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## ANALYSIS OF THE EVOLUTION OF THE MAIN ECONOMIC INDICATORS

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### Abstract

*The economic evolution of any country is characterized by output indicators. The economy needs macrostability, which means ensuring appropriate proportions between the fields of activity. Macroeconomic output imbalances (gross domestic product, domestic product per capita, gross national product, gross value added, wages, income, expenditures) highlight the economic evolution of a country. In this paper, the authors dealt with the presentation of the main developments in the fields (branches) of the national economy, trying to highlight the trend of future evolution. There are some issues related to industry, agriculture, services, transport, construction, international trade activity, foreign direct investments etc. in order to uncover the way they evolve. Maintaining the proportionality of macroeconomic developments also ensures economic stability. From time to time, malfunctions that need to be addressed through investment programs, intervention to support those areas of national interest and to try to remove the negative elements that manifest in the national economy. Macroeconomic ratios and correlations must always be in the hands of macroeconomic analysts who forecast the evolution of the Romanian economy and especially those that have to ensure the implementation of the envisaged measures, so that the macroeconomic correlations are not destabilized, disrupted and macroeconomic effect on increasing the quality of life.*

**Key words:** *evolution, indicator, branch, correlation, macroeconomics*

**JEL Classification:** E30, E60

### Introduction

This article provides a careful analysis of how the economy of Romania evolves. In turn, the main branches and activities that are taking place in the national economy are analyzed. Their analysis is also in line with the fact that the gross domestic product, the most representative indicator of results, is closely in line with its resources and uses. The authors present the registered level and the evolution of each field of activity, continuing to

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suggest the perspective of the evolution of the Romanian economy. Relevant data are available that show progress in one period or another and at the same time highlight some of the directions in which the measures to be taken should be targeted.

### **Literature review**

Anghelache, Anghel, Lilea and Chiliment (2018) analyzed the evolution of public finances in Romania. Anghelache, Marinescu, Avram and Dumbravă (2018) used the macroeconomic models in gross domestic product analysis, and Anghelache, Bardasu and Marinescu (2018) studied gross domestic product developments at the territorial level. Anghelache and Anghel (2017) have extensively described Romania's economic situation ten years after joining the Economic Union. Anghelache, Burea and Ursache (2017) analyzed the main interconnections between the external payment balance indicators and the output macroeconomic aggregates. Herrendorf, Berthold and Akos (2012) investigated which economic sectors make poor countries productive. Mogues Fan and Benin (2015) studied public investment in and for agriculture. Restuccia (2010) analyzed the impact of the new EU regulations on the overall packaging market for the food industry. Yu, Fan and Magalhaes (2015) have approached from a global and regional perspective the trends and structure of public spending.

### **Research methodology, data, results and discussions**

Romania's presence in the European Union highlights the need for a program of measures to ensure a unitary framework and to facilitate the implementation of post-accession measures, especially the absorption of community funds made available to Romania. However, our country has a major bifactorial problem synthesized in programs and substantive projects and especially in the inability to co-finance. In this context, we can recognize ourselves as a contributing country to the European Union. The results of 2010-2017 should be analyzed in light of the fact that the start of the financial and economic crisis in the spring of 2007 in the US in 2008 in Europe, including Romania and the final part of 2008, caused a number of global and individual negative effects, with varying degrees of intensity from country to country, as well as approaches to overcoming the crisis, globally and nationally. Beginning later in 2008-2010, the crisis has produced negative economic and financial effects that are hard to bear.

After the international bodies, governments, business circles, economic analysts, media representatives, practically the entire societal spectrum, were surprised and found in times of confusion and uncertainty

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over a relatively long period of time when the effects of the crisis escalated, exercised in all areas of economic and social life, 2012 and the evolution of 2013 indicates the prospect of a revival in 2014-2017.

- **Main macroeconomic developments**

The most synthetic indicator of Romania, regarding the results achieved in 2010, is the Gross Domestic Product, which was 513,640.8 million lei, expressed in current prices of 2010. In 2011, GDP growth was 1, 1% compared to 2010, which, adjusted for 2011, shows a value of 519,290.8 million lei. The year 2012 showed an increase of 0.6% compared to 2011 and 4.9%, compared to the same year, deflated data, of GDP, reaching 596 681.5 million lei, final data.

In 2013, in real terms, there is an annual growth of 3.4% of GDP compared to 2012. In absolute figures, the value of GDP in 2013 was 637 583.1 million lei, current prices. In 2014-2017, GDP growth has risen. Macroeconomic performance indicators showed a negative development between January 2008 and January 2011 due to the effects of the economic and financial crisis, the inefficiency of government activity, and the lack of a pro-active, coherent anti-crisis program. At the same time, the inflation target could not be reached, and foreign direct investment declined. External debt increased, domestic debt increased, external balance recorded cumulative deficits, population incomes stagnated, some branches of the national economy stagnated, the consolidated budget became volatile due to the low income, resulting from poor or disinterested collection and so on. Since 2013, the situation has recovered, with a better collection of revenues to the consolidated general budget, which has had positive effects on Romania's socio-economic evolution, in general terms.

GDP per capita calculated on purchasing power parity in 2013 was 10 759 standard purchasing parity units (the reference currency unit at EU level as a conventional currency excluding the influence of different national prices), after which the year of the year. The data survey shows, first of all, that in almost all cases the quarter-on-quarter evolution, both in comparison with the previous quarter and the corresponding quarter of the previous year, is relatively positive, showing an increase in the level EU 28.

The situation created requires some discussion, but, in summary, it would be limited to:

- imports decreased compared to the previous year. Imports have remained profitable because, even though there has sometimes been an appreciation of the national currency vis-à-vis the euro and the USD, wholesale and retail prices have not been adjusted by reductions, as companies consider it to be a gained asset where it is not give up;

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- on the other hand, exports increased over the period 2012-2017, as this exchange rate fluctuation against the two currencies of the reference basket stimulated domestic production for export, making it more profitable for export, the situation will remain on the same trend and in the next period.

Normally, the deficit of a country, including Romania, is not alarming as it is part of a project-based external project borrowing program that does not affect national wealth; in the context of imports having a propensity for consumer goods, the situation can be treated as negative.

**• Evolution of Gross Domestic Product**

The value of GDP in 2013 increased by 3.4%, reaching 637 583.1 million lei in current prices, as the domestic and international crisis continued to affect economic growth.

In the coming years, 2014, 2015, 2016 and 2017, there was a higher growth rate, placing Romania at the top of this indicator in the European Union.

Comparing the level of GDP growth in Romania in 2016, with some countries in the European Union, we will see that it was high. The analysis will get a more significant outlook if we also look at how GDP evolved in 2014-2017.

**• Factors for modifying Gross Domestic Product by resource category**

In the period 2013-2017, as in the first six months of 2014, GDP was driven by activity in the main branches of the national economy. Contribution was different from the point of view of gross value added at the level of each branch. Net taxes on product have made a positive contribution, service activity has contributed to GDP growth, construction has stagnated. The industry has grown steadily and agriculture, forestry and fish farming have made a small contribution.

During the period 2013-2017, the same trends were maintained, with the indication that agriculture was slightly rebounded. Relevant, in terms of GDP formation by resource categories (as factors of change), is the structural evolution in 2003-2017.

The service activities, industry, construction and net taxes on the product taken together have made a decisive contribution to GDP decline, which is a negative fact for the Romanian economy that, although restructured, has dropped a number of sub-sectors of industry, engaging in the development of service output, construction, and so on, failed to cope with the effects of the crisis, coupled with the lack of an adequate anti-crisis governance plan set up to trigger the phenomenon.

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#### • Evolution of the Gross Domestic Product by categories of uses

From the point of view of the uses, the GDP formation in 2012 contributed: inventory change, net exports, gross fixed capital formation, collective final consumption of public administration, individual final consumption of households. In analyzing the data for 2012 we have to start from the concrete situation that our country registered in that year.

Thus, for example, the stock change had a lower final contribution, and net exports, ie the difference between exports and imports, had a lower effect as a result of the reduction in the balance of trade deficit. Against this background, we can see that gross fixed capital formation, household consumption, with a reduction of -0.4% contributed to GDP formation from the point of view of usage, which leads to the following conclusions: the positive influences on the performance of GDP in terms of uses was due to the collective final consumption of public administration, stock change and net exports; had a negative influence on GDP formation on the actual individual consumption of households and gross fixed capital formation. The analysis of the influence factors of GDP formation on categories of uses can be highlighted by analyzing the rate at which they have influenced the categories of uses taken into account in the GDP. Thus, individual consumption of households and collective consumption of public administration together increased in the period 2014-2017.

#### • GDP by ownership

The analysis shows that in 2009-2017, the private sector contributed 72.4% -79.1% to GDP formation. The still low share of the private sector was determinative, especially by the gross added value of agriculture. This influence is normal because agriculture has been confronted with some negative natural conditions. In comparison with the previous periods, it is noted that this share of the private sector in GDP growth is higher than all the other annualized periods in 2000, and even from 1990 to the present day. In the period 2010-2017, for which we carry out the full analysis of the fund, we found the private sector to grow in the gross added value of construction. It is important that the share of the private sector in achieving gross value added by branches of the national economy and finally in the formation of GDP has remained at a high level. It is obvious that the privatization of the kings or the extension of the privatization in the already privatized branches will have the expected effect. It should be remarked that such an analysis is not always pertinent, as they will and will remain sectors of activity that are absolutely important to the national economy, to which the state must maintain its ownership.

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- **Evolution of foreign direct investment**

The period 2013 - June 2017 was one in which a number of activity sectors continued to be privatized, the already privatized ones continued to increase their wealth (capital) by attracting new domestic and foreign investments, a matter that is worth taking consideration from the point of view of the effects on the structure of the national economy. Under these circumstances, according to the data provided by the National Trade Register Office, it results that in 2010 the total foreign direct investment in Romania was EUR 3 914 million, in 2011 it was EUR 3 329 million in 2012 EUR 2 856 million in 2013 was EUR 2 355 million and EUR 1 761 million in the first seven months of 2014. FDI has increased more slowly after 2014 until 2016 as there was no incentive policy and legislation.

At the end of 2010, the direct investment of Romanian residents abroad was € 1,675 million, the contribution increasing to € 1,937 million in 2013, a contribution that could be measured through the existing documentation system in the country. In the years 2014-2017 the Romanians' remittances from abroad grew even though many sums were not made by bank transfers.

- **Evolution of inflation (consumer prices)**

An important element in assessing a country's economic performance over a period of time is the one about how consumer prices evolved in total, as well as in groups of goods and services, but also in the dual comparison with the projected target and the results of the previous year.

In the context of the preoccupations to adjust the revenue collection system based on the single tax rate and to bring the Tax Code to terms correlated with the country's concrete situation, a series of events took place in 2010-2017 which deserves to be highlighted.

First, the talks between the Romanian Government and the IMF materialized and the loan was transferred. Basically, over 20 billion euros were fully transferred in 2011. There were some elements that the IMF, intransigent and willing to see a market economy in action, did not agree. So, for example, there have been many concerns to make the IMF accept a larger deficit in relation to GDP, or still accept the situation of some subsidies in the national economy. The second major phenomenon in 2010-2013 was the divergent evolution between the total and structure of the consumer price index, as compared to the evolution and appreciation of the national currency, compared to the two currencies that constitute the foreign exchange basket, the euro and the USD. For several years now, following the policy of the National Bank of Romania, which has assumed its responsibility to target inflation at certain rates, the evolution of the national currency exchange rate

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followed a positive economic-financial path, but with a negative effect on Romanian exports or for those who work abroad and live in the country, being inconsistent with the actual economic situation.

Against this background, in 2010-2017 we also encounter periods with a slight appreciation of the national currency, in contrast to the increase in the inflation rate, on the total and in the structure of products and services. We can unravel two contradictory developments. On the one hand, the increase in the propensity for consumption of the population and, hence, the imperative of taking measures to stop it. Thus, in the first instance, the interest rates on the population deposits were reduced, after which, in order to increase the attractiveness to the economies, they were again increased with one purpose: to temper the desire of the population to consume. Austerity measures have stopped the consumption of the population, with immediate effect on the degradation of the quality of life. Remedies for wages and pensions, as well as others of a social nature, did not have the gift of improving the income and, as a consequence, the quality of life. On the other hand, in the focus of inflation targeting, the National Bank sought to implement and control the evolution of the exchange rate on a permanent basis, hence the position of the national currency against the two currencies - the euro and the dollar.

#### **• Analysis of the evolution of industrial production**

Indices of industrial production in 2010-2017 reflect moderate growth compared to similar periods of the previous year, being influenced by the restructuring of the mining sector, as well as by lower output in lohn, which led to a slower pace in the manufacturing industry.

Growth rates in the industry declined and were different, so that, as compared to the increase in manufacturing, it is necessary to emphasize the decrease in the extractive industry and the electric and thermal energy, gas and water sectors, registering however, increases in some categories, such as the durable consumer goods industry, the capital goods industry, the intermediate goods industry, the current use goods industry.

Please note that these other activities or branches have had small shares in the total industrial activity in our country. Discounts have recorded a number of branches, such as textile, clothing, leather and footwear, rubber and plastics, construction materials and other non-metallic mineral products and machinery and equipment. The first three categories, textiles, clothing, leather and footwear have developed their lohn production, with a moderation rate that will be likely to have effect in the near future.

The privatization process will be able to lead, in the coming years, to new decreases in both the pace and volume of production of some branches,



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and the total contribution that industry can make to GDP, through its gross added value.

Labor productivity per employee in industry followed a slow ascendant course in 2010-2017.

- **Evolution of production in agriculture**

As is well known, Romania is one of the most agrarian countries among the countries of the European Union.

Unfortunately, this does not mean implicitly an appropriate contribution of agriculture to GDP formation, which I have already mentioned before, and not even a high degree of efficiency, as a level of productivity, both a result from comparing the sector with other sectors of our economy, and especially with yields on different crops and animal species registered in the rest of European countries. The same situation, if not even more pronounced, can be found in yields of potatoes and rape and sunflower, but the latter is not a significant crop in the other EU Member States. Particularly significant are the data on the agricultural potential of the largest agricultural producers in the EU, which of course also includes Romania, viewed in terms of the place and share occupied in total EU, in terms of cultivated areas and production .

It is worth noting that the share of animal production is low compared to the potential of our country in this respect. Looting and lack of any crops, quality seed in all cases, have led to both poor crops and poor quality. Out of the approximately 4 million farms, over 98% are characterized by small and very small holdings, according to EU standards. They cultivate just over 60% of the agricultural area of the country, with an average production per holding estimated at less than 8 ESU. ESU is a stable economic unit at European level through a relatively complex process of estimating the value of different agricultural (vegetable and livestock) products, ie an ESU is equivalent to 1 200 euro. With a very small number of only 0.1%, large agricultural holdings of over 40 ESU per unit, generally agricultural holdings with legal personality, own and use over a quarter of the agricultural area.

The average economic size of an agricultural holding in Romania is around 1 ESU, which, from this point of view, places us in the hands of all the other Member States, which also involves the structure resulting from the grouping of farms by size. The typology of the Romanian agricultural holding shows a prevalence of the number of agricultural holdings specialized in field crops and mixed crops, amounting to 36-37% within the generic term of crop production, and 40% specialized in animal husbandry.



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- **Analysis of investment in construction**

By destination, industry investments have meant replacing old machinery, increasing production capacity, upgrading technologies, protecting the environment, protecting work and investing in other areas. This means that, by means of imports of capital goods, the capital goods were completed and the assets of commercial companies were increased by capitalization. On all three elements of investment (new construction works, machinery and means of transport and other expenditures), the trends are similar to the one recorded in total, with the observation that the construction works have surpassed, however, in all periods, the one related to the machinery and means of transport.

We used to characterize constructions as the most dynamic sector of the economy, a natural conclusion following a fulminant evolution, followed by a fall that started in January 2009 and then continued in 2010 - 2013, after which the sense reversed, with increases. The analyzed data highlight developments with approximately the same trend, both in the categories of works (new construction, capital repairs and current repairs), with the mention that the dynamics on the total is given by the advancement of the new constructions, as well as by the types construction (residential, non-residential buildings, engineering) where, as in previous years, a type of building, residential buildings, prevails the size of production.

- **Analysis of service production**

The dynamics of services for the population was mainly supported by hotel and restaurant activity, which increased.

In the field of service production, the period 2010-2017 is significant through the following coordinates: increasing the share of services they have in achieving GDP; the structural balance of services rendered to the population; differentiated reductions, but in some areas, as mentioned above, significant production in their different areas, reflecting the cyclical effects of the economic crisis; occupying a significant number of people in service activities, where and in the next period the same developments must be achieved; maintaining the quality of services provided to the population; decrease of hotel activity; overtaking a high share of the contribution of service output to GDP; the development of financial-banking and capital market services has developed.

In the field of service production in our country, an important place as a share in the turnover, deals with the trade of cars, both wholesale and retail, as well as the retail trade of fuels.

In the field of international tourism, in the period 2009-2017 the number of foreign visitors in our country has increased, as compared to the previous years. Mainly, the visit of people with family or friendship with people in our country has been maintained. In this area, most visits were made

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from Germany, the United States, Israel, France, the Republic of Moldova and other countries where there is a significant number of Romanian people.

There is a decrease in the possibilities of the Romanians to travel abroad, even though the provisions regarding the free movement of persons in the territory of other EU states entered into force. Over the period 2010-2017, more than 80.7% of the trips abroad were made with means of own transport, in the form of visits and trips for tourists abroad. Volume indicators of trade turnover fell, following the general economic trend.

• **Analysis of international trade**

On exports, some groups of goods have increased (by means of transport), and the share of the chemical and plastics group has increased on import. Most of the groups of goods fell, the most affected being metallurgical products and mineral products for export, as well as means of transport and imported mineral products. From the point of view of the way the imports and exports were made on the three groups (final, after active processing, for passive processing), the structure was the following:

- for export: definitive exports - 49,2%; exports after active processing - 49.3% and exports for passive processing - 1.5%;
- for imports: definitive imports - 74,2%; imports for active processing - 23% and imports after passive processing - 2.8%.

It is necessary to make a first comment, namely that the definitive imports exceeded the definitive exports by almost 25% and the exports for active processing, ie external processing using foreign labor, were more than double compared to the active processing, ie imports made to continue processing in the country for later export.

In country structure, the largest deficits were registered with Hungary, China, Kazakhstan, Austria, Germany and the Russian Federation.

It is worth mentioning, however, the 37% reduction in the deficit with Germany due to the increase in car exports. The deficit with the Russian Federation has diminished as a result of the drop in crude oil and natural gas imports from that country over the whole period.

Concerning EU exports and imports during the period 2007-2017, there are at least three common characteristics.

The first characteristic is that exports and imports, with only a few exceptions - Ireland, Malta, Finland and the United Kingdom - on export, respectively - Estonia, Ireland, Latvia and Malta - on import, marked positive trends, of course, country country.

The second feature, both export and import, with all countries, is that there have been negative developments and, I would say, with a specific given

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by an increased magnitude placed in the range of 15-30% and even above this value in the case of import, with Romania, Bulgaria, Estonia, Latvia and Finland as the nominee.

Finally, the third characteristic is that the advance of the decrease in exports by the decrease in imports has, implicitly, led to the reduction of the trade deficit.

The main trading partners in the European Union for exports of agri-food products, beverages and tobacco are: Italy (2% of total exports of food, beverages and tobacco), Bulgaria (11%), Hungary (8%), Greece, Germany, Spain Netherlands (5% each). In the case of imports of agri-food products, beverages and tobacco, the main trading partners in the European Union are: Hungary (18% of the total import of food, beverages and tobacco), Germany (12%), Bulgaria (8% ), Italy and Poland (6% each).

In the list of import partner countries, the largest share is held by Germany, as in the case of exports, by 17.1% (from which Romania mainly imports cars, parts and accessories of automobiles, medicines, yarns, cables, conductors) and Italy with 11.3% (skins, footwear, rolled products, petroleum products, circuits), followed by Hungary with a share of 8.7% in total imports (medicines, wires, cables, conductors, wireless telephones , electronic components), France with more than 5.8% (parts of motor vehicles, medicines, turbochargers, pumps, compressors).

Imports also include major non-EU partner countries such as China.

#### • Population and the labor market

The employed population comprises all persons - both employed and self-employed - who perform a productive activity within the production limits of the European System of Accounts.

The number of population occupied per quarters in the period 2008 - 2017 had an oscillating evolution. The occupied population was 9.5 million people. Employees are all persons working principally on a formal or informal basis for another resident institutional unit in exchange for a salary or equivalent remuneration.

Another category is self-employed workers, who are the only owners or co-owners of non-legal entities in which they work. This category may also include: unpaid family workers and home-based workers who produce for the market, workers who either individually or collectively carry out production activities exclusively for end-use or own-account capital formation.

The employed population according to the SEC methodology is the only indicator indicating the human potential of the employed labor that can be used to determine the social productivity of labor as a ratio between the

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GDP and the employed population. Real productivity per hour in principle marks the same evolution as real productivity per occupied person. In the analysis of the employed population one can notice the percentage evolution of the occupied structure in terms of the large categories of employees and individual entrepreneurs.

The increase of the employment in the period 2014-2017, as compared to the previous periods, occurred against the backdrop of the shift towards agriculture, a phenomenon visible from: the reduction in the share of employees; increasing the share of non-employees in agriculture.

In 2014, the employment rate of the working age population was 60.5%; increasing by +0.2 p.p. compared to the end of 2013.

Information on the „budget sector” needs to be carefully analyzed, as the data refer to the statistics of economic activities (aggregated by homogeneous activity) according to CANE Rev.2. (including the private sector for education - about 2% and about 4.5% for health and social assistance), excluding the armed forces and the assimilated personnel (MApN, SRI, MAI etc.).

These statistics do not take into account the form of financing, the purpose of which is to provide information on economic activities according to CANE Rev.2.

The budget sector was characterized, during 2010-2017, by continuous decreases in the number of employees.

As a result of applying the legal provisions (Law 118/2010 on some measures necessary to restore the budgetary balance), by 25% reduction of salary rights for the budgetary sector, in 2010, the lowest net average earning the last years, as follows: public administration 1404 lei, education 1063 lei and health and social assistance 1036 lei.

The information corresponding to the form of financing is managed by the Ministry of Public Finance, in accordance with the provisions of GEO no. 48/2005, with subsequent amendments and amendments.

Pursuant to this ordinance, the main authorizing officers of the public institutions financed from the state budget, the state social security budget, the special funds budgets and the autonomous public institutions fully financed from their own income, submit to the Ministry of Public Finance, for the previous month, on the monitoring of the number of posts and personnel costs, for their own apparatus and for the public institutions under their subordination, coordination or under their authority, regardless of the way of financing.

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#### • Evolution of wages

The real earning index follows closely the evolution of the net nominal average wage index, as shown by the chart showing the trends recorded in the last two years. The phenomenon is explained by a decrease in the rate of increase of inflation, which is taken into account when determining the actual earnings.

During the year, earnings fluctuations are mainly determined by the granting of occasional bonuses (13th salary, holiday bonuses, holiday bonuses granted in March / April and December respectively). They influence the increases or decreases according to the period in which they are granted, ultimately leading to a diminishing of the monthly earnings fluctuations at the level of the whole year.

Earnings, both in nominal and real terms, increased year on year.

In 2014-2017, net average earning has tended to increase slightly in most economic activities (excluding those in the budget sector, hotels and restaurants, real estate and entertainment, cultural and recreational transactions).

In public property units (full state and state majority), net average earning has the highest values. The lowest net average earnings are recorded in privately-owned private units (wholly private, wholly private, wholly foreign), which also have the largest share of employees (about 63%).

#### Conclusion

The article focuses on the study of macroeconomic developments in Romania. From the analysis of these data, it is concluded that, in principle, Romania's economy is on a positive path. Some shortcomings or inaccuracies of some European Union measures have been highlighted, Romania for four, five years enjoys a good position regarding the growth rate of the economy. Conclusively, it is the growth rate or growth rate of gross domestic product. Hence the conclusion that investments must be given greater importance in the sense that they ensure sustainable development by creating new jobs by absorbing unemployment, increasing labor productivity, improving the quality of the economic environment and the environment, so that on the basis of them we can also speak of a steady economic growth, that is, an economic settlement on the foundations of sustainable growth.

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