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## QUANTITATIVE AND QUALITATIVE ASSESSMENTS OF AGRI-FOOD TRADE TRENDS POST-ACCESSION - ROMANIA'S CASE

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### Abstract

*The paper presents the main results of a quantitative and qualitative evaluation of Romania's agriculture external performances on the EU-27 market after the accession. The analysis comprise trends and structure of trade flows, determinants of the net trade and relative unit value indices measured on traded products aggregated by chapters/sections of the Combined Nomenclature. The empirical results indicate changes in agri-food competitiveness, commercial 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. The general outcome underlines a decrease of domestic performance facing a growing external competitiveness, with a strong impact both on the food industry that have to reshape its strategies for going on the market and on the agricultural sector where changes imposed by adoption of CAP increase the pressures on farmers facing the market developments.*

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

### Introduction

Worldwide, agriculture and food industry are subject to the effects of fast and substantial changes induces by globalization and developments in of consumer's lifestyle. Under the background of the recent world crisis, these trends can intensify in the coming years, as a result of influences on production technologies and to agricultural trade (CE, 2009). In addition, the performance of agri-food sectors reflected by the productivity and competitiveness levels, in continuous transformation, determine their

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role in the economy they belong to.

At regional level, the competitiveness resides not only in the competitiveness of its constituent individual firms and their interactions, but also in the wider assets and social, economic, institutional and public attributes of the region itself (CE, 2004). Therefore, the notion of regional competitiveness is as much about qualitative factors and conditions as it is about quantifiable attributes and processes.

Nevertheless, the inequality of the world crisis affects economies; therefore, in the context of the recent regional integration to the EU common market in the post-accession, Romania's agri-food sector sensitivity analysis requires special attention. The paper addresses the competitiveness of the Romanian agricultural sector from the foreign trade performance side, involving either quantitative or qualitative assessments of the agri-food products trends on foreign markets. The analysis pursue either an identification of products affected by the severe European competition and perspectives of improvement of the domestic products access on external markets, as vital factor for promoting the economic growth and integration in the global economy.

## Objectives and Methods

The investigations widen the previous researches upon the sector's trade profile associated to policy impact effects in the international trade pattern and comprise the main trends in the structure of trade flows, trade balance determinants and in relation to the trade unit value indices assessed on products aggregated by chapters, or sections of the Combined Nomenclature (C.N.), using EUROSTAT trade statistics database.

The methods consisted in quantitative and qualitative analysis of the Romanian foreign agri-food trade after the accession on the EU-27 market. The main effects consist in either post-accession trends in the performances, or shortcomings of Romania's agri-food trade development within the common EU-27 market, in the period 2007-2009, including sectoral performances facing external competitiveness, as well as sensitive areas of the Romanian food sector which can be particularly exposed to the global crisis. Since the importance of the EU has been continuously increasing, the assessments on intra-Community agri-food trade trends highlighted the existing opportunities of the products with expressed export potential and the areas affected by the net imports respectively, by product groups. The paper attempted to identify the needs to improve the sectoral performance in the context of foreign producers' competition.

The assessment methodology of vertical or horizontal integration of the agri-food trade deals with the analysis of the commercial food quality, through the calculation of relative unit value indices. Analyses covered products grouped by sections of the C.N.. The assessments comprised the quality - low (poor) or high - of the county's exports in relation to imports, by the range of the relative unit values within the classification thresholds of +/-15% (Hine, 1998). In this way, it is assessed whether the products are horizontally integrated (homogeneous), when the unit value index of trade flows is included in the 0.85 to 1.15 interval. The vertical differentiation can be assessed when the

unit denominations of the export and import flows does not fall in the margin +/-15%; it corresponds to different qualities and prices traded products belonging to the same sector, determined by the levels of factors endowment creating comparative advantages.

## Results and Discussions

In the previous 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 the CAP adoption and integration into the common market arising from EU membership. In the period 1999-2006, Romania was on the way of intense preparation of its accession to the EU.

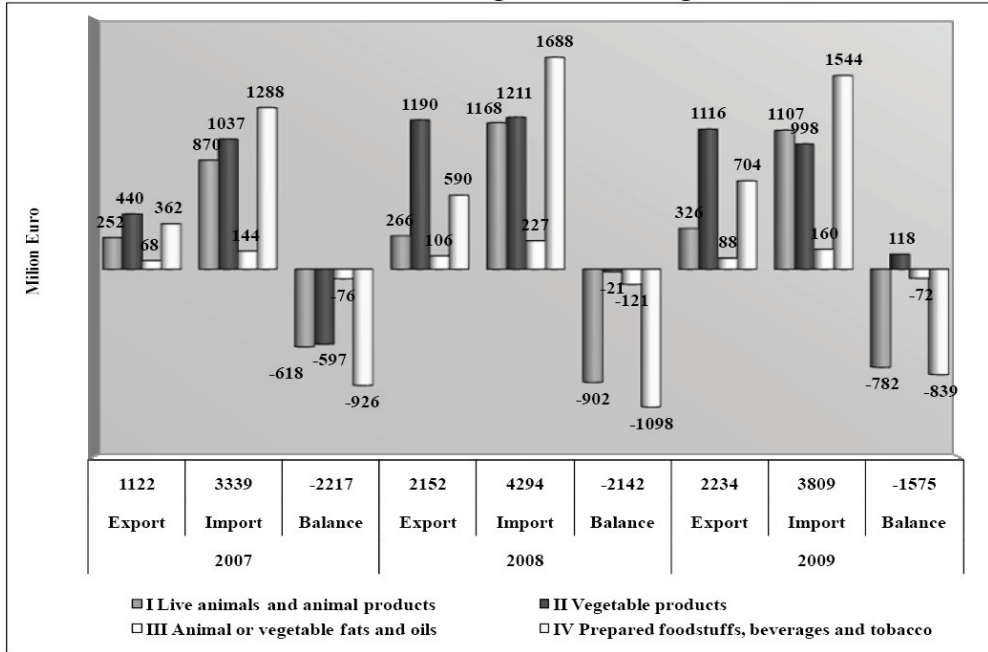
During the pre-accession period, the agri-food trade between Romania and the Member States developed under the influence of the European Agreement on agriculture and EU became Romania's main trade partner. In 2007 Romania obtained the membership status, while the agri-food exports on the intra-Community market contributed to the increase of 9.7% in the gross value added in Romania's agriculture. The most significant export and import flows, in terms of trade values, have been mainly with Italy, Germany, Spain, Greece, Hungary, France, and Netherlands, followed by Belgium, Austria and Poland.

As a general feature, the annual variation of trade over the last before the accession showed a greater increase of imports than exports, the increase in European products competition as a result of the first enlargement to the central and east European countries, but also a trade creation effect on the common internal market.

**Post-EU-27 Accession Trends of the Agri-food Trade.** Under the influence of the developments in the domestic economy subsequent to EU accession, the period 2007-2009 was reflected in the country's foreign trade by an intensification of both import and export flows, yet Romania remaining a net agri-food importer.

The total agricultural trade experienced a 44% growth compared to 2007, i.e. from 4.4 to 6.4 billion Euro in 2008 and 6 billion Euro in 2009 (Chart 1).

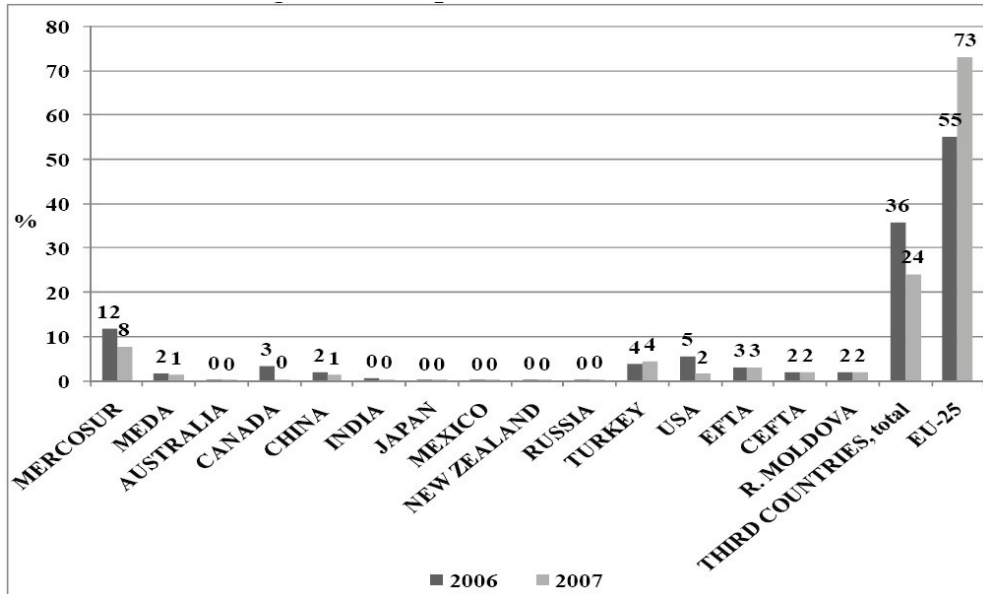
Chart 1. Trends in Romania's agri-food foreign trade, 2007-2009



Source: own processing of EUROSTAT trade statistics.

As well, while Romania's agricultural products traded with the EU-25 covered a 50% share in imports and 40% in exports before accession, in 2007, the country's relations within the region even grew in importance, to a 73% share in imports, and 70% in exports, whereas the imports absorbed by Romania from third countries shows a market share decrease (Chart 2).

Chart 2. Trends of agri-food imports share from EU and third countries



Source: own processing of EUROSTAT trade statistics.

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

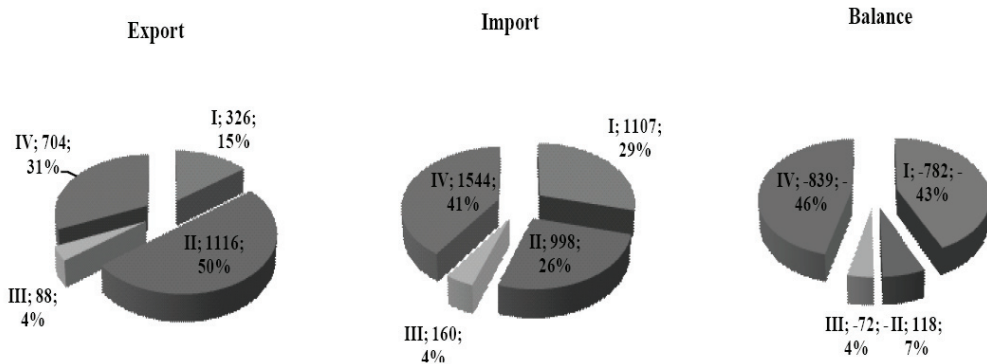
As shown in Chart 1, annual exports increased, accounting for 1122 million Euro in 2007 and almost doubled afterwards, to reach 2234 million Euro in 2009. As well, the importance of agri-food exports in GDP in the agricultural sector increased from 15.6 % in 2007 to 24.5% in 2008 and 30.7% in 2009.

However, imports also significantly increased from 3.3 billion Euro in 2007 – up by 37% compared to 2006 - to a historical record value of 4.3 billion Euro in 2008. A slight decrease was noticed in 2009, when the value of imports reached 3.8 billion Euro. Accordingly, the trade balance drastically deteriorated, reaching a significant deficit of over 2 billion euro in 2007 has been experienced a certain contraction trend, in 2008 respectively, amounting to -1.5 billion Euro value in 2009.

Except for the year 2009 when a net export of vegetable products was registered, the agri-food trade balance was negative for all the remaining chapters of the C.N. (Chart 3). Vegetable products shared half of exports, and worth 1.1 billion Euro, and 26% of imports, totaling 300 million Euro.

The trade deficit in the year 2009 was mainly due to the products included in chapter IV- Prepared foodstuffs, beverages and tobacco (46% of the trade balance) - whose exports totaled 704 million Euro while their imports 1.5 billion Euro, and in chapter I - Live animals and animal products (43% of the balance), accounting for 326 million exports and 1.1 billion Euro imports.

Chart 3. Structure of agri-food export, import and trade balance, in 2009

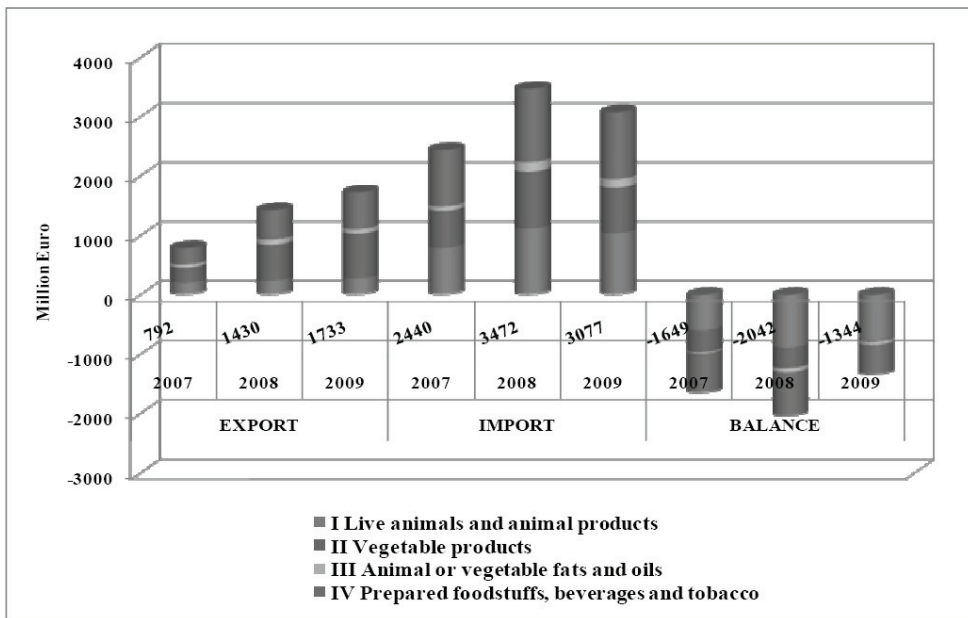


Source: own processing of EUROSTAT trade statistics.

The traded products in chapter III - Animal or vegetable fats and oils, also deficient, maintained a 4% share in trade flows and balance.

EU has been the main trading partner for the past 10 years; in the post-accession period 2007-2009, EU countries represented 70-80% of food export destinations of Romania and at the same time their imports share raised from 73% in 2007 to 81% in 2009.

Chart 4. Trends in Romanian agri-food foreign trade with the EU



Source: own processing of EUROSTAT trade statistics.

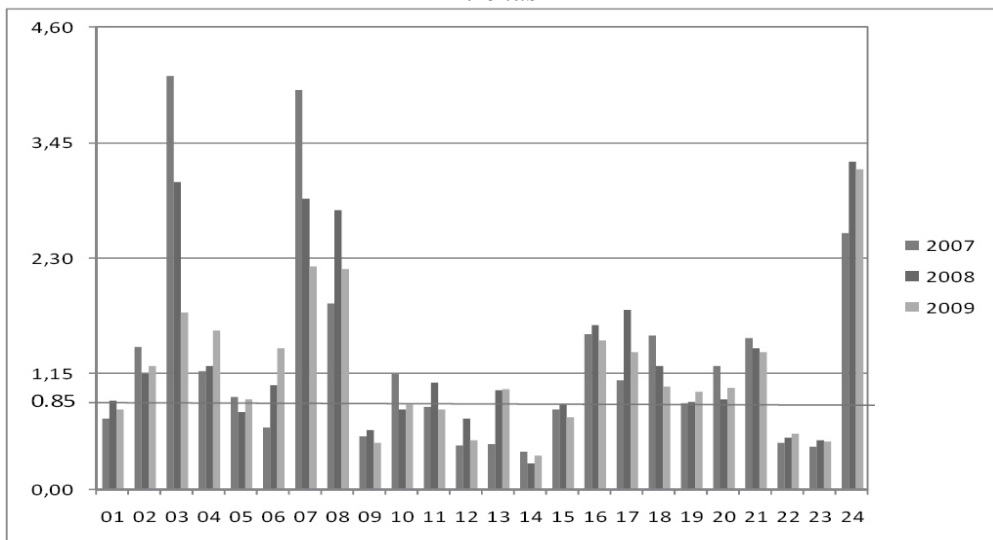
Trade balance in the relationship with the EU has remained insufficient to all categories of products (Chart 4) and in most of the sections of the C.N..

Net exports to the EU member countries have been achieved only products belonging to the following groups:

- 01-live animals, where exports have remained on average to 136 million Euros, but gained a rate of growth of 248% in 2009 compared with 2007, from accounting for 47 to 117 million Euro;
- 10-cereals, were in 2009 exports totaled a value of 361 million Euro, while imports of 228 million Euro.
- 12-oil seeds, whose exports increased almost 4 times, registering 317 million euro in 2009, while imports 70% larger, of 105 million Euro.
- 24-tobacco and tobacco substitutes, tripled their exports, worth of 348 million Euro, while imports of 126 million Euro.

**Assessment of the quality of agri-food products foreign trade, by the relative unit value index.** According to the described method, the outcome of the analysis was that the agricultural products and foodstuffs that had a low average value of exports in the year 2009, indicating a lower quality, correspond to those included in sections: 01-live animals; 09-coffee, tea, mate and spices; 10-cereals; 11-products of milling industry; 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 (Chart 5).

*Chart 5. The relative unit value indices of the Romanian agri-food trade, 2007-2009 trends*



*Source: own calculations based on EUROSTAT trade statistics.*

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: 02-meat and edible offal; 03-fish and crustaceans; 04-milk and dairy products, birds' eggs, natural honey; 06-live plants and flower products; 07-edible vegetables, roots and tubers; 08-edible fruits; 16-preparations of meat and fish; 17-sugar and sugar confectionery; 21-miscellaneous edible preparations; 24-tobacco. These products, vertically integrated, accounted for 32% of Romania's agri-food exports, while lower quality products shared double, 63%.

Horizontal trade integration corresponds to the exchanges of products that have similar characteristics and qualities, in theory being a situation determined mainly by the economy of scale and consumer preferences for various goods. The empirical results have identified the following groups of products included, in 2009, in this range: 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; 20-preparations of vegetables, fruits; even though this category of products had an extremely low share in exports, of 5%.

An improvement of the terms of trade could be observed, in 2009 comparing to 2008, on the groups of products including meat, milk and dairy produce, other products of animal origin, live plants and flower products, cereals, plaiting materials and other products of vegetable origin, preparations of cereals, vegetables or fruits and beverages, spirits and vinegar.

The evaluation regarding the quality of international trade is an useful instrument to support the policy decisions concerning the restoration and development of the sector; applied on foodstuffs it might have the purpose to promote the products with export potential and those returning extra benefits from international markets, focusing on products with high value added.

## **Concluding Remarks**

The results underline a decrease of domestic performance in the face of growing external competitiveness, with a strong impact both on the food industry that needs to reshape the strategies for going on the market and on the agricultural sector, where changes imposed by the adoption of CAP 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 can be reflected by temporized import flows, narrowed supply ranges, but also by the reduction of external agri-food trade deficit, however through less competitive exports rather than on the basis of imports.



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