TRENDS IN WINE PRODUCTION, CONSUMPTION AND TRADE IN ROMANIA IN THE PERIOD 2011-2017

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Abstract. *The paper aimed to identify the main trends in Romania's wine production, consumption and trade in the 2011-2017 and changes in the country position as producer and exporter. A slight production growth of only 5% was sustained by a slight growth in vine plantations area and in grapes yield. In 2017, Romania produced 4,264.3 thousand hl wine, of which 65% white, 27.8% red and 7.3% rose wine. Of total output, only 21% represent PDO wines and 5% PGI wines, 2.9% varietal wines and the remaining are others. Consumption accounted for 4,100 thousand hl and the average consumption per inhabitant was 21.8 litres almost the lowest in the EU. Romania's wine trade has developed, so that in 2017 the export value reached Euro 24.5 Million and the import value Euro 55.5 million, the trade balance being Euro -31 million. To increase wine sector competitiveness, Romania has to intensify production and wine promotion among the domestic and external consumers, to modernize plantations and infrastructure in wine producing, conditioning, bottling, storing and to promote selling.*

Keywords: wine, production, consumption, export, import, trade balance, trends, Romania

1. Introduction

Romania plays an important role among EU wine producers for a long time and its wines are well appreciated for their flavour, taste, savour, acidity by consumers. For its production performance, it is ranked the 6th in the EU-28 after Italy, France, Spain, Germany and Portugal [2, 3, 8].

However, domestic production is not able to cover consumption and justifies wine imports whose amounts exceeds the exported quantities [2, 3].

EU-28 contributes by 70% to Europe production, by 65% to the global wine output, by 60% to the world consumption and 70% in the world wine export [6, 7, 12]. For keeping its top position, the EU adopted several regulations during the last decade aiming to enhance the competitiveness of the European wines on the international markets, to manage much better wine demand/offer ratio and preserve the best traditions in vine growing sustaining the durable development of the rural areas [2].

Despite its potential in producing wines, Romania is still facing some difficulties regarding the areas of vine plantations, the need to reorganize vine growing by zone, the structure of wine types regarding their origin, to stimulate production of

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grapes for wines, to improve vine growing and winemaking technologies and infrastructure and adapt them to climate change [4, 14, 15].

In this context, the goal of the paper was to analyze the evolution in wine production, consumption, and commercialization in order to identify the main trends in the period 2011-2017.

2. Materials and Methods

2.1. Data collection

The paper is based on the statistical data collected from National Institute of Statistic, Ministry of Agriculture and Rural Development and Eurostat Comext [1, 4, 5].

2.2. Methodological aspects

The main aspects approached have been:

-wine production, its distribution in the territory, wine structure by wine type, Romania's position among the EU main producing countries;

-wine consumption, wine consumption per inhabitant, production consumption ratio, comparison with wine consumption in other EU countries;

-wine exported amounts and imported quantities, as well as the export and import value and trade balance, the position of Romania in the EU intra and extra wine export and import.

To identify the main trends in wine production, there were used the following methods:
-*Fixed basis Index*, $I_{FB\%} = (X_n/X_0)*100$, where X_n is production in the year n and X_0 is production in the year zero in the studied interval;
-*Trend line regression model* was used to show the general tendency of the studied indicator;

-*Structural Index*, $S_{\%}$, was used to reflect the share of wine types in production;

-*Production/Consumption ratio* was used to characterize self-sufficiency on the domestic market;

-*Trade efficiency* was assessed using *trade balance*, TB, as difference between export value (E) and import value (I) and *Export/Import ratio.*

-*Comparison method* allowed to assess Romania's position among other EU countries for its performance in wine production and trade.

The obtained results are reflected in tabels and graphics and are correspondingly interpreted. At the end, a few conclusions and recommendations were presented to synthetise the results and prospects for wine sector development.

3. Results and discussions

Wine production registered a slight increase in Romania, in the period 2011-2017, from 4,058.2 thousand hl in 2011 to 4,264.1 thousand hl in 2017 (5.07%). Its level varied from a year to another, in 2013 reaching the peak of 5,113.3 thousand hl, and in 2016 recorded the lowest level of 3,303.7 thousand hl (Fig. 1).

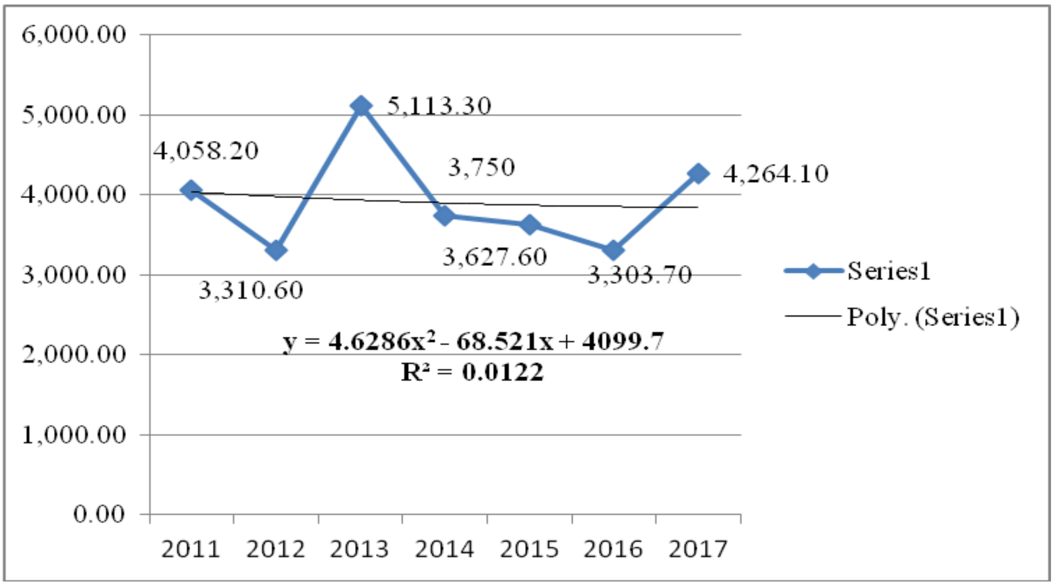

Fig. 1. Dynamics of the wine production in Romania, 2011-2017 (thousand heads)
Source: Own design based on the data from [4, 5].

This level was deeply influenced by the slight growth in the cultivated area (+1.3%) from 168.1 thousand ha in 2011 to 170.3 thousand ha in 2017 and by the average grape production destined for wines.

The highest contribution to wine production is given by the main viticultural region s as follows: Moldova 39%, Muntenia-Oltenia 18%, Dobrogea 17%, Crisana-Maramures 7%, Transilvania 6%, the Danube Terraces 6%, Sand and South areas 4%, and Banat 3% [4].
The main wine producers in Romania are Murfatlar (28%), Jidvei (14%), Cotnari (13%), Vincon Vrancea (8%), Tohani (7%), summing all together 70% [4, 16, 17].

In the whole production, the white wines have the highest share about 65%, being followed by red wines 27.8% and rose wines 7.2 %.
In 2017, about 66% of wine output was obtained from noble varieties and the remaining of 34% from the interspecific hybrids [4].
Also, of the total production, in 2017, 21.5% represented PDO wines, 5% PGI wines, 2.9% varietal wines and 70.6% other wines. From this point of view, there are discrepancies between Romania and the average in the EU-28, where PDO wines represent 46.&%, PGI wines 20.4%, varietal wines 6.7%, and other wines only 26.2% [2].
For its wine output, Romania is ranked the 6th in the EU-28 after Italy, France, Spain, Germany, and Portugal [2, 3].

Wine consumption declined in Romania from 4,871.5 thousand hl in 2011 to 4,100 thousand hl in 2017, meaning -25.84%.

The average consumption per inhabitant is 21.8 litres, almost the lowest in the EU, where consumption varies between 20 and 50 litres per capita and year: Portugal 45 litres, France 40, Italy 38, Germany 25, Belgium 24.7, Hungary 24, Sweden 22.5, Spain 22, Netherlands 21.9 litres [11, 16].

This is due to the fact that beer and spirits are preferred by Romanians, wine being ranked the 3rd in their preferences.

In general, Romanians prefer red wines (59.5%), white wines (27.1%), rose wines (11.2%) and sparkling wine (2%).

Production/Consumption ratio varied between 0.83 in 2011 and 1.04 in the year 2017. But in the other years, production was not able to cover consumption which explains why Romania has to bring wines from abroad to satisfy the domestic market (Table 1).

Table 1. Wine consumption and production/Consumption ratio, Romania, 2011-2017

	Wine consumption (Thousand hl)	Wine consumption per inhabitant (l/capita/year)	Production/Consumption ratio
2011	4,871.5	21.8	0.83
2012	5,113.3	21.1	0.64
2013	5,046.7	21.7	1.00
2014	4,079	22.6	0.91
2015	3,900	19.0	0.93
2016	3,800	18.0	0.86
2017	4,100	21.8	1.04
2017/2011 %	84.16	100.0	-

Source: Own calculation based on the data from [4, 5].

Wine trade was, first of all, analyzed in terms of wine exported and imported amounts.

The exported quantity of wine increased by 52.85 from 10.4 thousand tons in 2011 to 15.9 thousand tons in 2017, reflecting that Romanian wines are requested on the external market. The main beneficiaries being Germany, Spain, Netherlands, Italy, Estonia, but also other extra-EU countries such as USA, Canada, Russian Federation [9, 10, 16, 17].

The imported quantity of wine declined by 47.5% from 90.7 thousand tons in 2011 to 47.7 thousand tons in 2017, but, if we compare the imported amounts of wine with the exported ones, we notice that imports are much higher than exports [10].

The main market for Romanian wines is the EU, whose share in the exported quantities increased from 77.85 in 2011 to 85.5% in 2017. Also, the main suppliers of wine on the Romanian market are also from the EU whose share in wine imports was 72.55 in 2017 compared to 94.5% in 2011 (Table 2).

Table 2. Exported and imported quantities of wines, Romania, 2011-2017

	Export (Thousand tons)	Import (Thousand tons)	Differ. Export minus Import (Thousand tons)	EU-28 share (%) in	
				Wine export	Wine import
2011	10.4	90.7	-80.3	77.8	94.5
2012	11.4	54.5	-43.1	78.0	75.7
2013	10.4	36.7	-26.3	77.8	63.7
2014	10.5	34.1	-23.6	73.3	75.6
2015	13.8	50.7	-36.9	78.2	82.0
2016	12.8	50.2	-37.4	78.9	79.4
2017	15.9	47.7	-31.8	85.5	72.5
2017/2011 %	152.85	52.5	-	-	-

Source: Own calculation based on the data from [4, 5, 10].

For its wine export, both intra and extra-EU, Romania is ranked on the 17th position, while for its import, both intra and extra-EU, the county comes on the 18th position.

In 2017, the EU-28 total intra and extra-EU export accounted for 80.5 million hl, to which Romania contributed just by 194.9 thousand hl, that is 0.24%.

In the same year, the EU-28 total intra and extra-EU import accounted for 69.4 million hl to which Romania contributed just by 501.8 thousand hl, that is 0.72%.

The main wine suppliers for Romania are France, Italy, Hungary, Spain, and from extra-EU New Zealand, Chile, Uruguay, USA, South Africa [1, 13, 16, 17].

The value of wine exports, imports and trade balance

The wine export value increased by 70% from Euro 14.4 million in 2011 to Euro 24.5 million in 2017. At the same time, the wine import value raised by 9.9% from Euro 50.5 million in 2011 to Euro 55.5 million in 2017. As long as import value was higher than export value, the trade balance was negative, Romania being a net importing country of wine every year (Table 3).

Table 3. The value of wine export, wine import, trade balance and Export/Import ratio, Romania, 2011-2017

	Export value (Euro Million)	Import value (Euro Million)	Trade balance (Euro Million)	Export/Import Ratio
2011	14.4	50.5	-36.1	0.28
2012	15.9	41.9	-26.0	0.38
2013	16.5	38.0	-21.5	0.43
2014	18.0	33.2	-15.2	0.54
2015	22.3	42.4	-20.1	0.53
2016	20.4	47.4	-27.0	0.43
2017	24.5	55.5	-31.0	0.44
2017/2011 %	170.0	109.9	85.87	157.1

Source: Own calculation based on the data from [1, 4, 5].

Wine trade efficiency is weak in Romania, as the share of export in wine production is very small, varying between 1.93% in 2011 and 3.72% in 2017, reflecting that the country is not among the largest exporters of wine in the EU.

The export/import ratio is also unfavorable, as the import exceeds export almost 2 times in 2014 and even in 2017. However, a positive aspect is the decrease in wine imported quantity and value (Table 3).

Conclusions

(1). In Romania, wine production has slightly increased, despite that the country potential is higher taking into account the long experience and tradition in cultivating vine, high value varieties and hybrids, soil and climate conditions, exposure of the hills slopes to the sun.

(2). The share of PDO and PGI wines is still low, compared to other important producing countries in the EU.

(3). Wine consumption is also low in Romania compared to other EU member states.

(4). Export quantity and value increased which is a positive aspect, but imports are still higher than exports because the domestic market requirements can not be covered by production.

(5). Therefore, it is needed a more intensive wine promotion among Romanian consumers about the role of wine as food for their health.

(6). Also, it is important to promote much better the wines of Romanian origin PDO and PGI both on the domestic and external market.

(7). Romania has to penetrate on other wine markets to extend its area of influence in the world and increase the competitiveness of its products.

(8). For this purpose, wine producers have to apply the programme of wine varieties reconversion, to reconsider vine plantations mapping in the territory, and to modernize vineyards. Investments are needed to modernize infrastructure in wine producing, conditioning, bottling, storing and wine aging technologies.

(9). The financial support offered by the EU is an opportunity for wine producers to increase competitiveness of Romanian wines on the international market.

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