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# POST-ACCESSION TRENDS OF ROMANIA'S AGRI-FOOD TRADE

## ABSTRACT

The article aims to capture the main effects subsequent to Romania's accession to UE-27 and integration in the common market, upon the external performances of the agricultural products. The analysis comprised both the evolution and structure of the commercial flows, determinant factors of the trade balance and the assessed relative unit value indices, on products aggregated by chapters, respectively, by sections of the C.N. Several positive influences on the food markets are reflected by attenuated import flows, although with a narrowed supply ranges, and also by the reduction of external agri-food trade deficit, however through less competitive exports rather than on account of imports. The empirical results indicate also negative aspects: a loss of domestic performance facing the growing external competition, trade disadvantages compared to EU products, dependence on imports of processed products and of animal origin, the low competitiveness of the processing sector being the main disadvantage in achieving higher revenue from exports.

Key words: agri-food trade, unit value index, competitiveness, EU accession.

JEL Classification: Q17, C43, F14, F15.

#### **1. INTRODUCTION**

The analysis of Romania's agri-food trade sensitivity in the post-accession period is made in the double context of disproportions created by the world crisis affecting the economies and of recent integration into the EU common market.

The investigations enlarge previous research on the commercial profile of the agri-food sector, associated with the political impact effects, induced by the integration into the EU-27 common market, in the configuration of international trade with Romanian agri-food products, with an aim to identify the sectoral performance growth needs in the context of foreign producers' competition. The targeted objective is to identify the products affected by the severe competition from the part of foreign producers under the trade liberalization conditions and the perspectives to improve access of domestic products on the international markets, as vital factor for promoting economic growth and integration into the global economy.

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#### 2. CONCEPTUAL EVOLUTION STAGE

As a component of the world economic circuit, the international trade is the combined result of the interdependencies of the whole range of national trade policy instruments and effects induced by the institutionalization of international and regional agreements.

By its trade policy, the state seeks to steer and stimulate the development of production for export, which implies the need for sectoral analyses which should provide evaluations and options for the substantiation of decisions. Taking into consideration the fact that the trade policy must be closely coordinated with the foreign exchange policy (Alexandri, Davidovici, Gavrilescu, 2004), the value of commercial flows is influenced by the way in which the foreign exchange flows are regulated.

The performance of the agricultural and food industry sectors is influenced by the effects of fast and significant changes induced by globalization and the evolutions regarding the consumers' lifestyle. Under the background of the recent economic crisis, in which these trends can be intensified in the next years (EC, 2009), the effects and influences upon the production technologies and the agri-food trade can induce disproportions and different evolution levels.

The specialty studies that approach competitiveness at regional level reveal that the determinant factors of competitiveness reside not only in the performance of individual enterprises and their interaction, but also in the assets and social, economic, institutional and public assets of the region itself (EC, 2004).

Therefore, the trade integration is influenced both by qualitative factors and conditions and by measurable elements and processes. Furthermore, the performance under continuous transformation of the agri-food sectors, reflected by the productivity and competitiveness levels, determine both their role in the economy they belong to and the results of participation on foreign markets. From this point of view, the analysis methodology regarding the commercial integration by certain analysts (Hine, 1998) reveals that the evaluation of the foreign trade quality is a useful tool for the support to political decisions regarding the reform and the development of the investigated sector, in the sense of promoting the products with export potential and the products with high value added that provide additional benefits from the international markets.

#### **3. MATERIAL AND METHOD**

The study material was based on Romania's agri-food trade flows in the period 2007–2009, using EUROSTAT trade statistics database. The assessments have been made on products aggregated by chapters/sections of the Combined Nomenclature (C.N.), resulting in the main evolution and structural trends, the trade balance determinants and in relation to the agri-food trade unit value indices.

The research methods consisted of quantitative and qualitative analysis of the Romanian foreign agri-food trade after Romania's accession to the EU single market. The paper examined the post-accession trends of Romania's agri-food trade that revealed the performance or deficiencies in the face of foreign competitiveness, including sensitive areas of the Romanian food sector which can be particularly exposed to the global crisis. Since the importance of the EU has continuously increased, the assessments on intra-Community agri-food trade highlighted the existing opportunities of the products with expressed export potential and the areas affected by the net imports respectively, by commodity groups.

The assessment methodology of the quality of agri-food trade flows approach the analysis of the vertical or horizontal integration of products through the calculation of relative unit value indices of flows. The analyses covered the products grouped by C.N. sections according to the Common Customs Tariff. The quality of exports is evaluated in relation to imports, by the range of the relative unit values within the classification thresholds of  $\pm/-15\%$  (Hine, 1998). In this way, when the unit value indices are lower than 0.85 the products are considered as having low quality, while when these are higher than 1.15 the products are considered of high quality, traded at higher average prices. Similarly, when the unit value index ranges from 0.85 to 1.15, it is considered that the products are horizontally integrated (homogenous); the products are vertically differentiated when the unit values of the trade flows do not fall into the  $\pm/-15\%$  margin.

The export and import indices can be used for the calculation of the terms of trade of a given country, representing a critical variable in many open macroeconomic models. Being defined as ratio of export prices to import prices, the results that indicate growth reveal an improvement of the terms of trade of the country. The terms of trade are a significant determinant of the aggregated trade and their quantification helps to explain the global disequilibria at world level.

#### 4. RESULTS AND DISCUSSIONS

In the last two decades, the performance of the Romanian agri-food sector has been influenced by changes in the sector brought about by the internal reforms of political transition to market economy, restructuring and institutional adjustments needed for CAP adoption and integration into the common market resulting from EU membership. In the year 2007, Romania became a EU Member State.

In the period 1999–2006, Romania intensely prepared for the accession to the EU. In this period, the agri-food trade between Romania and the EU countries evolved under the influence of the European Agreement on Agriculture and EU became Romania's main trade partner.

As a general feature, the yearly variation of trade in the years previous to accession revealed a greater increase of imports compared to exports, increase of European products competition as a result of the first enlargement to the Central and East-European countries, as well as a trade creation effect on the common internal market.

### 4.1. Main post-accession effects on the agri-food trade

The period 2007–2009 was influenced by the post-accession effects of Romania's economy and was reflected in total agri-food trade by a 44% increase compared to 2007, from 4.5 billion euro to 6.5 billion euro in 2008, to reach 6 billion euro in the year 2009.

At the same time, a continuous increase of agri-food opening to the foreign markets was noticed after 2006, significantly larger compared to the evolution of indicators obtained at national level. Romania is highly dependent on the agri-food foreign markets, estimated at 83% for the year 2009 (table 1), this indicator reflecting the low potential compared to the foreign competitiveness.

	UM	2006	2007	2008	2009	Changes 2009/2008
CDD	1.111	2445	41(0	504.0	401.2	(%)
GDP	billion lei	344.5	416.0	504.0	401.3	-20.4
GDP	billion Euro	97.8	124.7	136.9	94.7	-30.8
Export (FOB)	billion Euro	25.9	29.5	33.6	29.1	-13.4
Import (CIF)	billion Euro	40.7	51.3	56.3	38.9	-31.0
Economy's openness degree on foreign markets	%	68.1	64.9	65.7	71.8	9.3
AGRI-FOOD SECTOR						
GDP in agriculture	billion lei	26.9	24.0	32.5	30.8	-5.3
GDP in agriculture	billion Euro	7.6	7.2	8.8	7.3	-17.7
GDP agr. share ./ GDP	%	7.8	5.8	6.4	7.7	18.9
Export (FOB) agr. products	billion Euro	0.85	1.12	2.16	2.23	3.3
Export share in GDPAgr	%	11.2	15.6	24.5	30.8	25.5
Import (CIF) prod. agr.	billion Euro	2.43	3.34	4.29	3.81	-11.3
Coverage degree of imports by exports	%	35.2	33.6	50.4	58.6	16.5
Agri-food sector's openness degree on foreign markets	%	42.9	62.0	73.2	83.2	13,7

Table 1

Quantifying and dynamics indicators of Romania's agricultural trade

*Note (on table 1):* The differences between the dynamics determined on the basis of values expressed in lei and those expressed in Euro are effects of the national currency depreciation.

*Source*: Own processings of NIS statistics (Romanian Statistical Yearbook 2008, for the year 2006; http://insse.ro); at the exchange rate of the National Bank of Romania (www.bnr.ro).

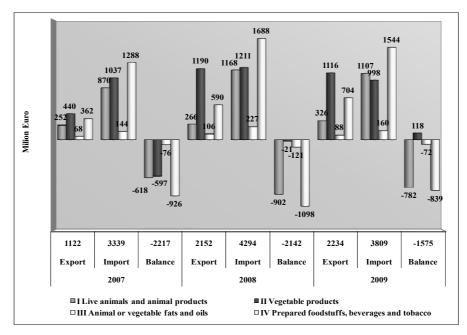


Figure 1. Trends and changes in Romania's agri-food foreign trade, in the period 2007-2009.

The trade and foreign exchange policies in the last period contributed to obtaining high levels of imports coverage by exports, though lower than those in national economy. In the year 2009, the agri-food imports coverage by exports was 58.6%, up by 16.5% compared to 2008.

The exports of agri-food products increased each year, accounting for 1.122 billion Euro in the year 2007 and 2.233 billion Euro in the year 2009. The importance of agri-food exports in GDP in the agricultural sector increased from 11.2% in 2006, and 15.6% in 2007, to 30.7% in 2009. This increase was based on the increase in value of the supply of Romanian products on the foreign markets.

The imports also significantly increased, from 3.34 billion Euro in the year 2007 - up by 37% compared to 2006 - at the record historic value of 4.29 billion Euro in 2008; yet a slight attenuation trend was noticed in the year 2009, when imports totaled 3.8 billion Euro, down by 11.3% compared to previous year (fig. 1).

As a consequence, the balance of trade drastically deteriorated, summing up a significant deficit down to over -2.2 billion Euro in 2007; however, an attenuation trend of the trade deficit was noticed, from -2.1 in 2008, to -1.5 billion Euro in the year 2009.

As seen in fig. 2, the agri-food trade and balance structure reveals that, except for 2009 when a net export of crop products was noticed, in the remaining investigated period the agri-food trade balance was negative for all the chapters of aggregated products according to C.N.

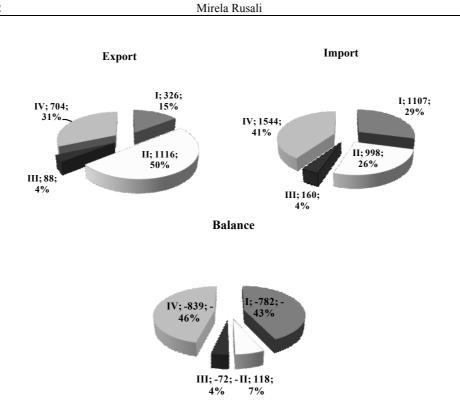


Figure 2. Structure of agri-food exports, imports and trade balance, by sections of C.N., in 2009.

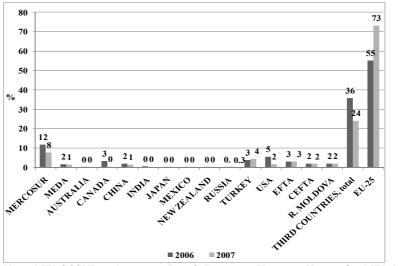
The crop products accounted for half of the exports, worth 1.1 billion Euro, and 26% of imports, totaling 998 million Euro.

The trade deficit in the year 2009 was mainly due to Chapters IV and I. In chapter IV – *Prepared foodstuffs, beverages and tobacco*, which represented 46% in the trade balance, exports totaled 704 million Euro and imports 1.5 billion Euro. At the same time, chapter I – *Live animals and animal products* accounted for 43% of balance, totaling 326 million in exports and 1.1 billion Euro in imports.

The trade with products from Chapter III – *Animal or vegetable fats and oils*, also deficient, maintained a 4% share in trade flows and balance.

Compared to Romania's agricultural output value, the value of agri-food exports on the intra-Community market accounted for 9% in the year 2007. The most significant export and import flows, as trade values, were with Italy, Germany, Greece, Hungary, France and Netherlands, followed by Belgium, Austria and Poland.

At the same time, while all the Romanian agricultural products traded with EU-25 accounted for 50% in imports and 40% in exports before the accession, in 2007, the country's relations within the region increased as importance, reaching 73% in imports and 70% in exports, while the imports absorbed by Romania from third countries (except for Turkey) reveal a market share loss (fig. 3).



Note: MERCOSUR = Argentina, Brazil, Paraguai, Uruguay, Venezuela; MEDA = Syria, Egypt, Tunisia, Lebanon, Morocco, Algeria, Jordan, Israel.

Figure 3. Changes in the share of agri-food imports from EU, compared to third countries

EU, Romania's main trade partner in the last 10 years, accounted for 70–78% of the exports of Romanian agri-food products; at the same time, the importance of the region as source of imports absorbed by Romania increased from 73% in 2007 to 81% in 2009 (Fig. 4).

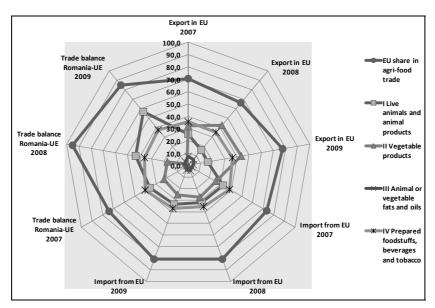
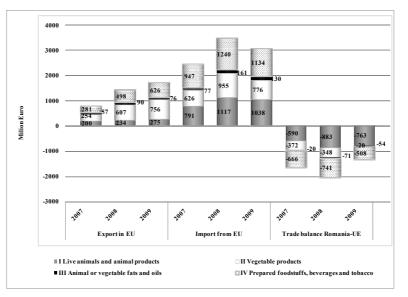


Figure 4. UE share in Romania's agri-food trade, by sections of C.N.

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The trade balance with EU continued to be deficient in all categories of products (Fig. 5) and in the main groups of products aggregated by NC sections.

Figure 5. Trends in Romania's agri-food foreign trade with the EU, in the period 2007–2009.

Net exports to EU Member States were found only in the products from groups: 01 - Live animals, 10 - Cereals, 12 - Oilseeds and 24 - Tobacco and tobacco substitutes. Among these, for the products from the live animals group, the exports were maintained at 136 million Euro on the average, but imports had a growth index of 248% in 2009 compared to 2007, respectively, from 47 to 117 million Euro. In the year 2009 the value of the exports of cereals totaled 361 million Euro, while the imports 228 million Euro. In oilseeds, in which exports were up by almost four times compared to 2007, were worth 317 million Euro in 2009, while imports, which increased by 70%, totaled 105 million Euro. In tobacco, the exports increased three times, with a value of 348 million Euro, while imports totaled 126 million Euro.

#### 4.2. The quality of agri-food foreign trade, by the unit value index

According to the presented methodology, the results of the analysis revealed that the agri-food products in which low average values of exports were found in 2009, indicating a low quality, are those included under the sections: 01 - Live animals; 09 - Coffee, tea, mate and spices; 10 - Cereals; 11 - Products of the milling industry, malt, starch; 12 - Oleaginous seeds and fruits, medicinal or industrial plants, straw and forage; 14 - Plaiting materials and other products of vegetable origin; 15 - Animal or vegetable fats and oils; 22 - Beverages, spirits & vinegar; 23 - Residues and waste from food industries (Fig. 6).

At the same time, products sold at high prices on foreign markets, revealing high-quality exports and specialization level, were those placed in the sections: 03 - Fish and crustaceans; 07 - Edible vegetables, roots and tubers; 08 - Edible fruits; 24 - Tobacco and manufactured tobacco substitutes, in which the indices had the highest values. The products aggregated under the following sections also fall into this interval: 02 - Meat and edible offal; 04 - Milk and dairy products, birds' eggs, natural honey; 06 - Live plants and flower products; 16 - Preparations of meat and fish; 17 - Sugar and sugar confectionery; 21 - Miscellaneous edible preparations. The above-mentioned products accounted for 32% of Romania's agri-food exports, falling into the vertical integration range, while the share of lower quality products was double, i.e. 63%.

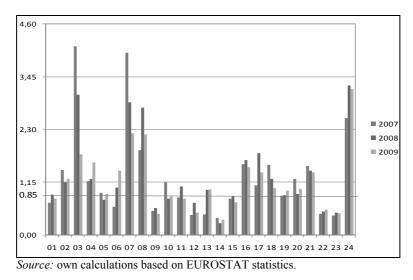


Figure 6. Unit value indices in Romania's agri-food trade, in the period 2007-2009.

The results of the analysis of products corresponding to horizontal trade integration identified the following groups of products included in this interval: 05 - Other products of animal origin; 13 - Gums, resins and other vegetable saps and extracts; 18 - Cocoa and cocoa preparations; 19 - Preparations of cereals, flour, starch; pastry; <math>20 - Preparations of vegetables, fruits. These categories of products that mainly include processed agri-food products had a very low share in exports, i.e. 5%.

According to the applied theory, the horizontal integration corresponding to the trade with goods having similar qualities as well as other important characteristics for consumers, is mainly determined by the economies of scale and by the consumers' preferences. On the other hand, the vertical integration corresponds to the trade with final goods having different qualities and prices or trade with final and intermediary goods produced in the same sector, being determined by the endowment in factors, which creates comparative advantages. As seen in Fig. 6, an improvement of the terms of trade was noticed in the period 2008–2009, for the products under the sections 04, 06, 19, and 22, respectively: milk and dairy products, birds' eggs, natural honey; live plants and flower products; preparations of cereals, flour, starch; pastry; beverages, spirits and vinegar.

At the same time, although indices were down in 2008 compared to 2007, in the year 2009 the values increased for the products under the sections 02, 05, 10, 14 and 20, namely the groups meat and edible offal, other products of animal origin, cereals, plaiting materials and other products of vegetable origin, and preparations of vegetables and fruits. By contrast, for the products aggregated under the sections 03, 07, 18, 21, i.e. fish, vegetables, cocoa and cocoa preparations and miscellaneous edible preparations, a deterioration trend of the terms of trade can be noticed in the period 2008–2009.

#### **5. CONCLUSIONS**

The results underline a loss of domestic performance in the face of growing external competitiveness, with a strong impact both on the food industry that needs to reshape the market strategies, and on the agricultural sector, where changes imposed by CAP adoption have increased the pressures on farmers to face the market developments.

The assessments of the Romanian foodstuffs competitiveness indicates a commercial disadvantage compared to the EU products, dependence on imports of processed products and of animal origin, the low competitiveness of the processing sector being the main disadvantage in obtaining higher revenue from exports.

The influences on food markets are reflected by attenuated import flows, narrow supply ranges, and also by the diminution of foreign agri-food trade deficit, however through less competitive exports rather than on the basis of imports.

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