

Quantitative and Qualitative Dimensions of Romanian Agriculture

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Abstract

In general, agriculture is seen as the nucleus around which a whole series of other branches, sub-branches and activities are formed and developed, connected by a relatively complex system of technical-economic and economic-social relationships, which contribute to the production of consumer goods based on agricultural raw materials. In this article, we insisted on some quantitative/ qualitative dimensions, revealing an imbalance with a special impact on the Romanian agriculture and its competitiveness.

Key words: economic sectors, agrarian sector, GDP, competitiveness agricultural holdings

J.E.L. classification: P32, O13, Q00

1. Introduction

The present article presents some quantitative/ qualitative dimensions, revealing an imbalance with a special impact on the Romanian agriculture and its competitiveness. More concretely, before analyzing the Romanian agrarian sector in economic terms (which reflected some critical aspects), we focused on agriculture, as a branch of special importance within the national economy. Then, we highlighted some issues related to those agricultural holdings with the status of legal persons, making some considerations about individual households as well as about the lands capitalized by them, and revealing several specific indicators. Hence, the existence of numerous small farms, but also the fact that, with reference to the European area, there are great differences between the average size of indigenous individual holdings (much diminished) and those from other European countries. The last part of this article focused on several concluding ideas and suggestions for improvement in this important sector of the national economy, i.e. agriculture.

2. Theoretical background

Agriculture holds several vital functions in the national economy, its main role being represented by the production of the subsistence means necessary for the human population and the participation in ensuring food security, understood as a possibility for the inhabitants of the country to dispose of sufficient food quantities at all times (Popescu, 2001).

Beyond the production of the above-mentioned means, this economic branch is seen as the one that contributes to the economic development, by increasing the vegetal and animal production in accordance with the needs of the national economy.

Due to the numerous relationships between agriculture and other branches, a high increase or decrease rate in the agricultural output may speed up or slow down the general economic growth (Lămătic, 2001). Agriculture transfers income for the development of other branches and activities, through a series of channels; among these, the most important ones are market mechanisms, price systems, various taxes and duties, interest on borrowed capital, rent, lease and fees paid for the leased/ rented/ farmed out land, costs incurred by agriculture during biological growth and training of the people that move to non-agricultural branches (Deleanu, 2004; Popescu, 2001; Lămătic, 2001).

Agriculture also participates in the economic growth by providing raw materials for the development of their processing industries as well as by providing production means, consumer goods and services (Dona, 2000).

3. Methodology

The present article uses as a method of research, both descriptive and exploratory. At the same time, the deductive nature was followed by the presentation and explanation of the cause-effect relationships, with the exposure of some solid statistical data, and as the inductive nature, the various interconnection relations with direct and indirect involvement factors were followed.

For data collection, they were used studies and reports published by various institutions, international bodies and organizations, but also with universal vocation, to obtain a comprehensive description of the issues addressed (both qualitatively and quantitatively).

4. The analysis of the Romanian agrarian sector from an economic perspective

In Romania's case, agriculture is a very important branch of the national economy. The sector as such plays a significant part in creating the added value needed both for its own development and for the participation in the development of the entire society, in order to provide comparable incomes to agricultural producers with other socio-economic categories (Gavrilescu & Giurcă, 2000).

The share of agriculture in the Gross Domestic Product (GDP) (Figure 1) is 4.4%, a downward trend compared to 2001.

Table no. 1 The share of different categories of resources in the GDP (December 31, 2017)

1	Agriculture	4,4%
2	Constructions	5,9%
3	Industry	24,2%
4	Services	55,8%
5	Net taxes	9,7 %

Source: INS (2018). *Analiza situației economice naționale în 2017* (Analysis of the national economic situation in 2017), [online] Available at: <https://ccir.ro/2018/03/13/analiza-privind-evolutia-economiei-ro-2017/>

Also based on statistical data (INS, 2018), we point out that the GDP for 2017 (856.3 billion lei, in current prices) increased in real terms, by 7% as compared to 2016, the main growth factors being represented by industry (with a contribution of 1.9% and the largest share in the GDP, i.e. 24.2%), trade (with a contribution of 1.6% to this growth), agriculture (by 0.7%), etc.

On a medium term, an evolution of the main macroeconomic indicators of the Romanian economy is projected, as shown in the table below (Table 2) - Agriculture, forestry and fisheries, with an added value of 1.9% (in 2018) and 1.1% (in 2021) in the GDP.

Table no 2. Forecasting the evolution of the main macroeconomic features of the Romanian economy (2018-2021)

	- percentage change over the corresponding period, in previous year%			
	2018	2019	2020	2021
Gross domestic product - billions of lei	907,9	977,2	1051,9	1126,6
- real growth % of which,	5,5	5,7	5,7	5,0
gross added value in:				
- Industry	5,7	5,4	4,6	4,3
- Agriculture, forestry, fishing	1,9	1,9	0,9	1,1
- Constructions	7	7,2	7,7	7,1
- Services	5,7	6,1	6,4	5,5

Net taxes on product	4,2	4,3	4,4	3,8
Final consumption	5,8	5,7	5,5	5,1
Actual individual consumption of households	6,2	6	5,8	5,4
Effective collective consumption of public administration	3	2,8	2,6	2
Gross fixed capital formation	7,9	8,4	8,6	7

Source: CNP/Comisia Națională de Prognoză (2015) (CNP / National Prognosis Commission (2015), overtaken by Cristian Socol, Romania in 2017 - *Analiza indicatorilor de sustenabilitate* (Romania 2017 - Analysis of sustainability indicators), [online] Available at: <https://www.zf.ro/opinii/opinii-primate-la-redactie-romania-in-2017-analiza-indicatorilor-de-sustenabilitate-16927547>

Due to the size of the agricultural area, the usage structure and the wide diversity of pedoclimatic conditions, the relatively large number of the population employed in agriculture, the training level and the accumulated experience, the network of training courses in the field and the research institutes and centers, Romania is considered one of the European countries with a high agricultural potential (Deleanu, 2004; Constantin, 2000).

It also has the most favorable conditions for agriculture. From the entire national territory, i.e. "23.8 million hectares, the agricultural area used by agricultural holdings is about 13.3 million ha (55.9%), out of which about 8.3 million ha are arable land" (MADR, 2015).

At the same time, in terms of the agricultural area used, at the European level, Romania ranks sixth, after France, Spain, Germany, Great Britain and Poland. In terms of arable land, it ranks fifth, after France, Spain, Germany and Poland (MADR, 2010).

Regarding the use of the land fund – its distribution (Table 3) – it is noteworthy that the arable land holds approx. 2/3 of the agricultural area; about 1/3 of the area is represented by pastures and meadows, while vineyards and orchards represent approx. 3%. Referring to the share of cereals and oilseeds, they hold about 2/3 of the arable land.

Table no. 3. Land distribution by mode of use (Evolution 2010-2013)

	- thousand ha -			
Specification	2010	2011	2012	2013
Agricultural area, out of which:	14634,5	14621,5	14615,1	14611,9
Arable land	9404	9379,5	9392,3	9389,2
Pastures	3288,7	3279,3	3270,6	3273,9
Meadows	1529,6	1554,7	1544,9	1541,9
Vineyards and vine nurseries	213,6	211,3	210,5	210,3
Orchards and tree nurseries	198,6	196,7	196,8	196,5

Source: INS (2015). Anuarul statistic al României (Statistical Yearbook of Romania), 2013, 2014 tab 14.1, [online] Available at: <http://www.madr.ro/docs/agricultura/agricultura-romaniei-2015.pdf>

It is also worth mentioning the variety of relief forms and the proportionality in the distribution of the land in different areas: approx. 1/3 - in plains and meadows, approx. 1/3 - in hills and plateaus and approx. 1/3 - in the mountains. A significant part of the agricultural land is located in relatively less favorable climatic areas, either with moisture deficiency – especially arable lands – or with thermal deficiencies, which often diminishes crop yields.

Due to this fragmented relief, the lands on slopes have undergone erosion processes and landslides that diminished their productive capacity. As a result, the land areas requiring land reclamation works, such as irrigation, drainage and soil erosion control technologies are very large (Dona, 2000).

A particularity for Romania, revealed from the comparison with other European countries, is that the main indicators show that agriculture plays a relatively important part in the national economy, that the country's development depends more on agriculture (Popescu, 2001, Deleanu, 2004).

On the other hand, the ratio between the arable land of our country and the number of inhabitants is ½ ha of arable land per capita; this ratio is much higher than the one in the European countries (almost double the average calculated for those states) (MADR, 2010).

Then, as shown in various papers (Popescu, 2001, MADR, 2010), the relatively large share of agriculture in the GDP is not the expression of a highly developed agriculture (on the contrary). This is also shown by the share of agriculture in relation to the employed population, capital investments and fixed assets. Moreover, the decreasing share held by agriculture in the GDP since 1994 (even in the years when the GDP decreased) and its increasing share in terms of the employed population (which is a particular case for Romania) shows a decrease in agricultural labor productivity; it has dropped alarmingly, relative to national productivity (Popescu, 2001).

From another perspective, the contribution of agriculture, forestry and fish farming to the GDP, at the level shown above (about 4.5% of the GDP), is at least double compared to that of the other EU Member States (INS, 2018, MADR, 2010).

In terms of the labor force, Romania's agriculture holds one of the highest in Europe (about 2 million people); however, the share of the employed population in this sector still shows a regressive trend: in 2001 - approx. 41%; in 2016 - approx. 25% (Rotaru, 2017).

The active population in this sector is mostly represented by self-employed workers in individual holdings (showing a marked aging trend), and agro-technical engineering staff in agricultural enterprises, which are organized as trading companies.

The regressive trend of the share held by the population employed in agriculture is related to causes such as [7]: the retirement of the elderly from this type of activity, small incomes in agriculture (which do not motivate young people to carry out their activities here), minimum investments in rural areas, which did not lead to a significant absorption of the younger labor force.

5. Agricultural holdings

In 2016, the situation of agricultural holdings – those having the status of legal persons, farms/ individual households, as well as the areas under their exploitation – is getting worse compared to 2013.

In this respect, the information listed below is extremely important (Table 4).

Table no. 4. Agricultural areas, by main categories of use (2013-2016)

Indicators	M.U.	Total agricultural holdings		Agricultural holdings without legal personality		Agricultural holdings with legal personality	
		2013	2016	2013	2016	2013	2016
Number of agricultural holdings	thousands	3630	3422	3602	3396	28	26
Agricultural area used	thousands ha	13056	12503	7271	6927	5785	5576
- arable land	thousands ha	8198	7814	4558	4254	2640	3560
- pastures and meadows	thousands ha	4398	4246	2315	2291	2083	1955
- permanent crops	thousands ha	302	301	240	240	62	61
- family gardens	thousands ha	158	142	158	142	-	-
Used agricultural area, on average, per agricultural holding*)	ha	3.6	3.65	2.02	2.04	207.49	312.64

*)It was calculated in the following measurement units: hectare and number

Source: INS (2017). *Anuarul statistic al României* (Statistical Yearbook of Romania), [online]

Available at: http://www.insse.ro/old/sites/default/files/com_presa/com_pdf/asa_2016r_2.pdf

In relation to the European area, Romania is characterized by significant differences between the average area of the individual holding (being much diminished) and that of the individual European farms, i.e. about 19 ha/ farm. In addition, the ownership areas, which include common land (61.4%) and land rents (28.7%), are majoritarian.

The utilized agricultural area owned by agricultural holdings without the status of legal person represents 42.5% of the total agricultural area used; the percentage corresponding to the agricultural holdings with the status of legal person is approximately 19%. The existence of numerous small farms in parallel with great farms shows an imbalance with a special impact on the Romanian agriculture and its competitiveness (Popescu, 2001; Dona, 2000; Constantin, 2000).

As far as agricultural enterprises are concerned, most of them (over 2/3) are micro-enterprises with less than 10 employees (Constantin, 2000).

A remedy for this division/ fragmentation can only be the transition to various forms of legal association and the creation of what we call "producer groups" in agriculture.

6. Conclusions

In Romania, on the one hand, we are dealing with great agricultural overcapacity; on the other hand, agriculture brings a noticeable contribution to the general economic growth. As pointed out in this paper, the Romanian rural economy is predominantly characterized by a large percentage of small farms, mainly focused on self-consumption, and only rarely on selling the products obtained (and in this case, irregularly).

From a different perspective, there is currently a shift of the labor force from agriculture to non-agricultural branches; what needs to be pursued by macro-decision-makers is whether this move takes place based on the increase in labor productivity in agriculture and on ensuring a higher productivity level in the branches where it moves.

In the short and medium term, through the policy of national authorities and the European legislation, it is necessary to encourage the transition to various forms of legal associations and to create "producer group" in agriculture, to increase investments in technology and modern technologies, aiming at boosting yields and diminishing the number of the employed population in the analyzed sector, which in the medium term should become more efficient/ competitive.

7. References

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