

STUDIES ON THE EVOLUTION OF THE AGRICULTURAL SECTOR IN ROMANIA

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Abstract. *The paper analyzes the evolution of Romanian agriculture after 1990. The aim of the study is to highlight the transformations of the agricultural sector in the context of economic transition and European integration. The methodology is based on the analysis of official statistical data provided by the INS and other national sources. Time series, intertemporal comparisons and economic interpretations are used. The results show a significant decrease in the share of agriculture in GDP, from 21.2% in 1990 to 4.1% in 2022. The agricultural area has remained relatively constant, but its structure has changed. The number of agricultural holdings has decreased, but small farms, under 2 hectares, predominate. Crop production has a majority share, while the livestock sector is in decline. Yields remain below the EU average. The workforce is aging and poorly qualified. Technical equipment is insufficient, and the use of chemical fertilizers has decreased significantly after 1990. The main conclusion is that Romanian agriculture requires modernization. Coherent policies, investments in commercial farms, technology and professional training are needed. Agriculture can become a strategic sector again if it is supported effectively and oriented towards sustainability and competitiveness.*

Key words: agriculture, GDP, Romania, agricultural holdings

INTRODUCTION

Agriculture constituted and continues to constitute the fundamental pillar of human existence, also representing the central structural element of the Romanian rural economy [10,11].

The agricultural sector represents an essential component of the national economy, and the analysis of its contribution to the formation of the Gross Domestic Product (GDP) offers relevant perspectives on the level of economic development, the productive structure and long-term sustainability [2,3]. The added value generated by agriculture reflects not only the internal performance of this sector, but also the degree of integration of agricultural activities into the extended value chains of the economy [5,6].

In the case of Romania, agriculture has traditionally played a significant role in the formation of GDP, its contribution being influenced by a series of structural and conjunctural factors: the characteristics of the land fund, the climate, agricultural policies, the level of technology and the ability to access European funds [7,9]. Although in recent decades the share of agriculture in GDP has registered a downward trend - a process specific to developing economies - it remains higher than the European Union average, which highlights the predominantly agrarian character of the Romanian rural economy.

The economic growth of a country is measured by the Gross Domestic Product performance indicator. Gross Domestic Product is the main indicator for measuring economic development and growth, representing "the added value created in a calendar year to which taxes and customs duties are added". At the level of an economy, each economic branch contributes a certain weight to the formation of GDP.

Developed countries are generally characterized by advanced post-industrial economies, in which the service sector (tertiary) predominates in relation to the industrial sector (secondary). In contrast, developing countries are still in the process of industrialization or have pre-industrial, predominantly agricultural economies, some of which are classified as least developed.

Gross domestic product (GDP) per capita is another macroeconomic indicator that measures the value of all final goods and services produced in the national economy during a year and is divided by the population of the country in question.

An important element in the economic evolution of a country is the way in which it is possible to use and capitalize on the advantage represented by economic resources [15]. From this point of view, we will find that on resources, in the branches of the national economy, the results are among the most contradictory [13,14].

The issue related to the place and role that agriculture holds in economic development is addressed in numerous articles on economics, emphasizing the importance of agriculture in this regard. Therefore, the issue of economic development cannot be raised without taking into account the effects of the development of the agricultural sector, which is closely linked to other economic branches, especially industry.

MATERIALS AND METHODS

The methodology applied in this research includes the collection and processing of statistical data, their representation through graphical means, as well as the analysis and synthesis of information regarding the evolution of agriculture, extracted from the relevant literature.

RESEARCH RESULTS

The share of agriculture in our country GDP has significantly declined from 21.2% in 1990 to 4.2% in 2015, reaching 3.8% by 2023. This downward trend is primarily attributed to the expansion of other economic sectors, particularly industry and services (table 1, figure 1).

Table 1.

Evolution of the share of economic branches in GDP formation, (%)

No.	Year	Agriculture	Industry	Services
1.	1990	21.2	40.5	58.3
2.	1995	18.1	36.4	45.5
3.	2000	11.1	32.2	56.7
4.	2005	8.5	30.4	61.1
5.	2007	5.5	34.2	60.3
6.	2008	6.3	36.7	57.0
7.	2010	5.6	37.0	57.4
8.	2015	4.2	29.6	66.2
9.	2018	4.3	28.2	67.5
10.	2019	4.1	27.2	68.7
11.	2020	4.2	23.2	72.6
12.	2021	4.6	26.1	69.3
13.	2022	3.8	27.3	68.9
14.	2023	3.8	26.7	69.5

Source: Own processing after [16,17,18]

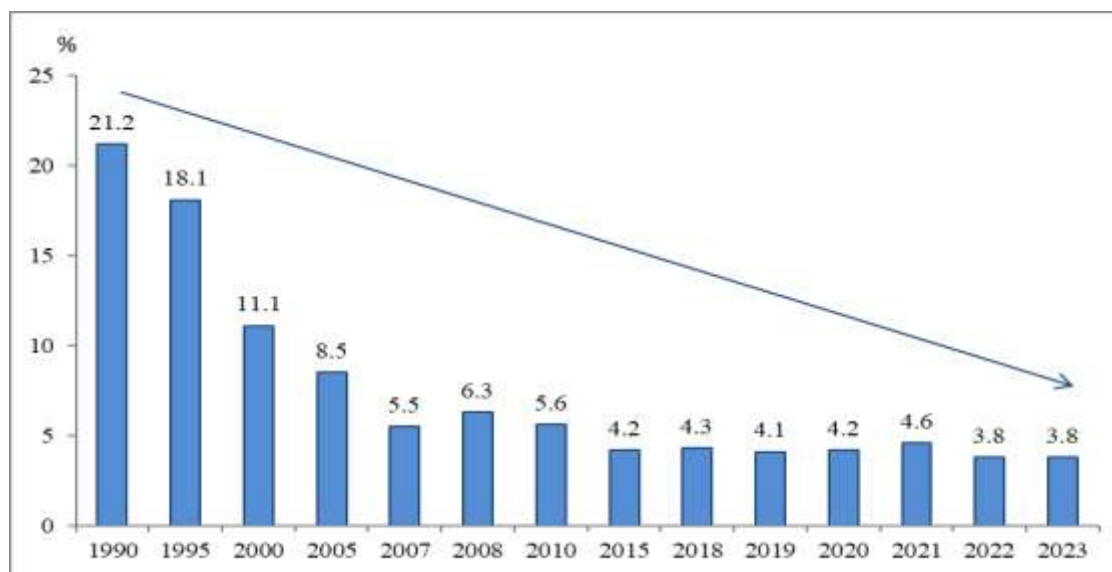


Figure 1. Change in the share of agriculture in GDP formation, 1990-2023

Romania's agricultural area remained relatively stable during the analysed period, with a slight decrease of 168.9 thousand hectares between 1990 and 2014 (table 2, figure 2).

Table 2.

Evolution of Romania's Agricultural Area, 1990–2014 (thousand ha)

No.	Year	1990	1995	2000	2002	2005	2007	2010	2013	2014
1	Land fund	23839,1	23839,1	23839,1	23839,1	23839,1	23839,1	23839,1	23839,1	23839,1
2	Agricultural area	14769,0	14797,2	14856,8	14836,6	14741,2	14709,3	14634,5	14611,9	14630,1
3	Arable land	9450,0	9 337,1	9381,1	9398,5	9420,2	9423,3	9404,0	9389,3	9395,3
4	Pastures	3263,0	3 392,4	3441,7	3424,0	3364,0	3330,0	3288,7	3273,9	3272,2
5	Meadows	1465,0	1 497,7	1507,1	1513,6	1514,7	1531,4	1529,6	1541,9	1556,3
6	Vineyards	277,0	292,4	272,3	259,6	224,1	218,0	213,6	210,3	209,4
7	Orchards	231,0	277,6	254,6	240,9	218,2	206,6	198,6	196,5	196,9

Source: Own processing after [17]

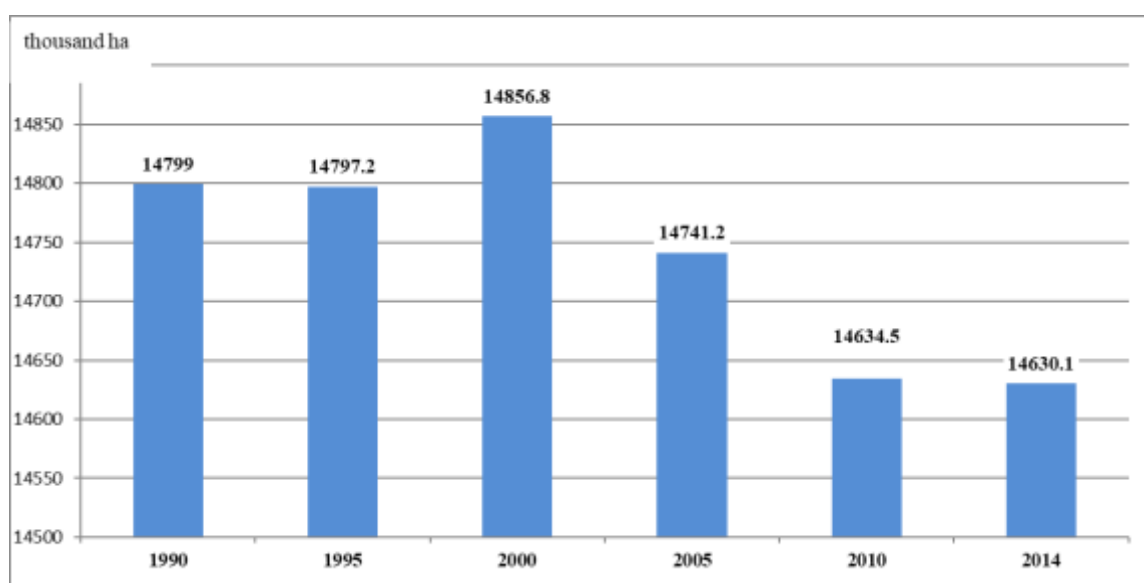


Figure 2. Agricultural area of Romania (1990-2014)

Analyzing the variation by categories of agricultural land by usage categories reveals a slight decrease in arable land by 0.57%, accompanied by increases in land used for pastures (by 1%) and hayfields (by 1.6%). The area covered by vineyards and wine nurseries declined significantly, from 277.0 thousand hectares in 1990 to 209.4 thousand hectares in 2014, representing a 24.4% reduction. Similarly, the area occupied by orchards and fruit nurseries decreased by 14.76% during the same period.

Romanian agriculture is currently facing numerous difficulties of an economic-social nature, including the excessive fragmentation of land and the predominance of economically unviable agricultural households. Romania represents the extreme case of subsistence agriculture because 88.7% of agricultural holdings are under 5 ha, which places it in first place in the EU with the largest number of holdings (figure 3).

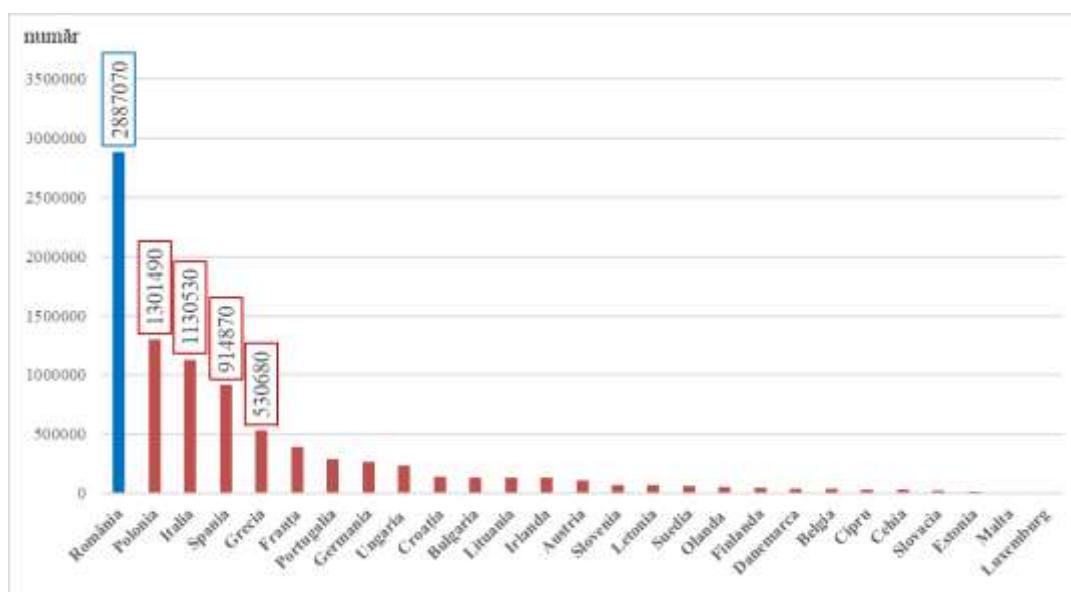


Figure 3. Number of agricultural holdings in the European Union, 2020

Also, the largest average area per farm is found in the Czech Republic – 120.80 ha, probably influenced by large commercial farms or the legacy of agricultural cooperatives from the communist period. The smallest average area per farm is in Malta – 1.28 ha, due to severe geographical and territorial limitations.

Countries such as the Czech Republic, Estonia, Slovakia, Denmark reflect an industrialized model of agriculture, oriented towards export and high productivity, and Greece, Cyprus, Italy, Romania reflect a traditional model, characterized by small family farms (especially subsistence) [12,18].

The average size of farms is correlated with the level of mechanization – large farms allow for the efficient use of machinery, with the degree of association – in countries with small farms, the lack of cooperation reduces economic efficiency and especially with access to CAP subsidies – larger farms have the ability to access European funds more easily.

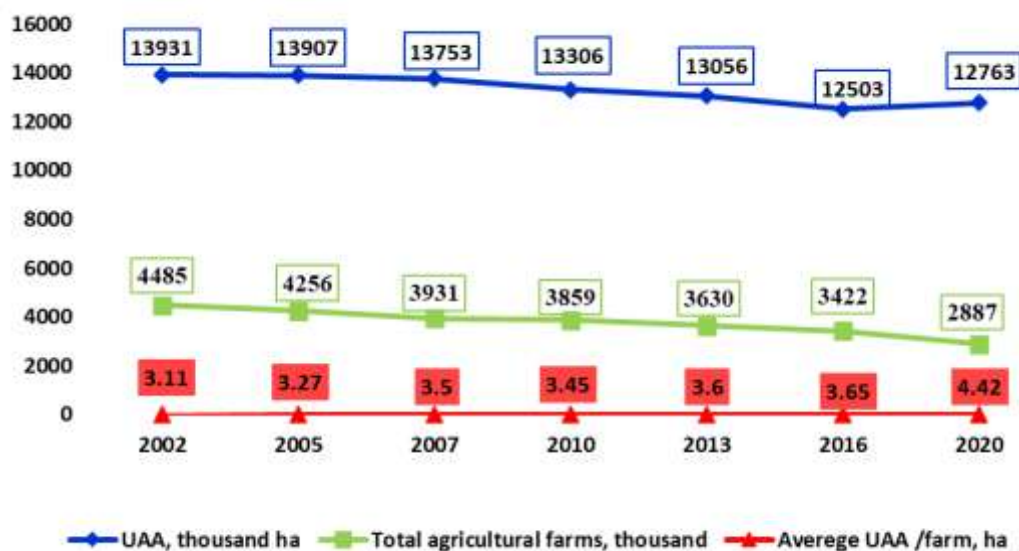


Figure 4. Agricultural holdings and UAA, 2002-2020

Romania has an average area per holding of only 4.42 ha, one of the smallest average areas, below the EU average, indicating a strong fragmentation of agricultural land (figure 4).

CONCLUSIONS

The coexistence of a very large number of small farms alongside large-scale agricultural holdings highlights a significant structural imbalance, which affects the performance and competitiveness of agriculture in Romania. Unlike most European countries, the segment of medium-sized farms (between 10 and 50 hectares) is poorly represented in the Romanian agricultural landscape (3.21% of the total number and 9.80% of the surface area).

Improving this aspect and ensuring the balanced development of agricultural holdings require active state involvement through its specialized institutions. This includes supporting farmers by offering guidance and assistance to small and medium-sized farms, facilitating their cooperation in the marketing of agricultural production, and implementing other necessary measures.

Consequently, Romanian agriculture requires both financial support and the implementation of coherent agricultural policies that foster improved performance and long-term sustainability.

REFERENCES

- [1]. ADAMOV T., IANCU T., 2019, *Economia spațiului rural*, Editura Agroprint
- [2]. ALECU N. I., ALECU E., 2011, *Situația agriculturii și a exploatațiilor agricole în țările membre ale Uniunii Europene*, Editura Ceres, București
- [3]. ANGHELACHE C., 2017, *România 2017, Starea economică la un deceniu de la aderare*, Editura Economică, București
- [4]. BRAD I., 2015, *Managementul producției*, Editura Eurostampa, Timișoara
- [5]. DONA I., 2015, *Economie rurală*, Editura Economică, București
- [6]. FEHER A., 2009, *Finanțarea agriculturii și dezvoltării rurale. Politici comunitare*, Editura Orizonturi universitare, Timișoara
- [7]. GAVRIL ȘT., 2006, *Economie agrară*, Editura Junimea, Iași

- [8]. MĂNESCU C., 2025, Agricultura României sub impactul Politicii Agricole Comunitare, Editura Agroprint, Timișoara
- [9]. MĂNESCU C., MĂNESCU A., VASS H., SICOE-MURG O., DINCU A.-M., MATEOC-SÎRB N., Studies on the importance of agriculture in the romanian economy, Lucrari Stiintifice Seria I, Management Agricol, Vol. 24(2)
- [10]. OTIMAN P. I., 1999, Economie rurală, Editura Agroprint, Timișoara
- [11]. OTIMAN P.I., MATEOC-SÎRB N., MĂNESCU C., 2013, Economie rurală, Editura Mirton Timișoara
- [12]. SICOE-MURG O. M., 2024, Economie rurală, Editura Eurostampa, Timișoara
- [13]. ZAHIU L. (COORD), DACHIN A., ION R., ISTUDOR N., MANOLE V., POPESCU A., POENARU Ș., 2006, Agricultura Uniunii Europene sub impactul Politicii Agricole Comune, p. 19, Editura Ceres, București;
- [14]. ZAHIU L., DACHIN A., 2001, Politici agroalimentare comparate, Editura Economică, București
- [15]. ZAMAN GH., VASILE V., 2006, Transferul tehnologic și investițiile - priorități ale dezvoltării durabile, Academia Română, Institutul Național de Cercetări Economice, Institutul de Economie Națională, București;
- [16]. ***, National Institute of Statistics, Statistical Yearbook of Romania, 2020
- [17]. ***, National Institute of Statistics, Statistical Yearbook of Romania, 2024
- [18]. ***, Eurostat, 2025, <https://ec.europa.eu/eurostat/data/database>