# POLARIZATION OF ROMANIAN FARMS ACCORDING TO THEIR SIZE

## Samochis B.<sup>1</sup>, Glogovetan Oana Eleonora<sup>2</sup>, Crisan C.<sup>3</sup>

1)"Babes-Bolyai" University, Faculty of Economics Sciences and Business Administration, Teodor Mihaly, no58-60, 400591, Cluj Napoca, Romania, email:b.samochis@clicknet.ro

2)"Bogdan – Voda" Univesity, Faculty of Economics Sciences, Grigore Alexandrescu no26A,400560, Cluj Napoca, Romania, email:oanakun@yahoo.com

3))"Bogdan – Voda" Univesity, Faculty of Economics Sciences, Grigore Alexandrescu no26A,400560, Cluj Napoca, Romania, email:cornel\_crisan25@yahoo.com

**Abstract.** Based on the data presented by Eurostat, the authors highlighted the deep split formed in the structure of Romanian farms, according to their size. This split is unique in the European Union where most of the agricultural surfaces are held by either very small or very large farms. In this paper we highlighted the causes as well as the main consequences of this phenomenon on the agriculture in general and on the rural area in particular.

Keywords: farm, size, polarization.

### Introduction

The size of the farms is an important feature.

Without mentioning other conceptual details, the size of the farm is given by the number of its physical production units (agricultural land surfaces; number of animals) or by the number of "conventional units" (the one used the most being E.S.U. – European Size Unit), each one with its advantages and disadvantages.

Most frequently, during counts, statistics, projects, etc. one expresses the size of the farms in physical units. This means that the size is given in specific measuring units: "hectares", "acres", "m²", or by stating the number of animals of that specific kind. The advantage of this method is that it presents more suggestively the size of the farm in relation to its production capacity; to present more correctly and to make it easier to understand the level of the concentration process; to be expressive and operative in data collection, in the design and organization of the production process. At the same time, due to

specific character, this method has the disadvantage of not ensuring the size compatibility in case of farms having different profiles, or even that of not being able to present the size of complex farms (formed of several production branches).

#### MATERIAL AND METHO

Examining the size of the Romanian farms from the perspective of the average size of the utilized agricultural area (UAA), or based on the data collected during the "2002 General Agricultural Count" and during the "2007 Structural Investigation of Agriculture", data that was also used by Eurostat, it results that in 2007 the average size was of 3.5 ha as compared to the average of the EU27 countries, namely 12.6 ha, which means the lowest level, if one does not take into account the special case of Malta. Several southern states are also under the average EU level: Italy (7.6 ha), Greece (4.7 ha), Cyprus (3.6 ha), Malta

(0.9 ha), as well as some countries of the former Soviet Republic: Lithuania (11.5 ha), Hungary (6.7 ha), Slovakia (6.5 ha), Poland (6.5 ha) and Bulgaria (6.2 ha).

Without minimizing the significance of the above value, they are affected by the elements taken into account for their calculation.

This "average" resulted from reporting the total "utilized agricultural area" to the total number of "farms", including to those that hold no agricultural land (specialized in animal husbandry). The total number of "farms" also includes the so-called "family gardens" as well as "public administration units", mostly town halls managing the community's grasslands, but also schools, churches, parishes, etc.

Due to their statistical weight, these elements have important meanings for Romania's agriculture. Depending on their being or not being taken into account, the average size of farms varies (Table 1).

Irrespectively of our position, the level and especially the increase rate of the average size, in particular of the actual farms reported to the average size of those of the EU countries, are quite low, and in this way the difference will not be reduced.

The average size in the row "farms larger than 1 ha" has not increased due to the modification, during that time span, of the surface and number of lands, managed by the public administration units, larger than 100 ha (usually community's grasslands), as these lands have a high statistical weight.

However, the most acute problem is the distribution according to categories of the average surfaces of the Romanian farms.

If one groups the farms according to their size category, according to their statistical weight in UAA, namely "very small", "small", "average", "large" and "very large", based on Agrostat data, the image resulted is similar to that presented in Image 1.

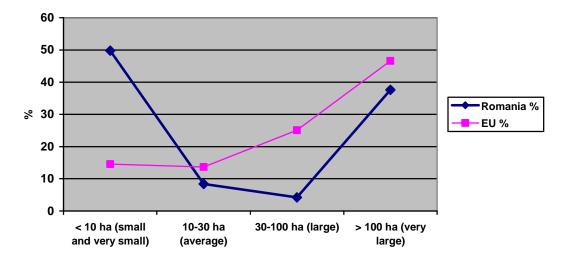


Fig. 1. Statistical weight of various size farms in the total utilized agricultural area in Romania and EU - in % - 2007

The two extreme categories (< 10 ha and > 100 ha) hold about 90% of the utilized area, their statistical weight being very similar, and only 1.7% is held by the 20-30 ha category while the 30-50 ha category holds only 1.8%.

Table 1 Evolution of the Size of the Romanian Farms depending on the Different Meanings of the Term "Farm", from 2002 to 2007

Index	2002				Size		
	Number of farms	Utilized area	Average	Number of farms	Utilized area	Average area	increase rate
	(thousands)	(thousands ha)	area (ha)	(thousands)	(thousands ha)	(ha)	%
European Union							
Total EU 27	15,021.0	172,794.4	11/5	13,700.4	172,485.1	12.6	109.6
Romania - Total units							
with and without							
agricultural land	4,484.9	13,930.7	3.1	3,931.4	13,753.1	3.5	112.9
Total land holders							
(UAA)	4,299.4	13,930.7	3.2	3,931.4	13,753.1	3.6	112.5
Total farms							
> 1 ha	2,130.1	13,171.9	6.2	2,166.3	13,103.5	6.1	98.4
Total actual farms <sup>1</sup>	2,125.6	10,304.9	4.9	2,162.6	11,231.5	5.2	106.1

<sup>&</sup>lt;sup>1</sup> larger than 1 ha and without the surfaces managed by the public administration units

Table 2
Utilized Agricultural Area of the Farms, according to Sizes and according to their Juridical Status (2007)

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Size	Total holders	Public	Farms - hectares								
		administration units		Associations/	Companies	Cooperative units	Other	Total			
	ha	ha		Agricultural companies			types	Surface	%		
< 1 ha	649,530	189	-	-	-	-	-	-	-		
1-2 ha	1,157,975	263	1,156,768	29	161	6	748	1,157,712	10.3		
2-5 ha	3,021,899	926	3,014,849	131	496	12	5,485	3,020,973	26.9		
5-10 ha	2,017,539	1,150	2,002,600	315	965	46	12,463	2,016,389	18.0		
10-20 ha	924,228	1,711	908,632	659	3,204	20	10,002	922,517	8.2		
20-30 ha	230,097	1,256	220,628	706	3,373	-	4,134	228,841	2.0		
30-50 ha	251,156	3,944	228,861	2,047	10,153	96	6,055	247,212	2.2		
50-100 ha	333,054	16,444	243,877	13,191	44,946	566	14,030	316,610	2.8		
> 100 ha	5,167,568	1,846,310	541,154	598,810	1,887,763	24,336	279,222	3,321,258	29.6		
Total	13,753,046	1,872,193	8,317,369	615,888	1,951,034	15,022	332,139	11,231,512	100.0		
%	X	X	74.06	5.48	17.37	0.13	2.96	100.0	X		
Average	3.57	452.76	3.87	429.19	410.40	259.00	54.88	5.19			

The profound gap is quite obvious, this gap cannot be found in any other EU country, especially for Lithuania, where it is not quite this profound however (26.5%; 19.7%; 18.0%; 35.8%).

The ample diversity of the graphic representation form of the farm distribution according to their size in various countries: Gauss "normal" (Austria), "normal-asymmetrical" (Belgium, the Netherlands, Finland), uniform-linear (Italy), increasing-attenuated (Germany, France), increasing-abrupt (Czech Republic, Slovakia, Bulgaria, Great Britain), decreasing (Greece, Cyprus, Slovenia, Poland), etc and inclusively as a "U" in Romania (with very high weights of the extreme sizes), shows the particularities of the nowadays conditions and of the "historic" development of each country's agriculture.

For our country, these specific elements are involving, apart from some "technological" aspects: the lack of land homogeneity, the preponderance of the unequal ground, the high statistical weight of natural grazing lands, especially grasslands, the lack of land cadastre and of other major "social and economic" characteristics such as: the large number of people living in the rural area; important land surfaces "owned by the State"; the difficulties and the duration of the property reconstitution process, as well as other subjective factors.

➤ The important number of people living in the rural areas has been a problem for Romania for a long time. The "socialist" industry, with all its structural and fundamental disadvantages, was able to absorb the gain resulted from the population increase, but also most of the agricultural plus (Image 2). After 1990, once with the industry crash and the decrease of population in both categories at about equal rates, their proportion was practically blocked at about 50%. Thus, half of the country's population is living in the "rural area", encumber the agriculture, it is implicitly dependant on the land surface available, with important consequences on the agricultural product market, on the agricultural land circulation, on the mentalities, behavior and existence of the farmers.

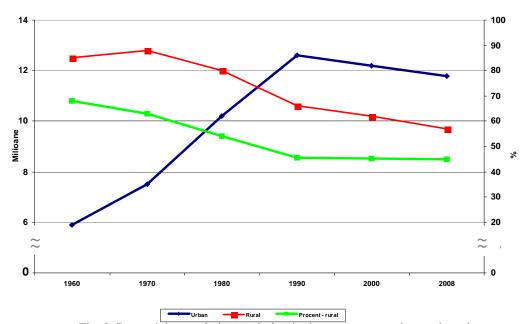


Fig. 2. Romania's population evolution in the two areas – urban and rural

➤ The land owned by the State, whose surface was statistically insignificant before the war, spectacularly increased in surface during the communist regime: through confiscation from the German population deported to the Soviet Union and from the Banat population deported to Bărăgan; through confiscations as a result of political convictions; due to people who gave their agricultural lands to the State for fear of being integrated in the collective farms, etc. Thus, in 1989 the cultivated land held by the State agricultural units reached a total surface of 2.1 millions ha, representing 21.4% out of the total agricultural land surfaces – surfaces amalgamated and located on the most fertile lands of those areas.

➤ The difficulties and the duration of the property reconstitution process in relation with the agricultural lands derived from the following: an important part of the political class did not support the idea, which resulted in a doubtful legislative process; the lack of enthusiasm of the people involved in agriculture; the ambiguity of the juridical system; as well as the direct effect of the 4 decades when the private property was abolished.

Among other factors, one may mention: perversion of some fundamental notions such as: cooperative, farm, public property, community's property, etc; the rapacity of certain categories of people related to the economical goods in general and the agricultural land in particular; the lack of a coherent agricultural policy focused on the social problems; the population's lack of interest in association, cooperatives etc.; maybe even some errors in negotiating the EU offer during the pre-joining stage.

As a result, when the land property reconstitution process ended, the structure of the farms illustrated by the 2002 Count and basically confirmed by the 2007 Investigation, is presented in Table 2.

Besides some particular aspects concerning the distribution of the used agricultural area according to types of farms, if we refer strictly to actual farms, we also notice at this level the presence of the polarization on the one hand of small farms (<10 ha) and on the other hand of very large farms (>100 ha) that dominate the structure occupying about 85% of the UAA, considerably affecting even the efficacy of EU fund grants reported to their objectives on each of the two pillars: annual direct payments as well as multiannual measures of rural development.

On this background one notices the 5,570 farms – companies and individual enterprises – which are preponderant in the total number of farms larger than 100 ha (whose average surface is of 436 ha), real landed properties, representing about 0.25% of the total number of farms, occupying about **21.6%** of their utilized agricultural area, as compared to 2.1 millions small farms (1-10 ha) representing 95.5% of the total number, occupying about half (55.2%) of the utilized agricultural area of the actual farms.

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Thus, mainly on the corporate structures of the former State Agricultural Enterprises, a new category of persons appeared, basically formed of well-qualified specialists, who is outspoken, who generates political and unionist structures, having a tremendous influence in the parliamentary commissions, in the legislative body (see the Farm Law), in the Government and obviously in the specialized mass-media.

Even from 2002, the distribution of the surfaces of these farms according to districts supports the idea that they were constituted on the most fertile and plane lands (Image 3), thus ensuring the appropriation of the most of the differential rent I, as a result of the important land fertility difference, but also the appropriation of the differential rent II.

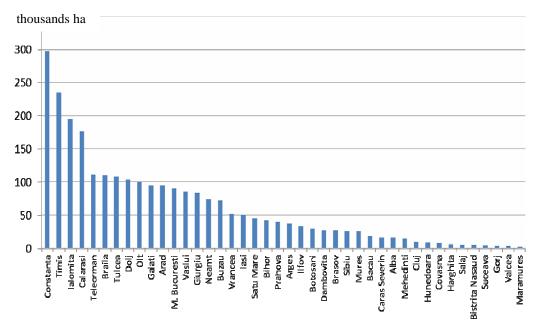


Fig. 3. Total surface of very large farms, companies and individual enterprises of over 100 ha, according to districts, in a descending order (2002)

It is worth underlining that apart from the fact that the weight of these farms in the total utilized agricultural area (21.6%) is practically almost the same with the weight of the state agricultural units in the cultivated surface (21.4%), half of their surface is located in the same districts, namely the most fertile ones (Constanța, Timiş, Ialomiţa, Călăraşi, Teleorman, Brăila, Tulcea, Dolj), and these are also the districts where 50% of the surfaces held by the former State Agricultural Enterprises were also located.

This situation was also noticed by the EU officials. Considering the great diversity of farm agriculture structure in various countries, two researchers, C. Martins and G. Tosstorff, in "Statistics in Focus" 18/2011, starting from the medium level of EU, according to which 1% of the farms hold 20% of the UAA, notice great differences in the efficiency of their activity. As to Romania, the 20% of the surface are held by 1,526 units representing 0.04% of the total number, with an average surface of 1,802 ha.

The farms holding 20% of the UAA are producing only 11% of the Standard Gross Margin (SGM) per total EU. In Romania the weight of the 20% of the UAA in total SGM is of only 9%, namely 143 Euros per hectare, as compared to 378 Euros in the rest of the units. The situation is similar in case of the work resource: per total EU – the 20% of the large farms employ 5% of the total labor force of farms; in Romania they employ only 0.9%, that is 140 ha for one labor unit, as compared to the rest of the farms – 5 ha.

Dr. V. Vereş of Cluj clearly proves that the medium-sized farms are the most efficient ones in a similar study concerning Romanian farms (Managerial Challenges –

2/2011, pp. 318-323), also taking into account the data available in 2007, grouping them classically in small, medium and large.

#### CONCLUSIONS

- 1. The medium size of Romanian farms is hiding their profound polarization, unique in the EU, caused by a series of historic "objective" factors as well as by other "subjective" factors: social, political and economical ones.
- 2. As to the surfaces occupied, the weight of the very large farms on the one hand and that of very small and small ones, as well as their location in the territory, in the conditions of a very different soil fertility (even on a scale from I to X) determines the following: large farms have, apart from the advantages conferred by their sizes, a considerable net income per ha, while the small farms, apart from the size disadvantage, obtain a small net income or even no net income, as most of them are located in less favorable regions (see D. Teaci "Bonitarea terenurilor agricole" (Agricultural Land Solvency) Ed. Ceres, 1980, pp.228), and at the same time they are burdened by the entire rural population.
- 3. These disadvantages are basically slowing down the very normal development of the medium size of the farms. As the industry is slowly developing and as in the last years the development of non-agricultural activities (industry and services) stagnated, each 2 ha of land that passes from the small and very small size category to the size category >100 ha, means, at present, one more unemployed person, and implicitly the increase with one family of the number of emigrants (exodus).
- 4. On the other hand, the small farms, representing the majority of farmers, do not have the professional and material resources in order to ensure themselves the access to the technical, organizational and financial means and solutions. The ample matter and the profoundly social character of these farmers impose the involvement of State bodies in order to ensure the necessary consultancy, guidance and support and not their dumping (see the Agricultural Chambers Law).
- 5. In our country, even more than in other states, it is necessary to improve the management and especially the EU fund distribution, but also the distribution of specific government funds. The recent improvements generated by the implementation of measures 141; 211; 214, namely the support offered to the "semi-subsistence" farms and to disfavored mountain areas; agro-environment payments and even the installation of young farmers (112) are remarkable. In the same register, the proposition of the UE Commission on the payment restrictions applicable to large farms is justified and must be supported. It would be ideal to unify all funds allocated per ha and to grant them according to several levels (3-6 levels starting from lei "0"), according to how favorable the lands are for different uses. This would mean to urgently accomplish the quantitative and qualitative land cadastre based on grading the agricultural lands (the Pedology and Agro-Chemistry Institute has the necessary experience in order to perform such a work).
- 6. All these facts as well as others are leading to the idea according to which in our country, more than in other countries, the "agriculture" must be taken into account not only as a branch of the national economy but first of all as a social and economical segment comprising half of the country's population and 61.7% of its territory, and any agricultural policy structuring must be centered on the social criteria.

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