

EFFECTS OF THE FINANCIAL CRISIS IN ROMANIAN AGRICULTURE AND THE EUROPEAN UNION

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Abstract

An important branch of the national economy, agriculture, is a matter of interest when we look at its contributions to the gaps in the economy. The agricultural sector experienced many falls and fluctuation as long the economic gaps happened. However, agriculture is the sector that can cope with these shifts and can face to the food needs. The paper approached indicators such as the annual average consumption of food and beverages for the period 1990-2015, the average expenses for purchasing agro-food products, the agricultural labour force, the volume of labor force in agriculture, all those indicators linked with the financial situations. This article aims to analyze the evolution of Romanian agriculture to identify areas and products that have been able to adapt to these internal and external market conditions and to propose a range of possible recovery measures for the next period.

Key words: crisis, agriculture, development, labor force

Introduction

Since 1862 Romania has gone through forty years of economic and financial crisis. As an important branch of the national economy, agriculture is a matter of interest when we analyze its contributions to the gaps in the economy.

The event of European integration can benefit the development of agriculture in Romania, an advantage mainly held by its position in the stakes of the national economy and its preservation despite the external factors that emerged during the years of accession. In modern economies, and in particular in the European Union, this sector has diminished its importance over time in favor of the industry sector, which has grown primarily through exports after the fall of 2003-2008.

Agriculture has experienced a continuous gap in the share of gross domestic product, being 5.3% in 2012, half compared to 2003, although Romania remained among the countries with the largest share of agriculture in GDP. Three major groups are being attacked by the manifestation of agriculture in the national economy, such as employment, prices and gross domestic product.

1. Theoretical Framework

It is known that once every four years we can talk about the economic crisis, having the model of the years 1862-2000 and the number of crises during this period. The work of Professor Victor Axenciuc presents moments of growth and decline through which our country has passed, which was extended until 2016 through the National Institute of Statistics database. During the period 1862-1914, in which the agricultural field was a fairly important share, the Gross Domestic Product experienced broad oscillations, depending on the agricultural years.

Almost half of the 40 years of crisis are recognized during the years 1865-1866 and 1883-1884. The first known crisis of the analyzed period was in the years 1865-1866, caused by the reforms of Cuza, which had a negative effect on the national economy and agriculture. The next economic crisis, known as between 1883-1884, was the cause of the weak years in terms of agriculture.

During the period between the two world wars, three years of economic crisis have been manifested. In Romania, the great world crisis was only a year, followed by a breakthrough in the economy. The years of the 4th decade have suffered the worst fall, being the cause of the loss of important territories following the Vienna Dictatorship. In the last years of the Second World War, the 90 years of economic growth have been covered.

The next period, the communist period, was considered the best period of economic growth in Romania, an uninterrupted financial period. The rates of growing external debt payments have brought the emotions of a further economic downturn in the 1980s, becoming incapable of paying, accentuated in 1988-1992. From this last year, the economy grew up by 1999. By the end of the period, the last crisis was in the years to come, 2009-2010, when the economy declined by 7.8% over the previous year.

This analysis shows the differentiation of the causes of the economic crises and the factors that contribute to the Gross Domestic Product affected by it.

Consumption of agricultural products has never been greatly distorted, being constant, irrespective of social factors, such as the number of employees and the value of wages. Permanently there will be changes in the culinary guidelines from quantity to quality, which is why an important factor is the factors influencing food consumption. Many of these come not only from the sphere of agriculture but have a much wider development; variables, such as socio-demographic ones, are the structure of a multitude of elements, of which the expenditures are the dimension for which the availability of food access to it, which encompasses the knowledge of food security. In fact, food security is the issue not only of poor nutrition from the point of view of quality, but also of economic development and trade.

Political incomes of the population outline patterns of food consumption, which is why a concrete analysis of food expenditure and consumption is required. This issue will also be debated in the present paper, to a lesser extent, starting from social financial factors, such as the evolution of people's incomes and their influence on consumption, on the expenditure-consumption model.

Research method consists of the empirical analysis of the available data, the analysis of current situations, the synthesis and the comparison of the deducted factors between the years. The information and data in the tables and graphs were taken from national and international statistics, the National Institute of Statistics, the FADN Portal, the World Bank, and specialized books that had a similar theme to the analysis. At the same time, own calculations and interpretations were used. The study analyzes the state of agriculture in the national economy and how it has been affected by economic crises through internal or external factors as well as comparisons with other states and their situations. Account has been taken of the social situations reported in the agriculture of that year, the contributions of agriculture to the formation of the Gross Domestic Product, as well as the contributions of the Industry and Construction sectors and how they were affected by the economic crises. In large part, the analysis has been carried out since 1990/1992, to date, a period that

has been shifted from several economic gaps at national level. There is a decline in the power of agriculture, both in GDP formation and in labor power.

It also analyzed the situation of agricultural production distribution, where the favorability of the vegetal production is observed, which the Ministry of Agriculture wants to counterbalance with the zoo technical part. A final analysis focused on consumption levels of agrifood products in the dynamics of the post-communist-present period. Consideration was given to total household expenditure, food expenditure.

2. Research

Agriculture is considered an industry in the developed countries of the European Union, being supported by public sources to achieve a high level of performance and stability. However, there are concerns about the variation of agricultural production depending on climate change and the volatility of agricultural prices. This paper follows the dynamics of agriculture in Romania after communism and its influence on the economy as a whole, given its ability to contribute to shocks from economic crises, highlighting the following important indicators of macroeconomic fluctuations: Gross Domestic Product (GDP), prices and employment.

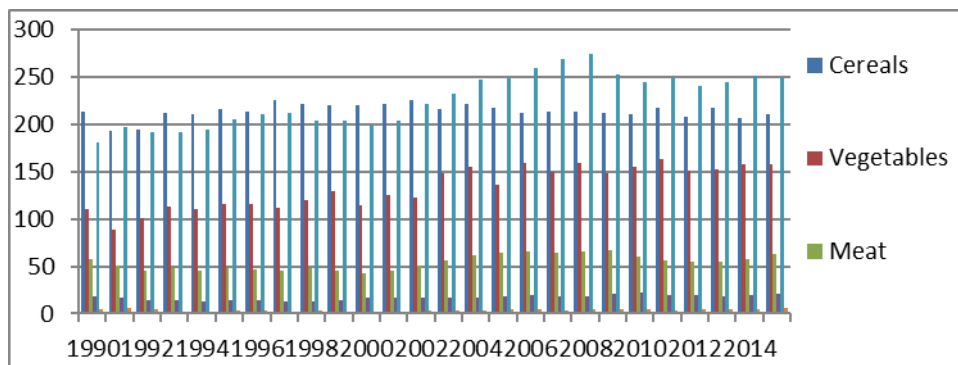


Figure 1. Annual average consumption of food and beverages, per capita, 1990/2015
Source: National Institute of Statistics

The food consumption of the Romanian population is an essential aspect of living conditions. One problem was the average consumption of food, especially the variation of the 2000s. This rhythm of food consumption is shown, which shows the following: the cereals have an annual decrease rate, decreasing by 9.19% the quantities average annual consumption (from 221.1 to 200.8 kg per capita); potatoes, vegetables and fruit have rising rhythms, compared to 1998, fruits having a high consumption of 36% followed by vegetables by about 15%; the meat and the milk have seen a rather obvious growth rate, the milk consuming 233 liters per capita, compared to 194 liters, the value of 1998 and the meat consumption increased by about 25%, reaching the amount of over 67 kg per capita, compared to 51 kg in 1998; in fish products the situation is oscillating compared to the year of refining, 1998. In the following years, consumption of the fish product declined, but now it is possible to appreciate the increase by up to 60%, reaching a level of consumption of 4.8 kg per capita. Vegetable fats have also experienced a strong rhythm of growth, from 10 kg per capita to even 16 kg. It is definitely possible to show that the main food consuming products present a consumption pattern that is diminishing the cereals, instead an increase

in fish consumption and some stability in other products. These consumption levels are different considering the social categories. An example of the differentiation of the consumption of the social categories is given by the increased consumption of vegetable fats, which reveals the poor purchasing power of the people who are in the category below the average incomes of the food.

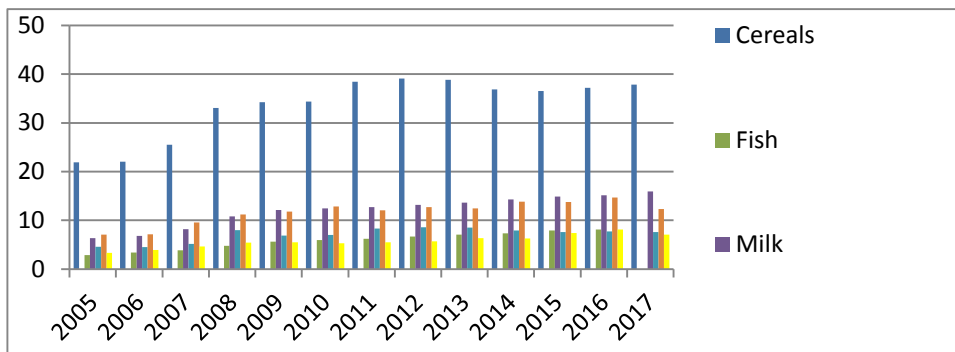


Figure 2. Average expenses for purchasing agro-food products, per person, 2005-2017

Source: National Institute of Statistics

Expenditure on food consumption, out of total expenditure, is 22%, with small differences but with a level of stability.

The evolution of consumption patterns is taken as a mobile asset of the abovementioned differentiations. Next, the share of expenditure on food consumption is taken into account, taking antithesis with the total value of consumption. It is noted that: beverage purchases reach 22% in 2007; the value of the products consumed from own resources reached only 15% compared to the level of 1998, when the weight was 200% higher and 30% respectively. In addition, during the years 1992-2016, the variation in the social situation, the working population, the total labor force and the agricultural labor force in Romania will be presented graphically, including the financial crisis during the period of sharp decrease of 2008-2010 and the period of return from 2010-2014, using data from the National Institute of Statistics.

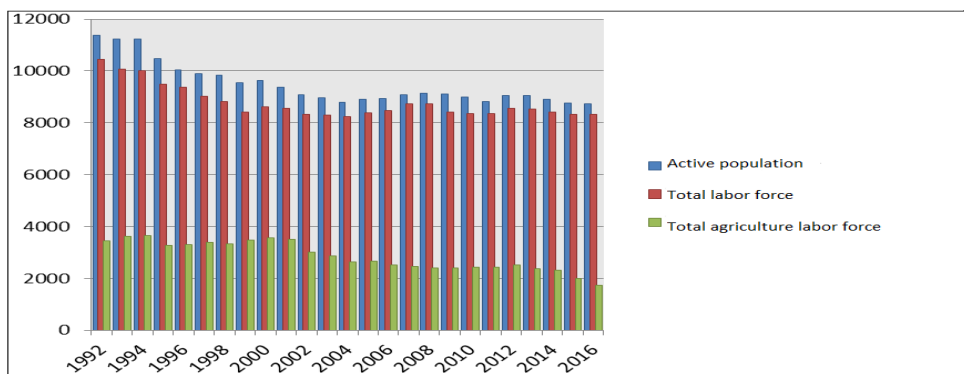


Figure 3. Agricultural labor force in Romania, 1992-2016

Source: National Institute of Statistics

Labor force in agriculture has been different since 1989, comparing with the general labor force in Romania. Until the previous year, labor force in agriculture was down from the national one. Since the 1990s, these trends have been different since this time, with a growing labor force in agriculture. However, since 2002, there has been a decrease in the labor force in agriculture, relative to the total number of employees in Romania, especially until the years of the economic crisis, 2008-2010, when there is still a stability of the number of employees in agriculture, which has been stable until 2014. Starting with 2015, both the workforce in the analyzed sector and the national workforce have fallen well below the rest of the years. The following graph refers to the volume of people employed in the agricultural sector, referring both to employees and to those working on their own farm, in order to have an image of the importance of agriculture in terms of labor power. In real terms, these data reveal that the decline in the agricultural labor force is obvious, especially during the economic crisis. Thus, at the peak of the economic crisis, respectively in 2010, the most delicate negative balance of the number of persons involved in the agricultural sector is observed. Stability has resumed since 2015, however unmatched by the values of the 2000s, when the labor force exceeded 3.5 million, at present being even less than half, slightly exceeding 1.6 million people.

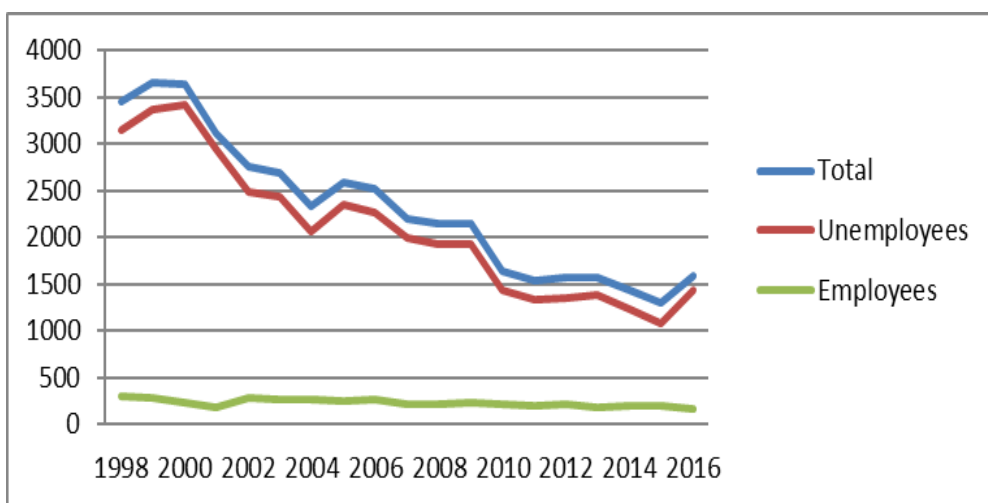


Figure 4. Volume of labor force in agriculture, 1998-2016, 1.000 annual work units

Source: National Institute of Statistics

Taking into account Romania's agricultural social situation in the last two decades, we will analyze in the next part the economic situation and will highlight how it was affected by the economic crises. Table 1 shows the situation of the share of agriculture in the Gross Domestic Product, which has been in a declining situation since 1993. At present, agriculture contributes less than 4% to the formation of the Gross Domestic Product, a decrease of more than 80%.

Table 1. Agriculture's contribution to the formation of Gross Domestic Product

Year	Share of Agriculture in GDP
1993	22,6 %
1994	21,5 %
1995	21,4 %
1996	20,6 %
1997	19,6 %
1998	16,2 %
1999	15,2 %
2000	12,1 %
2001	14,5 %
2002	12,6 %
2003	13 %
2004	14,1 %
2005	9,5 %
2006	8,8 %
2007	6,5 %
2008	7,4 %
2009	7,2 %
2010	6,4 %
2011	7,5 %
2012	5,3 %
2013	6,1 %
2014	5,3 %
2015	4,8 %
2016	3,9 %

Source: World Bank

The share of agriculture in Romania's total GDP is clearly declining, being closely related to the labor force situation. The gross added value of a person engaged in agriculture in Romania is well below the EU average, especially when we are talking about Western countries. In 2013, the gross added value per person employed in agriculture reached only 18% of the European Union average. Romania has only 7% of the gross added value generated by France and 9% of the generated by Spain, although its agricultural area is one of the largest in Europe, which shows the inefficiency of the agricultural sector. Another evidence of inefficiency in the sector is the share of agriculture in Gross Domestic Product, which has seen a remarkable decrease nowadays as compared to the 1990s. Over 80% of the working population in agriculture is non-salaried, working on its own holding.

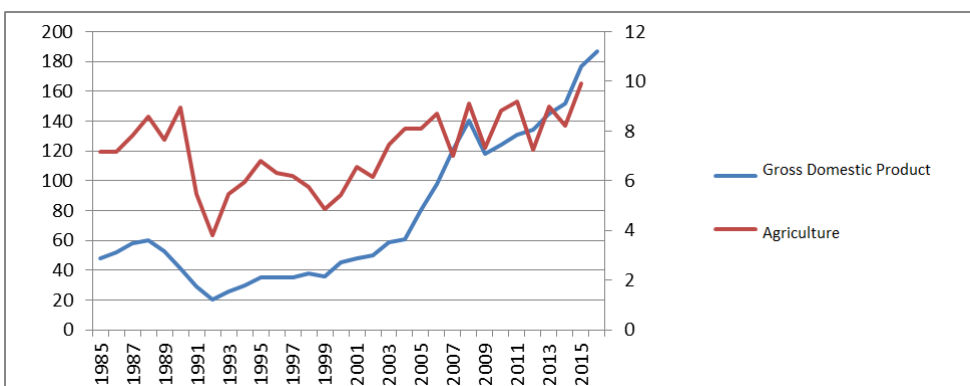


Figure 5. Agriculture sector contribution to the Gross Domestic Product, 1985-2016, billion USD

Source: National Institute of Statistics

In the Figure 5, analyzed between 1985 and 2015, the two axes are formed, the one on the left belonging to the evolution of the Gross Domestic Product and the one on the right belonging to the agricultural sector and its evolution compared to GDP. Agriculture has seen a noticeable drop in gross domestic product from 22.6% in 1993 to just 4.2% in 2015 and 3.9% in 2016, and is considered to be the weakest share. However, Romania is at the top of the EU countries' ranking when it comes to the value of the contribution of the agricultural sector to the Gross Domestic Product, which is up to three times higher than the European average.

Table 2. Annual Gross Domestic Product – volume indices % compared to the previous year

Resources	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
%										
Agriculture	107	88.37	107.82	110.87	81	132.07	102.22	93.7	100.55	102.3
Industry	108	98.47	104.47	100.175	92.82	103.8	103.95	105.45	101.7	107.3
Construction	136.05	87.75	95.9	81.65	96.3	103.07	101.77	105.325	102.92	98.6

Source: Ministry of Public Finance

Of the three sectors contributing to the formation of Gross Domestic Product, agriculture is rather a counterbalance to the economic downturn, highlighted in the sectors of industry and construction. Since the beginning of the 2009 financial crisis, there are more differences than in the previous year, but the next year, 2010, seems to be a recovery and recovery. Until today, today, the situation is relatively similar.

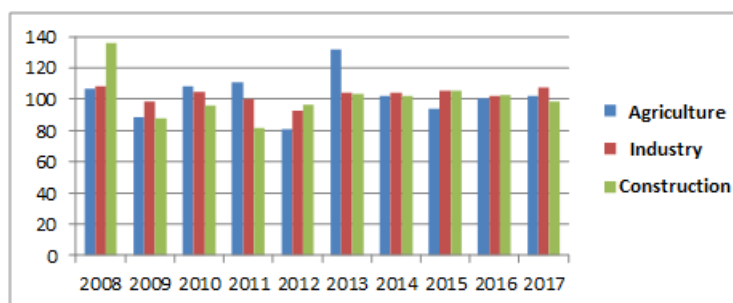


Figure 6. Gross Domestic Product Produsul intern brut anual – volume indices % compared to the previous year

Source: National Institute of Statistics

Outcome of Table 2, Graph 1.4. Shows the dynamics of the aforementioned sectors for the period between 2008 and present. The resilience of agriculture in the face of economic crises seems to be quite strong and in 2009-2010 it was about the same level of contribution to the construction sector, and in the years to come it remained somewhat stable compared to other sectors. There is a unified decline in 2009, when the economic and financial crisis had begun, and the government had decided to lower wages and raise taxes. In the following year, agriculture experienced a growth rate of over 10%, well above the other sectors. Since then, the state of contributions, through episodes of economic crises, has contracted by up to 20%, although agricultural output has fallen by only 10%. The current structure of agricultural production no longer resembles that of the 1990s when plant production exceeded 60%, and only 40% came from zoo technical production. In the 1980s, the share of the zoo technical sector reached 50% of the total production, in order to return to the history of the 1950s and 1960s. The MADR proposes that in the long run there should be a certain weighting of the animal and vegetable sector, a situation similar to that of 1989 (55% plant production and 45% animal production);

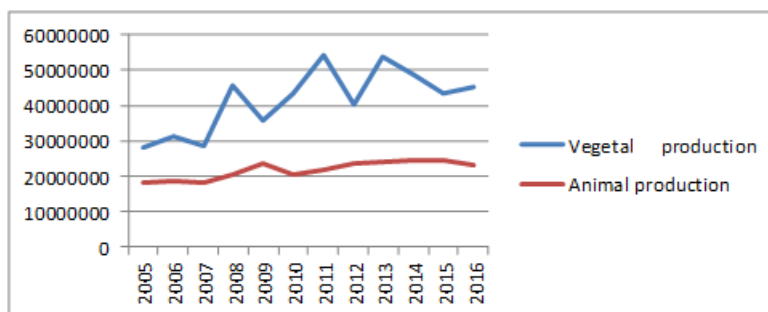


Figure 7. Agricultural production value, 2005-2016, thousand RON

Source: National Institute of Statistics

Considering the large agricultural area and the rate of utilization in Romania, it is clear that the yield is the main factor limiting the agricultural sector. Romania's orders are below the European average with 49% for maize and 37% for wheat production. Romania is

overtaken by many countries in Central and Eastern Europe in this chapter. Low yields in cereal production limit both the volume, value and contribution to the Gross Domestic Product of annual cereal production. The most drastic factor, which explains the poor yield, is the fragmentation of agricultural holdings. More than 70% of the Romanian farms are under 2 hectares, and the share of farms under 10 hectares is 98% of the total number and 39% of the total agricultural area used. On the other hand, farms with a size of more than 100 hectares account for only 0.5% of the total but exploit 49% of the agricultural area. France and the Czech Republic, with high yields on agricultural production, account for more than 25% of the total of more than 50 hectares - offering advantages such as the ability to attract trained farmers, easy access to finance and faster technology. Another problem in agriculture is the level of training of farmers. Thus, according to European Commission data, more than 95% of Romanian farmers said they have learned their knowledge in agriculture strictly on the basis of practice, compared to 70% of farmers in the European Union. The level of training of Romanian farmers is below those of Member States such as Hungary and Poland, where 17.9% and 47.8% of farmers say they have had basic and full formal training in agriculture. The main problems limiting the development of the national system are: the large fragmentation of agricultural holdings, which results in many small and very small farms, lacking the resources needed to re-start irrigation systems, irrigation systems design for large farms, infrastructure and equipment of obsolete irrigation.

Conclusions

Following the analysis, agriculture's ability to cope with economic crises and not to be a dependent factor can be noticed. Although it has been through the stages of a decline of decline, reorganization and restructuring, growth and then conservation, agriculture has not declined production despite its contribution to GDP formation, which has experienced many negative gaps. It is noticed that the number of employees in agriculture is to a much lower extent than the number of owners producing for self-consumption, which again makes this sector independent of external factors. Rural systems also have a much greater capacity to adapt, being able to go through various economic stages and to harness what they have or do with agriculture. The relationship between agriculture and construction has always been inclined towards construction in the years 1990-2006, as the construction sector has experienced the largest developments, both in the large infrastructure and in the "production" of dwellings. And the agricultural sector remains behind the growth of the economy, amid the dependence on weather conditions and relatively low investment. The manifestation of the differences in food consumption and the expenditures of the Romanian households are a summation of some factors in which the food model is noted. As a result of the analysis in the paper, into the following: the dynamics of consumption of the main food primarily reflects the pattern of consumption that are reduced products grain, a large increase in the vegetable and fish consumption and constant in the other consumer products. Existence annual consumption growth rates in particular vegetable fats and especially the animals, it reflects a below average income consumers necessitate registering impossible or stagnation of purchasing power of food. The structure of population spending reveals a difference in purchasing food. Expenditure on foodstuffs is slightly decreasing, although for farmers' families, food consumption from own resources is a supply source of about 50%.

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