General aspects regarding the evolution of GDP in Romania

Constantin ANGHELACHE

"Artifex" University of Bucharest Bucharest University of Economic Studies actincon@yahoo.com

Alexandru MANOLE

"Artifex" University of Bucharest alexandru.manole@gmail.com

Georgian ŞERBAN

"Constantin Brâncoveanu" University of Pitești serban.georgian@gmail.com

Andreea Gabriela BALTAC

"Artifex" University of Bucharest andreea.madan@yahoo.com

Adina Mihaela DINU

Bucharest University of Economic Studies dinu_adina_cnmv@yahoo.com

Abstract. The macroeconomic results indicators have recorded a disastrous trend over the period January 2009 - January 2012 as a result of the effects of the economic and financial extended crisis, worsened by the extended political and moral crisis, the lack of efficiency of the government activity and lack of a coherent anti-crisis program, based on pro-active steps.

Keywords: purchasing power; deficit; resource; price; adjusted.

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1. The major macroeconomic evolutions

The indicator the most synthetic for Romania, concerning the outcomes recorded in 2010, is given by the Gross Domestic Product which counted for 513,640.8 million of lei, expressed in the current prices of the year 2010. For 2011, under the reserve of further corrections, data are clear and edifying, emphasizing the increase of GDP by some 1.1% as against 2010, which, adjusted at the level of 2011, reveals a value of 519,290.8 million lei. For 2012 there are no predictable significant modifications, thus GDP will stagnate.

Thus, the GDP recorded a decrease of 1.3% in 2010, as against 2009. Meantime, the inflation target could not be hit, the direct foreign investment diminished drastically, being only 2,411 billion euro, in 2011, and several hundred thousand Euro in 2012, the foreign debt increased, the domestic public debt multiplied, the foreign payments balance is recording a huge cumulated deficit, the population income decreased dramatically, the national economy branches recorded decreases or stagnations, the consolidated budget became volatile due to uncertain doubtless incomes as a result of an adverse or unconcerned collection etc.

GDP/capita, calculated on the basis of the purchasing power parity, counted for 10,395 units standard purchasing parity, which represents the monetary unit of reference at the level of the European Union, as conventional currency which excludes the influences of the differences between the national prices.

The evolution of the Gross Domestic Product at the European Union level and for each EU member state for the year 2010, by quarters, as seasonally adjusted data, each of the four quarters, being shown both as dynamics of the increase as against the previous quarter and as comparison with the corresponding quarter of the previous year, namely 2009. Out of the data analysis we see, first of all, that for almost all the cases, the quarter to quarter evolution is a relatively positive one, both in respect of the comparison with the previous quarter and as against the corresponding quarter of the previous year, emphasizing an increase at the level of EU27. This development is indicating the coming out of the recession for EU.

The second part of the table, comparison with the corresponding period of the previous year, is also showing a positive evolution, namely the constant diminishing of the decrease (for all three quarters) comparatively with the corresponding quarters of the year 2009.

Table 1. Trimester growth rates of GDP in 2011, seasonally adjusted data

	In % against th	ne previous trimester	In % against the corresp. trim., previous year				
	• • •			- In			
	Quarter I	Quarter II	Quarter I	Quarter II			
EU 27	0.4	1.0	0.7	2.0			
Belgium	0.1	1.0	1.7	2.6			
Bulgary	-0.5	0.5	-0.8	-0.3			
Czech Republic	0.5	0.9	1.1	2.5			
Denmark	0.6	1.3	-0.9	3.0			
Germany	0.6	2.3	2.1	3.9			
Estonia**	1.1	1.9	-2.6	3.1			
Ireland	2.2	-1.2	-0.7	-1.8			
Greece	-0.6	-1.7	-2.7	-4.0			
Spain	0.1	0.3	-1.4	0.0			
France	0.2	0.7	1.1	1.6			
Italy	0.4	0.5	0.5	1.3			
Cyprus	0.4	0.5	-1.2	0.2			
Letonia	0.9	0.8	-5.1	-2.9			
Lithuania	-0.1	0.5	-0.6	-0.3			
Luxembourg	0.8	-0.3	2.9	5.3			
Hungary	1.0	0.4	-1.1	0.5			
Malta	1.4	0.1	3.5	3.7			
Netherlands**	0.5	0.9	0.6	2.2			
Austria	0.0	1.2	0.1	2.2			
Poland	0.7	1.2	3.1	3.8			
Portugal	1.1	0.2	1.7	1.4			
Romania	-0.3	0.3	-3.2	-1.5			
Slovenia	-0.1	1.0	-0.2	1.4			
Slovakia**	0.8	1.0	4.6	4.4			
Finland	0.1	1.9	0.6	3.4			
Sweden	1.7	2.0	2.8	4.5			
Great Britain	0.4	1.2	-0.3	1.7			

^{**} non-adjusted data; : missing data.

Source: Eurostat, data on first six months.

These data are showing that Poland, Estonia and Sweden have recorded in quarter III 2010 the greatest increases of GDP.

We can notice that a series of seven countries have recorded reduced, insignificant growths.

The rest of the countries, including Romania as well, keep on facing the effects of the crisis triggered by recession. In 2011, the growth rhythms tempered, and make way for the interpretation of the crisis effects' comeback, in the second wave. The problem of the Euro union, triggered by the situation in Greece, Italy, Spain, Portugal and Ireland, stirring many analyses that lead towards pessimistic perspectives.

The nominal value of the GDP (raw series) amounted, in the quarter II 2011, 117.2 billion lei, decreasing (in comparable terms) by 0.5% as against the quarter II 2009, while at the level of the first half of the year 2010, the GDP amounted 214.4 billion of lei, recording a decrease of 1.5 pp as against the first half of the year 2009. In the third trimester of 2010, we can speak abut an increase (139.4 billion lei), also valid for the fourth trimester of the same year (159.8 billion lei), ensuring a GDP of 513.6 billion lei in 2010. In 2011, new increases of GDP were recorded, trimester by trimester, against 2010. So, the level recorded during the first two trimesters of 2011 was 233.7 billion lei, against 214.4 billion lei in 2010.

If considering the European context, from the point of view of the recession phenomenon the situation is showing that there is only one country, i.e. Poland, which managed to stay out of this condition, recording subsequent increases. Other 14 EU member countries, among which Germany (the engine of the European economy), with a noticeable increase in 2011 too, by 3.2%, have recorded increases. Some of them, such as France, Holland, Slovakia, Denmark, have recorded consolidated increases during the two quarters, which forecasts a positive evolution expected at the level of the entire year 2011.

Other countries, such as Belgium, Spain, Hungary, have marked labile comings out at least for one of the two quarters, which denotes a certain uncertainty for the end of 2011, getting back to recession being any time possible in case there would be decreases to record until December 31st, 2011.

The deficit of the foreign trade balance (export FOB/import CIF) counted for 9 billion Euro in 2010 and 7.75 billion Euro in 2011 and some 4 billion Euro in the first six months of 2012.

The situation occurring in this respect implies certain discussions which, briefly, may resume to the following basic aspects:

- The imports decreased comparatively to the previous year. The imports kept on being profitable since, even if sometime an appreciation of the national currency against Euro and USD has been recorded, the wholesale and retail prices were not adjusted by cutting-off, the companies considering that they are a gained position which is not advisable to give up;
- On the other side, the exports increased in 2010 as against 2009 and in 2011 compared with 2010, because this fluctuation of the exchange rate against the two currencies of the foreign exchange panel of reference did stimulate the domestic production for export, this becoming much more profitable at export, the situation maintains on the same trend in 2012.

2. The GDP alteration factors by categories of resources

In 2011, as in 2012, the GDP has been achieved on the account of the activity carried out in the frame of the main branches of the national economy.

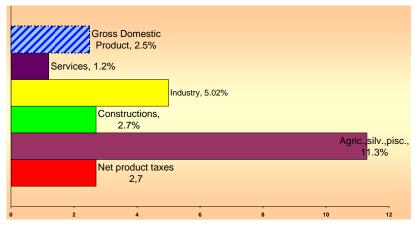
The contribution differed from the point of view of the gross added value recorded at the level of each branch. The net tax on product brought in 2011 a positive contribution of 2.7%, services activity contributed with 1.2%, constructions with 2.7%. Industry increased by 5.0%.

Also, in 2011 the contribution of the agriculture, forestry and fish breeding was positive, 11.3%.

In 2012, the same trends persisted, with the mention that agriculture marked a serious recoil, as it can compromise at the end of the year the results measured through the evolution of GDP.

The activities carried out by services, industry, constructions and the net taxes on product, together, brought in a decisive contribution to the GDP decrease, which means a negative feature for the Romanian economy which, although restructured, gave up a number of industrial sub-branches committing itself on the way of developing the services production, constructions and so on, but failing to cope with the devastating effects of the crisis, correlated also with the non-existence of an appropriate governing plan.

We can consider that all the national economy branches had a negative influence on the GDP decrease, less the agriculture, hunting and forestry, fishing and fish breeding sector.



Source: National Institute of Statistics, Statistical Bulletin no. 6/2012.

Figure 1. Contributions to the GDP decrease, by categories of resources 2011/2010

For the first half of the year 2012, there is a new fall to note for the economy evolution, the industry recording a decrease of 0.2. The GDP decrease kept on being influenced by the services, constructions and the net taxes on product. The agriculture kept on maintaining within positive parameters of influence, recording a constant evolution in 2011. In 2012, the situation is totally in reverse.

Table 2. Contribution of the main categories of resources to GDP increase in the year 2012 (%)

Indicator	Qtr.IV	Total year
Gross Domestic Product	1.9	2.5
Agriculture, forestry and fish breeding.	3.1	1.3
Industry, including energy	2.0	5.0
Constructions	5.7	2.7
Trade, cars and household appliances repairs; hotels and restaurants,		
telecommunications	0.9	1.2
Financial, real estate, renting and services to companies activities	-1.8	-2.1
Other services activities	0.4	-0.3
Total gross added value	1.7	2.4
Net taxes on product	4.5	2.7

Source: National Institute of Statistics.

The weight of the main categories of resources to the GDP forming in 2012 is showing that the services production held over 46%, with a slight tendency to decrease as comparatively with the corresponding period of the previous year.

Table 3. Weight of the main categories of resources to the GDP forming (%)

Indicatorul	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Agriculture, hunting, forestry,	11.6	12.6	8.4	7.8	5.8	6.7	6.3	6.0	11.3	4.0
fishing and fish breeding.										
Industry, including energy	24.7	24.9	24.8	24.5	24.3	22.9	23.8	26.4	5.0	-0.2
Constructions	5.7	5.9	6.5	7.4	9.1	10.6	9.8	7.3	2.7	0
Trade, cars and household	20.3	20.6	21.7	22.2	22.7	21.9	21.2	20.9	1.2	-0.3
appliances repairs; hotels and										
restaurants, telecommunications										
Financial, real estate, renting and	12.3	12.3	13.2	13.3	13.7	14.0	15.1	16.2	-2.1	-2.2
services to companies activities										
Other services activities	14.3	13.0	13.7	13.1	13.0	13.0	13.8	12.0	8.0	8.0
Net taxes on product	11.1	10.7	11.7	11.7	11.4	10.9	10.0	11.2	2.7	6.1

Source: National Institute of Statistics.

3. The GDP evolution by categories of utilizations

From the point of view of the "utilizations" in the GDP forming during the year 2011, it has been achieved by the contribution of the stocks variation, the net export, the gross forming of fixed capital, the final collective consumption of the public administration, the final individual consumption of the households.

When analyzing the data available for 2012, we have to consider as starting point the actual situation being recorded by our country during this year.

Thus, for instance, the stocks variations recorded a lower contribution, while the net export, namely the difference between exports and imports, recorded a negative effect, counting for -4.8%.

Under such circumstances, we find out that, from the point of view of the utilizations, the GDP formation has been achieved by the contribution of the following factors: gross forming of the fixed capital, final individual consumption of households with a decrease of -1.8%, which implies the following conclusions:

- From the point of view of utilizations, positive influences on the GDP achievement have been recorded by the final collective consumption of the public administration, stocks variation and net exports;
- Negative influences on the GDP forming have been recorded by the final individual consumption of households, and the gross forming of fixed capital.

The analysis of the influence factors of the GDP forming by categories of utilizations may be emphasized by the analysis of rhythm at which the categories of utilizations considered for the GDP achievement have influenced this achievement in 2012 comparatively with 2009. Thus, the individual consumption of households and the collective consumption of the public administration, together, have been reduced.

Table 4. Evolution of the main categories of utilization to GDP forming in the year 2011 (%)

Indicator	2012	Quarter I 2013
Gross Domestic Product	2.5	0.3
Actual individual consumption of the households	0.7	0.3
Actual collective consumption of the public administrations	-3.6	-2.1
Gross forming of fix capital	6.9	12.2
Stocks variation	2.7	3.1
Net export	5.5	-5.2

Source: National Institute of Statistics.

A more marked decrease has been recorded by the net export. Another negative effect has been recorded by the rhythm of increasing of the gross forming of fixed capital, respectively -15.2%.

The GDP evolution during 2012 follows line of going over the "process" of the marked recession.

Table 5. The weight of the main categories of utilizations in GDP during the period 2003-2012

Indicator	Year					_	_			
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Actual individual consumption of the households	75.7	77.5	78.5	77.9	75.3	74.0	72.7	72.6	72.4	72.1
Actual collective consumption of the public administration	9.8	7.9	8.3	7.7	7.6	7.7	8.2	7.1	7.3	7.0
Capital gross forming	21.5	21.8	23.7	25.6	30.2	31.9	25.6	22.5	22.3	3.8
Stocks variations	0.6	1.8	-0.3	0.9	8.0	-0.6	-0.6	3.5	3.9	-6.0
Net export	-7.6	-9.0	-10.2	-12.1	-13.9	-13.0	-5.9	-5.7	-5.9	

Source: National Institute of Statistics.

Thus, the GDP decreased by -1.3% as comparatively with 2009; all the branches recorded negative contributions, which implies the entrance into a macroeconomic managerial mess; the structure by branches and utilizations has been negative. In 2011, GDP grew by 2.5% as against 2010 and follows an oscillatory course in 2012.

The survey on the economic evolution, considering the modifications of the GDP in the European Union countries, emphasizes the extremely critical situation existing on the European and, at a larger extent, international plan.

4. GDP evolution - seasonally adjusted series

When analyzing the quarterly evolution of the seasonally adjusted GDP during the year 2010 comparatively with the corresponding quarter of the previous year, it can be stated out that the biggest decrease has been recorded during the II quarter while the smallest one occurred during the fourth quarter. The same positive rhythm was also observed in 2011. During quarter IV, 2011 and quarter I, 2012, GDP decreases were recorded again.

In connection with the other European Union member countries, Romania recorded for the IV quarter 2010 as against the previous quarter, an economic decrease while a significant number of countries have recorded increases (Belgium, Denmark, France, Lithuania, Austria, Poland, Slovenia, Great Britain), or recorded decreases bellow 0.5%. Meantime, the overall GDP of the EU increased by 0.1%.

Comparatively with the IV quarter 2008, in 2009, 2010 and 2011 the EU member countries have recorded reduced volumes of the GDP, the biggest ones being recorded in Latvia (-17.9%) and Lithuania (-13.2%), followed by Romania (-6.9%), Slovenia (-5.8%) and Hungary (-5.3%). The overall decrease at the EU level counted for -2.3%. In 2009, it has maintained an accelerated decrease rhythm. In 2010, fourth quarter and 2011, some recovery, but uncertain, due to the crisis within the Euro union. In 2012, the unconvincing evolution of GDP continues.

Significant contributions to the negative evolution of the GDP during 2010 and 2011 comparatively with 2009 are given by the constructions, which recorded a decrease as well as by the section trade, cars and households appliances repair, hotels and restaurants, transports and telecommunications recording a decrease.

The other branches have recorded small decreases of activity volumes.

Table 6. GDP structure by categories of resources, in 2011

- million lei -

Indicator	Romania
Gross Domestic Product	57855.,9
Total gross added value Agriculture, hunting and forestry; fishing and fish breeding Industry, including energy Constructions	509,350.7 37,837.7 152,062.9 56,744.5
Trade; cars and household appliances repair; hotels and restaurants; transports and telecommunications Financial, real estate, renting and services for companies Other services activities Net taxes on product	109,665.7 11,760.3 11,319 69,201.2

Source: National Institute of Statistics.

The previously mentioned branches had the highest negative impact on the GDP volume decrease during the period 2009-2011 comparatively to 2008, as they have recorded decreases.

As far as the utilization is concerned, the highest impact on the GDP decrease during the period 2009-2011, comparatively with 2008, went to the gross forming of fix capital, the individual consumption of the population households, the collective consumption of the public administrations.

Table 7. *GDP structure by categories of utilizations, in 2011*

- million lei -

Indicator	Romania
Gross Domestic Product	578,551.9
Final consumption	441,657.1
Gross forming of fix capital	166,675.7
Export of goods and services	221,841.1
Import of goods and services	251,623.1
Net export of goods	-29,780.9

Source: National Institute of Statistics.

The increase of the exports of goods and services had a positive impact.

According to the seasonally adjusted data, the gross forming of fix capital had the biggest negative contribution. These reductions have been partially compensated by the increase of the volume of the exports of goods and services, and the collective consumption of the public administration.

Based of a comparison between the GDP structure by categories of utilizations in Romania as against the EU, there is a superior weight of the gross forming of fix capital and a lower weight of the exports of goods and services in Romania comparatively with the European Union.

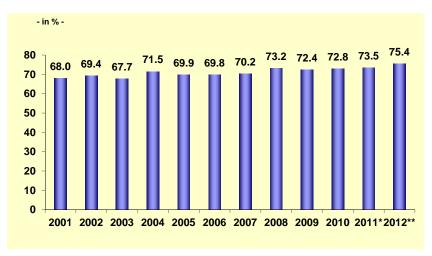
5. The achievement of the Gross Domestic Product by ownership forms

Out of the performed analysis, it results that for the period 2009-2012, for which there are provisional data, the private sector contributed with 72.4%-75.4% to the GDP forming. The weight of the private sector, still low, has been generated mainly by the gross added value in the agriculture. Such an influence is a normal one if to consider that the agriculture has to face negative natural conditions.

If comparing the weight of the private sector in the GDP achievement with the figures recorded for the previous periods, we find out that this weight is superior to all the periods being analyzed as from the year 2000, even as from the year 1990, up to date.

In 2010-2012, for which we are actually performing a complete analysis, we find that the weight of the private sector in the gross added value increased as for the constructions field.

What is really important is the fact that the weight of the private sector in the achievement of the gross added value by branches of the national economy and, eventually, to the GDP forming, kept on maintaining at a high level.



^{*1)} Semi-final data. ** Estimate data.

Source: National Institute of Statistics.

Figure 2. Gross Domestic Product, weight of the private sector in 2004-2012

It is obvious that the privatization of other administrations or extending the privatization at the level of branches already privatized will have the targeted effect.

Here we have to underline the fact that such an analysis is not always pertinent since there will be and remain sectors of activity absolutely important for the national economy for which the state must keep its attributes of sole owner.

References

Anghelache, C-tin (2012). România 2012. Starea economică în criză perpetuă, Editura Economică, București

Anghelache, C-tin, Manole, A. (2012). "Correlation between GDP direct investments—An econometric approach", *Metalurgia International*, Nr. 8/2012, pp. 96-98, categorie ISI.

Anghelache, C-tin, Anghelache, G.V. (2012). "GDP and the final consumption of Romania. Evolution and correlation in the last decades", Metalurgia International, Nr. 8/2012, pp. 158-160, categorie ISI

Anghelache, C-tin, Cucu, V. (2012). "Model for the analysis of GDP", *Metalurgia Internațional*, Nr. 5/2012, pp. 182-185, categorie ISI

52 Constantin Anghelache, Alexandru Manole, Georgian Şerban, Andreea Gabriela Baltac, Adina Mihaela Dinu

- Andrei, E.A., Bugudui, E. (2011). "Modelarea econometrică a seriei de timp GDP", *Theoretical and Applied Economics*, Nr. 10/2011, pp. 91-98
- *** Anuarul statistic al României, edițiile 2002, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012
- *** Buletinul Statistic nr. 1-12/2002, 1-12/2003, 1-12/2004, 1-12/2005, 1-12/2006, 1-12/2007, 1-12/2008, 1-12/2009, 1-12/2010 și 1-12/2011 și 1-12/2012 editat de Institutul Național de Statistică

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