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**COMPETITIVENESS OF THE POLISH AGRI-FOOD
PRODUCTS IN THE EXPORT TO THE WORLD MARKET**

Key words: food industry, competitiveness, exports, imports, world market

ABSTRACT. The aim of the article is to assess the competitiveness of the Polish agri-food products in exports to the world market in 2018-2022. The study analysed the value, rate of change, structure and main directions of exports and imports of agri-food products (excluding beverages). Three quantitative indicators characterising export competitiveness were also used: market share, import export coverage and intra-industry trade. The source of the data was the United Nations database UN COMTRADE. The Standard International Trade Classification (SITC Rev 3) at the two-digit level was used. The time scope of the research covered the years 2018-2022. The research shows that in the analysed period, there was a clear increase in the value of food exports from Poland, which resulted in an improved market share and promotion in the ranking of global food exporters. Germany was the largest trading partner. A decrease in the importance of the UK and Russia in exports and an increase in the importance of Ukraine in food imports were observed. The meat and meat products division was characterised by the highest export competitiveness on the world market.

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INTRODUCTION

Competitiveness is most often understood as the ability of entities (companies, sectors and industries, regions, economies) to compete, i.e. rivalry in pursuit of similar goals. It is treated as one of the basic attributes of entities in modern market economies. The competitiveness of sectors contributes to the improvement of overall economic growth and sustainable development, and in the case of the agri-food sector – also food security [Borges Aguiar, Balogh 2022]. High competitiveness is conducive to improving the income and efficiency of individuals and the development of entrepreneurship [Bahta, Mbai 2023]. As a result, the increase in competitiveness is perceived by researchers, and increasingly by governments, as the overriding goal of activity. This issue is a multi-faceted area of research. In economic sciences, competitiveness is explained on the basis of several economic theories: economic growth, microeconomics and international trade. The article considers the trade trend, currently the most widespread direction of research on competitiveness, as competition usually takes place in the international dimension.

Researchers trace the origins of the theory of competitiveness in the trade trend to the concept of mercantilism, and then to the classical school, including Adam Smith's theory of absolute advantages and David Ricardo's theory of comparative advantages [Misala 2009]. As part of the neoclassical school, the achievements of the above theories were developed, e.g. in the theory of real costs and the theory of resource abundance [Heckscher 1919, Ohlin 1933], and the modern one – in the theory of the technological gap [Posner 1961], product life cycle [Vernon 1966] and intra-industry trade [Grubel, Lloyd 1975]. Taking the perspective of the trade approach to competitiveness, the study defines the competitiveness of the food industry as “the ability of domestic producers to locate themselves on foreign markets and the ability to develop exports” [Woś 2001]. The measurement of competitiveness in the trade stream is carried out through the prism of results in international trade. A variety of indicators are used including; share in exports, comparative advantage index and trade balance. With regard to the industry level, this approach was used by, among others, Kulapa Kuldilok et al. [2013], Laura Carraresi and Alessandro Banterle [2015], Zarqa Khalid et al. [2021]. The literature on the subject examines various aspects of the competitiveness of the food industry in Poland, often against the background of European Union (EU) countries. They show that after Poland's accession to the EU and the entry of the Polish economy into the free trade zone, there was a clear increase in the competitiveness of the agri-food sector [Firlej 2017, Szajner, Szczepaniak 2020]. In the years 2004-2019, the value of exports to the EU market increased almost 6 times, and the trade surplus almost 12 times. Poland has become the 7th food producer in the EU [Pawlak, Poczta 2020]. As indicated by Karolina Pawlak and Lubos Smutka [2022], the possibilities of increasing the demand for food in the EU are limited and therefore export expansion beyond the EU market may be important for the

further development of the Polish food industry. In addition, economic shocks occurring in recent years (e.g. Covid pandemic, Brexit, war in Ukraine) pose significant threats, undermine the relative balance of functioning and create new conditions for the operation of entities [Gorynia 2023]. Hence, it seems important to assess the competitiveness of agri-food products on the world market, taking into account their latest results. The conducted research fills the cognitive gap in this area. The aim of the study is to assess the competitiveness of Polish agri-food products in exports to the global market in 2018-2022.

RESEARCH MATERIAL AND METHODOLOGY

The study analyzed the value, rate of change, structure and main export and import directions of Polish agri-food products (excluding beverages and tobacco products) on the world market. To achieve the research objective, three quantitative indicators characterizing the competitiveness of the industry's exports were also used:

- 1) the export market share ratio (EMS) [Han et al. 2009] – defined as the ratio of the value of food exports of a country to the value of food exports of all countries in the world,
- 2) the trade coverage ratio (TC) – determined as the ratio of the value of exports to the value of food imports of the country on the world market; the value of the TC indicator above 1 means that the country generates a trade surplus in a given group of products, and below 1 means a trade deficit [Szczepaniak 2016],
- 3) the Grubel-Lloyd's intra-industry trade index (GL) – defined as the ratio of the sum of food exports and imports in the country minus the absolute value of the difference between these values and the sum of food exports and imports in this country; high values of the index, close to 1, indicate the existence of intra-industry exchange, in which the flows of exports and imports of industry products overlap to a large extent; an index with a value close to 0 indicates the existence of inter-industry trade (only exports or only imports) [Grubel, Lloyd 1971].

The data source was the UN COMTRADE database of the United Nations. The conducted analysis used the Standard International Trade Classification (SITC Rev 3) at the two-digit level: 01 – meat and meat preparations, 02 – dairy products and birds' eggs, 03 – fish, crustaceans, molluscs 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, 09 – miscellaneous edible products and preparations 4 – animal and vegetable oils, fats and waxes. The summation of the above-mentioned divisions was also made. The time range of the research covered the years 2018-2022. This made it possible to assess competitiveness in statistical and dynamic terms.

RESULTS

In the analyzed period, the value of exports of agri-food products from Poland to the global market increased from USD 28.39 billion in 2018 to USD 41.77 billion in 2022 (Figure 1). At the same time, the value of imports of these products increased from USD 16.13 billion to USD 26.91 billion. The increase in exports in the analyzed period was higher than the increase in imports. As a result, the absolute surplus in food trade from Poland in the world increased from USD 12.04 billion to USD 28.21 billion throughout the analyzed period. The largest relative annual increase in the value of exports was recorded in 2022 (by 17.74%), and in imports in 2021 (by 16.85%). Throughout the analyzed period, exports of agri-food products increased by 47.12% (imports by 43.41%). It is worth noting that the increase in global food exports at that time was much lower and amounted to 6.43%.

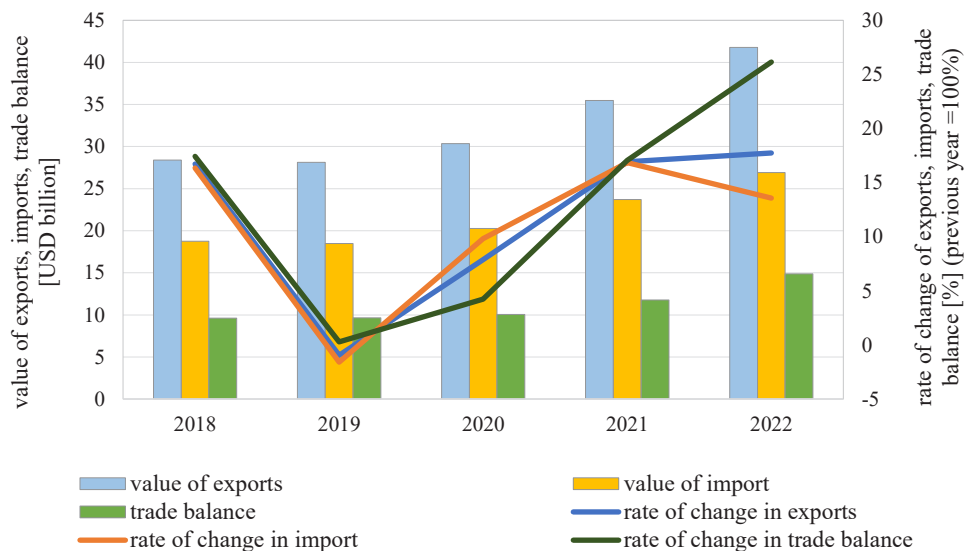


Figure 1. Results of Polish foreign trade in agri-food products in 2018-2022

Source: own calculation based on UN Comtrade

The export of food products from Poland took place both to EU Member States and to the so-called third countries. The key recipient of food products throughout the analyzed period was Germany (Figure 2). The value of agri-food exports from Poland to this country amounted to USD 10.28 billion in 2022 and was USD 3.38 billion higher than in 2018. Thus, almost 1/4 of the value of total exports from Poland went to Germany. The share of this country in the analyzed period increased by 0.30 percentage points

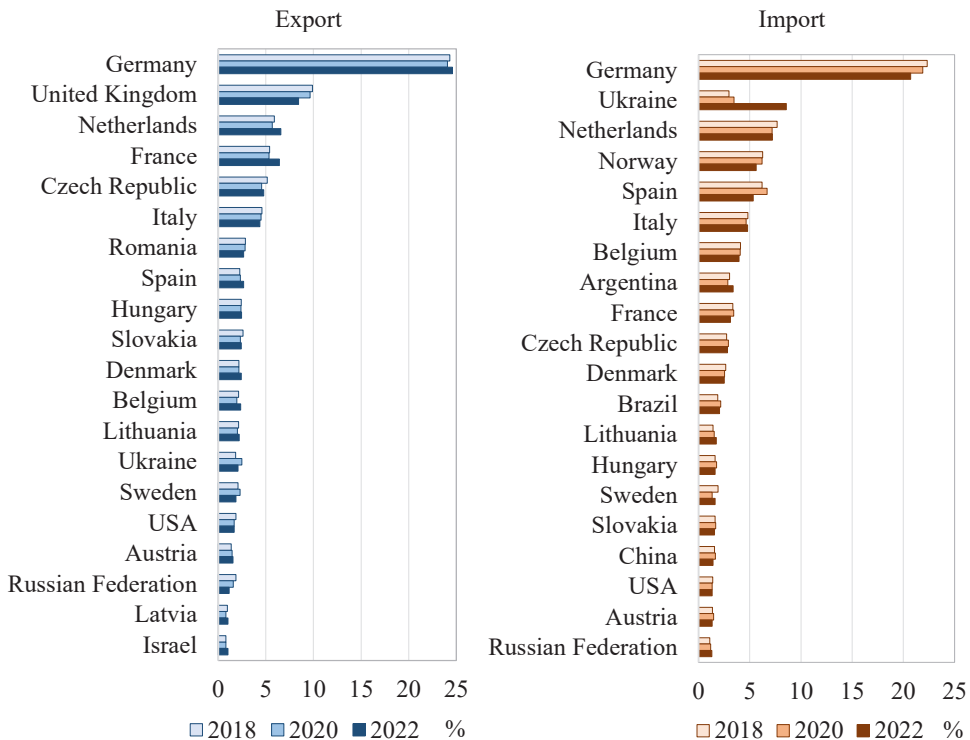


Figure 2. Main directions of export and import of Polish agri-food products in 2018-2022
Source: own calculation based on UN Comtrade

(p.p.). According to Anna Kowalska [2017], the proximity to the target market, which ensures lower transport costs and potentially shorter delivery times, as well as the quality of agri-food products offered by Polish entrepreneurs and the quality-to-price ratio, are important in Polish-German exchange. The second most important export destination for food products from Poland was United Kingdom. The value of products exported in this group in 2022 amounted to USD 3.53 billion and was higher than in previous years in the analyzed years (2020 – USD 2.92 billion, 2018 – USD 2.81 billion). However, the share of United Kingdom in exports in the analyzed period decreased. In 2022, it was 8.44%, compared to 9.63% in 2020 and 9.89% in 2018. Research by Elżbieta Kawecka-Wyrzykowska and Łukasz Ambroziak [2021] shows that serious perturbations in trade between Poland (and the entire EU) with United Kingdom were caused by the exit of this country from the single European market. Despite the lack of customs duties, the costs of administrative handling of freight traffic increased, e.g. as a result of the introduction of customs and transport documents, technical and sanitary certificates, etc.

However, the perturbations were temporary, and the impact of Brexit did not affect all categories of food products to the same extent. Research by Łukasz Ambroziak [2022] shows that after Brexit, producers of canned meat, poultry meat, sausages, frozen fruit, cereals and tobacco products strengthened their position on the British market.

The group of countries of relatively high importance in the export of agri-food products from Poland also included the Netherlands, France, the Czech Republic and Italy, respectively. Revenues from the sale of food products in these countries in 2022 ranged from USD 1.82 billion to USD 2.74 billion, and their share in total food exports from Poland was at the level of 4.36-6.57%. Entrepreneurs from Poland also sold food products worth over USD 1 billion annually in Romania, Spain, Hungary, Slovakia, Denmark and Belgium (from USD 1.00 to USD 1.11 billion). The next positions in the ranking of export destinations in 2022 were taken by Belgium, Lithuania and Ukraine, Sweden, USA, Austria, Russia, Latvia and Israel. The value of food exports to these countries ranged from USD 423.34 million to USD 977.03 million. Compared to 2018, the decrease in the value of exports occurred only in the case of Russia (by 10.16%). As a result, Russia moved up in the ranking of export destinations from 15th to 18th position. According to research by Tomasz Wierzejski [2016], the importance of Russia in food exports from Poland has been clearly decreasing since 2014. This is related to the introduction by Russia of an embargo in 2014 on most food products from Poland, the difficult history and the imperial perception of this country on the international arena. Currently, however, the key factor deteriorating the conditions of cooperation with Russia is the invasion of Ukraine on February 24, 2022 [Błaszczuk-Zawiła et al. 2022].

Germany was of the greatest importance in the import of food to Poland, as in the case of exports. The value of food products imported from this country amounted to USD 5.57 billion in 2022, which accounted for 20.70% of the total import value of this commodity group. Compared to 2018, it was 1.62 p.p. less. It is worth noting that the balance in trade in foodstuffs with Germany was positive and steadily increased (from USD 2.71 billion to USD 4.71 billion) throughout the analyzed period. In 2022, the value of exports was 1.84 times higher than the value of imports, and in 2018 – 1.65 times. Therefore, Poland has an import-export relationship with Germany. In 2022, Ukraine also had a large share in food imports to Poland. The value of imported goods amounted to USD 2.31 billion (8.57%), compared to USD 557.61 million in 2018 (1.81%). According to UN Comtrade data, the increase in imports concerned mainly goods from section 02 – dairy products and birds' eggs, and section 04 – cereals and cereal preparations (increase by 19.50% and 15.98%, respectively, compared to 2021). Poland's important partners in food imports were the Netherlands, Norway, Spain, Italy and Belgium, from which food goods worth from USD 1.07 billion to USD 1.94 billion were imported in 2022. Compared to 2018, the share of these countries in food imports decreased. Significant food suppliers were also countries such as: Argentina, France, the Czech Republic, Denmark and Brazil.

The value of imported goods in 2022 ranged from USD 553.80 million to USD 907.62 million. The following positions among food importers were occupied by: Lithuania, Hungary, Sweden, Slovakia, China, USA, Austria and Russia. However, the share of these countries in food imports to Poland did not exceed 2%. Compared to 2018, Lithuania moved up to the 13th position, and Sweden dropped to the 15th position.

The commodity structure of exports was dominated by meat and meat preparations (division 01) (Figure 3). In 2022, the value of exported products from this group amounted to USD 10.00 billion, which accounted for 23.93% of total food exports. The special importance of this commodity group is also indicated by studies by other authors, e.g. Karolina Pawlak and Walenty Poczta [2020] and Robert Mroczek [2020]. Cereals and cereal preparations (division 04), vegetables and fruit (division 05) as well as dairy products and bird eggs (division 02) also played an important role in exports. Revenues from foreign sales of products in these divisions amounted to USD 6.82 billion (16.34%), USD 5.20 billion (12.44%) and USD 4.36 billion (10.44%), respectively. Miscellaneous edible products and preparations (division 09), coffee, tea, cocoa, spices and manufactures thereof (division 07), fish, crustaceans, molluscs and preparations thereof (division 03)

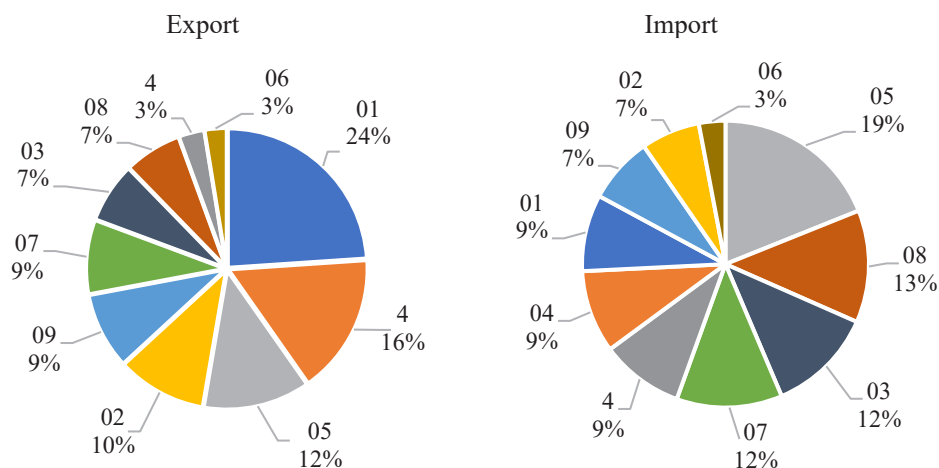


Figure 3. Structure of exports and imports of Polish agri-food products on the global market by SITC divisions in 2022

01 – meat and meat preparations, 02 – dairy products and birds' eggs, 03 – fish, crustaceans, molluscs 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, 09 – miscellaneous edible products and preparations, 4 – animal and vegetable oils, fats and waxes

Source: own calculation based on UN Comtrade

and feedstuff for animals (division 08) followed. The value of products exported in 2022 from these sections ranged from USD 2.81 billion to USD 3.71 billion, and their share in the export structure ranged from 6.72 to 8.89%. Animal and vegetable oils, fats and waxes (division 4) and sugar and honey (division 06) had definitely the smallest importance, at the level of 2.57-2.99%.

In turn, the most important foodstuffs imported to Poland were vegetables and fruits (division 05). In 2022, the value of imported products in this division exceeded USD 5.09 billion and accounted for 18.92% of the total value of food imports. Feedstuff for animals (08), fish, crustaceans, molluscs and preparations thereof (03), coffee, tea, cocoa and spices (07) were also of great importance. The value of imports of these commodity groups ranged from USD 3.21 billion to USD 3.41 billion, which accounted for 11.92-12.68% of food imports to Poland. In the case of such divisions as animal and vegetable oils, fats and waxes (4), cereals and cereal preparations (04), meat and meat preparations (01) and miscellaneous edible products and preparations (09), the import value was at the level of 2.02-2.52 billion dollars. The share of each of them ranged from 7.49% to 9.37%. The penultimate item in the import structure was dairy products and birds' eggs (02), whose share was 6.64%. Sugar and honey (06) was by far the least important (2.99%).

In assessing the competitiveness of the Polish food industry in exports, the level of global food exports and other countries of the world was also taken into account. According to UN Comtrade data, in 2022 the value of global food exports amounted to USD 1,324.04 billion. Poland was ranked 12th in the ranking of global food exporters, with a share of 3.16%. The clear leader in this respect was the USA, which exported 10.53% of agri-food products in the world. The largest food exporters were also countries such as: the Netherlands (6.96%), Brazil (6.20%), Germany (6.09%) and China (5.79%). It was followed by Spain (4.54%), Canada (4.49%) and France (4.36%). Italy, Argentina and India (3.52-3.60%) were also ahead of Poland (with a similar result). Compared to previous years, a clear increase in Poland's share and position in global food exports can be seen (Figure 4). In 2018, the share was 2.28%, and Poland was ranked 15th, and in 2020 it was 2.39% and 14th. During the coronavirus pandemic announced by the World Health Organization (WHO) in March 2020, the Polish food industry strengthened its export shares in the world. Jadwiga Drożdż and Robert Mroczek [2022] also pointed out the increase in exports of agri-food products in this period. The research of these authors also shows that at the same time, the value of food industry production, as well as food retail sales and consumption in the household sector in Poland decreased by 1.5 to 3.0%, and Poland's GDP decreased by 2.2%. As indicated by Iwona Szczepaniak et al. [2018], the high dynamics of exports of foreign trade in agri-food products with lower dynamics/decrease in GDP confirms the pro-export nature of the development of the sector in Poland.

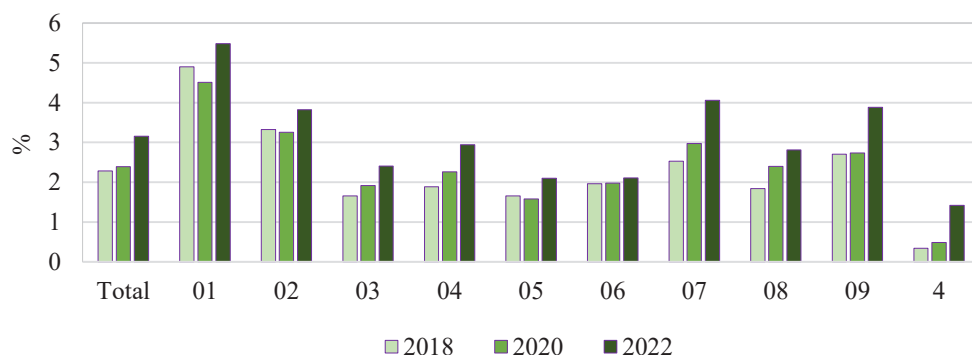


Figure 4. Export market share rate (EMS) of Polish agri-food products by SITC division in 2018-2022

Source: own calculation based on UN Comtrade

Considering the individual categories of agri-food products, it should be pointed out that meat and meat preparations (division 01) had the greatest importance on the global export market. The share of this commodity group in 2022 was 5.48% and was 0.58 p.p. higher than in 2018. Meat from Poland went mainly to Germany, United Kingdom, France and the Netherlands. Above-average results were also recorded in sections 07 – coffee, tea, cocoa and spices, 09 – miscellaneous edible products and preparations and 02 – dairy products and birds' eggs. The share of these commodity groups in 2022 amounted to 4.06%, 3.88% and 3.82%, respectively, and was clearly higher than in the previous analyzed years (by 1.50 p.p., 1.18 p.p. and 0.05 p.p., respectively). The smallest market share was in section 4 – animal and vegetable oils, fats and waxes (0.34% in 2018, 1.42% in 2022)

In the next stage, the value of exports was compared to the value of imports of agricultural and food industry products. On this basis, the relative trade surplus or deficit expressed in the TC ratio was calculated. The calculations show that the value of food exports from Poland to the world market in 2022 was 1.55 times higher than the value of imports (Figure 5). The level of the TC ratio was also higher by 0.04 than in 2018. Thus, indicated by other authors (e.g. Małgorzata Bułkowska [2019]), the trend of increasing the surplus of agri-food exports over imports, started after Poland's accession to the EU, continued.

A positive trade balance occurred in the 7 considered food categories. By far the largest trade surplus, both in relative and absolute terms, was recorded in the case of meat and meat preparations (division 01). Receipts from the export of food products of this commodity group in 2022 exceeded the import expenses 4.29 times. In 2018, the TC ratio was 3.45, and in 2020 – 3.55. A relatively high level of trade coverage was also found

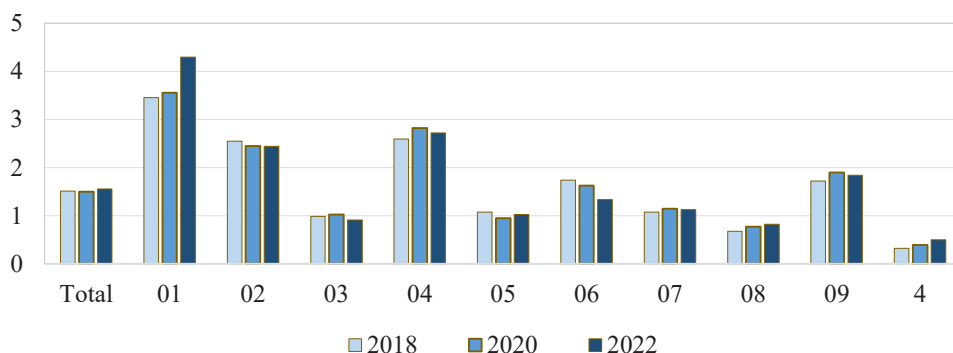


Figure 5. Level of trade coverage ratio (TC) in Poland's foreign trade in agri-food products by SITC division in 2018-2022

Source: own calculation based on UN Comtrade

in sections 02 – dairy products and birds' eggs, and 04 – cereals and cereal preparations, in which exports in terms of value were more than twice as large as imports. In the case of section 04, the TC indicator increased (from 2.59 to 2.72), and in the case of section 02 it decreased (from 2.55 to 2.44). Favorable export-import relations were also recorded in sections 06 – sugar and honey, 09 – miscellaneous edible products and preparations, 05 – fruit and vegetables and 07 – coffee, tea, cocoa and spices. The trade deficit was recorded in the following 3 sections: 03 – fish, crustaceans, molluscs and preparations thereof, 08 – feedstuff for animals and 04 – cereals and cereal preparations. In these commodity groups, export revenues in 2022 covered from 50% to 91% of import expenses.

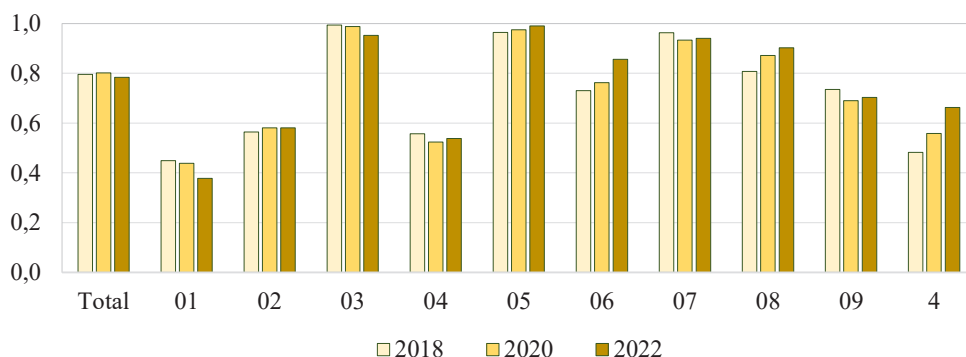


Figure 6. Level of intra-industry trade index (GL) in Polish foreign trade in agri-food products by SITC divisions in 2018-2022

Source: own calculation based on UN Comtrade

Two-way trade analysis was then performed (Figure 6). The assessment of the Grubel-Lloyd index indicates that in the analyzed period, nearly 80% of the trade exchange of the Polish food industry on the world market was intra-industry. In trade in agri-food products, the most common form of intra-industry trade is cyclical trade caused, among others, by due to weather conditions and harvest issues, as well as re-export, consisting in importing products, performing production and commercial procedures, and then exporting them abroad. Relatively less important is cross-border trade, the aim of which is to minimize transport costs [Szczepaniak 2011]. Particularly intensive intra-industry exchange was carried out under sections such as: 03 – fish, crustaceans, molluscs and preparations thereof, 05 – vegetables and fruit, and 07 – coffee, tea, cocoa, spices and products thereof. The level of the Grubel-Lloyd index in these commodity groups was higher than 0.90. The lowest level of intensity of intra-industry trade was found in sections 01 – meat and meat preparations and 02 – dairy products and birds' eggs, followed by section 04 – cereals and cereal preparations. In these commodity groups, the Grubel-Lloyd index in 2022 ranged from 0.38 to 0.54. In the analyzed period, the increase in the importance of intra-industry turnover was most noticeable in the case of sections 4 (from 0.48 to 0.66) and 06 (from 0.73 to 0.86), and the decrease in the case of section 01 (from 0.45 to 0.38).

CONCLUSIONS

The conducted considerations indicate an improvement in the competitiveness of the food industry in exports to the world market. This proves its relative resistance to external shocks appearing in the environment. In the analyzed period, there was an increase in the value of Polish exports and the relative and absolute trade surplus in trade in agri-food products in the world. This resulted in the promotion of Poland in the ranking of global food exporters from 15th position (share of 2.28%) in 2018 to 14th position in 2020 (2.39%), and then to 12th position in 2022 (3.16%). There have been no fundamental changes in the geographical structure of global food turnover from Poland. The largest trading partner was Germany. Important recipients were also United Kingdom, the Netherlands, France, the Czech Republic and Italy, and among third countries (apart from United Kingdom) also Ukraine, Sweden, the USA and Russia. The greatest importance in the import of food to Poland, apart from Germany, was also played by Ukraine, the Netherlands, Norway and Spain. A certain decrease in the share of United Kingdom in exports was observed (despite an increase in the value of exports), which can be associated with the exit of this country from the single European market, as well as a decrease in the importance of Russia in exports and an increase in the importance of Ukraine in food imports, related to the ongoing from February 24, 2022 Russia's invasion of Ukraine. Considering the different types of agri-food products, it should be pointed out that section

01 – meat and meat preparations in the entire analyzed period had the largest share in the commodity structure of exports from Poland, and was characterized by the largest and growing share in the global export market and the largest and growing relative trade surplus. In the analyzed period, an above-average market share was also recorded in the following sections: 07 – coffee, tea, cocoa and spices, 09 – miscellaneous edible products and preparations and 02 – dairy products and birds' eggs, and a high relative commercial advantage in the case of 02 – dairy products and birds' eggs and 04 – cereals and cereal preparations. Particularly intensive intra-industry exchange was conducted under sections such as 03 – fish, crustaceans, molluscs and aquatic preparations thereof, 05 – vegetables and fruit and 07 – coffee, tea, cocoa, spices and manufactures thereof.

Due to the dynamic changes in the environment, as well as the economic and social importance of agri-food products, there is a need for further monitoring of the competitiveness of the food industry. The conducted analysis took into account only the resulting perspective of competitiveness of agri-food products on the world market. For this reason, further research should also refer to the factors influencing the achievement of a competitive advantage (e.g. productivity, innovation, quality or cost advantages in the sector).

BIBLIOGRAPHY

- Ambroziak Łukasz. 2022. Handel rolno-spożywczy Polski z Wlk. Brytanią w pierwszym roku po brexicie (Polish agri-food trade with the United Kingdom in the first year after brexit). *Przemysł Spożywczy* 76 (5): 4-9. DOI: 10.15199/65.2022.5.1.
- Bahta Yonas, Salomo Mbai. 2023. Competitiveness of Namibia's agri-food commodities: implications for food security. *Resources* 12 (34): 1-21.
- Błaszczuk-Zawiła Marzena, Adam Ambroziak, Michał Kulpiński. 2022. Handlowe relacje Unii Europejskiej, w tym Polski z Rosją. [W] *Inwazja Rosji na Ukrainę. Wybrane konsekwencje ekonomiczne i prawne* (Trade relations of the European Union, including Poland, with Russia. [In] *Russia's invasion of Ukraine. Selected economic and legal consequences*), ed. Marzena Błaszczuk-Zawiła, 17-58. Warszawa: Oficyna Wydawnicza SGH.
- Borges Aguiar Giovanna Maria, Jeremias Balogh. 2022. Analysis of competitiveness in the agri-food sector: the case of Latin America and the Caribbean Region. *Competitio* 21: 92-117.
- Bułkowska Małgorzata. 2019. Polska wzmacnia swoją pozycję jako eksporter produktów rolno-spożywczych (Poland strengthens its position as an exporter of agri-food products). *Przemysł Spożywczy* 73 (9): 4-8.

- Carraresi Laura, Alessandro Banterle. 2015. The agri-food competitive performance in the EU countries: a fifteen years retrospective. *International Food and Agribusiness Management Review* 182: 37-62.
- Drożdż Jadwiga, Robert Mroczek. 2022. Przemysł spożywczy w Polsce podczas pandemii Covid-19 oraz wojny w Ukrainie (Food industry in Poland in the face of the pandemic Covid-19 and war in Ukraine). *Przemysł spożywczy* 76 (8): 14-22.
- Firlej Krzysztof. 2017. *Przemysł spożywczy w Polsce. Nowa ścieżka rozwoju* (Food industry in Poland. A new path of development). Warszawa: PWN.
- Gorynia Marian. 2023. *Pandemia, wojna, globalne przesilenie* (Pandemic, war, global crisis). Poznań: Wydawnictwo UEP.
- Grubel Herbert, Peter Lloyd. 1975. *Intra-industry trade. The theory and measurement of international trade in differentiated products*. London: Macmillan.
- Han Xiao, Yali Wen, Shashi Kant. 2009. The global competitiveness of the Chinese wooden furniture industry. *Forest Policy and Economics* 11: 561-569.
- Heckscher Eli. 1919. The effect of foreign trade on the distribution income. *Ekonomist Tidskrift* 21: 497-512.
- Kawecka-Wyrzykowska Elżbieta, Łukasz Ambroziak. 2021. Brexit: wybrane implikacje ekonomiczne dla Polski (Brexit: selected economic implications for Poland). *Gospodarka Narodowa. The Polish Journal of Economics* 4: 55-82.
- Khalid Zarqa, Asad Naseer, Raza Ullah, Shahzad Khan. 2021. Measuring the global trade competitiveness of Pakistan's cotton crop. *Sarhad Journal of Agriculture* 371: 158-166.
- Kowalska Anna. 2017. Polsko-niemiecka wymiana handlowa produktami rolno-spożywczymi (Polish-German trade in agricultural food product). *Zeszyty Naukowe SGGW w Warszawie. Problemy Rolnictwa Światowego* 17 (2): 106-115.
- Kuldilok Kulapa, Peter Dawson, John Lingard. 2013. The export competitiveness of the tuna industry in Thailand. *British Food Journal* 115 (3): 328-341.
- Misala Józef. 2009. *Historia rozwoju teorii i polityki konkurencyjności międzynarodowej* (History of the development of international competitiveness theory and policy). Warszawa: Wydawnictwo SGH.
- Ohlin Bertil. 1933. *International and interregional trade*. Cambridge: Harvard University Press.
- Pawlak Karolina, Walenty Poczta. 2020. Competitiveness of polish agriculture in the context of globalization and economic integration – competitive potential and position. *Problems of Agricultural Economics* 4 (365): 86-107.
- Pawlak Karolina, Lubos Smutka. 2022. Does Poland's agri-food industry gain comparative advantage in trade with non-EU countries? Evidence from the transatlantic market. *PLoS ONE* 17 (9): 1-32.

- Posner Michael. 1961. International trade and technical change. *Oxford Economic Paper* 13 (3): 323-341.
- Szajner Piotr, Iwona Szczepaniak. 2020. Ewolucja sektora rolno-spożywczego w warunkach transformacji gospodarczej, członkostwa w UE i globalizacji gospodarki światowej (The evolution of the agri-food sector in conditions of economic transformation, membership in the EU and globalization of the world economy). *Problems of Agricultural Economics* 365 (4): 61-85.
- Szczepaniak Iwona 2011. Rola wymiany wewnątrzgałęziowej w polskim handlu zagranicznym produktami rolno-spożywczymi (Role of intra-industry trade in the Polish foreign trade of agro-food products). *Roczniki Naukowe Stowarzyszenia Ekonomistów Rolnictwa i Agrobiznesu XIII* (2): 477-482.
- Szczepaniak Iwona. 2016. Specjalizacja Polski w eksporcie do Unii Europejskiej – produkty żywnościowe versus nieżywnościowe (Poland's export specialisation in trade with the European Union food products versus non-food products). *International Business and Global Economy* 35 (1): 482-497.
- Szczepaniak Iwona, Łukasz Ambroziak, Katarzyna Kosior. 2018. Konkurencyjność sektora rolno-spożywczego w Polsce na tle uwarunkowań makroekonomicznych (Competitiveness of the agri-food sector in Poland in light of macroeconomic determinants). *Studia BAS* 3 (55): 73-105.
- Vernon Raymond. 1966. International investment and international trade in the product cycle. *Quarterly Journal of Economics* 80: 190-207.
- Wierzejski Tomasz. 2016. Kryzys w handlu z Rosją a dywersyfikacja polskiego eksportu żywności (Crisis in trade with Russia vs. diversification of Polish food exports). *Ekonomia XXI Wieku* 3 (11): 132-140.
- Woś Augustyn 2001. *Konkurencyjność wewnętrzna rolnictwa* (Internal competitiveness of agriculture). Warszawa: IERiGŻ-PIB.

KONKURENCYJNOŚĆ POLSKICH PRODUKTÓW ROLNO-SPOŻYWCZYCH W EKSPORCIE NA RYNEK ŚWIATOWY

Słowa kluczowe: przemysł spożywczy, konkurencyjność, eksport, import,
rynek światowy

ABSTRAKT. Celem artykułu jest ocena konkurencyjności polskich produktów rolno-spożywczych w eksporcie na rynek światowy w latach 2018-2022. W badaniu przeanalizowano wartość, tempo zmian, strukturę oraz główne kierunki eksportu i importu produktów rolno-spożywczych (z wyłączeniem napojów i wyrobów tytoniowych). Zastosowano także trzy ilościowe wskaźniki charakteryzujące konkurencyjność eksportową, tj.: udział w rynku, pokrycie importu eksportem oraz handel wewnątrzgałęziowy. Źródłem danych była baza Organizacji Narodów Zjednoczonych UN COMTRADE. Wykorzystano Międzynarodową Standardową Klasyfikację Handlu SITC Rev 3. na poziomie dwucyfrowym. Zakres czasowy badań obejmował dane za lata 2018-2022. Z przeprowadzonych badań wynika, że w analizowanym okresie nastąpił wyraźny wzrost wartości eksportu żywności z Polski, co skutkowało poprawą udziału w rynku oraz awansem w rankingu światowych eksporterów żywności. Największym partnerem handlowym były Niemcy. Zaobserwowano zmniejszenie znaczenia Wielkiej Brytanii i Rosji w eksporcie i wzrost znaczenia Ukrainy w imporcie żywności. Największą konkurencyjnością w eksporcie na rynku światowym charakteryzował się dział mięsa i przetworów mięsnych.

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