AGRI-FOOD EXPORT STRATEGIES IN FREE TRADE AGREEMENTS – THE CASE STUDY OF SERBIA IN THE SERBIA-CHINA AGREMENT

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Abstract
The objective of the research is the evaluation of the competitiveness of Serbia's exports in the agro-food trade with China, with the aim of deciding on the appropriate export strategy within the 2024 Serbia-China Free Trade Agreement (FTA). Export competitiveness diagnostics comprises 2018-2022 trade performance indicators (trade flows, export diversification and technological classification and indices of trade specialisation, intra-industry trade and revealed comparative advantage), review of China's tariff concessions and analysis of supply trends in the agri-food sector. Revealed comparative advantage indices coupled with tariff concessions indicate a number of agri-food products with comparative advantage and good prospects in the Chinese market. However, other trade performance indicators point to serious weaknesses in Serbian agri-food exports to China, including high product concentration, overall net export competitive disadvantage, prevalence of primary products, and low intra-industry trade, resulted from significant supply constraints. These findings, coupled with the growing demand for healthier and more nutritious foods in China, point to an export strategy based on export diversification and product differentiation, rather than export volume. Research complements the literature on agri-food competitiveness and may be of interest to a number of agri-food economies in the era of proliferation of FTAs.

Keywords: agri-food trade; export competitiveness; free-trade agreement; value-based supply chains; Serbia; China.

JEL Classification: F13, Q13, Q17.

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Introduction

Geopolitics, trade policy uncertainty, trade liberalisation and deep integration are key drivers of the trade agreements proliferation, especially when it comes to small countries like Serbia. Free trade agreements improve the competitiveness and complementarity of agricultural products, especially those with an existing revealed comparative advantage (RCA) (Couillard and Turkina, 2015; Wang et al., 2023; Akram et al., 2024). However, although competitive advantage is based on comparative advantage, many other factors influence the competitiveness of a nation's trade (Jambor and Babu, 2016). Porter's Diamond model (1990) of determinants of a nation's competitive advantage includes the firm strategy, structure and rivalry, related industries, demand conditions, and factor conditions. Sungju et al. (2019) emphasised the importance of developing systematic export strategies in the agricultural industry in the era of proliferation of FTAs.

China has been among the most active countries in the negotiation of FTAs within its Belt and Road Initiative (BRI). According to a study by the World Bank (2019), deeper trade agreements between BRI economies could play an important role in improving trade and foreign investment by establishing trade rules and mechanisms and encouraging other policy and institutional reforms. Serbia joined the BRI in 2015. Analysis of the BRI/China-CEEC 14+ trade performance highlighted the comparative advantage of Serbia in the export of agri-food products and the complementarity of this export with the Chinese agri-food import profile, which indicates greater trade potential (Qi, 2020; Erokhin and Tianming, 2021), especially in light of the Chinese government's commitment to diversify imports (Zhou and Tong, 2022a; 2022b).

The Serbia-China FTA (OG RS-International Agreements 6/2023) entered into force in 2024 and is expected to improve and facilitate trade and promote investment of technologically advanced Chinese companies in Serbia, including SMEs operating in the smart agriculture and food industry (Zhou and Tong, 2022a; 2022b; Ivanović and Zakić, 2023). However, concerns remain about insufficient export quantities and quality and high transportation costs (Dimitrijević, Ristić and Despotović, 2023; Jovović, 2023). Constantin et al. (2023) emphasised the export of agri-food products with high added value as one of the key vectors for achieving sustainable agricultural competitiveness. Is this the best strategic option for the majority of Serbian exporters to the demanding Chinese market?

The research is devoted to the evaluation of the competitiveness of Serbia's exports in the agri-food trade with China, with the aim of indicating the most appropriate export strategy for this sector within the 2024 Serbia-China Free Trade Agreement. The paper is organised as follows: after the introduction, the literature review, themethodological considerations, and the performance of the agri-food trade between Serbia and China in 2018-2022 will be analysed and discussed, as well as Chinese tariff concessions within the Serbia-China Free Trade Agreement and supply trends in the Serbian agri-food sector. The results of the analysis, research limitations, and future research directions will be summarised in conclusions.

1. Review of the scientific literature

Being broader, deeper, and more enforceable, preferential trade agreements (PTAs) have proliferated in recent few decades marked by the erosion of WTO rules, changing geopolitics and rising trade policy uncertainty, and cover nearly two-thirds of world trade (Economist

Impact, 2022; Dadush and Dominguez Prost, 2023). By reducing trade barriers and ensuring the stability of trade relationships, PTAs help firms increase predictability in assessing trade opportunities (Economist Impact, 2022). Moreover, deep trade agreements (DTAs) that go beyond trade issues to deeper economic integration between trading partners tend to boost trade not only among the parties but also between them and third parties due to the non-discriminatory nature of many of DTA provisions (Mattoo, Rocha and Ruta, 2020; Dadush and Dominguez Prost, 2023).

The share of world exports covered by free trade agreements, defined here as an integral part of PTAs umbrella term, increased from 20% in 2000 to 32% in 2020 (Dadush and Dominguez Prost, 2023). Analysing the impact of FTAs on bilateral trade flows, Egger, Larch and Yotov (2022) pointed to positive and statistically significant cumulative effects of FTAs, especially the deeper ones, on international trade. However, some recent research based on a gravity model argues that when globalisation trends are introduced, the initially reported positive effects of bilateral trade agreements on trade disappear (Díaz-Mora, Esteve-Pérez and Gil-Pareja, 2023). Nevertheless, alliances, trade policy uncertainty, competitive liberalisation and deep integration remain key drivers for trade agreements, especially for small countries like Serbia that have chosen hedging for strategic positioning in the geopolitical arena (Dadush and Dominguez Prost, 2023; Nikolić, 2023).

The Balassa's RCA index (1965) enables trade performance to measure trade competitiveness, aligning international trade theories of nations' comparative advantage with a theory of competitive advantage of a nation in foreign markets (Borodin, 2006; Mizik, Szerletics and Jámbor, 2020). According to Dev Gupta (2014), the firms specialising within the RCA-industries are on much firmer ground to derive competitive advantage in producing standardised or differentiated products, which, according to Porter (1990), depend on the capacity of a nation's firms to innovate and upgrade. The role of government is to support the focus on specialised competencies and resources, encourage companies to invest and innovate, stimulate early home demand for advanced products, and enforce antitrust regulations (Porter, 1990).

In a comprehensive literature review, Mizik (2021) identified supportive trade policy and legislation, sophisticated value-added products, and efficient and profitable production as the most influential factors of agri-food trade competitiveness. Quality-based product differentiation is an important feature of rising consumer incomes and increasingly segmented food markets and can relate to product innovation, production process specificities or geographical origin of agricultural and food products. Innovative, organic and GI-protected agri-food products allow a price premium for their specific quality attributes and, being often connected with stories of people, land, and practices that add value, foster export, sustainable tourism, and overall territorial development (Schermer, 2018; Mihailović et al., 2020). Supply chain innovation and partner countries' cooperation and investment are necessary prerequisites for this export strategy adoption and implementation (Stevenson and Pirog, 2008; Manikas, Malindretos and Moschuris, 2019; Dimitrijević, Čakajac and Milojević, 2023; Wang et al., 2023; Glezer, 2024).

2. Research methodology

The analysis of export competitiveness, conducted with the aim of selecting an appropriate agri-food export strategy within the 2024 Serbia-China Free Trade Agreement, includes

insights into the Serbia-China agri-food trade performance in 2018-2022 using indicators such as trade flows, export diversification, and technological classification and indices of trade specialisation, intra-industry trade and revealed comparative advantage. These trade performance indicators facilitate the identification of primary constraints to improved trade competitiveness and policy responses to overcome them (The World Bank, 2013).

Agri-food foreign trade comprises commodities classified within the Standard International Trade Classification (SITC), Revision 3: 00-Live animals other than animals of division 03, 01-Meat and meat preparations, 02-Dairy products and birds' eggs, 03-Fish, crustaceans, mollusks and preparations thereof, 04-Cereals and cereal preparations, 05-Vegetables and fruits, 06- Sugar, sugar preparations and honey, 07- Coffee, tea, cocoa, spices, and manufactures thereof, 08- Feedstuff for animals (excl. unmilled cereals), 09-Miscellaneous edible products and preparations, 11-Beverages, 12-Tobacco and tobacco manufactures, 21-Hides, skins and furskins, raw, 22-Oil seeds and oleaginous fruits; 29-Crude animal and vegetable materials, n.e.s., 41-Animal oils and fats, 42-Fixed vegetable oils and fats, crude, refined, or fractionated, and 43-Processed animal and vegetable oils and fats.

UNCTAD Statistics data on merchandise trade are used for calculations (UNCTAD Statistics, 2023a), except for export diversification, which is based on foreign trade data of the Statistical Office of the Republic of Serbia (SORS) (2023). The share of the top five product export values, counted in the 7-digit heading of the SORS Nomenclature of Statistics of Foreign Trade – NSFT (extended SITC), in total agri-food export is used as an indication of export diversification and exporter's vulnerability to trade disturbances.

The trade specialisation index (TSI) compares the net flow of country's agri-food products (exports minus imports) to the total flow of agri-food products (exports plus imports):

$$TSI=Xi – Mi / (Xi + Mi) \quad (1)$$

where:

- Xi − export value of agricultural products in country i;
- Mi − import value of agricultural products in country i.

The TSI index ranges between -1 and 1 indicating the country's net export competitive advantage/disadvantage and products' stage of development in foreign trade (Firmansyah *et al*., 2017; Zhou and Tong, 2022b).

Technological classification of agri-food exports is done according to Lall (2000) within mutually exclusive categories of primary products and resource-based manufactures, as cited in the UNCTAD Statistics' classification (2024). The dynamics of the shares of these product categories in agri-food exports highlights the patterns of the food industry. The Grubel–Lloyd index (GLI) measures intra-industry trade (IIT) of differentiated products within the same industry/SITC digit level sectors (Grubel and Lloyd, 1975), pointing to integration with a particular market and the country's capacity to use economies of scale, by specialising in niche products (horizontal IIT) and /or in vertical IIT. It is calculated as follows:

$$GLI=1- (|Xi – Mi|/Xi + Mi) \quad (2)$$

where:

- Xi − value of exports within the statistical class i;
- Mi − value of imports in the same statistical class.

The GLI value ranges between 0 (pure inter-industry trade) and 1 (pure intra-industry trade) and those higher of 0.15 indicates the existence of a significant intra-industry trade between trading partners (Grubel and Lloyd, 1975; Matkovski, Lovre and Zekić, 2017).

Originally presented by Balassa (1965), the revealed comparative advantage index (RCA) compares a country's export share of a given product /product group to the share of the same product /product group in the world / set of countries' exports:

$$RCAij=(Xij/Xit)/(Xnj/Xnt) \quad (3)$$

where:

- X – export;
- i – country;
- j − product / product group;
- t − set of products;
- n − set of countries.

The RCA index takes values from zero to infinity. Value >1 means that the country has a revealed comparative advantage compared to the world/regional average in exporting a product/product group, while a value <1 indicates a comparative disadvantage. The RCA differences between countries point to trade complementarities and potential trade benefits.

The review of Chinese tariff concessions on Serbian agri-foods (HS2022, chapters 1-24) uses the Serbia-China FTA while supply trends analysis is based on SORS Statistics (2024a; 2024b).

3. Results and discussion

3.1. Trade performance analysis

Serbia exported agri-food products (SITC rev. 3 codes: 0,1,21,22,29,4) to China in the period 2018-2022 worth $57.5 million, while imports in the same period amounted to $137.4 million, resulting in a trade deficit of $79.9 million (UNCTAD Statistics, 2023a).

Serbian exports to China grew steadily, from $2.8 million in 2018 to $17.5 million in 2022. Exports were concentrated within a few SITC divisions (01-Meat and meat preparations, 11-Beverages, 12-Tobacco and tobacco manufacturers, 42-Fixed vegetable oils and fats and 05-Vegetables and fruits). Exports of dairy products (02) have increased in the last two years. Animal feed exports (08) in 2020 indicate future export opportunities (Figure 1).

In 2022, the export value of boneless frozen beef accounted for 67.1% of agri-food exports and ranked 5th in the list of the top 50 products exported to China in the same year. With the other six agri-food products on this list, it represented 95.8% of agri-food exports to China in 2022 (91.9% for the top-five) (Table no. 1).

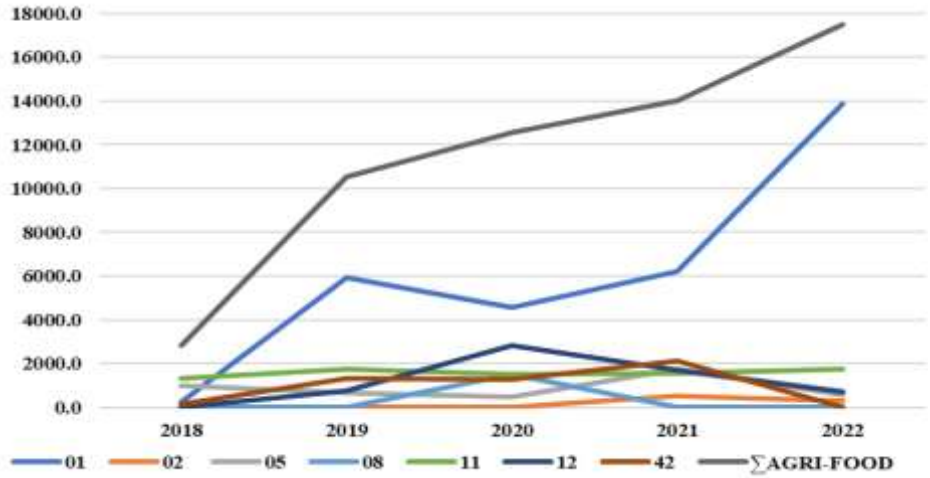

Figure no. 1. Agri-food export 2018-2022, total and selected SITC divisions (in $ 000)
Source: *Authors' composition based on UNCTAD Statistics, 2023a*

Table no. 1. Products share in agri-food exports and rank in total export value, 2022

NSFT product ID	Export, $ 000	% ∑Agri-food exports	NSFT products rank
0112220 - Meat of baby beef, boneless, frozen	11 726.5	67.1	5
1121700 - Wine of fresh grapes, grape must	1 605.0	9.2	12
0112120 - Meat of baby beef, with bones, frozen	1 410.5	8.1	14
1221000 - Cigars and cigarillos, cont. tobacco	714.5	4.1	26
0112190 - Bovine meat, with bones, other, frozen	600.5	3.4	28
0583220 - Raspberries, frozen, without sugar	402.1	2.3	32
0249100 - Fresh (unripened/uncured) cheese	281.3	1.6	45
TOTAL	16 740.4	95.8	–

Source: Authors' composition based on SORS, 2023; 2024b

Although Serbia had a high net export competitive advantage (TSI>0.8) in the trade of meat and meat preparations (01), dairy products (02) and beverages (11) with China, the TSI was negative for the total agri-food trade in 2018-2022, but with a tendency to stabilise at a higher level, indicating room for further specialisation and import substitution (figure no. 2).

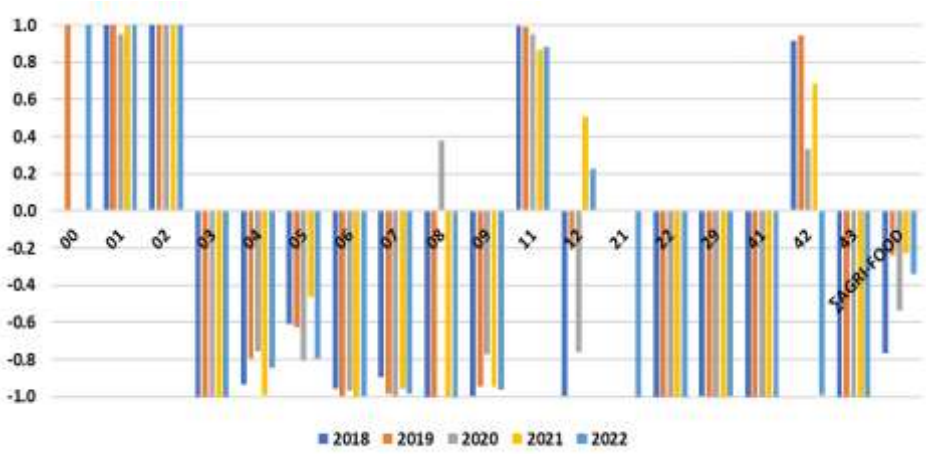

Figure no. 2. Trade specialisation index values, 2018-2022
Source: Authors' composition based on UNCTAD Statistics, 2023a.

The Grubel-Lloyd index, as a measure of the extent of intra-industry trade, considered at the SITC 3-digit level and between technological categories of primary products (PP) and resource-based manufactures (RB), indicates significant IIT level (GLI>0.15) during at least one year of the observed period in 12 out of 50 agri-food product groups (4 of primary products and 8 of resource-based products). The share of these product groups in total agri-food trade decreased in the last two years of the observed period to 13.9% in 2022, but remained above 30% for resource-based products, indicating the potential for further development of the food industry and niche products. The most continuous presence of intra-industry trade (GLI>0.15) was recorded within the product group 058- Fruit, preserved and fruit preparations (without juices) during the entire 2018-2022 period, and 048-Cereal preparations and fruit or vegetable flour and 111 Non-alcoholic beverages, n.e. during the four years of the observed period, indicating the possibilities for stable future growth of IIT.

Serbian agri-food exports to China were dominated by primary products, accounting for an average of 57.0% of the value of exports in 2018-2022 (Figure no. 3).

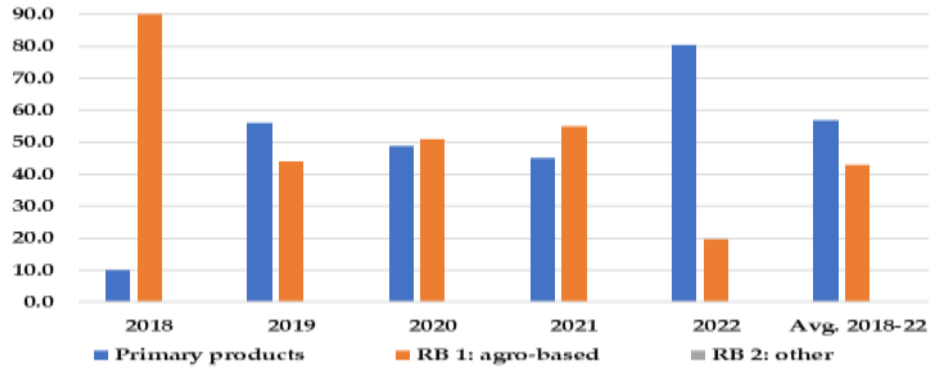

Figure no. 3. Technological classification of agri-food exports 2018-2022
Source: Authors' composition based on UNCTAD Statistics, 2023a.

Taking into account the values of the Balassa RCA index in agri-food exports on the world market of Serbia and China in the period 2018-2022, it can be seen that Serbia had a comparative advantage in most of the SITC agri-food divisions during the five-year period. On the contrary, China did not record comparative advantage in any of the SITC divisions, except in 03-Fish, crustaceans, mollusks and preparations thereof, in 2018 (Table no. 2).

Table no. 2. RCA indices for agri-food exports of Serbia and China, 2018-2022

SITC code	Serbia					China				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
00	1.86	1.59	2.06	2.14	1.75	0.18	0.16	0.17	0.14	0.14
01	0.90	0.63	0.59	0.51	0.36	0.14	0.12	0.10	0.09	0.10
02	1.34	1.48	1.31	1.32	1.20	0.02	0.02	0.02	0.02	0.02
03	0.13	0.13	0.12	0.11	0.10	1.08	0.98	0.87	0.83	0.85
04	3.93	4.48	4.76	4.33	3.09	0.09	0.10	0.07	0.07	0.06
05	3.10	2.99	3.12	3.51	3.28	0.71	0.69	0.61	0.54	0.58
06	1.69	1.65	1.53	2.24	1.52	0.40	0.42	0.32	0.31	0.34
07	0.99	0.99	0.86	0.94	1.04	0.28	0.29	0.28	0.26	0.22
08	2.43	2.50	2.60	2.44	2.69	0.29	0.26	0.23	0.23	0.23
09	1.87	1.72	1.76	1.86	2.19	0.38	0.39	0.35	0.37	0.39
11	2.10	2.17	2.00	2.24	2.59	0.16	0.14	0.11	0.11	0.12
12	6.30	6.59	9.37	8.76	9.06	0.23	0.23	0.12	0.10	0.12
21	0.70	0.48	0.29	0.34	0.49	0.03	0.05	0.06	0.08	0.17
22	1.97	2.00	2.19	1.42	0.96	0.12	0.12	0.09	0.07	0.07
29	0.73	0.87	0.83	0.73	0.79	0.68	0.66	0.54	0.53	0.63
41	0.74	0.50	0.43	0.64	0.66	0.27	0.27	0.22	0.23	0.27
42	2.09	2.84	2.30	2.11	1.74	0.04	0.04	0.02	0.02	0.02
43	0.46	0.50	0.45	0.41	0.50	0.25	0.31	0.37	0.43	0.64

Source: Authors' composition based on UNCTAD Statistics, 2023a

Regarding the level of the product group (UNCTAD Statistics, 2023b), China had only a satisfactory global comparative advantage (1.0<RCA<2.0) in 2018-2022 in prepared and preserved fish and aquatic invertebrates (037), prepared and preserved vegetables, roots and tubers (056), preserved fruit and fruit preparations (058) in 2018 and 2019, tea and mate (074) and crude animal materials, n.e.s. (291).

Serbia had a *strong comparative advantage* (RCA>3.0) during the entire period in the export of maize, unmilled (044), meal and flour of wheat and other cereals (046, 047), preserved fruit and fruit preparations (058), non-alcoholic beverages (111), manufactured tobacco (122), oil seeds and oleaginous fruits (223) and fixed vegetable fats and oils (421). *A significant comparative advantage* (2.0<RCA<3.0) was registered in the export of cereal preparations and flour from fruits or vegetables (048), animal feed (081) and unmanufactured tobacco (121) while the index values *fluctuated over years between different RCA categories* in the exports of live animals (001), prepared and preserved meat and edible meat offal (017), unmilled wheat, spelt and meslin (041), unmilled barley (043), unfermented fruit and vegetable juices (059), sugar, molasses and honey (061), chocolate and food preparations with cocoa (073) and edible products and preparations (098) (UNCTAD Statistics, 2023b).

Within the mentioned product groups, there are products that could have a significant place in export to the Chinese market, due to their global comparative advantage. Furthermore, in

addition to these products, there is bovine meat, which, although with a global comparative disadvantage, dominated Serbian agri-food exports to China.

3.2. Free trade agreement analysis

The Free Trade Agreement (OG RS-International Agreements 6/2023) that entered into force on July 1, 2024 within a comprehensive Serbia-China Shared Future Partnership should boost, inter alia, Chinese imports of higher quality agricultural products from Serbia (NIN, 2024). Earlier, Serbia and China signed a joint statement on the cooperation mechanism for food safety in foreign trade, as well as a set of export conformity agreements for different agri-food products (lamb, beef and swine meat, dairy products, maize, dried beet pulp, honey, dog or cat food, apples, bilberry, prunes).

The agreement covers general provisions, trade in goods, rules of origin and enforcement procedures, customs procedures and trade facilitation, intellectual property protection, investment and services, institutional provisions, competition, dispute resolution, and final provisions. The parties will also cooperate in the subsequent expansion of the agreement. As China has been a WTO member since 2001, and Serbia is in the process of applying for WTO membership, the agreement actively supports the multilateral trading system by ensuring compliance with WTO rules on tariffs and non-tariff measures. In the area of trade in goods, the FTA provides that each Party shall reduce or eliminate its customs duties on goods originating in the other Party according to the following tariff concession modalities, contained in the List of Tariff Concessions (Annex 1):

- A0 − abolition of customs and other duties (special duties and seasonal customs rates) from the date of entry into force of the agreement.
- A5 − abolition of customs and other duties in five equal one-year stages from the date of entry into force of the Agreement, ending with January 1 of the fifth year.
- A10 − abolition of customs and other duties in ten equal one-year stages from the date of entry into force of the agreement, ending with January 1 of the tenth year.
- A15 − abolition of customs and other duties in fifteen equal one-year stages from the date of entry into force of the agreement, ending with January 1 of the fifteenth year.
- E − retention of customs and other duties after the entry into force of the agreement.

Food and agriculture are generally highly sensitive to border protection for biotechnological, economic, and social reasons. This is evidenced by lower FTA tariff concessions on agri-food imports compared to those for total imports. The structure of tariff concessions of China of the Serbia-China FTA confirms these findings (Table no. 3).

Table no. 3. List of Tariff Concessions of China: tariff codes per concession modalities

	Tarrif codes, all products		**Tarrif codes, agri-food products**	
	Number	%	Number	%
A0	5,376	60.2	668	46.3
A5	1,475	16.5	247	17.1
A10	882	9.9	218	15.1
A15	355	4.0	62	4.3
E	842	9.4	248	17.2
TOTAL	8,930	100.0	1,443	100.0

Source: Authors' composition based on the FTA Serbia-China, 2023.

It should be noted that the A0 and A5 zero tariffs are widely assigned to agricultural products that are not produced in Serbia, transport-intensive and perishable products, and products with otherwise low MFN tariffs. A closer look within HS Chapters 1-24 points to the substantial concessions on imports of a range of agri-food products with comparative advantage, but also to retained MFN tariffs/gradual tariff abolition on several agri-food products with a strong comparative advantage, such as manufactured tobacco, maize, products of the milling industry, oilseeds, and vegetable oils (Table no. 4).

Table no. 4. List of Tariff Concessions of China: tariff codes according to concession modalities, selected HS chapters

	Concession modalities					Total
	A0	A5	A10	A15	E	
SECTION I Live animals; animal products	340	84	37	12	60	533
2 Meat and edible meat offal	4	18	14	5	38	79
4 Dairy produce; birds' eggs; natural honey; edible animal prod., n.e.s.	2	3	15	2	19	41
SECTION II Vegetable products	177	131	87	39	90	524
7 Edible vegetables and certain roots and tubers	31	83	10	0	0	124
8 Edible fruit and nuts; peel of citrus fruit or melons	22	14	30	15	13	94
10 Cereals	11	0	9	0	16	36
11 Products of the milling ind.; malt; starches; inulin; wheat gluten	2	0	4	1	28	35
12 Oil seeds&olean. fruits; misc. grains, seeds&fruit; IMP; fodder	58	18	19	3	24	122
SECTION III Anim., veg. or micr. fats & oils; prep. ed. fats; waxes	6	3	6	2	45	62
15 Animal, veg. or microb. fats &oils; prepared edible fats; waxes	6	3	6	2	45	62
SECTION IV Prepared foods; beverages; tobacco, t. subst.&products	145	29	88	9	53	324
16 Preparations of meat, fish & other aq.invertebrates / insects	59	3	0	0	0	62
19 Preparat.of cereals, flour, starch or milk; pastrycooks' prod.	0	3	19	0	1	23
20 Preparations of vegetables, fruit, nuts or other parts of plants	58	7	31	2	5	103
22 Beverages, spirits and vinegar	7	5	9	3	6	30
23 Residues and waste from the food ind.; prepared animal fodder	18	0	12	0	0	30
24 Tobacco&manufact. tobacco; products with/not cont. nicotine	0	0	0	0	19	19
TOTAL HS 1-24	668	247	218	62	248	1,443

Source: Authors' composition based on the FTA Serbia-China, 2023.

Serbian non-GMO soya and soya bean crude oil, although with retained MFN tariff rates (E) of 3% and 9%, respectively, may have good prospects in the Chinese market. Zero tariffs on the date of entry into force of the Agreement could encourage exports of meat preparations and preserved vegetables and jams, fruit jellies, marmalades, fruit purée, and fruit pastes. Exporters of salted, in brine, dried or smoked meat and edible meat offal of swine and bovine animals, dairy spreads, and semi-hard and hard cheeses should strengthen their low global competitiveness primarily by placing high value specialties. Although with a global comparative disadvantage, bovine animal meat dominated in Serbian agri-food exports to China, improving the export competitiveness of the meat sector. This is consistent with Grančay and Dudáš's finding (2019) that more distant countries trade less in compliance with RCA predictions for a number of reasons, including intergovernmental treaties and business decisions of a small number of companies, but they also emphasised that larger bilateral trade flows tend to be more in line with their RCA.

However, gravity models point to considerable trade costs that affect exports. Institutional, geographic and cultural distances, reflecting in tariffs and non-tariff barriers, logistics costs,

and information asymmetry, reduce exports volume and competitiveness (Wang et al., 2023; Xing et al., 2023).

Transport corridors have the potential to substantially improve trade and foreign investment in the BRI countries, people-to-people cooperation is an important pillar of the strategic partnership between China and Serbia while the FTA's trade liberalisation and facilitation aim to promote bilateral trade, investment cooperation, and industry chain integration, optimise export product portfolio and improve international competitiveness. Will it be a sufficient incentive to increase agri-food exports to the Chinese market?

3.3. Supply trends in the agri-food sector

As seen in the introduction, there are concerns about the capacity of the Serbian agri-food sector to meet the demand for the Chinese market in the short and medium term, especially for standardised food products. The reasons are numerous, relied on farms and food industry firms' competitiveness and require time, investments and new priorities in the structural policies and regulatory frameworks. A strong domestic currency is not helpful, although its stability encourages investment.

The results of the 2023 Agricultural Census in Serbia show a decrease in the number of farms by 10.0% and the number of people on farms by 13.4% compared to the results of the 2018 Farm structure survey. Reductions are particularly visible in livestock farming, with 31.3% fewer livestock farms and 22.8% fewer livestock units (LSU) (SORS, 2024a).

Live animals dominate exports in the cattle sector, with a deficit recorded in beef trade in 2023. In the trade of dried, salted, or smoked meat, the deficit was present throughout the period 2018-2023. Only the trade in prepared or preserved meat recorded a surplus, as well as the sheep and sheep meat trade, although export of live animals prevailed here as well (SORS, 2024b). Lower quality milk from dominant small-scale farms and undeveloped demand for premium dairy products promoted the production and export of milk and low-fat fresh cheese to countries with similar consumer habits (SORS, 2024b; Milić et al., 2023).

On the other hand, Serbia was the world's leading supplier of frozen raspberries and other berries in 2022 (RAS, 2023). The country also has modern apple, sour cherry, pear and apricot plantations and is a traditional producer and exporter of fruit juices, prunes, and fruit brandies. The national association of beekeeping organisations received a licence to export honey and honey products to China in 2023. However, the highest export unit values are expected from honey of protected geographical origin.

Among the Serbian agri-food products of geographical origin, meat products and hard cheeses dominate, followed by honey, fruits and vegetables, and vegetable preparations. Additionally, there are more than 466 registered wineries with a capacity of approximately 25 million litres of wine. Many of them entered the world market with high-quality wines with geographical origin, including organic wines, often from autochthonous grape varieties. Organic food exports amounted to € 68.5 million in 2022 and consisted mainly of frozen and dried fruits, fruit concentrates, and fruit purées (RAS, 2023). Exports of processed organic food are still modest but are increasing and include traditional food based on old crop varieties and indigenous breeds, as well as innovative products adapted to modern market demands.

The foregoing contributes to existing attitudes that link growing export competitiveness with export diversification and product differentiation, high quality, and innovation rather than

with export volume (Mizik, 2021; Constantin et al., 2023; Dimitrijević, Čakajac and Milojević, 2023). The rising income and demand for healthier and more nutritious foods from the growing urban Chinese middle class support this export strategy and open new possibilities for investment in agriculture and the food industry (Huld and Interesse, 2023; Sternfeld, 2023).

Processing capacities need renovation and reinvention, as well as the whole food value chain to create high quality value-added foods (Dimitrijević, Ristić and Despotović, 2023; Glezer, 2024). The government supports investments in R&D infrastructure and innovation in agriculture and direct investments of companies in the food industry (RAS, 2023). The state development agency RAS (2023) highlighted qualified labour, competitive operating costs, local suppliers, 15 free customs zones, geographic location, and free access to a market of 2.7 billion consumers as the main drivers for agri-food investment in Serbia.

Conclusions

The trade performance analysis, carried out in the article with the aim of choosing an appropriate agri-food export strategy within the 2024 Serbia-China Free Trade Agreement, indicates a significant comparative advantage of a number of Serbian agri-food products, and China's tariff concessions within the 2024 Serbia-China FTA will further improve their prospects in the Chinese market. However, this analysis also highlighted serious weaknesses in Serbian agri-food exports to China, including high product concentration, overall net export competitive disadvantage, prevalence of primary products and decreasing level of intra-industry trade as a consequence of significant supply constraints, the removal of which requires time, investments, and new priorities in structural policies and regulations.

The results of the above research lead to the conclusion that for a small country like Serbia, with limited production capacity, it is most useful to focus on increasing the efficiency and quality of production by investing in smart agriculture and product differentiation and innovation. Exporting more processed agri-food products with high added value is an effective strategy for attainment of sustainable agri-food trade competitiveness and strengthening integration with the partner country's market through price premium for specific product quality attributes, export diversification, and therefore improved trade resilience, increased share of resource-based manufactures in export portfolio, and intensified intra-industry trade. The increasing demand for healthier and nutritious foods of the growing Chinese urban middle class and the increased contact between people can strongly support this export strategy of the Serbian agri-food sector, as well as Chinese investments in agricultural infrastructure and the high-tech production and processing of quality-based agricultural products. As for China, it will benefit from the diversification of agri-food imports, improved investment cooperation, and narrow cultural distance with an important BRI transit hub to European markets, such as Serbia.

In addition to Serbian exporters, these findings may be of interest to other BRI countries and all other agri-food economies, which seek to define optimal export strategies within free-trade agreements. The time-lagged effects of FTAs on trade can be seen as a limitation of current research, but also as a framework for its future development. Namely, future research directions should focus on the trade effects of the Serbia-China FTA, which can be expected progressively in the coming years, while its full manifestation will take at least a decade, due to the gradual tariff reductions and delayed firms' response to trade facilitation. Serbia, as an

EU candidate country, will have to withdraw from all bilateral agreements with third parties on the day of EU accession, but adjustments to the FTA with China, along with alignments with the EU acquis, will encourage investment in agriculture and food industry, improve the competitiveness of agri-food products and facilitate its integration into global food supply chains, the EU and the WTO.

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