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## STATE OF AGRO-FOOD FOREIGN TRADE IN BOSNIA AND HERZEGOVINA

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### ABSTRACT

Trade of agricultural products plays an important role in food security, development of production and processing of products, strengthening the economy and GDP growth. The aim of this paper is to establish the trend of trade of food, live animals, drinks and tobacco in Bosnia and Herzegovina (B&H). Foreign trade of food products in B&H has been investigated for the past six years (2012-2017). In B&H, annual import of agricultural and food products exceeds BAM 2.5 million and the export is approximately BAM 600 million. Food production is a strategic interest of every country. The coverage of import by export was the highest in 2017 (29.9%) and 2016 (29.4%), while the lowest was in 2014 (18.4%). During the investigated period, there was a deficit of trade in B&H. Both export and import in agro-food sector have been increasing recently, while the volume of export has a higher growth than import.

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### Introduction

Manufacture in food and beverages sector opens new opportunities related to the increase of employment, productivity, marketing and sales in order to satisfy a consumer. Agro-food sector is important for economic development of B&H. At the beginning of the 21<sup>st</sup> century, food industry and other economic sectors started their recovery from damages caused by the war at the end of the 20<sup>th</sup> century. In the post-war period, economy was passing through a transition period included in the still ongoing privatization program (Cvijanović et al., 2013; Radosavac and Pejanovic, 2012).

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Specificity of the economy in Bosnia and Herzegovina reflects in development and functioning of two separate economies, namely: economy in the Republic of Srpska (RS) and economy in the Federation of Bosnia and Herzegovina (FB&IH). Both these economies are separately organized. Within the economy of the Federation of Bosnia and Herzegovina, there are numerous economies in the Cantons, which further complicates the situation (Radosavac, 2014). In addition, trade policies are generally very complex and have a high influence on agro-food trade (FAO, 2014).

Agro-industry and trade of Bosnia and Herzegovina are exposed to a strong competition pressure on the global food trade system. International trade is the result of relationships between national trade policy strategies and international and regional contracts (Rusali, 2013). In addition, the internal deficiency of B&H agro-food sector lays in the level of the use of natural resources in agricultural production and generally low efficient organization (unused arable land, water), as well as in low investments and a low level of technology production.

Globalization of food industry has enabled achieving capital and technology, what is very important for the increasing of production (Kefela, 2011). Development of all economy branches can help implementation of the program of agricultural production and food processing industry, providing it to be more competitive, and food trade practices (McCornick et al, 2008; Liapis, 2011).

In Bosnia and Herzegovina, there is a potential for developing agricultural production due to the existence of arable land, climate conditions, geographical position and favorable labor cost. The estimates of the resource costs indicate the efficient use of resources in crop production and a potential for increasing productivity. Agriculture is an important sector for the employment of approximately 20% of the total number of employed persons in B&H. Food industry in B&H has made a progress in the production of agricultural products, especially of milk and certain species of fruit and vegetables.

However, agro-food sector declines in the share of GDP, as well as in trade. Gross domestic product (GDP) of Bosnia and Herzegovina in 2016 was BAM 29899.0 million and GDP per capita amounted to BAM 8516.0 or EUR 4354.0 (ASB&H, 2017).

The volume of production in agro-food sector is limited by numerous factors, such as a low level of the use of the existing capacity of manufacture, high costs of raw material and low income from final products. High cost of raw materials is mainly the result of relying on several dominant retailers of raw material, in combination with a high degree of the regulation of import markets. Important roles in advancing the agro-food productivity have investments in research and development programs (Cameron et al., 2005). This leads to a reduction of productivity and competitiveness, since a limited degree of availability of modern materials makes it difficult for farmers to export their products and to participate in modern supply chains.

Increase of GDP is possible on the basis of the efficient increasing of production volume, use of local resources, surplus of export, reduced import and a decline of trade

deficit, (Radosavac and Pejanovic, 2012). In addition, investment in food, beverages and tobacco is very important for improving economy, as well as for the creation of new enterprises and integration with the developed economic networks.

Improvement of the export of food products is an important factor for the development of agro-food sector and for achieving better foreign trade results in B&H.

The aim of this paper is to analyze foreign trade of food products in B&H between 2012 to 2017, and to estimate the possibilities of improving export and foreign trade.

### **Materials and methods**

A trend of foreign trade in agro-food sector of Bosnia and Herzegovina between 2012 and 2017 was investigated in this paper. For this study, we have used the data provided by the Agency and Department of Statistics of Bosnia and Herzegovina, Foreign Trade Chamber of Commerce of Bosnia and Herzegovina Sarajevo and the RS Statistical Office Banja Luka (ASB&H, 2015; 2017; MOFTER B&H, 2013; 2015). The obtained data were used for the analysis of import and export according to the Standard International Trade Classification (SITC), in a six-year period, 2012-2017. All obtained data were analyzed by using scientific descriptive methods, methods of analysis and synthesis and comparative analysis method.

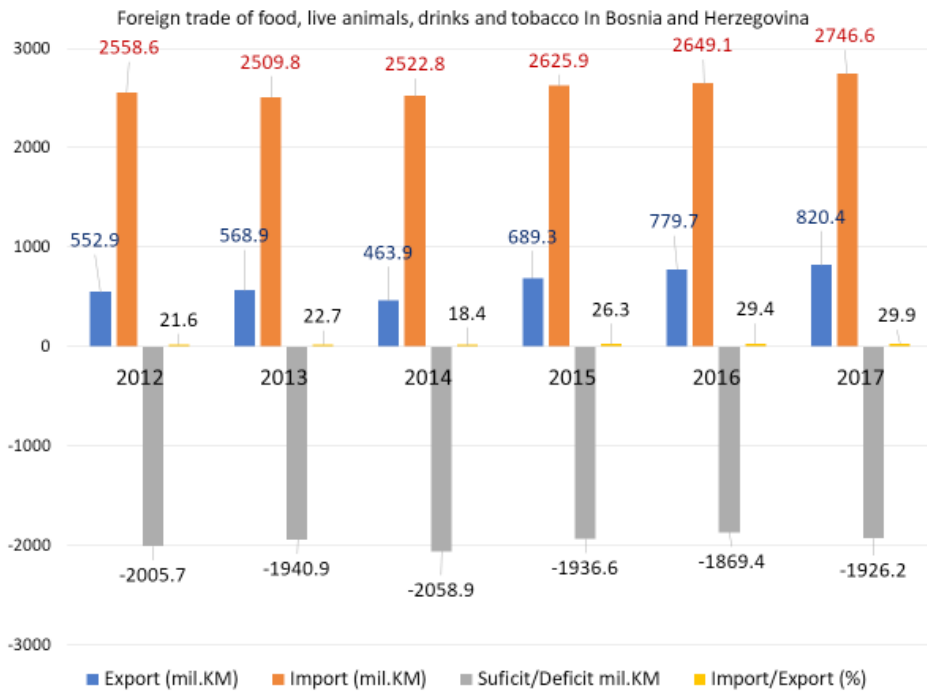
### **Results**

Economy in B&H was reflected in total agro-food trade, which varied from year to year. Between 2012 and 2017, the volume of foreign trade of food, drinks and tobacco was the highest in 2017 (BAM 3567 million) and the lowest in 2014 (BAM 2986.7 million) (Figure 1).

Within total foreign trade in this period, the value of food, drinks and tobacco export varied from BAM 820.4 million in 2017 to BAM 463.9 million in 2014. The import of food, drinks and tobacco was three to five times higher than the export, depending on a year.

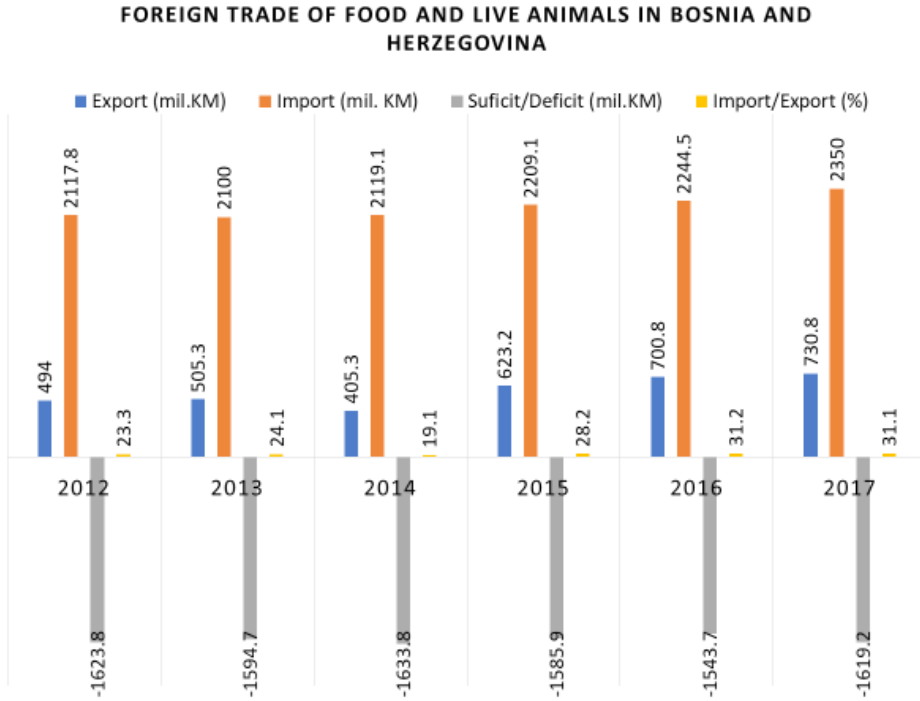
The highest import was in 2017, BAM 2746.6 million, and the lowest was BAM 2509 million (Fig. 1). Bosnia and Herzegovina had a deficit in foreign trade of food, beverages and tobacco during all six years covered by this study. The largest deficit (BAM -2.058 million) was in 2014 and the lowest (BAM -1869.4 mil.) was in 2016 (Figure 1).

**Figure 1.** Trend of foreign trade of agro-food products in Bosnia and Herzegovina



Source: Federal Ministry of Agriculture, Water Management and Forestry

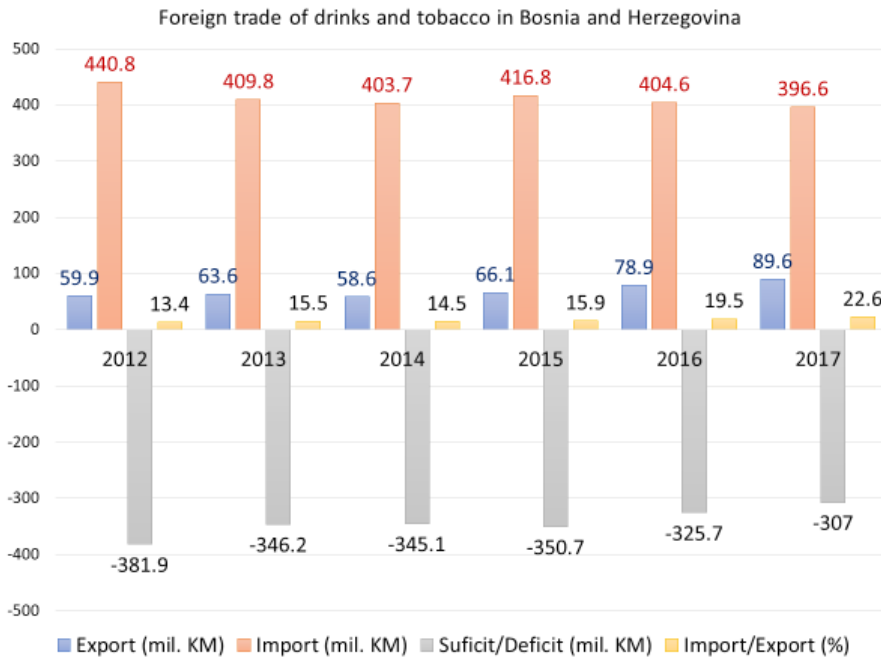
In total foreign trade, the trade of food and live animals was the highest in 2017, BAM 3080.8 million, while the lowest was in 2014, BAM 2524.4 million. According to the data, it can be concluded that the import of food and live animals was the highest in 2017, BAM 2350.0 million, and the lowest was in 2013, BAM 2100.0 million, while the highest export of food and live animal was the highest in 2017, BAM 730.8 million and the lowest was in 2014, BAM 405.3 million (Figure 2).

**Figure 2.** Trend of foreign trade of food and live animals in Bosnia and Herzegovina

*Source:* Federal Ministry of Agriculture, Water Management and Forestry

Total trade of drinks and tobacco during the studied period (2012-2017) was the highest in 2012, BAM 499.7 million, and the lowest in 2014, BAM 462.3 million. In total foreign trade of drinks and tobacco, the highest import was in 2012, BAM 440.8 million and the lowest was in 2017, BAM 396.6 million. However, the highest export was in 2017, BAM 89.6 million, and the lowest was in 2014, BAM 58.6 million (Figure 3).

**Figure 3.** Trend of foreign trade of drinks and tobacco in Bosnia and Herzegovina

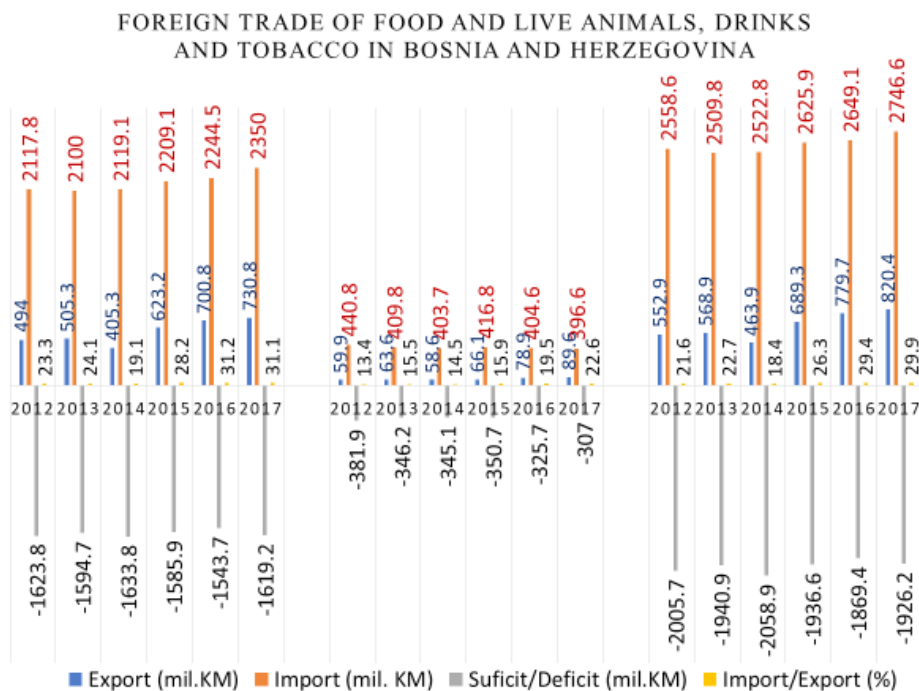


Source: Federal Ministry of Agriculture, Water Management and Forestry

The share of food and live animals in total import was the highest in 2017, BAM 2350.0 million with a deficit of BAM -1619.2 million, and the lowest was BAM 2100.0 million, with a deficit of BAM -1594.7 million. However, in the trade of food and live animals, the highest deficit was in 2014, BAM -1633.8 million, and the lowest export in comparison to the value of export in other analyzed years was recorded in the same year. The export of food and live animals (BAM 405.3 million) in 2014 covered 19.2% of the value of import (BAM 2119.1 million) while the export in 2016 (BAM 700.8 million) and 2017 (BAM 730.8 million) covered 31% of import (Figure 4).

During the analyzed period, the import of food and live animals was 0.8% lower in 2013 than in 2012. In comparison to the import in 2012, the import of food and live animals was increased by 0.1% in 2014, by 4.3% in 2015, by 6% in 2016 and the highest increase was registered in 2017, 11.0% (Figure 4).

The export of food and live animals compared to the value in 2012 was increased by 2.3% in 2013, decreased by 1.8% in 2014, while in the period that followed, it was increasing as follows: by 26.2% in 2015, 41.9% in 2016 and 47.9% in 2017 (Figure 4).

**Figure 4.** Variation of foreign trade of food and live animals, drinks and tobacco in B&H 2012-2017

Source: Federal Ministry of Agriculture, Water Management and Forestry

In the trade of drinks and tobacco, the highest import was BAM 440.8 million with a deficit of BAM -381.9 million in 2012, while the lowest import was BAM 396.0 million with a deficit of BAM -307.0 million. The export of drinks and tobacco (BAM 58.9 million) in 2012 covered 13.4% of the value of import (BAM 440.8 million), while the export of drinks and tobacco in 2017 (BAM 89.6 million) covered 22.6% of import. During the analyzed period, the import of drinks and tobacco was decreased by 7.0% in 2013 as compared to 2012. The import of drinks and tobacco was also decreased by 8.4% in 2014, 5.4% in 2015, 8.2% in 2016 and 9.0% in 2017 (Figure 4).

The export of drinks and tobacco 2012 was increased by 8.0% in 2013, 0.5% in 2014, while in the period that followed it was increased by 12.2% in 2015, 34.0% in 2016 and 52.1% in 2017 (Figure 4).

## Discussions

In the past three decades, agro-food sector in B&H has been influenced by the changes in economy transition, institutional restructuring and political development.

Climate and orographic conditions are favorable for developing agricultural production in Bosnia and Herzegovina. Total arable land in B&H amounts to 1.024,000 hectares, out

of which 40% has not been used in recent years. The reasons for unused arable land are unresolved property and legal relations, and the areas being mined during the war. In addition, state agricultural companies have stopped their production on the land whose share is 15% of the total arable area, due to a low volume of production and export (ASB&H, 2017). Small volume of the export of agricultural products in B&H has reflected the problems related to the fact that large areas of agricultural land have not been cultivated for many years and a small abundance of domestic animals, which cannot satisfy even the minimum needs of the processing capacity and consumption (Radosavac et al., 2015).

In Bosnia and Herzegovina, there are natural resources for agricultural development (Berjan et al., 2015). Favorable climate conditions and production capacity of food industry are followed by numerous problems in this sector. The main difficulties related to agricultural development are small number of farmers, small number of young farmers, elderly households, reduction of arable land, lack of agricultural machinery, high prices of raw materials and protective equipment, and difficult transportation of the products on the market due to poor roads. These factors influence the increase of production costs, reducing productivity and competitiveness on the market.

Development of agricultural and food industry production was influenced by economic crisis (Rusali, 2014). Economic crisis (in 2009) has induced higher disturbances in agro-food sector in B&H than in developed countries, regardless of competition with foreign producers under the trade liberalization, and has affected the possibility to improve participation with domestic agro-food products on the international markets. The most important export market for agricultural products from B&H was the market of CEFTA 2006 member countries (Ćejvanović et al., 2014).

To increase competitiveness, it is necessary to increase investments in new equipment, to improve the program of innovative production based on research and development, to continuously improve the employees' qualification skills, and to stimulate the added values of products and services (Putićová and Mezera, 2011). This approach will contribute to developing of the policy of balanced foreign trade and high coverage level of import by export (Dinu et al., 2015).

The complexity of B&H economy is the result of separate entities of the RS and Federation of B&H, as well as by separate management of natural resources that are the basis for agriculture and food industry development. In the previous period (2005-2011), Bosnia and Herzegovina also had a negative foreign trade balance or a deficit in agricultural trade. Total deficit in trade of agricultural products in 2011 was increased by 10.69%, while the deficit with CEFTA 2006 members was decreased by 2.38% (Ćejvanović et al., 2014).

Generally, variation of trade in recent years is related to a structure of the products in all industries. In food industry, among the top 20 imported products are wheat, bread, biscuits, cakes, chocolate, various food products and beer. The most of food products imported into B&H can be produced in the country, but their production has not been started. Trade analysis has revealed a greater increase of import compared to export (Radosavac et al., 2015).



Due to insufficient domestic capacity utilization in B&H, there is a high import of all types of food products, especially the products of lower quality than the domestic ones. The largest import of food products originates from the neighboring countries such as Croatia and Serbia, with which B&H and RS have concluded free trade agreements, with 0% tariff rate for the import (Radosavac et al., 2015).

The state of agro-food sector is a consequence of excessive import and unfair competition on domestic market, low-cost finished products, a lack of the state incentives for production and export, funding issues etc, which leads to the reduction of productivity and competitiveness. Under these conditions, farmers make changes in the structure of their growing crops with the aim to make income. This was confirmed by the data that, in 2017, the area under wheat was decreased by 2,7%, under barley by 1,1%, carrot by 12,0%, cabbage by 3,7%, in relation to the same period in 2016. On the other hand, the areas under raspberries were increased by 22.1%, buckwheat by (11.2%), triticale by (5.8%), soybeans by (7.5%), rape seed by 24,1% and tobacco by 2.4%. (B&H Agency for Statistics, 2017).

The value and trend of foreign trade of food, drinks and tobacco in B&H have a negative influence on domestic production and agricultural producers. In future, it is necessary to estimate and improve the relationship between production and consumption, protection of domestic market by increasing the levels of investment, as well as to optimize conditions for the employment of workers, the use of resources and easier placement of the products on foreign markets.

According to the potential of natural, social and economic resources in B&H, there is a possibility for developing the economy by increasing production, through the introduction of modern technologies and efficient use of domestic companies' capacity. Those enhancements would contribute to the decrease of food products import. The key food industry issues are defined and the possibility of improving and enhancing foreign trade is suggested.

The main factors for development of agricultural production are increasing the number of farmers, introduction of new technology production and continuous education for the protection of biodiversity and agro-ecosystem. Important role is the farmers' response to a land degradation and its potential impacts on agricultural productivity and food security (Wiebe, 2003).

Export of food products represents an important economic activity for the development of agriculture and food industry of B&H. In order to achieve better results in foreign trade with other countries in the region, it is necessary to explore the market and its products adapted to the requirements and needs of foreign consumers. In addition, for the progress in agro-food sector, it is necessary to improve economic environment through developing the market infrastructure, correcting price incentives, and encouraging rural income growth and diversification (Radosavac, 2014).

In order to improve the import-export balance, Bosnia and Herzegovina needs to increase investments in economy, provide funding for cooperation in agro-food sector through joining the program of production and market with the neighboring countries.

## Conclusions

Different values of export and import of food, live animals, drinks and tobacco in B&H for the period between 2012 and 2017 were established in this paper. Each year is characterized by a deficit in the trade of agricultural products, since the value of import is higher than export by BAM million.

The coverage of import of food and live animals, drinks and tobacco by export was different depending on a year and varied between 18.4% in 2014 and 29.9% in 2017.

Between 2012 and 2017, a deficit in trade of food and live animals, drinks and tobacco was the lowest in 2016 and 2017, which indicates the progress in relation to agricultural production and marketing.

Higher export level and the decrease of deficit can be achieved by increasing the quality and quantity of agricultural products and through improving competitiveness on the market. In addition, progress in agricultural sector can be supported by investments in modernization of technology of production and processing.

The value and trend of foreign trade of food, drinks and tobacco in B&H have contributed to the value of GDP.

For the accomplishment of a surplus in trade of agricultural products, the following is important: government support, an efficient form of organizing in production, marketing and trade as well as cooperation with the neighboring countries and access to the European and world markets.

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## Conflict of interests

The authors declare no conflict of interest.

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