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COMPETITIVENESS OF WINE EXPORT FROM CEFTA COUNTRIES IN THE EU MARKET

Konkurentnost izvoza vina iz zemalja CEFTA regiona na tržištu EU

Abstract

The objective of this paper is to examine the competitiveness of wine export of CEFTA parties (excluding Kosovo), in the period from 2011 to 2020. The CEFTA group exported wine worth a total of 2.3 billion USD during the analyzed period, with significant differences in export value among certain parties. Moldova and North Macedonia generated over 80% of the wine export value. Competitiveness of wine export was analyzed by calculating two sets of indicators. The first set includes three competitiveness indices: revealed comparative advantage index, export specialization index and trade intensity index. The second set of factors relates to the analysis of market share and changes in the market share. With the purpose of identifying causes of changes in the market share, one of them being the competitiveness effect, the authors employed the method of constant market share analysis. The leading exporter, Moldova, although not predominantly focused on the European Union as the main export market, is competitive in the EU market and achieves specialization in exporting wine to the EU market, as well as an increase in trade intensity and market share. Other analyzed CEFTA countries have recorded a decrease in market shares and variable performance regarding export specialization, revealed comparative advantage and trade intensity.

Keywords: *competitiveness of wine export, CEFTA, EU, market share.*

Sažetak

Cilj rada je istraživanje konkurentnosti izvoza vina zemalja članica CEFTA grupacije (bez Kosova), u vremenskom periodu od 2011. do 2020. godine. Grupacija je u analiziranom periodu izvezla vina u ukupnoj vrednosti 2,3 milijarde USD sa značajnim razlikama u vrednosti izvoza među pojedinim zemljama-članicama. Moldavija i Severna Makedonija generišu preko 80% vrednosti izvoza vina. Analiza konkurentnosti izvoza vina spovedena je izračunavanjem dve grupe pokazatelja: prva grupa su tri indeksa konkuretnosti: indeks otkrivene konkurentske prednosti (Revealed Comparative Advantage Index), indeks izvozne specijalizacije (Export Specialization Index) i indeks intenziteta trgovine (Trade Intensity Index). Druga grupa faktora tiče se analize tržišnog učešća i promena u tržišnom učešću. U cilju pronalaženja uzroka promena u tržišnom učešću, među kojima je i efekat konkurentnosti, korišćena je metoda analize konstantnog tržišnog učešća (Constant Market Share). Najveći izvoznik, Moldavija, iako nije dominantno okrenuta Evropskoj uniji kao glavnom izvoznom tržištu, konkurentna je na tržištu EU i ostvaruje specijalizaciju izvoza vina za tržište EU, kao i rast intenziteta trgovine i tržišnog učešća. Ostale analizirane zemlje CEFTA grupacije ostvaruju smanjivanje tržišnih udela i promenjivu uspešnost po pitanju specijalizacije izvoza, otkrivenih konkurentskih prednosti i intenziteta trgovine.

Ključne reči: *konkurentnost izvoza vina, CEFTA, EU, tržišno učešće.*

Introduction

Wine exports depend on a number of factors, primarily national production, shifts in international market demand, as well as competitiveness compared to the leading wine-exporting countries in the world. The wine industry of CEFTA countries is significantly export-oriented [36]. The total export of wine in the analyzed ten-year period amounted to 2.3 billion USD, with significant differences in export value among certain parties of the CEFTA group. The analysis encompasses Moldova, Serbia (excluding Kosovo), Montenegro, Bosnia and Herzegovina, North Macedonia and Albania.

In the observed ten-year period, the export value of wine from Moldova was about 1.3 billion USD, about 579 million USD from North Macedonia, whereas other countries were exporting wine below the average: Serbia and Montenegro 178 and 171 million USD respectively, Bosnia and Herzegovina 3.5 million USD and Albania approximately 160 thousand USD. Figure 1 shows the relationship between the value of wine exported annually from individual countries signatories to the CEFTA Agreement and the average annual value of wine exports of the CEFTA group. In the 2011–2020 period, exports of wine from Moldova accounted for 57% of the total wine exports of CEFTA countries. Moldova recorded its maximum wine exports in 2013, amounting to 149.5 million USD, whereas the year with the poorest export in the analyzed

ten-year period was 2015, with exports amounting to 97.7 million USD. The second largest wine-exporting country of the CEFTA group is North Macedonia, with exports accounting for more than a quarter of exports within the group. On average, North Macedonia exported wine worth 57.9 million USD annually. During the analyzed period, this country recorded the highest wine exports in 2012 (72.5 million USD), and the lowest, the same as Moldova, in 2015 (43.7 million USD).

Other countries, parties to the CEFTA Agreement, exported wine in values below the group average. In the analyzed period, Serbia and Montenegro generated approximately similar total values of exports, 178 million USD and 171 million USD respectively, but the export trend was different. Exports of wine from Serbia recorded annual variations, with an average annual value of exports amounting to 17.8 million USD, achieving above-average export value in the 2017-2020 period. Montenegro experienced a declining trend in wine exports, with values being halved by the end of the analyzed period. Namely, the export of wine from Montenegro amounted to 25.5 million USD in 2011, and to 12.5 million USD in current prices in 2020.

The relative importance of wine exports for the individual countries of the CEFTA group can be observed through data on the share of wine exports in the total exports of agri-food products (HS classification, 01-24) of the countries concerned.

Figure 1: Wine export value of CEFTA countries and average export value at group level (2011 to 2020)
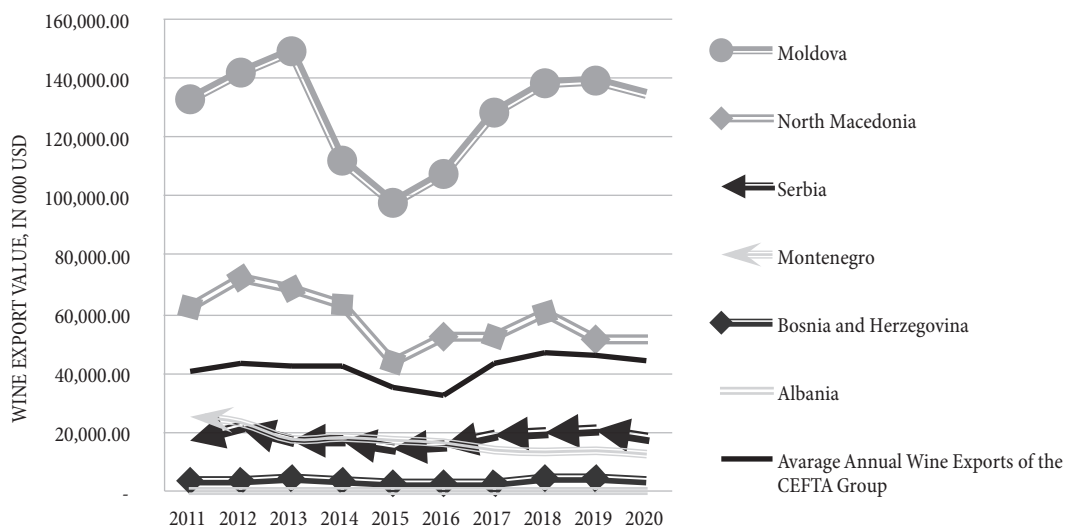
Source: Authors' calculations based on UN COMTRADE and ITC statistics.

Exports of wine from Montenegro account for 26% of the export value of agri-food products from this country. Moldovan wine exports account for 12.5% of the export value of agri-food products, and wine exports from North Macedonia account for 9% of the country's food exports. Wine exports have no significant share in the value of food exports from the Republic of Serbia, Bosnia and Herzegovina and Albania, and account for approximately 1% (2020).

Major wine export destinations of CEFTA countries

CEFTA countries place their wines in different markets. The main export destinations of wines from CEFTA countries differ depending on the country. As presented in Table 1, in the 2011–2020 period, wine from Moldova was mostly exported to the markets of Belarus, the Russian Federation, Romania, Ukraine and Poland.

North Macedonia exported the largest amounts of wine to another party of the CEFTA group, Serbia, as well as Montenegro. A significant share of exports from North Macedonia and Bosnia and Herzegovina was intended for EU members, Germany and Croatia. Wines from Serbia are mostly exported to the markets of the Russian Federation, Bosnia and Herzegovina and Montenegro. Data for Kosovo and Albania are unavailable.

The objective of this paper is, inter alia, to analyze the competitiveness of wine export from CEFTA countries in the European Union market. The share of CEFTA countries in wine imports to the EU market recorded a relative growth trend in the period from 2011 to 2020. Namely, the share of wine imports from CEFTA countries to the EU was 0.41% in 2011, and increased to 0.66% in 2020, as presented in Figure 2.

Literature review

Numerous authors have examined the competitiveness of the agri-food sector in the global or regional markets, most of them by way of the index of comparative advantages. For example, Bojnec and Ferto [7] analyzed export competitiveness of agri-food products in international markets for 23 leading European countries and concluded

Table 1: Major export destinations of wine from CEFTA countries (000 USD) and share in total exports (2011–2020)

Export of wine from Moldova							
Export destinations	All export destinations	*Belarus*	*Russian Federation*	*Romania*	*Ukraine*	*Poland*	Other export destinations (85)
Export 2011–2020 value in 000 USD	1281961	293074	192332	97196	92623	87421	519315
Share in total exports (%)	1.00	0.23	0.15	0.08	0.07	0.07	0.59
Export of wine from North Macedonia							
Export destinations	All export destinations	*Serbia*	*Germany*	*Croatia*	*Areas NES*	*Bosnia and Herzegovina*	Other export destinations (49)
Export 2011–2020 value in 000 USD	578655	161140	127960	86495	52358	23913	126789
Share in total exports	1.00	0.28	0.22	0.15	0.09	0.04	0.22
Export of wine from Serbia							
Export destinations	All export destinations	*Russian Federation*	*Bosnia and Herzegovina*	*Montenegro*	*Czech Rep.*	*Croatia*	Other export destinations (49)
Export 2011–2020 value in 000 USD	178426	55078	48661	29906	10074	6567	28140
Share in total exports	1.00	0.31	0.27	0.17	0.06	0.04	0.16
Export of wine from Montenegro							
Export destinations	All export destinations	*Serbia*	*Bosnia and Herzegovina*	*Russian Federation*	*China*	*Areas NES[3]*	Other export destinations (38)
Export 2011–2020 value in 000 USD	171406	75999	33061	19119	13118	9324	20785
Share in total exports	1.00	0.44	0.19	0.11	0.08	0.05	0.12
Export of wine from Bosnia and Herzegovina							
Export destinations	All export destinations	*Croatia*	*Germany*	*Areas NES*	*Serbia*	*China*	Other export destinations (30)
Export 2011–2020 value in 000 USD	34959	19332	4202	2779	2550	2078	4018
Share in total exports	1.00	0.55	0.12	0.08	0.07	0.06	0.11

Source: Authors' calculations based on UN COMTRADE and ITC statistics

that most of them had comparative advantages. In contrast, export specialization per country was identified for a smaller number of agri-food products with comparative advantages. Another research by the same duo of authors [8] looked into the drivers of the duration of comparative advantages of agri-food products in the EU and concluded that factors with positive influence are the level of economic development and agri-food export diversification, as well as being a new EU member state. In a study of the effects of Western Balkan countries joining the EU, it is shown that becoming a "new" member state has a positive impact on trade intensification, while almost all countries recorded a decrease in the comparative advantages of agri-food products after their respective accession [32].

Research into the export competitiveness of agri-food products and especially of wine, which include the CEFTA member states, are few. Measuring the revealed comparative advantage (RCA) in research by OECD shows that CEFTA economies are the most specialized and hence the most competitive in intermediate and final goods exports in low-technology industries, and in intermediate goods exports in medium-low technology industries [25]. Another study [30] aims to point out the unexploited potential of CEFTA economies for export to the Russian market. The results indicate the highest degree of compatibility between Russian import and all CEFTA countries' export of fruits, vegetable and its processed commodities.

According to Vlahović, Škatarić and Veličković [36], during the 2012-2016 period, CEFTA countries achieved a positive balance of foreign trade of wine. The positive balance was achieved by Moldova, Macedonia and Montenegro, while the Republic of Serbia, Bosnia and Herzegovina and Albania experienced a negative balance of foreign trade of wine. Based on another research, North Macedonia has a comparative advantage in their production of wine. Although it has a comparative advantage in the production of wine larger than Bulgaria and Croatia, North Macedonia does not reach the same level of export unit value as the countries compared [25]. Concerning differences in RCA across groups of countries, Serbia has recorded an almost continuous increase of comparative advantages in relation to CEFTA countries, although most CEFTA countries have a similar trade structure [31]. Vanka [35] deals with the economic prospects of the Serbian wine cluster, its current opportunities and the introduction of new approaches. Its main focus is therefore to introduce the advantages and opportunities that clusters could bring to this sector, considering the three pillars of sustainable development, namely economic growth, environmental and social development, and achieving competitiveness. According to the analyses of Prohnițchi et al., Moldova's exports of cereals, animal skins and hides, beverages (especially wine), fruit and vegetables (fruit juices and nuts), vegetable oils and oilseeds reveal a strong comparative advantage in the EU market [28].

Research focusing on agri-food export performances of Western Balkan countries indicated that all the countries in the region, except Albania, have comparative advantages in exporting these products, while export performances are lower than in the EU countries [4]. Concerning its economic specialization, it is noted that

Figure 2: Changes in shares of wine import from the CEFTA group in the total EU wine imports (2011–2020)
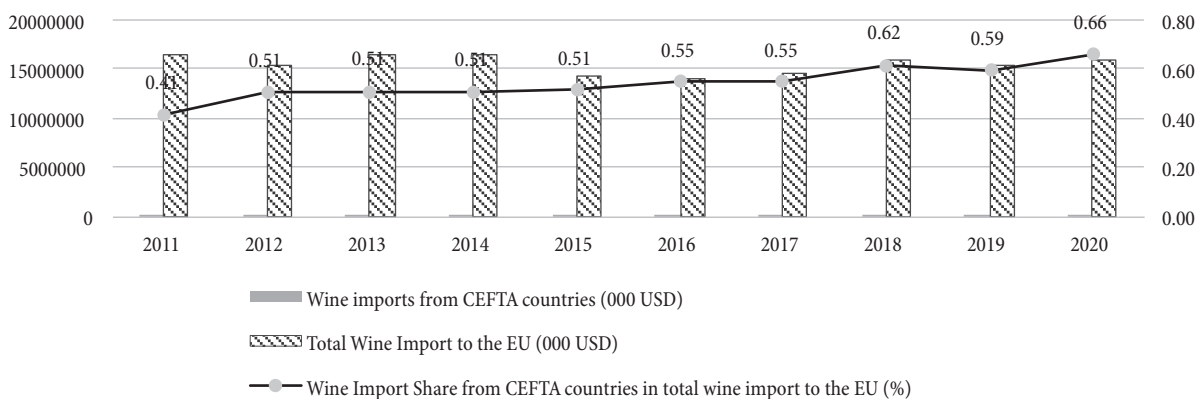
Source: Authors' calculations based on UN COMTRADE and ITC statistics.

Albania is relatively rich in natural resources and has a relatively low cost of labor force, but Albania does not reveal pure comparative advantages [23]. Other research referred to the level of competitiveness of the processed food sector of the Danube region countries [12]. This research indicated that development of agri-food trade could have an important role in faster economic development.

The literature review shows that there are only few studies that analyze the comparative advantages of wine export in CEFTA parties in relation to the EU Member States, which is precisely where the real contribution of this research should be observed.

Materials and methods

The measuring of competitiveness of wine export from CEFTA countries to the EU-28 market has been methodologically processed via two sets of indicators and two stages of calculation: selected competitiveness indices and constant market share analysis.

The data analysis refers to one export product: wine (HS classification, 4 digits, product: 2204). The data is retrieved from the International Trade Center's (ITC) website, where it is emphasized that the data is obtained from calculations based on UN COMTRADE and ITC statistics.

The analysis encompasses CEFTA signatory countries: Serbia, Montenegro, North Macedonia, Moldova, Bosnia and Herzegovina and Albania, excluding Kosovo for which data are unavailable, noting that the data for Albania in the database are inconsistent or incomplete.

The analysis covers a period of ten years, 2011–2020. Since the CMS model is sensitive to the selection of the base period, average values for the 2011-2015 and 2016-2020 periods were used for calculation and comparison.

Competitiveness indices

The first group of indicators are the three basic indices used: the trade intensity index, the revealed comparative advantage index and the export specialization index of CEFTA countries with regard to the EU-28 market.

The trade intensity index is used to determine competitiveness by measuring the intensity of trade between two countries. This index was first used by Kojima [15]. Value of the index higher than 1 indicates the presence of strong trade links between two countries and thus, export competitiveness. The trade intensity index is defined by the following formula and variables:

$$Ig,i = \frac{EXg,i}{EXg} \Big/ \frac{IMi}{IMw} \qquad (1)$$

Ig, i – wine trade intensity index between the CEFTA country concerned and the EU

EXg, i – value of wine export from the CEFTA country to the EU

EXg – value of wine export from the CEFTA country to the world market

IMi – wine imports into the EU

IMw – world wine imports.

With the aim of identifying the existence of comparative advantage, Balassa [4] introduced the revealed comparative advantage index (RCA). The index measures the ability of a country to compete in the international market, which is confirmed when the value of the index is greater than 1. The formula and variables for calculating the revealed comparative advantage index are as follows:

$$RCA = (EXij / EXit) - (EXwj / EXw) \qquad (2)$$

EXij – export value of product j (wine) in country i;

EXit – total export value in country i;

EXwj – world exports of product j;

EXw – total world exports.

The values of this index range from 0 to infinity. Country i has comparative advantages in the product or industry j if RCA > 1. Conversely, RCA <1 indicates lack of comparative advantages of country i in industry j.

The trade specialization index is defined as the share of exports of the analyzed product (wine) in the total exports of the country concerned, which is "normalized" by the average shares of all countries. This is an indicator derived from the revealed comparative advantage index, but due to its dynamic and fundamental characteristics, it is more suitable for comparison across countries over time [1]. The following formula is used to evaluate the relative export specialization of a particular country in the analyzed sector/product:

$$Bij = \frac{\frac{Xij}{Xi}}{\frac{1}{N}\sum_{i=1}^{N}\frac{Xij}{Xi}} \qquad (3)$$

Where:

B – stands for specialization index

X – stands for exports

i – stands for country code, i=1,2…N

j – stands for product.

As with the Balassa index, the value of 1 separates the index values into the existence of specialization (when the share of product *j* in total exports of the analyzed country is higher than the average share of the same product in exports of N countries, we can say that the analyzed country has achieved relative export specialization for the product concerned. Otherwise, the value of the index is less than 1 and there is no relative export specialization).

Constant market share analysis

The second group of indicators relates to the constant market share analysis (CMSA) and was performed through two stages of calculation. The first stage of the analysis is the calculation of the market share or changes in the market share. A country with a higher market share or an increase in market share is considered to be competitive for the product concerned in the researched market and over a given period.

The second stage, with the aim of analyzing the causes of changes in wine exports, was carried out by applying the constant market share analysis method. This analysis was first introduced by Tyszynski [34]and then further developed by Leamer and Stern [17], Richardson [29], Krugman and Hatsopoulos [16], Fagerberg [11], Milana [22], Chen, Xu and Duan [10], Barbaros, Lenger, Akgüngör and Aydoğuş [5]and others.

Most studies and research available in the professional and scientific literature have been conducted by analyzing multiple products or multiple markets or cumulatively, at agricultural level. Only a few studies dealing with export competitiveness of a single product in multiple markets are available in literature: Ongsritrakul and Hubbard [26], Jin and Koo [13], Turkekul, Gunden, Abay and Miran [33], Amzul [2], Ndou and Obi [24], Zivzivadze and

Taktakishvili [39] and Capobianco-Uriarte, Aparicio, De Pablo-Valenciano and Casado-Belmonte [9].

The constant market share model (CMS model) is based on the assumption that the industry (in this case, the wine industry) would maintain its share in exports – i.e., that the share would remain unchanged over time. It also assumes that the role of domestic factors of the exporting country is dominant in determining the causes, and includes both price and non-price competitiveness. This type of analysis originally singled out four components that decompose the change in exports occurred between two time periods according to the factor or effect causing it [29]: market size effect, market composition effect, commodity structure effect and competitiveness effect.

Since this paper analyzes the data for one single product (wine), three components have been included: market size effect or "structural effect", as it is coined in literature. The second part of the equation is the "competitiveness effect" and the third part is the "secondary effect", which is a combination of the previous two [10].

The calculation is expressed by the following formula and variables [26], noting that the formula has been modified in terms of application to values expressed in thousands of USD, and not as originally predicted, in product quantity (in tons).

$$q^1 - q^0 = S^0(Q^1 - q^0) + \sum_{i=1}^{n}(S_i^0 - S^0)Q_i^1 + (q^1 - \sum_{i=1}^{n}S_i^0 Q_i^1) \quad (4)$$

q – wine export value of the analyzed country in the regional/world market

S – export market share of the analyzed country in total exports in the regional/world market

Si – export market share of the analyzed country in total exports to the country *'s* market

Q – wine export value in the regional/world market

Qi – wine export value to the country *'s* market

The characters 0 and 1 in the subscript with the variables refer to the base and the subsequent period, by which data is compared, respectively. The equation shows that the occurred changes in the value of exports to the EU market from CEFTA countries between the two analyzed periods (q0 and q1) can be decomposed into three effects or components on the right side of the equation, namely: (1) structural effect – market size effect, (2) competitiveness effect, (3) secondary effect.

The market size effect or structural effect shows how much the export of the analyzed country would change between the two observed periods, if it changed at the same rate as the world average, or in this case, which share of change can be attributed to EU market growth. The competitiveness effect is a component which indicates the change in exports resulting from a change in the competitive position of the respective country in the market concerned. The secondary effect is a combination of the structural and competitiveness effects.

Results and discussion

Competitiveness indices

There are significant differences in trade intensity between CEFTA countries and the EU market, as presented in Table 2.

Observed by the average value of the trade intensity index of 0.7, Moldova is not predominantly oriented towards the European Union market. The growth trend of this index is noticeable. Compared to 2011, when the intensity index of the wine trade between Moldova and the EU was 0.34, a threefold increase in this index, reaching a value of 1.05, has been achieved by 2020.

The attained trade intensity with the European Union in 2020 is confirmed by the fact that European Union countries imported more than 35% of the value of wine exports from Moldova, with three EU countries having a predominant share: 16% of the wine export value from Moldova was imported to the Romanian market, and 8% to the markets of the Czech Republic and Poland, each. Strong trade links between the trading partners have been reflected by the indices relating to the trade between North Macedonia and the EU (ten-year average

TSI is 1.42) and between Bosnia and Herzegovina and the EU (ten-year average TSI is 1.6). For example, in 2020, North Macedonia (TSI 1.38) reached almost half of the total wine export value through export to European Union countries: Germany (19%), Croatia (17%), Slovenia (6%) and Bulgaria (5%). In the same year, Bosnia and Herzegovina (TSI 1.66) exported wine to European Union countries worth more than 70% of the total exports, with Croatia being the dominant export market (62% of Bosnia and Herzegovina's wine export value), followed by Germany's 9% and France's 2%. When it comes to wine trade, Montenegro is a country with fewest links to the EU market. The situation regarding the trade relations between Albania and the EU is specific, the specialization level being high in the years when exports were recorded, but in 2014, 2015, 2017, 2018, 2019 and 2020, exports were non-existent or data were unavailable.

The wine export specialization index and the revealed comparative advantage index were calculated as the average value for two five-year periods over a ten-year period, 2011–2020. The two indices in Table 3 with values less than 1 indicate the absence of specialization or comparative advantage in exports, and the value greater than 1 indicates the presence of export specialization and the presence of revealed comparative advantage in wine exports of the country concerned in a given market. It can be observed that the values of the specialization index are consistent with the values of the revealed comparative advantage index.

Wine export specialization for the EU market is observed for wines from Moldova, North Macedonia and Montenegro. In Moldova and Montenegro, the value of this index, or the specialization level for wine export to the EU market, increased, whereas in North Macedonia

Table 2: Trade intensity index between CEFTA countries and the EU (2011–2020)

Trade intensity index	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average
Moldova/EU	0.34	0.33	0.42	0.60	0.73	0.85	0.85	0.98	0.90	1.05	**0.70**
North Macedonia/EU	1.21	1.33	1.39	1.52	1.80	1.42	1.41	1.36	1.39	1.38	**1.42**
Serbia/EU	0.75	0.94	0.87	0.61	0.67	0.51	0.32	0.36	0.43	0.49	**0.60**
Montenegro/EU	0.07	0.07	0.11	0.09	0.13	0.12	0.13	0.15	0.15	0.15	**0.12**
Bosnia & Herzegovina/EU	1.67	1.68	1.58	1.49	1.58	1.46	1.45	1.72	1.68	1.66	**1.60**
Albania/EU	0.50	1.06	4.11	n/a	n/a	18.75	n/a	n/a	n/a	n/a	**2.44**

Source: Authors' calculations.

the specialization index decreased over time, followed by the same trends of the revealed comparative advantage index (Table 3).

Table 3: Wine export specialization index and revealed comparative advantage index of CEFTA in the EU market (2011–2020)

Country	Wine export specialization for the EU market		Revealed comparative advantage	
	2011–2015	2016–2020	2011–2015	2016–2020
Moldova	4.34	4.52	5.76	5.17
North Macedonia	3.31	3.25	4.40	3.72
Serbia	0.20	0.21	0.27	0.23
Montenegro	8.31	10.45	11.03	11.95
Bosnia & Herzegovina	0.28	0.26	0.38	0.30
Albania	0.01	0.00	0.01	0.00

Source: Authors' calculations based on UN COMTRADE and ITC statistics.

Market share analysis

Table 4 shows that in the observed ten-year period (2011–2020), and according to the average five-year data sets, there was an increase in the market share of Moldovan wine only, from 0.17% to 0.34%. Wines from North Macedonia and Serbia went into a decline in market share, whereas Montenegro, Bosnia and Herzegovina and Albania were stagnating, showing no significant changes in market share.

In nominal amounts, Moldova and Albania achieved an increase in average wine exports to the EU-28 market between the two analyzed periods, while the average wine export from North Macedonia, Serbia, Montenegro and Bosnia and Herzegovina to the EU-28 market decreased between the two analyzed periods.

Decomposition of changes in wine export values between the two five-year periods from 2011 to 2020 was performed by using the CMS analysis. The analysis shows that the increase in wine exports from Moldova to the EU market was predominantly a result of the competitiveness effect. The total change in Moldovan wine exports occurred due to a potential increase of approximately 110% of the share in total exports due to the export competitiveness of Moldovan wine in the EU market. The share of exports of approximately 5% was lost both due to the structural and the secondary effect.

The competitiveness effect, although in nominally smaller amounts, exists in the exports of wine from Albania. According to the analysis results, the declining competitiveness effect has been the main cause of the decrease in wine exports from North Macedonia (84%), Serbia (94%) and Bosnia and Herzegovina (71%) to the EU market, while the structural effect (decline in demand on the EU market) has been the dominant cause of the negative change in wine exports from Montenegro to the EU market.

Conclusion

The competitiveness of wine exports of CEFTA countries in the period from 2011 to 2020 has been examined in this paper. Moldova and North Macedonia are predominant

Table 4: Changes in wine exports and market share of CEFTA countries in the EU market

Exporting country	Period	Average wine exports to the EU market (000 USD)	Total wine imports to the EU-28 market – average for period (000 USD)	Average market share in the EU-28 market (%)	Change in market share (%)
Moldova	2011–2015	26,971.00	15,865,458.20	0.17	0.17
	2016–2020	51,284.20	15,170,131.00	0.34	
North Macedonia	2011–2015	40,858.00	15,865,458.20	0.26	−0.05
	2016–2020	31,733.40	15,170,131.00	0.21	
Serbia	2011–2015	6,217.00	15,865,458.20	0.04	−0.02
	2016–2020	3,290.20	15,170,131.00	0.02	
Montenegro	2011–2015	865.80	15,865,458.20	0.01	0.00
	2016–2020	828.40	15,170,131.00	0.01	
Bosnia & Herzegovina	2011–2015	2,681.60	15,865,458.20	0.02	0.00
	2016–2020	2,314.40	15,170,131.00	0.02	
Albania	2011–2015	157.80	15,865,458.20	0.00	0.00
	2016–2020	816.80	15,170,131.00	0.01	

Source: Authors' calculations based on UN COMTRADE and ITC statistics.

in the structure of total exports, generating over 80% of the total wine export value.

Wine has a different significance in the structure of agro-industrial exports of certain countries of the CEFTA group. Wine exports from Montenegro comprise 26% of the agricultural export value. Moldovan wine exports account for 12.5% of the agricultural export value, whereas wine exports from North Macedonia account for 9% of the country's food exports. Regarding the value of agricultural exports from the Republic of Serbia, Bosnia and Herzegovina and Albania, wine exports have no significant share and approximate to 1% (2020).

The trade intensity index indicates that Moldova is not predominantly oriented towards the European Union market. However, a growth trend of this index is observable. Compared to 2011, when the intensity index of wine trade between Moldova and the EU was 0.34, the index reached a value of 1.05 in 2020.

Specialization of wine exports for the EU market is present for wines from Moldova, North Macedonia and Montenegro. In Moldova and Montenegro, the value of this index, or the specialization level for wine export to the EU market, increased, whereas in North Macedonia the specialization index decreased over time, followed by the same trends of the revealed comparative advantage index.

In the analyzed ten-year period, and according to the average five-year data sets, an increase in the market share in the EU market was observed only for Moldovan wine, from 0.17% to 0.34%. Wines from North Macedonia and Serbia went into a decline in market share in this market, whereas Montenegro, Bosnia and Herzegovina and Albania were stagnating, showing no significant changes in market share.

The analysis shows that the increase of wine exports from Moldova to the EU market was predominantly a result of the competitiveness effect. A share of exports of approximately 5% was lost both due to the structural and the secondary effect. The competitiveness effect is present in the exports of wine from Albania, but it is far lesser compared to Moldova. The competitiveness effect, however declining, has been observed in wine exports to the EU market from North Macedonia (84%), Serbia (94%) and Bosnia and Herzegovina (71%), while the structural effect (decline in demand in the EU market) has been the dominant cause of the negative change in wine exports from Montenegro to the EU market.

With the objective of increasing exports, it is necessary to intensify wine production, along with changing the structure towards wines of better quality. Intense competitiveness and market saturation are present in the EU market, which will make the export of wine from CEFTA countries very difficult in the forthcoming period. Non-tariff barriers are the largest obstacles to the actualization of full capacities in free trade between CEFTA countries and the countries of the European Union.

Table 5: Decomposition of changes in wine export value from CEFTA countries to the EU market (2011–2020)

CEFTA country		Change in average wine exports to the EU market	Structural effect	Competitiveness effect	Secondary effect
Moldova	Value in 000 USD	24,313.20	−1,182.04	26,663.83	−1,168.58
	%	100.00	−4.86	109.67	−4.81
North Macedonia	Value in 000 USD	−9,124.60	−1,790.66	−7,670.09	336.15
	%	100.00	19.62	84.06	−3.68
Serbia	Value in 000 USD	−2,926.80	−272.47	−2,775.99	121.66
	%	100.00	9.31	94.85	−4.16
Montenegro	Value in 000 USD	−37.40	−37.94	0.57	−0.02
	%	100.00	101.46	−1.52	0.07
Bosnia and Herzegovina	Value in 000 USD	−367.20	−117.53	−261.12	11.44
	%	100.00	32.01	71.11	-3.12
Albania	Value in 000 USD	659.00	−6.92	696.44	−30.52
	%	100.00	−1.05	105.68	−4.63

Source: Authors' calculations based on ITC and COMTRADE statistics.

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