

UDC (UDK) 631.11(497.16)

Miomir JOVANOVIĆ, Aleksandra DESPOTOVIĆ¹

ANALYSIS OF POSITION OF AGRO-FOOD TRADE IN MONTENEGRO'S FOREIGN TRADE

SUMMARY

This paper analyzes the position of foreign trade of agricultural-food products in the total foreign trade operations of Montenegro, in the period 2005 - 2010. Trade of agricultural-food products has had a pronounced dynamism, so that its value reached 433.1 million Euros (2010), an increase of 93.6% compared to the 2005. During the 2010 year, the value of imports of agricultural-food products amounted to 388.1 million euro, or 117.3% more than in 2005. The value of exports was significantly lower and amounted to 45.03 million euros in 2010 or 0.1% lower than in 2005. Thus, the import of agricultural-food products had a more dynamic growth than export. Participation of imports of agricultural-food products in total imports of Montenegro has decreased from 3.2% in 2005 to 2.2% in the 2010, while participation of exports increased from 12.6% to 19.5% during the same period.

Exports of agricultural-food products, during the 2010 had the following structure: 46.8% drinks and tobacco, 20.7% fruits and vegetables, 11.4% meat and processed meat products 5.6% cereals and processed products and 1.04% fish and processed products. During the same year imports of agricultural - food products had the following structure: 19.6% meat and processed meat products, 16.5% drinks and tobacco, 12.0% cereals and processed products 10.5% fish and processed products and 8.7% fruit and vegetables.

Trade with the EU - 27 in the 2010 saw a participation of 56.0% of the total export and 38.0% of total imports. The main trade partners were Serbia, Italy, Greece, Slovenia, Hungary and Germany.

Trade of agricultural-food products is becoming more specific area of the Montenegrin economy due to the high participation of the trade deficit to GDP ratio, the level of imports in total GDP and total trade deficit.

Keywords: agro-food products, efficiency, foreign trade, trade partners

INTRODUCTION

In the last decades, countries have become more and more independent through trade, production and financial market linkages (Buitelaar, P., Kerkhoff H., 2010). The standardization of food consumption patterns, the consolidation of food manufacture and retail sectors, and biotechnology seem to be the three main risk factors for these markets (Sodano, V., 2001). The international agro-food

¹ Miomir JOVANOVIĆ, (corresponding author: miomirj@t-com.me), Aleksandra DESPOTOVIĆ, University of Montenegro, Biotechnical Faculty Podgorica, Department for Agro Economic Research, Mihalila Lalića 15, Podgorica, Montenegro

trade network (IFTN), with nodes and edges representing countries and import-export fluxes, respectively, has evolved into a highly heterogeneous, complex supply-chain network (Ercsey-Ravasz *et al.* 2012). There are different approaches for analysis as a methodology the so called “Constant Market Share analysis” - CMS analysis (Buitelaar and Kerkhoff 2010). The development of agriculture depends on the position of agricultural products of a country in the international market. For this reason, Montenegro has paid a special attention to agricultural production, to the quality of agricultural products in order to become a more competitive exporter. One of the priority in Montenegro is to increase agro food import coverage by export. However, import has been the most dynamic feature of Montenegro's agro-food trade compared to export, so that the deficit of the trade balance has become more and more accentuated (Jovanović 2004).

The last decades have shown an intensified trade especially with the EU countries. In this connection, the role of agro-food trade has become more and more important in the development of the economy. The alignment to the WTO agreements has opened a new chances and possibilities to the international market for Montenegro.

The goal of the paper was to present the evolution of the main indicators characterizing Montenegro's agro-food trade and to establish its contribution to the development of foreign trade, identifying the main trends and evaluating its efficiency in the period 2005-2010.

MATERIAL AND METHODS

The data were provided by the MONSTAT for Montenegro's foreign trade and agro-food trade and refer to the period 2005-2010 (MONSTAT, 2011). The methodology used in order to process the data was represented mainly by the index, share and comparison methods. The following indicators were used to characterize agro-food foreign trade: sale and purchase of agricultural, forestry and fishery products, export, import, trade balance, agro-food trade share in the country's foreign trade, agro - food trade by product group, trade partners. In order to evaluate agro-food trade efficiency the following specific ratios were utilized: export / GDP, import / GDP, export / import and export / inhabitant.

RESULTS AND DISCUSSION

In the period 2005-2010, Montenegro's GDP increased by 71% from €1.815 in 2005 to €3.104 in 2010. The GDP created in the field of agriculture, hunting and fishing had registered a lower increase of 49.8% from €158.4 in 2005 to €237.4 in the year 2010. Because of the slow dynamics, the share of GDP created in agriculture, hunting and fishing declined from 8.7% in 2005 to 7.6% in 2010 (Table 1).

Sale and purchase of agricultural, forestry and fishery products has been continuously developing during the analyzed period. Its value increasing by 8.3% from €15.6 million in 2005 to €17.0 million in 2010. The sale and purchase value

of vegetable products in 2010 created in this sector accounted for €3.9 million being by 10.3% lower than in 2005. The animal production is the most dynamic sector in agriculture registered a continuous decline as its value of sale and purchase accounted for €11.5 million in 2010, being by 11.1% higher than in the year 2005. As a consequence, the weight of vegetable sector value decreased from 27.7% in 2005 to 22.9% in 2010, while the share of animal production increased from 65.9% in 2005 to 67.6% in 2010 in agricultural value (Table 2).

Table 1 GDP in agriculture, hunting & fishing, Montenegro, 2005-2010 (euro 000)

Indicator	2005.	2006.	2007.	2008.	2009.	2010.	2010/2005
GDP (million €)	1.815	2.148	2.680	3.085	2.980	3.104	171.0
GDP/per capita (€)	2.912	3.442	4.280	4.907	4.720	5.006	171.9
GDP in agriculture, hunting and fishing in 000 EUR	158.468	177.021	192.973	229.833	246.251	237.422	149.8
Share of GDP in agriculture, hunting and fishing in GDP (%)	8,7	8,2	7,2	7,4	8,3	7,6	-

Source: Montenegro's Statistical Yearbook, 2011; Original.

Table 2 Sale and Purchase of agricultural, forestry and fishery products, Montenegro, 2005-2010 (euro 000)

Indicator	2005.	2006.	2007.	2008.	2009.	2010.	2010/2005
Agricultural production	15 689	15 422	16 523	20 198	20 740	17 003	108,3
-Vegetable sector	4355	2728	4232	4535	4071	3910	89,7
-Animal sector	10344	11546	11369	14303	15410	11500	111,1
-Other products	990	1148	922	256	1259	1593	160,9
Share of agricultural production by sector (%)							
-Vegetable sector	27,7	17,7	25,6	22,5	19,6	22,9	82,6
-Animal sector	65,9	74,8	68,8	70,8	74,3	67,6	102,5
-Other products	6,3	7,4	5,6	1,2	6,0	9,4	149,0

Source: Montenegro's Statistical Yearbook, 2011; Original.

Montenegro's foreign trade has recorded continuous changes in the analyzed period. Export decreased by 10.6% from €369.3 million in 2005 to €330.3 million in 2010, while the import growth up by 58.9% from €1042.8 million in 2005 to 1657.3 million in 2010. Therefore, import value was higher than export value. As a result, the trade balance was a negative one registering a higher and higher deficit from 2005 to 2008 and than its figure was lower and lower. Thus, in 2010, the deficit of Montenegro's trade balance accounted for €1326 million being by 97.0% higher than in 2005 (Table 3).

Table 3 Foreign trade, Montenegro, 2005-2010 (euro 000)

	2005	2006	2007	2008	2009	2010	2010/2005
Export	369,3	441,1	454,7	416,1	277,0	330,3	89,4
Import	1,042,8	1,457,3	2,073,1	2,529,7	1,654,1	1,657,3	158,9
Trade balance	-673,5	-1,016,2	-1,618,4	-2,113,5	-1,377,1	-1,326,9	197,0

Source: Montenegro's Statistical Yearbook, 2011; Original.

Montenegro has close commercial relationships with various countries on different continents, but the main trade partners are the European countries, whose share was about €325.2 million for export and €1448.4 for import in the year 2010. In 2010, the European countries accounted for about 90% of Montenegro's trade. On the second position are other countries with about 8% of Montenegro's trade. The last one position belongs to America (Table 4).

Table 4. Montenegro's foreign trade by main country group (€)

Country group	Export partners		Import partners	
	2005	2010	2005	2010
World	369,321	330,367	1,042,828	1,657,330
European countries	358,481	325,210	944,613	1,448,411
America	1,051	618,0	34,871	53,873
Other countries	9,789	4,539	63,345	155,047

Source: Original

In 2010, the main trade partners were EU-27 and CEFTA for export with share of 56% and for import of 38%. The main trade partner countries were Serbia, Italy, Greece, Slovenia, Hungary and Germany (Table 5, 5a).

Table 5 Montenegro's foreign trade by main partners (%)

Partner country	Export partners		Import partners	
	2005	2010	2005	2010
World	100	100	100	100
EU-27	53.1	56.0	45.1	38.0
CEFTA	42.9	40.0	35.3	40.0
Other countries	4.0	4.0	19.6	22.0

Source: Montenegro's Statistical Yearbook, 2011; Original.

Table 5a Montenegro's foreign trade by main country partners (%)

	Export partners		Import partners	
	2005	2010	2005	2010
Serbia	35.8	23.0	27.9	26.0
Italy	31.6	15.0	9.3	6.0
Greece	10.3	17.0	5.1	7.0
Slovenia	5.9	6.0	4.3	4.0
Hungary	2.1	9.0	0.9	1.0
Germany	0.3	1.0	9.7	7.0

Source: Montenegro's Statistical Yearbook, 2011; Original.

Montenegro's agro-food trade had been continuously developing in the analyzed period. However, import was a very dynamic trade branch registering 117.3% gain in 2010 compared to 2005. Thus, in 2010, import value was € 388.1

compared to € 178.6. Export value was lower accounting for € 45.03 in 2010, when it was 0.1% lower than in 2005. Therefore, import was the most dynamic part of Montenegro's trade. Taking into account the import and export, the trade volume increased by 93.6% in the analyzed period, its value accounting for € 433,1 in 2010 in comparison with € 223,6 in the year 2005 (Table 6).

Table 6 Agro-food export, import and trade balance, Montenegro, 2005-2010 (euro thousand)

	2005	2006	2007	2008	2009	2010	2010/2005
Export	45,054	36,492	25,913	17,099	40,158	45,039	99.9
Import	178,616	218,616	298,396	405,460	379,713	388,139	217.3
Balance	-133,562	-182,124	-272,483	-388,361	-339,555	-343,100	256.9
Trade value	223,670	255,108	324,309	422,559	419,871	433,178	193.6

Source: Original

Regarding to the figures registered by export and import with agro-food products and the export and import value of Montenegro's foreign trade, the share of agro-food balance has increased in the period 2005-2010. In 2010 agro-food export represented 2.2% in Montenegro's foreign trade, while, agro-food import accounted for 19.5% (Table 7).

Table 7. Weight of agro-food trade in foreign trade, Montenegro, 2005-2010 (%)

	2005	2006	2007	2008	2009	2010
Foreign trade	100	100	100	100	100	100
Agro-food export	3,2	1,9	1,0	0,5	2,1	2,2
Agro-food import	12,6	11,5	11,8	13,7	19,8	19,5
Agro-food balance	9,5	9,6	10,7	13,1	17,7	17,2

Source: Original.

According to relationship existing between Montenegro and the EU-27, the agro-food trade has been intensified so that in the year 2010, it reached 56.0% of total export and 38.0% of total import. In 2010 Montenegro's agro-food export value accounted for € 5.4 while import value was Euro thousand 94.5. As a consequence, trade balance registered € 89.0 deficit (Table 8).

Table 8. Montenegro trade and agro-food trade with the EU, 2010 (euro 000)

Specification	Value (Euro thousand)	Share (%)
Montenegro's Export value	184,817	56,0
Agro-food export value	5,485	2,0
Montenegro's Import value	625,207	38,0
Agro-food import value	94,508	6,0
Montenegro's Trade Balance	-440,390	33,1
Agro-food trade balance	-89,023	20,2

The main agro-food product groups from export and import point of view are: Beverages, tobacco, Meat and meat preparations, Vegetables and fruit, Cereal and cereal products and Fish and preparations according to the statistical classification. The figures showed that in the period 2005-2010, all the agro-food product groups except beverages and tobacco registered an important growth. Regarding to export of agro-food products, meat and meat preparations were on the top position 213.4%, followed by vegetables and fruit (210.4%) and cereal and cereal products (92.7%) and fish preparations (17.4%). Regarding import, the highest value belonged to meat and meat preparations (141%), followed on the second position by vegetable products and fruits (131.9%), on the third position by cereal and cereal products (128.7%), than beverage and tobacco (83.6%) and on the last one by fish and fish preparations (80.1%) (Table 9).

Table 9. Montenegro's trade by agro-food product group, 2005-2010 (Euro 000)

	2005	2006	2007	2008	2009	2010	2010/ 2005
EXPORT	45,054	36,492	25,913	17,099	40,158	45,039	99,9
01 Meat and meat prepar.	1,640	1,833	2,773	5,006	5,549	5,140	313,4
03 Fish and preparations	402	774	618	279	1,069	472	117,4
04 Cereal and cereal prod.	1,309	1,843	1,037	1,734	2,525	2,523	192,7
05 Vegetables and fruit	3,011	5,879	5,592	7,428	6,439	9,347	310,4
11 Beverages, tobacco	32,018	24,421	25,909	24,606	21,749	21,109	65,9
IMPORT	178,616	218,616	298,396	405,460	379,713	388,139	217,3
01 Meat and meat preparat.	31,536	38,564	48,755	79,102	76,611	76,026	241,0
03 Fish and preparations	22,633	25,164	31,696	43,311	38,414	40,768	180,1
04 Cereal and cereal	20,362	29,154	40,389	57,487	50,465	46,581	228,7
05 Vegetables and fruit	14,574	17,931	30,379	41,809	37,741	33,799	231,9
11 Beverages, tobacco	34,802	42,157	62,166	77,395	66,878	63,930	183,6

Source: Montenegro's Statistical Yearbook, 2011; Original.

In the period from 2005 to 2010, the index of each product group in the agro-food export was: 213.4% meat and meat preparations, 210.4% vegetable products and fruits, 92.7% cereals and cereal preparations, 17.4% fish and fish preparations and -34.1% beverages, tobacco.

In the same period, the index of each product group in the agro-food import was the following one: meat and meat preparations 141.0%, vegetables and fruits 131.9%, cereals and cereal preparations 128.7%, food products, beverages and tobacco 83.6% and fish and fish preparations 80.1%.

The share by export of product group in 2010 in comparison with the level registered in the year 2005 was the following one: 46.8% for beverages and tobacco, 20.7% for vegetable products and fruit, 11.4% for meat and meat preparations and 5.6% for cereal and cereal products and 1.04% for fish and preparations.

In 2010 compared to 2005, the trade balance diminished its deficit by 157%, the export/GDP decreased 41.5%, export/import ratio decreased 56.0% and export value/inhabitant decreased 0.02%. However, import/GDP increased 27.0% (Table 10).

Table 10. Efficiency of Montenegro's agro-food- trade, 2005-2010

Indicator	MU	2005	2010	2010/2005
GDP	Euro Mill	1.815	3.104	171.0
Trade balance	Euro Mill	-133,5	-343.1	257.0
Impact of trade balance on GDP	%	-7.4	-11.1	150.0
Export share in GDP (E/GDP)	%	2,48	1,45	58,5
Import share in GDP (I/GDP)	%	9,84	12,50	127,0
Import coverage by export (E/I)	%	0,25	0,11	44,0
Export/inhabitant	Euro	72,6	72,5	99,8

Source: Original.

CONCLUSIONS

Montenegro has a more intensive foreign trade and especially with agro-food products. Taking into consideration the figures registered by export and import value increased, but the most dynamic sector of Montenegro's trade is import so the domestic production cannot cover consumer's needs in all the seasons. Taking into account the import and export, the trade volume increased by 93.6% in the analyzed period its value accounting for Euro Million 433.1 in 2010 in comparison with Euro Million 223.6 in the year 2005. The import coverage by export of agro-food products decreased from 0.25% in 2005 to 0.11% in 2010.

Export of agro-food products had the following structure in 2010: 46.8% for beverages and tobacco, 20.7% for vegetable products and fruit, 11.4% for meat and meat preparations and 5.6% for cereal and cereal products and 1.04% for fish and preparations. In the same year Import of agro-food products had the following structure in 2010: 19.6% for meat and meat preparations, 16.5% for beverages and tobacco, 12.0% for cereal and cereal products 10.5% for fish and preparations and 8.7% for vegetable products and fruit.

In 2010, the trade with the EU-27 accounted for about 56.0% of total export and 38.0% of total agro-food trade. The main trade partner countries were Serbia, Italy, Greece, Slovenia, Hungary and Germany.

Montenegro's agro-food trade has become a more and more specific economic branch because the higher impact of trade balance on GDP, level of import share in GDP and deficit of trade balance.

REFERENCES

- Jovanović, M. (2004): Tržište hrane s aspekta turističke potrošnje, Agriculture and Forestry, Vol. 50 (1-2), Podgorica, Biotechnical Institute, p 127-137.
- Buitelaar, P., Kerkhof H.V, (2010): DNB Occasional Strategy Vol.8/No1, Amsterdam: pp. 1-42.
- Valeria Sodano (2001): Competitiveness of regional products in the international food market, 77th EAAE Seminar/NJF Seminar No. 325, Helsinki,
- Ercsey-Ravasz M, Toroczka Z, Lakner Z, Baranyi J. (2012): Complexity of the international agro-food trade network and its impact on food safety. PLoS One; 7(5):e37810. PubMed PMID: 22701535; PubMed Central PMCID: PMC3365103.
- Statistical Office, Montenegro Available at <http://www.monstat.me>
- Eurostat – Statistics. Available at <http://epp.eurostat.ec.europa.eu>

Miomir JOVANOVIĆ, Aleksandra DESPOTOVIĆ

**ANALIZA POZICIJE TRGOVINE POLJOPRIVREDNO
PREHRAMBENIH PROIZVODA U UKUPNOJ
SPOLJNOTRGOVINSKOJ RAZMJENI CRNE GORE**

SAŽETAK

U radu se analizira pozicija spoljnotrgovinske razmjene poljoprivredno-prehrambenih proizvoda u ukupnom spoljnotrgovinskom poslovanju Crne Gore, u periodu 2005-2010.godine. Trgovina poljoprivredno-prehrambenim proizvodima je imala naglašenu dinamičnost, tako da je njena vrijednost dostigla 433.1 miliona Eura (2010), odnosno rast od 93.6% u odnosu na baznu 2005.godinu. U toku 2010. godine, vrijednost uvoza poljoprivredno-prehrambenih proizvoda je iznosila 388.1 milion Eura ili 117.3% više, nego u 2005.godini. Vrijednost izvoza je bila značajno niža i iznosila je 45.03 miliona Eura u 2010 ili 0.1% niže nego u 2005.godini. Dakle, izvoz poljoprivredno-prehrambenih proizvoda je imao dinamičniji rast u odnosu na uvoz. Učešće uvoza poljoprivredno-prehrambenih proizvoda u ukupnom uvozu Crne Gore smanjeno je sa 3.2% u 2005.godini na 2.2% u 2010., dok je izvoz povećan sa 12.6% na 19.5%, u istom periodu.

Izvoz poljoprivredno-prehrambenih proizvoda, u toku 2010. godine, imao je sljedeću strukturu: 46.8% piće i duvan, 20.7% voće i povrće, 11.4% meso i prerađevine 5.6% žitarice i prerađevine i 1.04% riba i prerađevine. U toku iste godine, uvoz poljoprivredno-prehrambenih proizvoda, imao je sljedeću strukturu: 19.6% meso i prerađevine, 16.5% piće i duvan, 12.0% žitarice i prerađevine 10.5% riba i prerađevine i 8.7% voće i povrće.

Trgovina sa EU-27 u 2010. godini zabilježila je učešće od 56.0% od ukupnog izvoza i 38.0% od ukupnog uvoza. Glavni trgovinski partneri bili su Srbija, Italija, Grčka, Slovenija, Mađarska i Njemačka.

Trgovina poljoprivredno-prehrambenih proizvoda postaje sve specifičnija oblast crnogorske ekonomije zbog visokog učešća trgovinskog deficita u BDP, nivoa uvoza u ukupnom BDP i ukupnom trgovinskom deficitu.

Ključne riječi: poljoprivredno-prehrambeni proizvodi, efikasnost, spoljna trgovina, trgovinski partneri