

EXPORT COMPETITIVENESS OF BULGARIAN BOTTLED WINES

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Abstract: *Historically, Bulgaria has been a long-standing wine producer and exporter. Over the past few decades there have been changes in the political environment, the production and the market, which are associated with certain threats and opportunities for Bulgarian wine producers. The purpose of this paper is to examine the export competitiveness of Bulgarian bottled wines. The assessment is based on a set of indicators of import and export quantities and prices for the main external markets. Our research findings indicate that Bulgarian producers are selling mainly in the low-price segments, and, in many cases, at a high level of price volatility and decreasing quantities.*

Keywords: *Bottled wines, competitiveness, wine export, wine trade.*

1. INTRODUCTION

Over the past few decades, wine exports from Bulgaria have been seriously declining [2, 4, 5, 11, 14]. The reasons for this phenomenon can be grouped into three main categories.

First, after 1989, large state enterprises were privatized, which caused serious shock related to the reduction of production volumes and, in many cases – closure of production facilities. Private wine exporters could not maintain their positions on the traditional external markets because of the lower quality, insufficient product marketing experience and lack of cooperation between producers [10].

Second, competition on the international markets has become increasingly intensive. The so-called “New World” market players apply an innovative approach with respect to technologies and rapidly develop their wine production by directing their sales strategies to the external markets. The market share of producers from these countries is rapidly growing, which results in a decrease in the quantities exported by European producers [3, 8].

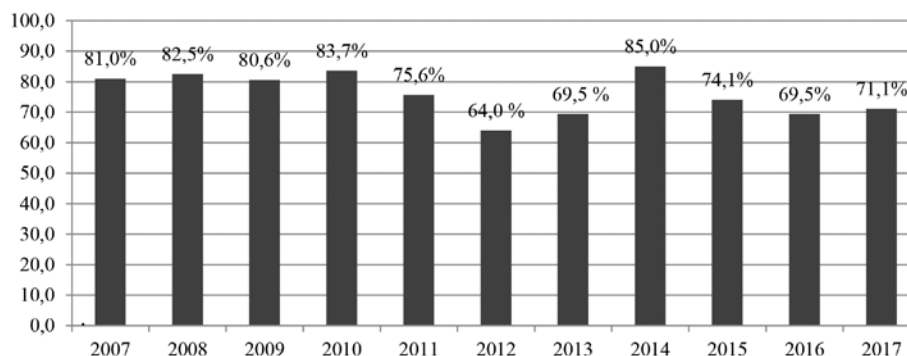
Third, the general trend in the European Union, where the primary share of Bulgarian wine exports takes place, is reduction in wine consumption per capita because of shifting to other alcoholic beverages and changes in lifestyle related to avoiding any unhealthy habits [8].

Bulgaria’s integration to the EU Common Agricultural Policy and the adoption of National Programmes that support the wine growing sector after 2007 have provided new opportunities to Bulgarian producers to benefit from financial grants for improving the methods and technologies for wine production and marketing.

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Traditionally, bottled wines have taken up the major share in the structure of wine exports in Bulgaria. The relative share of the exported quantities of bottled wines is higher than the sum of the shares of the other two groups of wines – sparkling wines and unbottled wines (Figure 1).



Source: Own calculation based on data from UN Comtrade database [15]

Figure 1. Relative share of the exported quantities of non-sparkling bottled wine in the general wine exports during the period 2007-2017.

The problems mentioned above and the favorable opportunities lead us to the following question: What are the impacts of changes in the environment on the competitiveness of Bulgarian bottled wine on the different external markets?

A number of studies have analyzed individual issues related to Bulgarian wine production and export, including the trend in the total quantities exported, the average export price [7] and the marketing of wine [10, 14] produced in Bulgaria [2, 4, 6, 10, 11]. To the best of our knowledge, there are currently no studies on the competitive performance of wine export from Bulgaria. Such research would be useful for discovering opportunities for improving the competitive positions of Bulgarian exports.

The purpose of this paper is to evaluate the export competitiveness of Bulgarian bottled wine on the main external markets.

The economic sources have not established a generally accepted understanding about the meaning of the term “export competitiveness”. According to M. Porter, C. Ketels and M. Delgado, “competitiveness is a country’s share of world markets for its products” [13]. According to Porter’s competitiveness framework [12], competitiveness, in essence, is defined as productivity. The larger the quantities of exports of a given product, the higher the exposure of producers to foreign competition and ideas. Some of the primary indicators for competitiveness on the wine market are the exported quantities [16], the export prices [9], their volatility and the quality of [3] the exported wines [17].

2. METHOD

This study covers the period 2007 – 2017. The design of the study has been developed in the following sequence. First, the trend in the total quantities of exported bottled wine was analyzed. Then, the importing countries were ranked in descending order based on the quantities imported for each year of the period. Third, based on the countries, where the largest quantities of wine exports take place, the countries that account for 80% of the total wine exports from

Bulgaria were identified for each year of the studied period. For each of these importing countries, indicators related to the prices and quantities of the bottled wine exported from Bulgaria were calculated (Table 1).

Indicator	Formula
Level of dependence from bottled wine imports from Bulgaria	$\frac{IQB_{gj}}{IQj} \cdot 100 \quad (1)$ <p><i>IQB_{gj} - quantities of bottled wine imported from Bulgaria in country j</i> <i>IQj - total quantities of bottled wine imported in country j</i></p>
Average price (FOB) of exported bottled wines from Bulgaria	$\overline{EP(FOB)B_{gj}} = \frac{\sum_{i=1}^n EP(FOB)B_{gij} \cdot EQ B_{gij}}{\sum_{i=1}^n EQ B_{gij}} \quad (2)$ <p><i>EP(FOB)B_{gij} – export price of Bulgaria during year i to country j</i> <i>EQ B_{gij} – quantities of bottled wine exported during year i to country j;</i></p>
Bulgarian bottled wines export price volatility	$V_{\sigma\%} = \frac{\sigma}{\overline{EP(FOB)B_{gj}}} \cdot 100 \quad (3)$ <p><i>V_{σ%} - prices coefficient of variation</i> <i>EP(FOB)B_{gj} - average level of export prices (FOB) from Bulgaria to country j</i> <i>σ – standard deviation of export prices</i></p>
Percentage difference between the international import price of bottled wine and the import price from Bulgaria	$\frac{IP(CIF)j - IP(CIF)B_{gj}}{IP(CIF)B_{gj}} \cdot 100 \quad (4)$ <p><i>IP(CIF)j – international import price of bottled wine to country j based on CIF delivery terms</i> <i>IP(CIF)B_{gj} – import price of bottled wine from Bulgaria to country j based on CIF delivery terms</i></p>

Table 1. Indicators for quantities and import/export prices of Bulgarian bottled wine in the main importing countries

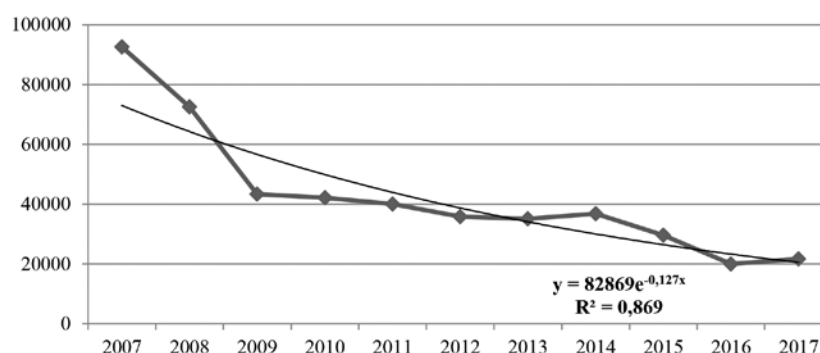
Observations of wine exports and imports were classified at the 220421 code according to the Harmonized Commodity Description and Coding Systems (HS 2017) and originated from the UN Comtrade Database. The information that is necessary to identify the countries to which Bulgaria exports the highest quantities of wine has been obtained from the annual agricultural reports of the Ministry of Agriculture, Food and Forestry issued during the period 2006-2018. The study is restricted by the lack of statistical data about the types and quality of exported bottled wines. This hinders the evaluation of competitiveness based on the price-quality ratio.

3. RESULTS

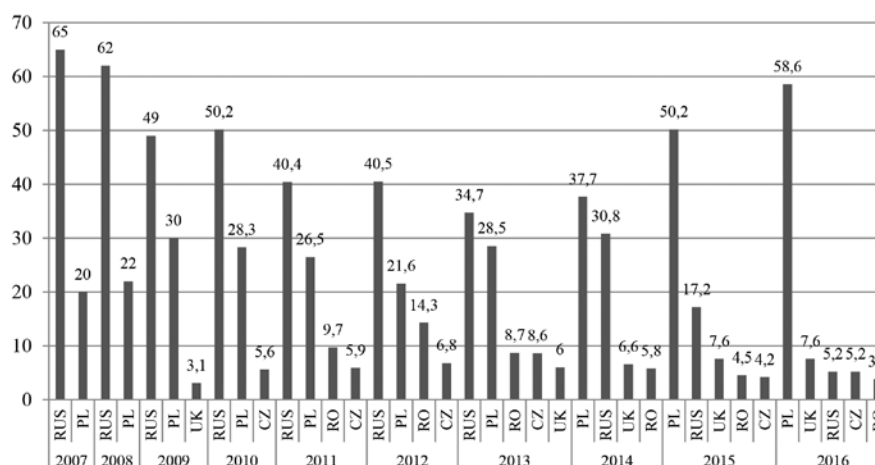
The total exported quantities of Bulgarian bottled wines during the period 2007-2017 have been decreasing at a growing pace (Figure 2).

By 2010, about half of the exported wine was exported to Russia and there were two countries where the primary share of exports took place – the Russian Federation (RUS) and Poland (PL). After 2010, 80% of the exports were comprised of quantities of wine exported to a larger number of countries: Poland, Russia, the United Kingdom (UK), Romania (RO) and the Czech Republic (CZ) (Figure 3).

After 2013, Poland took the position of Russia as the largest consumer of Bulgarian wine. In 2015 and 2016, exports to Poland accounted for more than 50% of the total exports of bottled wines (Figure 3).



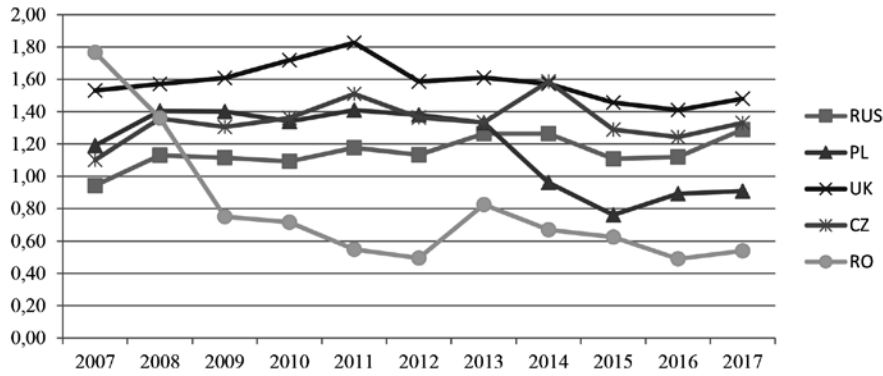
Source: Own calculation based on data from UN Comtrade database [15]
Figure 2. Bottled wine exports from Bulgaria (in thousand liters), 2007-2017.



Source: Own calculation based on data from Annual Agricultural Reports, Ministry of agriculture, food and forestry, Bulgaria, 2008 – 2017 [1]
Figure 3. 80% of the quantities of bottled wine exported from Bulgaria by importing countries, 2007-2016.

Country	Measuring Unit	RUS	PL	UK	CZ	RO
Indicator						
Level of dependence from bottled wine imports from Bulgaria	%	8.80	13.90	0.27	2.50	11.40
Average price (FOB) of exported bottled wines from Bulgaria	USD/lt	1.15	1.18	1.50	1.34	0.80
Coefficient of variation of the export prices from Bulgaria	%	8	21	7	9	50
Percentage difference between the international import price (CIF) and the import price from Bulgaria (CIF)	%	102.7	76.8	154	5.75	174

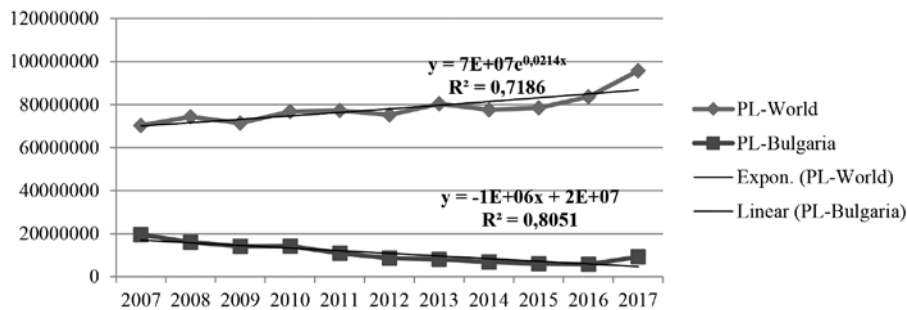
Table 2. Values of indicators for quantities and import/export prices of Bulgarian bottled wine in the main importing countries, 2007 -2017.



Source: Own calculation based on data from UN Comtrade database [15]
 Figure 4. Average export price (FOB) per liter of bottled wine from Bulgaria by years for the period 2007-2017.

The total quantities of international imports of wine to Poland have been increasing at a growing pace during the period 2007-2017 (the trend line that describes the empirical curve of the imported quantities with highest precision is exponential, Figure 5). In contrast to this tendency, imports from Bulgaria are gradually declining. The quantities imported from Bulgaria in 2017 are two times lower than the ones imported in 2007.

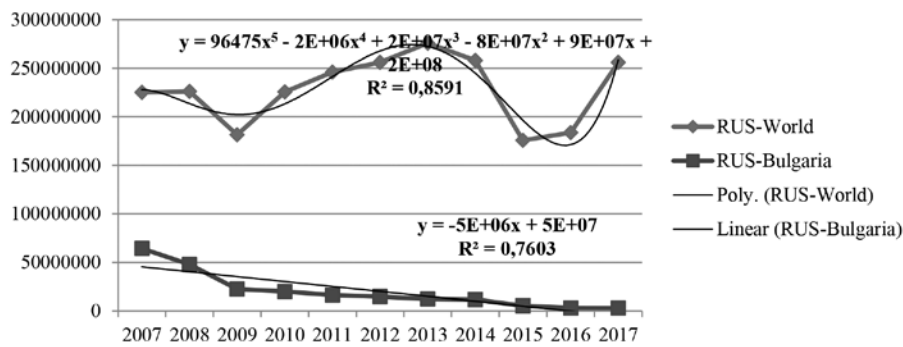
The level of dependence of the total imports to Poland on the quantities imported from Bulgaria is relatively high – about 14% (table 2). The average export price (1.18 US dollars per liter) to Poland is lower than the one to the Czech Republic and Great Britain and higher as compared to the other two countries - Russia and Romania (Table 2, Figure 4).



Source: Own calculation based on data from UN Comtrade database [15]
 Figure 5. Quantities of international and Bulgarian imports of bottled wine to Poland by years for the period 2007-2017. (USD)

The export price volatility to this country is relatively high – the value of the coefficient of variation of export prices is 21% – this indicator has a lower value only with respect to Romania. The difference between the international import price and the import price from Bulgaria is 76.8% and this indicator has a higher value only with respect to the Czech Republic.

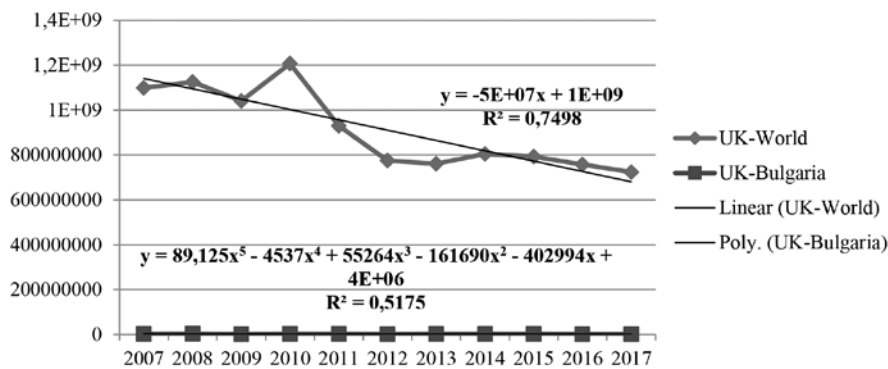
In terms of quantities, international imports to Russia have been fluctuating in both directions during the studied period. The largest quantities have been imported in 2013, whereas the lowest quantities have been imported in 2015. The quantity of wine Russia has imported from Bulgaria has been gradually declining throughout the period, with 19 times higher imports in 2007 as compared to 2017 - Figure 6.



Source: Own calculation based on data from UN Comtrade database [15]
 Figure 6. Quantities of international and Bulgarian imports of bottled wine to Russia by years for the period 2007-2017.

The imports from Bulgaria account for about 9% of total imports of bottled wine to Russia during the period (Table 2). The average export price of bottled wines from Bulgaria to Russia is relatively low – 1.15 USD per liter – compared to the value of this indicator with respect to the other four countries, only the export price to Romania is lower. The import price from Bulgaria is slightly more than two times lower than the average price of Russia’s international imports. Price volatility is relatively low – 8 % (Table 2, Figure 4).

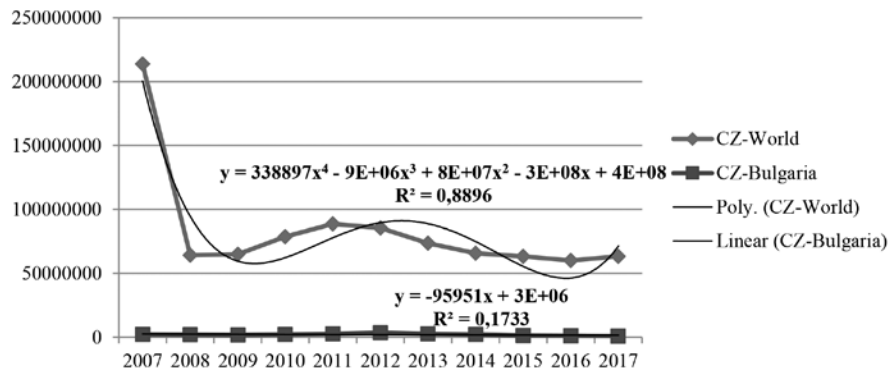
The total quantities of imported bottled wine to the United Kingdom have been gradually declining during the period. The quantities imported from Bulgaria have been fluctuating throughout the period (fig. 6) and account for a very small part of the total quantities imported to the country - only 0.27% of the total quantity of wine imported to Great Britain comes from Bulgaria (table 2).



Source: Own calculation based on data from UN Comtrade database [15]
 Figure 7. Quantities of international and Bulgarian imports of bottled wine to the United Kingdom by years for the period 2007-2017.

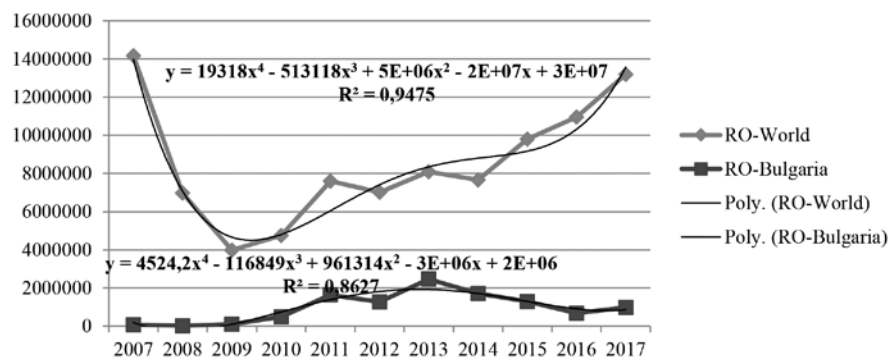
The export price of bottled wines from Bulgaria to this country is the highest one for the entire period after 2008 (fig. 4) and the level of price volatility is the lowest. At the same time, the difference between the average international import price and the average Bulgarian import price is relatively high – 154% (Table 2, Figure 4).

The quantities of bottled wine imported to the Czech Republic have been fluctuating in both directions during the period - Figure 7. The imports from Bulgaria account for 2.5% of the total imported quantities (Table 2).



Source: Own calculation based on data from UN Comtrade database [15]
 Figure 8. Quantities of international and Bulgarian imports of bottled wine to the Czech Republic by years for the period 2007-2017.

Compared to the values of the indicators for the other four countries, the average export price of Bulgarian bottled wines to the Czech Republic is relatively high – 1.34 USD per litre, and the percentage difference between the international import price and the Bulgarian import price is the lowest one. The level of export price volatility to this country is significantly lower as compared to the same indicator with respect to Poland and Romania (Table 2).



Source: Own calculation based on data from UN Comtrade database [15]
 Figure 9. Quantities of international and Bulgarian imports of bottled wine to Romania by years for the period 2007-2017.

The quantities of bottled wine imported to Romania have decreased more than three times in the period 2007-2009 and then have increased to a level that is close to the one from year 2007. The quantities imported from Bulgaria in 2017 are 13 times higher than the quantities imported in 2007 (Figure 8).

During the period 2007-2017, imports from Bulgaria account for approximately 11% of the total quantities imported to the country (Romania is overtaken only by Poland with respect to this indicator). The average export price of bottled wines from Bulgaria to Romania is the lowest one and the price volatility is the highest one, as compared to the values of this indicator with respect to the other studied countries. The percentage difference between the international import price and the import price from Bulgaria is the highest one – 174%.

4. CONCLUSIONS

Based on the results from the analysis, we have come to the following main conclusions:

First, the exports of bottled wines from Bulgaria have been declining at a growing pace during the period 2007-2017. The structure of exports has changed toward increasing the number of countries to which the main quantities of bottled wines are exported.

Second, the quantities exported to all main business partners (except for exports to Romania) are either declining or fluctuating. The exports of bottled wine in liters to Bulgaria's traditional business partners – Poland and Russia – has been gradually decreasing during the studied period. At the same time, the studied dynamics does not follow the pattern of changes in the total quantities imported to these two countries. Exports to Great Britain and the Czech Republic during the period have accounted for a relatively small share of the total quantities of imports to these countries and have been fluctuating significantly.

Third, the average international import price to each of the five countries is higher than the average import price from Bulgaria. This difference is higher than 100% with respect to Russia, Great Britain and Romania. Bulgarian producers sell primarily in the low-price segment. Exports to Great Britain and the Czech Republic take place at relatively high prices and relatively low-price volatility. However, the quantities exported to these countries during the studied period are relatively low and have been fluctuating significantly.

In conclusion, the competitiveness of exports of bottled wines from Bulgaria has been relatively low on the traditional external markets – most sales are within the low-price segment and their volumes are diminishing. Therefore, in order to develop this sector in Bulgaria, it is particularly important to put some effort on researching and discovering new export markets. It is important for Bulgarian producers to take favorable positions in countries where wine consumption per capita is still low, but grows at a fast pace (such as China, USA and Japan [3]).

In order to compensate for the diminishing quantities of exports, it is particularly important to examine the possibilities for improving the image of Bulgarian wines and for increasing the interest toward high-quality products offered at a relatively high price.

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