

## ECONOMIC ASPECTS OF THE ROMANIAN AGRICULTURE EVOLUTION

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### **Abstract:**

*Agriculture is a sector of the national economy which may represent a significant contribution to the economic growth if it is quantified properly. In Romania agriculture has declined significantly caused by various reasons. In frame of this study, we will attempt to discern their influence using official statistics. We will try to identify the place and the role of agriculture in Romania's actual economy from the perspective of GDP, investment in agriculture, the employment of this sector activity, because romanian agriculture remains an important sector in terms of view of agricultural area used, the contribution to GDP and, in particular, the percentage of the population employed.*

**Cuvinte cheie:** *Agriculture, GDP, Investment in agriculture, Employment*

**Clasificare JEL:** *O13, Q13, Q14*

### **1. Introduction**

Branch of material production, agriculture presents some peculiarities essentially different from other sectors of the economy ie: the active role of the earth as a means of production that increases the ability to obtain high yields by using rational and technical perfection, blending technological process at hoeing natural (biological) by living organisms, a potent natural factors on yield, seasonality and reduction of working time due to biological processes and non-coincidence with the time of production. (C. Enache, 2010). Unlike most EU countries, agriculture has been and continues to be regarded as an area of prime importance in Romania, considering both the contributing to the economy but also, the share of the employed population. Permanent undergo assessments and analyzes, the performance of Romanian agricultural sector remain relatively modest, in contrast to its natural potential and the expectations of the people agriculture to quickly adjust their structures under the influence of the common agricultural policy by facilitating the financing system, including ensuring the investments necessary for growth, but and introduce continuity and consistency in the measures taken by the decision makers. (NPC, 2012)

Romanian agriculture situation can be seen in two ways, namely:

- At the macroeconomic level, given that the low incomes in this field and an insignificant contribution to GDP establishment can be considered a limiting factors of accession to the Euro Zone;
- At the microeconomic level, agriculture is seen as a positive factor for rural development in the sense that as long as there are commercial relations, there is consumer demand and there are significant investments in areas where agriculture can be achieved.

We assist in Romania at poor integration of agriculture into the market economy given that subsistence farming is predominant in the rural areas where recorded increased unemployment and emphasized poverty are. (M. Dumitru, D. Diminescu, V. Lazea, 2004).

### **2. Economic dimensions of agriculture in Romania**

For a concrete image of the evolution of agriculture in Romania in the context in which it is a distinct economic sector, we stopped the eloquent indicators namely: GDP in absolute terms but also as indices by categories resources, investments in national economic activities, employment, etc.

Regarding the GDP data are shown in Table 1.

Table no. 1 **Gross domestic product, by category of resources**

	2008	2009	%	2010	%	2011	%
Total	458535.5	450979.1	98,4	466397		487326.8	
Agriculture, forestry and fishing	34126.4	32297.8	96.7	29874.2	9.5	36438.6	112,4
Mining and quarrying; manufacturing; electricity, gas, steam and air conditioning production and supply; water supply; sewerage, waste management and decontamination activities	118239.8	120637.4	90,1	148553.1	104,0	160927.9	100,1
Construction	56130.6	52809.4	90,1	47762.3	95,5	47563.4	93,6
Wholesale and retail; repair of motor vehicles and motorcycles; transport and storage; hotels and restaurants	99593.8	94359.5	89,2	69740.4	97,6	62764.2	97,9
Information and communication	20047.9	19520.6	97,5	17811.8	99,9	17917.4	101,0
Financial intermediation and insurance	11407.3	11250.1	91,9	11681.0	92,3	14170.3	116,5
Real estate activities	31671.5	32699.0	91,9	46250.9	96,4	47449.7	103,0
Professional, scientific and technical activities; activities of administrative services and of support services	19739.5	20044.0	94,6	24716.8	98,0	30599.8	118,7
Public administration and defence; social insurance of public sector; education; health and social assistance	55789.9	55668.2	98,8	56607.7	97,4	55110.2	97,4
Shows, culture and recreation activities; repair of household goods and other services	11788.8	11693.1	83,9	13398.8	77,9	14385.3	103,1

Source: Romanian National Institute of Statistics, Statistical Yearbook 2012

The data presented in the above table it is noted that the overall GDP has dropped by about 8,000 mil lei in 2009 compared to 2008, after which there is a recovery in 2010 and 2011. In what concerns the analyzed sector, i.e. agriculture, forestry and fishing diminishing contribution to the GDP has increased and in 2010, where we have a decrease of 5.5 % from 2009, something that does not correspond to the national economy.

In 2011 a significant growth of this sector is registering a 12.4 % increase compared to 2010 more than other categories of resources. Same trends we note at activities like financial intermediation and insurance (16.5 %) and professional, scientific and technical activities, activities of administrative services and of support services (18.7 %).

The contribution of agriculture, forestry, fisheries in gross domestic product stands around 6% of GDP and the EU Member States is approximately 1.7%.

Table no. 2. **Share of agriculture, forestry and fisheries in GDP**

	2007	2008	2009	2010	2011*
<b>Produsul intern brut</b>					
Agriculture, forestry and fishing	23992,2	34126,3	32297,8	31410,6	37837,7
<b>TOTAL GDP</b>	416006,8	514700	501139,4	522561,1	578551,9
<b>% of GDP</b>	5,8	6,6	6,4	6	6,5

Sursa: Anuarul statistic al României 2011, tab. 11.1

\* Comunicat de presa nr 51, INS 5 martie 2012

Table no. 3. **Net investments, by activity of national economy**

Activities (NACE Rev.2)	2008	2009	2010	2011
<i>Total</i>	<b>99525.6</b>	<b>74939.3</b>	<b>72294.7</b>	<b>87815.8</b>
<i>Agriculture, forestry and fishing</i>	<b>3393.3</b>	<b>2919.5</b>	<b>2659.8</b>	<b>3285.1</b>
Industry	32071.5	25679.9	27187.7	33108.7
Construction	13538.0	9175.5	9228.3	12649.1
Wholesale and retail; repair of motor vehicles and motorcycles	14403.6	8974.7	6840.9	8389.3
Transport and storage	8656.9	5959.7	4381.6	6775.5
Hotels and restaurants	1993.4	1353.3	1528.2	1134.2
Information and communication	4824.7	3395.3	2438.7	2844.2
Financial intermediation and insurance	1382.3	879.4	829.1	600.4
Real estate activities	3388.0	3650.0	3795.0	3159.2
Professional, scientific and technical activities	3262.8	1909.4	1273.3	2285.0
Activities of administrative services and of support services	2053.2	1194.1	1347.3	2257.8
Public administration and defence; social insurance of public sector	6180.3	6551.3	8064.9	8199.1
Education	2087.8	1064.0	919.3	1005.1
Health and social assistance	1223.5	1275.6	980.5	943.9
Shows, culture and recreation activities	430.9	381.5	359.0	273.5

Other service activities	635.4	576.1	461.1	905.7
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Source: Romanian National Institute of Statistics, Statistical Yearbook 2012

Increasing the competitiveness of Romanian agriculture is hampered by low investment also by low rates of gross fixed capital formation, aspect which shows how GVA is invested in the sector. We considered net investments in agriculture those investment which representing expenditures of economic agencies in primary sector for buying work, production and reproduction animals, vineyard, fruit trees plantations, forestations, purchase operation of household inventory objects like fixed, etc. In accordance with the data in the table no. 3 shows that the share of investment in total investment in agriculture is rather small compared with those in other sectors of the economy. Thus, if in 2008 on agriculture investing 3.41 % of the total amounts invested in 2011, when record increases in absolute values, this ratio was only 3.74 % compared to 37.70 % investment in the secondary sector. As we found in studies conducted by the National Prognosis Commission in line with the data it appears that in 2008 the EU-27 invested 64 billion in agriculture, or 42 % of gross value added of this sector. Of this amount, 93 % was recorded for statistical EU15, the highest absolute values with Italy, France and Germany. States with the lowest levels of labor productivity in agriculture also had the lowest rate of gross fixed capital formation: Poland (15.3 %), Romania (11.7 %) and Bulgaria (11.2 %). In 2010, the absolute amount in the EU-27 fell from 52 billion euros, decreasing obviously investment and accumulation rates. Countries that have reinvested the lowest percentage of GVA were Poland (13 %), Bulgaria (11 %) and Cyprus (4 %), while in Romania the rate of gross fixed capital formation increased to 17 %. (NPC, 2012)

Described below, and statistics on the employed civilian population on national economic activity. We must point out that for rural Romania continues to hold great importance for Romania, representing, in 2008, 59 % of the territory (57% in EU-27) and 46 % of the total population (23.6 % in the EU -27). (NPC, 2012)

Table no. 4. **Employed population, by activity of national economy (at the end of year)**

– thousand -

Activities (NACE Rev.2)	2009	2010	2011
<b>Total</b>	<b>8411</b>	<b>8371</b>	<b>8366</b>
Agriculture, forestry and fishing	2411	2440	2442
Industry	1774	1733	1754
Construction	626	628	611
Wholesale and retail; repair of motor vehicles and motorcycles	1138	1140	1157
Transport and storage	419	426	434
Hotels and restaurants	125	133	138
Information and communication	125	134	136
Financial intermediation and insurance	114	133	130
Real estate activities	49	31	30
Professional, scientific and technical activities	164	156	161
Activities of administrative services and of support services	207	204	228
Public administration and defenses; social insurance of public sector	230	204	197
Education	413	390	385
Health and social assistance	408	406	374
Shows, culture and recreation activities	67	63	59
Other service activities	141	150	130

Source: Romanian National Institute of Statistics, Statistical Yearbook 2012

These changes are reflected in the occupational structure of employment. Thus in the period between 2003 to 2008, in rural areas, the share of employment in the primary sector decreased by 7.3 %, but increased, in contrast, the employment in services, which reached 4.6 %, while the share of sector processing increase, in turn, by 2.7 %. However, agriculture, forestry and fisheries continue to absorb 38.6 % of the labor force in Romania in predominantly rural areas and 29.6 % in the mixed (intermediate rural), well above the average for the same types of EU regions 27 (that is, 13.6 % and 6.2 %). During 2009 - 2011, civil employment has recorded a significant decline, in the year 2010 at 8,371,300 people, which means decrease than the previous year by 39.4 thousand persons. As we easy can see from the table above at the end of 2011 the civil population was 8366, also registering decrease from the previous year 2010 by 5.0 thousand persons. Distribution of civil employment by sector shows that agricultural activities account for over 70 % commercial and social services being found over 40 % of the employed, and in industry and construction 28 %. The share of people employed in agriculture was over 28 % in total employment. We could say that the agricultural sector retains almost the same number of persons employed during the 3 years. For a better further and present data on the number of employees and employment based on participation in economic activity by gender and area.

Table no. 5. **Average number of employees in agriculture by gender**

– thousand -

Activities (NACE Rev.2)	Total	Men	Women
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	2010	2011	2012*	2010	2011	2012	2010	2011	2012
<i>Total</i>	4376	4349	4442	2291	2301	2364	2085	2048	2078
Agriculture, forestry and fishing	95	98	103	72	76	79	23	22	24

Source: Survey on labor costs, \*Press release no. 228 of 27 September 2013, the National Institute of Statistics

It is noted that the largest share in agriculture have men representing 79,000 people in 2012 than 24 thousand women. You must also mention that a share in rural population size is given by semi-subsistence and subsistence agriculture where most people beyond retirement age.

Small and medium farms are labor intensive, but the consumer has two main characteristics: we employ family members paid and temporary uses significant amounts of off-farm employment. At present, the rural employment is not considered a major problem in Romania, as semi-subsistence farms act as a safety net for people without jobs. (C. Salajan, 2010)

Consider of interest to present almost statistic data referred on the number of enterprises which are active in agriculture by activities.

Table no. 5. Number of active enterprises by activity of national economy at level of CANE Rev.2

NACE Rev. 2 - (primary sector activities - categories)	- numbers - Year			
	2008	2009	2010	2011
Total	554 967	541 696	491 805	452010
Growing of non-perennial	5048	5841	6044	6137
Growing permanent	416	519	570	562
Plant propagation	33	108	121	103
Livestock	1878	2041	1921	1861
Mixed farming activities (crops combined with farming of animals)	1092	972	867	819
Support activities to agriculture and post-harvest activities	1662	1574	1593	1711
Hunting, trapping and hunting trapping of activities for hunters	61	50	45	38
Silviculture and other forestry activities	709	1007	1392	1253
Logging	1949	2222	1898	1956
Collection of non-timber forest products from the spontaneous flora	25	46	47	43
Support activities for forestry	236	150	143	106
Fishing	137	140	163	148
Aquaculture	356	442	436	415

Source: Romanian National Institute of Statistics, Statistical Yearbook 2012

From the data presented in Table 5 we note that overall active enterprises in agriculture experienced a considerable downtrend in the last period, given the macroeconomic environment in which they operate. Economic instability, high taxes, lack of subsidies or only reducing their investments, impossibility to attract heavy European funds have led to of 102907 enterprises in 2011 compared to 2008.

In terms of the categories of activities of the primary sector we note that some agriculture crops increases and we refer to enterprises of growing permanent or non-perennial crops and make auxiliary agriculture activities like post-harvest activities, the forestry and forestry activities. The sharpest decline we observe in activities of the mixed farming enterprises of the hunting, trapping and hunting trapping of activities for hunters.

Romania has an agricultural potential that can not be neglected and the great opportunity of our country is that in recent years we have not used chemical fertilizers and pesticides in excess, which is an obvious advantage in the conversion to organic agriculture.

Statistical data on the size share of organic farming show that the areas under organic crops UAA is increasingly higher from year to year, reaching 1.7 % in 2011 compared to only 0.8 % in 2006.

Table no. 6. Share areas under organic crops UAA

Years	- %-					
	2006	2007	2008	2009	2010	2011
Share areas under organic crops UAA	0.8	1.0	1.0	1.2	1.4	1.7

Sursa: [http://www.insse.ro/cms/files/Web\\_IDD\\_BD\\_ro/index.htm](http://www.insse.ro/cms/files/Web_IDD_BD_ro/index.htm)

Regarding the cultivated areas in the world, a report of an IFOAM study (Willer H., Kilcher L., 2011)

shows that globally there are 37.2 million hectares of land, two times more than in 1999 when were recorded only 11 million hectares, when the top countries with the largest areas of organic cultivation are: Australia, with 12 million hectares, followed by Argentina with 3.8 million hectares and the U.S. with only 1.9 million ha. Other countries with land area cultivated organic greater than 5 % of the total are Falkland Islands (35.9%), Liechtenstein (29.3%) and Austria (19.7%).

### 3. Conclusion

We conclude that agriculture is a clearly defined sector in the national economy with reasonable contributions in GDP in the OP, but with extremely low share of investments. In fact it appears that the main way to increase the contribution of agriculture to overall economic growth is the injection of capital into economic factors (job-generating investments, increase production and productivity in farms, rural territory infrastructure equipment).

Do not overlook any possibilities for optimal use of financial resources, adequate funding systems to current state and be effective to halt economic decline and then create growth. If we talk about the role and place of agriculture in the economy we can account the convergence towards the EU average (1.7 %) for the first time, this dropping from below 10 % in 2005 to 6.5 % in 2010. In this context we find negative factors of convergence like income levels which shows that the labor force in agriculture is much oversized compared to EU standards. Although undergoing a process of decline, the employment in agriculture and forestry in 2010 represent approximately 19 % of total employment, a huge gap to the EU-27 (4.7 %) and even to the new Member States (e.g. Poland: 10.1 % Hungary 5.5%, Bulgaria 14.7 %), not to mention countries such as France (2.6 %), the UK (1.9 %) and Germany (with 1.8 %).

But, we can note that there are some important contribution factors that agriculture brings growth and diversification: increase the food supply for the domestic economy and non-agricultural sector, increasing foreign exchange earnings, reallocate labor in non-agricultural sectors, increase tax revenues and transfer savings, increased demand for rural non-food products, (Johnston B.F., Mellor J.W., 1961), but, in nowadays, also it is imperative to correlate the determinant role of food consumption with factors like: income trend or the standard of living.

Romania is a individual case in Europe, with almost 89 % of it's territory located in rural areas, and approximately 47.3 % of the total population that live in these regions, Romanian rural economy faces a number of problems such as: predominance of subsistence agriculture, production for self-consumption largely, a great number of persons employed or working on the black and an excessive labor involved in agriculture. We can not forget the structure of land which is very fragmented and the small size of farms positive criteria are not conducive to fostering a truly competitive in this sector.

So, we can say that agriculture remains the major deficiencies of captive ownership and operation of its structures with excessive polarization, holding the heads of old age, which leads to the perpetuation of the relations of the non-commercial, low labor productivity and modest yields per hectare, i.e. disinvestment and stagnation, but in current European condition they might turn into advantages for us and become a future convergence positive factor at the EU standards if we provide additional support financial needed to develop rural infrastructure and attract foreign investment also in this field and succeed in raising the growth and competitiveness of the agriculture-food sector by upgrading production technologies a better access facility agriculture - food export destinations and a better information and better access to EU funds.

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