ISET

INTERNATIONAL SCHOOL OF ECONOMICS AT TBILISI STATE UNIVERSITY

JULY 2025

REVEALED COMPARATIVE ADVANTAGE IN GEORGIA'S AGRI-FOOD EXPORTS: TRENDS AND TRADE PERFORMANCE (2020–2024)

PREPARED BY:

Mariam Lobjanidze
Elene Seturidze
Tatia Khidasheli
Giorgi Shavreshiani

INTRODUCTION

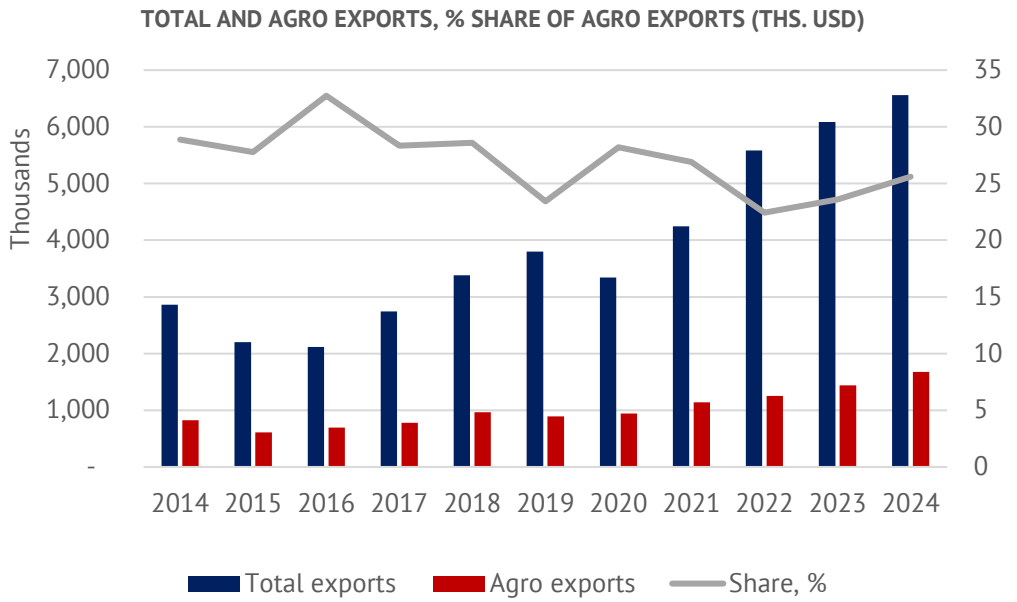
Over the past decade, Georgia has experienced a notable increase in total exports, rising from approximately 2.86 billion USD in 2014 to over 6.55 billion USD in 2024. This represents a more than twofold increase, reflecting broader growth in the country's export sector.

Agro exports have also increased over the same period, from 825.8 million USD in 2014 to nearly 1.68 billion USD in 2024. Despite this growth, the share of agro exports in total exports has shown a declining trend. The share peaked in 2016 at 32.7%, reflecting a period when agriculture played a more significant role in the country's export composition. Since then, the share has generally decreased, reaching its lowest point in 2022 at 22.4%, before slightly recovering to 25.6% in 2024.

This downward trend in the share of agro exports suggests that while the agricultural sector continues to expand in absolute terms, other sectors – particularly industrial or service-related exports – have been growing at a faster pace. The data indicates a structural shift in Georgia's export composition, where non-agricultural sectors are becoming increasingly dominant. Nonetheless, agriculture remains a substantial part of the country's export economy, contributing over 1.6 billion USD in 2024.

The graph presented below highlights both the continued importance of agriculture in Georgia's trade and the growing diversification of the export economy. It is important to consider strategies to maintain competitiveness in the agro sector while supporting its modernization and integration into higher value-added chains.

Graph 1. The annual data on Georgia's total exports, agricultural (agro) exports, and the share of agro exports in total exports from 2014 to 2024



Source: GeoStat, 2025

Building on the analysis of export trends, it becomes particularly relevant to examine the competitiveness of Georgia's agro export products in global markets. Understanding which products the country specializes in can offer valuable insights for investment prioritization, and export promotion strategies. One well-established tool for this purpose is the Revealed Comparative Advantage (RCA) Index, originally introduced by Béla Balassa in 1965. Since then, RCA has become a widely used indicator in trade diagnostics, applied across academic research and institutional reports to identify sectors in which countries hold a relative export strength. For example, the World Bank's Trade Outcomes Tool – built on UN COMTRADE data – uses RCA as a core metric to evaluate trade competitiveness and sectoral performance.

The RCA index compares the share of a given product in a country's exports to the same product's share in total world exports. An RCA value above 1 indicates that a country is relatively more specialized in exporting that product than the world average, suggesting a potential competitive advantage. To enhance cross-country and cross-product comparability, the RCA is often converted into its symmetric

form, the Revealed Symmetric Comparative Advantage (RSCA), which ranges from -1 to +1. This transformation addresses the asymmetry of the original index and allows for clearer distinctions between strong, neutral, and weak comparative advantages.

In this note, the RSCA methodology is applied to Georgia's agricultural and food-related exports at the HS4 product level, using trade data from the 2020–2024 period. The analysis aims to identify specific products in which Georgia demonstrates export specialization. To provide additional context, the results are complemented by 2024 trade balance data for each product category with a positive RSCA, offering a more comprehensive view of sectoral performance and potential.

METHODOLOGY

The analysis applies the Revealed Comparative Advantage (RCA) index to assess the structure of Georgia's agricultural exports. The RCA measures the relative export performance of a product by comparing its share in a country's total exports to its share in global trade. An RCA value greater than 1 indicates that the country is relatively specialized in that product, while a value below 1 suggests a lower-than-average export intensity.

The RCA index is calculated as follows:

$$RCA = \frac{x_{ij}/X_{it}}{x_{wj}/X_{wt}}$$

Where:

- x_{ij} is the county's export value of product j
- X_{it} is the country's total exports
- x_{wj} is world exports of product j
- X_{wt} is total world exports

To improve interpretability, especially for comparative and statistical analysis, the RCA index is transformed into a symmetric form. The standard RCA is asymmetric around 1: values range from 0 to 1 for sectors without specialization and from 1 to infinity for sectors with specialization, making cross-sectoral comparisons

difficult. To address this, the index is converted into the Revealed Symmetric Comparative Advantage (RSCA) using the following transformation:

$$RSCA = (RCA - 1)/(RCA + 1)$$

This transformation produces a continuous index ranging from -1 to +1, where positive values indicate comparative advantage and negative values indicate comparative disadvantage. This symmetric form is particularly useful in analyses where comparability across sectors is important.

To mitigate the influence of short-term trade fluctuations and one-off shocks, the calculations are based on five-year average export values (2020–2024) for both Georgia and the world.

RESULTS

Based on a five-year average (2020–2024), Georgia demonstrates a revealed comparative advantage (RSCA > 0) in 34 out of nearly 200 HS4-level categories (HS chapters 01–24). These products reflect Georgia's relatively stronger positions in global agricultural trade. These patterns are reinforced by Georgia's consistent trade surpluses across many of the same products, underscoring the alignment between export specialization and actual trade performance. Out of the 34 categories with positive RSCA values 26 categories recorded a positive trade balance (2020-2024 average).

The top five agricultural product categories (HS4 level) with the highest revealed comparative advantage are:

- Natural or artificial mineral and aerated waters (HS 2201)
- Live sheep and goats (HS 0104)
- Flour and meal of dried leguminous vegetables (HS 1106)
- Wine of fresh grapes (HS 2204)
- Spices (e.g., ginger, saffron, turmeric, thyme, bay leaves, curry) (HS 0910)

These sectors are closely linked to Georgia's natural resource endowments and traditional production strengths. For example, the strong performance of mineral waters and wine corresponds with internationally recognized Georgian brands.

Beverages dominate Georgia's agri-food export profile. Natural mineral and aerated waters not containing added sugar (HS 2201) show an exceptionally high RSCA of 0.97 and an average trade surplus of approximately $133 million. This product is a clear export flagship, reflecting both natural endowments and international market positioning. Wine of fresh grapes (HS 2204) similarly plays a leading role, with an RSCA of 0.89 and a substantial average surplus of around $242 million. Undenatured ethyl alcohol, spirits, and liqueurs (HS 2208) follow closely, recording an RSCA of 0.85 and a $139 million surplus. Together, these beverage products form the core of Georgia's agricultural export earnings with persistent global demand.

The livestock sector is another area of notable export specialization. Live sheep and goats (HS 0104) hold an RSCA of 0.97 and generate an average surplus of nearly $29.7 million, while live bovine animals (HS 0102) have an RSCA of 0.87 and a $40 million surplus. These results reflect Georgia's comparative strength as a regional supplier of live animals, supported by its traditions and proximity to neighboring markets with growing demand.

In the **fruit and nut segment**, hazelnuts and other nuts (HS 0802) stand out with an RSCA of 0.87 and an $81.3 million average trade surplus, confirming Georgia's position among the world's major hazelnut exporters. Other fruit categories show moderate but positive RSCA values alongside meaningful surpluses. Fresh apricots, cherries, peaches, plums, and sloes (HS 0809) have an RSCA of 0.80 and a surplus close to $30 million, while citrus fruits (HS 0805) report an RSCA of 0.65 and a $14 million surplus. Processed fruit products such as juices (HS 2009), dried fruits (HS 0813), and preserves (HS 2008) exhibit RSCA values in the 0.40–0.50 range, contributing several million dollars each in positive trade balances.

Several niche agri-food products also display strong export performance. Flour and meal of dried leguminous vegetables (HS 1106) has a surprisingly high RSCA of 0.89 and an average surplus of $5.3 million, suggesting relative specialization in plant-based products such as pea or bean flour. Fats and oils derived from fish or marine mammals (HS 1504) register an RSCA of 0.86 and a $14.8 million surplus, potentially linked to either local Black Sea fisheries or re-export activity. Herbs and spices (HS 0910), particularly bay leaves, show an RSCA of 0.87 and a $15.8 million surplus, reaffirming Georgia's strong position in regional spice trade.

Overall, there is a strong correlation between high RSCA values and positive trade balances, suggesting that Georgia is more so capitalizing on its comparative advantages in beverages, live animals, nuts, fruits, and several niche categories. High RSCA values, particularly those above 0.80, tend to coincide with substantial trade surpluses, confirming that these sectors are not only export-intensive but also economically valuable in net terms.

However, a few exceptions underscore the limitations of RSCA when interpreted in isolation. For example, manufactured tobacco products such as cigars and cigarettes (HS 2402) have an RSCA of 0.70, suggesting some degree of export specialization, yet the average trade balance is negative, with a deficit of approximately $76 million. This suggests that while Georgia may engage in tobacco exports – mostly through re-exports and limited local production – it imports far more than it exports. Similar mismatches occur in processed foods and animal products. Poultry meat (HS 0207) has an RSCA of 0.21, and extracts or concentrates of coffee and tea (HS 2101) an RSCA of 0.18, yet both report large trade deficits – $65.7 million and $18.8 million, respectively. These gaps may reflect supply chain constraints, underdeveloped local production, or high domestic consumption that outpaces output.

These outliers highlight that while RSCA is a useful indicator of export structure and emerging strengths, examining it alongside trade balances provides a more comprehensive understanding of the trade dynamics. A product can register a high RSCA because it constitutes a relatively large share of Georgia's export basket but still fail to generate a surplus if imports outweigh exports. In these cases, RSCA points to an unutilized comparative advantage – an area where targeted investment might help transform marginal specialization into potential economic gains.

Table N1: Agricultural Sectors with Revealed Comparative Advantage: RCA, RSCA, and Trade Balance for 34 HS4-Level Product Categories

HS4		RCA	RSCA	Average Trade Balance (Thds. USD) (2020-2024)
2201	Waters, natural or artificial mineral and aerated waters, not containing added sugar	75,73	0,97	132933,88
0104	Live sheep and goats	59,52	0,97	29682,48
1106	Flour and meal of the dried leguminous vegetables	17,42	0,89	5327,44
2204	Wine of fresh grapes	16,64	0,89	242401,28
0910	Ginger, saffron, turmeric, thyme, bay leaves, curry and other spices	14,33	0,87	15846,50
0802	Hazelnuts and other nuts	14,02	0,87	81286,26
0102	Live bovine animals	13,92	0,87	40257,19
1504	Fats and oils and their fractions, of fish or marine mammals	13,10	0,86	14816,80
2208	Undenatured ethyl alcohol, spirits, liqueurs and other spirituous beverages	12,71	0,85	138657,39
2403	Other manufactured tobacco and tobacco substitutes; tobacco extracts and essences	10,44	0,83	10959,49
0809	Apricots, cherries, peaches, plums and sloes, fresh	9,24	0,80	29953,59
2202	Waters, mineral and aerated waters, containing added sugar	8,20	0,78	61008,74
0508	Coral and similar materials, unworked or simply prepared	7,73	0,77	428,80
2301	Flours, meals and pellets, unfit for human consumption; greaves	6,21	0,72	16677,79
2402	Cigars, cheroots, cigarillos and cigarettes	5,77	0,70	-76342,11
0805	Citrus fruit, fresh or dried	4,79	0,65	14163,76
2205	Vermouth and other wine of fresh grapes flavoured with any substances	3,90	0,59	4,82
0105	Live poultry, that is to say, fowls of the species Gallus domesticus	3,83	0,59	-961,56
0604	Foliage, branches and other parts of plants, for ornamental purposes	3,65	0,57	1225,98
2008	Fruit, nuts and other edible parts of plants, otherwise prepared or preserved	3,09	0,51	5373,04
0701	Potatoes	3,06	0,51	2337,53
0810	Other fruit, fresh	2,70	0,46	18529,01
0814	Peel of citrus fruit or melons	2,47	0,42	93,36
2009	Fruit and vegetable juices	2,40	0,41	7405,98

1211	Plants and parts of plants, of a kind used in perfumery or similar purposes	2,02	0,34	2262,59
0808	Apples, pears and quinces, fresh	1,93	0,32	3515,33
2304	Oil-cake and other solid residues, resulting from the extraction of soya-bean oil	1,75	0,27	-8014,72
0207	Meat and edible offal, of the poultry, fresh, chilled or frozen	1,52	0,21	-65683,39
2101	Extracts, essences and concentrates, of coffee, tea or mat	1,45	0,18	-18831,04
0209	Pig fat free of lean meat and poultry fat	1,36	0,15	-2993,35
0407	Birds eggs, in shell, fresh	1,35	0,15	-2079,27
0902	Tea	1,31	0,13	-5815,52
1109	Wheat gluten	1,07	0,04	178,43

CONCLUSION

The Revealed Comparative Advantage (RCA) analysis remains a valuable tool for assessing a country's trade specialization and sectoral strengths in the global marketplace. By examining export patterns in relation to global benchmarks, the RCA – particularly its symmetric form (RSCA) – offers a consistent and comparable measure to identify areas where a country holds relative export advantage. This analysis is particularly useful in highlighting sectors where Georgia demonstrates stronger performance, such as mineral waters, wine, and live animals, providing a starting point for prioritization and investment planning.

However, RSCA alone is not sufficient to fully understand a country's trade competitiveness or export potential. While it captures relative performance in global trade, it does not account for factors such as domestic production capacity, supply-side constraints, input costs, quality standards, or barriers to market entry. To complement RSCA, it is important to consider additional indicators such as trade balance, export unit values, production volumes, value-added content, and market diversification. These metrics offer a more nuanced picture of structural competitiveness and the feasibility of scaling up exports in advantaged sectors.

Overall, the 2020–2024 data suggests that Georgia's agri-food trade structure is largely aligned with its comparative strengths, while also identifying a handful of sectors where further development could help reduce trade deficits and reinforce competitiveness. For Georgia, matching RSCA signals with trade balance outcomes helps uncover gaps between potential and actual performance, thereby highlighting areas where targeted interventions could improve competitiveness and export outcomes. RCA-based analysis can thus inform a range of strategic decisions. It helps identify priority sectors for export promotion, guide investment in infrastructure or certification systems, and assess alignment with national development goals or trade agreements. It can also serve as a diagnostic tool for benchmarking performance over time or across countries.