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EVOLUTION OF THE WINE SECTOR AFTER EU ACCESSION – THE CASE OF AGRICULTURAL HOLDINGS

ABSTRACT

The specific contribution of this paper is to provide a framework for understanding the current situation in the wine grape sector, focusing in particular on the evolution of wine-growing holdings after the accession to the EU. The main indicators used in the analysis refer to: wine-growing area, labor force in wine grape holdings, physical and economic size of agricultural holdings, Standard Output, Specific crop costs/ha, Gross Farm Income, Farm Net Value Added/AWU. Farm incomes are volatile and labor productivity on agricultural holdings specialized in viticulture is low compared to other wine-growing Member States. However, there are positive structural changes at sectoral level

Key words: accession, grapes, wine, agricultural holdings, production.

JEL Classification: Q 10, Q 13.

1. INTRODUCTION

EU is the main world wine producer, with almost half of the global wine grape area and about 65% of the production volume. From the CMO introduction, the wine market considerably developed. The reform of the viticulture sector, adopted by the EU in 2008 had the following major goals: 1) wine producers' competitiveness increase in the EU by the improvement of the European wines reputation and regaining the market share both in the EU and outside the EU; 2) simplification and increase of the efficiency of market management rules to obtain a better balance between supply and demand and 3) preservation of the best European viticulture traditions and increase of the social and environmental role in the rural areas. The CAP reform of 2013, besides the general harmonization objectives and simplification of the CAP provisions, maintained the foundations of the 2008 wine reform. On this occasion, the EU regime with plantation rights was replaced by a system of authorizations for vine planting starting with January 1, 2016, with the goal to enable the competitive growers increase their production.

2. STATE OF KNOWLEDGE

The support to the European wine and vine market has been materialized into national support programs. The following measures were applied starting with the year 2008: promotion to third countries; restructuring and reconversion of vineyards; green harvesting; mutual funds; crop insurance; investments; by-products distilling.

The main form of support to the wine sector in Romania in the period 2009-2013 was represented by the National Support Program, worth 210.5 million Euro (42.1 million euro/year). According to the domestic viticulture specificity, Romania has chosen four measures for funding: promotion of wines on third countries' markets, restructuring and reconversion of vineyards, harvest insurance and use of concentrated grape must. The EAGF funds within this program had an absorption level of 100%. For the period 2014-2018, under the new support program, Romania has benefitted from higher allocation, with a total value of 238.5 million euro (47.7 million euro/year). The execution rate was 100% in 2014, and 41.7% and 24.4% respectively in 2015 and 2016. Other forms of support were the area payments as well as the possibility for farmers to access EAFRD funds through some measures under NRDP.

The wine and vine sector evolution in the recent decades has been marked by an obvious tendency towards industrialization, which determines the commercial companies integrate production – a process that needs significant foreign capital utilization. The financial pressure resulting from the crisis obliges companies to generate high and fast profits of investments; from here the need to produce large amounts that should be sold fast (Montaigne, E. et al, 2012). In this context, the European Commission periodically conducts impact studies on the measures implemented through the sectoral policy, at the Common Market level.

In the grape wine growing EU member states and in the profile organizations, there is a constant concern for the elaboration of specialty studies, either on the occasion of European Union enlargement (Aigrain, Billan, 2006), or for the world market evaluation and for producers', consumers', and other stakeholders' information, elaborated by the International Organization of Vine and Wine.

In general, the profile studies have in view to evaluate the main competitiveness factors on the world vine and wine market, namely: the present capacity of production volumes, the present plantations capacity and the growing potential of plantations, grape varieties, evolution of grape yields and prices. As regards the vine and wine farms/enterprises' competitiveness, a study made in France on the basis of FADN data reveals that the economies of scale were less important than the variety of farmers' incomes; except for table wines, the price is directly linked to the product quality and its reputation, price that is mainly based on the

geographical indication or the designation of origin. The lack of control on the identification of a name very quickly translates into a price collapse through the excessive supply (Montaigne, E. et al, 2012).

3. MATERIAL AND METHOD

For a good management of the production potential of the EU vineyards, the Member States owning more than 500 ha of vineyards (except for table grapes) are regularly and continuously collecting structural data on vine plantations. Since 2015, data have been collected in the national/ regional vineyard registers, which are administrative registers that contain information on the vine farms. Using the specific data from the Eurostat database, the present paper presents a comparative analysis of the first link in the wine chain. The comparison was made between Romania and other important EU vine growing countries, namely Germany, Greece, Spain, France, Hungary, Italy and Portugal.

For the assessment of the economic situation of farms specialized in wine grapes, we used the statistics presented by the European Commission on the basis of the FADN survey in the period 2007–2015. The main indicators used in the analysis refer to: physical and economic farm size, standard output, specific costs/ha, Gross Farm Income, Net Value Added /AWU; the total factor productivity was determined as ratio of output volume to input volume. The indicators represent average values of the period 2007–2015.

4. RESULTS AND DISCUSSIONS

4.1. THE AGRICULTURAL SIZE OF THE VITICULTURE SECTOR

The area under vineyards in the EU totaled 3.2 million ha in 2015. This represents 1.8% of the Utilized Agricultural Area of the EU. Spain, France and Italy were the main vine growing member states in 2015, with almost three-quarters of the total area under vineyards in the EU (74.1%) and two-fifths of farms (39.2%). In each vine growing member state, except for Romania, the quality wine grapevines had the highest share in total area under vineyards.

In our country, the area under bearing vineyards destined to quality wines represents 26.1% of total, namely: 16.5% for wines with Protected Designation of Origin (PDO) and 9.7% for wines with Protected Geographical Indication (PGI). In the year 2015, the area of vine plantations by main varieties of grapes was represented by 31.7% white varieties, 17.0% red varieties, 1.2% other colours and 50.1% varieties with unknown colour. In France, 65% of the area is destined to red wines, 33.8% to white wines and 1.2% to other colour wines.

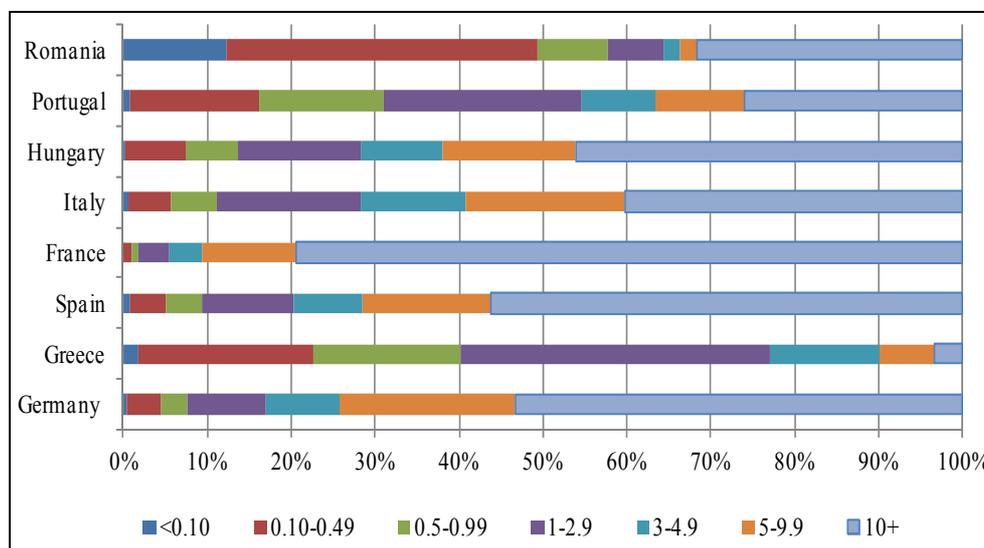
The average area per farm in the EU was 1.3 ha, with significant differences among the member states: from 10.5 ha in France to 0.21 ha in Romania (Table 1).

Table 1
Key variables regarding grapevine farms, 2015

Specification	Area (ha)	Vine plantations (number)	Average area per farm (ha)
Germany	102,581	43,389	2.36
Greece	103,298	188,896	0.55
Spain	941,154	517,615	1.82
France	802,896	76,453	10.50
Italy	650,690	381,141	1.71
Hungary	65,049	35,741	1.82
Portugal	198,586	212,128	0.94
Romania	183,717	854,766	0.21

Source: Eurostat [vit_t1]

In Romania, 60% of the area of vineyards for wine production is fragmented into farms smaller than 0.5 ha. The vine parcels from the farms larger than 10 ha or more cover 32% of the area. The dispersion of the area under vineyards into small-sized farms is also present in Portugal and Greece. In France, the vine parcels on the farms larger than 10 ha cover 79% of the area, in Spain more than 56% and in Germany more than 53% (Figure 1).



Source: Eurostat [vit_t2]

Figure 1. The grapevine plantations by farm size classes, 2015 (% in total plantations), 2015.

4.2. STRUCTURAL EVOLUTIONS OF FARMS SPECIALIZED IN WINE GRAPES

In the year 2013, Italy had greatest number of wine grape farms, while France ranked 1st, both in terms of UAA, standard output and labor force employed on the specialized farms.

Table 2
Evolution of main indicators on the wine grape farms, in the period 2007–2013

Specification	Wine grape farms	UAA- hectares	SO - thou. euro	AWU
Germany	14,210	114,300	1,096,397	25,120
Greece	25,880	74,190	357,573	22,090
Spain	69,590	879,900	1,328,141	57,610
France	64,880	1,116,070	10,256,346	126,990
Italy	111,100	830,920	6,326,074	116,610
Hungary	32,080	49,140	71,793	26,920
Portugal	30,020	160,160	223,013	39,330

Source: Eurostat [ef_m_farmleg]

In all analyzed countries, the number of specialized farms was down in the period 2007-2013, except for Romania. The greatest diminution of specialized farms was in Italy (-36%), Hungary (-32%) and Germany (-27%). At the same time, UAA increased, mainly in Italy (12%), which reveals production concentration, also sustained by the increase of standard output by 121% in this country.

The structural evolutions of wine grape farms in our country shows a spectacular increase of their number since 2007 until 2010, by 89%; the phenomenon can be associated with the progress of the first support program in viticulture. Throughout the period, the balance was positive for the analyzed indicators, except for UAA. Although UAA decreased after 2010, we can notice an increase of the standard output by 44% as compared to 2007, as well as of the employment of additional labour in this sector (Table 3).

Table 3
Evolution of the main indicators on the wine grape farms in Romania in the period 2007–2016

Specification	2007	2010	2013	2016	2016/2007
No. of farms	49,050	92,940	86,140	85,000	73%
UAA	89,230	97,570	84,250	78,900	-12%
SO thou.	82,484	87,063	96,597	118,909	44%
AWU	19,150	21,230	22,860	27,350	43%

Source: Eurostat [ef_m_farmleg]

4.3. TECHNICAL-ECONOMIC INDICATORS OF THE WINE GRAPE FARMS

The sample of farms specialized in wine grape growing in the FADN survey includes the market-oriented farms that must exceed a minimum economic size level. Within this sample, by UAA size, the largest farms specialized in wine grapes are in France and Spain, and the smallest in Greece, Italy and Romania.

The wine farms utilize on the average 0.06 AWU/UAA ha in Spain and 0.11 AWU/ha in France; in Romania, we have 0.29AWU/ha. Although in the sample of specialized farms, the grapevine area of the farm accounts for between 94% of the UAA (in Romania) to 55% of the UAA (in Greece), the share of wine production in total production in value terms is more than 80 - 90%. The tables below present the main structural and economic indicators.

Table 4
Structural indicators of the wine grape farms, 2007-2015 average

Specification	AWU	UAA/ha	Share of vine area in UAA	Share of vine production in total production	Total factor productivity -% (output/input)
Germany	2.49	11.32	76%	90%	134
Greece	1.11	4.66	55%	83%	173
Spain	1.42	23.16	64%	89%	175
France	2.76	24.31	65%	92%	131
Hungary	2.02	10.63	83%	88%	112
Italy	1.25	8.29	56%	85%	167
Portugal	1.80	10.23	70%	83%	138
Romania	2.57	8.98	94%	98%	129

Source: author's processing of FADN data

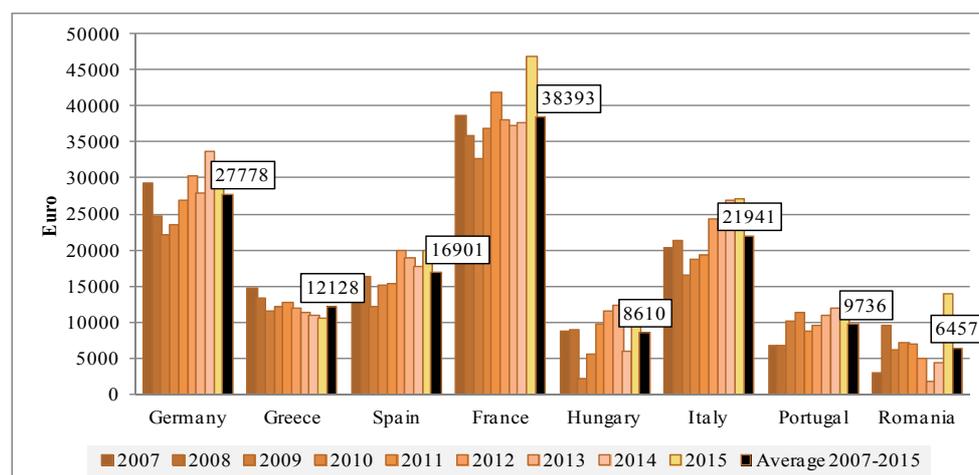
Work efficiency on the specialized farms, expressed as Net Value Added of Farm/AWU differs considerably among the EU member states. According to the average of the period 2007–2015, the highest level is registered in France with 38,393 Euro/AWU. Labor productivity on the wine farms in Germany is around 72% of the level of France, in Italy 57%, and in Spain less than half. The average value for the period 2007-2015 shows that Romania has the lowest average productivity, i.e. 6457 euro/AWU, almost 6 times smaller than on the French farms. However, in the year 2015, productivity reached the highest level in the investigated period, namely 13958 euro/AWU (Figure 2).

Table 5
Economic situation of the wine grape farms, 2007-2015 average

Specification	Total input	Total output	Gross farm income	Net farm income	Subsidies*	Net Value Added	NVA/AWU	Output/ Input
MU	Euro	Euro	Euro	Euro	Euro	Euro	Euro	%
Germany	105,133	140,715	87,341	44,701	3,826	69,112	27,778	134
Greece	11,661	20,009	19,318	13,293	3,725	15,623	13,170	173
Spain	18,887	32,800	27,379	18,182	3,055	23,989	16,901	175
France	160,234	210,741	131,209	53,710	4,074	108,198	38,393	131
Hungary	36,678	41,254	26,115	9,987	4,709	17,806	8,610	112
Italy	28,393	47,505	34,777	21,037	2,189	27,403	21,941	167
Portugal	21,856	30,185	22,494	12,689	3,593	17,528	9,736	138
Romania	22,612	29,460	21,246	8,113	1,846	16,179	6,457	129

*Excluding subsidies for investments

Source: author's processing of FADN data

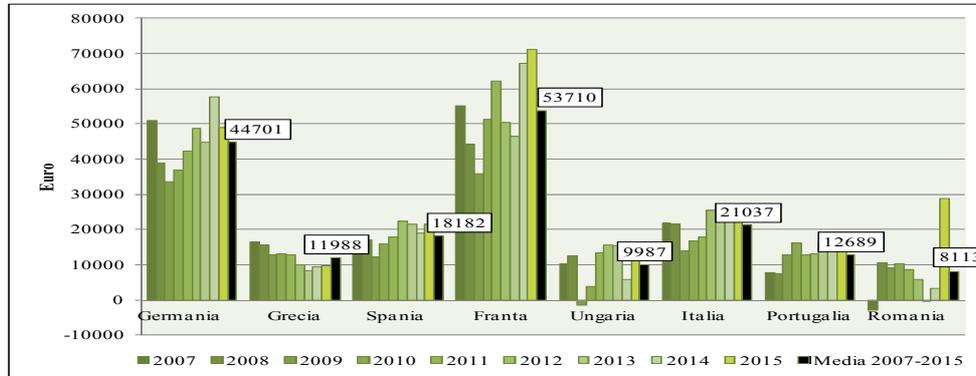


Source: FADN

Figure 2. Evolution of labor productivity on the wine grape farms, 2007-2015.

Subsidies (excluding those for investments) have supported farm income to a higher or lower extent, with a share in the gross farm income of 3% in France, 4% in Germany, 6% in Italy and 9% in Romania. In the other wine grape growing countries, subsidies had a more important role, for example in Portugal (16%), Hungary (18%) and Greece (21%). The highest total factor productivity is found on the farms from Spain, Greece and Italy.

The incomes of wine farms in Romania are extremely volatile, as against those in most wine grape growing countries of the EU. In two years (2007 and 2013), out of the nine investigated countries, farms closed their activity with a loss (Figure 3).



Source: FADN

Figure 3. Evolution of the net income of wine grape farms, 2007–2015.

5. CONCLUSIONS

In the majority of wine grape growing countries, there was a decline in number of farms specialized in viticulture. The strong decline of the farm number in the last period led to farm size increase and to an increasing economic efficiency trend.

There are significant gaps between Romania and the main wine grape producing countries in the EU as regards labor productivity and farm incomes: the farms specialized in viticulture in Romania have the lowest labour productivity, and farm incomes in Romania are extremely volatile.

The positive evolution in our country in the post-accession period is due to the funding received through the specific measures within the National Support Program in the Wine Sector, mainly to the restructuring/reconversion measure; the measure has had an important structural impact on medium and large-sized farms through production orientation towards quality and through the vine plantation structure improvement by age. The funding received have also led to the increase of labor force used on the wine grape farms.

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