European Attractiveness Survey - 2014 and named "Europe - back in game", Romania ranked in sixth position at European level in the attractiveness for direct foreign investments (DFI) top. Also, it occupies the third place in Central and Eastern Europe, after Poland and Czech Republic, overtaking Hungary.

One of the current objectives of the 2020 Strategy is to stimulate the intelligent growth by supporting sustainable investments in research-development. In the year 2012, in

the research-development activity were involved about 42674 employees, most of them in Bucharest-Ilfov region, followed at great distance by North-East and North-West. In relation with the number of employed population, the number of employees in RD at national level is 49.8 employees at 10000 employees. Most regions record values under the national average, due to their concentration in Bucharest-Ilfov region (176,8 employees at 10000 employees) (Table 2).

Table 2: Main indicators corresponding to the Research-Development domain in the year 2012

	Employees in RD	Employees in RD at 10000 employed population	RD expenditure
North West	<b>3503</b>	<b>29,5</b>	<b>298616</b>
Centre	<b>2973</b>	<b>28,6</b>	<b>153494</b>
North East	<b>3876</b>	<b>31,6</b>	<b>245015</b>
South East	<b>1655</b>	<b>16,4</b>	<b>54049</b>
South Muntenia	<b>3236</b>	<b>27,4</b>	<b>331591</b>

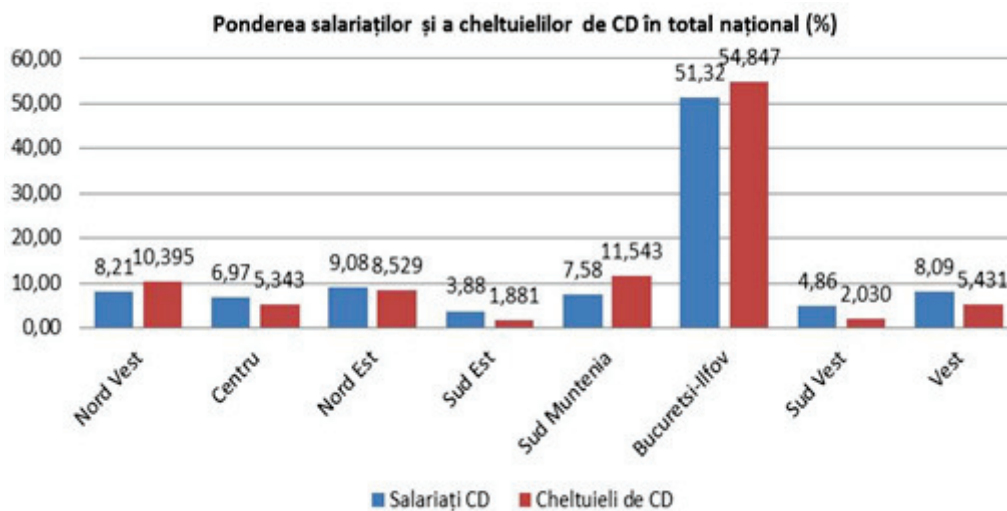
Bucharest-Ilfov	21902	176,8	1575613
South West	2076	24,5	58321
West	3453	41,3	156029
Romania	42674	49,8	2872728

Source: Romania Statistical yearbook, 2013, INS, Bucharest

Figure 5 shows that Bucharest-Ilfov region bundles the largest part of the research-development activity in Romania: over 51% of the employees in RD and over 54% of the total corresponding expenditure. The differences are extremely large in this field, which

leads to rethinking the process of supporting this sector at national level, by the creation of equal opportunities and of an infrastructure corresponding to this priority field in the light of the 2020 Strategy (Figure 5).

Figure 5: The RD employees and expenditure ratio in the national total, in the year 2012 (%)



Source: Data from Romania Statistical yearbook processing, 2013, INS, Bucharest

At national level, the ratio of the population who frequently uses the internet amounted, in the year 2011, at 37%, almost double compared to the year 2008. Although the evolution is spectacular, still, Romania is

far behind the Community level (68%). The disparities are maintained in this field also, Bucharest-Ilfov region being in the first place at using Internet, but also having the lowest annual growth rate (Table 3).



Table 3: Ratio of the persons who frequently use the internet (%)

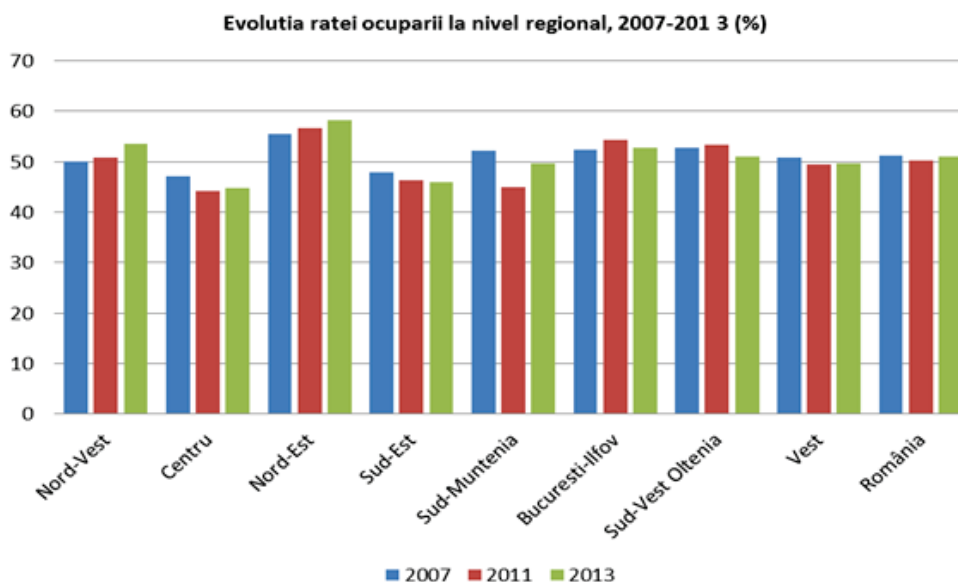
	2008	2011	The annual growth rate
North West	25	34	10,2
Centre	22	36	16,4
North East	22	35	15,5
South East	27	36	9,6
South Muntenia	23	34	13,0
Bucharest-Ilfov	44	55	7,4
South West	24	33	10,6
West	29	40	10,7
Romania	18	37	14,4

Source: Eurostat

The ageing of the population and the migration phenomenon recorded at national and regional level determined significant changes in the structure of the labour force in the last two decades. Thus, the young population recorded a dramatic decrease tendency - from 31,7 % in the year 1990 to 20,8 % in the year 2010 – while the number of old people

increased after 1990, reaching 14,9 % in the year 2010. In the year 2013, about 51,1% of Romania’s active population was employed, relatively constant with the year 2007. The highest employment rate was recorded in the North East region (58,3%), followed by the North West region (53,5%). The last place is hold by the Centre region (44,8%) (Figure 6).

Figure 6: Evolution of the employment rate at regional level, 2007-2013 (%)



Source: Romania Statistical yearbook 2007-2012, INS, Bucharest

The basic regional infrastructure is different from one region to another, but also within the same region, which proves a generalized situation at territorial level.

Thus, in the year 2011 (according to „The inquiry on family budgets“), a quarter of Romania’s population lived in inadequate conditions – the ratio is significantly larger in rural areas (39.5%) compared to urban areas (8,4 %) – half of these persons living in absolute poverty; 1,6 % from the rural population

lived in households without proper heating; 71,7 % from the rural population has no access to hot water, respectively to a bath or shower. The most deprived regions from this perspective are South Muntenia and North East (Table 4). The basic infrastructure – sewage and running water – is still limited, the level of connection to the regional and national systems being considered too low for a member State of the EU.

Table 4: Access to basic utilities, for regions, 2011

Region	Number of households	Water supply inside the house	Sewage system	Electricity	Heating
Romania	8.450.942	66,7%	65,1%	96,6%	44,4%
North-West	1.095.108	73,2%	71,8%	96,7%	44,0%
Centre	988.473	77,1%	74,7%	96,8%	49,5%
North-East	1.365.695	51,5%	39,9%	95,4%	34,4%
South-East	1.055.642	63,1%	61,0%	96,3%	42,3%
South-Muntenia	1.294.536	56,0%	54,4%	96,9%	31,6%
Bucharest-Ilfov	946.119	93,7%	93,4%	98,0%	86,2%
South-West Oltenia	922.529	49,5%	47,8%	96,5%	29,8%
West	782.840	81,3%	79,9%	97,1%	47,1%

Source: Census data year 2011, preliminary results

The poor development of the transport infrastructure represents an obstacle to the development of small and medium cities and villages, at regional and inter-regional level. In the past years, it is found an increase of the number of highway kilometres, yet the

transports infrastructure does not rise to the requirements of sustainable mobility for goods and persons. This situation also affects other related fields, by isolating some areas and negatively influencing the local/regional development (Table 5).

Table 5: The roads condition at regional level, by road types (km), 2012

Region	Public roads	Modernised roads	Highways
TOTAL	84185	27665	644
North-West	12554	3340	52

Centre	11179	3884	55
North-East	14062	4653	
South-East	11016	3165	74
South-Muntenia	12750	4471	258
Bucharest-Ilfov	916	764	75
South-West Oltenia	11178	3839	
West	10530	3549	130

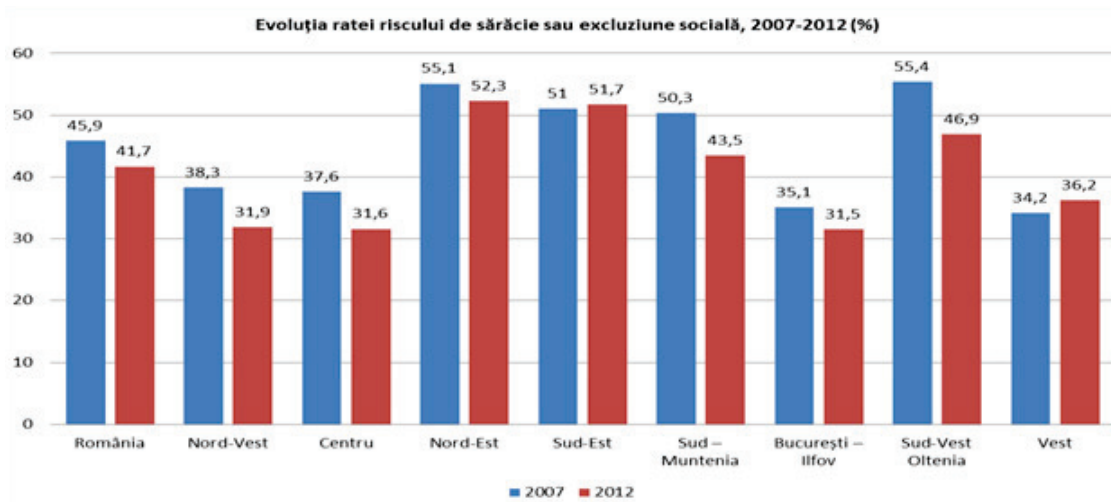
Source: Romania Statistical yearbook 2007-2012, INS, Bucharest, Tempo database

**Social aspects and aspects regarding inclusion at regional level**

The analysis at regional level regarding the poverty or social exclusion risk shows that here are certain inequalities between regions, the most affected being South West Oltenia (55,4%) and North East (55,1%).

Between the two analysed periods it is found a certain progress regarding the reduction of inequalities in most regions. Although the West region is a well developed one, it is found a slight increase of the poverty risk (year 2012 compared with the year 2007) (Figure 7).

Figure 7 : The evolution of the poverty or social exclusion risk ratio (%)



Source: Data from Romania Statistical yearbook processing, INS, Bucharest

Regarding the strategy of Romania's regional development, this has to fall within the orientations and tendencies promoted by the European Union. Its successful application depends not only of ensuring the necessary financial support, but also of the way in which it deals with "behavioural challenges": participation, communication, mentalities, attitudes.

The gap Romania has towards Europe can be overcome in the next period by observing the European principle of subsidiarity and by using more efficiently the existent resources (local resources, government funds and European programmes). The launching of the regionalisation process and the continuation of the administrative decentralisation

are two of the most important objectives, acting in the direction of territorial and administrative reorganisation and of public administration reform (through decentralisation and simplification of legislation).

The reduction of the imbalances existing between the regions, the correlation of the different sectoral government policies at the regions level, the stimulation of regional and local initiatives would lead to the modernisation of the Romanian society in its entirety. Thus, the local public administration, the regional development experts and the civil society should be involved in a common project – regionalisation – in order for Romania to adapt to the global realities.

---

#### REFERENCES:

1. **Ailenei D., Mosora D.**, (2011), *Economics of Sustainable Development. Competitiveness and Economic Growth*, Theoretical and Applied Economics No. 2 / 2011 (555), [http://www.ectap.ro/economics-of-sustainable-development-competitiveness-and-economic-growth-dorel-ailenei\\_liviu-cosmin-mosora/a552/](http://www.ectap.ro/economics-of-sustainable-development-competitiveness-and-economic-growth-dorel-ailenei_liviu-cosmin-mosora/a552/);
2. **Ailenei D.**, (2011), *Regional patterns of global economic crisis shock propagation into Romanian economy*, <http://www.rrsa.ro/rjrs/V613.AILENEI.PDF>;
3. **Antonescu D.** (2011), *Dezvoltarea regională – Tendințe, mecanisme, instituții* (Regional development – tendencies, mechanisms, institutions), Top Form Publishing, ISBN 978-973-7626-78-3, Bucharest;
4. [http://ec.europa.eu/regional\\_policy/what/future/proposals\\_2014\\_2020\\_en.cfm](http://ec.europa.eu/regional_policy/what/future/proposals_2014_2020_en.cfm).
5. <http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/themes>); <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tgs00004>;
6. [http://europa.eu/geninfo/legal\\_notices\\_en.htm](http://europa.eu/geninfo/legal_notices_en.htm);
7. Romania Statistical yearbook (editions 2000-2011), INS, Bucharest;
8. Carta Verde. Politica de dezvoltare regională în România (Green Paper. Regional development policies in Romania), the Romanian Government and the European Commission, Phare Programme, 1997
9. [http://ec.europa.eu/regional\\_policy](http://ec.europa.eu/regional_policy)
10. European Institute of Romania (IER), 2010, Studies of Strategies and Policies, no. 4
11. OECD, 2010, Regional development policies in OECD countries, Paris, OECD Publishing
12. World Bank, The Country Development Programme, p. 7; URL: [http://siteresources.worldbank.org/ROMANIAEXTN/Resources/275153153883114942/CPS0913\\_Country\\_Development\\_Program.pdf](http://siteresources.worldbank.org/ROMANIAEXTN/Resources/275153153883114942/CPS0913_Country_Development_Program.pdf);

13. Eurostat - European Economic Forecast, Autumn 2012, [http://ec.europa.eu/economy\\_finance/eu/forecasts/2012\\_autumn/ro.html](http://ec.europa.eu/economy_finance/eu/forecasts/2012_autumn/ro.html);
14. National Institute of Statistics, Employment and unemployment in 2011, Main results, Press release no. 89/2012 of April 17th, 2012, p. 6.