

# DIGITALES ARCHIV

ZBW – Leibniz-Informationszentrum Wirtschaft  
*ZBW – Leibniz Information Centre for Economics*

Barbu, Cristian-Marian

## Article

# Romanian agriculture in a "delicate" situation in the European context

## Provided in Cooperation with:

Dimitrie Cantemir Christian University, Bucharest

*Reference:* Barbu, Cristian-Marian Romanian agriculture in a "delicate" situation in the European context.

This Version is available at:  
<http://hdl.handle.net/11159/761>

## Kontakt/Contact

ZBW – Leibniz-Informationszentrum Wirtschaft/Leibniz Information Centre for Economics  
Düsternbrooker Weg 120  
24105 Kiel (Germany)  
E-Mail: [rights\[at\]zbw.eu](mailto:rights[at]zbw.eu)  
<https://www.zbw.eu/econis-archiv/>

## Standard-Nutzungsbedingungen:

Dieses Dokument darf zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden. Sie dürfen dieses Dokument nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, aufführen, vertreiben oder anderweitig nutzen. Sofern für das Dokument eine Open-Content-Lizenz verwendet wurde, so gelten abweichend von diesen Nutzungsbedingungen die in der Lizenz gewährten Nutzungsrechte.

<https://zbw.eu/econis-archiv/terms-of-use>

## Terms of use:

*This document may be saved and copied for your personal and scholarly purposes. You are not to copy it for public or commercial purposes, to exhibit the document in public, to perform, distribute or otherwise use the document in public. If the document is made available under a Creative Commons Licence you may exercise further usage rights as specified in the licence.*

## Romanian Agriculture in a „Delicate” Situation in the European Context

Cristian - Marian Barbu

Department of Management-Marketing, „Artifex” University, Bucharest, Romania, E-mail: [doctrine.economice@gmail.com](mailto:doctrine.economice@gmail.com)

**Abstract** *This article reveals the discrepancy and the non-convergence, still significant, between the Romanian agriculture and the agricultures of the EU states. Following the restitution of the agricultural land to the former owners at the beginning of 1990s, the small size holdings have reached a significant percentage in the Romanian agriculture. Although the total number of agricultural holdings in Romania diminished with 626,000 between 2005-2013, Romania is one of the EU countries with the most numerous agricultural holdings. In 2013, it had more than a third of the total number of agricultural holdings of the EU (33.5%), which perpetuates and amplifies the low economic performance. The particularities of the structural adjustment of the Romanian agricultural economy, compared to the evolution in the other EU member states, indicate a high level of structural divergences, that may lead to a low impact of common agricultural policies and it cannot act like a source of economic growth and improved productivity.*

**Key words** Agricultural holding, economic size, standard output, value of agricultural production, labour force employed in agriculture

**JEL Codes:** O13, O47, Q15

### 1. Introduction and literature review

Apart from the administrative, formal, aspect of the EU accession, Romania's actual integration into the EU implies the ability of the Romanian state to accurately identify the issues and the challenges of the Romanian rural space, to find ways to attenuate the economic and social development gaps, in order to link the Romanian socio-economic realities to the larger realities of a regional community of states and economies (Şerban and Juravle, 2012).

Romania's area is 238,391 km<sup>2</sup> and in 2014 it included: 61.3% agricultural land (about 14.6 mil. ha, out of which 64.3% arable land, 33% pastures and hayfields and 2.7% fruit trees and vineyard); 28.3% forests and other land with forestry type vegetation; 10.4% built area in localities, waters, railways and non-productive land (INS Tempo Online, 2016). Out of the total area, about 87,1% is rural space (according to the definition in the national legislation) made up by communes, as administrative-territorial units made up of the component villages, and this territory was inhabited by 46.17% of the Romanian population (19,760,314 people) in 2016. Geographic distribution is balanced: 33% in plain area (up to 300 m altitude), 37% in hills area (300-1000 m) and 30% in mountain area (above 1,000 m).

Agriculture has represented a primary sector in Romania due to its contribution to the national economy (about 4.2 % of the GDP in 2015), and to its vital social role. The Romanian rural economy is currently the primary one, agriculture represents 60% of the Romanian rural economy (compared to 14-15% in the EU), which has negative consequences upon the employment of the active rural population. Most farmers are self-employed in subsistence agriculture, and they need to supplement their income with additional income from non-agricultural activities. In this context, the rural economy is hardly integrated in the market economy (Botănoiu, 2012).

„Although marginalized by the national and European agricultural policies, small farms have the role of social buffer, which allowed Romania to go through the difficult times after the 1989 Revolution without major social problems, as dis-industrialization generated unemployment and found relief in subsistence agriculture” (Ghib and Cioloş-Villemin, 2009). Moreover, these farms contribute to Romania's food security, due to the high level of self-supply in households in rural area. Large part of the population, especially in the rural area, depend on the subsistence agriculture, and cannot live without the back vegetable garden and the maize crop for the few poultry and 1-2 animals raised.

Despite all measures taken during years, including legislative measures, to stimulate the average growth of the size of agricultural holdings, the process of reuniting the land turned out to be very slow and, most probably, for many years to come, Romania will have a dispersed agricultural structure. In contrast with its natural potential and the population's expectations, the performance of the Romanian agricultural sector has been modest in the European context (Barbu, 2015).

The main indicators regarding the land property and the employment in the Romanian rural space reflect a situation that is different from the average of the EU-28 and the optimum projected by the EU, indicating discrepancy between Romanian realities and the feasibility of short time functional implementation of economic and development models supported through European strategies. As against the EU average, Romania shows an economic development gap and a social gap.

## 2. Summary of the Romanian agriculture, as against Europe

According to data published by Eurostat in December 2016, in 2013, in the EU-28 countries, the total agricultural land used was 174.6 million ha. The used agricultural land, relatively stable in time, saw a process of structural adjustment resulting into diminished number of farms across the EU and increased number of large and very large agricultural holdings (Eurostat - Agriculture, forestry and fishery statistics, 2016 edition). To note, however, that, in terms of structure, the agriculture of the EU member states show significant differences generated by the politico-economic systems, the regional territorial infrastructure, mentality, traditions and customs, other aspects of climate, topography and geology.

In Europe, according to Eurostat, 2 main criteria have been used to classify agricultural holdings: one delimitates the size of agricultural holdings based on the used agricultural area (UAA), and the second is based on a classification of farms in terms of economic size, and the standard value of the gross production (*Standard Output* - SO). In terms of economic size (the annual value of the production in euro)<sup>1</sup>, the agricultural farms fall into 5 categories: very small farms (under 2,000 euro), small farms (2,000 – 7,999 euro), average farms (8,000 – 24,999 euro), large farms (25,000 – 99,999 euro) and very large farms (at least 100,000 euro). In terms of physical (area in ha), agricultural holdings fall into 4 categories: very small farms (under 2 ha), small farms (at least 2 ha under 20 ha), average farms (at least 20 ha under 100 ha), large farms (over 100 ha).

In 2013, the ratio between the standard income of a Dutch farm and of a Romanian farm was 92 to 1, according to data published by Eurostat. In the Netherlands, the average value of the standard production per farm was 303,760 euro, while in Romania the average value of the standard production per farm was 3,303 euro (table 1). To note, the national average per farm includes the large holdings where the ratio decreases to less than 4 to 1, with 4,101,551 euro per farm in the Netherlands and 1,104,177 euro per farm in Romania. The explanation is simple and devastating for the gap we must recover. In the Netherlands, 1/5<sup>th</sup> of the agricultural production in the poorest farms has an average of 87,451 euro per year, while in Romania the average production is merely worth 856 euro, caused by the fact that production is meant for self-supply, not for sale. Below, see the ratio between large farms and small farms, in terms of standard income, in Europe, in 2013.

Table 1. Agricultural holdings in the EU countries, based on economic size (Standard Output – SO, EUR/year), in 2013

Country	Average standard output per holding	Average standard output per holding for „poor farms” <sup>1</sup>	Number of poor farms out of all farms	Average standard output per holding for “large farms” <sup>2</sup>	Number of large farms in all farms	Percentage of number of poor farms to number of large farms
	(EUR)	(EUR)	(% of all farms)	(EUR)	(% of all farms)	
Netherlands	303,760	87,451	69.5	4,101,551	1.5	46.9
Denmark	246,728	59,997	82.2	3,674,177	1.3	61.4
Belgium	222,628	68,055	65.4	1,732,218	2.6	25.5
Czech Republic	169,434	36,874	91.9	6,912,652	0.5	187.5
Germany	162,269	45,028	72.1	2,892,182	1.1	64.3
Luxembourg	151,089	50,639	59.6	655,877	4.6	12.9
France	120,528	36,193	66.6	1,001,382	2.4	27.6
United Kingdom	118,619	30,049	79.0	2,720,761	0.9	90.7
Slovakia	76,901	16,053	95.8	6,886,134	0.2	435.3
Sweden	69,207	16,375	84.5	2,664,026	0.5	162.6
Finland	61,568	17,000	72.4	796,518	1.6	46.7
Italy	43,346	10,537	82.3	3,238,192	0.3	304.7

<sup>1</sup> According to this criterion, the definitions differ from one country to another. In Romania, according to Law no 285/2015 for the modification of the Law no 37/2015 regarding the classification of farms and agricultural holdings, published in the Official gazette no 874 of 23 November 2015 (Off. Gazz. no 874/2015), in force since 26.11.2015, depending on the economic size, farms and agricultural holdings fall into the following:

a) subsistence farm - agricultural holding under 1,999 SO;

b) semi-subsistence farm - agricultural holding between 2,000-7,999 SO;

c) small farm - agricultural holding between 8,000-11,999 SO;

d) average farm - agricultural holding between 12,000-250,000 SO;

e) large farm - agricultural holding over 250,000 SO.

14

Country	Year			
	2005	2007	2010	2013
Ireland	132,670	128,240	139,890	139,600
Italy	1,728,530	1,679,440	1,620,880	1,010,330
Latvia	128,670	107,750	83,390	81,800
Lithuania	252,950	230,270	199,910	171,800
Luxemburg	2,450	2,300	2,200	2,080
Malta	11,070	11,020	12,530	9,360
Netherlands	81,830	76,740	72,320	67,480
Poland	2,476,470	2,390,960	1,506,620	1,429,010
Portugal	323,920	275,080	305,270	264,420
Romania	4,256,150	3,931,350	3,859,040	3,629,660
Slovakia	68,490	68,990	24,460	23,570
Slovenia	77,170	75,340	74,650	72,380
Spain	1,079,420	1,043,910	989,800	965,000
Sweden	75,810	72,610	71,090	67,150
United Kingdom	286,750	226,660	185,200	183,040

**Source:** Extracted from the Eurostat database, [http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ef\\_kvaaregandlang=en](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ef_kvaaregandlang=en).

Across Europe, small and very small farms (under 20 ha) represent 95% in 5 EU states. Together with Romania (we fall in this category, as expected), we find Slovenia, Malta, Greece and Cyprus, but when we go into detail, Eurostat finds that more than half of the very small farms (under 2 ha) are in Romania, 54.4%. Obviously, we also fall into the opposite category as well, among the 7 EU states (together with the same above mentioned states, plus Croatia and Poland) where the large agricultural holdings represent less than 1% of the total number of existing farms in the EU-28. To understand the gap between Romania and the developed West, we are stating that in 4 states, this number exceeds 20% of the total number (Great Britain, Luxembourg, France and Denmark). Actually, farms with more than 100 ha represented in 2013 52.1% of the UAA in the EU, as a result of a strong process of concentration in time (only 45.2% in 2005). The issue covers the former Socialist countries, among which the Czech republic is a leader in terms of average area of a farm in the EU with 133 ha, surpassing the Great Britain (93.6 ha).

This is the key to effectively pass from feudalism, society characterized by self-supply and unexpanded hired and fiscalized employed labour, and capitalism, where what matters is the production for the market, based on the labour of hired employees. In other words, Romania is characterized by a relatively low number of people who are not marginal to the market. It is a market which subsists, not exists.

Romania's hope comes from its potential dynamism. Surprisingly, although it has one of the oldest labour forces employed in agriculture, Romania has the highest number of managers below 35 in the EU in large farms (57.3%, 6 times more than the EU average UE!). Authorities are expected to support the transformation of a major deficiency into development opportunity.

### 3. Value of agricultural production and employed labour force in the Romanian agriculture in 2015, in European context

According to Eurostat data, the agricultural production in Romania in 2015 was worth 15,535.9 million euro. Thus Romania ranks the 8<sup>th</sup> in the EU, after France, Italy, Germany, Spain, Great Britain, the Netherlands and Poland. Regrettably, although the absolute value of the agricultural production in Romania has remained the same, the weight of the outcome of the local agricultural sector decreased the most between 2010-2015 (-0.4 p.p. - *percentage points*) across the EU, together with the Netherlands.

Table 3. Value of agricultural production in some states out of the EU agricultural production in 2015 (data from states that achieve at least 1% of the value of the EU agricultural production)

Country	Value of agricultural production (billion euro)		Percentage of EU-28 (%)		
	2010	2015	2010	2015	Evolution (p.p.)
EU - 28	367.8	411.2	100	100	-
France	68.1	75.2	18.5	18.3	- 0.2
Italy	48.2	54.2	13.1	13.4	+ 0.3
Germany	46.0	51.5	12.5	12.5	0
Spain	40.4	45.5	11.0	11.1	+ 0.1

Country	Value of agricultural production (billion euro)		Percentage of EU-28 (%)		
	2010	2015	2010	2015	Evolution (p.p.)
United Kingdom	23.7	29.6	6.5	7.2	+ 0.7
Netherlands	25.3	26.7	6.9	6.5	- 0.4
Poland	19.8	22.3	5.4	5.4	0
Romania	15.3	15.5	4.2	3.8	- 0.4
Greece	10.6	10.7	2.9	2.6	- 0.3
Denmark	9.7	10.3	2.6	2.5	- 0.1
Belgium	7.8	8.1	2.1	2.0	- 0.1
Hungary	6.1	7.9	1.7	1.9	+ 0.2
Ireland	5.8	7.4	1.6	1.8	+ 0.2
Portugal	6.5	7.1	1.8	1.7	- 0.1
Austria	6.3	6.8	1.7	1.6	- 0.1
Sweden	5.4	6.3	1.5	1.5	0
Czech Republic	4.1	4.6	1.1	1.1	0
Bulgaria	3.8	4.1	1.0	1.0	0

**Source:** Extracted from the Eurostat database

To have an idea about Romania's place in this EU economic segment, Romania's 4% of the EU agricultural production in 2015 represents 4 times more than the percentage representing the entire Romanian economy out of the EU-28 GDP, which is little more than 1%. Compared with other countries, in terms of value of the agricultural production, Romania produces 2/3 of Poland's production, half of Great Britain's production (a country with much more numerous population but the same territory and unfavourable climate), 1/3 of Spain's production and 1/5 of France's production (a country with pedo-climatic conditions that are similar to Romania's but a 2.5 times larger territory).

The labour force employed in the Romanian agriculture is the 2<sup>nd</sup> in the EU, and the 2<sup>nd</sup> that has diminished over the last 5 years (- 21.1%), after Bulgaria with 32% diminished labour force. These data result from bringing the numbers to a common denominator by equivalence with the number of people that may be employed in this economic sector during one year (in practice, we find seasonal and occasional activities).

*Table 4. Evolution of the employed labour force in agriculture in a few European countries – expressed in thousands of Annual Work Units (AWU) (equivalent of millions of full-time employed people)*

Country	Year			
	2010	2013	2015	Evolution 2015/2010 (%)
Poland	1,914.8	1,937.1	1,937.1	+ 1.2
Romania	1,639.0	1,564.0	1,293.0	- 21.1
Italy	1,164.0	1,077.5	1,119.8	- 3.8
Spain	963.8	841.7	818.7	- 15.0
France	809.1	781.0	768.1	- 5.1
Germany	522.0	503.0	496.0	- 5.0
Greece	441.5	467.0	442.4	+ 0.2
Hungary	444.2	444.4	441.9	- 0.5
United Kingdom	291.1	293.5	293.5	+ 0.8
Portugal	309.4	281.3	255.8	- 17.3
Bulgaria	406.5	321.2	276.4	- 32.0

**Source:** Extracted from the Eurostat database and National Institute of Statistics (INS): <http://statistici.insse.ro/shop/index.jsp?page=tempo3andlang=enandind=AGR210A>

If we analyse other states, in terms of evolution of the labour force employed in agriculture, we notice that Poland or Great Britain have had an increased production in agriculture, which looks against intuition, especially because our Latin sisters Portugal (-17.3%) and Spain (-15%) have had a strong descending trend. Germany, France and Italy have moderately

decreased the population employed in the agricultural sector. The need to increase social labor productivity and to increase the national average has an alternative – to achieve a relatively stable production with less and less people. However, beyond this easy approach, we can ask what caused the Great Britain to increase its human resource allocated to agriculture and if we can speculate about an early preparation of the Brexit, in order to reduce dependency on food products imported from European countries.

That Romania is moving slower than other countries is obvious from the Eurostat 2015 ranking; here is the average of the evolution of the income index per equivalent work unit, for the every 5 years during the last decade (for reasons of significant variations) in the new formerly Social members states.

Table 5. Evolution of income index per equivalent work unit (2010 = 100)

Country	Year		
	Average 2005-2010	Average 2010-2015	2015
Bulgaria	93.3	140.2	159.0
Hungary	96.4	141.4	153.0
Lithuania	93.3	134.8	145.2
Slovakia	76.5	128.2	142.9
Latvia	85.0	110.4	136.5
Czech Republic	91.7	132.1	134.2
Romania	83.2	112.5	119.2
Slovenia	98.8	103.6	115.0
Poland	76.5	111.1	104.2
Estonia	76.5	122.2	102.9
Croatia	100.3	88.4	91.0

Source: Extracted from the Eurostat database

It is certain that Romania is still a force in the EU in agriculture more than in industry. Moreover, it has the potential to acquire a more important position. If Romania used what it possesses like France, Romania would rank above the Great Britain, close to Spain which slightly increased its percentage in the EU (like Portugal), although it strongly reduced the labour force involved. The question for Romania is how it can combine the 2 alternatives, Polish-British with Iberical approaches, to increase productivity and production at the same time (Hungary seems to be closest to this ideal), in order to balance the food products in the foreign trade and to avoid calculating the eternal average between urban and rural productivities. A possible answer may no longer come from agriculture and agriculturists, but from the ability of the state to stimulate local collection, conditions and processing, in a food industry whose production should be supported with many small loans. In order to create jobs and added value in the rural area.

#### 4. Conclusions

This analysis indicates a deep lack of connection between the Romanian agricultural realities and the agricultural realities of most EU countries, and Romania's functional disadvantage arising from inadequate prioritization of strategic goals.

Due to high fragmentation of the agricultural area and to the high number of people working in agriculture, and to the mainly manual nature of production, materialized in low productivity, statistics shows that the evolution of a wide spectrum of agricultural holdings in Romania takes place in a vicious circle: lack of economic performance generates lack of resources to form capital, and capital perpetuates and amplifies the low economic performance (Barbu, 2011).

The goal of development of agricultural holdings and non-agricultural enterprises must be to promote labour force employment and attractive job creation in rural areas, preservation of the already existing jobs, reduction of seasonal fluctuations in labour force sector, development of non-agricultural sectors apart from agriculture and agro-food sector, by promoting at the same time, the integration of enterprises and local inter-sectorial connections.

Romania has not changed essentially its socio-demographic characteristics, which differentiate it from the other EU member states, much more competitive in the agricultural sector. Hence, the model to follow for Romania. The countries that have rapidly changed their agricultural production structure have taken over the industrial exploitation model and have determinately taken the path of the developed West are the Czech Republic and Slovakia, the only EU countries that possess more than 2/3 of the agricultural labour force employed in large agricultural holdings.

The slow progress of the national agro-food system, discrepancies and non-convergence between the Romanian agriculture and the EU agricultures, existence of large areas of severe rural poverty as well as the current precariousness



of food security for the Romanian population, generated by the imported food supply that exceeds allowable limits, impose a coherent set of actions for:

- Balanced territorial development of the agricultural rural economy and social economy in the rural space by expansion of the agro-food and non-agricultural rural SMEs, and increased employment of the rural population, by hiring and stabilizing the active rural population, especially the youth;
- Limitation of the disfavoured rural areas and of the severe rural poverty;
- Stimulation of creation of private family-type commercial agricultural holdings, typical for Europe, by gradually restraining the number of subsistence agricultural holdings, *including by regulating the land property succession*;
- Strengthening of agricultural holdings, modernization of technologies and overall improvement of the agriculturists' activities;
- Increased absorption of the EU funds for agriculture and rural development through improvement of the *National Program for Rural Development* as well as funding and execution of the projects;
- Good Romanian agro-food commercial balance and increased export of agro-food products.

## References

- Barbu. C.M. (2015). The Romanian "agricultural power" in the European context. *Academic Journal of Economic Studies*, Vol. 1, No.3, September 2015, pp. 27–37;
- Barbu. C.M. (2011). The Romanian agriculture – between myth and reality. *Annales Universitatis Apulensis. Series Oeconomica*. 13 (2), pp. 485 - 496;
- Botănoiu. D. (2012). Sectorul agricol românesc și susținerea acestuia după 2013. *Agro-Business*. April 30. 2012. [online] Available at: <http://www.agro-business.ro/sectorul-agricol-romanesc-si-sustinerea-acestuia-dupa-2013/2012/04/30/> [Accessed February 21, 2017];
- Ghib. M-L. Cioleş-Villemin. V. (2009). *Quelle politique agricole pour les exploitations de subsistance et de semi-subsistance en Roumanie?*. 3emes journées de recherche en science sociales. INRA. SFER.CIRAD. Montpellier;
- Șerban. A. Juravle (Gasler). A. (2012). Ruralul românesc în contextul strategiilor europene de dezvoltare/The romanian rural areas in the context of european development strategies. *Revista Română de Sociologie*, new series, year XXIII, no 3-4, p. 265-281;
- \*\*\* Eurostat database (2016). *Agriculture, forestry and fishery statistics*. 2016 edition. Web ISBN 978-92-79-63350-8. Web ISSN 2363-2488. Release date: 21/12/2016. available at <http://ec.europa.eu/eurostat/web/products-statistical-books/-/KS-FK-16-001?inheritRedirect=true&redirect=%2Fpublications%2Fcollections%2Fstatistical-books> . [Accessed February 10, 2017];
- \*\*\* Ministry of Agriculture and Rural Development (MADR) – General Directorate for Rural Development. *National Program for Rural Développement for 2014 – 2020*. [online] Available at: <http://www.madr.ro/docs/dezvoltare-rurala/2016/PNDR-2014-2020-versiunea-aprobata-25-octombrie-2016.pdf>. [Accessed March 3, 2017];
- \*\*\* National Institute of Statistics (INS). <http://statistici.INSSE.ro/shop/?lang=en>.