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Russian food products market- new CEFTA export opportunity²

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Abstract: This study aims to point out the unexploited export potential of CEFTA economies to the Russian market, using both quantitative and qualitative methods. More precisely, the Russian food market is examined, because of its size, the lack of domestic supply and actual changes of trading partners due to political and security antagonisms. The competitiveness of CEFTA food production on the Russian food market was analyzed by using two classical instruments of competitiveness - coefficient of conformity (CC) and real effective exchange rate (RER).CC is applied first to the CEFTA export and Russian import of food in total, and then to the six main Russian import food products. The results indicate the highest degree of matching between Russian import and all CEFTA country export of fruits, vegetable and its processed commodities. RER is calculated to show competitiveness in terms of prices in bilateral trade, and result shows a very favorable ratio of currency, except in the case of Montenegro and Bosnia because their fixation to euro. Due to the small size of CEFTA production and non-proportional large Russian market, the interconnection, e.g. forming the value chain made of CEFTAs agriculture and food industry companies is suggested as the basis of new CEFTA export strategy.

Key words: CEFTA, Russia, coefficient of conformity, food value chain.

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Rusko tržište prehrambenih proizvoda - nova izvozna šansa za CEFTA privrede

Apstrakt: Istraživanje ima za cilj da, kvantitativnom i kvalitativnom analizom, ukaže na do sada neiskorišćene izvozne potencijale CEFTA privreda na rusko tržište. Preciznije, istražuje se rusko tržište hrane, zbog svoje veličine, nedostatka domaće ponude i nedavnih promena trgovinskih partnera zbog političkih i bezbednosnih antagonizama. Konkurentnost prehrambenih proizvoda CEFTA država na ruskom tržištu analizirana je primenom dva klasična instrument konkurentnosti - koeficijent podudarnosti i realni efektivni devizni kurs (RER). Prvim instrumentom se najpre utvrđuje podudarnost između CEFTA izvoza i ruskog uvoza hrane u celini, a zatim se primenjuje na šest najvažnijih ruskih uvoznih prehrambenih proizvoda. Rezultati ukazuju na maksimalni stepen usklađenosti između ruskog uvoza i izvoza svih CEFTA privreda u pogledu trgovine voćem, povrćem i njihovih prerađevina. RER je uključen u istraživanje sa ciljem da pokaže konkurentnost u pogledu cena bilateralne trgovine, a rezultat je veoma povoljan odnos valuta, osim u slučaju Crne Gore i Bosne, zbog njihove fiksiranosti za evro. Zbog malog obima proizvodnje u CEFTA i nesrazmerno velikog ruskog tržišta, kao osnova nove CEFTA izvozne strategije, predloženo je povezivanje, odnosno formiranje prehrambenog lanca snabdevanja koji bi činile poljoprivredni kompanije prehrambene industrije ovih država.

Ključne reči: CEFTA, Rusija, koeficijent podudarnosti, prehrambeni proizvodi, lanac snabdevanja.

1. Introduction

In the contemporary globalized world, the production of goods and services becomes "borderless", which is the term coined by Kenichi Ohme (1999). One of the results of globalization process was the formation of inextricable networks of economic activity - the global value chains. These cross-country value chains become a dominant trait of the global economy. Their major driving force is the expansion of the activity of transnational companies (TNC) and their business strategy is based on the foreign direct investment (FDI). Under the auspices of the TNC, the final consumer products usually contain components and other inputs from a variety of countries.

Today, the successful trade policy "needs to reflect this new reality and, in particular, the growing international interdependencies" (OECD, WTO, World Bank, 2014, 10). The new global economy makes the trade and investment policy more complicated than the conventional trade in goods, and demands more inventive and skillful policy makers. Being competitive "now requires not

just being able to produce at low cost but also being able to establish state-ofthe-art supply and logistics chains, including high-performing transport, customs, communications, and financial services" (Diop et all, 2010, p. 1).

But, at the same time, the complexity of new economic relations and connectivity between economies provide to them more opportunity. The countries that succeed to integrate into global production chains have a better chance to break into new markets and to develop higher-quality and more diverse production and export.

The Central European Free Trade Agreement (CEFTA) is the economic association of countries from not just Central, but also East, Southeast Europe or the Balkan countries. The specificity of this integration is that membership is termed until the moment of accession to the European Union. With the reception in the EU, CEFTA membership is automatically terminated.

From 2006 to 2016, fourteen member states have passed through the CEFTA. The contemporary members of the CEFTA are: Albania, Bosnia and Herzegovina, Macedonia, Moldova, Montenegro, Serbia and Kosovo.

These countries have a very weak production, and low export which is limited mainly to the EU market. The close connection to the EU market is expected and natural, considering the future membership of these countries. However, this fact does not preclude in any way these countries from exporting to other markets. Interdependence between higher and lower developed European countries is a very unequal. The results of some quantitative researches of one of the strongest link between these two group of countries, Serbia and Germany shows that "economic conditions in Serbia depend on those in Germany incomparably more than conditions in Germany depend on Serbia" (Nikolic, Zoroja, 2016, p. 55). Distribution and production levels among European countries are such that they do not leave enough opportunity for increasing export from less developed to more developed countries.

The structure or volume of export of CEFTA countries hasn't changed for years. Even in the low level industries, such as agriculture and food industry, EU members' economies have huge advantages over CEFTA economies: higher production, productivity, diversity and better quality.

That implies the need for:

- Geographic diversification of export of CEFTA countries, and
- Orientation to raising production and export of lower technology level goods.

The main hypothesis is that Russian food market is one of the very few opportunities for raising CEFTA countries export. There are several reasons for that assumption. First, this is an extraordinary big market of 144 million people. Second, Russia has never been self-sufficient in food supply, and

generally it has the weaker agriculture and food industry than majority of big markets. Third, Russian trade relations have been rapidly changing for the last 3-4 years in the direction of decreasing food import from the USA and Latin American countries since 2012, and significantly lowering export from the EU countries after food import embargo in 2014. Fourth, food production is one of the few industries in which CEFTA countries have potential for growth.

The hypothesis of higher export potential of lower technology level goods is based on knowledge about the state of CEFTA countries production, and on the results of the OECD, CEFTA paper (2015, p. 11), obtained by applying the measure of revealed comparative advantage (RCA). According to these results, low processing products have the highest comparative advantages, medium-low products have relatively good opportunity, while the medium-high and ICT have very low comparative advantage.

2. Literature review

In the report made by the OECD and CEFTA (2013) international supply chains in CEFTA are highly recommended. The main reason is that intermediates were an important driver of export growth in CEFTA economies. According to the calculation of comparative advantage, based on RCA, low and medium-low technology processing products have the highest comparative advantages, what is the premise of our assumption.

The coefficient of conformity is a well-known and widely used method. Yilmaz (2008) analyzed foreign trade specialization and international competitiveness of Greece, Portugal, Spain, Turkey and the EU 12. It was used also by the OECD (2008) in research of competitiveness of the Black Sea and Central Asia regions. Besides, this report found strong export competition in the Balkan region, with a high degree of production similarity. That result supports our suggestion for building a value chain in any common production activity of these countries, because competitive appearance on the world market can lead to further destruction of these weak economies.

Tosuni & Vokrri (2015) researched potential export markets for food processing, agriculture and other low and middle level commodities of Kosovo. As its potential partners the EU, other CEFTA countries, Turkey and USA are specified. The choice of the EU is opposite to our assumption that particularly the EU does not have additional capacities for CEFTA commodities. Exports to the EU have stagnated for years, and the EU economies are more competitive both in terms of price and quality. The second choice of inter CEFTA trade is comparable with our recommendation concerning the benefits of intra-industry trade, not only related to food, which

is the subject of this research, but to other industries as well. More precisely, the following pages express an attitude that the establishment of regional value chains, led to positive effects of cauterization - specialization, higher productivity, lower prices, better quality - better export chances.

Tosuni & Vokrri also recommend the Turkish market. It is probably useful advice, but Turkey has a close links only with Kosovo among the CEFTA countries, based mostly on political proximity. Turkey is one of the first countries which recognized Kosovo as an independent state. These two countries have several bilateral agreements on cooperation, free trade etc., which enables to Kosovo a significant export. But "significant" in the proportion to production of Kosovo is actually very small value. For this disputed territory, the interconnection with other CEFTA countries is a good solution for increasing production and consequently the rise of export growth in general, as well as it is for Turkey.

Among five suggested export products, these authors put the Agriculture and Food-Processing on the first place.

The review of the great Russian potential for import of food is given in the Stanojević N. (2014b). Stanojević N., Jovancai A. (2015) also observed monolithic exports on the case of Serbia and examined the possibility of diversification of Serbian export to the countries of Caspian Basin.

Stanojević N., Kotlica S. (2015a) and Stanojević N., Kotlica S. (2015b) suggest that the specificity of the SEE transition economies (most CEFTA countries) is that foreign direct investments have not led to the desired results because they are not directed to export production sectors. The FDIs in these countries are directed to domestic, not foreign consumers. They underline, and this research stands at the similar line, the importance of internal resources (governments and companies) in strengthening any export industry.

According to the author's knowledge, no one has suggested Russia as an export market for the CEFTA economies, despite these high potential.

3. General characteristics of the CEFTA economies and exports

The breakup of the Soviet bloc and former Yugoslavia (today most of the CEFTA member states) and the process of economic transition, led to restructuring of their economies, while the changes in economic relations led to the major changes in the structure, volume and directions of foreign trade (Stanojevic, Jovancai, 2015, p. 284). All traits of production and export – the volume, quality and diversity decreased rapidly in all CEFTA economies.

According to World Bank Database, all CEFTA countries belong to the group of middle income states, defined as the economies with a GNI per capita from \$1,045 and \$12,736. At the beginning of the 21st century, the CEFTA countries were the least competitive economies in Europe, with drastically dropped volume of production and product range comparing with the previous group. The main characteristics are the enormous growth of foreign debt, high foreign trade deficit, which keeps increasing, and a small number of export partners (Stanojevic, Jovancai, 2015, p. 285).

A complete picture of the poor condition of the CEFTA economies is shown by Global Competitiveness Index – GCI, made by World Economic Forum, based on statistical data from internationally recognized agencies - the International Monetary Fund, the United Nations with its educational, scientific and cultural organization, and widely used for more than one decade. The GCI is cumulative index which combines 114 indicators, grouped into 12 pillars: macroeconomic environment, market size, institutions, infrastructure, health, education at all levels, labor market efficiency, financial market development, technological readiness, innovation, and others.

On the list of the countries by GCI for 2015-2016 (Schwab, Ed, 2016), the CEFTA countries take very low positions. Among 140 countries Bosnia Herzegovina takes the 111^{th} place, Serbia the 94^{th} , Albania the 93^{th} , Moldova the 84^{th} , Montenegro the 70^{th} , and FRY Macedonia the 60^{th} .

Additional to low economic performances, the specific mark of the CEFTA countries exports is a very limited number of exports partners.

CEFTA places more than a half of its export on the EU market (Table 1). More than a third of total CEFTA export is directed towards Italy and Germany, and more than 20% is inter-CEFTA trade.

Country	GDP (PPP) billion \$	Export billion \$	Export to EU billion \$	Share of export to EU in total export (%)
Serbia	97.5	14.8	7.3	50
Moldova	17.8	2.3	1.3	57
Bosnia and Herzegovina	40.5	5.9	3.3	56
Albania	32.6	2.4	1.3	54
Macedonia	29	4.9	3.1	63
Montenegro	10	0.35	0.1	29
Total	209.6	30.7	17.3	Average 52

Table 1. GDP and export of CEFTA countries

Sources: IMF, UN Comtrade, 2016

Undiversified export is not bad by itself, especially when it is export to highly developed countries such as the EU. But, CEFTA export to the EU has one serious problem. It is extremely low! Actually, the overall export of these economies is low both by the number of products and by value. The total value of six countries export is only \$30 billion, and export to the EU is \$17 billion. So 50% of such low export does not mean that the EU countries import a lot of goods from the CEFTA countries.

One of the reasons of low export is the poor quality of products of these economies, as a result of decades of disinvestment and consequently the use of outdated technology.

According to *Global Information Technology Report 2015*, the CEFTA countries suffer from insufficient development of their ICT infrastructures, weak ICT uptake, and weaknesses in their innovation systems that hinder their potential to fully enjoy the benefits to be gained from ICT (Dutta, Geiger, Lanvin, eds. 2015, 20). According to GITR, made by analyzing 10 different indicators, Albania occupies the 92th place, Serbia the 77th, Bosnia and Herzegovina the 68th (data for 2014, not available for 2015), Moldova the 68th, Montenegro the 56th and FRY Macedonia the 47th. So it is obvious that production which includes higher technologies cannot be the driver of new economic growth or exports.

There is no indication that these countries can reach such a technology level at which the EU countries would increase imports from them (either they join the EU or not). EU import is as big as it is. The statistics of CEFTA export to the EU does not show any significant changes since 2011-2015 (UN Comtrade Database).

4. The condition and trends of agriculture and food industry in Russia

4.1. Russian food production

After the collapse of the Soviet Union, Russian agricultural production suffered severe consequences of transition.

The large collective and state farms, kolkhozes and sovkhozes-the foundation of the Soviet agriculture - lost their state the guarantees for prices of agricultural products, free marketing and supply channels. The most dramatic consequences of transition were suffered by livestock, due to the high price of animal feed, the lack of state support, reduced investments, poor economic situation, and large adjustments during the transitional period. The price of cattle dramatically declined, while input prices increased. Due to the

crisis, the demand lowered and that further worsened livestock production. In the crop production, most of the farms could no longer afford to purchase new machinery or provide other capital investments, while the shortages of fertilizers, seeds and other inputs were frequent (Stanojevic, 2014a, p. 114).

During the 1990s agriculture was sinking deeper and deeper. According to FAOSTAT data (Food and Agriculture Organization of the UN Statistics), during the 1990s Russia had a negative growth of agricultural and food production of -0.45% and -0.42%. The big drought in 1998-1999 and the economic crisis in 1998 led to the situation in which Russia was forced to accept humanitarian aid.

A slow recovery of agriculture began after 1998, but it does not apply to all segments of agriculture. After 2000 the depreciation of the ruble took place, grain production increased, the government increased the budget to support livestock and introduced tariff protection.

In the process of Russian rapprochement to the WTO rules, especially after the great financial crisis of 1998, the Russian government had to allocate a part of the revenue for economic reforms. In these processes, the agriculture sector had the greatest benefits. In the period 2001-2006, the entire agriculture achieved a slight increase of 1.42% annually on average (FAO, 2012). In 2005 total agricultural production reached only 75% of the level in 1990, but this represented a significant increase compared to 30% in 1998. From 2006 agricultural production started increasing constantly. From 2006 until 2011 the growth was 2.68% for agricultural production and 2.64 % (FAOSTAT) for food production.

Today, Russia's agriculture has a global significance again. In some industries production it has a significant share in the world production, while Russian trade in agricultural products, especially imports, is of great importance for many economies around the world.

The main crops in Russia are wheat, sugar beet, sunflower, potato and flax. In the production of cereals and legumes Russia is ranked fifth in the world (2012). The annual wheat production in Russia is about 40 million tons and occupies an important place in the world production (6-8 %) and exports (about 10 %). The annual production of barley is around 16 million tons, which is about 12 % of world production and about 14% of world exports (FAO, 2012). In the production of sunflower Russia is also one of the leading countries of the world.

Until recently Russia used to produce very little poultry and frozen chicken. It was one of the major import items of Russia. Since 2012 the animal production has recorded a significant growth. The biggest rise has been recorded in the poultry and pigs, while in contrast to that, the production of cattle dairy products decreased (Stanojevic, 2014a, 119).

But, the growth of Russian agriculture was not reflected significantly to food industry. Food industry in Russia could not meet the domestic demand, mostly because of chronic lack of investment during the entire Soviet period. That situation couldn't have been improved during the transitional turbulence of the 1990s, so that Russia remained one of the largest food importers in the world (Stanojevic, 2014a, p. 142).

The completion of the privatization process in food industry and graduate adaptation of these companies to doing business in market economy, contributed to a slight growth of food production. It increased since 1995, but in 2014 it reached only the level it had in 1991 (Table 2).

Table 2.Index of food industry production in Russia

Production index (1991=100)	1992	1995	2000	2005	2007	2011	2012	2013	2014
Food products, beverages, and tobacco	80,0	50,2	54,6	75,2	86,6	93,4	98,8	99,4	101,9

Source: Rosstat, www.gks.ru

This production growth is not enough for Russia to be self-sufficient in terms of food, and that leaves enough free space for export from economies such as the CEFTA members.

4.2. International trade of food products in Russia

The overall Russian food import was calculated by summarizing the import of commodity with codes 01-23 by Harmonized standard (HS) from UN Comtrade database. The list of codes is given in Annex 1. The fall of food import is impressive, from \$38 billion to \$25 billion for only four years (Table 3).

Period	Trade Value		
2011	37,909.65		
2012	39,274.36		
2013	41,834.32		
2014	38,690.96		
2015	25,338.43		

Table 3. Russian import of food products in million \$

Source: Author according to UN Comtrade Database

The import of meat is halved from 6 to 3 billion \$, the import of fruit decreased from 6 to 4 billion \$, the import of beverages and spirits fell from 2.7 to 1.7 billion \$, vegetable from 3 to 1.9 billion \$, while only milk and dairy products have the similar value (UN Comtrade Database).

Generally, there are three evident reasons for decreasing Russian food import:

- Growth of domestic production, which meets a bigger share of domestic food demand;
- Fall of overall demand in Russia because of the weakening of Russian economy during the 2014-2016 (fall of oil prices, and consequently decrease of income and value of ruble);
- Current political and security challenges (the crisis in Ukraine and the EU sanctions, worsening relations with the USA because Russia's involvement in Syria, etc.), which led to confrontation with many of most important food importers (Ukraine, USA, EU).

None of these processes is an obstacle for intensifying CEFTA food export to Russia.

Besides, a new growth of Russia food market driven by the noticeable growth of oil prices and the ruble since the March 2016 should also be taken into consideration. After the dramatic fall at the beginning of the 2016, ruble start slow but continuous growth based of the similar growth of oil prices.

The point is that the oil economy always has an upward pressure on the domestic currency - the currency is often overestimated, so this can also be expected to happen to the ruble. If this trend is sustained, the import in Russia will again become cheaper than domestic production, which will lead to the increase of food imports. Given the improvement of domestic production, the future imports will not be as high as in the past, but for the small CEFTA economies it will be a great opportunity to place their food products.

Trade relations with the EU will be renewed once the sanctions are lifted, but food is not among the high priorities of the EU exports. If CEFTA food production found its place on the Russian market, that position would not be lost after the suspension of the EU sanctions.

4.3. Current change of Russian food import partners

The first changes in Russian import partners can be noticed in 2012 and it was a consequence of Russian WTO accession. Contrary to the expected, the food import was not increased, but slowed down. It was a result of many precautionary measures, and numerous techniques to avoid WTO rules, with the aim to protect agriculture as the most sensitive sector of Russian economy from the strong world competition. The decrease in imports was the result of "the cancellation of the preferential arrangements of the Customs Union with developing countries, particularly Brazil, from which RF had huge imports, and on the other hand, of great restrictions imposed by RF on the

countries of North and Latin America and the European Union on the pretext of sanitary protection" (Stanojevic, 2014b, p. 103).

After the crisis in Crimea, there were no negative effects to the food export, according to Russian Statistics Service (ROSSTAT). The share of food products exports in the entire exports amounted to 2.7 in the first half of 2014 in comparison with 2.0% in the first half of 2013 (Stanojevic, 2014b, p. 104).

As a response to the Western economic sanctions, Russia banned imports of the U.S. and European foods of a wide range in August 2014. The banned products were fruits, vegetables, cheese, milk and other dairy products, pork, poultry, beef, and fish, from the European Union, United States, Canada, Norway and Australia (Stanojevic, 2014b, p. 104).

All of these challenges led to the significant decrease of Russian food import from the most important trade partners: Ukraine, the USA, Germany, France, Italy, Hungary, Bulgaria, and Brazil (Table 4).

							(11)	iiiion \$)	
	Ukraine	USA	Germany	France	Italy	Hungary	Bulgaria	Brazil	
2011	2115.5	1577.8	2331.1	1463.3	1244.7	286.5	58.2	3651.2	
2012	2098.0	2006	2152.4	1515.7	1254.6	306.9	58.4	2420.8	
2013	2009.3	1581.3	1979.5	1571.6	1402.1	368.4	54	2597.2	
2014	998.7	1288.1	1472.5	1279.4	1258.1	307.1	53.7	3321.5	
2015	340.9	546.6	912	660.7	676.7	176.3	36.5	2301.6	
	Imported food products includes the all commodities with 1-23 code of Harmonized standard (HS) according to the UN Comtrade database.								

 Table 4. Decreasing of Russian food imports from main import partners

 (million \$)

Source: UN Comtrade database

Ukraine exports cocoa and cocoa products, dairy produce; birds' eggs; natural honey, beverages, spirits and vinegar worth 1 billion \$ each per year. The export falls from 2115.5 in 2011 to 340.9 million \$ in 2015, what is 6.2 times lower value (Table 4). This is the largest decrease in exports among Russian import partners. This is not a surprise given the secession of Crimea, political, and then the armed conflicts between the two countries.

The USA exports meat for 2.3 billion \$, oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit in the amount of 1 billion \$. The export fell from 1578 to 547 million \$, what is almost three times less (Table 4).

Germany exports to Russia meat, miscellaneous edible products, and dairy produce worth 1-2 billion \$ each, and products of cereals, flour, starch or milk; pastry cooks' products, worth around 700 million \$ per year. In the period 2011-2015, as it is shown in table 4, German export fell by 2.6 times, from 2331 to 912 million \$. This is the largest decrease in exports among Russian import partners in the European Union.

France exports beverages, spirits and vinegar of more than 2.5 billion \$ value, and also meat and dairy products (around 500 million \$). Its export to Russia decreased 2.2 times for four years, from 1463 to 660 million \$ (Table 4).

Italy exports to Russia beverages, spirits and vinegar worth more than 2 billion \$. Also, of the highest importance are fruits and nuts, peel of citrus fruits or melons and products of cereals, flour, starch or milk; pastry cooks' products, with the value of 500 million \$ each. Like in the case of other countries Italian export to Russia fell almost double, from 1244 to 676 million \$ (Table 4).

Hungary exports products of vegetables, fruit, and nuts, residues from the food industries, meat, and cereals. The value of export of every group is around 200 million \$ per year. The export of meat products has a value more than 100 million \$. The export fell from 286 in 2011 to 176 million \$ in 2015, which is not as extreme as in other countries, but still, this is a drop of 60% (Table 4).

In Bulgarian exports to Russia beverages, spirits and vinegar make almost a half of the overall food export to Russia. The products of vegetables, fruit, nuts also occupy a significant place.

Brazil is a traditional exporter of meat, not only in Russia but all around the world. At the same time, meat is the most important import product of Russia from Brazil. Besides, Russia previously also used to import sugar, coffee, tea, variety of edible products of higher level of processing from this country. The import of food from Brazil rapidly decreased in proportion to the growth of Russian agriculture production. During 2011-2015 period, food import reduced from 3.65 to 2.3 billion \$ (Table 4). On the other hand, the imports of meat from Brazil are still the main import products and the import has almost the same value as before. Russia restricted import of sugar and sugar products from 1.5 billion \$ to 144 million \$ (UN Comtrade Database). That group is statistically responsible for the decrease of overall import from Brazil.

The other significant import partners, Kazakhstan, with the export of 200 million \$ and China with 1.5 billion \$, have mostly unchanged positions. The only trade partner with growing food export to Russia is (quite expected) Belarus with the growth of export from \$1.8 billion in 2011 to \$2.9 billion in 2015 (UN Comtrade Database).

The total Russian food import from these most important partners decreased from 12.7 to 5.6 billion \$. This is a decrease of more than \$7 billion, and a part of that gap represents an export opportunity for CEFTA food production. The most important import products in that \$7 billion should be considered and included in the export strategy of the CEFTA member states. Increasing quality and quantity of those food product areas is a great chance for the CEFTA economies to take the place of the former main trading partners,

given their non-memberships in the EU and an absence of political confrontation with Russia.

During the same period (2011-2015), Russian food import from the CEFTA countries, except Moldova, kept continuously growing. Albanian food exports to Russia increased from 0.8 to 4.3 million \$ (Table 5). The biggest growth until 2014 was led by export of fruits and vegetables. The insight into UN Comtrade database shows that Albanian export of fruits and nuts rose from \$0.2 to \$4.6 million, and the export of vegetables from 0.2 to 1.2 million \$, during 2011-2014. As it is shown in table 5, in 2014 export reached more than \$10 million. But, then came a sharp drop in 2015 as a result of Russian ban on import of fruits and vegetables from Albania because of many cases of re-export from the European Union.

Table 5. Increasing Russian food imports from the CEFTA countries (million
\$)

	Albania	Bosnia	Macedonia	Moldova	Montenegro	Serbia
2011	0.83	4.36	28.201	231.86	3.72	196.39
2012	0.99	1.81	17.021	228.45	5.28	187.58
2013	1.72	1.44	16.394	223.62	4.12	209.47
2014	10.48	6.68	34.267	134.62	4.33	361.04
2015	4.29	23.08	64.224	92.63	1.87	317.59

Source: UN Comtrade database

In Bosnia and Herzegovina among other food commodities, the biggest export growth occurred in fruits, whose value rose from \$4 to \$20 million, vegetables from \$0.15 to \$2 million in period 2011-2015. The total export of food rose from \$4.4 to \$23 million (Table 5).

Export of food from Macedonia to Russia has a similar structure. The export of fruits increased from \$13 to \$40 million, of vegetables from \$10 to \$20 million. Those two product groups make almost all of this bilateral flow, which was \$64 million in 2015 (Table 5).

Montenegrin food export to Russia grew parallel with the decline of importance of previous Russian partners, and then came to a sudden fall in 2015. In response to Montenegro's support for the EU sanctions against Russia, Moscow extended a food import ban to include Montenegro in August 2015. Food export dropped from 3.7 in 2014 to 1.9 in 2015 (Table 5), although the ban was imposed in the second half of the year. Further decrease of export is expected.

Serbia has the strongest economy among the CEFTA members and consequently the biggest export. Its food export to Russia makes 63% of the total CEFTA export to this market. Serbian export of food rose from \$196 in 2011 to \$318 million in 2015 (Table 5). The highest contribution to such a

growth belongs to meat, the export of which rose from \$1.5 to \$28 million, then dairy products, milk, eggs and honey with the growth from \$4 to \$26 million, but the export of fruits and vegetables also had a significant share (UN Comtrade). One interesting, but not beneficial characteristic of Serbian food export is radical lowering of export of commodities of higher processing stage - processed food and vegetables. It first decreased from \$16 million in 2011 to \$28 million in 2012, but then rapidly fell, so that it was less than \$5 million in 2015. Having in mind higher prices of processed products, this indicates very low quantity of these products.

Moldova had a higher export than Serbia since 2013, and in 2014 export of Moldova started to decrease vary fast (Table 5). This is a consequence of changing relations of Republic Moldova to the European Union. Despite the will of majority of the population, the government announced in 2014 a plan to sign an Association Agreement with the EU. Removing of some trade barriers was the result of changed international relations, so that food products of Moldova (mostly wines) found their place on the EU market.

The growth of food export of the CEFTA members to Russia is significant and relatively satisfactory, but actually it is the growth of 50 - 60 million \$, and as it is mentioned, the free space is \$7 billion.

Because of the disputed political status, Kosovo is not included in the official detailed statistics of the UN or other significant world institutions, nor in the data of local statistic service. Therefore, unfortunately, Kosovo cannot be included in further statistical analysis. Instead, its food export potential can be described in general. According to the Ministry of foreign affairs of Kosovo (2016) the share of agricultural sector in the total export value is around 15%. Earlier state food processing companies today are mostly inactive and the new private ones are small and still not able to meet the largest part of domestic demand. Kosovo can contribute to the CEFTA food value chain by the production of grape and wine industry. Before the collapse of former Yugoslavia, wine exports of the main wine industry Orahovac, was 40 million liters per year. During the long period of political and security instability, this industry was disregarded, but recently significant recovery was evident.

5. Research methodology

So far we have found that the countries outside the EU, the US and Latin America have a huge free "space" for food exports to Russia. It has also been described which food products have the greatest chance for placement in Russian market. But to get a complete picture, it is necessary to calculate the structural compatibility of CEFTA export with the import demand of Russia and competitiveness in the term of prices.

The structural compatibility could be explained by classical statistical economic apparatus, using a *coefficient of conformity* (CC), which is the measure of trade compatibility between two countries. This is the most widely used method for determining a match between the exports of one country and the import demand of another.

It is calculated by means of the following formula:

$$CC = \frac{\sum_{j=1}^{n} XipMjp}{\sqrt{(\sum_{i=1}^{n} XpXp)(\sum_{i=1}^{n} MpMp)}}$$
(1)

- The *i* stands for exporter country and *j* for importer partner
- The subscript *p* shows different product groups.
- The X stands for the share of exports of product *p* in the overall export of country *i*
- The M is for share of imports of product *p* in the overall import of country *j*

The coefficient of conformity value is between 0 and 1. The values closer to the 1 means the more complementarity in the trade structure. The 1 means perfect complementarity between export of country i and import of country *j*. Contrary, the values closer to 0 means competitive trade structure.

The coefficient of conformity of CEFTA export will be applied on Russian import. The focus will be on the agriculture export products of CEFTA, which already have a significant advantage in the Russian market due to the described circumstances in the Russian food production and trade. Having in mind also the lower technology level of production than Russia, food products have a bigger chance than the other commodities for increasing the export to Russia.

Data of export particularly groups of food products are given in UN Comtrade database. It is calculated on the base of data in period 2011-2015. First, the coefficient of conformity will be calculated for every particular country and the sum of groups of food export (1-23), by harmonized standards.

As it was mentioned in introduction, the weakness of the coefficient of conformity is the fact that it doesn't include the factor of prices. So, it is necessary to include this factor in analysis, using one of the most common competitiveness indicators – the real exchange rate. The real effective exchange rate is one of the basic tools for assessing a potential export of one country to another. It shows the ratio of currency of potential trading partners.

The competitiveness indicator or the real effective exchange rate is calculated by using the following formula:

$$q = E \cdot P / P^* \tag{2}$$

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whereby:

E = nominal effective exchange rate (currencies per unit of RUB in April 2016)

P = index of domestic prices in Russia

P* = index of CPI in CEFTA countries

A price level is the average of current prices across the entire spectrum of goods and services produced in the economy. The most common price level index is the Consumer Price Index (CPI). The CPI data are provided by *Trading Economics.* The data of nominal exchange rate are sourced from *XE Currency Converter.* The data of average value for the 1st half of 2016 will be used.

6. Results and discussion

The results of the coefficient of conformity for CEFTA export of food in total (agriculture and food industry) is given in table 6.

 Table 6. Coefficient of conformity between Russian overall food import and CEFTA food export

Country	Serbia	Bosnia	Albania	Montenegro	Macedonia	Moldova
Coefficient of conformity	0.9372	0.9733	0.9896	0.9401	0.9366	0.9690

Source: Author calculation

As the results shows, the assumption of the high potential of CEFTA food export to Russian market was justified. The match between food export/import shares in the total export/import is almost maximum for every CEFTA country. For each of them the coefficient of conformity is higher than 0.9.

But, food is too wide a term, it contains 23 product groups which are very different in terms of type and processing degree. Although the high CC for the food export, it is theoretically possible that there is no important matching in the view of particular products. The target country may have demand for the kind of products which export country doesn't produce. For example, the CEFTA countries cannot produce the fruits that require different natural conditions, such as bananas, pineapples, citrus fruits, olives and many other agricultural crops.

Therefore, the results obtained are particularly useful for making export strategy of the CEFTA countries. Since the initial idea was to make food supply chain, it is necessary to define more precisely the groups of products of the highest interest of Russia to import them.

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Code HS	Description	Trade Value
2	Meat and edible meat offal	28.957
8	Edible fruit and nuts; peel of citrus fruit or melons	28.310
4	Dairy produce; birds' eggs; natural honey; edible products of animal origin	15.694
22	Beverages, spirits and vinegar	14.086
7	Edible vegetables and certain roots and tubers	13.258
3	Fish and crustaceans, mollusks and other aquatic invertebrates	11.464
	Other food commodities	71.278
	Total food import	183.048

Table 7. The most important food products in Russian import (million \$)

Source: UN Comtrade Database

The aim is to investigate the match between the CEFTA countries' exports of particular groups of products with Russian imports of them. So, the coefficient of conformity will be calculated for six groups of food products with the highest importance in Russian food import. These are: meat, fruits, dairy products and eggs, beverages, vegetables, and fish. These six group of products have the value of \$ 112 billion and make more than 60% of Russian food import. The final result is given in table 8.

 Table 8. Coefficient of conformity between Russian import and CEFTA export for the most important group of food products

Country	Serbia	Bosnia Herzegovina	Albania	Montenegro	Macedonia	Moldova
CC HS 02	0.8522	0.6768	0.7939	0.6046	0.9853	0.9438
CC HS 03	0.8990	0.9923	0.9278	0.6767	0.9298	0.7516
CC HS 04	0.9581	0.9428	0.7028	0.8633	0.9657	0.7760
CC HS 07	0.9969	0.9961	0.9006	0.9895	0.9952	0.9406
CC HS 08	0.9961	0.9581	0.9351	0.9943	0.9928	0.9986
CC HS 22	0.9844	0.9971	0.9681	0.9898	0.9768	0.9951

Source: Author calculations

As the results show, CC is not quite as high as in terms of total exports of food, but the value is still very high.

Weak potential is recorded for export of meat from Montenegro, Bosnia (0.60 and 0.67) and a relatively strong from Albania (0.79). The other countries have excellent opportunity for meat export.

Export of dairy products, eggs, and honey showed the highest coefficient of conformity in the case of Macedonia, Serbia and Bosnia (0.94 - 0.96).

Fruits, vegetables and processed fruit and vegetable products have the highest coefficient of conformity, higher than 0.9 for each CEFTA country.

Another part of statistical research is simple but necessarily related to Real exchange rate as one of the basic indicators of competitiveness. Hypothetically, CC can be very high for bilateral trade of particular products, but the export may be completely absent. This happens when the exporting country has a much higher price than the importing country. In this case, the importer really imports large quantities of selected products, but from some others exporters.

Since the CEFTA countries have weaker economic indicators than Russia, the described situation is not highly expected. The expected results are strong competitiveness of Albania, Macedonia, Moldova and Serbia, due to higher purchasing power of Russia. But, the Montenegrin currency is euro, and Bosnian convertible mark is fixed to 1.95 euro, so these countries are in different position.

The result of previously described equitation is given in table 9.

Country	E	Р	P*	RER
Albania	1.889	518.3	100.051	9.786
ВН	0.025	518.3	103.392	0.125
Macedonia	0.841	518.3	99.833	4.366
Moldova	0.307	518.3	100.187	1.588
Montenegro	0.014	518.3	100.775	0.072
Serbia	1.697	518.3	183.5	4.793

Table 9. Real exchange rate – Russian and CEFTAs currency

Source: Author calculation

The results show that, in spite of lower economic indicators than Russia, Montenegro and Bosnia do not have a special advantage of much cheaper production. In this context Albania is in the most favorable position due to its weak economy and consequently weak currency. Serbia and Macedonia also have this advantage with RER of around 4. The factor of prices can be very important to compensate for a relatively high transportation cost, due to the large geographic distance.

7. Conclusion

The CEFTA countries are the least competitive European economies, with low volume of production, limited product range, outdated technology, small export and consequently very limited number of export partners. As it is shown, more than a half of CEFTA export is directed to the EU market, and one third is directed just towards the two countries - Italy and Germany. Additionally, the export to the EU has stagnated for years.

Due to these facts, the most important task for these economies is the geographic diversification of exports. Given that production of CEFTA countries mostly does not include the products of higher degree of processing, the rise of exports (at least in the near future) should be based on the increasing quantity and quality of production of lower level which already exists.

Having in mind recent political and security challenges which caused the turbulent economic regrouping, the assumption is that there is a significant opportunity for growth of food export to the Russian market. The data about agriculture and food industry in Russia showed that Russian market offers one of the few opportunities for the rise of CEFTA production and export.

In addition to the described circumstances, this hypothesis is proven by the calculation of the coefficient of conformity – the match between CEFTA food export and Russia food import. The matching level is almost maximal. The application of the same calculation to the separate groups of food products (those with significant share in the import of Russia) shows slightly lower, but generally very high value for every group in every CEFTA country. The coefficient of conformity is the highest for trade of fruits, vegetables and processed fruit and vegetable products for all CEFTA countries. The high matching level is seen in the export of meat from Macedonia, Moldova and Serbia, dairy products from Serbia, Bosnia and Macedonia.

The main hypothesis is also supported by the favorable real exchange rate, which means a significantly lower cost of production in the CEFTA countries than in Russia. Montenegro and Bosnia have certain disadvantages because of the fixation to the euro.

In reality, the rise of food export to Russia is starting to grow with decreasing import from earlier most important partners: Ukraine, the USA, Germany etc. But, this rise of CEFTA export, as shown in research, is far from CEFTA potential. The main problem is the very small size of separate CEFTA economies compared with the Russian market demand. As the growth of Russian food demand is expected, the suggested solution for more significant progress is encouraging the formation of CEFTA food value chain. The

participation level in value chain activities is more connected with the regional than global dimension.

Open markets alone are insufficient for the inclusion of a country into global value chains. So, in the CEFTA countries of key importance are the complementary policies for investment and other kinds of support to the agriculture and food industry. Making a food value chain in the CEFTA countries needs appropriate policy that allows countries and especially companies to capitalize on their existing productive capacities from foreign investment, mainly from other CEFTA states and companies, merging and connecting production with the aim to support specialization, and improve production. "Strengthened regulation, enforcement, and capacity-building support to local firms for compliance can be important" (OECD, WTO, World Bank, 2014, p. 10)

Integrating food markets would enable the CEFTA economies to become a part of global supply chains and production networks (Handjiski, Sestovic, 2011, p. 2).

CEFTA will be put out in the future, but production chains and established links with suppliers in Russia will not disappear after the accession of these countries to the EU. As the main grummets in the value chain are the companies, not the states, trade ties usually do not break due to political or even economic decisions of states.

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