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Assessments of Romania's Agrifood Processing Sector Competitiveness on International Market

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Abstract. Subsequent to the European integration that Romania committed to undertake, the trade liberalization process faced national agricultural producers to the widened exposure to the foreign competitive pressure, amid the structural and performance disparities most significant in the food processing sector. The research objective was to analyze the evolution and competitiveness of Romanian agrifood processed products on the international market, focusing on the post-EU accession period. The methods used relevant competitiveness indices related to agrifood processed groups of products, including the trade unit value and of trade revealed comparative advantage index. The results concluded that Romania is exporter of agricultural products, while imports have been dominated for over two decades by agrifood processed products and achieved largely cheap agrifood exports on international markets. The empirical research revealed trade disadvantages compared to EU products, dependence on imports especially of processed products of animal origin, while low competitiveness of the processing sector is the main drawback in increasing export earnings.

Keywords. Agrifood processing sector, competitiveness indices, Romania

INTRODUCTION

Competitiveness in the agricultural sector is intensifying as the global economy achieves high levels of integration. While global food trading system tends to move gradually towards an open market is a desirable process in the wider context of sustainable development, however, like most of the recently acceded countries to the EU, Romania faces the widened exposure to the foreign competitive pressure, most significant in the food processing sector, as impact of trade liberalization process amid the structural and performance disparities (Otiman, 2012). The research objective was to analyzing the competitiveness' evolution of Romanian agrifood processed products on the international market focusing on the post-EU accession period. The present scientific approach is part of the research undertaking for the substantiation CAP framework post-2013 including new policy reforms and adjustments both to the WTO and to the real convergence of the European economies requirements in agricultural sector (Toderoiu, 2012).

MATERIALS AND METHODS

Research used the methods of statistics analysis in the foreign trade and synthesis of results indicated by qualitative and quantitative assessments of relevant indicators, conducted on multi-fold approaches. Assessment of the contribution of products aggregated by sections/chapters relative to the foreign trade flows and trade balance, and relative to the world export market share, giving the ranks of processed products according to their level of performance on international markets. In order to identify product groups where Romania has an advantage in international competition, the empirical results have been supplied by the calculation of the trade revealed comparative advantage index (Balassa, 1965). The index is simply measured by the group of products share in the country's exports relative to its share in world trade, taking values less or exceeding 1, indicating the level of competitiveness in foreign trade. The importance of index is given by its capability to indicating to promote trade of products that are more likely to be competitive. The statistic material was provided from United Nations database (HS-2 codes) corresponding to period 2006-2011. As well, products differentiation by quality reflected by calculation of the trade unit value (export/ import value divided by quantity) (Hine, 1998). This index shows the standard of quality reached by country trade of the selected sector, the reference point or average relative unit value is 1. The research based on statistics provided by EUROSTAT database during the period 2006-2012, by the main chapters of the Combined Nomenclature (CN-2, CN-4 codes).

RESULTS AND DISCUSSIONS

The sector of food processing, beverages and tobacco achieved 12.4% of the value of the processing industry in Romania and 21.6% of value added, of which 53% are food (1% of EU-27) beverages and 27% (2% in the EU-27) (in 2010, by Eurostat data). In the food processing area operate 8000 enterprises (3% of EU-27), achieving 51% of value added (total 1.48 billion Euros) in SMEs, close to the average in the EU-27, with 69% of people employed in the sector. Apparent labor productivity achieved in this sector is 22.5 thousand Euros/pers. employed, which is half of the EU-27 average. In 2010 the food processing in Romania, with a 46.8% share, has achieved the highest investment rate in the EU-27. The most of the people employed in the sector works in the beverage processing industry (94%), but only 26% of added value is obtained in SMEs. In 2010 was made an apparent labor productivity of 31.4 thousand Euro / pers., representing 37% of the EU-27 average. Tobacco has achieved a turnover of 546 million Euros in 2011, and conducted in a narrow number of companies, i.e. 9 companies in 2011 with 1458 employees, of which 34% are SMEs.

Romania ranks 29th in the world for exports of agricultural commodities and food products processed at 88th (ranking among 189 countries in 2010, according to UN data.

Currently, in the structure of the Romania’s foreign trade flows, by the degree of transformation, processed food products prevails in import, sharing 68% in 2012, while base agricultural commodities occupy over half of exports (56%). Agricultural primary products are in surplus following 2007, showing an increasing trend over the period 2008-2012 (Fig.1), however based on a limited range of exports, including: cereals (59%), oilseeds (20%) and live animals (13%). Agricultural products in deficit, accounting for 16% of imports are: fruits, products of coffee chapter, vegetables, fish and live plants.

Romania's agricultural imports were dominated by processed products for over two decades, with larger fluctuations in the first period. Until 1990, processed products accounted for 69% of Romania's exports, but after a swing period until 1998, the proportion was reversed in favor of agricultural commodities (Rusali, 2012).

The main processed agrifood products (CN-4 codes) exported to international markets, in 2012, were: cigars, meat and edible offal of poultry, sunflower, sugar, prepared foods, bakery products, pastries, biscuits, oil cakes and other residues from the extraction of fats and other prepared or preserved meat, meat offal or blood, soft drinks, cakes and other residues from the extraction of soybean oil, chocolate and other food preparations containing cocoa, honey. These products represented 31% of Romania's agricultural exports and 42% of exports to the EU member states.

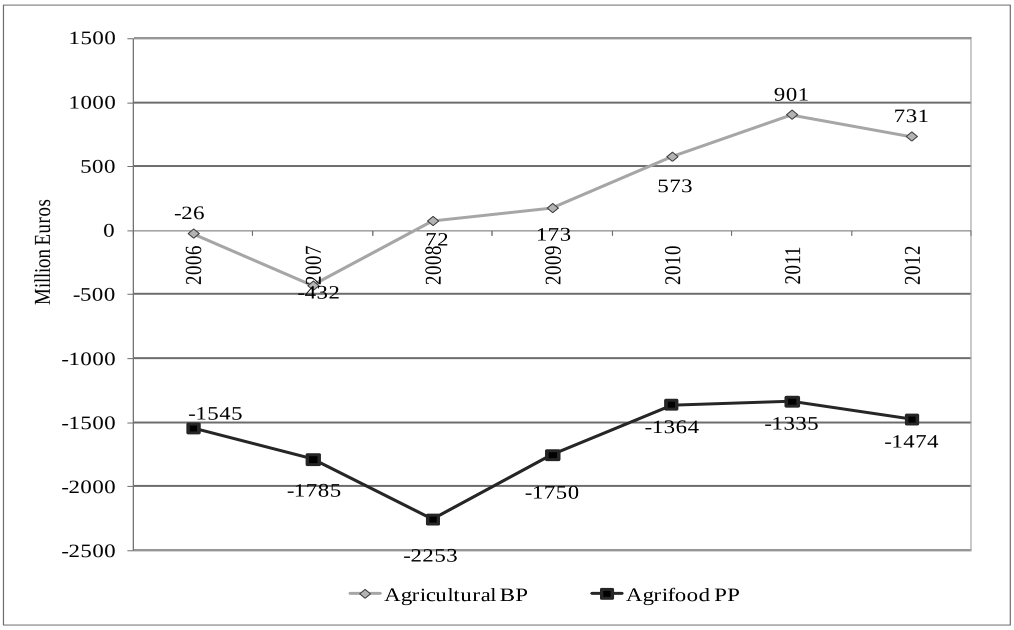


Fig. 1. Evolution of agrifood trade balance in agricultural and processed products

The main imports of agrifood processed products (CN-4 codes) exported to international markets, included: pork meat, animal products preparations, miscellaneous edible preparations, meat and edible offal of poultry, bakery products, confectionery, biscuits, chocolate and preparations of cocoa, cheese and curd, refined sunflower oil, sugar, cigars, milk and cream, raw tobacco. They have a share of 35% in imports from international markets, as well as in those from the EU.

Romania's agrifood products evolution in international markets reveals a commercial disadvantage compared to EU products, dependence on imports especially processed products of animal origin, low competitiveness of the processing sector is the main drawback in increasing export earnings.

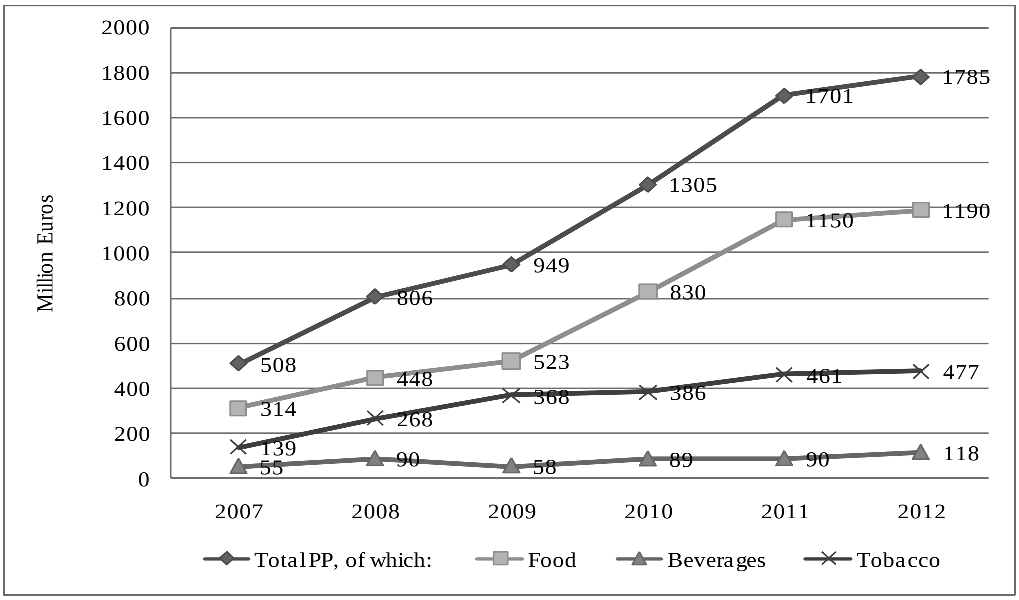


Fig. 2. Evolution and structure of Romania's exports of agrifood processed products (PP)

Food occupies, in 2012, 67% of Romania's exports of agrifood processed products (Fig. 2), beverage, 7%, and tobacco, 27%, while the share of food imports is 85% (Fig. 3).

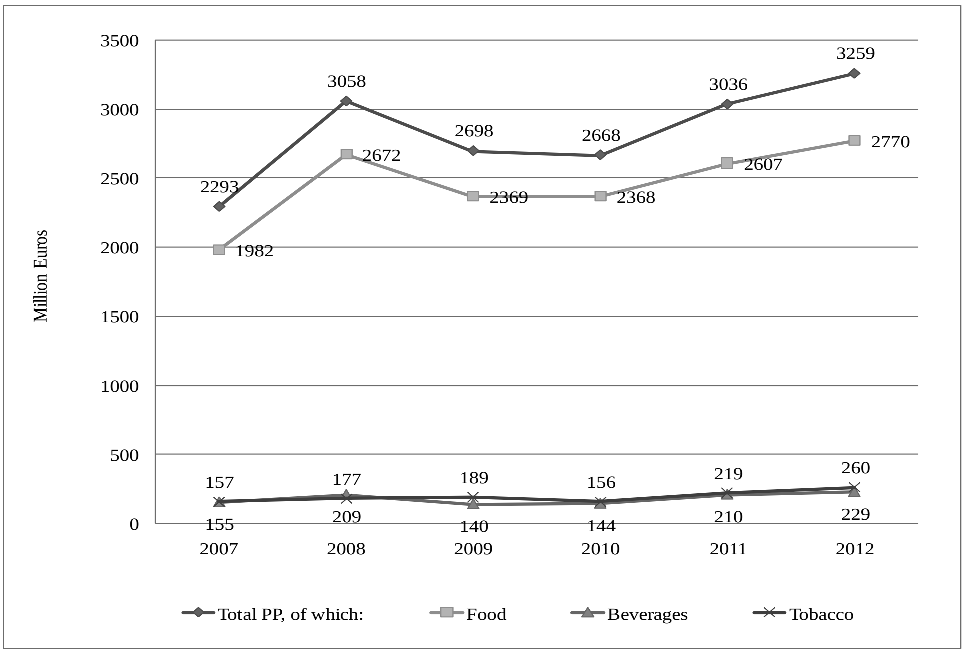


Fig. 3. Evolution and structure of Romania’s imports of agrifood processed products

Only tobacco achieved an increasing positive trade balance in the period 2006-2012, while food systematically in deficit, and accumulating the major negative trade balance, accounting for - 1.6 billion Euros in 2012 (Fig. 4).

Processed products have the major share of 73% in Romania's agrifood trade deficit, while only 29% of competitive agricultural products are processed products.

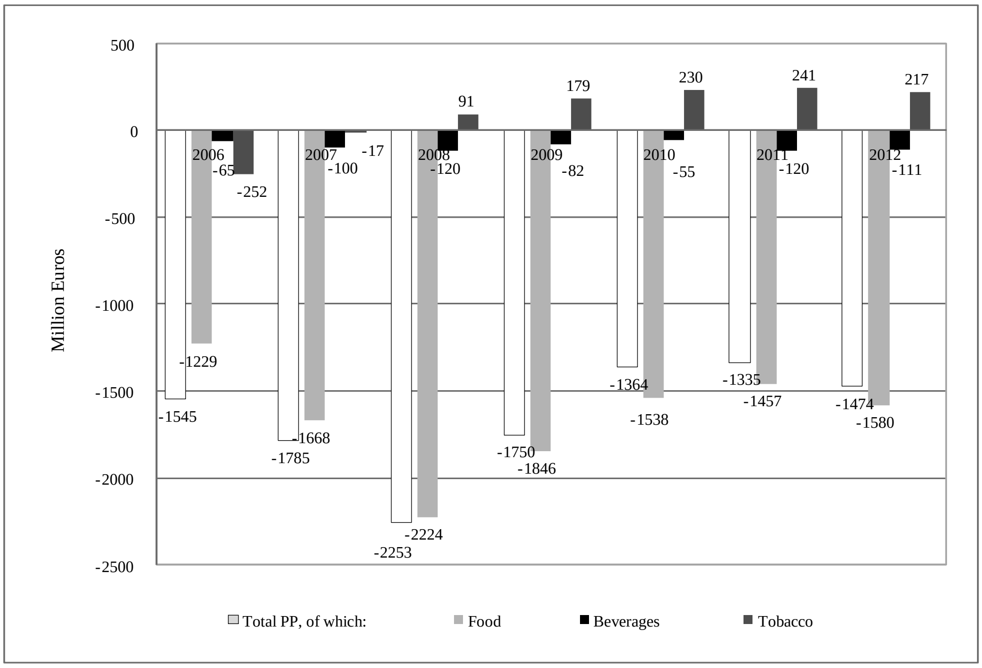


Fig. 4. Evolution and structure of agrifood trade balance in processed products

Net income from exports of processed products amounted to 29% of agrifood trade surplus (619.7 billion Euros in 2012), down 8 percent from the previous year.

Competitive processed products, which have earned the highest net revenue from foreign agrifood trade were: cigars and cigarillos (18% in trade surplus food) cake and other solid residues, meat offal, fresh, chilled or frozen oil sunflower seeds, honey, other prepared or preserved meat, meat offal or blood; horse meat, donkey or mule; meat of bovine animals, residues of the manufacture of starch, meat of sheep or goats. These products have a degree of representativeness (97 %) in the net trade balance (positive balance) of processed products.

The trade deficit of processed products, amounting -2.08 billion Euros, has deepened compared to the previous year because of increasing imports by 12 percent (to 2.7 billion Euros).

The main agrifood processed products with deficit, recording negative trade balance, are: fresh/chilled meat of swine (8% in food trade deficit); cane or beet sugar and chemically pure sucrose (7.3%); oil cakes and other solid residues, whether or not ground (5%); raw or unprocessed tobacco, tobacco waste (4.7%); preparations of a kind used in animal feeding (4.6%); as well were included food preparations not elsewhere specified or included (protein concentrates, essences); chocolate and other food preparations containing cocoa; cheese and curd; bakery, pastry and biscuit; undenatured ethyl alcohol of an alcoholic strength by volume of less than 80%; milk and cream not concentrated nor containing added sugar.

These main deficient products, with a degree of representativeness of 61% of total processed products are also the main uncompetitive Romanian food products, accumulated a 44% share in Romania's agrifood trade deficit, and by adding to these the coffee (4.7%), animals of the porcine species (3%) and citrus fruits (2.5%), they accounted in 2012 for over half of aggregate agrifood trade deficit and 40 % of imports.

Post-accession developments have led to a deterioration of the terms of trade in cocoa preparations and various food preparations, but also an improvement in performance in dairy products, live plants and floricultural products, cereals, processed cereals, beverages, meat, vegetables and fruit preparations.

Romania largely achieved cheap exports on international markets compared to imports, given that only 32 % of food exported products were of high quality as shown by the trade unit value indices assessed during the period 2007-2010, while in 2012 the share reduced to 18% (Table 1).

Products grouped by chapters (CN-2 codes) with high levels of quality of Romanian exports are: meat and offal, fish and shellfish, milk and dairy products, live plants and floricultural products, vegetables, fruits, cooked meat and fish, sugar and confectionery, miscellaneous edible preparations, various tobacco and tobacco substitutes.

At a higher disaggregation level (CN-4 codes), the exports of processed products with the largest indices of unit value amounted to 576 million Euros, sharing 15% of exports included: edible products of animal origin, flour, meal and powder of vegetables, peanut oil and other oils, confectionery (including white chocolate), mushrooms and truffles, prepared or preserved and other vegetables prepared or preserved otherwise than by vinegar, fresh meat of sheep or goats, vermouth and other wine of fresh grapes, flavored.

Estimates of comparative advantages indices, by CN-2 codes, describe a profile of competitive products in exports of live animals, oilseeds, cereals and tobacco, and in a lesser extent in exports of products of animal origin, sugar & sugar confectionery beginning with years 2010-2011 (Fig. 5). That is underlining the lack of competitiveness of the agrifood processed products.

The empirical results indicate the period studied a downward trend in the first year of accession of most Romanian products' competitiveness in international trade, except for cereals and tobacco and annual fluctuations of evolution in cereals, oilseeds.

Tab. 1

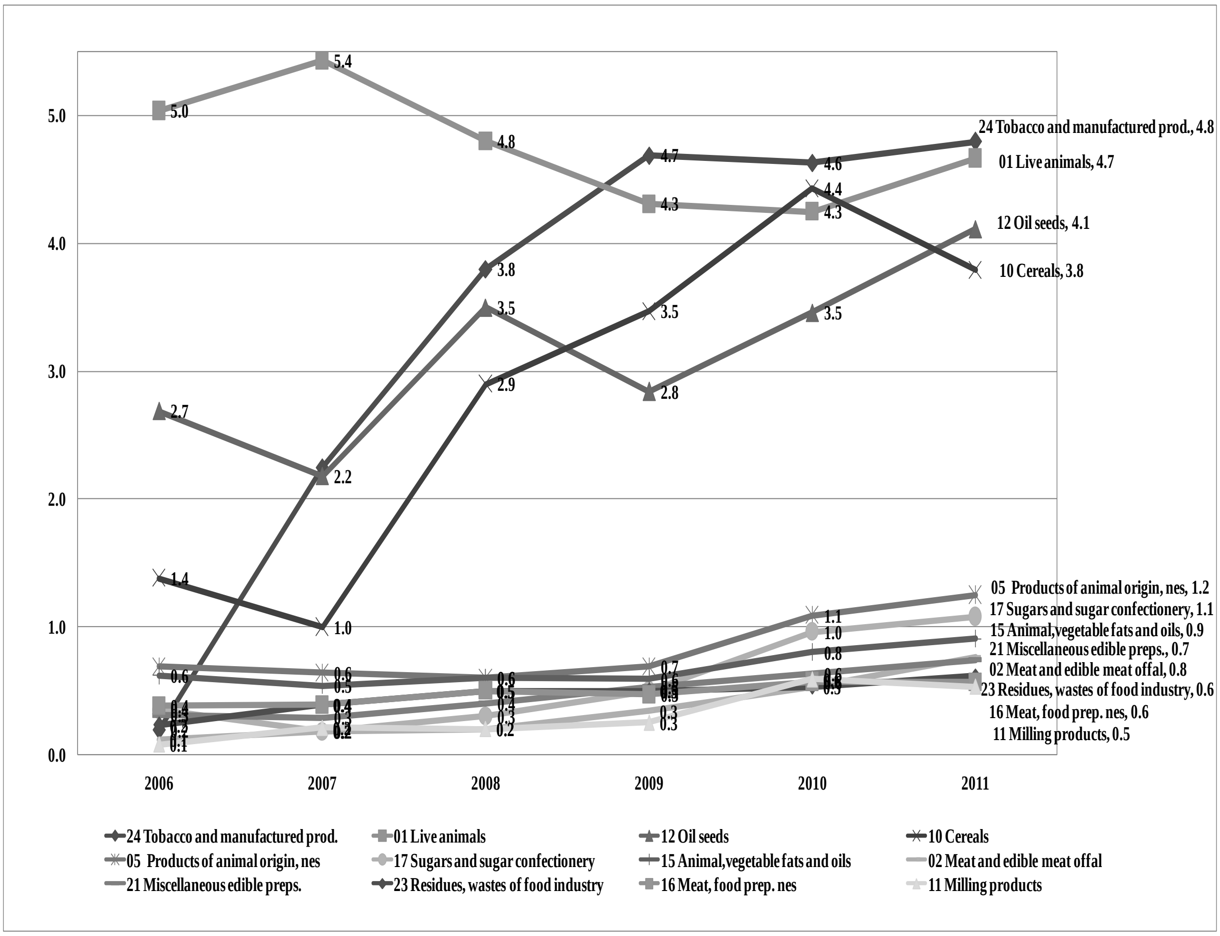
Evolution of trade unit values indices of Romania's agricultural and processed agrifood products (2006-2012)

Codes CN-2	Denomination	2006	2007	2008	2009	2010	2012
03*	Fish	0.00	0.04	0	0.03	0.03	2.53
20	Vegetable, fruit preps.	0.19	0.29	0.2	0.19	0.27	1.97
07*	Edible vegetables	0.46	0.46	0.4	0.34	0.48	1.94
08*	Edible fruit	0.35	0.32	0.2	0.22	0.32	1.9
11	Milling products	0.08	0.21	0.2	0.25	0.59	1.78
04	Dairy products, eggs, honey	0.35	0.25	0.3	0.44	0.43	1.73
17	Sugars and sugar confectionery	0.35	0.18	0.3	0.5	0.96	1.63
13	Lac, gums, resins, vegetable saps	0	0	0	0	0	1.61
09*	Coffee, tea, mate and spices	0.12	0.07	0.1	0.13	0.13	1.34
02	Meat and edible meat offal	0.12	0.18	0.2	0.34	0.53	1.29
22	Beverages, spirits and vinegar	0.27	0.32	0.5	0.31	0.4	1.27
21	Miscellaneous edible preps.	0.31	0.29	0.4	0.53	0.63	1.19
15	Animal, vegetable fats and oils	0.62	0.54	0.6	0.59	0.8	1.02
16	Meat, food prep. nes	0.38	0.39	0.5	0.47	0.57	0.98
12*	Oil seeds	2.69	2.18	3.5	2.84	3.46	0.97
18	Cocoa and cocoa preparations	0.19	0.14	0.2	0.25	0.27	0.82
24	Tobacco and manufactured prod.	0.19	2.25	3.8	4.69	4.63	0.8
19	Cereal, flour, starch, milk prep.	0.38	0.43	0.5	0.44	0.45	0.75
10*	Cereals	1.38	1	2.9	3.47	4.43	0.73
01*	Live animals	5.04	5.43	4.8	4.31	4.25	0.72
06*	Live trees, plants	0.04	0.04	0	0.03	0.09	0.72
23	Residues, wastes of food industry	0.23	0.39	0.5	0.5	0.53	0.55
14	Vegetable products nes	2.31	1.5	1	0.97	0	0.5
05	Products of animal origin, nes	0.69	0.64	0.6	0.69	1.09	0.43

Note: The chapters marked correspond to agricultural products, while the other codes include the agrifood processed products.

The critical issue is the analysis revealed that some products have shown an export potential, the immediate accession impact was of a decline in comparative advantage, such as were meat products, and in terms of livestock, which albeit a positive trade balance, net exports declined significantly.

It is also observed that vegetable fats & oils and milk and dairy products have suffered losses and fluctuations comparative advantage in international trade by 2008.



Note: Chapters 01, 03, 06-10 and 12 correspond to agricultural products, while the remaining codes to agrifood processed products.

Fig. 5. Romanian competitive agrifood products, by the relative comparative advantage indices (2006-2011)

Meanwhile, recent trends of recovery are indicated by increasing trends in indices in 2010, meat, cereals, fats, sugar, miscellaneous edible preparations, and beverages and food residues. It was also found that the products of chapter including tobacco and manufactured products recorded a start since 2007, according to estimates, became the product with the highest level of trade comparative advantage index.

CONCLUSION

The evolution of Romania's food products on international markets reveals trade disadvantages compared to EU products, dependence on imports especially processed products of animal origin, while low competitiveness of the processing sector is the main drawback in increasing export earnings.

Romania is exporter of agricultural raw products, while imports have been dominated for over two decades by processed products and achieved largely cheap agrifood exports on international markets.

The empirical results indicate a downward looses of terms of trade by products of animal origin, preparations of cereals, residues and wastes of food industry, animal and vegetable fats and oils, preparations of meat, and, recently, tobacco and products, while compared to early post-accession period, major gains have had in fewer produces, including milling products, vegetable saps, vegetable preparations, meat and edible meat offal, dairy products and beverages.

On the other hand, assessments of trade comparative advantages show an improvement in of products included in HS-2 chapters containing preparations, beverages and food residues. Indices describe a competitiveness profile of the products listed in chapters: livestock, oilseeds, cereals and tobacco. Nevertheless, it is to be notified that only manufactured products of tobacco belonging to the processed sector proved comparative advantages in trade over the post-accession period.

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