

## CHANGES IN EUROPEAN UNION FARM STRUCTURE AND THEIR MULTIDIMENSIONAL IMPLICATIONS

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### ABSTRACT

The aim of the paper was to identify the tendencies in the farm structure in EU-28 countries from 2008 till 2016 and point out their implications. The analyses revealed that during the examined period the very impressive decrease in total farm number was observed. The changes of farm number and of farm structure by size class (in UAA) were very differentiated between countries. The increase in the share of the biggest farms in farm number and especially in utilised agricultural area indicates advanced process of agricultural land concentration in many EU countries. The highest concentration was observed in some post communistic countries, but it was very progressive in such important agricultural product producers as German, Denmark, France, Spain as well. The changes in farm structure have important implications for political power of farmers as an interest group at national and the EU level. They influence the provision of environmental and non-environmental public goods as well.

**Key words:** farm structure, farm number, agricultural land, agricultural land concentration

### INTRODUCTION

The farm structure and its changes are very important phenomena from the micro and macroeconomic perspectives. As Stanton [1991] points out, the issues connected to farm structure revolve around changing distributions within the sector, production decisions and who makes them, resource ownership and control over their use. Thus it is an subject of interest of different kinds of economic policy. Initially it was a domain of the interest of the agricultural policy, next rural development policy, now days beside aforementioned, the other ones like environmental, regional and social policies. The farm structure affects the distribution of incomes from agricultural activity and benefits from many support measures offered under aforementioned polices. However, it is necessary to underline that the programs influence the farm structure as well. In

the European Union (EU) the farm structure is under steady monitoring and is examined in regular intervals in order to: assess the agricultural situation across the EU, monitor trends and transitions in the structure of European farms, manage, evaluate and design the Common Agricultural Policy (CAP) in its environmental, economic and social aspects [Eurostat 2018].

There are many examinations of the different aspects of farm structure and its changes in literature. This interest reflects the importance of the phenomenon. To illustrate the vast range of dimensions of the issue some research can be indicated. Brown et al. [1994] examined implications of structural changes in the U.S. agriculture for small scale African American farmers. Ciaian et al. [2009] focused on recognition of implications of farm structure for product specialisations and their competitiveness on international markets and role of the transaction costs in agriculture of

transition countries. Ondersteijn et al. [2003] showed the impact of farm structure and farm management on the nutrient surpluses. Popescu et al. [2006] examined the changes in farm structure and land concentration in Romania and Božek [2016] in Poland. Marks-Bielska [2016] considered determinants of the regional diversity of the farm area structure in Poland.

The aim of the paper is to identify the tendencies in the farm structure in EU countries in years 2008–2016 and point out their implications of general character concerning the EU countries or at least the majority of them. In the paper some problems are analyzed: (i) the tendencies in the farm number and in the farm structure by size class (UAA); (ii) scope and country differentiation of agricultural land concentration; (iii) implications of changes in farm structure.

## MATERIAL AND METHODS

The study encompasses 28 EU member countries. In the paper the term “farm” refers to all kinds of agricultural holdings regardless their legal form.

Eurostat database was the main source of data on number of farms and the agricultural land area. The examination was carried out generally for the years 2008–2016<sup>1</sup>. The period of analyses stemmed from the fact that data for all current members of the EU have been available since 2007<sup>2</sup>, and the 9 years long period is enough for revealing the credible mid-term tendencies.

In the EU once in ten years a census and every 3 or 4 years the Farm Structure Survey (FSS) are carried out. The last<sup>3</sup> census was in 2010 and the last FSS in 2016. In examined period, the methodology of the subsequent surveys was changed in respect to the farm definition. Until 2007, with some exceptions: Poland, Romania Latvia, Bulgaria Greece, German<sup>4</sup> the FSS covered all farms of utilised agricultural area (UAA)

at least 1 ha as well as farms of less than 1 ha if they fulfilled other criteria expressed as natural thresholds like number of animals or area under particular plants. In census in 2010 in some countries the minimum threshold increased: to 5 ha of UAA in the Czech Republic, Denmark, Germany, Sweden<sup>5</sup> and the United Kingdom<sup>6</sup>, to 3 ha in Luxembourg, to 2 ha in Slovakia, to 1 ha in Poland. In the Netherlands, where value of standard output was a criterion, the threshold was lowered to EUR 3,000. The other criteria expressed in natural thresholds were generally lifted up [Eurostat 2018]. The FSS in 2013 and 2016 accepted the thresholds for 2010 with minor modifications.

The change in farm number is shown by indexes of dynamics in absolute figures. Changes in farm structure is characterised by the shares of the farm groups by size class (in UAA) in total number of farms. The process of land concentration is reflected by the comparison of shares of the farm groups in total UAA in 2007 and 2016. Identification of the implications of the changes in farm structure is based on the relevant literature studies.

## RESULTS AND DISCUSSION

### Tendencies in number of agricultural farms in EU countries and its implications

The number of farms differs between members of the EU very noticeably what stems from the set of economic, social, political, geographical reasons. In 2016, the total number of farms in the EU was amounted at ten and quarter millions and was lower by three and half millions in comparison to 2007 (Table 1) so it declined by 24%. It was a quite big decrease taking into consideration only 9 years long period. The fall took place in all countries except the Ireland. Its extent varied between countries from 63% for Slovakia to 6% for Portugal (Fig. 1). Deeper insight in the tendencies

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<sup>1</sup> It is assumed that data obtained in FSS in 2007 reflect the situation on the end of 2007.

<sup>2</sup> Bulgaria and Romania joined EU in 2007 and have shared their data on farm structure with Eurostat since 2005 while Croatia that joined EU in 2013, since 2007.

<sup>3</sup> From the year of 2018 perspective.

<sup>4</sup> In Poland, Romania Latvia, Bulgaria Greece the threshold was lower than 1 ha of UAA, in German it was 2 ha.

<sup>5</sup> In 2010, 5 ha of UAA threshold was introduced as an alternative criterion to 2 ha of arable land threshold.

<sup>6</sup> The UK submitted the revised version of FSS 2007 dataset with the 2010 threshold applied.

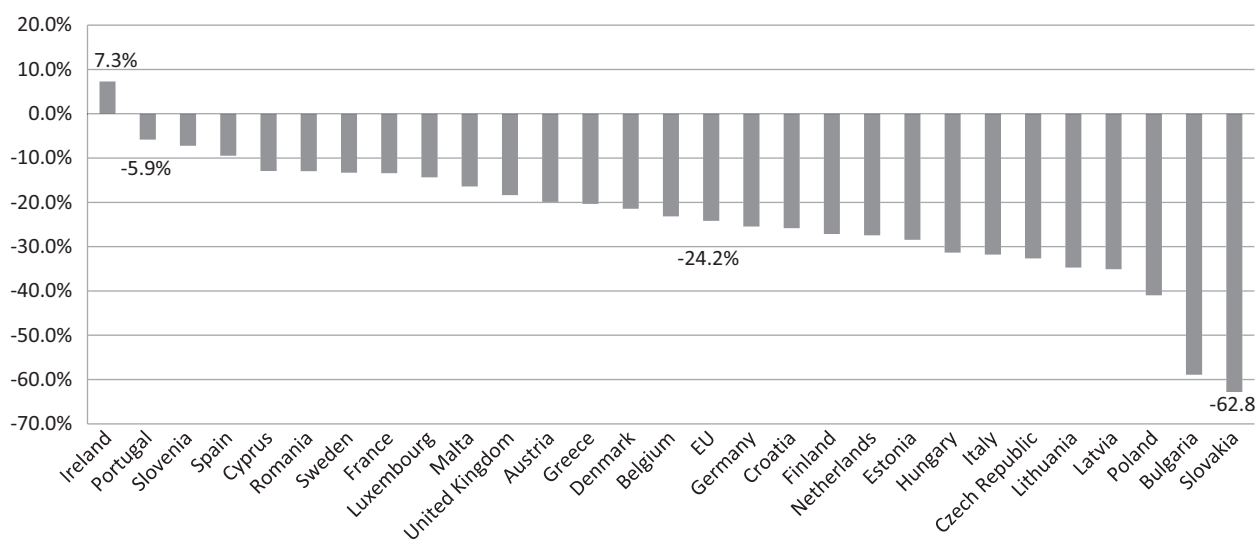
**Table 1.** Farm number and its dynamics in EU countries in 2007–2016

Country	Farm number		Dynamics (basic year = 100)			
	2007	2016	2010/2007	2013/2010	2016/2013	2016/2007
Belgium	48 010	36 890	89.3	88.1	97.7	76.8
Bulgaria	493 130	202 720	75.1	68.7	79.7	41.1
Czech Republic	39 400	26 530	58.0	114.8	101.1	67.3
Denmark	44 620	35 050	92.7	92.6	91.6	78.6
Germany	370 480	276 120	80.7	95.3	96.9	74.5
Estonia	23 340	16 700	84.0	97.9	87.0	71.6
Ireland	128 240	137 560	109.1	99.8	98.5	107.3
Greece	860 150	684 950	84.1	98.1	96.5	79.6
Spain	1 043 910	945 020	94.8	97.5	97.9	90.5
France	527 350	456 520	97.9	91.5	96.7	86.6
Croatia	181 250	134 460	128.7	67.5	85.4	74.2
Italy	1 679 440	1 145 710	96.5	62.3	113.4	68.2
Cyprus	40 120	34 940	96.9	91.0	98.8	87.1
Latvia	107 750	69 930	77.4	98.1	85.5	64.9
Lithuania	230 270	150 320	86.8	85.9	87.5	65.3
Luxembourg	2 300	1 970	95.7	94.5	94.7	85.7
Hungary	626 320	430 000	92.1	85.2	87.5	68.7
Malta	11 020	9 210	113.7	74.7	98.4	83.6
Netherlands	76 740	55 680	94.2	93.3	82.5	72.6
Austria	165 420	132 500	90.8	93.5	94.4	80.1
Poland	2 390 960	1 410 700	63.0	94.8	98.7	59.0
Portugal	275 080	258 980	111.0	86.6	97.9	94.1
Romania	3 931 350	3 422 030	98.2	94.1	94.3	87.0
Slovenia	75 340	69 900	99.1	97.0	96.6	92.8
Slovakia	68 990	25 660	35.5	96.4	108.9	37.2
Finland	68 230	49 710	93.6	85.2	91.4	72.9
Sweden	72 610	62 940	97.9	94.5	93.7	86.7
United King.	226 650	185 060	81.7	98.8	101.1	81.7
EU	13 808 470	10 467 760	88.7	88.5	96.6	75.8

Source: Own calculations based on Eurostat database.

in three-years long periods showed the big differences in the rates and directions of the changes. Generally, the biggest changes in farm number took place in years of 2011–2013 as in 14 countries the rates of dynamics were at the highest level, while in the first sub term (2008–2010) in 11 countries and in third one (2014–2016) only in 4 countries. In the countries with the

deepest fall in the first 3 examined years, the rates of decline in following two periods were relatively small and in 3 countries (the Czech Republic, Slovakia and the United Kingdom) they were positive at least for one period, however, they did not overcome the initial fall. In the first 3 years, in Ireland, Croatia, Hungary and Malta the number of farms increased noticeably,



**Fig. 1.** The change in farm number in EU countries in 2008–2016 (%)

but only in Ireland that growth was not consumed by the fall in the following years.

The aforementioned changes in the methodology influenced the result certainly. The impact of the modification can be estimated at about one million farms<sup>7</sup>. The biggest reduction due to this change took place in Poland where the introduction of the 1ha threshold excluded from the survey about 900,000 farms. The decrease in farm number in the other countries because of this reason was in absolute terms rather modest, but in some countries like Slovakia and the Czech Republic the fall, in relative terms, was enormous as in years 2008–2010, the number of farm plummeted by 65 and 42% respectively. The opposite phenomena in Ireland can be partly tied to abandoning the threshold of 1 ha UAA. To conclude, in examined years, though the fall in farm number due to methodology, the consolidation of the EU agriculture was proceeding at a rapid rate.

The fall in farm number suggests the possible reduction of political power of farmers as an influencing group of interest, more precisely of political parties representing the farmers' interests at national and the EU level. Economists indicate that a very high level of economic support for agriculture in general or for some agricultural product or activities is partly the result of

lobbying by farm organisations [Ray and Henning 1999, Nedergaard 2006, Zawojcka 2011, Hvid 2014, Poczta-Wajda 2016]. However, the process of weakening of farmers' political power does not necessary lead to quick fundamental change of CAP and domestic agricultural policies as a high degree of path dependency in the agricultural policy development process is observed [Kay 2003, Ackrill and Kay 2006, Furtan et al. 2008]. Hess et al. [2008] underline that path dependent political decisions do not always can be explained by economic criteria such as rents created by a policy.

#### **Tendencies in the farm distribution by size class (in UAA) in EU countries**

The decrease in farm number by 24% in the presence of the nearly unchanged (−0.4%) total UAA in the EU indicates that in the course of examined years the process of land concentration took place. In some countries, mainly former post communistic ones, the area of agricultural land increased while the number of farms decreased. Although in majority of the EU member countries area of agricultural land decreased (in some countries noticeably), the fall in the farm number was deeper. In result, in the EU the average per farm agricultural land area increased from 12.6 to 16.6 ha (by 32%).

<sup>7</sup> The estimation is based on the comparison of the numbers of the smallest farms in 2007 and 2010 in countries where the modification of thresholds took place.

**Table 2.** Farm distribution by size class (in UAA) in 2007 and 2016 (%)

Country	Farm size class									
	< 5 ha		5–19.99 ha		20–49.99 ha		50–99.99 ha		≥ 100 ha	
	2007	2016	2007	2016	2007	2016	2007	2016	2007	2016
Belgium	25.5	13.9	28.5	30.6	27.8	30.2	14.2	18.6	4.1	6.7
Bulgaria	94.9	82.6	3.2	8.5	0.7	4.1	0.4	1.8	0.9	3.0
Czech Republic	50.4	18.7	21.6	36.4	11.3	17.9	5.9	9.2	10.8	17.8
Denmark	3.8	4.4	38.6	39.3	23.5	20.9	15.9	13.4	18.3	21.9
Germany	22.6	8.6	32.3	36.7	22.1	24.1	14.4	17.4	8.6	13.3
Estonia	36.1	31.6	39.8	37.1	12.9	13.7	4.5	6.3	6.6	11.4
Ireland	6.5	7.4	36.4	36.0	39.3	38.6	14.2	14.4	3.5	3.6
Greece	76.2	77.3	19.5	18.4	3.5	3.4	0.68	0.72	0.1	0.2
Spain	52.8	51.6	26.8	26.8	10.7	10.8	4.8	5.3	4.9	5.5
France	24.7	24.3	19.1	18.2	18.8	16.3	20.2	19.4	17.1	21.9
Croatia	77.1	69.5	19.1	22.0	2.8	4.7	0.7	2.6	0.3	1.2
Italy	73.3	61.9	19.4	26.1	5.0	7.8	1.6	2.6	0.8	1.5
Cyprus	86.4	89.6	10.6	7.7	2.0	1.7	0.6	0.7	0.35	0.34
Latvia	40.9	35.2	44.4	43.5	10.0	12.5	2.7	4.1	2.1	4.6
Lithuania	60.5	50.0	30.9	34.7	5.6	8.1	1.7	3.7	1.3	3.5
Luxembourg	17.8	16.2	17.4	16.8	17.0	15.7	30.0	27.4	18.3	24.4
Hungary	89.4	81.4	6.6	11.1	2.0	3.8	0.9	1.7	1.0	2.0
Malta	97.4	96.4	2.5	3.5	0.0	0.1	0.0	0.0	0.0	0.0
Netherlands	28.0	20.2	30.1	28.7	27.4	29.7	12.0	16.8	2.5	4.7
Austria	33.5	31.0	39.6	37.4	20.1	23.1	4.8	6.4	2.0	2.1
Poland	68.5	54.3	26.3	36.1	4.2	7.2	0.7	1.6	0.3	0.9
Portugal	72.6	71.5	19.5	19.3	4.4	5.0	1.6	1.8	2.0	2.4
Romania	89.8	91.8	9.4	7.1	0.4	0.5	0.1	0.2	0.2	0.4
Slovenia	59.0	59.5	36.8	34.7	3.7	4.9	0.4	0.7	0.1	0.2
Slovakia	87.2	55.7	6.6	23.8	2.0	7.5	1.1	3.7	3.1	9.4
Finland	9.1	4.0	33.3	33.1	36.5	33.0	16.3	19.8	4.8	9.9
Sweden	14.7	10.5	37.8	45.2	22.9	19.7	13.8	11.8	10.9	12.9
UK	19.0	10.3	26.8	29.4	20.7	22.5	15.9	17.0	17.6	21.0
EU	70.3	65.6	18.7	20.4	5.9	7.1	2.9	3.6	2.2	3.3

Source: Own calculations based on Eurostat database.

Moreover, in the course of nine years, the structure of farms by class size (in UAA) changed (Table 2).

In years 2007–2016 the number of the farms smaller than 5 ha of UAA dropped in the EU by nearly 30% what resulted in fall of their share in total farm number by 5 percentage points (p.p.). The reduction of the share took place in 22 EU countries. The highest drop was observed in Poland, Slovakia, the Czech Republic and Germany, however, as it was mentioned, it stemmed partly from the modification of a methodology. For the remaining 18 countries, the fall varied from two-digit level: Bulgaria – 12.3 p.p., Belgium – 11.6 p.p., Italy – 11.2 p.p., Lithuania – 10.5 p.p., to about 1 p.p.: France – 0.5 p.p., Portugal – 1.1 p.p., Spain – 1.2 p.p. In 6 countries: Denmark, Ireland, Greece, Cyprus, Romania, Slovenia, the share of the smallest farms climbed slightly.

In the case of the farms of the size 5–19.99 ha of UAA, the number of countries with the increase in share equalled the number of countries with the decline. The highest growth was in Slovakia and the Czech Republic – 17.2, 14.7 p.p. respectively, while the highest decrease in Cyprus, Estonia, Romania – 2.9, 2.8, 2.3 p.p. respectively. The shares of the middle size farms – 20–49.99 ha of UAA – increased in 20 countries and the size of the changes varied from 6.6 p.p. for the Czech Republic to 0.1 p.p. for Spain, Romania, Cyprus. For farm class of 50–99.9 ha UAA, the advancement was observed in 23 countries while loss in 4 countries.

The most interesting and important phenomena concerns the biggest farms – 100 ha of UAA and more. In 2007–2016 their number climbed by 12.2% in the EU. At the beginning of the examined period they accounted for 2.2% of the total farm number in the EU and 9 years later for 3.3%. Contributions of such farms rose in 26 countries, while in Cyprus and Malta remained stable.

To sum up, during the examined 9 years there was near-continuous tendency for the share of the group of farms 5 ha UAA and more to increase in 12 countries. In 8 countries it was observed for farms of area 20 ha of UAA and bigger, in 4 countries for farms bigger than 50 ha of UAA. In France and Luxembourg only the biggest farms improved their share but the increase was enormous: 4.8 and 6.1 p.p. respectively.

The process of polarisation of the farms is a very interesting and worth to point out phenomenon. It was observed in Denmark, where the shares of the farms smaller than 20 ha and bigger than 100 ha UAA increased, while in Ireland and Greece the phenomenon concerned the groups of farms to 5 ha and bigger than 49.99 ha.

### **Tendencies in agricultural land distribution and their implications**

The data on the changes in distribution of the agricultural land by farm size class indicate that in examined period the process of land concentration took place. The scope of the phenomenon varied between countries noticeably. In 2007 the group of the smallest farms in the EU cultivated 8.4% of UAA, but in Malta about 80%, in Romania 35%, while in 7 countries less than 1%: the Czech Republic, Denmark, Ireland, France, Luxembourg, Finland, the United Kingdom (Table 3).

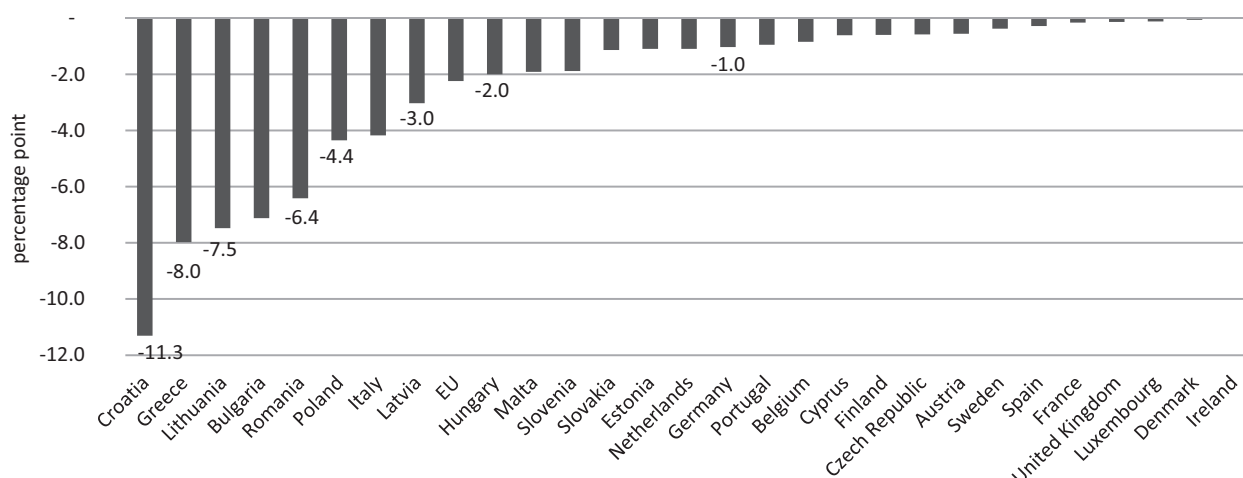
It is very remarkable that in years 2008–2016 the share of the smallest farms fell in every EU country, on average in the EU by 2.4 p.p. Although, in majority of the EU members the decline was not big – below 2 p.p., in some countries the growth was much higher: in Croatia it was 11.3 p.p., in Greece 8.0 p.p., in Lithuania 7.5 p.p., Bulgaria 7.1 p.p. (Fig. 2). The drop concerned the farms of size 5–19.99 ha as well. In the EU it is estimated at 2.3 p.p. The very little rise took place only in four countries – the Czech Republic, Hungary, Malta, Slovakia and Sweden. In the farm group of size 20–49.99 ha of UAA in 17 countries the fall continued while in 11 countries the modest increase took place. In the EU, the share of farms of area of 50 ha and more proceeded to decline although, the fall took place only in 11 countries, among them in France, Denmark Germany, the United Kingdom, Ireland. What is interesting, in these countries, the share of other groups fell.

As a result of shown phenomena, the role of the biggest farms of size 100 ha of UAA and more rose remarkably in majority countries. Only in the Czech Republic, Spain, Hungary, Austria, Slovenia and Slovakia it dropped slightly. In result, in the EU, the biggest farms cultivated more than 50% of UAA. In some post communistic countries the participation was extreme

**Table 3.** The distribution of utilised agricultural area by farm size class in 2007 and 2016

Country	Farm size class									
	< 5 ha		5–19.99 ha		20–49.99 ha		50–99.99 ha		≥ 100 ha	
	2007	2016	2007	2016	2007	2016	2007	2016	2007	2016
Belgium	1.8	0.9	11.3	9.7	31.9	27.3	33.9	35.3	21.1	26.8
Bulgaria	10.0	2.9	4.6	3.9	3.5	5.9	4.6	5.6	77.3	81.6
Czech Republic	0.8	0.3	2.5	2.9	4.0	4.3	4.6	5.0	88.1	87.5
Denmark	0.12	0.06	6.9	5.5	12.7	9.0	19.1	13.0	61.1	72.4
Germany	1.3	0.2	8.2	7.1	16.1	13.3	22.1	20.3	52.3	59.1
Estonia	2.4	1.3	10.5	6.4	10.1	7.2	7.9	7.5	69.1	77.6
Ireland	0.635	0.627	14.0	12.7	39.5	35.1	29.4	27.4	16.5	24.2
Greece	26.5	18.5	37.5	25.0	21.9	15.1	9.4	6.9	4.7	34.5
Spain	4.6	4.3	11.3	11.0	13.8	13.9	14.1	15.2	56.1	55.5
France	0.96	0.8	4.0	3.2	12.3	9.1	28.0	23.2	54.8	63.8
Croatia	22.7	11.4	31.6	17.1	15.3	12.5	8.3	15.8	22.1	43.2
Italy	15.9	11.7	24.4	23.3	20.4	22.1	14.4	16.3	24.9	26.6
Cyprus	28.7	28.1	27.1	22.6	16.22	16.16	11.4	14.4	16.5	18.7
Latvia	5.8	2.8	27.1	16.5	18.0	13.7	11.1	10.5	38.0	56.6
Lithuania	14.4	6.9	24.9	17.1	14.7	12.8	10.2	13.2	35.8	50.0
Luxembourg	0.6	0.5	3.2	2.7	10.3	8.0	39.1	31.1	46.8	57.7
Hungary	6.8	4.8	9.4	10.1	9.0	10.7	9.2	11.0	65.5	63.4
Malta	80.4	78.5	18.4	20.4	1.2	1.1	0.0	0.0	0.0	0.0
Netherlands	2.4	1.3	13.3	10.0	36.6	31.2	31.9	35.2	15.7	22.4
Austria	4.4	3.8	22.8	20.9	32.1	36.2	16.7	21.1	24.0	17.9
Poland	17.6	13.2	39.1	34.3	18.9	20.8	6.8	10.6	17.5	21.1
Portugal	10.0	9.1	14.6	13.1	10.7	10.8	8.8	9.0	55.9	58.0
Romania	35.1	28.7	21.4	15.8	3.5	4.4	2.4	3.3	37.6	47.8
Slovenia	21.8	19.9	51.3	46.0	16.0	20.4	3.9	6.7	7.0	6.9
Slovakia	2.7	1.5	2.2	3.2	2.2	3.2	2.7	3.5	90.2	88.6
Finland	0.8	0.2	11.8	8.7	34.6	24.2	32.5	30.5	20.3	36.4
Sweden	1.1	0.7	9.6	9.8	17.2	13.0	22.8	17.7	49.3	58.8
UK	0.4	0.3	4.0	3.6	9.5	8.0	15.7	13.6	70.4	74.6
EU	8.4	6.1	14.4	12.1	14.7	13.6	15.9	15.5	46.5	52.7

Source: Own calculations based on Eurostat database.



**Fig. 2.** The change in the share of farms smaller than 5 ha of UAA in total area of UAA in 2008–2016

high. Despite aforementioned fall, in Slovakia and the Czech Republic it got nearly 90%, in Bulgaria and in Estonia about 80%. In big, well-developed countries with strong agriculture like Germany, France, Spain (their share in the total UAA in the EU was amounted at 40%) the biggest farms conducted activity on about 60% of UAA.

Decrease in number of the smallest farms (to 5 ha of UAA) and simultaneously their share in UAA triggers very important implications. Provision of so called public goods by agriculture is one of the most interesting among them. The list of public goods linked to agriculture is long as includes environmental and non-environmental goods. Turek Rahoveanu et al. [2014] underline that all types of agriculture where land is managed properly can provide public goods. However, there are significant differences in the type and quantity of public goods, which can be provided by various types of farms. It seems that the provision of some kinds of public goods, especially social goods like cultural heritage, rural vitality, cultivating tradition requires diversified farm structure. Boyce [2014] points out a crucial role that small farms play in conserving the agricultural biodiversity. Davidova [2014] underlines their role in preventing the depopulation of rural areas. Marsh [1992] mentions not only public goods linked to agriculture but the public bads like unpleasant smells, obstruction to traditional footpaths or losses of natural habitats. The problem of such bads

is rather connected to bigger scale of production. The awareness of the importance of the provision of public goods (and bads) connected to agriculture is reflected in strong financial support in the frame of CAP in subsequent financial perspectives. Cooper et al. [2009] carried the complex examination of the problem in the EU in the first decade of 21st century. The conclusions indicated for undersupply in most of the key environmental public goods provided by agriculture. They pointed out threats for the provision of public good stemming from the pressures to concentrate and specialise production. Results of the examination showing the ongoing reduction of the farm number and the process of land concentration suggest that the provision of public goods linked to agriculture needs permanent attention and the complex measures going beyond traditional even generous financial support. It is in line with the approach of Vanni [2014] calling for more holistic interpretation of the concept of multifunctionality of agriculture and intervention in provision of public goods.

## CONCLUSIONS

1. During the examined period, the very impressive decrease in the total farm number was observed in the EU. The changes of farm number and structure by size class were very differentiated between countries.



2. The fall in the farm number suggests the possible reduction of political power of political parties representing the farmers' interests at national and the EU level. However, it does not necessary lead to a quick, fundamental change of CAP and domestic agricultural policies.
3. The rise of the share of the biggest farms in farm number and especially the increase in their share in total UAA indicate very advanced process of the agricultural land concentration in many EU countries. The highest concentration was observed in some post communistic countries, but it was very advanced in such important agricultural product producers as German, Denmark, France, Spain as well.
4. Decline in number of smaller farms and agricultural land area they use and the parallel increase in the role of the biggest farms generate important implications for provision of public goods. Although some public goods can be delivered at satisfactory level by farms of different size, number of farms is very important for complex issue of rural vitality, rural heritage, biodiversity and agricultural landscapes. Their presence is a fundamental element of the counteracting against depopulation of rural areas and their social and economic degradation.

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## ZMIANY W STRUKTURZE GOSPODARSTW ROLNYCH W UNII EUROPEJSKIEJ I ICH WIELOWYMIAROWE SKUTKI

### STRESZCZENIE

Celem artykułu jest identyfikacja tendencji w strukturze gospodarstw rolnych u krajach Unii Europejskiej (UE-28) w latach 2008–2016 i wskazanie ich skutków. Analiza wykazała, że w badanym okresie nastąpiło duże zmniejszenie liczby gospodarstw rolnych. Zmiana ich liczby i struktury była zróżnicowana znacznie między krajami. Wzrost udziału największych gospodarstw w liczbie gospodarstw i w powierzchni użytków rolnych wskazuje na zaawansowany proces koncentracji ziemi rolniczej w wielu krajach europejskich. Największa koncentracja występuje w kilku krajach postsocjalistycznych, ale jest też zawansowana w krajach będących ważnymi producentami produktów rolnych: Niemcy, Dania, Francja, Hiszpania. Zmiana w strukturze gospodarstw ma ważne skutki dla siły politycznej rolników jako grupy interesów na unijnym i krajowym szczeblu. Wpływa ona również na dostarczanie środowiskowych i społecznych dóbr publicznych związanych z rolnictwem.

**Słowa kluczowe:** struktura gospodarstw rolnych, liczba gospodarstw rolnych, koncentracja ziemi