

# BOOK OF PROCEEDINGS



*XIV International Scientific Agriculture Symposium  
"Agrosym 2023"  
Jahorina, October 05-08, 2023*



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## IMPORTANT PARTNERS OF SERBIA IN THE FOREIGN TRADE EXCHANGE OF FOOD

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### Abstract

The focus of this research is the analysis of Serbia's foreign trade in agricultural and food products between 2012 and 2022. Serbia had a positive average export balance with all countries for products from sections 0-Food, 1-Beverages and tobacco, and 4-Animal and vegetable oils and fats, according to the SITC international classification. Serbia achieved the highest average balance in the Food section at USD 1.08 billion. Average food exports amounted to USD 2.57 billion, with a coefficient of variation (CV) of 21.82% and a positive rate of change of 5.61%. The most represented products in the average export were 04 Cereals and related products, accounting for 24.2%, as well as products 05 Fruits and vegetables at 26.2%, although this group of products had a large share in the average import at 21.9%.

Serbia's largest food exports are to EU countries with a 53.9% share, followed by CEFTA countries with a 28.6% share. The most important partner countries in food trade from Serbia within CEFTA are BIH, which holds 44.9% in this group. Germany is an important trade partner in the EU, accounting for 14% of Serbia's average exports.

The main exports to Germany are frozen raspberries and other frozen fruits (primarily blackberries and sour cherries), soybeans and soybean oil, and rapeseed. Serbia mainly imports food products for nutrition, cheese and related products, frozen pork, tobacco, cigarettes, and inputs for agricultural production from Germany. The most exported products to BIH are malt beer, corn, sunflower seeds, sweet biscuits and waffles, products for animal nutrition, and other food products. Serbia mainly imports frozen raspberries, milk and sour cream, meat, sweet biscuits, salt, trout, and poultry eggs from BIH.

**Keywords:** *food and products, export, import, balances*

### Introduction

Economically developed countries are both large exporters and importers of food and implement their foreign trade policy through customs and duty-free barriers and affecting the world food market. The offer of agroindustrial products on the food market depends on the development of agriculture and the food industry, as well as the productivity and economy of production of the participating countries. Multinational companies also influence changes in supply and demand, realizing their interests, to make as much profit as possible in international exchange. On the world food market, the turnover of processed products is increasing, and re-export plays an increasingly important role and is recognized by many countries as an export opportunity. The Republic of Serbia has a rather modest participation in the international exchange of agro-industrial products in the structure of world exports, it participates with 0.10%, while to European participation is 0.20%. Due to its small importance in international trade, it adapts to the conditions of the international market, that is, it can have very little influence on the flows and characteristics of exchange (Vlahović and Radojević, 2023). For many years, Serbia's foreign trade has been characterized by the export of products with a low degree of processing of raw materials and semi-finished products,

while at the same time, final products of a higher value are imported, as stated in the research of Veljković et al. (2010) and Veljković et al. (2018). Important partners of Serbia in foreign trade exchange are the EU countries Italy, Germany, Romania and others. and the CEFTA groups traditionally Bosnia and Herzegovina, Montenegro and Macedonia. Foreign trade liberalization by the EU, as well as the implementation of the CEFTA agreement, had positive effects on Serbia's export and bilateral food exchange (Dragutinović and Popović 2013). The goal of the work is to, based on the analysis of foreign trade exchange in agroindustrial products for the period 2012-2022 point to the countries and products in which Serbia achieves the largest balance.

### Material and Methods

The statistical data base of foreign trade for agro-industrial products of the Statistical Office of the Republic of Serbia was used in the research. The data were analyzed according to the SITC Standard International Classification, in which products participating in commodity exchange are classified into sectors marked from 0-9. Sectors are divided into sections and divisions marked with two digits and further divided into groups and subgroups of products. The research covered sectors 0, 1 and 4, as well as sections 00-09, 11-12, and 41-43, in the period 2012-2022 years. The groups of products ranked highest in exports and imports from Serbia were also analyzed.

The data were calculated by the authors and the results are shown by tables and graphs. The intensity of changes was quantified by calculating the annual rates of change, and the stability of exports and imports was given through the calculated coefficients of variation. Also, the average export-import balance by SITC4 commodity groups for products is given.

### Results and Discussion

Balances in the foreign trade exchange of Serbia in the period 2012-2022 were positive for all three examined sectors, and Serbia has been achieving a positive balance in the foreign trade exchange of agro-industrial products since 2005. In sector 0 - Food and live animals, an average balance of 1.08 billion USD was achieved, in sector 1 - Beverages and Tobacco 229.5 million USD, and in sector 4 - Animal and vegetable oils, fats and waxes 142.7 million USD in relation to the total foreign trade according to all countries (Table 1 and Chart 1). The achieved average balances are mostly positive, except for the balance in Sector 1-Beverages and tobacco, which is negative: with the EU -56 million USD and Germany -6.6 million USD, more of these products were imported than exported.

Table 1. Foreign trade balance by sector and partner countries in the period 2012-2022.

<b>0 Food and live animals</b>	Export	Import	Balance in USD 000
All countries	2576929	1495121	1081808
EU	1388108	965578.8	422529.2
Germany	194880.3	133352.9	61527.4
CEFTA	735698.4	159513.3	576185.1
BIH	330397.4	72767.56	257629.84

<b>1 Beverages and tobacco</b>	Export	Import	Balance in USD 000
All countries	543511.9	313989.2	229522.7
EU	123209.2	179236	<b>-56026.8</b>
Germany	11316.85	17916.95	<b>-6600.10</b>
CEFTA	186615.9	37972.47	148643.43
BIH	86432.54	6354.2	80078.4

4 Animal and vegetable oils, fats and waxes	Export	Import	Balance in 000 USD
All countries	209818	67025.76	142792.24
EU	128263.6	45381.62	82881.98
Germany	7188.26	5628.29	1559.97
CEFTA	76526.61	2951.31	73575,3
BIH	39453.32	778.05	38675.27

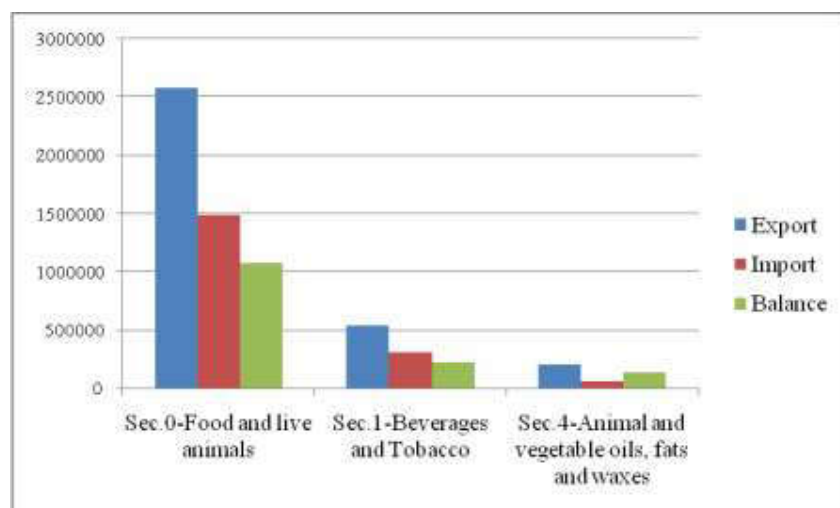


Figure 1. Serbia's foreign trade balance by sectors for all countries in 2012-2022.

In the observed period, the largest export was realized in the sector 0-Food and live animals, USD 2.57 billion, of which the EU was USD 1.38 billion, which is 53.9%, and with CEFTA USD 735 million, which is 28.5%. Products from the other two sectors are mostly exported to the EU and CEFTA 4-Animal and vegetable oils and fats 97.6% and 1-Beverages and tobacco 57%. In all sectors and partner countries, export rates of change are positive, and the highest values are in sector 1-Beverages and tobacco in relation to all countries, the EU, Germany and Bosnia and Herzegovina (Table 2). By analyzing data in 2012-2022 in the ranking of exports, Germany is in first place within the EU, with a share in Serbia's exports of 14%. Within the framework of CEFTA, BiH is with a participation of 44.9%, so these countries are also the most important export partners of Serbia. In terms of the export of agro-industrial products from Serbia to the EU and CEFTA, the 0-Food sector is the most prominent, as depicted in Figures 2 and 3. Serbia maintains a positive foreign trade balance with the European Union and Germany. During the analyzed period, the annual rates of change indicate a higher growth in imports. For all countries, the rate of change in food exports from Serbia is 5.6%, while the rate of change for imports is 7.7%. Among EU countries, the export rate of change is 5.7%, and the import rate is 9.7%. Import growth in the exchange with Germany outpaced exports, with an annual rate of change of 14.5% for imports compared to 5.3% for exports (Figure 2).

Table 2. Serbia's average export by sector and partner countries in 2012-2022.

All countries by sectors SITC	Average in USD 000	Variation interval		CV%	Annual rate %	Share in % by SITC
		Min.	Max			
0 Food and live animals	2576929	2085996.5	3614209.3	21.82	5.61	77.4
1 Beverages and tobacco	543511.9	286127.7	888046.7	34.52	10.97	16.3
4 Animal and vegetable oils,	209818	150953.6	315846.6	26.24	5.65	6.3



Evropska Unija by sectors SITC	Average in USD 000	Variation interval		CV%	Annual rate %	Share in % all countries
		Min.	Max			
0 Food and live animals	1388108	1080685.2	2100165.2	25.49	5.68	53.9
1 Beverages and tobacco	123209.2	67266	226887.1	38.49	10.67	22.7
4 Animal and vegetable oils,	128263.6	83615.2	220909.2	37.73	6.54	61.13

Germany by sectors SITC	Average in USD 000	Variation interval		CV%	Annual rate %	Share in %	
		Min.	Max			∑	In EU
0 Food and live animals	194880.3	140366.7	279736.6	22.63	5.34	7.56	14
1 Beverages and tobacco	11316.9	1174.9	55839.5	150.24	12.12	2.1	9.2
4 Animal and vegetable oils,	7188.3	2238.7	11151.2	43.92	11.14	3.43	5.6

CEFTA by sectors SITC	Average in USD 000	Variation interval		CV%	Annual rate %	Share in % all counties
		Min.	Max			
0 Food and live animals	735698.4	636724.9	935876.1	12.58	2.96	28.55
1 Beverages and tobacco	186615.9	160216.5	245830.2	13.49	2.19	34.3
4 Animal and vegetable oils,	76526.61	57175.1	99729.1	16.57	2.67	36.5

BIH by sectors SITC	Average in USD 000	Variation interval		CV%	Annual rate %	Share in %	
		Min.	Max			Total ∑	In CEFTA
0 Food and live animals	330397.4	277169.5	400617.6	10.36	2.31	12.8	44.9
1 Beverages and tobacco	86432.54	74619	108255.3	12.79	9.93	15.9	46.3
4 Animal and vegetable oils,	39453.32	22043.6	64674.2	32.60	0.92	18.8	51.5

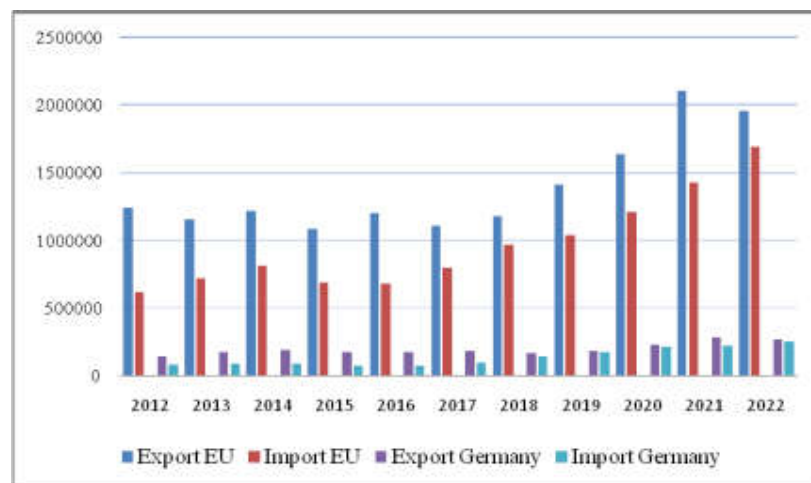


Figure 2. The foreign trade balance of the 0-Food sector with the EU and Germany in USD (000)

The CBI results show that Serbia is in the group of countries, in addition to China, Turkey and Egypt that supply the EU market with frozen vegetables, given that it has developed processing capacities for freezing vegetables. Besides Poland, Serbia also supplies the EU market with frozen berries, primarily raspberries and blackberries. Major exporters are Sirogojno, Zadugar, Elixir, Agropartner and others, as well as over 150 small processors. The structural analysis of the export of products to Germany includes frozen raspberries, blackberries, cherries and other fruits and products, soybeans, soybean oil, rapeseed, cigarettes, etc. Serbia has negative foreign trade balances with the EU and Germany by product groups: meat and processed foods, milk and dairy products, various ready-made food products, tobacco, fish, coffee, tea and spices. Food products, cheese, dairy products, frozen



pork, tobacco, cigarettes, as well as inputs for agricultural production are imported from Germany. Import of meat and processed products from EU countries is at an annual rate of 12.8%, and of milk and products is 10.1%.

Among the CEFTA countries, Serbia achieves higher values of food exports compared to imports, as shown by the foreign trade balances (Figure 3). Food foreign trade balances are also positive in relation to Bosnia and Herzegovina, but the annual rate of change in exports is 2.3%, and imports are 5.1%.

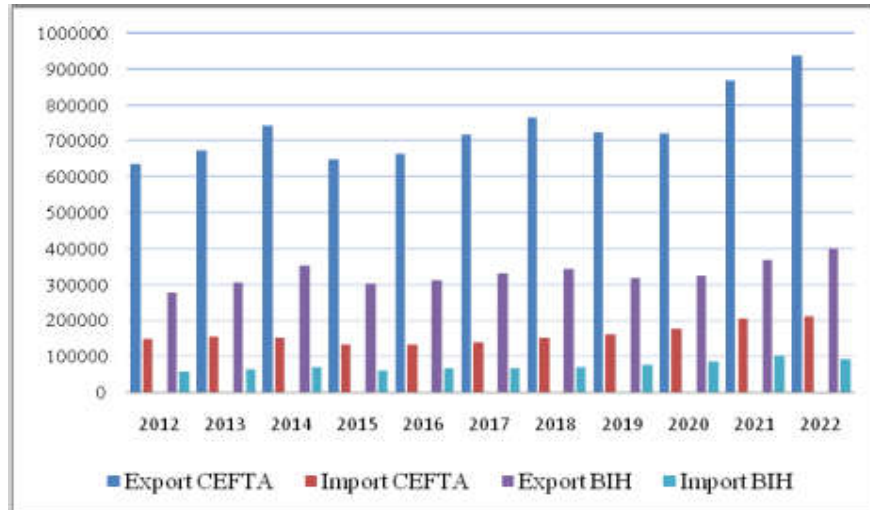


Figure 3. The foreign trade balance of the 0-Food sector with the CEFTA and BIH in USD (000)

According to the structural analysis, the products that are most represented in exports from Serbia are section 04 Cereals and products, with an average share of 24.2% according to all countries and 31.9% from the EU, and section 05 Fruits and vegetables represented with 26.2% and 31.7%, respectively. In the structure of imports 05 Fruits and vegetables are represented by 21.9%, and a lot is imported from the CEFTA group 33.7% (Table 3).

Analyzing the data by product groups, Serbia mostly exports corn, frozen raspberries, wheat and sugar, and the export structure has been the same for a long time, as confirmed by Mitrović et al. (2017) and Vlahović and Radojević (2023).

Table 3. The structure of Serbia's foreign trade exchange by product groups in 2012-2022.

SITC by sections and divisions, Share in %	Export ALL	Export EU	Export CEFTA		Import ALL	Import EU	Import CEFTA
00 - Live animals other than animals of divis. 03	1.5	0.0	4.6		1.7	2.5	0.7
01 - Meat and meat preparations	3.2	0.9	6.5		7.8	10.0	12.2
02 - Dairy products and birds' eggs	3.6	1.7	6.1		5.4	7.0	8.5
03 - Fish crustaceans molluscs and preparations	0.4	0.5	0.5		5.3	3.8	2.7
04 - Cereals and cereal preparations	24.2	31.9	25.9		6.8	8.4	9.9
05 - Vegetables and fruit	26.2	31.7	6.9		21.9	16.3	33.7
06 - Sugars, sugar preparations and honey	3.9	6.0	2.8		2.7	3.2	1.4
07 - Coffee, tea, cocoa spices, and manufactures	3.1	2.0	6.3		13.5	10.1	4.7
08 - Feeding stuff for animals	5.9	6.0	6.3		5.1	6.5	3.6
09 - Miscellaneous edible products, preparations	5.4	4.1	7.7		9.6	13.3	2.1
11 - Beverages	7.4	4.7	14.9		6.0	6.4	15.0
12 - Tobacco and tobacco manufactures	8.9	2.8	3.7		10.7	8.7	4.0
41 - Animal oils and fats	0.1	0.2	0.1		0.6	0.8	0.1
42 - Fixed vegetable fats and oils, crude, refined	6.0	7.4	7.4		2.7	2.8	1.3
43 - Animal or vegetable fats and oils, processed	0.2	0.3	0.2		0.2	0.2	0.0

Various agro-industrial products are exported to the CEFTA countries, mainly corn, wheat and various flours, sunflower oil, beer, and non-alcoholic beverages as well as other products. Most of the exports to BIH are malt beer, corn, sunflower seeds, sweet biscuits and waffles, products for feeding animals and other food products. Frozen raspberries, milk and cream, meat, sweet biscuits, salt, trout, poultry eggs, etc. are imported. The import of milk from Bosnia and Herzegovina gradually increased at a positive annual rate of 7.7% in the period 2012-2022 year. These tendencies were pointed out by Veljković et al. (2010). It should be noted that Serbia imports about 90% of milk from Bosnia and Herzegovina compared to other CEFTA countries, and in 2020 and 2022, more milk and products by section 02 were imported than exported, and Serbia had a negative balance. In addition to food products, Serbia exports electricity and other energy products to CEFTA countries.

### Conclusion

The global agro-industrial products market is undergoing a shift from a global nature to a regional focus, as individual countries increasingly dominate trade within their respective economic groupings. Serbia has entered into Trade Agreements with several countries; however, it has not fully capitalized on the benefits provided by these agreements. To enhance Serbia's export potential in terms of both volume and quality, it is imperative to restructure domestic agricultural production in line with the capacities of the agro-industry and the requirements for successful market penetration.

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