

TRENDS IN ROMANIA'S AGRO-FOOD FOREIGN TRADE IN THE PERIOD 2007-2012

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Abstract

The purpose of this study was the analysis of Romania's agro-food foreign trade dynamics in the period 2007-2012 in order to identify its major trends and changes. In 2012, the agro-food export reached Euro Million 2,812, and import Euro Million 3,834. The Euro Million -1,021 balance deficit proved that Romania is still a net exporting country. The EU accounts for about 72 % in export and 70% in import value, of which agro-food trade contributes by 8.90 % and, respectively by 9.54% in Romania's import. In 2012, the agro-food export structure was the following one:Vegetable products 38.66%, Prepared foodstuffs, beverages and tobacco 36.02 %, and Live animals and animal products 18.99 %, and the agro-food import structure was: Prepared foodstuffs, beverages and tobacco 38.39 %, Vegetal products 30.89 %, and Live animals and animal products 25.62 %. The main Romania's trade partners are Italy, Bulgaria, Hungary, Spain, Germany, The Netherlands, Greece, France, Austria and United Kingdom for agro-food export (88.14 %) and Hungary, Germany, The Netherlands, Poland, Bulgaria, Italy, France, Austria, the Czech Republic and Greece for agro-food import (88.38 %). In the period 2007-2012, an improved efficiency of the agro-food trade was noticed in terms of export/import ratio, export value per GDP and per inhabitant, and lower and lower deficit of the trade balance.

Key words: Romania, agro-food trade, trends

INTRODUCTION

Romania has a high potential in agricultural production proved by the continuous growth of its value, contribution to GDP and higher agro-food export.

In the pre-accession period, Romania has intensified its trade with the EU countries. In 2007, the agro-food export with the EU accounted for about 8.7 % in Romania's export and the agro-food import for about 9 % in the country import value. The main features of the Romanian agro-food trade were the continuous increased export of cereals, meat, dairy products and eggs and increased import of meat and meat preparations, vegetables and fruit, sugar, coffee and teas as mentioned by Zahiu *et al.*(2010) [21]

After its entry into the EU, in January 2007, Romania has paid a special attention to the increase of agricultural production and also to product quality as imposed by the EU standards for goods commercialized on the common market.

Romania's export to the EU represented 72 % while its import from the EU accounted for 70 % of the agro-food trade as mentioned Pirvutoiu *et al.*(2007) [8] and Popescu Agatha (2010b) [10].

The Romanian agro-food export has constantly grown, but mainly based on low processed products. A slight change has appeared in the trade structure in favor of more processed products with high value added due to the direct investments in food industry and increased consumer demand for high quality foodstuffs as mentioned Rusali Mirela (2008) [15]

In the post-accession period, some products with potential for export have lost their importance in trade specialization. For example, live animals and animal products had a positive balance, and oilseeds, milk and dairy products as well as affirmed Rusali Mirela (2012) [16]

In the period 2006-2012, there were no changes in Romania's trade flows. Processed food products continued to dominate the agro-

food import, while the basic agricultural commodities represented over 50 % of export value as mentioned by Rusali Mirela (2014). [17]

Toma Elena *et al.*(2014) affirmed that cereal grains, milk and oleaginous seeds, fruits and tobacco, recorded a higher share both in agro-food import and export, while tobacco and meat products import declined and live livestock and vegetables export decreased their weight. [19]

In the background of the global economic recession, Romania has chosen its own development and has a specific behavior, grace to its international trade policy as affirmed Savoiu *et al.*(2012)[18]

Regarding the non European markets, Zanvetor Raffaella (2014) mentioned that Romania needs a deep promotion on the international market and it is also imposed a marketing analysis for each country group and products which are objects for export in order to balance the export/import ratio and extend the geographical area where Romanian products are sold [22]

In this context, the purpose of the paper was to analyze the dynamics Romania's agro-food in order to identify the main trends and changes in its level and structure as well as in its efficiency in the period 2007-2012.

MATERIALS AND METHODS

In order to analyze the trends of Romania's the agro-food foreign trade, the following specific indicators have been used: the volume of export, import and balance, the share of agro-food export, import and balance in Romania's foreign trade, the value and structure of agro-food export FOB and also of agro-food import CIF by section and main chapters according to the Combined Nomenclature, CN, the market share of the top EU 10 agro-food exporting countries and also of the top 10 importing countries by product groups.

The main indicators reflecting the efficiency of agro-food trade such as: the export impact on GDP, the import coverage by export, export value per inhabitant,

export/agricultural production value were also determined using the formulas mentioned by Anghelache (1999), Popescu Agatha (2010). [1, 9]. Also the index, share and comparison methods were used as well.

The empirical data were provided by the National Institute for Statistics for the period 2007-2012 [14].

RESULTS AND DISCUSSIONS

Romania's agro-food trade dynamics. In the analyzed period, *the agro-food export value* increased 3.6 times Euro Million 3,339 in the year 2007 to Euro Million 4,044 in the year 2012. *The agro-food import value* increased by 43.45%, so that in 2012, it accounted for Euro Million 4,790 compared to Euro Million 3,339 in 2007. As a consequence, *the agro-food trade balance* was a negative one. The highest deficit was recorded in 2007, Euro Million -2,217, but in the coming years the deficit decreased, reaching the lowest level in 2001, Euro Million -423, while in 2012 it increased to Euro Million -746. However, the balance have shown a continuous decreasing trend which is a positive aspect. In 2012, the agro-food deficit was by 66.36 % lower than in 2007.(Table 1).

The share of the agro-food trade in Romania's foreign trade. Taking into account that the agro-food trade has had a more dynamic development, the share of agro-food export in Romania's export has continuously grown from 3.79 % in 2007 to 8.97 % in the year 2012, while the share of the agro-food import in Romania's import has grown from 6.50 % in 2007 to 8.75 % in 2012. The share of agro-food trade balance in Romania's trade balance recorded the highest level of 10.18 % in the year 2007 and the lowest one, 4.37 % in the year 2011. So, the main trend is a decreasing one. (Table 2)

The dynamics of agro-food export by product group category. According to the Combined Nomenclature (CN), agro-food export is divided into four sections: I Live animals and animal products, II Vegetal products, III Animal or vegetable fats and oils

and Prepared foodstuffs, beverages and tobacco.

Table 1. Agro-food export, import and trade balance, Romania, 2007-2012 (Euro Million).

	2007	2008	2009	2010	2011	2012	2012/2007 %
Export	1,122	2,165	2,243	3,113	4,022	4,044	360.4
Import	3,339	4,346	3,823	3,919	4,445	4,790	143.4
Balance	-	-	-	-806	-423	-746	33.6
Trade value	4,461	6,511	6,066	7,032	8,467	8,834	198.0

Source: Romania's Statistical Yearbook, 2013. [14]Own calculations.

Table 2. Share of agro-food trade in Romania's foreign trade, 2007-2012 (%)

	2007	2008	2009	2010	2011	2012
Foreign trade	100	100	100	100	100	100
Agro-food export	3.79	6.41	7.71	8.33	8.88	8.97
Agro-food import	6.50	7.59	9.81	8.37	8.08	8.75
Agro-food balance	10.18	9.27	16.00	8.38	4.37	7.74

Source: Own calculations.

The value of the exported live animals and animal products increased by 190 % from Euro Million 252 in the year 2007 to Euro

Million 731 in the year 2012. These aspect was determined mainly by the substantial growth of the export value with live animals. In 2012, it reached Euro Million 304 being by 67.95 higher compared to Euro Million 181 in the year 2007. On the 2nd position, it was placed the export value of meat and edible meat offal which registered the highest growth. In the year 2012, it accounted for Euro Million 263, being 9.74 times higher than in 2007.

On the 3rd position came the export value of milk and dairy products, eggs, honey, edible products of animal origin.

In 2012, this group of products registered Euro Million 123 export value, being 3.72 times higher than in the year 2007.

Despite that the live animals balance is a positive one, this product group is deeply imbalanced regarding various animal categories. The export with live animals is mainly supported by cattle, the other species having a slight contribution as affirmed Vlad Ionela et al. (2014). [20]

Table 3. Romania's Agrofood Export FOB by section and main chapters according to the Combined Nomenclature, CN, 2007-2012 (Euro million)

CN Code	Section/Chapter	2007	2008	2009	2010	2011	2012	2012/2007 %
EXPORT Romania	-	29,529	33,725	29,084	37,360	45,292	45,070	152.62
Romania's Agrofood export	-	1,122	2,165	2,243	3,113	4,022	4,044	360.42
I	Live animals and animal products	252	278	326	434	584	731	290.07
01	Live animals	181	177	173	196	234	304	167.95
02	Meat and edible meat offal	27	42	74	129	221	263	974.07
04	Milk and dairy products, eggs, honey, edible animal products	33	45	60	80	85	123	372.72
II	Vegetal products	440	1,198	1,125	1,625	2,097	1,970	447.72
08	Edible fruit	39	33	39	62	70	75	192.30
10	Cereals	151	638	631	893	1095	1,336	884.76
III	Animal and vegetable fats and oils	68	106	88	164	242	183	269.11
IV	Prepared foodstuffs, beverages and tobacco	362	583	704	890	1,099	1,160	320.44
16	Meat and fish preparations	28	40	37	54	69	86	307.14
22	Beverages, spirits and vinegar	55	70	57	89	90	118	214.54

Source: Romania's Statistical Yearbook, 2013. [14] Own calculations.

The export value of vegetal products accounted for Euro Million 1,970 in 2012, being by 347.72 % higher than in 2007. Cereals are the most exported agricultural products. The cereal export value was Euro Million 1,336 in the year 2012, being 8.84 times higher compared to only Euro Million 151 in the year 2007. This was due to the continuous growth of cereal production which determined Romania's position as the most important cereal supplier in the EU. The export value of edible fruit increased by 92.30 % from Euro Million 39 registered in 2007 to Euro Million 75 in the year 2012. **The export value of Animal and vegetable fats and oils** increased by 169.11 %, accounting for Euro Million 183 in 2012 compared to only Euro Million 68 in the year 2007. Because fats and oils are much required in the EU market, Romania focused on these products and

became an important supplier of this products too. **The export value of Prepared foodstuffs, beverages and tobacco** has also recorded a continuous growth in the analyzed period. In the year 2012, it accounted for Euro Million 1,160, being by 220.44 % higher than in the year 2007. Within this group of products, the value of the exported Meat and fish preparations increased by 207.14 % from Euro Million 28 in 2007 to Euro Million 86 in the year 2012, while the export value of Beverages, spirits and vinegar increased by 114.54 % from Euro Million 55 in 2007 to Euro Million 118 in the year 2012 (Table 3). **The dynamics of Romania's Agrofood Export structure.** Taking into account the growth of each section and agro-food product category as presented above, it was easily established the structure of Romania's agro-food export.

Table 4. Structure of Romania's Agrofood Export by section and main chapters according to the Combined Nomenclature, CN, 2007-2012 (%)

CN Code	Section/Chapter	2007	2008	2009	2010	2011	2012
Romania's Agrofood export	-	100.00	100.00	100.00	100.00	100.00	100.00
I	Live animals and animal products	22.45	12.84	14.53	13.94	14.52	18.07
01	Live animals	16.13	8.17	7.71	6.29	5.81	7.51
02	Meat and edible meat offal	2.40	1.93	3.29	4.04	5.49	6.50
04	Milk and dairy products, eggs, honey, edible animal products	2.94	2.07	2.67	2.56	2.11	3.04
II	Vegetal products	39.21	55.33	50.15	52.20	52.13	48.71
08	Edible fruit	3.47	1.52	1.73	1.99	1.74	1.85
10	Cereals	13.45	29.46	28.13	28.68	27.22	28.09
III	Animal and vegetable fats and oils	6.06	4.89	1.58	5.26	6.01	4.52
IV	Prepared foodstuffs, beverages and tobacco	8.18	26.92	31.38	28.58	27.32	28.68
16	Meat and fish preparations	2.49	1.84	1.64	1.73	1.71	2.12
22	Beverages, spirits and vinegar	4.90	3.23	2.54	2.85	2.23	2.91

Source: Own calculations.

Vegetal products were on the 1st position with a share of 39.21 % in the year 2007 and 52.13 % in the year 2012. This situation was determined by the increased contribution of cereals, 27.22 % to Romania's agro-food export in 2012 in comparison with only 13.45 % in the year 2007. Even thou Romania has a

good potential to produce wheat and wheat is one of the most important cereals in the world, Romania accounts for 1.45 % in global wheat import and for 1.23 % in wheat export as mentioned Medelete and Panzaru (2014) [6] **Prepared foodstuffs, beverages and tobacco** came on the 2nd position with a share

of 27.32 % in agro-food export value in the year 2012 compared to only 8.18 % in the year 2007. This happened because of the increased export value of foodstuffs whose share in agro-food export value accounted for 23.38 % in the year 2012 in comparison with only 0.79 % in the year 2007. *Live animals and animal products* came on the 3rd position with a share of 14.52 % in the year 2012 compared to 22.45 % in the year 2007. This situation was due to the continuous growth of the share of meat and edible offal, while the share of Live animals and Milk and dairy products etc has recorded a continuous decline. *Animal and vegetable fats and oils* were situated on the 4th position with 6% constant share in the agro-food export value, but in 2012 it declined to 4.52 % (Table 4).

The dynamics of agro-food import by product group category. *The value of imported Live animals and animal products* increased by 18.96 % from Euro Million 870 in 2007 to Euro Million 1,035 in the year 2012. The most dynamic growth was recorded by Live animals. In 2012, this product category accounted for Euro Million 140, being by 197.87% higher than in the year 2007. The import value of Meat and edible meat offal recorded a large variation from a year to another, but the general trend was a decreasing one, so that in 2012, this category of products accounted for Euro Million 479, being by 13.39 % lower than in 2007. The import value of Milk and dairy products, eggs, honey, edible animal products increased by 65.35% from Euro Million 153 in 2007 to Euro Million 253 in 2012.

Table 5. Romania's Agrofood Import CIF by section and main chapters according to the Combined Nomenclature, CN, 2007-2012 (Euro million)

CN Code	Section/Chapter	2007	2008	2009	2010	2011	2012	2012/2007 %
IMPORT Romania	-	51,322	57,240	38,953	46,869	54,952	54,704	106.58
Romania's Agrofood import	-	3,339	4,346	3,823	3,919	4,445	4,790	143.45
I	Live animals and animal products	870	1,191	1,116	984	965	1,035	118.96
01	Live animals	47	102	117	96	107	140	297.87
02	Meat and edible meat offal	553	730	642	515	457	479	86.61
04	Milk and dairy products, eggs, honey, edible animal products	153	212	217	225	255	253	165.35
II	Vegetal products	1,037	1,259	1,003	1,141	1,324	1,416	136.54
08	Edible fruit	246	245	176	179	185	235	95.52
10	Cereals	271	308	250	248	333	373	137.63
III	Animal or vegetable fats and oils	144	227	160	217	245	239	165.97
IV	Prepared foodstuffs, beverages and tobacco	1,288	1,669	1,544	1,577	1,911	2,100	163.04
16	Meat and fish preparations	52	69	59	61	69	91	175.00
22	Beverages, spirits and vinegar	157	209	139	144	210	228	145.22

Source: Romania's Statistical Yearbook, 2013. [14] Own calculations.

The import value of Vegetal products increased by 36.54% from Euro Million 1,037 in 2007 to Euro Million 1,416 in 2012. This growth was positively influenced by the increased cereal import by 37.63 % from Euro Million 271 in 2007 to Euro Million

373 in 2012, and negatively influenced by the decline of about 5% for import value of Edible fruit from Euro Million 246 in 2007 to Euro Million 235 in the year 2012. *The import value of Animal or vegetable fats and oils* recorded a growth of 65.97%, in 2012 accounting for Euro Million 239 compared to

Euro Million 144 in the year 2007. *The import value Prepared foodstuffs, beverages and tobacco* increased by 63.04 % from Euro Million 1,288 in the year 2007 to Euro Million 2,100 in the year 2012. A positive influence was noticed from the increased import value of Meat and fish preparations and Beverages, spirits and vinegar. So, in 2012, the import value of Meat and fish preparations was by 75 % higher and the import value of Beverages, spirits and vinegar was by 45.22 % higher than in the year 2007.(Table 5)

The dynamics of Romania's Agro-food Import structure.The change in import value for various sections and product categories has had a deep impact on the agro-foof import structure. *Prepared foodstuffs, beverages and tobacco* represented the most important group of imported agro-food products. Their share in the import value of agro-food trade increased from 38.57% in the year 2007 to 42.99 % in the year 2012. This happened because of the positive influence of foodstuffs whose share increased from 32.33 % in 2007 to 36.71 % in 2012. While the share of Meat and fish

preparations increased from 1.55 % to 1.89 %, the weight of Beverages, spirits and vinegar has grown from 4.70 % to 4.75% in the same period of time. *Vegetal products* were situated on the 2nd position in the agro-food import value based on their share, which accounted for 31.05 % in 2007 and 29.56 % in 2012. While the share of Edible fruit and Cereals declined within Vegetable products import value, the share of imported vegetables and fruit increased from 15.58% in 2007 to 18.13 % in the year 2012. *Live animals and animal products* came on the 3rd position with a share of 26.05 % in 2007 and 21.70 % in 2012 in the value of agro-food import. This was determined by the continuous decline of import value of meat and edible offal whose share decreased from 16.56 % in 2007 to 10 % in 2012. However, Live animals and Milk and dairy products, eggs, honey, edible animal products had a positive impact on the share of this product category weight. *Animal or vegetable fats and oils* were situated on the last position with a share of 4.31 % in 2007 and 5.51 % in 2012.(Table 6).

Table 6. Structure of Romania's Agrofood Import by section and main chapters according to the Combined Nomenclature, CN, 2007-2012 (%)

CN Code	Section/Chapter	2007	2008	2009	2010	2011	2012
Romania's Agrofood import	-	100.00	100.00	100.00	100.00	100.00	100.00
I	Live animals and animal products	26.05	27.40	29.19	25.10	21.70	21.60
01	Live animals	1.40	2.34	3.06	2.44	2.40	2.92
02	Meat and edible meat offal	16.56	16.79	16.79	13.14	10.28	10.00
04	Milk and dairy products, eggs, honey, edible animal products	4.58	4.87	5.67	5.74	5.73	5.28
II	Vegetal products	31.05	28.96	26.23	29.11	29.78	29.56
08	Edible fruit	7.36	5.63	4.60	4.56	4.16	4.90
10	Cereals	8.11	7.08	6.53	6.32	7.49	7.78
III	Animal or vegetable fats and oils	4.31	5.22	4.18	5.53	5.51	4.98
IV	Prepared foodstuffs, beverages and tobacco	38.57	38.40	40.38	40.23	42.99	43.84
16	Meat and fish preparations	1.55	1.58	1.54	1.55	1.56	1.89
22	Beverages, spirits and vinegar	4.70	4.80	3.63	3.67	4.72	4.75

Source:Own calculations.

The dynamics of Romania's Agrofood Trade Balance. The evolution of export value and import value by section and product group category has determined the statement of the evolution of the agro-food trade balance in the period 2007-2012. *The balance for Live animals and animal products* was a negative one in all the analyzed years, recording a continuous decline, which could be considered a positive aspect. So, in 2012, this section recorded Euro Million -304 deficit, being by about 50 % less than in 2007. This was influenced by the positive balance of Live animals and by the continuous decreased deficit recorded by Meat and edible meat offal (by 59 % less in 2012 compared to 2007), and also negatively influenced by the increased negative balance of Milk and dairy

products, eggs, honey, edible animal products. *The balance of Vegetal products* was a negative one in the years 2007 and 2008, but in the following years it has become a positive one with a good impact on the agro-food trade balance. A positive influence had the cereal trade and a negative one had the balance of Edible fruit. Arghiroiu *et al.* (2013) affirmed that cereals represented an important agricultural product exported by Romania, but also imported, and even thou the trade balance has been improved from a year to another, its is still a negative one. [2] *The balance of Animal or vegetable fats and oil* was a negative one in all the analyzed years, but the general trend was a decreasing one having a good impact on the agro-food trade balance.

Table 7. Romania's Agrofood Trade Balance by section and main chapters according to the Combined Nomenclature, CN, 2007-2012 (Euro million)

CN Code	Section/Chapter	2007	2008	2009	2010	2011	2012	2012/2007 %
	Trade Balance Romania	-21,773	-23,515	-9,869	-9,509	-9,660	-9,634	44.24
	Romania's Agrofood trade balance	-2,217	-2,181	-1,580	-806	-423	-746	33.64
I	Live animals and animal products	-618	-913	-790	-550	-381	-304	49.19
01	Live animals	+134	+75	+56	+100	+127	+164	122.38
02	Meat and edible meat offal	-526	-688	-568	-386	-236	-216	41.06
04	Milk and dairy products, eggs, honey, edible animal products	-120	-167	-157	-145	-170	-130	108.33
II	Vegetal products	-597	-61	+122	+484	+773	+554	192.79
08	Edible fruit	-207	-212	-137	-117	-115	-160	77.29
10	Cereals	-120	+330	+381	+645	+762	+963	1,802.50
III	Animal or vegetable fats and oils	-76	-121	-72	-53	-3	-56	73.68
IV	Prepared foodstuffs, beverages and tobacco	-926	-1,086	-840	-687	-812	-940	101.51
16	Meat and fish preparations	-24	-29	-22	-7	0	-5	20.83
22	Beverages, spirits and vinegar	-102	-139	-82	-55	-120	-110	107.84

Source: Own calculations.

The balance of Prepared foodstuffs, beverages and tobacco was a negative one and taking into account the figures presented in Table 8, it has the most unfavorable influence on the agro-food trade balance. The main cause is the negative influence of

Foodstuffs balance. The high foodstuffs import compared to export value has led to a substantial negative balance for this product group. Beverages, spirits and vinegar and Meat and fish preparations have also had a negative impact on the agro-food trade

balance, but smaller compared to the impact caused by Foodstuffs balance (Table 7).

Romania's agro-food trade with the EU countries by product category. The main feature of its agro-food trade is the continuous development of Romania's commercial relationships with the EU countries.

Analyzing the competitiveness of Hungarian and Romanian agro-food export to the EU, Fogarasi (2008) affirmed that several groups of products have improved their competitiveness, but this was due to the growth of these products demand in the EU market. [4]

In 2012, Romania's agro-food export value accounted for Euro thousand 2,812,980 export value and import value for Euro thousand 3,834,705. As a result, the agro-food trade balance was a negative one and registered a deficit of Euro thousand -1,021,725. The shares of various items of agro-food trade in Romania's trade with the EU in the year 2012 was the following one: 8.90 % export share,

9.54% import share and 11.99 % balance share.

In 2012, the contribution of various product groups according to the Combined Nomenclature (CN) in Romania's agro-food export with the EU was the following one: Live animals and animal products 18.99 %, vegetal products 38.66 %, Animal or vegetable fats and oils 6.33 % and Prepared foodstuffs, beverages and tobacco 36.02 %.

In the same year, the share of various product groups in Romania's agro-food import with the EU was the following one: Live animals and animal products 25.62 %, Vegetal products 30.89 %, Animal or vegetable fats and oils 5.08 % and Prepared foodstuffs, beverages and tobacco 38.39 %.

The contribution of various agro-food product groups to the deficit of agro-food trade in 2012 was the following one: 43.89 % Live animals and animal products, 9.48 % Vegetal products, 1.64 % Animal or vegetable fats and oils and 44.98 % Prepared foodstuffs, beverages and tobacco (Table 8).

Table 8. Romania's agro-food trade with the EU by product group according to the Combined Nomenclature(CN) in 2012 (Euro thousand)

	Total Romania's trade with the EU	Romania's agro-food trade with the EU, of which:	I. Live animals and animal products	II. Vegetal products	III. Animal or vegetable fats and oils	IV. Prepared foodstuffs, beverages and tobacco
Export value	31,601,953	2,812,980	534,205	1,087,776	178,319	1,012,680
Import value	40,173,153	3,834,705	982,663	1,184,645	195,139	1,472,258
Trade balance	-8,517,200	-1,021,725	-448,458	-96,869	-16,820	-459,578

Source: Romania's Statistical Yearbook, 2013. [14] Own calculations

Table 9. The market share of the main EU partner countries in Romania's agro-food trade in 2012(%)

Export			Import		
Country	Share (%)	Position	Country	Share (%)	Position
Italy	18.96	1	Hungary	22.95	1
Bulgaria	12.74	2	Germany	16.00	2
Hungary	12.38	3	The Netherlands	11.44	3
Spain	11.85	4	Poland	8.52	4
Germany	8.95	5	Bulgaria	7.97	5
The Netherlands	7.33	6	Italy	7.60	6
Greece	6.36	7	France	4.66	7
France	4.47	8	Austria	3.68	8
Austria	2.88	9	Czech Rep.	2.84	9
United Kingdom	2.22	10	Greece	2.72	10
Total	88.14	-	Total	88.38	-

Source: Own calculations

The main EU trade partners are Italy, Bulgaria, Hungary, Spain, Germany, The Netherlands, Greece, France, Austria and United Kingdom whose share in Romania's agro-food export value totalized 88.14 %, and Hungary, Germany, The Netherlands, Poland, Bulgaria, Italy, France, Austria, Czech Rep. and Greece representing 88.38 % in Romania's agro-food import value.(Table 9).

The top 10 EU countries which imported live animals and animal products from Romania in 2012 were, in the decreasing order, Bulgaria, Hungary, Greece, Italy, The Netherlands, Germany, Spain, France, United Kingdom and Cyprus whose total share in the agro-food export of this product category

represented 91.64 % (Table 10).

Table 10. The top 10 EU partner countries in Romania's export with Live animals and animal products in 2012

Country	Export value of Live animals and animal products (Euro thou)	Share of Export with Live animals and animal products in Agro-food export value (%)	Share of Export with Live animals and animal products in Romania's EU export with Live animals and animal products (%)	Position
Bulgaria	129,947	36.25	24.32	1
Hungary	72,663	20.85	13.60	2
Greece	69,319	38.69	12.97	3
Italy	67,033	12.57	12.55	4
The Netherlands	39,783	19.28	7.44	5
Germany	39,099	15.52	7.31	6
Spain	24,166	7.24	4.52	7
France	20,701	16.46	3.87	8
United Kingdom	16,656	26.63	3.11	9
Cyprus	10,208	33.63	1.91	10
Total	489,575	-	91.64	-

Source: Romania's Statistical Yearbook, 2013. [14] Own calculations.

The top 10 EU countries where vegetal products were exported in 2012 have been: Spain, Italy, Hungary, The Netherlands, Germany, France, Portugal, Greece, Bulgaria, and United Kingdom. Their total weight in the agro-food export accounted for 90.05 %.(Table 11).

Table 11.The top 10 EU partner countries in Romania's export with Vegetal products in 2012

Country	Export value with Vegetal products (Euro thou)	Share of Export with Vegetal products in Agro-food export value (%)	Share of Export with Vegetal products in Romania's EU export with Vegetal products (%)	Position
Spain	224,035	67.16	20.59	1
Italy	168,831	31.64	15.52	2
Hungary	143,469	41.17	13.18	3
The Netherlands	108,330	52.51	9.95	4
Germany	89,184	35.42	8.19	5
France	76,800	61.07	7.06	6
Portugal	57,057	97.45	5.24	7
Greece	50,953	28.44	4.68	8
Bulgaria	48,701	13.58	4.47	9
United Kingdom	12,819	20.50	1.17	10
Total	980,179	-	90.05	-

Source: Romania's Statistical Yearbook, 2013. [14] Own calculations.

The top 10 EU countries where Romania exported animal or vegetable fats and oils in

2012 were: Hungary, Spain, Bulgaria, Greece, Italy, Austria, France, Slovakia, Germany and Poland, having a 98.71 % total weight in the agro-food export.(Table 12)

Table 12.The top 10 EU partner countries in Romania's export with Animal or vegetable fats and oils in 2012

Country	Export value with Animal or vegetable fats and oils (Euro thou)	Share of Export with Animal or vegetable fats and oils in Agro-food export value (%)	Share of Export with Animal or vegetable fats and oils in Romania's EU export with Animal or vegetable fats and oils (%)	Position
Hungary	62,408	17.91	34.99	1
Spain	40,750	12.21	22.85	2
Bulgaria	23,373	6.52	13.10	3
Greece	17,129	9.56	9.60	4
Italy	11,013	2.06	6.17	5
Austria	8,880	10.93	4.97	6
France	4,816	3.82	2.70	7
Slovakia	3,679	7.30	2.06	8
Germany	2,834	1.12	1.58	9
Poland	1,242	3.07	0.69	10
Total	176,124	-	98.71	-

Source: Romania's Statistical Yearbook, 2013. [14] Own calculations.

Table 13.The top 10 EU partner countries in Romania's export with Prepared foodstuffs, beverages and tobacco in 2012

Country	Export value with Prepared foodstuffs, beverages and tobacco (Euro thou)	Share of Export with Prepared foodstuffs, beverages and tobacco in Agro-food export value (%)	Share of Export with Prepared foodstuffs, beverages and tobacco in Romania's EU export with Animal or vegetable fats and oils (%)	Position
Italy	286,556	53.71	28.29	1
Bulgaria	156,366	43.63	15.44	2
Germany	120,657	47.92	11.91	3
Hungary	69,894	20.05	6.90	4
The Netherlands	56,999	27.63	5.62	5
Spain	44,604	13.37	4.40	6
Greece	41,748	23.30	4.12	7
Austria	39,518	48.64	3.90	8
United Kingdom	32,825	52.50	3.24	9
Czech Rep.	29,527	75.87	2.91	10
Total	878,694	-	86.73	-

Source: Romania's Statistical Yearbook, 2013. [14] Own calculations.

The top 10 EU countries where Romania exported Prepared foodstuffs, beverages and tobacco in 2012 were Italy, Bulgaria, Germany, Hungary, The Netherlands, Spain,

Greece, Austria, United Kingdom, the Czech Republic, which all together represented 86.73 % in the agro-food export of this product group (Table 13).

The top 10 EU countries supplying of live animals and animal products for Romania in 2012 were: Hungary, Germany, The Netherlands, Poland, Italy, Spain, Bulgaria, Austria, France and Denmark, all together having a share of 89.68 % in the agro-food import of this product (Table 14).

Table 14. The top 10 EU partner countries in Romania's import with Live animals and animal products in 2012

Country	Import value of Live animals and animal products (Euro thou)	Share of Import with Live animals and animal products in Agro-food import value (%)	Share of Import with Live animals and animal products in Romania's EU import with Live animals and animal products (%)	Position
Hungary	265,783	30.19	27.04	1
Germany	208,826	34.03	21.25	2
The Netherlands	104,363	32.40	10.62	3
Poland	71,998	22.02	7.32	4
Italy	60,660	20.79	6.17	5
Spain	40,159	39.97	4.08	6
Bulgaria	38,291	12.52	3.89	7
Austria	32,709	23.13	3.32	8
France	32,604	18.21	3.31	9
Denmark	26,406	51.17	2.68	10
Total	881,799	-	89.68	-

Source: Romania's Statistical Yearbook, 2013. [14] Own calculations.

Table 15. The top 10 EU partner countries in Romania's import with Vegetal products in 2012

Country	Import value with Vegetal products (Euro thou)	Share of Import with Vegetal products in Agro-food import value (%)	Share of Import with Vegetal products in Romania's EU import with Vegetal products (%)	Position
Hungary	309,960	35.21	26.16	1
Bulgaria	243,032	79.50	20.51	2
Italy	117,373	40.23	9.90	3
Germany	105,261	17.15	8.88	4
The Netherlands	104,176	32.34	8.79	5
France	73,755	41.20	6.22	6
Greece	53,675	50.09	4.53	7
Poland	42,493	13.00	3.58	8
Austria	29,668	20.98	2.50	9
Czech Rep.	26,101	23.88	2.20	10
Total	1,105,494	-	93.27	-

Source: Romania's Statistical Yearbook, 2013. [14] Own calculations.

The top 10 EU countries which delivered vegetal products in Romania in 2012 were Hungary, Bulgaria, Italy, Germany, the Netherlands, France, Greece, Poland, Austria and the Czech Republic, all together accounting for 93.27 % in the agro-food import with this product category. (Table 15).

The top 10 EU countries from where Romania purchased animal or vegetable fats and oils in 2012 were Hungary, Germany, The Netherlands, Bulgaria, Italy, Sweden, Poland, Denmark and Greece, all together representing 95.61 % in the agro-food import with this product category (Table 16).

Table 16. The top 10 EU partner countries in Romania's import with Animal or vegetable fats and oils in 2012

Country	Import value with Animal or vegetable fats and oils (Euro thou)	Share of Import with Animal or vegetable fats and oils in Agro-food import value (%)	Share of Import with Animal or vegetable fats and oils in Romania's EU import with Animal or vegetable fats and oils (%)	Position
Hungary	70,497	8.00	36.12	1
Germany	28,088	4.57	14.39	2
The Netherlands	24,992	7.75	12.80	3
Bulgaria	24,362	7.96	12.48	4
Italy	12,233	4.19	6.26	5
Sweden	7,672	34.45	3.93	6
Poland	5,681	1.73	2.91	7
Denmark	5,443	10.54	2.78	8
Greece	4,824	4.50	2.47	9
Spain	2,887	2.87	1.47	10
Total	186,679	-	95.61	-

Source: Romania's Statistical Yearbook, 2013. [14] Own calculations.

The top 10 EU countries which supplied Prepared foodstuffs, beverages and tobacco in 2012 for Romania were: Germany, Hungary, Poland, Bulgaria, Italy, The Netherlands, Austria, France, the Czech Republic, and Belgium and their share in the agro-food import with this product category totalized 86.86 %.(Table 17).

The efficiency of Romania's agro-food trade. The trade balance was a negative one, but in the last years, the deficit has a decreasing trend which is a positive aspect. As a result, the impact of agro-food trade on

GDP was also a negative one, but with lower figures from a year to another because of the GDP growth rate and the smaller and smaller trade deficit.

Table 17. The top 10 EU partner countries in Romania's import with Prepared foodstuffs, beverages and tobacco in 2012

Country	Import value with Prepared foodstuffs, beverages and tobacco (Euro thou)	Share of Import with Prepared foodstuffs, beverages and tobacco in Agro-food import value (%)	Share of Import with Prepared foodstuffs, beverages and tobacco in Romania's EU import with Animal or vegetable fats and oils (%)	Position
Germany	271,326	44.22	18.42	1
Hungary	233,940	26.57	15.88	2
Poland	206,649	63.23	14.03	3
Bulgaria	123,617	40.43	8.39	4
Italy	101,468	34.78	6.89	5
The Netherlands	88,532	27.48	6.01	6
Austria	77,798	55.01	5.28	7
France	70,577	39.42	4.79	8
Czech Rep.	57,227	52.37	3.88	9
Belgium	48,452	51.33	3.29	10
Total	1,279,586	-	86.86	-

Source: Romania's Statistical Yearbook, 2013. [14] Own calculations.

The agro-food export share in GDP increased 3.44 times from 0.89 % in 2007 to 3.07 % in 2012.

Table 18. Efficiency of Romania's agro-food- trade, 2007-2012

Indicator	MU	2007	2008	2009	2010	2011	2012	2012/2007 %
Agro-food Trade balance	Euro Million	-2,217	-2,181	-1,580	-806	-423	-746	33.64
Impact of agro-food trade balance on GDP (Trade/GDP)x 100	%	- 1.77	-1.56	-1.33	-0.64	-0.32	-0.56	31.63
Impact of agro-food trade balance on GDP created in agriculture, forestry and fishing (Trade/GDP)x 100	%	-30.87	-23.34	-20.72	-11.35	-4.93	-7.91	25.62
Agro-food Export share in GDP (E/GDP)x100	%	0.89	1.55	1.90	2.50	3.05	3.07	344.94
Agro-food Import share in GDP (I/GDP)x100	%	2.67	3.10	3.23	3.15	3.37	3.63	135.95
Agro food export share in agricultural production value (E/APV)x100	%	7.84	11.90	15.85	20.33	22.27	28.04	357.65
Agro-food Import coverage by agro-food export (E/I)x100	%	33.60	49.81	58.57	79.43	90.48	84.42	251.25
Agro-food Export/inhabitant	Euro/ capita	53.7	105.4	110.7	153.7	199.6	201.2	374.67

Source: Own calculations.

The balance with the EU countries was a negative one, mainly with the Western European countries. Important trade

operations are developed with Germany, Italy, France but also with Hungary, Bulgaria, Poland and Czech Republic as mentioned by

Despite that the agro-food import share in GDP increased only by 35.95% in the same period, the values of this ratio are higher compared to the ones recorded by export share in GDP, which reflects the low efficiency in Romania's agro-food trade.

The agro-food export share in the agricultural production value recorded an increasing trend from 7.84 % in 2007 to 28.04 % in the year 2012, being a positive aspect reflecting that more and more Romanian products are commercialized on the foreign markets.

The export/import ratio does not reflect an efficient foreign trade, as long as import value is higher than export value and Romania remains a net importing country. However, this ratio has grown from a year to another reflecting a slow improvement of agro-food trade efficiency.

The agro-food export per inhabitant increased 3.74 times in the period 2007-2012, firstly due to the continuous decline of the population and secondly due to the export growth rate. (Table 18). Romania's agro-food trade has continuously developed and is still highly increasing. Even in the period 2000-2008, Romania has proved intensified efforts to balance the export and import, but it has remained a net importing country with a negative impact on its economic development and GDP.

Popescu Agatha (2011, 2013a, 2013b) [11,12,13].

The agro-food export and import trends have to be closely connected so that the competitiveness in the market to be assured. The topic should be approached not only from a quantitative point of view, but also from the qualitative point of view, within the agricultural policy focusing on the increase of market competitiveness as affirmed by Munteanu (2013) [7].

CONCLUSIONS

Romania has intensified its agro-food trade but it is still a net importing country. Imports are required to complete domestic offer in order to better cover consumers' needs in all seasons.

In 2012, agro-food export accounted for Euro Million 2,812 and agro-food import for Euro Million 3,834, resulting a deficit of Euro Million -1,021.

The highest share in the agro-food export belongs to Vegetable products, (38.66%), followed by Prepared foodstuffs, beverages and tobacco (36.02 %), and Live animals and animal products (18.99 %). In the agro-food import value, the highest weight belongs to Prepared foodstuffs, beverages and tobacco (38.39 %), followed by Vegetal products (30.89 %), and Live animals and animal products (25.62 %).

The main trade partner for Romania is the EU representing 70 % in its export and 72 % in its import value in 2012. Italy, Bulgaria, Hungary, Spain, Germany, The Netherlands, Greece, France, Austria and United Kingdom are the main EU countries where Romania exports its agro-food products, accounting for 88.14 % in its agro-food export value. In the same year, Hungary, Germany, The Netherlands, Poland, Bulgaria, Italy, France, Austria, the Czech Republic and Greece represented 88.38 % in Romania's agro-food import.

Romania has made important efforts during the analyzed period to improve the efficiency of the agro-food trade as shown by the improved export/import ratio, export value

per GDP and per inhabitant, and lower and lower deficit of the trade balance.

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REFERENCES

- [1]Anghelache, C., 1999, Foreign trade-Finance and financial-banking analysis, Economical Press House, Bucharest
- [2]Arghiroiu Armenita, Cristea Stelica, Alecu Ioan Nicolae, Pătrașcu George, 2013, The Romanian External Trade in grain. Scientific Papers. Series Management, Economic Engineering in Agriculture and rural development, Vol. 13(3): 11-16.
- [3]Clipa Paul, 2011, Romanian export competitiveness on the European Market, CESS Working Papers, III(4):497-507
- [4]Fogarasi Jozsef, 2008, Hungarian and Romanian Agri-Food Trade in the European Union, Management 3 (1):3-13
- [5]Isac Claudia, Dura Codruta, Rascolean Ilie, 2013, Contextual Analysis of Commercial Trade Between the European Union, Romania and Bric Countries, Indian Journal of Applied Research, Vol.3(11):91-93
- [6]Medelete Dragos, Panzaru Radu Lucian, 2014, International trade with wheat (2009-2011), Scientific Papers. Series Management, Economic Engineering in Agriculture and rural development, Vol. 14(3):172-177.
- [7]Munteanu Laurentiu, 2013, International trade with agro-food products of Romania, as a consequence of the European quality conformity level. Scientific Papers. Series Management, Economic Engineering in Agriculture and rural development, Vol. 13(1):235-238
- [8]Pirvutoiu, I., Popescu Agatha, 2007, Romania's entry into the EU and its impact upon Foreign Trade, Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development, Vol. 7: pp.323-328
- [9]Popescu Agatha, 2010a, Home and Foreign Trade, Dominor Publishing House, Bucharest, p.270-296
- [10]Popescu Agatha, 2010b, Study on Romania's Agro-Food Trade during the period 2000-2007, Annals of Craiova University, Series Agriculture, Montanology, Cadastre, Vol. XL(2):523-528
- [11]Popescu Agatha, 2011, Study concerning Romania's Agri-Food Foreign Trade, Scientific Papers Agricultural Management, Series I, Vol. XIII, Issue 1, pp.99-106
- [12]Popescu Agatha, 2013a, Considerations on Romania's Agro-food Export and Import by European Union Country Group and Agro-Food Product Group,

Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development, Vol.13(3):219-228

[13]Popescu Agatha, 2013b, Agro-food Trade position in Romania's Foreign Trade, Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development, Vol.13(3):213-218

[14]Romania's Statistical Yearbook, 2013

[15]Rusali Mirela, Gavrilescu Camelia, 2008, Competitive Advantages and Disadvantages in Romania's Agri-Food Trade - Trends and Challenges, 12th Congress of the European Association of Agricultural Economists – EAAE 2008, <http://ageconsearch.umn.edu/bitstream/44118/2/270.pdf>

[16]Rusali Mirela-Adriana, 2012, Assessments and dynamics of trade specialization of agri-food products empiric evidences from Romania, Problems of Management in the 21st century, Volume 4, 2012, <http://oaji.net/articles/450-1391965625.pdf>

[17]Rusali Mirela-Adriana, 2014, Assessment upon Romanian agri-food processing sector: structure and evolution in the foreign trade, Agricultural Management, Scientific papers, Series I, Vol.XVI(1), 154-158

[18]Savoiu Gheorghe, Dinu Vasile, Tăchiciu Laurențiu, 2012, Romania's foreign trade in global recession, revealed by extended method of exchange rate indicators, Amfiteatru Economic, Vol.XIV (31):173-194,

http://www.amfiteatruconomic.ro/temp/Article_1109.pdf

[19]Toma Elena, Vlad Ionela, 2014, Structure and shares in the Romanian international trade, Scientific Papers Series Management, Economic Engineering in Agriculture and rural development, Vol. 14(1), 381-386

[20]Vlad Ionela, DinuToma Adrian, Beciu Silviu, 2014, Dynamics and Romania's partners in trade of live animals. Scientific Papers Series Management, Economic Engineering in Agriculture and rural development, Vol. 14(1): 405-411

[21]Zahiu Letitia, Toma Elena, Dachin Anca, Alexandri Cecilia, 2010, Agriculture in Romania's Economy, p.26-30, CERES Publishing House, Bucharest

[22]Zanvetor Raffaella, 2014, Opportunities to promote Romanian agro-food products to non European markets, Oradea University Annals, Economic Sciences, Vol.1: 541-552, <http://steconomiceuradea.ro/anale/volume/2014/n1/057.pdf>

