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Comparative Performance Assessment of Foreign Trade Flows in Agri-Food Products between Romania and Italy

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Abstract

Agri-food supply chains are increasingly vulnerable to the pressures and disruptions stemming from geopolitical instability, pandemics, population growth, and various societal, economic, and environmental challenges. At this critical moment, the study of foreign trade flows in agri-food products is of high importance to the European Union, considering that the results of such evaluations could assist in the development of strategies to optimise trade flows in alignment with emerging market opportunities. Both endowed with abundant factor resources, Romania and Italy have the opportunity to leverage their advantages in this turbulent global environment. By assuming leadership roles within the European Union, they can strengthen the competitiveness of their agri-food sectors. Given this context, the objective of this research was to propose strategic directions to improve the level of food security and economic performance of the Romanian and Italian agri-food sectors, according to the findings derived from a comparative assessment of foreign trade flows. Therefore, this article addressed a literature gap by proposing an assessment framework focused on mapping trade patterns that can mutually maximise economic benefits. Descriptive statistical analyses and a correlation matrix were performed based on the data extracted from the International Trade Centre's database, covering the period from 2013 to 2022. This research revealed a fundamental contrast: Due to limited processing capabilities, Romania is dependent on exporting low-priced, unprocessed agricultural materials, mainly cereals and oil seeds; while Italy excels in exporting processed agri-food products with high added value, namely beverages, spirits, vinegar and preparations of cereals. Both countries should intensify collaboration by leveraging their respective strengths to counterbalance their weaknesses, thereby leading to the mutual advancement of their agri-food sectors.

Keywords: foreign trade performance; trade balance; economic competitiveness; food security; agri-food sector.

JEL Classification: Q17, F10.

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1. Introduction

The performance assessment of international trade flows has received increased attention in the scholarly research, with a particular focus on the agri-food sector, an area of significant interest. Pandemics, geopolitical instability, population growth, and a mix of other societal, economic and environmental challenges have aggravated the vulnerabilities of global food supply chains, which have become more exposed than ever to the adverse effects of such disruptive events. As a result, the need to minimize the damage to global food supply chains arose. It calls for further investigation of the effects of these challenges on the patterns of foreign trade in agri-food products, which could reveal some opportunities to improve the degree of resilience of food supply chains globally, with echo in the European Union (EU).

Although the EU has an integrated approach to the agricultural sector through the Common Agricultural Policy (CAP), it still finds itself at a critical juncture, given the current crises that have to be successfully handled (Beluhova-Uzunova et al., 2024). The necessity to assess and improve the performance of foreign agri-food trade flows is top priority in the context of increased resource scarcity and constant food price increases worldwide (Deng et al., 2024; Istudor et al., 2022). To add more, the negative effects of resource scarcity on global food supply chains have considerable consequences for the ability to meet the growing food demand at the macro level (Deaconu et al., 2023). Moreover, the continuous increase in food prices exerts high pressure, especially on lower-income populations, therefore amplifying food insecurity and social unrest (Djeufack et al., 2024; Rudolfsen, 2020).

Therefore, in such a complex global climate, improving the performance of agri-food trade flows is a strategic policy objective that can contribute to reducing the troubling effects caused by the difficulties facing EU food supply chains are facing. Designing a strategic assessment framework and an action plan to improve trade results could serve as a real solution to stabilise agri-food prices, increase food security levels, and ensure optimal nutrition for all (Johnson et al., 2023).

Despite the fact that these turbulent times pose actual threats for EU's successful implementation of the CAP 2023-2027, Romania and Italy could leverage the global challenges as market opportunities. These countries possess an abundance of factor endowments, favourable climates for agriculture, and strategic positions within the EU; therefore, they are privileged to be able to deliver more competitive and resilient food supply chains in the EU, as well as to set new benchmarks for agricultural results. The distinctive combination of natural and strategic advantages endows both Romania and Italy with the capacity to assume the role of the leaders in the further development of the EU's agri-food sector (Ciutacu et al., 2015), despite the challenges posed by the global context (Grunert et al., 2023; Santeramo & Kang, 2022), which also embodies great market opportunities (Pătărlăgeanu et al., 2022).

The collaborative efforts of Romania and Italy have the potential to enhance the competitiveness of the EU agri-food sector by increasing foreign trade flow performances. Nevertheless, the means to attain this goal are distinct, involving sophisticated approaches from both sides, in accordance with the agricultural profile of each country (Matthews, 2008; Mikuš et al., 2019). Although pursuing different,

yet interlinked objectives, the collective impact of Romania and Italy could efficiently build upon the competitiveness of the EU agri-food sector (Bossuyt et al., 2020; Henke et al., 2018).

2. Problem Statement

Food availability and access have always been a critical concern globally (Istudor et al., 2014; Rosegrant & Cline, 2003), yet the urgency to improve food security levels is reaching new scholarly interest peaks, in the context of the food shortages caused by the COVID-19 pandemic (Zhu et al., 2022), geopolitical instability (Sohag et al., 2022), as well as food price increases caused by inflation (Adjemian et al., 2023; Balogh & Sárvári, 2024). By evaluating the performance of foreign trade flows in agri-food products, policymakers can efficiently identify both inefficiencies and market opportunities within the global agri-food supply chain. Insights gathered from such assessments can guide strategies to promote the diversification of food sources and strategic investment in agricultural practices that can generate higher levels of added value. As a result, food security would increase, along with the economic resilience of the agri-food sector (Ignat et al., 2020; Yang et al., 2022).

Considering the positions of Romania and Italy in this context, the evaluation of foreign trade flows in agri-food products is necessary with the aim of identifying market opportunities. By securing equitable consumer prices for agri-food products and reducing dependency on unpredictable international markets, these countries could improve their position in the EU's agri-food sector by implementing a strategic trade management system, which would efficiently handle market fluctuations.

In this field of research, comparative analyses between Romania and Italy exist in the literature. For example, Lădaru et al. (2022) studied the link between the imports, exports, their level of concentration, and the agri-food trade balance results, based on the Combined Nomenclature. According to the Gini coefficients computed by the authors, the research results showed that Italy's trade flow performance is superior to Romania', which has a lower level of competitiveness. Thus, to complement the findings Lădaru et al. (2022), the novelty factor of this paper resides in the proposed research framework that puts the spotlight on the mapping the patterns that ensure increased economic performance in foreign trade flows in agri-food products.

3. Aims of the Research

Taking into account the context into account, the purpose of this research was to comparatively assess the performance of Romania and Italy's foreign trade flows in agri-food products. Furthermore, the insights derived from this comparative analysis were intended to guide strategies to optimise trade dynamics in these countries, according to the identified vulnerabilities and opportunities. Moreover, by analysing trade flow performances, research findings aimed at providing solutions to increase food security and the economic resilience of Romania and Italy's agri-food sectors,

by resorting to a more strategic approach in trade management and by providing efficient tools for the sectoral adaptation to global market fluctuations.

4. Research Methods

Based on the research aim, the assessment of the trade flow performance based on statistical data available online, uses International Trade Centre's platform (https://www.trademap.org/). Data collection was carried out in March 2024, using the first 24 classes of Combined Nomenclature, and only a small set of agri-food products. Romania and Italy both observe similar data architecture in the context of trade statistics, the above circumstance rendered conduction of statistical comparisons possible. The research covered the latest data offered by the database, for the period 2013-2022. First, in terms of the exports of agri-food products, a relative situation was provided between Romania and Italy, and national-level export shares were taken into account; moreover, trade balance performances were displayed. Subsequently, the next appraisal step involved detailed analysis of the most performant agri-food classes at the level of countries, from the perspective of the national level export shares. For these two groups, further observations have been gathered beneath the indicators: mean, standard deviation, coefficient of variation, average annual growth rate (AAGR), rates of all types and categories with several bases (the 2013 base year and the national average based on the 2013-2022 period). Finally, a correlation matrix was built for the results of exports and trade balance, but only in the case of agri-food classes that participate with major export shares at national levels. Its aim consisted in making it easier to single out key foreign trade patterns regarding Romania and Italy, which should underlie policy recommendations. In addition, agri-food classes with significant impact on economic performance have been identified by the matrix. This helps point out strategic investments, hence improving the general competitiveness of the sector.

5. Results

Analyzing the data in Table 1, referring to Romania and Italy's agri-food exports, the share of national exports, and balance of trade for the period 2013-2022, offers information full of value about the trend dynamics of the two economies and results of their trade flows, helping to identify weaknesses and possible advantages. This is, therefore, an indication of good performance in the cereals sector, where the national export share is 34.63%, putting Romania in an obvious advantageous position in this respect. This is also complemented by showing a noticeable trade surplus of 1.974 billion euros in cereals, which in itself is again demonstrative of well-managed agricultural resources contributing economically. That said, it is not an advantageous and/or competitive sale of raw material over the long term. The results of which highlight the need for Romania to develop the agri-food processing capacities quickly by strategic investment in effective infrastructure, allowing for the production and export of agri-food products with higher value-added. Compared to other agri-food categories, the strong export share and favorable balance of the trade

results in cereals indicating that Romania plays a crucial role as a large net exporter in third-country markets. But once measures are taken in time, based on proper financing strategies, the economic risks aroused from the large export of raw agricultural materials would be assuaged.

Table 1. Overview on the exports, export share at national level, and trade balance results in agri-food products in the case of Romania and Italy (average 2013-2022)

Class	Exports			Export share nationally			Trade balance results		
	Unit of measurement: Billion EUR			Unit of measurement: Percentage			Unit of measurement: Billion EUR		
	Romania	Italy	RO/IT	Romania	Italy	RO/IT	Romania	Italy	RO−IT
01	0.394	0.050	7.871	5.64%	0.12%	46.975	0.216	−1.491	17.065
02	0.247	2.161	0.114	3.59%	5.04%	0.712	−0.549	−2.433	18.840
03	0.022	0.425	0.051	0.30%	0.99%	0.308	−0.173	−4.006	38.331
04	0.194	3.420	0.057	2.76%	7.75%	0.356	−0.336	−0.511	1.753
05	0.033	0.154	0.213	0.48%	0.35%	1.370	−0.029	−0.089	0.597
06	0.003	0.886	0.004	0.05%	2.02%	0.024	−0.136	0.319	−4.543
07	0.102	1.564	0.066	1.47%	3.64%	0.404	−0.302	−0.094	−2.076
08	0.079	3.535	0.022	1.14%	8.29%	0.138	−0.514	0.342	−8.556
09	0.026	1.565	0.017	0.36%	3.57%	0.102	−0.224	−0.170	−0.538
10	2.497	0.755	3.307	34.63%	1.75%	19.757	1.974	−2.531	45.056
11	0.026	0.378	0.070	0.34%	0.85%	0.394	−0.091	0.061	−1.524
12	1.176	0.565	2.080	16.37%	1.29%	12.651	0.732	−0.940	16.720
13	0.001	0.282	0.004	0.02%	0.63%	0.024	−0.026	0.068	−0.945
14	0.002	0.005	0.304	0.02%	0.01%	1.911	0.000	−0.023	0.229
15	0.274	2.257	0.121	3.71%	5.18%	0.716	0.051	−1.768	18.197
16	0.165	1.138	0.145	2.30%	2.60%	0.884	−0.051	−0.396	3.454
17	0.059	0.379	0.156	0.89%	0.88%	1.012	−0.241	−0.682	4.412
18	0.088	1.788	0.049	1.21%	4.09%	0.295	−0.201	0.637	−8.382
19	0.190	5.225	0.036	2.61%	11.90%	0.219	−0.293	3.736	−40.283
20	0.068	3.535	0.019	0.93%	8.16%	0.113	−0.255	2.281	−25.358
21	0.180	2.469	0.073	2.49%	5.55%	0.449	−0.310	1.288	−15.978
22	0.158	9.050	0.017	2.17%	20.81%	0.104	−0.280	7.161	−74.417
23	0.233	0.980	0.238	3.27%	2.22%	1.474	−0.280	−1.155	8.754
24	0.953	1.093	0.872	13.25%	2.28%	5.821	0.612	−0.915	15.269

Source: authors' own calculations, based on International Trade Center data (2024).

Class legend: 1 – Live animals; 2 – Meat and edible meat offal; 3 – Fish and crustaceans, molluscs and other aquatic invertebrates; 4 – Dairy produce; birds' eggs; natural honey; edible products of animal origin; 5 – Products of animal origin, not elsewhere specified or included; 6 – Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage; 7 – Edible vegetables and certain roots and tubers; 8 – Edible fruit and nuts; peel of citrus fruit or melons; 9 – 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; 13 – Lac; gums, resins and other vegetable saps and extracts; 14 – Vegetable plaiting materials; vegetable products not elsewhere specified or included; 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.

Italy's strategic advantage in the global agri-food value chain is shown by its capacity to convert and export processed agri-food products. In contrast to this trend, Romania has a dependence on importing finished goods within the same category, as indicated by a deficit of 0.292 billion EUR in the processing of grains. This disparity underscores a crucial aspect that requires improvement in Romania's agri-food industry, indicating the necessity for investment in processing capacities to enhance the value-added procedures and decrease reliance on imported processed agri-food products.

Nevertheless, Romania excels in primary agricultural output, namely in cereals and oil seeds, which make up a significant portion of its national exports (averaging 16.37%). Additionally, there is potential for future growth by enhancing its processing industries and moving up the global value chain. However, Italy excels in the strategic processing and exporting of high-value agri-food products, even if it must import raw ingredients. Both nations should encourage cooperation, particularly in sectors where one country's shortage corresponds to the other's excess, facilitating improved bilateral trade connections and sectoral progress. Italy might capitalize on Romania's plentiful and economical agricultural production as a source of raw materials for its food processing sector. This would result in a decrease in expenses related to importing these commodities from distant markets. On the contrary, Romania could benefit from Italy's advanced food processing techniques and technologies, improving its own value-addition mechanisms, and potentially increasing its competitiveness level in this sector. To add more, the development and implementation of educational, technological, and technical exchange programs between the Romanian and Italian agri-food sector stakeholders could lead to innovation and improved efficiency in both countries.

The descriptive statistics in Table 2 spotlight Romania's best performance and strategic position in the primary production of cereals and oil seeds, areas where Italy shows less efficiency. Romania's ratios, up to 2.524 in the case of oil seeds exports, generally indicate strong growth in the national export portfolio with raw agricultural products, suggesting both the necessity and opportunity to leverage this growth towards greater value addition. However, Italy's results, especially the deficits with cereals and oil seeds, reflect a different market orientation, focused on higher value processed products rather than primary production. For cereals, the average annual growth rate of Italy's deficit is 11.48%, similar to the growth reached in the case of oil seeds and oleaginous fruits (11.54%). Impressive coefficients of variation

(32.47% and 39.26%) were reached on the basis of alarming increase ratios (the year 2013 as baseline), which indicate a more than twofold increase in Italy's trade balance deficit with cereals (2.524), oil seeds, and oleaginous fruits (2.272). The descriptive statistics from Table 3 on Italy's agri-food classes with the greatest export shares at national level add robustness to the current research findings.

**Table 2. Descriptive statistics of Romania's agri-food classes
with the greatest export shares at national level**

| Product | Indicator | Country | Average (2013-2022) | Standard deviation | Coefficient of variation | Average annual growth rate | Ratios | |
							Baseline: the national average	Baseline: the year 2013
Cereals	Exports (billion EUR)	RO	2.497	0.832	33.34%	11.24%	1.755	2.196
		IT	0.755	0.154	20.39%	8.32%	1.503	1.865
	National export share (percentage)	RO	34.63%	2.52%	7.27%	0.16%	1.049	0.965
		IT	1.75%	0.25%	14.25%	−0.03%	0.981	0.941
	Trade balance results (billion EUR)	RO	1.974	0.688	34.88%	13.20%	1.730	2.047
		IT	−2.531	0.821	32.47%	11.48%	1.897	2.246
Oil seeds; oleaginous fruits	Exports (billion EUR)	RO	1.175	0.376	32.01%	12.89%	1.736	2.524
		IT	0.565	0.130	23.15%	8.18%	1.541	1.939
	National export share (percentage)	RO	16.37%	2.05%	12.52%	2.01%	1.033	1.110
		IT	1.29%	0.05%	3.58%	−0.05%	1.020	0.979
	Trade balance results (billion EUR)	RO	0.732	0.179	24.57%	10.84%	1.278	1.704
		IT	−0.939	0.369	39.26%	11.54%	1.880	2.272

Source: authors' own calculations, based on International Trade Center data (2024).

Italy's strategic focus on higher-value processed agri-food products is confirmed by the country's high exports in preparations of cereals, which averaged 5.225 billion EUR during 2013-2022, while Romania reached 0.190 billion EUR, on average, thus almost 30 times less than Italy. While cereals hold the greatest share of Romania's exports (34.63%), the preparations of cereals hold the second greatest share of Italy's exports (11.90%). This contrast reflects the difference in the processing capabilities of each country, as well as other infrastructure deficiencies in the agri-food sector.

With an average yearly export of 9.049 billion EUR during the period 2013-2022, the class of beverages, spirits, and vinegar holds the greatest export share in Italy's total exports (20.81%). These products are of strategic importance to Italy's export portfolio and demonstrate the country's ability to capitalize on competitive advantage through the exports of higher value-added products in international markets. The processes of producing and exporting beverages, especially wine and spirits, involve high-value addition through cultivation, fermentation, and ageing efforts.

The research findings showed that Romania predominantly exports cereals and oil seeds, crucial commodities for the global food supply, but with lower prices associated on the international market due to their basic, unprocessed nature. Thus, Romania's dependence on low added-value exports limit its potential for economic growth and market resilience, particularly in the face of volatile agri-food prices. In comparison, Italy has established a distinct market segment – beverages, wine, and preparations of cereals, therefore products that embody higher added-value. This market dynamic allows Italy to practice higher prices for its exports, thus ensuring a more competitive position for itself. Thus, similar to the findings of Boboc (2021), the results argue for the need to strategically invest in entrepreneurial projects capable of improving the technical-economic performance of the Romanian agricultural sector.

Table 3. Descriptive statistics of Italy's agri-food classes with the greatest export shares at national level

Product	Indicator	Country	Average (2013-2022)	Standard deviation	Coefficient of variation	Average annual growth rate	Ratios Baseline: the national average	Baseline: the year 2013
Beverages, spirits, vinegar	Exports (billion EUR)	IT	9.049	1.825	20.17%	7.14%	1.432	1.834
		RO	0.157	0.058	37.29%	12.80%	1.949	2.646
	National export share (percentage)	IT	20.81%	0.56%	2.71%	−0.82%	0.944	0.926
		RO	2.17%	0.19%	8.75%	2.28%	1.173	1.163
	Trade balance results (billion EUR)	IT	7.161	1.368	19.11%	6.66%	1.377	1.775
		RO	−0.280	0.154	55.15%	19.68%	2.091	4.711
Preparations of cereals	Exports (billion EUR)	IT	5.225	1.362	26.08%	9.29%	1.607	2.166
		RO	0.190	0.072	37.83%	14.23%	1.778	3.253
	National export share (percentage)	IT	11.90%	0.45%	3.79%	1.06%	1.069	1.093
		RO	2.61%	0.40%	15.36%	4.33%	1.076	1.430
	Trade balance results (billion EUR)	IT	3.735	1.127	30.18%	10.50%	1.677	2.384
		RO	−0.292	0.098	33.80%	12.57%	1.623	2.849

Source: authors' own calculations, based on International Trade Center data (2024).

Expanding on these research finding through the development of Table 4, which is a correlation matrix for the exports and trade balance results; this step of research emerged strategically. This matrix was dedicated to the agri-food classes that hold the largest export share at national level. The aim of this matrix was to identify key foreign trade patterns for both Romania and Italy that would support decision-makers in policy formulation, by providing valuable insight regarding the agri-food classes that have a significant impact on economic performance, thereby calling for targeted strategic investments to improve the agri-food sector's competitiveness.

Each correlation coefficient in the matrix is statistically significant, with *p*-values below the 0.05 threshold, indicating strong reliability in the observed relationships. In the matrix, TB is the acronym for the trade balance result, E is the acronym for exports, 10 indicates the class of cereals, and 19 indicates the class of the preparations of cereals.

The negative correlation of −0.889 between Italy's trade balance in cereals and in preparations of cereals indicates a strategic trade-off in resource allocation, described by the fact that Italy is prioritizing its resource management and policy support towards the processing of raw agricultural materials. This ensures higher profit margins through empowering the process of value addition. Furthermore, the strong positive correlation of 0.998 between Italy's exports and trade balance in cereal preparations for Italy stand proof for the country's efficient value chain management by securing the generated added value from the processed foods.

Table 4. Correlation matrix between the exports and trade balance results in the case of the agri-food classes with the greatest export shares at national level

	TB_{IT}_19	TB_{IT}_10	TB_{RO}_19	TB_{RO}_10	E_{RO}_10	E_{RO}_19	E_{IT}_19	E_{IT}_10
TB_{IT}_19	1.000							
TB_{IT}_10	−0.889	1.000						
TB_{RO}_19	−0.952	0.760	1.000					
TB_{RO}_10	0.835	−0.847	−0.786	1.000				
E_{RO}_10	0.909	−0.897	−0.847	0.979	1.000			
E_{RO}_19	0.980	−0.835	−0.989	0.846	0.901	1.000		
E_{IT}_19	0.998	−0.909	−0.952	0.852	0.922	0.981	1.000	
E_{IT}_10	0.807	−0.869	−0.684	0.722	0.818	0.742	0.826	1.000

Source: authors' own calculations, based on International Trade Center data (2024).

The strong correlation of 0.979 between Romania's cereal exports and its trade balance surplus highlights significant deficiencies in agricultural infrastructure, particularly in processing capabilities. Conversely, the inverse relationship with Italy's trade balance in cereal preparations indicates Romania's potential vulnerability to competitive pressures in the trade with high added-value agri-food products. Hence, for this country, the diversification and development in the processed food segment could alleviate market pressures and foster the sustainable growth of the sector.

The contrasting strengths and weaknesses of Romania and Italy identified through the descriptive statistics analysis and confirmed by the correlation matrix results suggest opportunities for both countries, as well as complementarity. Joint ventures in agri-food product processing, knowledge transfer, partnerships, and

cooperative research could help Romania improve its processing capabilities, while offering Italy access to high-quality, competitively priced agricultural raw materials.

6. Conclusions

In light of the current socioeconomic context, marked by rising food insecurity and volatile prices of agri-food products due to pandemics, geopolitical instabilities, and a growing population, this research aimed to evaluate the performance of foreign trade flows in agri-food products in the case of Romania and Italy, countries with rich agricultural endowments and strategic positions within the EU. The selection of these countries was based on their potential to become EU leaders in enhancing food security levels, ensuring the availability of high-quality agri-food products globally, and contributing to price stabilization and reduction. Since both countries are recognised for their abundance of agricultural resources and favourable climates, which, coupled with their strategic geographical and economic positions, grant them the basic tools to increase the competitiveness of EU's agri-food sector.

This research enriches the literature by providing a deeper understanding of the economic dynamics and strategic orientations concerning the Romanian and Italian agri-food sectors. With a research framework that incorporated elements such as descriptive statistics and the correlation matrix, the findings offered empirical evidence to support the discovery of socioeconomic vulnerabilities and market opportunities at the level of the agri-food sector in the case of both countries.

The results showed that Romania's agri-food trade performance is characterised by a significant economic dependence on exporting raw agricultural materials with associated lower prices, due to their unprocessed nature, a strategic gap caused by many factors, including Romania's poor agri-food processing capabilities. In contrast, Italy manifested a strategic orientation towards exporting high-value agri-food products such as beverages, wine, and preparations of cereals. Hence, these research findings demonstrate both the necessity and opportunity for Romania to diversify its agri-food exports by focusing on the higher-value processed foods–this could help in the mitigation of the global agri-food market's competitive pressures. Italy's expertise in processing and value addition could serve as a model for Romania, facilitating the bridging of gap through the knowledge and technology transfer, and best practices.

Collaborative efforts could also facilitate regulatory alignment and advocacy within the EU, streamlined mutually beneficial trade policies. Together, Romania and Italy could take advantage of their combined influence to advocate for regulations that favour the modernisation of agricultural infrastructure in Romania, with Italy serving as a role model due to its extensive experience with EU funding mechanisms. In addition, Italy could help Romania in implementing large-scale agricultural projects, helping to design and execute initiatives aimed at developing Romania's agricultural infrastructure. Such a partnership could foster improved efficiency, innovation, and sustainability within Romania's agricultural sector, while simultaneously reinforcing Italy's position as a leader in agricultural innovation and cooperation within the EU.

Although this research offers significant empirical insights, it is still subject to the primary limitation inherited from focussing on the analysis of only two agri-food classes per country, based on the performance of each class from the perspective of export share at national level. Consequently, future research could expand the scope of this article by including a more diverse range of agri-food products in the analysis and even go beyond by considering additional variables, including agri-food prices, inflation rate, trade tariffs, and market concentration.

Acknowledgment

References

[1] Adjemian, M.K., Arita, S., Meyer, S., Salin, D. (2023). Factors affecting recent food price inflation in the United States. Applied Economic Perspectives and Policy. https://doi.org/10.1002/aepp.13378.

[2] Balogh, J.M., Sárvári, B. (2024). Evolution of food price inflation in the European Union 27 member states. Journal of Foodservice Business Research, 1-27. https://doi.org/10.1080/15378020.2024.2324545.

[3] Beluhova-Uzunova, R., Mann, S., Prisacariu, M., Sadłowski, A. (2024). Compensating for the Indirect Effects of the Russian Invasion of Ukraine – Varied approaches from Bulgaria, Poland and Romania. EuroChoices, 23(1). https://doi.org/10.1111/1746-692X.12422.

[4] Boboc, D., Lădaru, G. R., Diaconeasa, M. C., Petre, I. L., Velicu, R. (2021). The Influence of Investments on the Technicaleconomic Performance of the Agricultural Sector in Romania. Economic Computation & Economic Cybernetics Studies & Research, 55(1), 251-267. https://doi.org/10.24818/18423264/55.1.21.16.

[5] Bossuyt, F., Orbie, J., Drieghe, L. (2020). EU external policy coherence in the trade-foreign policy nexus: Foreign policy through trade or strictly business? Journal of International Relations and Development, 23(1), 45-66.

[6] Ciutacu, C., Chivu, L., Andrei, J.V. (2015). Similarities and dissimilarities between the EU agricultural and rural development model and Romanian agriculture. Challenges and perspectives. Land Use Policy, 44, 169-176. https://doi.org/10.1016/ j.landusepol. 2014.08.009.

[7] Deaconu, E.-M., Pătărlăgeanu, S.R., Petrescu, I.-E., Dinu, M., Sandu, A. (2023). An Outline of the Links between the Sustainable Development Goals and the Transformative Elements of Formulating a Fair Agri-Food Trade Policy – A Measurable EU Achievement. Proceedings of the International Conference on Business Excellence, 17(1), 1449-1462. https://doi.org/10.2478/picbe-2023-0131.

[8] Deng, X., Song, M., Li, Z., Zhang, F., Liu, Y. (2024). Renewable and Globally Scarce Resources: Agricultural and Food Resources. In X. Deng, M. Song, Z. Li, F. Zhang, & Y. Liu (Eds.), Environmental and Natural Resources Economics, 213-232. Springer Nature. https://doi.org/10.1007/978-981-99-9923-1_7.

[9] Djeufack Dongmo, A., Avom, D. (2024). Urbanization, civil conflict, and the severity of food insecurity in Africa. Politics & Policy, 52(1), 140-168.

[10] Grunert, K.G., Chimisso, C., Lähteenmäki, L., Leardini, D., Sandell, M.A., Vainio, A., Vranken, L. (2023). Food-related consumer behaviours in times of crisis: Changes in the wake of the Ukraine war, rising prices and the aftermath of the COVID-19 pandemic. Food Research International, 173, 113451.

[11] Henke, R., Benos, T., De Filippis, F., Giua, M., Pierangeli, F., Pupo D'Andrea, M.R. (2018). The New Common Agricultural Policy: How do Member States Respond to Flexibility? JCMS: Journal of Common Market Studies, 56(2), 403-419. https://doi.org/10.1111/jcms.12607.

[12] Ignat, R., Lazăr, V., Costea, A. (2020). Economic Resilience: A Bibliometric Analysis of the Concept. "Ovidius" University Annals, Economic Sciences Series, XX(2), 355-361.

[13] International Trade Center (2024). Trade Statistics Database. [online] Available at: https://www.intracen.org/itc/market-info-tools/trade-statistics.

[14] Istudor, N., Gogu, E., Petrescu, I.-E., Zemeleagă, C.G. (2022). Comparative Analysis of the Degree of Food Security Assurance at Global Level. "Ovidius" University Annals, Economic Sciences Series, XXII(1), 87-94.

[15] Istudor, N., Ion, R.A., Sponte, M., Petrescu, I.E. (2014). Food Security in Romania – A Modern Approach for Developing Sustainable Agriculture. Sustainability, 6(12), Article 12. https://doi.org/10.3390/su6128796.

[16] Johnson, E., Thow, A.M., Nisbett, N. (2023). Opportunities to strengthen trade policy for food and nutrition security: An analysis of two agricultural trade policy decisions. Food Security, 15(4), 1109-1125. https://doi.org/10.1007/s12571-023-01377-1.

[17] Lădaru, G.R., Lombardi, M., Platania, M., Petre, I.L. (2022). Analysis of Foreign Trade with the Main Categories of Agro-Food Products, Parallel Romania – Italy. Proceedings of the 5th International Conference on Economics and Social Sciences, 99-113. https://doi.org/10.24789788367405072-010.

[18] Matthews, A. (2008). The European Union's Common Agricultural Policy and Developing Countries: The Struggle for Coherence. Journal of European Integration, 30(3), 381-399. https://doi.org/10.1080/07036330802141998.

[19] Mikuš, O., Kukoč, M., Jež Rogelj, M. (2019). The coherence of common policies of the EU in territorial cohesion: A never-ending discourse? A review. Agricultural Economics, 65(3), 143-149. https://doi.org/10.17221/229/2018-AGRICECON.

[20] Pătărlăgeanu, S.R., Dinu, M., Diaconu, A., Negescu, M.D.O. (2022). Ecological Agriculture and its role in Sustainable Development. In Proceedings of the International Conference on Business Excellence, 16, 390-399.

[21] Rosegrant, M. W., Cline, S.A. (2003). Global Food Security: Challenges and Policies. Science, 302(5652), 1917-1919. https://doi.org/10.1126/science.1092958.

[22] Rudolfsen, I. (2020). Food Insecurity and Domestic Instability: A Review of the Literature. Terrorism and Political Violence, 32(5), 921-948.

[23] Santeramo, F.G., Kang, M. (2022). Food Security Threats and Policy Responses in EU and Africa. Sustainable Horizons, 4, 100044.

[24] Sohag, K., Islam, M.M., Tomas Žiković, I., Mansour, H. (2022). Food inflation and geopolitical risks: Analyzing European regions amid the Russia-Ukraine war. British Food Journal, 125(7), 2368-2391. https://doi.org/10.1108/BFJ-09-2022-0793.

[25] Yang, Q., Zhang, P., Ma, Z., Liu, D., Guo, Y. (2022). Agricultural Economic Resilience in the Context of International Food Price Fluctuation – An Empirical Analysis on the Main Grain – Producing Areas in Northeast China. Sustainability, 14(21), Article 21. https://doi.org/10.3390/su142114102.

[26] Zhu, X., Yuan, X., Zhang, Y., Liu, H., Wang, J., Sun, B. (2022). The global concern of food security during the COVID-19 pandemic: Impacts and perspectives on food security. Food Chemistry, 370, 130830.