# CONSIDERATIONS ON ECONOMIC DEVELOPMENT OF ROMANIA'S CENTRAL REGION

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#### **Abstract**

This paper analyzes the economic state of the Central Region of Romania in the period 2007-2012 and estimates the situation for 2015-2017. The analysis is based on the statistical and regional indicators, the most significantly being GDP, turnover for local units, gross investments and net investments. GDP is the main indicator which emphasizes the development level of the Region. Central Region of Romania is very attractive for investments because they large economic potential. This research used statistical database. The results consists into analyses, interpretation of current data, and, also, into forecasting analysis.

**Keywords:** Center Region, GDP, investments, regional development, turnover

JEL classification: O11; O18; Q01

#### Introduction

The Romania's Central Region Regiunea has 34100 km² that means 14,3% of Romania's area. The Region contents six counties such as Alba, Brasov, Covasna, Harghita, Mures si Sibiu (Otiman, P.I., 2006, p.243). Currently, in Romania there are significant gaps between developing regions and counties that are part of the same region. As a result of socio-economic analysis were released found that, in the Central Region differences between counties are significantly lower compared to other regions. In this region there are three counties with more than 100,000 employees (www.mytex.ro). It requires a single specification, that there are gaps in wages. It can be said that the Central Region is one of the most balanced regions of our country, having three sectors, namely: primary; secondary; tertiary. Currently, the tertiary sector is in the process expansionary demonstrated, especially the significant contribution of services to Gross Domestic Product (www.adrcentru.ro).

The economy of the region was developed as available mineral resources have been subject to exploitation, contributing to the achievement of profitable economic activities.

Development Centre Region depends on attracting FDI (Investments Direct Funds). According to a study by the National Bank of Romania, the Central Region was the second top choices of foreign investors after the Bucharest-Ilfov Region. In 2012, this region has attracted 7.8% of FDI. At the end of this year FDI stock was 4.625 million Euro (www.bnr.ro). The major investors are from the Netherlands, Austria, Germany and France. In order to increase foreign investment is required primarily improving legislation. (Anghelache, C., 2008, p.418).

## Methodology and data sources

To realize this research were used data from the National Institute of Statistics, National Forecasting Commission and the National Bank of Romania. Were consulted several books, studies, reports and journals. Economic development of the Central Region was highlighted on the basis of relevant indicators, such as regional GDP per capita; the turnover of active local units, gross and net investment. Analysis of key indicators was performed using the usual statistical methods.

### **Results obtained**

Gross Domestic Product is the most significant macroeconomic indicator, as measured on the one hand, economic activity and growth on the other hand and according to it, the long-term investment plan is forecasted (www.ziare.com). It highlights the purchasing power and market value of goods and services produced in a country. Analysis is performed in the national economy primarily based on the size of the indicator. It is preferred to be larger this indicator. In a stable economy optimal

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growth is 3% per year. If the growth is greater than, is required increasing of benchmark interest by the Central Bank (www.conso.ro). Hence, the national GDP is determined, as value, by the regional evolution of its. At the GDP regional level are many differences.

In the table 1 are presented the GDP evolution on the Region and counties.

Evolution of GDP in the Central Region, period 2007-2012

- million lei current prices-

Table 1

No.	Specification	2007	2008	2009	2010	2011	2012	2012/2007 (%)
1.	TOTAL REGION	49416.7	57586.8	55178.7	57648.9	61177.2	67240.4	136.0
2.	ALBA	8000.7	8777.8	8605.9	8947.1	9464.1	10375.2	126.7
3.	BRASOV	14160.4	16822.9	16633.7	17438.8	18585.6	20474.7	144.5
4.	COVASNA	3540.4	3993.2	3665.5	3790.4	3988.8	4357.2	123.0
5.	HARGHITA	5248.1	6000.7	5683.3	5891.7	6209.5	6791.3	129.4
6.	MURES	9440.8	10850.8	9689.3	10100.1	10687.7	11740.2	124.3
7.	SIBIU	9026.3	11141.4	10901.0	11480.8	12241.6	13501.9	149.5

Source:- Romanian Statistical Yearbook 2012, National Institute of Statistics; Highlights regional economic and social Territorial Statistics, 2010, 2011, 2012, National Institute of Statistics; National Forecasting Commission - Projection of the territorial economic and social indicators till 2017, November 2013

#### -Own calculations

In the period 2007-2012, GDP increased with 36%, due the functioning of many activities and investments. The most increase is in Sibiu (+49.5%) and the smallest is in Covasna (+23%).

In the table 2 is presented the GDP forecasting evolution for 2015-2017. According to data, in 2015-2017, GDP will increase with 11,4%. Also, will reduce the the differences between counties, in terms of increase the GDP from 10.8% to11.8%. Most representative indicator for achieving a more realistic economic analysis of the Centre Region is GDP per capita. It is known that the analysis of GDP / capita for a period highlights a tendency of polarization of the richest and the most disadvantaged regions (Istudor, N., 2006, p.75). It is necessary to remember that GDP / capita is an indicator representing the information concerning the state of the economy in a given region, since it is not determined by differences that occur between regions population (Beciu S., 2013, p.48).

Table 2
Forecasting on GDP in the Central Region, period 2015-2017
- million lei current prices-

No.	Specification	2015	2016	2017	2017/2015 (%)
1.	TOTAL REGION	80390	84794	89605	111.4
2.	ALBA	12476	13134	13848	110.9
3.	BRASOV	24398	25760	27258	111.7
4.	COVASNA	4920	5172	5452	110.8
5.	HARGHITA	7750	8157	8602	110.9
6.	MURES	15025	15848	16747	111.4
7.	SIBIU	15821	16722	17697	111.8

Source: - National Forecasting Commission

- Projection of the territorial economic and social indicators till 2017, November 2013;

- Own calculations

The evolution of GDP/capita is presented in table 3. According to data published by the National Forecasting Commission, GDP / capita at regional level increased from 5867 euro / capita (2007) to 6378 euro / capita (2012). Regional growth was 8.7 percentage points during the period. The most significant increase was in Brasov county, in 2012 (+14%) compared to 2007. Opposite is Covasna county where in 2012 was a decrease of 1.2 percentage points.

# Evolution of GDP/capita in the Central Region, period 2008-2011

-euro/capita-

No.	Specification	2007	2008	2009	2010	2011	2012	2012/2007 (%)
1.	TOTAL REGION	5867	6197	5158	5427	5759	6378	108.7
2.	ALBA	6374	6374	5434	5709	6057	6701	105.1
3.	BRASOV	7144	7656	6570	6923	7364	8162	114.2
4.	COVASNA	4749	4863	3884	4048	4264	4696	98.8
5.	HARGHITA	4830	5012	4132	4308	4535	4996	103.4
6.	MURES	4863	5069	3937	4135	4380	4850	99.7
7.	SIBIU	6392	7142	6051	6412	6837	7595	118.8

Source: National Commission for Prognosis, June 2013

Another county in which there was a decrease in 2012 compared to 2007, is the Mures County. This decrease is not significant (-0.3%).

According to data provided by Eurostat in 2008, GDP / capita in the Central Region was 11,250 euro, expressed in standard purchasing parity. The recorded value of GDP / capita was 44.8% of the EU average (www.adrcentru.ro). In 2011, GDP / capita in the Central Region increased compared to 2008, reaching to 11,400 euro / capita (www.romanialibera.ro).

In table 4 is presented a forecast of GDP / capita for the period 2015-2017. Un alt judet in care s-a inregistrat o scadere in anul 2012 fata de anul 2007, este judetul Mures. Aceasta scadere este nesemnificativa (-0,3%).

Table 4
Forecasting on GDP/capita in the Central Region, period 2015-2017

-euro/capita-

No.	Specification	2015	2016	2017	2017/2015 (%)
1.	TOTAL REGION	7282	7691	8200	112.6
2.	ALBA	7776	8218	8763	112.6
3.	BRASOV	9241	9771	10426	112.8
4.	COVASNA	5082	5353	5689	111.9
5.	HARGHITA	5458	5746	6104	111.8
6.	MURES	5933	6265	6682	112.6
7.	SIBIU	8441	8922	9520	112.7

Source: National Forecasting Commission - Projection of the territorial economic and social indicators till 2017, November 2013

In 2017 is expected an increase to GDP/capita till 8200 euro. This increase is based on foreign investments and on competitiveness of tertiary sector.

In table 5 are estimates of GDP for the period 2015-2017. To realize an economic analysis on the national and regional level are necessary studies of the relative evolution of GDP.

Estimates of real GDP growth in the Central Region, period 2015-2017

-%-

Table 5

No.	Specification	2015	2016	2017
1.	TOTAL REGION	2.4	3.0	3.3
2.	ALBA	2.2	2.8	3.0
3.	BRASOV	2.6	3.1	3.4
4.	COVASNA	2.1	2.7	3.0
5.	HARGHITA	2.3	2.8	3.1
6.	MURES	2.2	3.0	3.3
7.	SIBIU	2.6	3.2	3.4

Source: National Forecasting Commission - Projection of the territorial economic and social indicators till 2017, November 2013

After analyzing the real GDP growth rate for the period 2015-2017 are found both regionally, and at the county level, a tendency to be more dynamic (National Strategy for Regional Development, 2014-2020, Bucharest, 2013, p33, online version).

Table 6 shows the evolution of turnover in local units active in the Central Region in 2007-2011. Turnover is an important indicator since we're showing all revenues from sales of active local units and the execution of works and services. It can be seen in the Central Region, an increase in turnover in 2011 (+ 31%) compared to 2007 The most significant growth was registered in the county of Mures (+ 40.2%) in 2011 compared to in 2007.

Table 6 Evolution of turnover in local units locale, period 2007-2012

- million lei current prices-

	initial to carrent price								
No.	Specification	2007	2008	2009	2010	2011	2011/2007		
							(%)		
1.	ROMANIA-TOTAL	772262	959414	850834	903238	1007151	130.4		
2.	MACROREGION 1	159168	196280	173926	18576	207747	130.2		
3.	CENTRAL REGION, of	81065	100051	88253	95354	106679	131.5		
	which:								
4.	ALBA	8487	10116	9208	10119	11004	129.6		
5.	BRASOV	25054	32262	27106	29285	32302	128.9		
6.	COVASNA	4688	5674	5317	5219	5373	114.6		
7.	HARGHITA	7197	8848	7637	8012	8348	115.9		
8.	MURES	17137	21797	19593	20489	24040	140.2		
9.	SIBIU	18502	21354	19392	22230	25612	138.4		

Source: - Romanian Statistical Yearbook 2012, National Institute of Statistics; Highlights regional economic and social -Territorial statistics, 2010, 2012, 2013, National Institute of Statistics;

#### -Own calculations

The smallest increase was in Covasna (+14%) in 2011 compared with 2007. The turnover achieved in the Central Region of active local units, offers investors important information about the evolution of economic activity in the region and highlights the potential for the economic development.

In Tables 7 are presented gross investments in the period 2007-2011, in the Central Region of Romania. The analysis finds significant increases in gross investments in 2011 compared to 2007 for the counties of Mures (+ 698%) and Sibiu (+ 470%).

In 2011 compared to 2007 are registered decreases n the following counties, as follows: Brasov (-47.74%); Alba (-40.57%); Covasna (-32.14) and Harghita (-28.73%).

In the Central Region in 2011 were registered the most significant gross investment in these areas: mining and quarrying (34,016,000 USD); manufacturing (4.080 million); transport, storage and post and courier activities (1,824,000 USD) and trade (1.640 million).

Gross investments evolution, period 2007-2011

Table 7

	- million lei current pric						
No.	Specification	2007	2008	2009	2010	2011	2011/2007 (%)
1.	ROMANIA-TOTAL	141397	143314	99928	94673	143530	101.51
2.	MACROREGION 1	28651	27724	20824	15430	53904	188.14
3.	CENTRAL REGION, of which:	15622	15680	11388	8635	44966	287.87
4.	ALBA	1671	1510	1203	1149	993	59.43
5.	BRASOV	6208	6406	4987	2687	3244	52.26
6.	COVASNA	501	543	352	321	340	67.86
7.	HARGHITA	1208	1213	647	654	861	71.27
8.	MURES	2249	2363	1593	1662	17953	798.27
9.	SIBIU	3785	3645	2606	2167	21575	570.1

Source: - Romanian Statistical Yearbook 2012, National Institute of Statistics; Highlights regional economic and social -Territorial statistics, 2010, 2012, 2013, National Institute of Statistics;

#### -Own calculations

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Table 8 present the evolution of the investments net in 2007-2011, in the Central Region. It easily finds that, net investments decreased in 2011 compared to 2007, both nationally and in the Central Region. The largest decrease was recorded in Harghita (-41.57%) and the smallest decrease was observed in Sibiu (-19.06%).

Table 9 shows the evolution of local units' active people in the Central Region in the period 2007-2011. In 2011, the employees of active units in the region were 504,723 people, representing 12.78% of the number of employees in Romania. During 2007-20011, this indicator had an oscillating evolution at both regional and county level. In 2011 compared with 2007, the Central Region had a decrease (-11.49%) in the number of employees. The smallest decrease was recorded in Sibiu (-4.79%) in 2011 compared to 2007.

Evolution of net investments, period 2007-2011

- million lei current prices-

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No.	Specification	2007	2008	2009	2010	2011	2011/2007 (%)
1.	ROMANIA-TOTAL	80672	85239	62460	59035	72779	90.22
2.	MACROREGION 1	17812	16939	13884	10195	13332	74.85
3.	CENTRAL REGION, of which:	9152	8942	7790	5343	6836	74.69
4.	ALBA	1150	1074	825	762	785	68.26
5.	BRASOV	2717	2668	3248	1402	2105	77.48
6.	COVASNA	401	448	277	214	263	65.59
7.	HARGHITA	830	782	325	316	485	58.43
8.	MURES	1525	1697	1167	1138	1151	75.48
9.	SIBIU	2529	2273	1948	1511	2047	80.94

Source: - Romanian Statistical Yearbook 2012, National Institute of Statistics; Highlights regional economic and social -Territorial statistics, 2010, 2012, 2013, National Institute of Statistics;

### -Own calculations

# Evolution of employees, period 2007-2011

Table 9

- persons -

Table 8

No.	Specification	2007	2008	2009	2010	2011	2011/2007 (%)
1.	ROMANIA-TOTAL	4,436,235	4,533,086	4,075,959	3,829,840	3,948,498	89.01
2.	MACROREGION 1	1,129,230	1,158,305	1,033,559	977,469	1,014,275	89.82
3.	CENTRAL REGION, of which:	570,218	579,954	516,075	486,831	504,723	88.51
4.	ALBA	7,002	69,520	61,442	56,153	56,153	79.09
5.	BRASOV	168,006	170,836	151,811	143,954	149,279	88.85
6.	COVASNA	38,844	39,882	36,324	32,877	33,511	86.27
7.	HARGHITA	63,860	66,766	57,595	53.593	55,125	86.32
8.	MURES	114,839	11, 980	103,181	97,383	99,139	88.33
9.	SIBIU	113,667	11, 970	105,722	102,871	108,218	95.21

Source: - Romanian Statistical Yearbook 2012, National Institute of Statistics; Highlights regional economic and social -Territorial statistics, 2010, 2012, 2013, National Institute of Statistics;

#### -Own calculations

The largest decrease was recorded in Alba (-20.91%) in 2011 compared to 2007. In the Central Region fields with the largest number of personnel in 2011 were as follows: manufacturing (193,404 persons), trade (104,406 persons), and construction (49,242 persons), real estate (43,599 persons) and transport (40,130 persons).

#### **Conclusions**

The main economic indicators in the Central Region of Romania show the following conclusions:

- -balanced economic structure, which has three major sectors: primary; secondary and tertiary. This led to the framing of the Central Region, among the most representative regions of Romania;
- -increase foreign direct investments, which directly contribute to increasing regional competitiveness;
- -investments were directed mostly to economic sectors such as wood processing industry; machine industry; construction materials; food;
- -GDP increased from 49,416,700,000 USD, current prices in 2007 to USD 67,240,400,000 in 2012;
- -economic polarization tend to the following counties: Brasov; Sibiu, Mures;
- -enhancing economical disparities between urban centers and small towns;
- -increased turnover of 81.065 million lei current prices (in 2007) to 106,679,000 lei current prices (year 2011);
- -lower net investment of 9.152 million (2007) to 6.836 million lei in 2011;
- -decrease the number of employees from 570,218 people in 2007 to 504,723 people in 2011;
- -emergence of clusters in the following fields: food; woodworking; electrical, etc. These clusters will lead to intensification of economic development on the one hand, and on the other hand will help increase value added.

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