Competitive Advantages and Disadvantages in Romania's Agri-Food Trade - Trends and Challenges

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***Abstract*— The paper is part of the studies concerning trade patterns and agri-food foreign trade policies in the EU enlargement context, aiming to assess the competitive trade advantages and disadvantages of the Romania's agri-food products in the foreign trade relations. The analysis focuses on the challenges of the trade liberalization and its influence on the intensification of the commercial exchanges, the supply diversification and on the trade balance equilibrium, faced by Romania's agri-food sector over the transition and pre-accession period.**

The structural reforms of the transition and EU accession preparations induced paramount changes in Romania's agri-food trade pattern, i.e. a fluctuating evolution of the agri-food foreign trade, either in correlation with the variations in the agricultural supply, the performance deficiencies of the agri-food sector that provoked disequilibria on the export market, or with the effect of political changes upon the trade flows. The recent integration in the Single Market recalls a special attention on the opportunities for the competitive producers to attract benefits offered by the enlarged access possibilities and the openness to third countries. In this context, an in-depth analysis of the bilateral trade relation between Romania and EU has been performed by using an alternative method of the comparative trade advantage index, based on the one developed by Vollrath [1].

The results emphasize the identification of either the competitive agri-food trade potential, or of the sensitive zones that could be affected by the external competition post-accession, as well as the needed improvements in the Romanian agri-food sector's competitiveness.

***Keywords*— Agri-food trade, competitiveness, comparative trade advantage index.**

I. DYNAMICS OF THE AGRI-FOOD TRADE

A. Overview

The general evolution trend of the Romanian agri-food trade flows after 1989 was a massive increase in imports and a drastic decrease of exports – in 1990 the agri-food exports decreased more than six times compared to previous year, while the imports increased more than three times – which resulted in a serious trade disequilibrium. Since 1990, Romania became a net importer of agri-food products, with a negative agricultural foreign trade balance; this situation continued in the next period, up to present. The deficit of the balance of trade with agri-food products had record values in recent years, reaching -1.96 billion USD, -1.6 billion Euro respectively in 2006.

The share of the agricultural trade in Romania's foreign trade fluctuated in relation to the variations of the country's export – import operations, to the domestic supply evolution, as well as to the influence of the trade and macro-economic policies. After 1990, the fluctuations were largely created by the variations in the agricultural exports. Since 1998, the fluctuations were attenuated, and the agri-food trade share in total foreign trade had the tendency to decrease. In 2006, the agri-food trade represented 3.3% in exports and 5.9% in imports, which was largely the result of the drastic decrease of total Romanian exports.

The trade disequilibrium produced in 1990, by the sudden increase of the deficit to –1126 million USD, was produced both by the massive increase in imports and by the significant decrease in exports. In the years before the accession, record values were reached, from 837 million USD in 2005 to 1074 million USD in 2006 for exports, up by 28% compared to previous year; as regards imports, from 2514 million USD to 3035 million USD, up by 21%, resulting in the increase of the trade deficit by 17%.

The foreign trade and exchange rate policies of the period before 1998 favoured the obtaining of a high coverage level of imports by exports. In the pre-accession period, i.e. 1999-2006, the coverage of imports by exports reached a medium level, i.e. 35%, which revealed the trade disequilibrium increase.

In the pre-accession period, EU became the main trade partner of Romania; this was revealed by the increase of EU share to 61% in the Romanian agri-food exports in the year 2006 (from 44% in the year 1999) and to 55% in imports (from 36% in 1999), but also of the deficit (-805 million Euro), to half of the agri-food trade balance.

Among other important trade partners, in the year 2006, the exports to CEFTA (Bulgaria and Croatia) accounted for 10% and the imports 1.7%, determining a positive balance of trade of 45 million Euro. On the other hand, the trade with USA (accounting for 0.7% of exports and 5.6% of imports) reached a deficit of -129 million Euro in 2006. At the same time, there were significant export and import flows in the trade with Turkey, which absorbed 6.7% of the Romanian products and accounted for 3.8% of the agri-food imports on Romania's market, as well as with the Republic Moldova, i.e. 2.2 and 2.3% in exports and imports respectively.

B. Structure of agri-food trade by main categories of products

By tradition, the Romanian agri-food exports are dominated by vegetable products and live animals and animal products. In the transition period, Romania was a net exporter of agricultural products, only in the specified periods, for the products included in the following sections of the Combined Nomenclature (C.N.): live animals and animal products (1991-1997), vegetable products (1995-1996, 1999) and fats and oils (1995-1999, 2004-2005). In the remaining period, the imports prevailed, with fluctuating shares, except for the products included under the section IV - Prepared foodstuffs, beverages and tobacco, which experienced a systematic trade deficit, with a tendency of increasing value of imports and the highest share in the agri-food trade deficit, 58% on the average in the period 2000-2005. In the year 2006, Romania experienced a trade deficit in all the groups of products included under the sections I-IV of the C.N..

In the period 1989-2006, the highest share in Romania's agri-food exports was systematically held by the products under section II – Vegetable products, 37% on the average (48% in 2006), followed by the products under section I – Live animals and animal products, averaging 35% (25% in 2006), IV – Prepared foodstuffs, beverages and tobacco, 22% on the average (21% in 2006) and section III - Animal or vegetable fats and oils, 7% on the average.

The prepared foodstuffs, beverages and tobacco prevailed in Romania's agri-food imports, accounting for 48% (46% in 2006) of imports on the average. Under section II – Vegetable products, the imports accounted for 27% on the average (22% in 2006), and under section I – Live animals and animal products, 21% (29% in 2006) and 3-4% under section III - Animal or vegetable fats and oils.

As a result, the agri-food balance deficit, by CN sections, had the greatest contribution to the disequilibrium of Romania's agri-food trade balance after 1990. In the year 2006, the trade deficit in prepared foodstuffs, beverages and tobacco reached -1166 million USD, followed by -623 million USD in live animals and animal products, -165 million USD in vegetable products and -21 million USD in fats and oils.

II. EVALUATION OF ROMANIAN AGRI-FOOD PRODUCTS COMPETITIVENESS

The analysis of the Romanian agri-food products performance on the foreign markets, applying the classification method by the first categories of products that had positive or negative trade balance [2], reveals the competitive advantages and disadvantages respectively of the agri-food trade, at the level of traded groups of products, corresponding to the 4-digit C.N. codes.

The main groups of agri-food products (chapters 1-24 of C.N., 2 digits) that had a positive balance in the period 1998-2006, are relatively constant, suggesting the presence of competitive advantage for the groups including: live animals, seeds, fruit, industrial crops and medicinal herbs, plaiting materials. The classification according to the first groups of agri-food products, corresponding to the 4-digit C.N. codes, which had the highest positive trade balance, puts into evidence the products in which Romania was competitive at export.

Compared to the previous years, in 2006, among the first ranked 10 competitive products, with a positive trade balance, the following products were found, similar with the situation in 2005, yet with a different importance, indicated by the classification: sunflower seeds; live animals from the sheep or goat species; live animals from the bovine species; maize; rapeseed; refined sunflower oils; oil cakes and other residues from fat extraction. Against to the year 2005, significant net exports of wheat and meslin were found (rank 2), honey (rank 8) and other preparations based on meat, offal or blood (rank 10). The products included in the hierarchy of the first 10 most competitive products accounted for 61.2% of the agri-food exports in the year 2006.

The main groups of agri-food products that had a negative balance in the period 1998-2006, indicating the lack of competitiveness on the foreign markets are the following: meat and edible offal; tobacco; sugar and confectionery; miscellaneous edible preparations; fruit; preparations of vegetables and fruit; residues and waste from the food industry, animal fodder; etc.. In absolute terms, the group IV - Prepared foodstuffs, beverages and tobacco (chapters 16-24 of C.N.) have constantly featured the highest trade deficit since 1994. Of course, the tobacco also had a great contribution, as mentioned above.

The restructuring and privatization of the Romanian food industry began later and lasted longer than in the other Central and East-European countries, due to the different intervention policies that were applied, which mainly targeted consumer protection. Only when these processes were initiated, at last, the Romanian food industry had to compete with highly processed and high quality products coming from the EU and CEFTA countries, so that the level of regaining certain segments on the domestic market of processed food products is still relatively low. In recent years, the economic growth in Romania also meant an increase in real incomes, which was reflected (according to certain recent surveys in the field of retail sales) in a steady increase of the demand of highly processed quality agri-food products.

The main non-competitive products, in which Romania has been a net importer in recent years (2004-2006), indicate the hierarchy of the agri-food products that had the highest negative trade balance. These products had a share over 80% in the agricultural trade balance in the years 2005-2006 and include, in the order of importance, the following products: fresh, refrigerated or frozen pork meat; cigars and cigarettes; cane or sugar beet sugar; prepared foodstuffs; coffee; poultry meat and edible offal; feed preparations; tobacco and tobacco waste; bananas and citrus.

The evaluation reveals that the Romanian agri-food trade was featured by a low level of competitiveness of products with high value added and low diversification of Romanian exports. Compared to the processed products, the basic agricultural products have a high share in exports, accounting for 80% on the average in the period 2003-2006. In the same period, the share of imports of processed products accounted for 42% on the average of total agricultural imports, while the basic products 58%, which reveals the domestic supply deficit with regard to the raw materials and the agri-food industry products.

Since for the last decade EU has been the main agri-food trade partner, a more detailed analysis of the agri-food competitiveness has been conducted for this bilateral trade relation. An alternative method has applied, based on the method developed by Vollrath [1], by computing the revealed relative comparative advantage index (or the relative commercial advantage), calculated using the formula (1):

$$RCA_{ij} = RXA_{ij} - RYA_{ij} \quad (1),$$

where: RXA, is the revealed relative export advantage (computed with the formula 2) and RYA, is the revealed relative import advantage, or the import penetration index (computed with the formula 3); X=export; Y=import; i, t= product or product group; j, n = countries, or country group.

$$RXA_{ij} = \left(X_{ij} / \sum_{1,n\neq j} X_{in} \right) / \left(\sum_{t,t\neq i} X_{tj} / \sum_{t,t\neq i} \sum_{1,n\neq j} X_{tj} \right) \quad (2),$$

$$RYA_{ij} = \left(Y_{ij} / \sum_{1,n\neq j} Y_{in} \right) / \left(\sum_{t,t\neq i} Y_{tj} / \sum_{t,t\neq i} \sum_{1,n\neq j} Y_{tj} \right) \quad (3).$$

The index was adapted to the purpose of the study, that of measuring the trade performance of the Romanian agri-food products, i.e. the group of countries to compare with was restricted to the EU-25 countries, and the group of products corresponds to the total agricultural products [3]. The level of aggregation included the chapters corresponding to C.N., at 2 digits.

The positive values of the aggregated RCA index indicate a trade comparative advantage for the respective products or sector, while negative values indicate the fact that the analyzed sector, or products, shows a lack of competitiveness. The RCA values, have been computed for the period 1999-2005 and are shown in table 1.

The aggregation level of the data used is corresponding to the 2-digit chapters 01-24 in the HC Classification (except chapter 03 – fish and fish products, which is not included in the agri-food trade analyses, according to DG VI methodology).

Table 1 Index of comparative trade advantage, Romania – EU 25 (1999-2005)

Code C.N. - Denomination	1999	2000	2001	2002	2003	2004	2005
01 - Live Animals	10,41	18,17	12,44	14,15	21,36	15,78	13,17
02 - Meat and edible meat offal	-1,64	-1,65	-2,67	-3,5	-1,94	-3,49	-5,73
04 - Dairy produce	-1,66	-0,93	-0,84	-0,94	-0,4	-0,54	-1,01
05 - Products of animal origin	1,28	2,82	1,79	1,77	1,05	1,01	0,2
06 - Live trees and other plants	-0,13	-0,1	-0,16	-0,38	-0,24	-0,3	-0,5
07 - Edible vegetables, roots & tubers	1,91	2,22	3,47	2,39	1,73	2,13	2,5
08 - Edible fruits & nuts	1,7	2,53	2,14	1,88	2,16	2,24	1,83
09 - Coffee, tea, mate & spices	-0,33	0	-0,34	-0,38	-0,41	-0,33	-0,21
10 - Cereals	2,99	-0,13	1,31	4,5	-5,19	-0,74	4,26
11 - Products of the milling industry	-19,6	-26,4	-20,0	-19,1	-30,6	-23,0	-12,27
12 - Oil seeds & oleaginous fruits	12,08	7,4	7,54	4,67	12,33	8,61	7,98
13 - Lacs, gums, resins, other veg. saps	-0,57	-0,38	-0,32	-0,38	-0,41	-0,39	-0,39
14 - Vegetable products n.e.s.	7,24	8,98	10,15	8,97	11,81	11,8	14,49
15 - Animal or vegetable fats & oils	1,48	0,46	0,78	-0,7	0,59	2,11	1,9
16 - Preparations of meat	-1,28	0,59	1,6	1,37	1,34	1,49	1,78
17 - Sugars & sugar confectionery	-3,9	-5,26	-5,24	-3,02	-2,87	-2,32	-2,13
18 - Cocoa & cocoa preparations	-0,35	-0,39	-0,31	-0,26	-0,24	-0,22	-0,27
19 - Preps. of cereals, flour, starch, etc.	-2,57	-2,01	-1,89	-2,19	-1,6	-1,98	-2,02
20 - Preps. of vegetables fruits, nuts, pl.	-0,33	0,04	-0,05	-0,06	0,38	-0,02	0,06
21 - Miscellaneous edible preparations	-4,07	-3,3	-2,62	-2,84	-2,53	-2,58	-2,57
22 - Beverages, spirits & vinegar	-0,19	-0,08	-0,06	-0,1	-0,16	-0,24	-0,29
23 - Residues and waste from food ind.	0,74	1,73	1,77	0,92	0,83	0,91	0,94
24 - Tobacco & tobacco products	-2,97	-2,74	-2,1	-2,16	-2,58	-4,03	-4,41

Source: own calculations [4].

The statistical data comprise the values of export and import flows registered in the period 1999-2005, provided by the foreign trade database of Romania from the National Institute of Statistics and by EUROSTAT / COMEXT.

The outcome of the analysis highlights the products that systematically have been demonstrated, along the analyzed period, a high level of competitiveness in the trade between Romania and EU-25, corresponding to those with positive values of RCA; those products belong to the chapters: 01 – live animals, 14 – vegetable products n.e.s., 12 – oil seed & included products with lower competitiveness, as they are from the chapters 07 – edible vegetables, roots & tubers, 08 – fruits, and 10 – cereals (except for the years 2000, 2003, 2004).15 – oils and fats (except for 2002) and 16 - preparations of meat (all the period, out of 1999). On the other hand, the products showing continuous lack of competitiveness, corresponding to the extreme negative values of the index, are those included in the chapters 11 – products of milling industry, 02 – meat and meat products, 24 – tobacco, 17 – sugar, 21 – food preparations and 19 – preparations of cereals, flour, starch.

The empirical analysis of Romania's competitiveness in the agri-food trade with the EU-25 shows a prevalence of products with low level of processing, indicating the agri-food industry as main restriction for the sector in gaining larger export income.

III. CLOSING REMARKS

The Romanian exports of agri-food products constantly increased since early '90s. Yet, the analysis of export flows indicates that this increase was based mainly upon unprocessed products or products with low processing level. An exception is the wine, and in recent years the milk and dairy products and the group of bakery and pastry products. These changes in the composition of export flows reveal the benefic effect of the foreign direct investments in the Romanian food industry. At the same time, their spill-over effect should be also taken into consideration: in order to avoid the loss of market segments, many domestic processors had to improve the quality of their products and to increase their efficiency. The improvement of the performance and supply of products of the Romanian food industry was also stimulated by the explosion of modern retail structures (supermarkets and hypermarkets) after the year 2000, which significantly increased the demand of higher quality products, at lower prices.

Imports significantly increased during the transition period. The analysis of import flows reveals that before 1998 (year when the foreign direct investments appeared in the Romanian food industry), two-thirds of the agri-food imports were imports of highly processed products (processed foodstuffs, beverages, tobacco). Their share in imports began to decrease in the next years, reaching 50% in 2000 and 35% in 2004 and the decreasing trend continued.

Yet, these positive evolutions do not cover the whole Romanian food industry, which overall still features low efficiency and needs restructuring and modernization, both as regards the equipment, technologies and the management and marketing. There are still important steps to make in the direction of domestic productivity increase and thus of competitiveness increase both on the domestic and foreign markets. The acquis communautaire in the sanitary-veterinary sector and the EU quality standards still remain a main problem to be solved.

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