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## **EXPORT COMPETITIVENESS OF FOOD PRODUCTS IN BULGARIA**

Angel SAROV<sup>1\*</sup>, Diana KOPEVA<sup>2</sup>

<sup>1</sup>Department of Economics and Management of Agriculture, Food and Agrarian Policy,  
Institute of agricultural economics, Agricultural academy, Sofia, Bulgaria

<sup>2</sup>Business Faculty, Department of Economics of Natural Resources, University of National  
and World Economy, Sofia, Bulgaria

\*Corresponding author: angel.sarov@gmail.com

### **ABSTRACT**

After the accession of Bulgaria to the European Union in 2007 and the liberalization of trade, the integration of the country to the common market, not only in the Union, but also to third countries, is strongly manifested. In the period 2012-2013, the country has a negative balance within EUR 253 million, an indicator of a weakness of production and deep problems of the processing industry. In 2017, a positive balance of EUR 4 million was reported. During the period 2017-2022, exports are already sustainably outpaced the import of food and reports an ascending trend of Bulgarian export trade. The aim of the study is to analyze the comparative advantages found in food trade. The Balassa method is applied, which expresses the effective side when measuring the competitiveness of the food production sub-sector. It refers to indicators comparing trade indicators to assess the market share of the sub-sector nationally and internationally. The results show the extremely low importance of the sub-sector in the world production of food products. The reasons for this can be sought in the unstable world markets, the limited access of raw materials for food production, the difficulties in logistics caused by the war in Ukraine, which exerted great pressure not only on the Bulgarian food industry, but also on the traditionally strong economies of the world. Despite the good comparative advantages that Bulgaria has as a net producer of raw materials for the food industry, this potential is not realized in the international trade of food products.

**Keywords:** *competitiveness, export, food products, Bulgaria.*

### **INTRODUCTION**

The Food industry branch includes two sub-branches "Food" and "Beverages". The sub-sector "Production of food products" occupies an extremely important place in the processing industry and the economy of Bulgaria as a whole. In a historical aspect, the foreign trade exchange for the period 1995-2010 increased more than three times, and until 2006 the trade balance was positive (Boneva, 2012). The comparative competitive advantages of the Bulgarian food industry on the

European market until 2010 are primarily due to low unit labor costs and higher production efficiency (Kovacheva et al., 2011). According to Zhelev and Tzanov (2012), for the period 2002-2009, export competitiveness is a low performance of exports in terms of diversification, factor intensity and technological complexity. The majority of the trade in food production is realized within the European Union's member states, and there is an untapped potential for the realization of trade exchange on the world market. After the accession of Bulgaria to the EU in 2007, the RCA index increased, and after 2009 it exceeded 2.0, which indicates improved international competitive positions of the sector (Kopeva et al., 2016). After joining the EU, Bulgaria has changed its foreign trade structure, but the decrease in exports and increase in imports in 2017 of processed food products requires a comprehensive export strategy in order to strengthen its competitiveness (Ignjatijevi et al., 2021).

The purpose of this study is to make a thorough analysis of the state and trends in the foreign trade turnover in the trade in food products, which are taking place in the industry, with an emphasis on 2021 and 2022, with monitoring of the dynamics of the last 10 years, including the period after 2012.

### **MATERIAL AND METHODS**

Data from Eurostat and the National Statistical Institute - Bulgaria (NSI) were used to develop the analysis. The reported results for 2021 and 2022 were reviewed and compared sequentially to the average data for the periods 2012/2013 and 2017/2018. This allows to trace the trend towards a five-year and ten-year period in the development of individual areas and indicators, as well and to analyze changes and variations between individual quantities. Competitiveness is tracked as an outcome of foreign trade performance. For this purpose, some of the well-known Balassa indices were used, which refer to the share of the local sector in the European export of the relevant group of products (RCA1), how important the respective products are for the Bulgarian foreign trade turnover (RCA2) and, accordingly, whether the country is net importer or exporter for these products (RCA3). Balassa's method (Balassa, 1965) presents the discovered comparative advantages in trade and practically expresses the resulting side in measuring the competitiveness of the food production sub-sector. It refers to indicators comparing trade indicators to assess the market share of the sub-sector nationally and internationally.

### **RESULTS AND DISCUSSION**

The foreign trade turnover of the food subsector for the period 2012-2022 increased more than two and a half times (Figure 1). The level of imports during the period steadily outstripped food exports until 2013, an indicator of production weakness and tangible problems of the processing industry. Despite the good comparative advantages that Bulgaria has as a net producer of raw materials for the food industry, until this period it failed to realize the potential in the international trade of food products, and hence to increase the added value, respectively the

GDP of the country. After the accession of Bulgaria to the EU in 2007 and the liberalization of trade, the integration of the country into the common market, not only in the European Union, but also in third countries, is strongly manifested. This trend was maintained until 2016. In the period 2012-2013, Bulgaria had a negative balance of EUR 253 million, and in 2017, a positive balance of EUR 4 million was recorded. During the period 2017-2022, the export has already steadily overtaken the import of food products and at a rapid pace it manages to contribute to the positive trade balance of the country, reaching EUR 900 million in 2022, followed by 2012 with EUR 337 million.

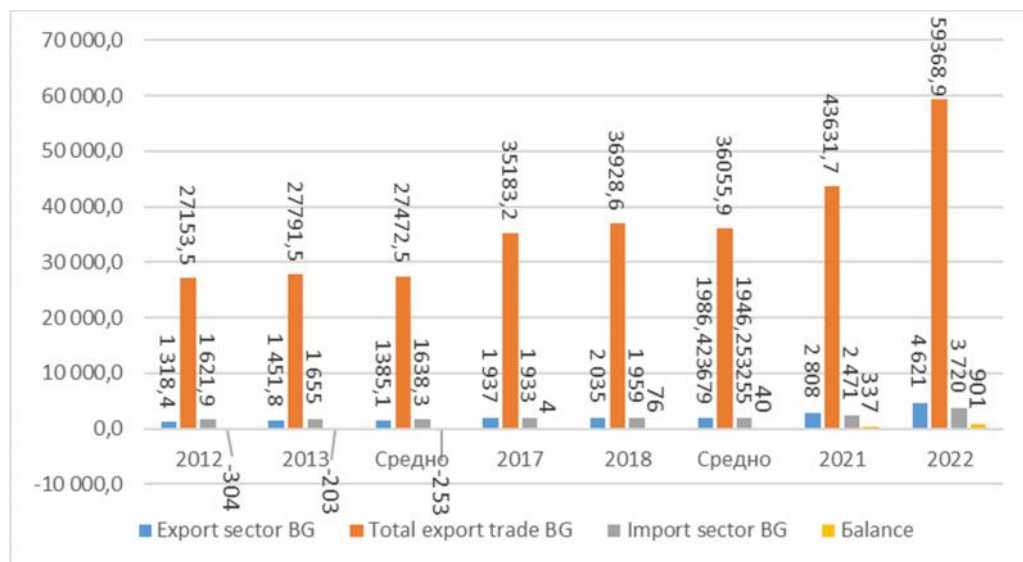


Figure 1. Trade balance in food production in Bulgaria

Source: Eurostat and own calculations

Food exports from €1,318.4 million in 2012 will reach €4,621 million in 2022, or an increase of over 250%. A noticeable increase in nominal terms is reported for 2022 compared to 2021 – over €1,813 million, which is about 65%. Taking into account inflation of 25.7% (NSI) for the two years, the real increase in exports is just under 40%. On average, for the period 2017/2018 compared to 2012/2013, exports increased by more than €600 million and reached 1956.4 euros.

Regarding the import of food products, as mentioned, a double increase is noted. For the period 2012-2022, the increase is 129% in nominal terms, or from €1,621 million in 2012, imports in 2022 reach €3,720 million. Naturally, this increase should be adjusted with the inflation reported by NSI for the ten-year period.

The RCA1 index has a value of less than 1, indicating the extremely low importance of the subsector in global food production (Table 1). Bulgaria has an insignificant share in world trade and this is evident from the obtained index. On a year-on-year basis, it increased very slightly from 0.0003 in 2012/2013 to 0.0004 in 2017/2018. In 2021, the index increased more than three times and reached

0.0013, and in 2022 it was 0.0018. The low indices obtained for RCA1 can be taken as a disadvantage of this indicator, due to the fact that smaller economies have a relatively insignificant share of world trade. Despite the relatively low indices in the first two periods, in 2021/2022 the country receives a higher assessment of the competitiveness of the food production subsector in international trade. The improvement of the subsector's position is proof of its establishment in the world markets. Naturally, this should not mislead to drawing wrong conclusions, bearing in mind the growing tendency for Bulgaria to be a net exporter of raw materials with low added value for food production, despite the positive trade balance and advantages as a net exporter of food products with high added value. It is known that the country loses from lost profits not only in the subsector, but also in the economy as a whole. However, the tripling of the RCA1 competitiveness index for the period 2012-2022 should be taken into account.

The RCA2 index shows the role of exports of the food production subsector in national and international trade (Table 1). Its calculation is a function of the share of food exports in a national aspect relative to the share of exports in international trade of the subsector. The closer the index is to 1, the more important the group in question is to the national economy, occupies strong positions in international markets and, accordingly, has strong comparative competitive advantages in world trade. Sometimes the application of RCA2 gives some high and inaccurate coefficients - especially when the share of a given commodity group in the country's exports is significant, but its share of international exports is extremely low. Most often, this is possible to obtain in small countries such as Bulgaria with modest indicators of the economy and especially for some product groups in Bulgarian exports, such as food production.

Table 1. Import and export of food production. comparative advantage ratio (RCA 1; RCA 2; RCA 3 index)

Indicators	2012	2013	Average 2012/201 3	2017	2018	Average 2017/201 8	2021	2022
Export sector BG, million euro	1318,4	1451,8	1385,1	1937,4	2035,5	1986,4	2808,4	4620,9
EU export sector, billion euro	4155.8	4168.3	4162.0	4839.2	5073.9	4956.6	2180.7	2572.1
<b><i>RCA1- Presence of the goods in European exports</i></b>	<b>0.0003</b>	<b>0.0003</b>	<b>0.0003</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0004</b>	<b>0.0013</b>	<b>0.0018</b>
Total export BG, million euro	27153, 5	27791, 5	27472,5	35183,2	36928, 6	36055,9	43631, 7	59368, 9
EU total export, billion euro	5178.5	538.0	5279,5	6314.4	6647.9	6481.1	7395.0	8959.2

<b>RCA2 - Relation of RCA1 to general trade</b>	<b>0.061</b>	<b>0.067</b>	<b>0.064</b>	<b>0.072</b>	<b>0.072</b>	<b>0.072</b>	<b>0.218</b>	<b>0.271</b>
Import sector BG, million euro	1621,9	1654,7	1638,3	1933,2	1959,3	1946,3	2471,4	3719,7
<b>RCA3 – The net trade of the commodity</b>	<b>-0.10</b>	<b>-0.07</b>	<b>-0.08</b>	<b>0.00</b>	<b>0.02</b>	<b>0.01</b>	<b>0.06</b>	<b>0.11</b>

Source: Eurostat and own calculations

For the period 2012-2018, the RCA2 index falls in the range of 0.062 to 0.072, which shows that Bulgaria does not have a high comparative competitive advantage and is not in a position to compete with food production on world markets. The place of the subsector in the national economy and, accordingly, the share in international trade in recent years is not particularly significant. For the period 2021-2022, the index increases more than three times compared to the averages for the period 2012-2018. In 2021, RCA2 is 0.218, reaching 0.271 in 2022. This indicates that the food production subsector is increasing its position in international markets, albeit minimally. The increase in the index at the end of the considered period shows a relative increase in the comparative competitive positions of Bulgarian foods in world trade. The reason for this should also be sought to a large extent from external factors affecting trade, more specifically, the negative effect of COVID-19 did not affect the country as much as other countries with which Bulgaria competes on the international markets. In addition, we should add the difficulties of supplying the world markets with raw materials for the food industry, which arose after the war in Ukraine at the beginning of 2022. All this contributes to the food subsector increasing its role in our export nomenclature and growing even more - a large share in our trade balance compared to the place of food in world trade. Regardless of the fact that for some food groups Bulgaria does not have a tangible presence on international markets, they occupy an extremely exclusive presence in our trade balance.

The RCA3 index expresses the trade balance, i.e. the ratio between total exports and imports of a specific product group. Naturally, positive and negative values can be obtained. Positive values indicate a revealed comparative competitive advantage (total exports outpace food imports), and negative values indicate a comparative competitive disadvantage (food imports outpace exports). However, in the application of such RCA indices, an assumption should be made that the observed trade relationships may be affected by government interventions such as import restrictions, export subsidies and other protectionist policies of governments and may distort the RCA indices to some extent. As a result, it is possible to make misconceptions about comparative advantage. For the period 2012-2013, the RCA3 index has a decreasing negative value within - 0.1 - 0.07 and on average - 0.8. The index for 2017 presents an improvement, leveling at zero. This shows a strengthening of export positions from Bulgaria compared to food imports on

international markets. In 2018, the country has permanently maintained its presence in world exports and the index is a positive 0.02. RCA3 reports a noticeable increase in 2021 and 2022, respectively 0.06 for 2021 and an increase to 0.11 for 2022. Despite these minimal increases, the upward trend of Bulgarian export trade relative to imports of the production subsector should be taken as a positive sign for the period under consideration. Over a ten-year period, the sub-sector "Production of food products" managed to stabilize its presence and increase its role in international markets. The reasons for this can also be sought in the unstable world markets, lack of raw materials for food production, and difficulties in logistics caused by the war in Ukraine, which exerted great pressure not only on the Bulgarian food industry, but also on the traditionally strong economies of the world.

### **CONCLUSIONS**

Despite the good comparative advantages that Bulgaria has as a net producer of raw materials for the food industry, until this period the country failed to realize the potential in the international trade of food products, and hence to increase the added value, respectively GDP. During the period 2017-2022, the export steadily outpaced the import of food products and quickly managed to contribute to the positive trade balance of the country. The RCA1 index has a value of less than 1, indicating the extremely low importance of the subsector in global food production. The increase in the RCA2 index at the end of the considered period shows a relative increase in the comparative competitive positions of Bulgarian foods in world trade. The reason for this should also be sought to a large extent from external factors affecting trade, more specifically the negative effect of COVID-19 did not affect the country to such a high degree as other countries with which Bulgaria competes on the international markets, the index. RCA3 has a decreasing negative value in the range - 0.1 - 0.07 and on average - 0.8, which indicates a strengthening of export positions from Bulgaria compared to food imports on international markets. Over a ten-year period, the sub-sector "Production of food products" managed to stabilize its presence and increase its role in international markets.

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