
THE CHARACTERIZATION OF THE STATE AND THE EVOLUTION OF THE ROMANIAN ECONOMY IN THE YEARS 2000-2010. THE MAIN STATISTICAL INDICATORS

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Abstract

The process of economic growth is, as is known, the basic engine of increasing the living standard. The importance of growth in the market economy is revealed by the association of a process compatibility of economic strength of a country with increasing wealth and welfare. Due to the complexity of the concept of economic growth, its expression can be done through a system of indicators to allow more accurate assessment, an analysis of the evolution. Growth results can be measured through a series of synthetic indicators including: gross domestic product (GDP) and gross national product (GNP).

Keywords: labor productivity, GDP per capita, economic cycle, economic growth

In Romania, the GDP per capita considered the most representative economic indicator of results, was in real terms in 2009 by 13.5% below its level in 2008 and 106.9% compared to 2000. The GDP had an upward trend starting from the year 2001 until 2008, so we can refer to a cycle of continuous economic growth, with a growth rate compared to the previous maximum of +15.4% in 2007 (as a consequence of the entry into the European Union) and minimum of -7.4% in 2005 (year of natural disasters). It so follows that in the period 2000-2009, Romania experienced an economic growth which, according to the economic cycle, has corresponded to the economic boom. This period of growth and economic expansion was, in our opinion, due to several factors:

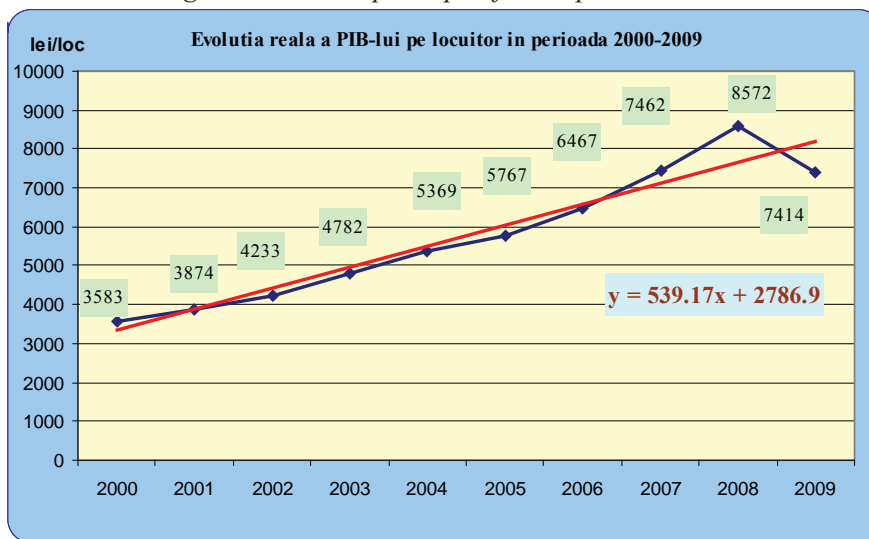
↳ Initially, the credits being cheap, investments have increased, a fact which has involved increasing services in banking and real estate;

↳ Businesses have become prosperous, which has led to increasing rate of employment, wages, sales and profits, and a widening of the coverage of tertiary sector.

At the opposite pole, this has led to a decrease in efficiency in the use of production factors or their combination; the balance between production and consumption was broken, which led to anticipating the economic crisis.

The economic crisis was actually caused also by other factors than economic: social, political and environmental issues, both nationally and worldwide.

Changes in real GDP per capita for the period 2000-2009



The value of GDP in 2009 was 501,139.4 million lei, decreasing by 2.6% to the GDP value in 2008 of 514,700.0 million. The first signs of crisis emerged in late 2008 and the year 2009 has already been affected by this phenomenon, entering the recession phase. Recession phase having two sub-phases:

↳ The economic crisis, that marks the decrease in the efficiency of the combination of production factors, of cost efficiency, when there were fluctuations in the securities, of the credit crunch and of the investment, which implicitly reduced production, with direct repercussions on the level of unemployment and inflation, generating sales stagnation and affecting prices;

↳ The depression - when the negative phenomena were spread throughout the economic system, but gradually the economic equilibrium is restored. The business cycle is resumed regularly in the absence of a general model. It should be accepted as a reality of the contemporary economy.

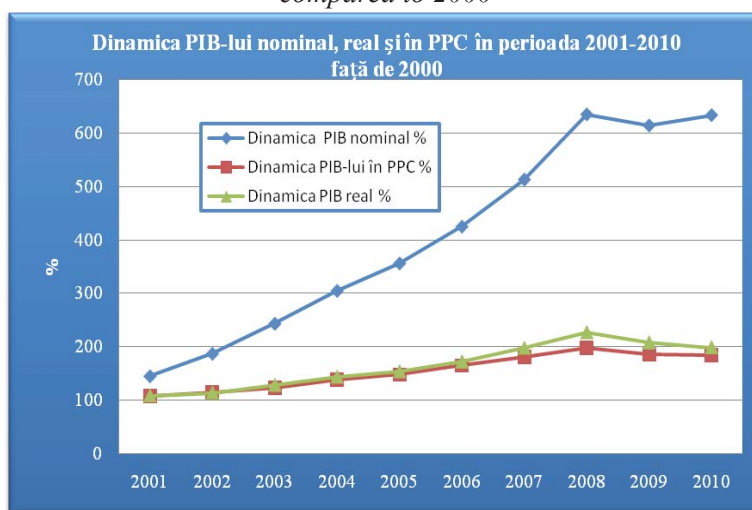
The GDP in 2010 was 522561.1 million lei, an increase from 2009. However, the nominal increase of 4.3% is lower compared to the 6.09% increase in the consumer prices, which emphasizes the economic and social environment

degradation, as an effect of the propagation of the international financial and economic crisis started in 2009.

To compensate for price differences between countries, GDP can be measured in purchasing power standards (PPS), since the economic growth reveals those changes occurring in increasing macroeconomic results which are not expressed independently but closely with its determinants.

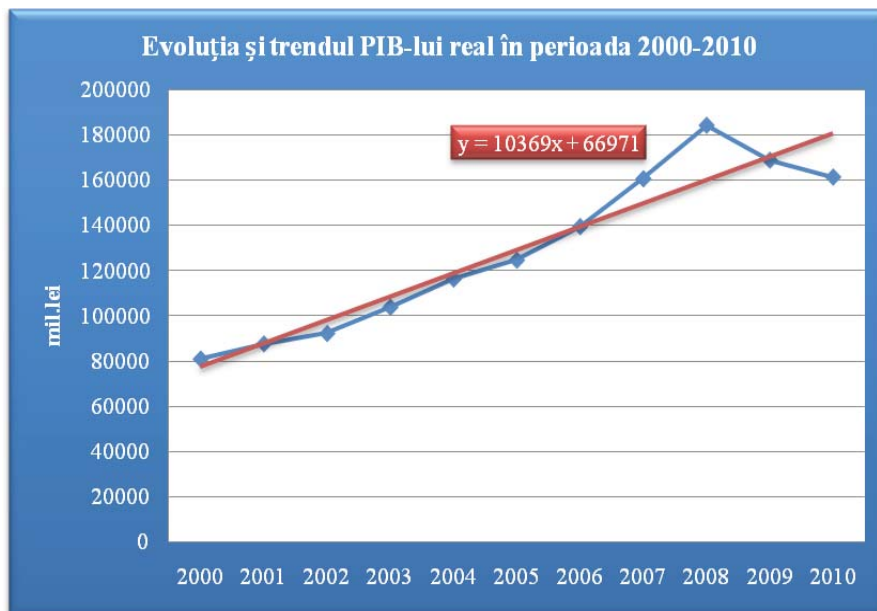
The purchasing power parity, which measures, in an international convention, the purchasing power of the currencies of different countries, is thus an indicator used to determine the real level of the indicator. Internationally, the main macroeconomic indicators in determining or establishing the level of sustainable development is the GDP expressed in purchasing power parity (PPP), particularly GDP / capita in PPP terms.

The dynamics of nominal GDP, real and PPS, in the period 2001-2010 compared to 2000



With statistical data provided by NIS and Eurostat on real GDP growth, the absolute, relative and average indicators were determined, with the following result: GDP at the beginning of the period (2000) being 80 billion lei, in 2010, in comparable prices, the value doubled from base year.

The evolution and the trend of real GDP during 2000-2010



The indicator has known positive and negative oscillations. The lowest level was recorded in the base year and the maximum level in 2008, of 184.4 billion lei, prior to global financial crisis.

Regarding the absolute and relative indicators presented can be easily noticed that GDP increased continuously until 2008. The peak in that year compared to 2000 constituted an increase of over 100 billion lei, respectively a relative increase of 127.6%. Starting with 2009, the GDP decreased compared to previous year to 15.4 billion lei respectively -8.4% and in the last analyzed year the decrease is more moderate (4.4% and 7.5 billion lei).

By determination of the average values were obtained as follows:
The average level of GDP during 2000-2011

$$\bar{y} = \frac{\sum_{t=1}^n y_t}{n} = \frac{1421014}{11} = 129183 \text{ mil.lei / an}$$

Average increase absolute

$$\bar{\Delta} = \frac{\sum \Delta_{t/t-1}}{n-1} = \frac{y_n - y_1}{n-1} = \frac{80499,5}{11-1} = 8049.95 \text{ mil.lei / an}$$

The dynamic average index

$$\bar{I} = \sqrt[n-1]{\frac{y_n}{y_1}} = \sqrt[11-1]{\frac{161484}{80984,6}} = \sqrt[10]{1,994} = 1,0712 \text{ sau } 107,12\%$$

The average rate of dynamics $\bar{R} = \bar{I} - 100 = 107,12 - 100 = 7,12\%$

According to the analytical function of adjustment was estimated the real GDP level, as:

Estimation of real GDP in the period 2011-2014 (mil.lei)

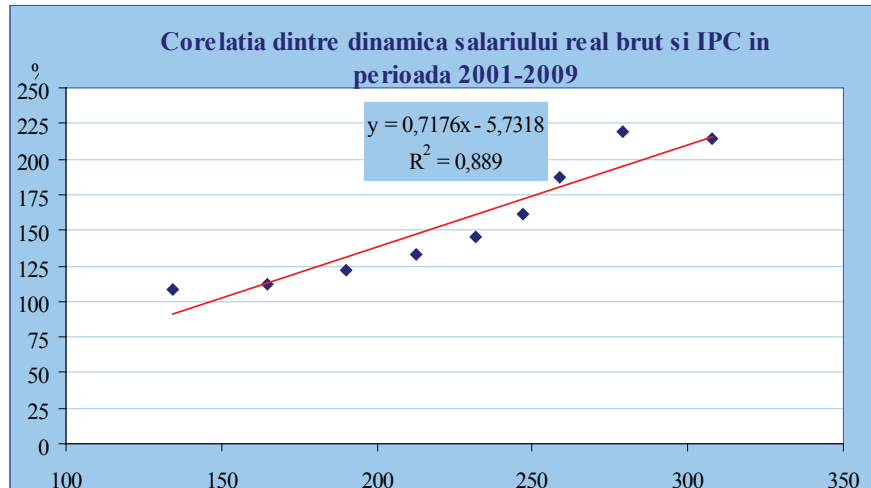
Estimates using the analytical method	
The estimation equation	
2011	191399
2012	201768
2013	212137
2014	222506

$y=10369x+66971$

The estimated values during 2011-2014 register an upward trend with an average annual increase of 10.4 billion lei. In 2012 the level of the GDP will exceed the threshold of 200 billion lei, and in the last year is expected to reach 222.5 billion lei. Obtaining these values is in close correlation with the maintenance of some operating parameters of the economy compared with the inflation target, while maintaining or increasing the employment level and thus reduce unemployment.

In analyzing the effect of inflation on economic growth have been taken into account people's real average earnings in the analyzed period. To determine the actual dynamic the CPI indicator was used. The level of the CPI in the base year (1990) was 105.1%, and in 2009 was 105.6%. The largest increase over the previous year was in 1993, being 256.1%. In the last three years presented, inflation level was below 10% annually, and to achieve the result, a number of measures have **been** taken. Although the inflation rate (**Consumer** prices) in 2007 reached the level of 104.84%, was considered that it is not fully justified economically, as long as the banking and financial market reacted much more violently by currency devaluation and engaging higher bank interests.

*The correlation between the gross real wage dynamic
and the CPI during 2001-2009*



From the resulting graphical representation of CPI growth levels and real wage index compared to previous years, we see that the dynamics of real wages follow the same trend of evolution as the Consumer Price Index.

The main macroeconomic indicators were GDP and labor productivity. Real GDP growth was analyzed with dynamics of real GDP / capita compared to 2000.

In terms of economic growth it can be said that the GDP expressed in comparable prices (compared to 2000) in the analyzed period registered a steady increase against 2000, with a maximum of 124.58% in 2008 and a slowdown in 2009 - compared to the base, tied with 2007, of 98%.

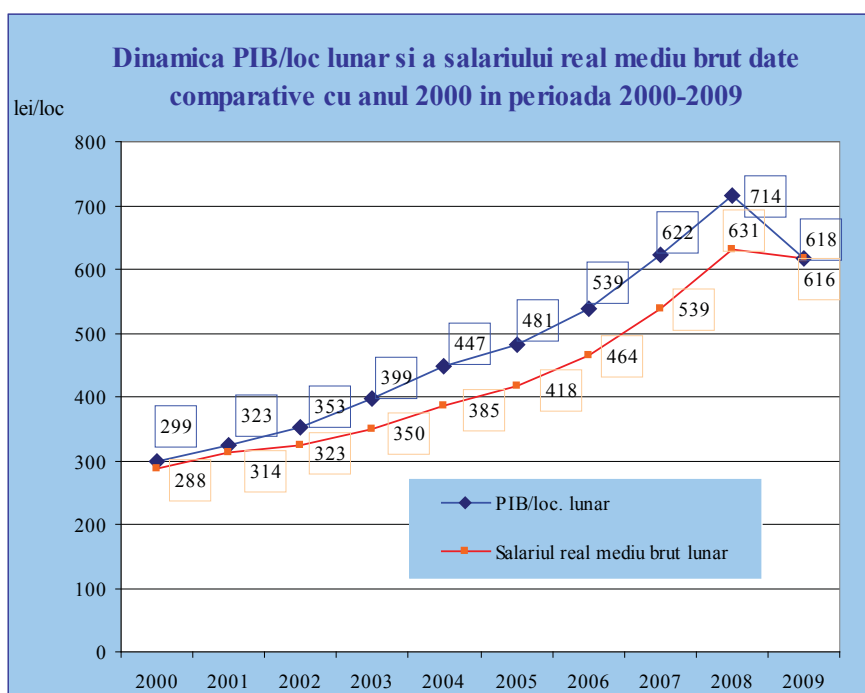
It was interesting to compare the dynamics of real GDP / capita to the GDP, noting a major difference in recent years, about eight percent, which confirms an increase in labor productivity and population welfare, to a maximum reached in 2008 of 8381 lei, and in 2009 a decrease to 7414 lei, equal to 2007. There was a slowdown in economic growth in 2009 compared to previous years.

There are several principles in economy which can not be violated without affecting the economic balance. When the economic growth is very high, the fiscal policy should be countercyclical. As long as the production increased in leaps and consumption proved to be explosive, it was time for fiscal policy to act to collect reserves. It would have been the healthy way. Our tax practice disregarded it. In addition, for many years, when formulating budgets, projected revenues were generous and the balance was going up to

37-38%, sometimes 39% of GDP. After the budget year, when the money was gathered in the balance of revenues, we could see that the scale could never be overcome, like it was frozen between 28% and 32% of GDP. In the balance of expenditure, although they were always scheduled close deficits, every year spending cuts were needed because expenditures tended to 38-39%, sometimes even 40% of GDP (2009).

The Central Bank has drawn continuously attention that will come a time of due. This policy is necessary to restructure itself. Recession superimposed on old existing economic problems. There were problems with the current account deficit, which had climbed to over 12% although normally such a deficit can not exceed a ceiling of 6%. On the other hand, there was a dramatic breakdown between rising consumer demand, which under the boom before the crisis had become explosive, and the domestic supply of goods and services, which grew slowly. This contradiction was strong and avenged. When, under the impact of direct and indirect effects of the global crisis, consumption began to decline, the economic growth has lost its main supporter and also lost the support of investments.

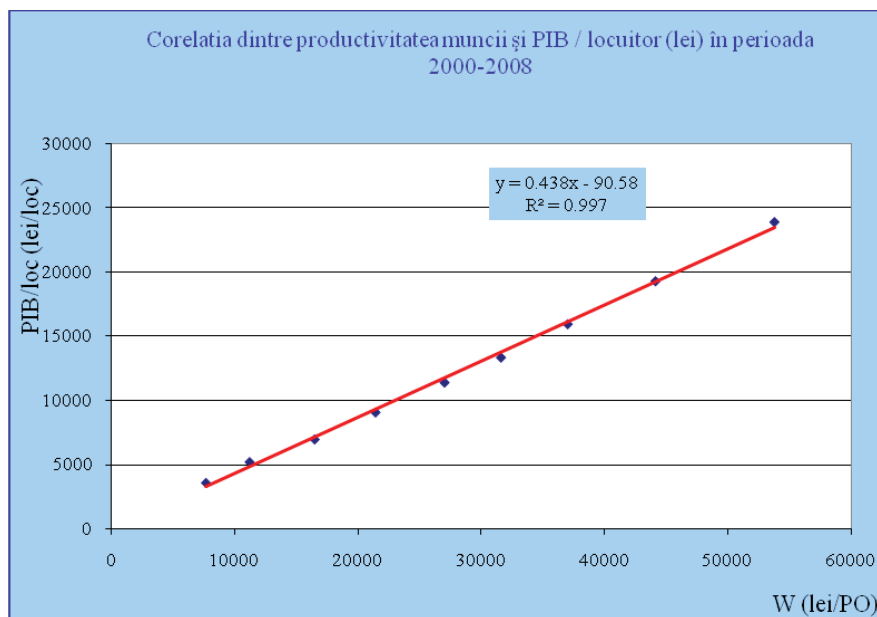
The GDP / capita monthly average and gross real wage growth



It would make nonsense to refer to ways in which Romania could have come out of recession before solving the budget problems. Because, above all, it is important not to let us be invade by inflation, but the growth rate of the budgetary deficit to be moderate.

Labor productivity is clearly at the base of growth and represents in fact the engine for increasing the long-term economic welfare, important for creating jobs and increasing competitiveness. It also appeared interesting to watch the interdependence between labor productivity and GDP / capita which, according to macroeconomic theory, have direct and very intense connections. From the graphical representation (scatter) and by inserting adjustment function resulted equation $Y_{xi} = 0,4382x - 90,587$, R^2 correlation ratio is equal to 0.9977, and correlation coefficient is 99.88%.

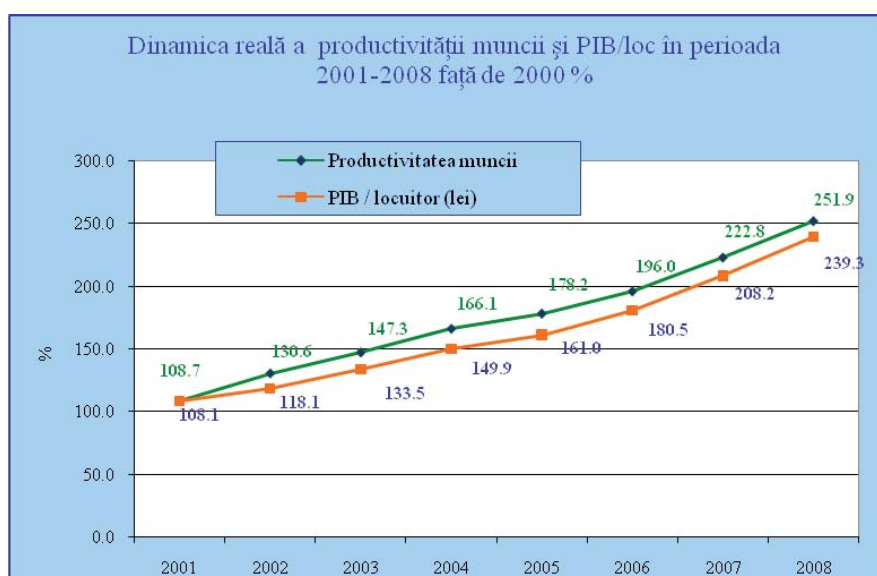
The correlation between labor productivity and GDP / capita



Although labor productivity dynamics in 2008 against 2000, in comparable terms, increased by 152%, the GDP / capita has increased less, ie a raise of 139.3%. The deviation can be argued by the reduction of the employment population ratio, which increases the effort made by the employed population. In this sense, it is applicable the income policy, which aims to create the conditions to increase the family income with increasing labor productivity and business

efficiency, to adjust the wage increases by indexing the minimum wage in line with changes in the evolution and dynamics of labor productivity, leading to poverty alleviation (provision of social housing, support for alimony / rent for those with these needs, the creation of transit housing for the homeless, the institutionalization of persons without capacity to support their own and extending the social assistance canteens, providing basic health services for uninsured poor people, reducing illiteracy, increasing socialization through education) and monitoring (stimulating education completion, continuous education, analyzing the evolution of the phenomenon of poverty, the effectiveness of measures and programs developed for this purpose).

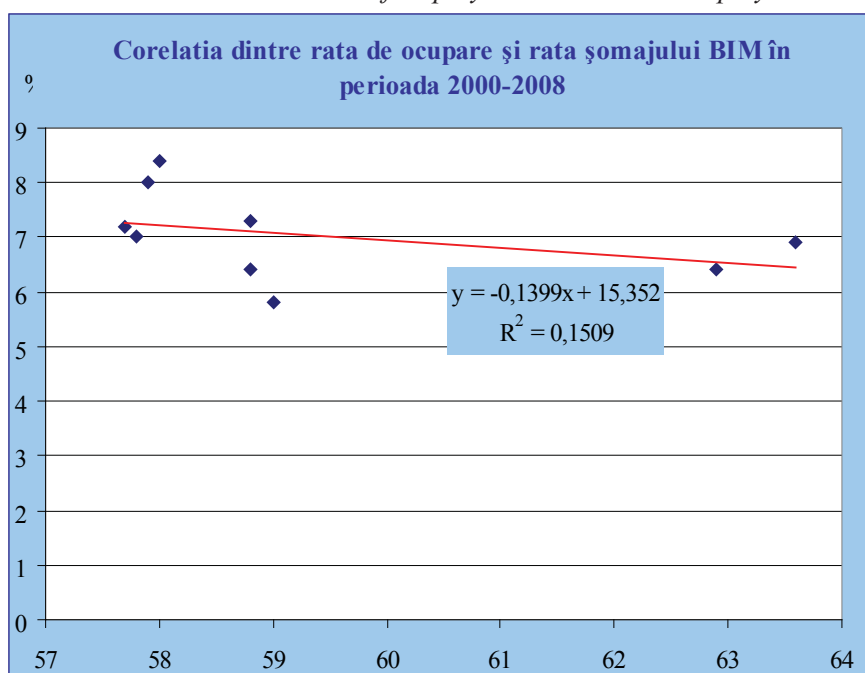
The real dynamics of labor productivity and GDP / capita



The analysis of interdependence between the rate of employment and ILO unemployment rate in the period 2000-2009 shows that the unemployment rate in 2009 was 7.8%, up compared with 2008 when the unemployment rate was 5.8%. To increase the employment of labor the government should, in our opinion, to take a number of measures: improving the legislative framework in line with EU directives, promoting active measures to combat unemployment, coordination of joint programs of the activity of the labor inspectorates and inspectorates for health and preventive medicine and involvement of professional associations, private services and social partners in the prevention of work accidents and occupational diseases.

Through the correlation between unemployment rate and employment rate the inverse relationship is confirmed, with a moderate degree of determination. Unemployment rate and its evolution is one of the barometers according to which certain measures of social protection and economic policy decisions are taken.

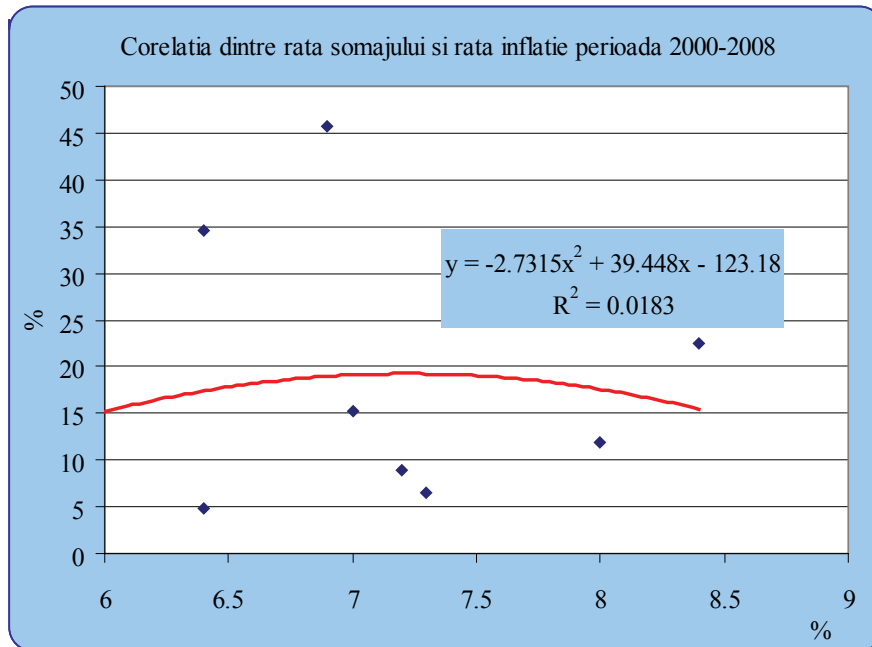
Correlation between the rate of employment and ILO unemployment rate



Natural rate of unemployment has been analyzed in terms of inflation-unemployment relationship: when inflation was stable, constant, with the natural rate of unemployment, called the NAIRU¹. In specialized literature economists states there is a negative correlation between inflation on one hand and unemployment in the economy, on the other. In other words, high levels of unemployment are associated with low levels of inflation and vice versa. The relationship between inflation and unemployment was represented graphically by the Philips curve. The results imply the following conclusion, apparently paradoxical: the natural rate of unemployment may be a result of economic policy measures and not just their cause.

1 “Non Accelerating Inflation Rate of Unemployment”.

The correlation between the unemployment rate and the inflation rate



In the inflation problem, the credibility of the government that through measures and announcements influence the economic behavior, is crucial. As long as the government is credible, economic agents form their expectations based on its announcements, hence the possibility of designing policies for viable growth. By contrast, if traders observe that government actions do not reflect reality, they adjust their expectations to the reality and not to the economic policy announcements, hence the inability of government to implement credible policies for economic growth.

To the GDP formation's certainly contributed all branches. Estimated GDP for 2008 was 503 958 700 000 lei current prices, up - in real terms - by 7.1% compared to 2007. Growth was driven significantly by increasing the activity volume and, therefore, the gross value added in agriculture, forestry and fisheries (21.4%) and construction (26.1%), whose contribution to gross domestic product formation was 17.0%. Total final consumption grew by 8.0% in 2008 compared to previous year, mainly due to the increase by 9.2% of the final consumption of households. Instead, in the last quarter of 2008, the industry and the financial activities, real estate, renting and business services reduced their level of activity by 7.7% and 1.5%. Also has decreased the

amount of indirect taxes collected to the state budget (VAT), the net indirect taxes registering a decrease of 1.3%.

From the analysis of contributions of branches in GDP formation in 2000-2008, there result significant structural changes:

↳ The industry with the largest share to GDP formation (23%) in 2008 compared to 2000 decreased by four percent;

↳ Real estate transactions with a share between 13% and 15% to GDP formation (2007);

↳ Construction have increased the share from 5% in 2000 to 11% in the last year analyzed;

↳ The share of trade in GDP value was approximately constant. To conduct a better trade activity would have to implement different trade policies aimed at promoting the integration of the Romanian economy into the European and world economy as advantageous as possible through measures / actions to continue the gradual liberalization of foreign trade agreements within the agreements already made and in the conditions of negotiating new agreements.

↳ Transport and communications is also another sector that contributes to the formation of GDP. Therefore, the transport services in Romania should have been improved. In this respect should have been taken the following measures:

- The rehabilitation of transport, improving their quality and alignment with European transport conditions (through diversification and rehabilitation programs in the transport service quality);

- The rehabilitation, modernization, and development of the infrastructure, equipment and vehicles through:

○ The rehabilitation and modernization of the transport infrastructures: the rehabilitation of national and European roads and the rehabilitation of inland waterways and channels; the modernization of shipping safety systems; the rehabilitation and the development of sea and river ports; the rehabilitation and the development of airports and international traffic flow;

○ The highway construction and the rehabilitation and modernization of infrastructure located on European routes corridors IV, VII and IX program (the rehabilitation and modernization of the infrastructures located on the main North-South and East-West transport corridor routes: road and railway industry sector;

○ The modernization program of transport technologies including combined transport (combined transport systems diversification along with the accelerated development of containerized transport of goods).

↳ To improve the agricultural activities measures will be taken to increase productivity and competitiveness of agriculture:

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- policies to support processors by providing financial incentives for the purchase of machinery and equipment from domestic production;
 - support for the farmers and the fisheries sector and improving the technology in the field (supporting farmers to purchase agricultural machinery and inputs through financial incentives similar to those of the EU);
 - the farm defining and creating the institutional framework for registration;
 - increase the average size of farms by creating the institutional framework (farmers support fund, fund insurance and reinsurance against natural disasters) and legislation (access to favorable loans);
 - compatibility with EU trade policy in the field.

Evidence shows that the industry has the main share of GDP structure, followed by real estate and transport, which strengthens the economy's loose character based mainly on external sources of capital accumulation. This fact slows the development of those areas of predominantly use of domestic capital, such as agriculture, health, education.

Conclusion

It is estimated that in order to increase the national economic efficiency they are required incentive measures by combining monetary and fiscal policy instruments to improve the business environment and to support the economic agents. The national economy becomes compatible and complementary to the EU economy, with adjustments to implement economic policy measures to raise the living standards and the life quality. The analysis brings into question the influence of the main economic phenomena in terms of the GDP macroeconomic indicator.

Bibliography

- Abraham-Frois, G., - Economia politică, Editura Humanitas, București, 1994
- Bălăceanu C., - Abordări secvențiale ale economiei României înainte și după aderare, Editura Pro Univeritara, București, 2010
- Begu, L., S., - Statistică internațională, Editura All Beck, București 1999
- Biji, M., Biji, E., Lilea, E., Anghelache, C., - Tratat de statistică, Editura Economică, București, 2002
- Emil Dinga, Diana Apostol, Macroeconomie, Editura Pro Univeritara, București, 2010
- Dobrotă, N., și colectiv,- Economia politică, Editura Economică, București, 1995
- Gogoneață, C., Gogoneață, A., - Economie politică. Teorie micro și macroeconomică. Politici economice, Editura Didactică și Pedagogică, București, 1995