

INVESTIGATING ROMANIA'S EXPORT PERFORMANCE OVER TWO DECADES

Nicolae MARINESCU¹

Abstract: *This paper investigates the evolution of Romania's international trade over two decades (2000-2019). Export performance is analyzed along with rising imports, by means of statistical data and measurement of the specialization index and the revealed comparative advantage (RCA) in selected categories of products. The results of the research indicate a major transformation of the structure of Romanian exports under the influence of the integration into the European Union, the world economic crisis, but also the participation in production networks. The country has lowered the trade deficit for some years and has moved towards more technology-intensive products, but efforts are still needed in trade-related infrastructure, branding and promotional support measures.*

Key words: *exports, imports, comparative advantage, international trade.*

1. Introduction

International trade is one of the most dynamic components of the world economy, recording extraordinary growth rates over the past seventy years. The European Union (EU) is the major trading block, with a share of roughly 30% in world trade (WTO, 2020).

Since joining the EU, Romania's participation in international trade underwent profound changes, both regarding the composition of exports and imports, as well as the geographical orientation. Romania was integrated into the EU's common trade policy, which brought intra-community free trade and marked a lower level of protection in extra-community trade.

The purpose of the study is to analyze Romanian international trade, by calculating and comparing various indicators, so as to determine the comparative advantages and disadvantages of Romanian exports and their evolution over a period of two decades.

2. The Regional Context

After the fall of the communist regime, countries in the Central and Eastern European (CEE) region took advantage of the liberalized market access to the EU, and the boost to economic growth that followed was remarkable (Ritzberger-Grunwald et al., 2017).

¹ Transilvania University of Braşov, marinescu@unitbv.ro, ORCID ID 0000-0002-5942-2107

During the transition years, the CEE countries adapted quickly their profile to the supply networks of Western European multinationals, so that in a short period, a consistent automotive industry has gained ground. As a consequence, exports and labor productivity increased along with the number of employees. Instead, the textile category was marked by a constant decrease, with its export share, competitiveness and employment declining while production has increasingly moved eastward to Asia.

Participation in integrative production chains has permitted CEE countries to move away production from low-skill operations to high-skill production. It has also brought benefits to these economies through the transfer of progressive technology that generated increased productivity. By promoting a more diverse product range, it has also contributed to an improvement of the countries' export prices, as exports of the same products expanded.

In the case of Romania, as Broadman (2006) notes, the key to success has seemed to be the country's ability to participate effectively in international production and distribution networks.

Romania's export performance and its structural evolution have been covered by several authors in different stages of transition, with various attempts to determine comparative advantages (Voinea, 2002; Zaman and Vasile, 2003; Haar, 2010).

A very recent study by Andrei et al. (2022) has focused on metrics in Romania's agri-food export products, and showed by means of a regression model that EU-integration has deeply altered the structure of agricultural exports with comparative advantages shifting in opposite directions in specific categories.

Once Romania gradually integrated more and more into the intra-industry EU trade networks, and the degree of openness witnessed an increasing pace, there were also signs that the structure of exports was improving as the portfolio of new sectors with higher technology continued to expand.

An extensive analysis of Romania's performance in different categories of products, performed by Albu et al. (2018), has revealed that aside from the obvious inclination of Romanian exports towards the EU, exports were the main driver for economic growth in Romania after the economic crisis (08-09). A vital part of this success is attributed to the already well-established automotive exporting industry in Romania.

3. Analysis and Results

This study investigates Romania's participation in international trade over two decades, under the influence of various factors, by means of statistical data and calculus measurements. Romania began its process of joining the EU in the year 1993 once the Association Agreement was signed. International trade has grown steadily afterwards, proving the fact that the country has become more and more integrated and an increasingly viable trading partner.

The analysis of Romania's international trade reveals that its evolution has been continuously upward (with only one deep slump in 2009 and other smaller occasional ones), but this growth can be attributed mainly to the higher pace of rising imports compared to exports (see Figure 1).

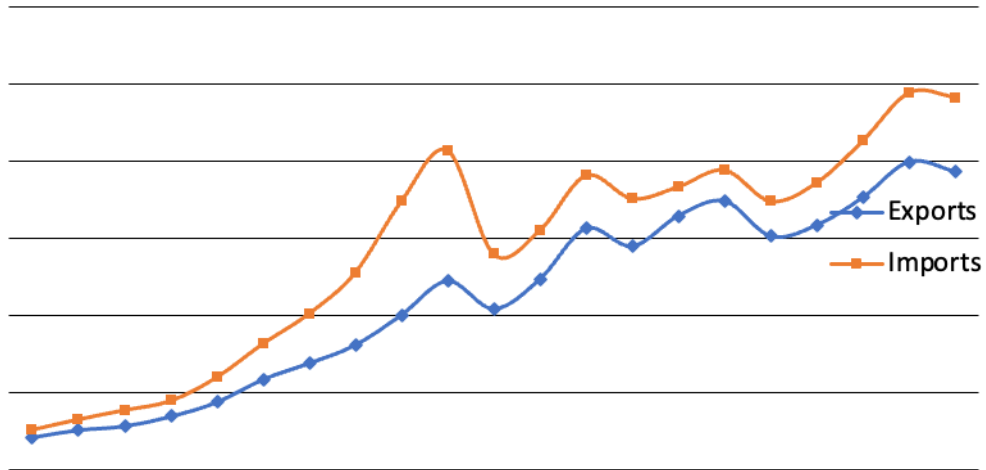


Fig. 1. *Romanian international trade over two decades (USD bn.)*
 Source: own design from DCE data

There has not been a single year with a trade surplus over two decades. The need to compete with well-established EU firms once tariffs were eliminated was indeed difficult to manage for several Romanian firms. Thus, in the initial period, the trade deficit continued to grow, rising to almost USD 30 bn. in 2007, while the second decade showed a deeper integration of Romania into the production networks of European companies, carrying lower deficits, around 8-9 USD bn. annually (2014, 2015).

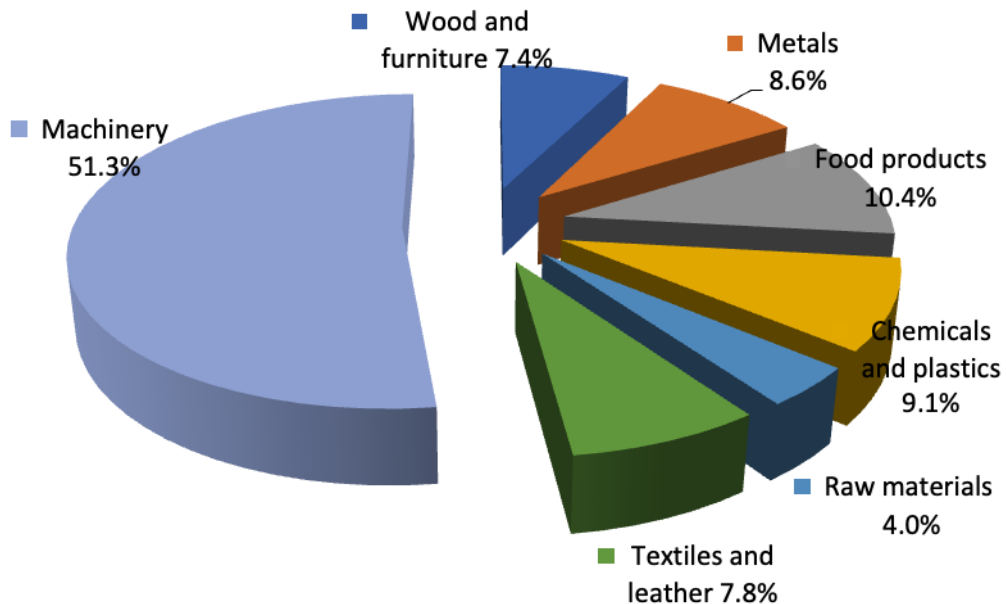


Fig. 2. *Composition of Romanian exports by sector*
 Source: own design from DCE data

The structure of Romanian exports underwent important changes. Regularly, textiles were the main export category in the initial years, with a share of about one quarter. Romania featured third in the ranking of textile exporters to the EU, behind giants China and Turkey. However, textiles gradually gave away their leading place in recent years due to the spectacular expansion of the machinery category, dominated by the automotive industry (vehicles, components) as well as other industrial fields such as electronics (see Figure 2).

A major sub-category of products that has climbed the ranking rapidly is that of cars, especially after Dacia, the Romanian car manufacturer was bought by Renault in 1999. Related to this, steel and aluminum among other metals have also been at the forefront of Romanian exports over the last two decades, eventually overtaking textiles and increasing their share. Food products, chemical products, wood and furniture are also well represented in the composition of Romanian exports, with shares between 7.4% and 10.4%. The table of major Romanian export products is completed by raw materials, which have kept their position despite a slight decrease in recent years, with the oil industry maintaining a consistent path.

The areas where Romania has registered a comparative advantage are highlighted by the index of specialization. The index displays the revealed comparative advantage (RCA) in terms of a country's exports, measured by means of the Balassa formula:

$$RCA = \frac{\frac{x_j^i}{\sum_{j=1}^n x_j^i}}{\frac{x_j^w}{\sum_{j=1}^n x_j^w}} \quad (1)$$

whereas: x_j^i = exports of product j from country i, x_j^w = global exports of product j.

The index relates the share of a specific category in the country's exports with the share of the same category in global exports. Values higher than 1 point out a certain specialization in the respective category. The higher the value, the higher the degree of specialization.

Index of specialization for specific sectors in Romania

Table 1

	2006	2012	2018
Stone, cement, glass, ceramics	0.6	0.2	0.3
Wood and furniture	5.9	6.2	9.1
Metals	2.0	1.7	1.4
Food products	0.5	1.2	1.2
Chemicals and plastics	0.8	1.0	0.8
Raw materials	0.7	0.3	0.3
Textiles and leather	4.6	2.7	1.9
Machinery	0.8	1.3	1.4

Source: Own calculus from DCE, WTO and UNCTADSTAT data

Values calculated in Table 1 suggest that Romania is highly specialized in wood products, and to a lesser extent in textiles and metals. Thus, the focus on exports with a low technological content remains high.

Another way of determining the comparative advantage is to measure the RCA in its domestic scope. A product bears a comparative advantage if that particular category is traded in a more efficient manner than the average trade record of the same country. The domestic RCA of the country is measured by the formula:

$$RCA_j = \ln [(x_j / m_j) / (X / M)] \quad (2)$$

whereas: x_j = exports of product j , m_j = imports of product j , X = total exports of the country, M = total imports of the country.

Comparative advantage and disadvantage in Romanian export sectors Table 2

	2006	2012	2018
Stone, cement, glass, ceramics	-0.80	-0.69	-0.77
Wood and furniture	0.61	0.69	0.44
Metals	0.42	0.07	-0.20
Food products	-0.59	0.03	0.04
Chemicals and plastics	-0.50	-0.45	-0.60
Raw materials	-0.34	-0.80	-0.64
Textiles and leather	0.70	0.28	0.01
Machinery	-0.19	0.16	0.22

Source: Own calculus from DCE data

The resulting positive values are associated with a comparative advantage, negative values highlight the existence of a comparative disadvantage. From the data in Table 2, one can observe that the number of categories in which Romania displays a comparative advantage has increased over time. It is the case of wood, food, textiles and also machinery, where the advance of the car manufacturing industry has led the category from a negative index to a positive one.

Chemical products and raw & building materials have registered a comparative disadvantage over the years, revealing the weaknesses of these categories in terms of export competitiveness, caused by outdated technology and little investment.

4. Conclusions

The research reveals that Romania actually boasts an impressive export performance. During the first decade included in the analysis, it supported the expansion of exports while battling strong low-cost producers from the international side (especially Asian) in categories such as textiles.

In addition, the years following the economic crisis of 2008-2009 featured a major change in the Romanian international trade: first, the ever-growing trade deficit was stopped, registering a decrease unseen in the last decades, with close values of exports and imports in the period 2013-2016. Second, the composition of exports has changed,

with Romania gradually moving from low value-added exports to higher value-added export categories.

This was joined by the technological updating of companies, increased domestic competition, participation in the trade circuit and European logistic chains, and the adoption of a modern work mentality.

However, a lot more investment in infrastructure and trade-related services (logistics, telecommunications, information technology) is needed, as there is significant catching up to do to reach the modernization of the rest of Europe.

Facilitating access of small and medium-sized enterprises to financing and export credits must be a priority. Strong promotional support measures could encourage export products of domestic firms to enter foreign markets of third countries once tax incentives can no longer be awarded under EU regulations.

Increasing the competitiveness of Romanian export products can be achieved through a strategic approach which should combine a consistent promotional effort and cleverly-thought branding. Ideally, such a package should be implemented by regional bodies along with producer associations and trading companies. Identifying the appropriate promotional tools and the exploration of new markets with a good rate of growth in Romania's commercial relations, such as some countries in Latin America, open new directions for future research with great potential.

References

- Albu, L., Lupu, R., Calin, A., Popovici, O.C., 2018. *Impactul aderarii Romaniei la Uniunea Europeana asupra economiei romanesti*. Bucharest: Institutul European din Romania.
- Andrei, T., Oancea, B., Mirica, A., Anghel, L., 2022. The Competitive Advantage of Foreign Trade with Agri-Food Products. *Romanian Journal of Economic Forecasting*, 25, 2, pp. 54-64.
- Broadman, H., 2006. *From Disintegration to Reintegration: Eastern Europe and the Former Soviet Union in International Trade*. Herndon: World Bank Publications.
- DCE, 2019. *Romania: International Trade*. Bucharest: Foreign Trade Department, Ministry of the Economy, Energy and the Business Environment.
- Haar, L.N., 2010. Industrial Restructuring in Romania from a Bilateral Trade Perspective. *Europe-Asia Studies*, 62(5), pp. 779-805.
- Ritzberger-Grunwald, D., Schreiner, J., Worz, J., 2017. Competitiveness of CESEE EU Members States: recent trends and prospects. *Focus on European Economic Integration*, 3, pp. 31-41.
- Voinea, L., 2002. *SEE the Difference: Romanian Regional Trade and Investment*. WIIW Balkan Observatory Working Papers No. 26. The Vienna Institute for International Economic Studies.
- UNCTADSTAT, 2019. *Key Statistics and Trends in International Trade*. New York and Geneva: United Nations.
- WTO, 2020. *International Trade Statistics*. Geneva: World Trade Organization.
- Zaman, G., Vasile, V., 2003. *Evolutii structurale ale exportului in Romania*. Bucharest: Expert.