

ANALYSIS OF ROMANIA'S FOREIGN TRADE WITH MAIN PARTNER - FINANCIAL VIEWS ON THE AGRI-FOOD SECTOR

**Marilena Potârniche (Berheci)¹, Ionut Laurentiu Petre^{2*},
Florentina Marin (Pascu)³**

¹⁾²⁾³⁾ The Bucharest University of Economic Studies, Romania

Abstract

According to the literature, Romania maintains a close trade relationship, in terms of agri-food products, with Germany, especially the import-export relationship, thus, Romania imports either in terms of value the most, or in terms of assortment diversification, most from Germany. Thus, in this paper, the aim is to carry out an analysis of all the chapters of the Combined Nomenclature, related to the agri-food sector to determine the key chapters in terms of demand in Romania, using the ABC method which can structure the range of products in three categories of importance.

Keywords

foreign trade in agri-food products, Romania, Germany, the main source of imports.

JEL Classification

Q17, F14.

Introduction

External trade in agri-food products involves international trade in products from agriculture and the food industry. These products include not only cereals but also meat, dairy, fruit, vegetables, pastries, beverages and more. Trade in agri-food products is essential for national economies and ensures the availability and diversity of food products worldwide (Borsellino, et al., 2020).

In terms of exporters and importers, countries with surplus production export agri-food products to sell to other countries. Exporters can range from developed countries with intensive agricultural production to emerging economies with unique traditional products. (Smutka, et al., 2016) Countries that cannot produce enough agri-food products to meet domestic requirements import these products. Reasons can range from unfavourable climatic conditions to specific consumer demands (Martin, 2017).

* Corresponding author, **Ionut Laurentiu Petre** – laurentiu.petre@eam.ase.ro

There may also be trade agreements, so bilateral and multilateral trade agreements may affect trade in agri-food products. These agreements can include tariff reductions, the elimination of technical barriers and the promotion of fair trade, thus facilitating the exchange of agri-food products between countries (Eckhardt & Poletti, 2016).

Foreign trade in agri-food products is complex and dynamic, having a significant impact on global economies and the daily lives of people around the world. (Andrei, et al., 2020)

According to the literature, in which Romania's imports of agri-food products were analysed, it was identified that the main trading partner was Germany in 2021, with a total value of products that it redirected to Romania of 1.59 billion euros, and of the 24 chapters that make up the agri-food sector within the nomenclature, Germany was the first source for Romania's imports for half of these chapters (products) (Lădaru, et al., 2022).

Therefore, considering all these aspects, the present paper aims to carry out an analysis of the foreign trade in agri-food products between Romania and Germany, to identify the key aspects and products with high demand in both countries, to provide decision-makers with solid arguments for the elaboration of public policies.

1. Review of the scientific literature

Romania's foreign trade in agri-food products plays a significant role in the country's economy. Romania is one of the European countries with a rich and diversified agriculture, producing a wide range of agri-food products, including cereals, meat, dairy, fruit and vegetables. (Bichescu & Stanciu, 2018)

In terms of Romania's exports of agri-food products, Romania exports a significant amount of cereals, especially corn and wheat, to international markets (Nica & Stoian, 2018). Milk and dairy products, such as cheese, are exported to countries in Europe and beyond. Romania exports fresh and processed fruits and vegetables, such as fruit juice and canned goods, to neighbouring countries and other European markets (Patarlageanu, et al., 2020).

Regarding imports of agri-food products, Romania imports vegetable oils, such as palm oil and rapeseed oil, for industrial and commercial use (Vlad, 2011). Certain types of fruit and vegetables are imported into Romania, especially during the cold season, to meet the needs of the domestic market. Romania imports coffee and tea from countries such as Brazil, Vietnam and India to meet consumer demand (Bojnec & Ferto I., 2009).

As a member of the European Union, Romania benefits from internal trade agreements and common standards for agri-food products, thus facilitating trade with other EU member countries (Feher, et al., 2021).

Modernisation of the agricultural sector can lead to higher quality and productivity, which could increase agri-food exports. Promoting traditional products and the higher quality of Romanian products on international markets can open new export opportunities (Popescu, et al., 2017).

Romania's foreign trade in agri-food products is influenced by economic changes and international trade policies and plays an important role in the development and diversification of the Romanian economy. (Popescu, 2017)

Foreign trade between Romania and Germany in agri-food products is significant and is based on the comparative advantages of both countries in this field (Stoica, et al., 2022).

Foreign trade between Romania and Germany in agri-food products continues to be robust, contributing to economic growth and diversification of food supply in both markets (Saracutu, 2021)

2. Research methodology

The present research aims at analysing the trade between Romania and Germany, with reference to agri-food products. Thus, data provided by international databases, namely the International Trade Centre (ITC), will be used to provide information on the value of imports and exports as well as their volume and trade balance.

These data are structured by sections and chapters, at the international level there is a nomenclature with 19 sections including 96 chapters. The first 4 sections include 24 chapters and all of them include agri-food products, so in the following, we will use data from this database, related to the 24 chapters, as follows.

Table no. 1. The 24 chapters of the Nomenclature belonging to the agri-foodstuffs sector and the name of the relevant product group

Chapter	Product group
01	Live animals
02	Meat and edible meat offal
03	Fish and crustaceans, molluscs and other aquatic invertebrates
04	Dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere ...
05	Products of animal origin, not elsewhere specified or included
06	Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage
07	Edible vegetables and certain roots and tubers
08	Edible fruit and nuts; peel of citrus fruit or melons
09	Coffee, tea, maté and spices
10	Cereals
11	Products of the milling industry; malt; starches; inulin; wheat gluten
12	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal ...
13	Lac; gums, resins and other vegetable saps and extracts
14	Vegetable plaiting materials; vegetable products not elsewhere specified or included

Chapter	Product group
15	Animal or vegetable fats and oils and their cleavage products; prepared edible fats;
16	Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates
17	Sugars and sugar confectionery
18	Cocoa and cocoa preparations
19	Preparations of cereals, flour, starch or milk; pastrycooks' products
20	Preparations of vegetables, fruit, nuts or other parts of plants
21	Miscellaneous edible preparations
22	Beverages, spirits and vinegar
23	Residues and waste from the food industries; prepared animal fodder
24	Tobacco and manufactured tobacco substitutes

Source: ITC.

Regarding the methodology used, in addition to the quantitative analysis of the data taken from the databases, the ABC method will also be used, which allows the product groups to be structured into three distinct classes, according to their specific weights, in the following way, the group of type A products refers to the goods with the highest export/import potential, including product groups that accumulate a cumulative weight of up to 80 percent; then product group type B, which refers to goods with a medium export/import value potential, here including products with a cumulative weight of 15% and product group type C, which refers to goods with a low trade value potential of up to 5% cumulative weight. (Totska, 2022)

3. Results and discussions

To carry out the present research, data were analysed with reference to the value of Romania's exports to Germany, as well as the value of Romania's imports from Germany, both in total and for the 24 categories, i.e. groups of agri-food products.

Analysing the share of agri-food exports in total exports and the share of trade with Germany, Figure 1 shows the following. Of the total value of Romania's exports, 22.7% represents the value of products exported to Germany, regardless of their nature. Analysed according to the 24 chapters representing agri-food products, of the total value of Romania's exports, 10.4% are exports related to the 24 groups, i.e. agri-food products.

Of the total exports of agri-food products that Romania exports, 6.1% are directed to Germany, and of the total products directed to Germany, agri-food products represent 2.7%.

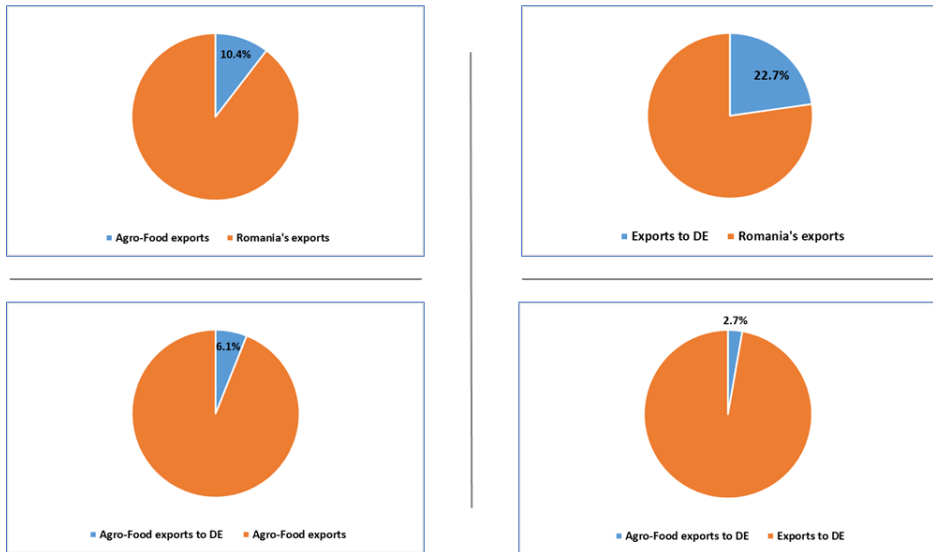


Figure no. 1: Structures of Romania's exports

A similar analysis of Romania's imports shows the following in Figure 2: 20.5% of the total value of Romania's imports comes from Germany. Referring to the groups of agri-food products, of the total value of imports that Romania records, 10% are agri-food products.

Of the total imports of agri-food products that Romania records, 15.7% come from Germany, and of the total products of all kinds from Germany, agri-food products account for 7.7%.

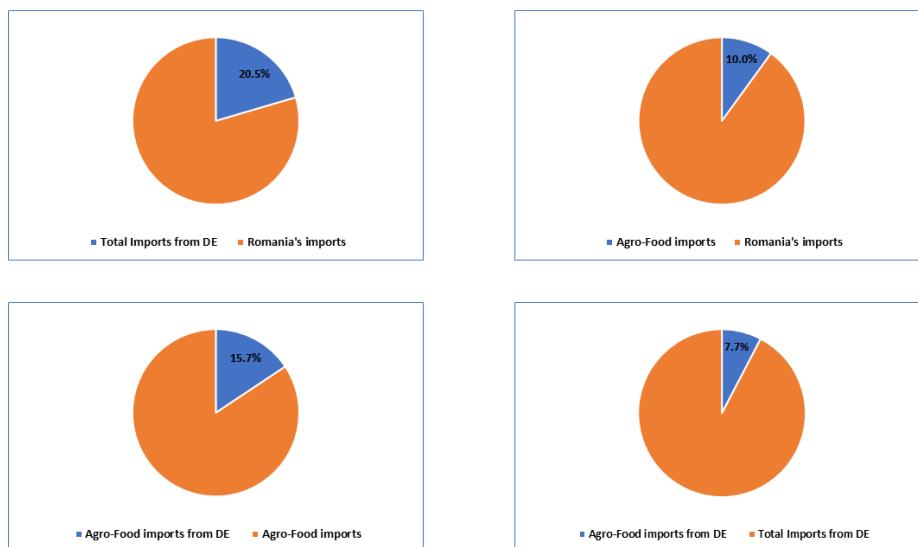


Figure no. 2: Structures of Romania's imports

Financial considerations of agri-food imports from Germany to Romania

Next, it is proposed to go through the ABC methodology with reference to the identification of the groups of agri-food products with a higher potential within the demand of the importing country, thus, the 24 chapters comprising the agri-food products that Romania imports from Germany will be analysed, classifying them into three groups, according to the accumulated weight.

According to International Trade Centre data, in 2022, Romania will import agri-food products from Germany worth 978,651 thousand euros, with import activities recorded for all 24 groups of agri-food products.

Table no. 2. Romania's imports of agri-food products from Germany, 2022

Chapter Number	Imported value in 2022	Share of imports in total	Cumulative weight	Group ABC
18	162663	16.6%	16.6%	A
19	155189	15.9%	32.5%	A
21	124835	12.8%	45.2%	A
16	103212	10.5%	55.8%	A
24	95396	9.7%	65.5%	A
20	95210	9.7%	75.3%	A

Chapter Number	Imported value in 2022	Share of imports in total	Cumulative weight	Group ABC
17	86098	8.8%	84.1%	B
22	70948	7.2%	91.3%	B
23	43476	4.4%	95.7%	C
12	23950	2.4%	98.2%	C
15	16541	1.7%	99.9%	C
4	306.939	0.031%	99.9%	C
2	269.978	0.028%	99.9%	C
8	159.656	0.016%	100.0%	C
14	100	0.010%	100.0%	C
9	97.523	0.010%	100.0%	C
7	95.038	0.010%	100.0%	C
1	31.404	0.003%	100.0%	C
6	21.473	0.002%	100.0%	C
3	13.552	0.001%	100.0%	C
13	12.326	0.001%	100.0%	C
5	9.399	0.001%	100.0%	C
11	8.893	0.001%	100.0%	C
10	7.126	0.001%	100.0%	C

Source: author processing based on ITC data.

According to Table 2, six groups of products can be identified which are classified in Group A, i.e. products with high export potential for Germany, and high demand (consumption) in Romania, respectively: Cocoa and cocoa preparations (18); Preparations of cereals, flour, starch or milk; pastrycooks' products (19); Miscellaneous edible preparations (21); Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates (16); Tobacco and manufactured tobacco substitutes (24) and Preparations of vegetables, fruit, nuts or other parts of plants (20). These products are imported by Romania from Germany and the value of imports varies between 95.2 million euro and 162.6 million euro, in total accounting for 75.3% of all agri-food products imported by Romania from Germany.

Next, in the group of type B products, only 2 products were registered, namely Sugars and sugar confectionery (17) and Beverages, spirits and vinegar (22), which recorded import values from Germany of 86.1 million euros and 70.9 million euros respectively, recording individual shares of 8.8% and 7.2% of the total agri-food products that

Romania imports from Germany, and analysing the cumulative share, it can be determined that it is 16% for this group B.

Analysing group C of agri-food products that Romania imports from Germany, which have a very low impact on Germany's export potential and on the level of demand in Romania, 16 groups of products are identified, but with a small individual share, ranging from 0.001% to 4.4%, and the cumulative share for this group being 8.7%, the value of imports ranging from 7.1 million euros to 43.4 million euros.

Table no. 3. Centralising ABC analysis for Romania's imports of agri-food products from Germany

Group ABC	Chapter	% in total	Import value	Share of import
A	6	25.0%	736,505	75.3%
B	2	8.3%	157,046	16.0%
C	16	66.7%	85,100	8.7%
Total	24	100.0%	978,651	100.0%

Source: authors' calculations

According to the results it can be seen that the 6 products in group A represent 25% of the chapters for agri-food products, and in terms of import value they represent 75.3%. In total, analysing Romania's imports from Germany regarding agri-food products, it can be seen that one third of the products (8 out of 24) cover an import value of 91.3%.

Financial considerations of Romania's exports of agri-food products to Germany

Similarly, the ABC methodology was used to identify the groups of agri-food products with a higher potential in the demand of the importing country. Thus, the 24 chapters comprising agri-food products that Romania exports to Germany will be analysed, and classified into three groups according to the accumulated weight.

According to International Trade Centre data, in 2022, Romania will export agri-food products to Germany worth 599,048 thousand euros, with export activities recorded for all 24 groups of agri-food products.

Table no. 4. Romania's agri-food exports to Germany, 2022

Chapter Number	Exported value in 2022	Share of exports in total	Cumulative weight	Group ABC
12	189543	31.6%	31.6%	A
10	89304	14.9%	46.5%	A
21	52807	8.8%	55.4%	A
16	41328	6.9%	62.3%	A

Chapter Number	Exported value in 2022	Share of exports in total	Cumulative weight	Group ABC
4	29431	4.9%	67.2%	A
19	29212	4.9%	72.1%	A
24	27993	4.7%	76.7%	A
8	25623	4.3%	81.0%	B
15	23971	4.0%	85.0%	B
7	14197	2.4%	87.4%	B
18	13123	2.2%	89.6%	B
22	11464	1.9%	91.5%	B
11	9409	1.6%	93.0%	B
23	6789	1.1%	94.2%	B
2	6690	1.1%	95.3%	C
20	6331	1.1%	96.4%	C
17	6207	1.0%	97.4%	C
5	5733	1.0%	98.3%	C
9	5288	0.9%	99.2%	C
14	1565	0.26%	99.5%	C
6	1295	0.22%	99.7%	C
1	1186	0.20%	99.9%	C
3	387	0.06%	100.0%	C
13	172	0.03%	100.0%	C

Source: author processing based on ITC data.

According to Table 4, seven groups of products can be identified which are classified in Group A, i.e. products with a high export potential for Romania, and with a high demand (consumption) in Germany, respectively: Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit (12); Cereals (10); Miscellaneous edible preparations (21); Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates (16); Dairy produce; birds' eggs; natural honey; edible products of animal origin (4); Preparations of cereals, flour, starch or milk; pastrycooks' products (19) and Tobacco and manufactured tobacco substitutes (24). These products are imported by Germany from Romania and the value of exports varies between 27.99 million euro and 189.5 million euro, in total accounting for 76.7% of all agri-food products exported by Romania to Germany.

Next, in the group of type B products, 7 products were registered, with export values to Germany ranging from 6.8 million euros to 25.6 million euros, with individual shares ranging from 1.1% to 4.3% of the total agri-food products that Romania exports to Germany, and analysing the cumulative share, it can be determined that it is 17.5% for this group B.

Analysing group C of agri-food products that Romania exports to Germany, which have a very low impact on Romania's export potential and on the level of demand in Germany, 10 groups of products are identified, but with a small individual share, ranging from 0.03% to 1.1%, and the cumulative share for this group being 5.8%, the value of exports ranging from 172 thousand euro to 6.7 million euro.

Table no. 4. Centralizer of ABC analysis for Romanian exports of agri-food products to Germany

Group ABC	Chapter	% in total	Export value	Share of Export
A	7	29.2%	459,618	76.7%
B	7	29.2%	104,576	17.5%
C	10	41.7%	34,854	5.8%
Total	24	100.0%	599,048	100.0%

Source: authors' calculations

According to the results it can be seen that the 7 products in group A represent about 30% of the chapters for agri-food products and 76.7% of the export value. Compared to group B, which has the same number of products and therefore the same share of products, this group represents only 17.5% of the total exports of Romanian agri-food products to Germany. The value of exports of Group A products is more than 4 times higher than the value of exports of Group B products. In total, when analysing Romania's exports to Germany of agri-food products, it can be seen that more than 94% of the value of Romania's exports are directed to 60% of the product groups.

Conclusions

Following the study of the main aspects referring to the trade exchange between Romania and Germany, Romania's main partner for agri-food products, according to the literature, in 2021 Germany will be the main food supplier for 12 of the 24 product groups.

In terms of import and export value shares with Germany, it can be determined that Romania exports 22.7% of the total export value to Germany, while 20.5% of the total import value comes from Germany.

Romania imports and exports agri-food products in similar proportions, approximately 10% of the total value of imports and exports, but in absolute terms exports are relatively lower than imports.

In terms of trade with Germany, Romania exports 6.1% of agri-food products to Germany and imports 15.7% of total food imports.

Following the ABC analysis of Romania's imports from Germany, it was possible to identify the product groups with high potential in Germany's export competitiveness and, respectively, the products with a high demand in Romania, unsatisfied by domestic production. The main products were: Cocoa and cocoa preparations (18); Preparations of cereals, flour, starch or milk; pastrycooks' products (19); Miscellaneous edible preparations (21); Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates (16); Tobacco and manufactured tobacco substitutes (24) and Preparations of vegetables, fruit, nuts or other parts of plants (20).

Using the same methodology for Romania's exports to Germany, the product groups in which Romania is competitive and the demand for these products is high in Germany were identified, respectively: Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit (12); Cereals (10); Miscellaneous edible preparations (21); Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates (16); Dairy produce; birds' eggs; natural honey; edible products of animal origin (4); Preparations of cereals, flour, starch or milk; pastrycooks' products (19) and Tobacco and manufactured tobacco substitutes (24).

In total, analysing Romania's imports from Germany with regard to agri-food products, it can be seen that one third of the products (8 out of 24) cover an imported value of 91.3%.

In total, analysing Romania's exports to Germany for agri-food products, it can be seen that more than 94% of the value of Romania's exports are directed to 60% of the product groups.

A possible risk of this trade situation between Romania and Germany, given the intensity of German imports to Romania, may be linked to the problem of Romania's dependence on agri-food imports from Germany, which is high, and the stability may be easily jeopardized if there are deficiencies in this exchange.

Regarding the limitations of the research, it can be mentioned that the method used in the empirical research is applied, according to the methodology, on the value of trade, the volume of agri-food products involved in these trade activities between Romania and Germany not being taken into account.

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