

BULGARIA'S TRADE FOOTPRINT IN THE EUROPEAN UNION

Chief Assist. Dr. Sabrina Kalinkova

University of National and World Economy, Sofia, Bulgaria

ABSTRACT

The study presents the results from the analysis of the trade relations between the Bulgarian economic system and the economics of the European Union member-states. The main focus of the article is to analyze both the relations and impact of Bulgaria in EU context. The study examines how the trade relations are affected from the variety of factors in the external environment. The article concludes with a comparative analysis that places Bulgaria's trade performance in the context of other EU member-states. In conclusion, the article summarizes the key findings of the research and offers policy recommendations for improving trade relations between Bulgaria and the EU.

Keywords: trade relations, European integration, economic impact

INTRODUCTION

International trade is a key activity for the development of economic systems, the role of which is further strengthened by the ongoing processes of intensive globalization and integration. Changes in related key economic indicators such as consumption, import, and trade balance have a significant impact on the economic performance of individual countries. This article represents a comprehensive study of the trade relations between Bulgaria and the state-members of the European Union (EU) in the period 2010-2020 using the methodology of input-output model and related to it FIGARO tables. In today's world, where economic integration and free trade play an important role in the global economic landscape, understanding the links and dynamics between Bulgaria and its European partners is essential. These relations are extremely important for Bulgarian economic development. After joining the EU in 2007, Bulgaria became part of the largest single market in the world, and trade relations with other member-states gained strategic importance.

BACKGROUND

The previous studies have focused on the historical aspect of trade relations between Bulgaria and the EU. In particular, they analyze the period since Bulgaria's accession to the EU in 2007 and how the country's membership has changed the terms and dynamics of trade with other EU members. It is important to note that this period was characterized by intense changes in trade relations that require greater attention and analysis. [1]

The process of Bulgaria's accession to the European Union officially began in 1995, when the country applied for membership. After long and intensive negotiations and reforms in various fields, Bulgaria made significant progress and finally became an official member of the EU on January 1, 2007. Bulgaria's accession to the EU represents a historic step for the country following a period of transition following the fall of the communist regime in 1989 and the end of the Balkan Wars in the early 20th century. EU membership not only confirms Bulgaria's commitment to European values and standards, but also opens doors to extensive opportunities for economic development and cooperation with other EU members.

With its accession to the European Union, Bulgaria has become part of the largest internal market in the world, providing significant opportunities to expand its trade relations with other EU members. The country has taken a number of steps and measures to adapt its trade policies to EU standards and requirements. One of the first and most essential steps after Bulgaria's accession to the EU was the harmonization of its legislation and regulatory frameworks with European standards. This included the adoption of a number of new trade regulations that regulate the standards of goods and services that Bulgaria can export to the European market.

An important aspect of Bulgaria's trade policy within the EU is the participation in the customs union of the European Union. This customs union is characterized by the free movement of goods between EU members and the absence of customs barriers between them. This provides Bulgarian exporters with significant advantages and easy access to EU markets. In addition, Bulgaria is an active participant in EU trade negotiations and initiatives at the international level. It participates in the formation of the EU's trade policies and agreements with third countries and regions. This includes negotiating trade agreements, trade facilitation measures and participating in numerous international forums and organizations dealing with trade and economic cooperation.

WHAT STAYS BEHIND THE RESULTS?

To analyze Bulgaria's trade relations with the EU, the input-output model is used. This methodological approach allows analysis of trade flows and interactions between different industries of the economy. In the study is used the data from national statistical institutions, Eurostat and other similar sources that provide information on the value and volume of trade between Bulgaria and other EU members. This choice of data is essential because, based on the input-output model, it requires information on trade flows in different industries of the economy. This analytical approach is suitable for the adequate consideration of trade relations between Bulgaria and the EU and allows a detailed analysis of their impacts on the economic activity of the country. This method combines the advantages of statistical and econometric models with the extensive data available on trade flows and is suitable for our scientific purpose.

The model provides strong foundation to analyse the impact of the main factors that affect the trade policy of the country and its whole development. As a major factors are outlined the economic that are essential for understanding Bulgaria's trade relations within the EU. They include the economic growth and internal market; the competitiveness and productivity of the country and exchange rates.

One of the key advantages of Bulgaria's EU membership is access to the large EU internal market with over 500 million consumers. Stable economic growth in the EU provides Bulgarian companies with opportunities to export goods and services. However, this growth may vary from country to country and have different impacts on different industries of the economy. Second, the ability of Bulgarian companies to compete on the European and world market is essential for trade. Investments in innovation, education and workforce development play an important role in increasing the country's competitiveness. The last economic factor is the exchange rate that can affect the prices of goods and services exported and imported from Bulgaria. Fluctuations in exchange rates can affect the competitiveness of Bulgarian goods on the international market and affect trade flows.

Political factors also play an important role in Bulgaria's trade relations within the EU. As a major political factor, the author defines the diplomacy and international relations that can affect trade. Diplomatic incidents or conflicts may lead to restrictions on trade or violations of negotiated agreements. In the same logic, the trade agreements between the EU and other countries or regions may affect Bulgaria's trade flows. These agreements set the terms and conditions of trade between the parties and can open up new trade opportunities. Last but not least, the political stability and security of the legal environment in Bulgaria create conditions for attracting foreign investments and for the sustainable development of trade relations.

From the regulatory aspect, customs and trade barriers can restrict or facilitate trade. The EU's extensive regulations and standards that govern the goods and services offered on the market affect the way that countries manage their trade activities. Bulgaria must conform its products and services to these standards in order to have free access to the EU market. And finally, the regulatory environment for investment can influence the attraction of foreign investors and the development of manufacturing and export activities, which in turn affects trade.

TRADING PATTERNS AND TRENDS

The trade relations between Bulgaria and the other member-states of the European Union are analysed from two aspects: what the Bulgarian economy provides as an export for the other economics, and what the economics of the member-states are providing to Bulgaria as an import. In each of the logics are

studied the main trends regarding the relations between countries, as well as the importance of the economic industries for these relations.

Table 1 presents the share of the Bulgarian products that the economic provides for each member-state of the European Union. At the beginning of the analysed period (2010) the main trade partner of Bulgaria is Italy where are directed 20,41% of all export product. Other important trade partners in 2010 are Germany [16,12%] and Greece [11,27%]. The weakest connections of the country are with Estonia [0,04%] and Latvia [0,07%].

In the end of the period (2020) the main trade partner for Bulgaria is Germany [19,93%], followed by Italy [13,40%] and Romania [10,58%]. Low level of trade dependence is defined between Bulgaria and Latvia [0,09%] and Bulgaria and Luxembourg [0,13%].

Table 1. Share of the export of Bulgarian products for the EU member-states (in % for the period 2010-2020)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Austria	5,27%	4,93%	4,16%	4,91%	5,28%	5,19%	5,13%	5,12%	4,73%	4,56%	4,56%
Belgium	5,58%	5,01%	5,39%	6,94%	7,22%	6,13%	5,99%	7,72%	6,59%	7,29%	7,29%
Croatia	0,67%	0,49%	0,47%	0,26%	0,44%	0,35%	0,62%	0,41%	0,53%	0,42%	0,42%
Cyprus	0,18%	0,19%	0,30%	0,17%	0,23%	0,44%	0,49%	0,22%	0,24%	0,38%	0,38%
Czech Republic	2,80%	4,60%	3,35%	2,70%	3,29%	2,68%	2,70%	3,21%	3,52%	3,10%	3,10%
Denmark	0,71%	1,10%	0,77%	0,77%	0,95%	1,42%	1,23%	1,25%	1,06%	1,34%	1,34%
Estonia	0,04%	0,04%	0,11%	0,15%	0,13%	0,08%	0,08%	0,09%	0,09%	0,16%	0,16%
Finland	0,33%	0,70%	0,55%	0,31%	0,42%	0,72%	0,80%	0,55%	0,45%	0,58%	0,58%
France	4,44%	5,72%	7,29%	6,86%	6,08%	6,71%	6,18%	6,77%	4,80%	6,86%	6,86%
Germany	16,12%	17,09%	16,17%	20,42%	16,74%	19,05%	18,63%	19,31%	20,66%	19,93%	19,93%
Greece	11,27%	10,18%	11,18%	11,07%	9,84%	7,76%	6,91%	6,50%	7,41%	7,69%	7,69%
Hungary	2,56%	2,43%	1,88%	2,96%	2,61%	3,27%	3,23%	3,64%	3,44%	3,17%	3,17%
Ireland	1,05%	0,38%	0,13%	0,13%	0,43%	0,88%	0,77%	0,88%	1,23%	0,98%	0,98%
Italy	20,41%	18,73%	22,44%	19,42%	17,90%	15,93%	16,50%	13,67%	14,87%	13,40%	13,40%
Latvia	0,07%	0,09%	0,10%	0,07%	0,06%	0,07%	0,06%	0,07%	0,08%	0,09%	0,09%
Lithuania	2,66%	0,14%	0,15%	0,21%	0,21%	0,38%	0,19%	0,19%	0,19%	0,21%	0,21%
Luxembourg	0,04%	0,05%	0,16%	0,15%	0,11%	0,11%	0,17%	0,21%	0,08%	0,13%	0,13%
Malta	0,26%	0,33%	0,13%	0,05%	0,07%	0,11%	0,23%	0,26%	0,24%	0,27%	0,27%
Netherlands	1,36%	2,69%	3,82%	2,79%	3,37%	4,14%	4,08%	2,99%	2,78%	2,67%	2,67%
Poland	2,97%	2,81%	2,60%	2,55%	3,39%	2,91%	3,44%	3,52%	3,46%	3,72%	3,72%
Portugal	0,40%	0,51%	1,14%	0,79%	0,63%	0,44%	0,41%	0,44%	0,34%	0,51%	0,51%
Romania	9,75%	14,61%	10,16%	8,46%	8,22%	8,82%	10,09%	10,35%	9,86%	10,58%	10,58%
Slovakia	1,08%	0,95%	1,15%	1,21%	0,97%	1,03%	1,44%	1,90%	1,19%	1,42%	1,42%
Slovenia	0,78%	1,26%	1,22%	1,67%	3,03%	4,17%	3,20%	2,95%	3,15%	1,37%	1,37%
Spain	3,23%	2,83%	2,75%	2,84%	2,49%	2,77%	3,35%	4,61%	4,58%	3,68%	3,68%
Sweden	0,76%	0,62%	0,66%	0,80%	1,25%	0,87%	1,36%	1,00%	1,90%	2,00%	2,00%
UK	5,23%	1,53%	1,76%	1,32%	4,62%	3,59%	2,72%	2,15%	2,55%	3,51%	3,51%

Source: Author's calculations

Regarding the industrial structure of the export, industry “Manufacturing” is the main export industry [53,82% in 2010 and 49,98% in 2020]. The second big exporter for Bulgarian economic is industry “Wholesale and retail trade; repair of motor vehicles and motorcycles” with share of 14,59% at the beginning of the studied period and 19,54% at its end. The lowest share of the industrial product

from “Public administration and defence; compulsory social security”[0,03%] is exported in the studied period, as well as the product of industry “Human health and social work activities” [0,04%].

Table 2. Share of the export from Bulgarian industries (in % for the period 2010-2020)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture, forestry and fishing	6,78%	7,13%	7,07%	6,47%	6,28%	5,19%	5,27%	5,20%	5,50%	4,69%	4,69%
Mining and quarrying	3,32%	2,31%	1,33%	1,66%	2,35%	2,56%	2,97%	2,14%	2,26%	1,44%	1,44%
Manufacturing	53,82%	52,39%	53,05%	55,25%	50,90%	49,89%	49,11%	48,24%	47,99%	49,98%	49,98%
Electricity, gas, steam and air conditioning supply	2,66%	2,93%	3,64%	2,93%	1,80%	2,14%	2,62%	2,86%	2,42%	2,32%	2,32%
Water supply; sewerage; waste management and remediation activities	1,31%	1,10%	0,65%	0,68%	1,20%	2,22%	2,25%	1,87%	1,91%	2,26%	2,26%
Construction	1,24%	1,33%	1,54%	0,79%	1,21%	1,68%	0,94%	1,22%	1,35%	1,42%	1,42%
Wholesale and retail trade; repair of motor vehicles and motorcycles	14,59%	17,46%	17,32%	17,05%	19,27%	19,93%	19,74%	21,16%	21,48%	19,54%	19,54%
Transporting and storage	7,52%	7,35%	7,29%	7,55%	8,66%	8,45%	8,85%	8,59%	8,90%	8,84%	8,84%
Accommodation and food service activities	0,19%	0,17%	0,16%	0,18%	0,21%	0,19%	0,21%	0,25%	0,24%	0,23%	0,23%
Information and communication	2,61%	2,80%	2,77%	2,58%	2,53%	2,32%	2,84%	3,10%	2,71%	3,61%	3,61%
Financial and insurance activities	0,71%	0,54%	0,61%	0,44%	0,35%	0,40%	0,45%	0,42%	0,46%	0,54%	0,54%
Real estate activities	0,38%	0,14%	0,11%	0,10%	0,13%	0,12%	0,14%	0,16%	0,17%	0,14%	0,14%
Professional, scientific and technical activities	2,78%	2,48%	2,39%	2,39%	2,73%	2,75%	2,76%	2,68%	2,42%	2,83%	2,83%
Administrative and support service activities	1,52%	1,39%	1,67%	1,56%	1,60%	1,60%	1,32%	1,45%	1,73%	1,64%	1,64%
Public administration and defense; compulsory social security	0,01%	0,01%	0,03%	0,04%	0,05%	0,03%	0,03%	0,03%	0,03%	0,03%	0,03%
Education	0,26%	0,23%	0,16%	0,15%	0,28%	0,17%	0,16%	0,20%	0,12%	0,13%	0,13%
Human health and social work activities	0,07%	0,06%	0,04%	0,04%	0,04%	0,06%	0,04%	0,06%	0,04%	0,04%	0,04%
Arts, entertainment and recreation	0,18%	0,14%	0,12%	0,08%	0,28%	0,16%	0,18%	0,23%	0,14%	0,20%	0,20%
Other services activities	0,04%	0,04%	0,04%	0,06%	0,12%	0,14%	0,11%	0,13%	0,15%	0,13%	0,13%

Source: Author's calculations

Interesting trend is formed regarding the import to Bulgaria (see Table 3). For the whole studied period the main trade partners of the country are Cyprus [16,39% in 2010 and 15,17% in 2020], Greece [14,37 in 2010 and 12,97% in 2020], and Romania [9,92% in 2010 and 13,87% in 2020]. As not intensive can

be defined the relations between Bulgaria and Luxembourg [0,10% in 2020] and Bulgaria and Czech Republic [0,29% in 2020].

Table 3. Share of the import to Bulgaria from the EU member-states (in % for the period 2010-2020)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Austria	2,25%	1,92%	2,83%	3,42%	3,41%	3,74%	4,05%	3,85%	3,42%	3,10%	3,10%
Belgium	3,23%	3,03%	3,52%	3,00%	3,24%	2,98%	2,82%	3,16%	3,31%	3,06%	3,06%
Croatia	1,12%	0,93%	0,88%	0,67%	1,05%	0,87%	0,96%	1,59%	1,84%	1,14%	1,14%
Cyprus	16,39%	15,12%	15,24%	14,02%	16,77%	16,54%	15,72%	15,09%	15,26%	15,17%	15,17%
Czech Republic	0,09%	0,08%	0,10%	0,18%	0,13%	0,15%	0,13%	0,14%	0,17%	0,29%	0,29%
Denmark	2,16%	0,89%	0,96%	0,73%	0,74%	1,02%	1,06%	1,10%	1,42%	1,52%	1,52%
Estonia	9,12%	11,36%	12,66%	9,73%	9,08%	8,58%	7,72%	7,73%	8,61%	7,96%	7,96%
Finland	3,67%	6,33%	3,94%	7,56%	6,20%	7,96%	7,36%	8,43%	7,19%	6,99%	6,99%
France	4,77%	4,21%	4,89%	4,66%	5,65%	4,60%	5,26%	5,69%	4,67%	5,84%	5,84%
Germany	0,36%	0,34%	0,30%	0,47%	0,49%	0,41%	0,59%	0,48%	0,40%	0,38%	0,38%
Greece	14,37%	12,50%	12,63%	14,18%	12,42%	12,54%	11,77%	11,50%	12,75%	12,97%	12,97%
Hungary	0,23%	0,29%	0,20%	0,13%	0,21%	0,18%	0,26%	0,64%	0,60%	0,55%	0,55%
Ireland	0,06%	0,09%	0,09%	0,13%	0,30%	0,31%	0,42%	0,25%	0,26%	0,19%	0,19%
Italy	4,71%	0,23%	0,26%	0,45%	0,25%	0,58%	0,42%	0,33%	0,41%	0,45%	0,45%
Latvia	3,80%	3,36%	3,20%	3,44%	2,40%	0,72%	0,92%	0,74%	0,69%	0,61%	0,61%
Lithuania	3,90%	4,21%	3,87%	3,61%	3,89%	3,81%	3,70%	3,85%	3,72%	4,00%	4,00%
Luxembourg	0,11%	0,09%	0,30%	0,07%	0,46%	0,08%	0,16%	0,15%	0,15%	0,10%	0,10%
Malta	2,51%	2,79%	3,25%	2,81%	3,11%	3,82%	4,81%	4,20%	4,58%	4,05%	4,05%
Netherlands	5,88%	6,37%	6,43%	5,33%	5,06%	4,88%	4,82%	4,28%	4,40%	4,59%	4,59%
Poland	3,08%	2,94%	3,58%	4,19%	4,30%	4,78%	5,95%	5,98%	5,34%	5,51%	5,51%
Portugal	0,94%	0,51%	0,58%	0,37%	0,43%	0,45%	0,41%	0,38%	0,74%	0,66%	0,66%
Romania	9,92%	15,25%	13,39%	14,06%	13,02%	12,79%	13,36%	13,83%	13,34%	13,87%	13,87%
Slovakia	1,17%	1,25%	0,91%	1,02%	1,00%	0,94%	1,05%	0,97%	0,92%	1,18%	1,18%
Slovenia	2,02%	2,57%	2,37%	1,90%	1,91%	2,46%	1,90%	1,86%	1,94%	1,85%	1,85%
Spain	0,61%	0,48%	0,47%	0,39%	0,35%	0,41%	0,44%	0,45%	0,43%	0,43%	0,43%
Sweden	0,90%	0,95%	0,99%	1,25%	1,16%	1,08%	0,93%	0,99%	1,01%	0,92%	0,92%
UK	2,63%	1,91%	2,15%	2,22%	2,98%	3,33%	3,00%	2,36%	2,42%	2,59%	2,59%

Source: Author's calculations

When analysing the structure of the import for Bulgarian economic system, the main share of it in 2010 is formed by industry “Mining and quarrying” with share of 44,89% in 2010 (see Table 4). The trend of this relation is toward

decrease and in the end of the period (2020) the industry's import share is only 0,49%. At the same time, industry "Manufacturing" is increasing its share starting with 7,92% in 2010, and forming a share of 48,07% in 2020.

Table 4. *Share of the import to Bulgarian industries from EU member-states (in % for the period 2010-2020)*

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture, forestry and fishing	1,19%	6,40%	6,28%	6,10%	5,66%	5,23%	5,22%	5,24%	5,07%	4,72%	4,72%
Mining and quarrying	44,89%	0,75%	0,74%	0,77%	0,76%	0,70%	0,74%	0,71%	0,67%	0,49%	0,49%
Manufacturing	7,92%	45,53%	46,66%	47,55%	46,33%	46,48%	48,59%	49,69%	48,39%	48,07%	48,07%
Electricity, gas, steam and air conditioning supply	0,88%	6,89%	6,40%	6,27%	5,90%	5,68%	6,74%	6,75%	5,11%	4,68%	4,68%
Water supply; sewerage; waste management and remediation activities	13,01%	0,55%	0,48%	0,52%	0,58%	0,52%	0,58%	0,53%	0,49%	0,56%	0,56%
Construction	7,81%	11,24%	12,17%	10,71%	11,22%	12,55%	9,04%	8,19%	9,47%	10,31%	10,31%
Wholesale and retail trade; repair of motor vehicles and motorcycles	8,16%	7,08%	6,99%	7,05%	7,42%	7,41%	7,43%	7,58%	8,05%	8,26%	8,26%
Transporting and storage	1,81%	7,45%	6,83%	7,21%	8,22%	7,74%	8,00%	7,33%	8,00%	7,78%	7,78%
Accommodation and food service activities	2,88%	1,38%	1,40%	1,39%	1,40%	1,34%	1,36%	1,50%	1,58%	1,53%	1,53%
Information and communication	0,88%	2,79%	2,75%	2,62%	2,61%	2,70%	2,66%	2,76%	2,88%	3,20%	3,20%
Financial and insurance activities	0,87%	0,74%	0,69%	0,70%	0,61%	0,61%	0,68%	0,68%	0,71%	0,64%	0,64%
Real estate activities	2,52%	0,76%	0,71%	0,74%	0,69%	0,61%	0,62%	0,73%	0,75%	0,69%	0,69%
Professional, scientific and technical activities	1,49%	2,33%	2,33%	2,45%	2,34%	2,42%	2,31%	2,26%	2,23%	2,41%	2,41%
Administrative and support service activities	1,44%	1,26%	1,21%	1,18%	1,34%	1,33%	1,38%	1,32%	1,47%	1,51%	1,51%
Public administration and defense; compulsory social security	0,47%	1,22%	1,07%	1,13%	1,14%	1,05%	0,98%	0,94%	1,11%	1,11%	1,11%
Education	2,54%	0,37%	0,33%	0,34%	0,36%	0,36%	0,31%	0,33%	0,35%	0,36%	0,36%
Human health and social work activities	0,97%	2,41%	2,15%	2,39%	2,29%	2,16%	2,23%	2,32%	2,48%	2,40%	2,40%
Arts, entertainment and recreation	0,25%	0,69%	0,64%	0,70%	0,87%	0,89%	0,90%	0,93%	0,95%	1,03%	1,03%
Other services activities	0,02%	0,18%	0,17%	0,17%	0,26%	0,23%	0,23%	0,22%	0,24%	0,25%	0,25%

Source: Author's calculations

CONCLUSION

The presented study is part of a larger one, that is dedicated to defining the complex relations between Bulgarian economic system and the economics of the

EU member-states. The analysis of the major trade relations shows that the import relations are more intensive and flexible than the export once. Interesting conclusion that can be made is that Bulgaria is mainly exporter of products related to the material production industries rather than the services. At the same time, the economy is dependent on import of good related to the same material production industries. When analyzing geographically the export and import, the following conclusions can be stated. The export from Bulgaria is not so strongly located to the Balkan peninsular, while the import relations are primary with countries that are Bulgarian neighbors.

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