Joining EU: Reflections on Croatian Food Foreign Trade Relations

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Abstract

The aim of the paper was to analyze the impact of joining EU to the agricultural foreign trade relations and trade shifting from traditional destinations to the EU. The most important part in total Croatian agricultural value has crop production, mostly cereals production, while livestock products contribute with 40% in the total value of agricultural production. Wheat and maize area sawn stagnate with mild descending in the 2000-2015 period, while annual production oscillates a lot. The situation in livestock production is characterized by lower production capacities of agricultural family farms. A number of livestock stagnate (cattle) or decreasing (pigs) in period 2000-2015. Croatian agricultural foreign trade negative balance is increasing, although the export-import ratio improves in the period 2011-2013, probably as an effect of EU pre-accession trade benefits. Negative indicators in agricultural production are in direct connect to enormous import and negative foreign trade balance, while coverage of import by export is 57%. Joining EU shifted the trade from CEFTA countries (mostly Bosnia and Herzegovina and Serbia) to EU because Croatian products have not got privileged free access. Croatian agricultural policy should urgently be addressed to the weak points if we want to sustain the sector and better position on the European scene. The CAP mechanisms correspond to the needs and offer solutions for solving the problems of Croatian agriculture and rural areas by implementing measures of rural development.

Keywords: Joining EU, CEFTA, trade relations, food, Croatia

Introduction

Since its independence, Croatia committed for the model of an open market economy and joined the European integration process. Croatia is characterized by a small domestic market, entering into the European Union will lose a part of traditional markets, and Croatian economic development is oriented in export in which agriculture through primary and secondary products plays an important role (Lončarić and Zmaić, 2004).

Croatia has natural conditions and other necessary resources for the development of agriculture with about 0.65 ha of agricultural land ie. 0.45 ha of arable land per capita and belong to the group of countries that are relatively rich in agricultural land. According to data from the Statistical Yearbook, Croatian Bureau of Statistic for the period 2000 - 2015, the total sown arable land amounted to an average of 931,804 ha of which 607,351 ha was sown under cereals. More than 70% of farms is fragmented in less than 3 ha and poor technologically equipped (Franić and Žimbrek 2003). According to Božić et al. (2005), the Agricultural Census, which was conducted in 2003, 449.000 agricultural households was listed and they have 80% of agricultural resources. Farms with less than 3 ha with the production potential have an important role in orchards and vineyards, and in livestock production. They breed poultry, sheep, goats and beekeeping. Farms larger than 8 ha are usually raising crops, tobacco, livestock farming and handle 40-50% of the areas under industrial crops and vegetables. Agricultural companies have an average of 168 ha of land and they are the main producers of oilseeds and sugar beet.

Croatia's share of agriculture in GDP is about 5.1% in 2011 (Eurostat 2012). For comparison, the share of agriculture in GDP of the EU-27 amounts to 1.7%. In Croatia, as much as 13.8% of the working population is employed in the agricultural sector while in EU-27 only 4.7% in 2010 (Eurostat 2011). According to the research on the agricultural farms structure, spent 2010 by Croatian Bureau of Statistics (2010), agricultural production in the Republic of Croatia was taking place at 233.280 agricultural farms which cultivated 1.316.000 hectares of agricultural land. The average farm size is about 5,6 ha, while in EU the average farm size is 14,5 ha. According to the land use, fields and gardens participate the most (67,1%), permanent grassland - meadows and pasture (26,9%), orchards (2,2%), vineyards and olive groves (1,4%) of utilized agricultural land.

Looking at the above-mentioned data as reported by Jurišić (2013) in which she states that Croatia is on the 24th place with regard to utilized agricultural land. In the European Union twelve countries have a smaller size of the farms than the average (14.1 ha). The situation is similar with farms that keep livestock. Croatia with an average size of 4.4 livestock unit occupies the 23rd place.

Marković et al. (2013) conducted a survey in the area of Split - Dalmatia County and they have come to the data on age, sex structure and educational level of respondents of the survey. Data obtained from the survey analysis can be applied to the rest of country. The largest number of respondents were in the age structure from 51 to 60 years, at least 9% of respondents of the survey were younger than 30 years. Regarding the gender structure of farmers 82% of them were men and that indicates that in Croatia still prevails the traditional patriarchal worldview. Respondents of the survey were grouped by the educational structure into three categories, of which 63% are medium-educated, 21% have a university degree and 16% have a basic education. According to Horvat (2014), the average age of Croatian farmer is 59,8.

From the EU perspective, Croatian agriculture is a minor factor of the total European agriculture. We can notice modest results in terms of structural and production indicators as well as in terms of economic indicators. The level of Croatian share in the EU: the total value of agricultural production, gross value added, farms, labour, use of agricultural land, livestock, import and export does not exceed 2% (Jurišić, 2013). Croatian potential for agriculture is quite unused, characterized by small-scale and fragmented nature of private farming, a long-term decline in the volume of agricultural production, rather low yields that still lag behind the EU average and rather high agricultural producer prices, mostly above the EU average, indicating weak price competitiveness (Volk et al., 2012). However, agriculture and food production are of exceptional importance for Croatia and constant work on production competitiveness are necessary for successful integration of Croatian agricultural sector in EU market (Gelo and Gelo, 2008).

In the sowing structure of Croatia total sown area under cereals was 607.351 ha in the period 2000 - 2015, wheat contributed with 30% and maize with 53%. As for livestock production in the same period the average number was 450.000 head of cattle and 1.254.000 pigs (Statistical Yearbook, Croatian Bureau of Statistic). Livestock production is highly deficient and for its functioning it is the necessity of quality reproductive material, quality food, use of pastures and quality accommodation for livestock as well as modern technologies of breeding. For the number of livestock conditional are these factors: placement opportunities, the total production of animal feed, the prices ratio of livestock products and food, the length of the cycle of reproduction, infrastructure in livestock production and the needs of processing capacities (Lončarić and Zmaić, 2004). Grgić et al. (2016) reported that the total value of agricultural production of Croatian livestock products contributes 40%. Pig breeding in that proportion is represented with 35%, 33% cattle breeding, poultry breeding 27%, and much less goat and horse breeding. Authors reported that Croatian livestock production is characterized by a decrease of production units, and that the number of livestock head increased in the period from 2000 - 2015, and that this trend will continue in the coming years. Production of livestock products remains insufficient and import is playing a big role in satisfying domestic needs.

Franić et al. (2014) state that the export of agri - food products from Europe into Croatia makes 0.8% of the total European agri – food exports, in contrast to the Europe imports of agri - food products from Croatia, which is 0.2% of the total European imports of agri - food products. According to the FAOSTAT data for the period 2000 - 2013, from EU Croatia imported wheat worth $ 2.135.000 and $ 11.311.000 of maize. Opposite of that, Croatia exported to the European Union wheat worth $ 15.439.000 and $ 15.535.000 of maize. Croatian imports from EU countries is twice higher than exports. In the same period Croatia on average imported from EU cattle worth of $ 71.008.000 and $ 27.190 pigs, but nothing was exported to the Europe.

Looking at the structure, Croatian export of agri - food products constitute 42% of total Croatian export, and if we look to the Croatian import from the European Union of agri – food products, it constitutes of 67% (Jurisić, 2013). In the period from 2000 - 2010 the balance of foreign trade and trade of agri - food products of Croatia is negative during the analyzed period. Import ratio of agri - food products is higher than the export ratio in total foreign trade. Almost half of Croatian exports is placed in the former Yugoslav countries, and almost 40% in the European Union (Grgić et al., 2011). In terms of the single market with tie production conditions, Croatian agriculture and food industry equally compete in the EU market and third countries, which may affect the reduction in the trade balance deficit and increase value exchange between Croatian and EU (Lončarić and Zmaić, 2004).

According to FAOSTAT data export of wheat and maize in the CEFTA countries is seven times higher than imports, therefore, Croatia in CEFTA countries (Albania, Bosnia and Herzegovina, Serbia and Montenegro) in the period from 2000 - 2013 exported wheat worth of $ 18.338.000 and $ 4.910.000 of maize. However, Croatia imported wheat worth of $ 437.000 and $ 2.736.000 of maize. Croatia did not import livestock products from CEFTA countries, but in the same period, Croatia exported cattle worth of $ 5.349.0000 and pigs worth of $ 4.182.000. Therefore, Bosnia and Herzegovina is the largest importer of Croatian products, 70% of all export intended for the member countries of CEFTA in the period from 2000 - 2012 is intended for Bosnia and Herzegovina. The second largest markets are Serbia, Montenegro and Kosovo, which account for 20% of Croatian exports, while exports to the markets of Albania and Moldova is insignificant. The market of Bosnia and Herzegovina is especially important for Croatian export of meat, meat products, milk, dairy products, and for bakery and mill products (Čudina and Sušić, 2013).

Čudina and Sušić (2013) reported that the Croatian market on its accession to the European Union would face with the import of cheaper agri - food products, and the loss of preferential markets that may compensate by higher exports to member countries and third markets.

The aim of the paper was to analyze the impact of joining EU to the agricultural foreign trade relations and trade shifting from traditional destinations to the EU.

Material and Methods

Source of studying this problem was available literature and data (Croatian Central Bureau of Statistics, FAO database, Eurostat etc.) related to agricultural market in Croatia, EU and some transition countries, foreign trade, integration process and the other data related to influence of integration process, its consequences and obligations to the Croatian agricultural market.

Methods used in the paper was structural and chronological analysis, mathematical-statistical methods (correlations, standard deviations, trends) and synthesis method.

Results

Trends in agricultural production in Croatia

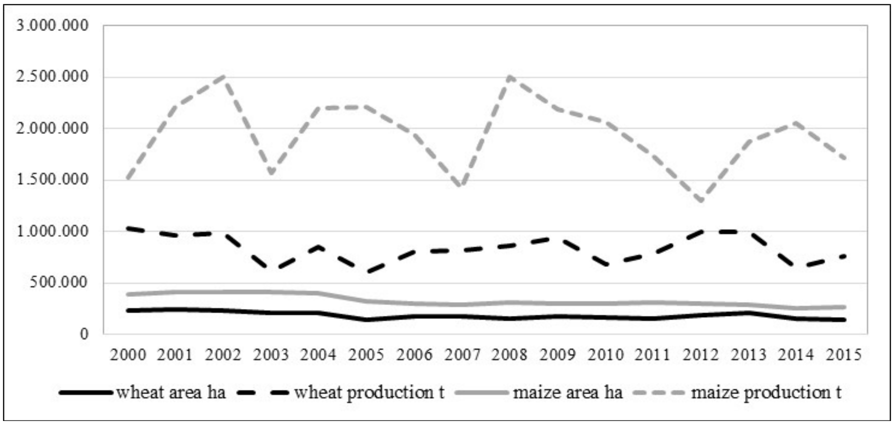
In Croatian crop production, the importance of cereals in agricultural production is indisputable, participating with 64% in arable land sawn. Traditionally, our most important cereals are maize (51% of all cereals sown) and wheat (30%). In stock production the most important are cattle and pig production. Comparing yield of wheat and maize, Croatia lags behind EU average (4,5 and 6,04 t/ha in Croatia and 5,5 and 7,15 in EU, respectively). It is the result of poor organization in agricultural production (old machinery, little average farm size, poor infrastructure etc.) - Table 1.

Table 1 . Wheat, maize, cattle, pig production in Croatia (2000-2013)

	wheat area (ha)	wheat yield (t/ha)	wheat prod. (t)	maize area (ha)	maize yield (t/ha)	maize prod. (t)	cattle (000 heads)	pigs (000 heads)
min	140.986	2,96	601.748	252.567	3,90	1.297.590	417	1104
max	240.000	5,50	1.032.085	407.000	8,10	2.504.940	483	1489
average	185.681	4,53	832.967	326.792	6,04	1.936.967	450	1254
SD	33.204	0,69	145.577	54.645	1,33	367.059	17	115

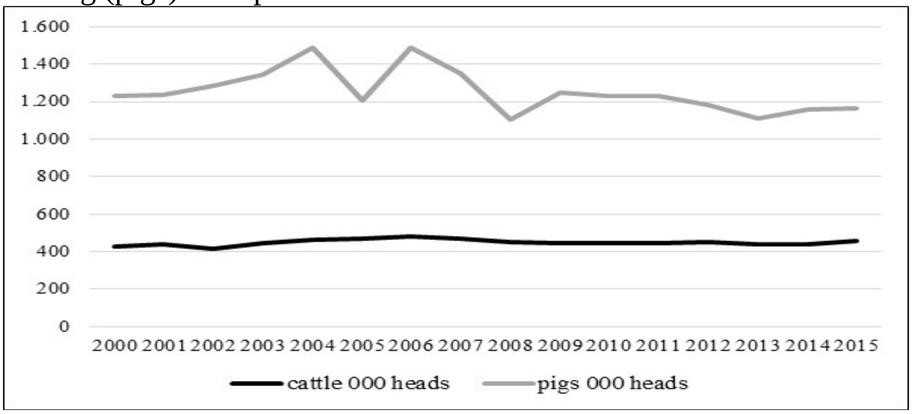
Source: Faostat and Croatian Bureau of Statistics

Wheat and maize sawn area stagnate with mild descending in 2000-2015 period, while production oscillate a lot, especially for maize (Graph 1).



Graph 1. Croatian agricultural production of wheat and maize

In period 2000-2015, number of livestock stagnate (cattle) or decreasing (pigs) - Graph 2.

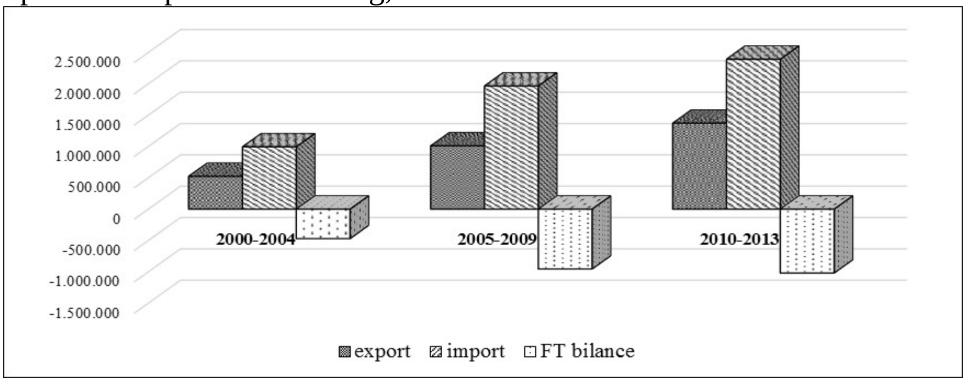


Graph 2: Number of cattle heads and pigs in Croatia, 2000-2015

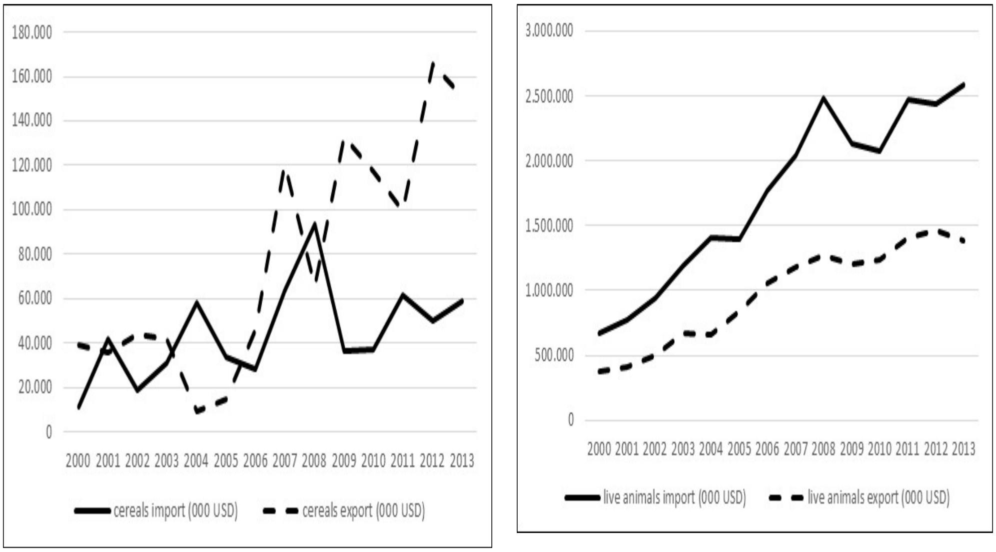
The situation in livestock production is characterized by lower production capacities of agricultural family farms (prevalent in this agricultural branch in Croatia) with a non-competitive productivity per head. This situation affects a relatively small proportion of livestock (40%) in the total value of Croatian agricultural production, compared to developed European countries with twenty percentage higher points. Within the livestock production total production of pigs are represented with 35%, cattle 32.5%, followed by poultry with 26.7%, significantly less sheep farming with 2.5%, and much less horse breeding. Although very important agricultural production, cattle production is burdened by many problems: non-competitiveness in the open market conditions, significant milk import, producers' indebtedness, producer's lack of information regarding conditions, production methods and agricultural subsidies after joining EU, high cost of capital and inputs (especially fodder), processing industry problems, price relations in the purchase of raw materials etc. A number of pigs in Croatia is not adequate, as a reflection of the market instability, the variability of supply and demand without contracting in production, uncontrolled import of pork, which resulted in stagnation or complete cessation of production on smaller farms.

Trends in Croatian agricultural foreign trade 2000-2015

Croatian agricultural foreign trade negative balance is increasing, although the export-import ratio improves in the last period (2011-2013), probably as an effect of EU pre-accession benefits (graph 3). Export/import ratio in the last observed period is improved comparing to previous two periods (57 compared to 51 and 52%, respectively). Cereals and livestock import and export is increasing, too.



Graph 3. Croatia foreign trade of agricultural products
Source: FAOSTAT



Graph 4. Import/export trends for cereals and live animals
Source: FAOSTAT

In Table 2 are presented correlation interactions between foreign trade and agricultural production parameters. Some correlations are logic and expected, like import and export with import and exports of fruits & vegetables, cereals and live animals as well as import and exports of fruits & vegetables, cereals and live animals mutually.

But, some correlations indicate that structure of imported and exported products is not favorable for Croatian export/import balance, for example negative correlations between import and export of live animals with cereal sawn area.

Table 2. Correlations between some foreign trade and agricultural production components for period 2000-2013

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	-															
2	** 0,95	1														
3	** 0,99	** 0,95	1													
4	** 0,94	** 0,92	** 0,91	1												
5	** 0,70	** 0,59	** 0,74	* 0,63	1											
6	** 0,77	** 0,85	** 0,73	** 0,79	ns	1										
7	** 1	** 0,95	** 0,99	** 0,94	** 0,70	** 0,77	1									
8	** 0,98	** 0,95	** 0,96	** 0,95	** 0,60	** 0,80	** 0,98	1								
9	** -0,70	* -0,54	** 0,69	** -0,68	ns	ns	** -0,70	** -0,73	1							
10	** 0,71	** 0,68	** 0,65	** 0,71	ns	* 0,59	** 0,71	** 0,68	ns	1						
11	ns	ns	ns	ns	ns	ns	ns	ns	* 0,59	ns	1					
12	** -0,86	** -0,80	** -0,83	** -0,83	ns	** -0,72	** -0,86	** -0,91	** 0,77	** -0,66	ns	1				
13	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	1			
14	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	** 0,77	1		
15	ns	ns	ns	ns	ns	ns	ns	ns	* -0,60	ns	ns	ns	ns	ns	1	
16	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	1

1 – total import agriculture; 2 – total export agriculture; 3 – import fruits & vegetables; 4 – export fruits & vegetables; 5 – import cereals; 6 – export cereals; 7 – import live animals; 8 – export live animals; 9 – wheat area, 10 – wheat yield; 11 wheat production; 12 – maize area; 13 – maize yield, 14 – maize production; 15 – cattle heads; 16 - pigs number

** P<0,01, r>0,661; * P<0,05, r>0,533; N=14; df=N-2

Looking at import/export structure cereals/stock negative balance in Croatian agriculture is even more visible (Table 3). Meat, fodder and milk are between the most common import products, but at the same time Croatia exports cereals. Better case scenario would be the opposite one because cereals should be used and processed in meat and processing industry for the value added products for the better terms in foreign trade competitiveness.

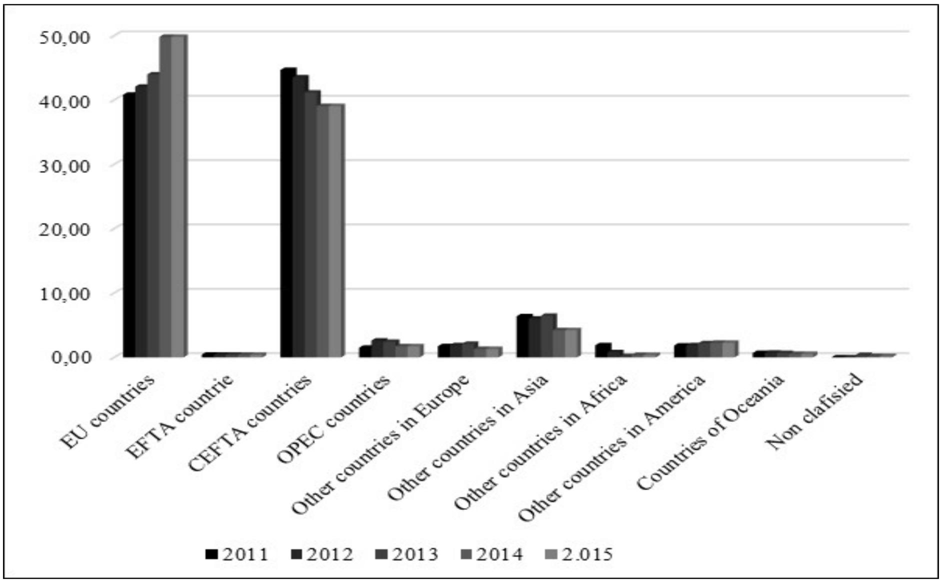
Table 3. Leading group of agricultural products according to chapters of Customs Tariffs (January-June 2014)

	Import		Export	
Rank	Products	000 USD	Products	000 USD
1.	Meat	180.625	Food products miscellaneous	109.458
2.	Animal food	118.833	Fish etc.	92.206
3.	Products based on cereals and starches	112.841	Beverages etc.	74.061
4.	Food products miscellaneous	110.135	Products based on cereals and starches	61.577
5.	Milk and milk products; eggs	108.041	Cereals	59.519

Source: Croatian Bureau of Statistics

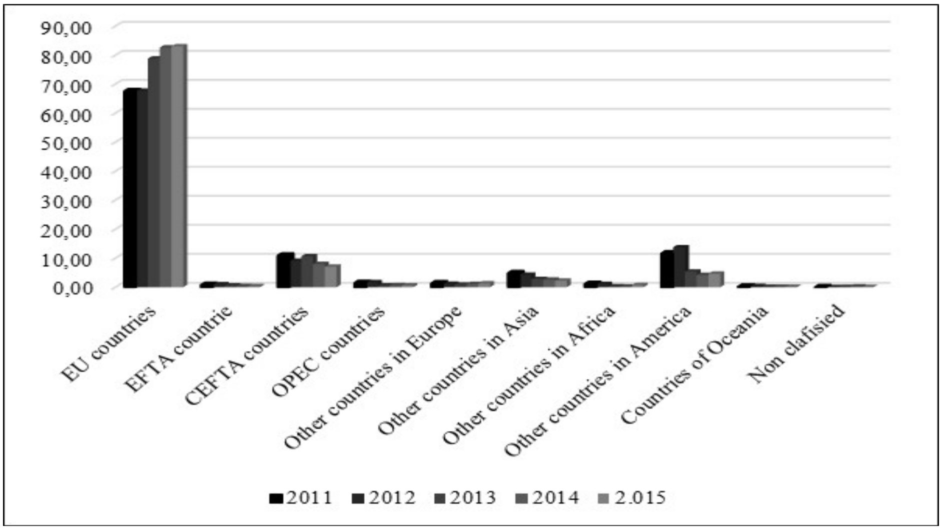
Food foreign trade exchange trend according to groups of countries

Croatian accession to the European Union has significantly affected the terms of trade with the countries of CEFTA. Bosnia and Herzegovina and Serbia were the most important CEFTA countries regarding trade with Croatia. Trade with Bosnia and Herzegovina was mostly liberalized, while in Serbia case, Croatia had decreased tariff rates. So, the changed terms of trade after Croatian joining EU, expectedly changed trade level with CEFTA because Croatia must adopt EU trade regulation. Croatia faced the worsening sale conditions with CEFTA countries. Considering Bosnia & Herzegovina and Serbia have signed Stabilisation and Association Agreements with the EU, their agricultural products are more protected by the EU, including Croatian products as well. Čudina and Sušić (2013) stated that the most pronounced negative changes in custom duties and ensuing reduction in exports can be expected in tobacco, meat and confectionery industries.



Graph 5. Agricultural export according to SITC sections and economic classification of countries

Graph 5 and 6 indicate change in agricultural export and import in the 2011-2015 period of time since in export significance of EU as final destination is increasing and for CEFTA is decreasing, especially in 2014 and 2015.



Graph 6. Agricultural import according to SITC sections and economic classification of countries

In import, case situation is even more visible, because import from EU countries is about 80% of all agricultural import, while in 2011 it was 67%. CEFTA loose share of 11% in 2011 to 7% in 2015.

Conclusion

Croatian agriculture is not competitive compared to developed EU countries. Croatia is facing many problems in agriculture: organizational weakness, market instability, high illiquidity, technological backwardness, educational mismatch with the needs of agriculture, high indebtedness, inadequate tax and fiscal policy, the lack of specialized financial institutions, erosion and disrepair of natural land resources, exodus population from the rural area, and poor land policy. The most important part in total agricultural value has crop production, mostly cereals production while livestock products contribute with 40% in the total value of agricultural production. The situation in livestock production is characterized by lower production capacities of agricultural family farms (prevalent in this agricultural branch in Croatia) with a non-competitive productivity per head. The result is low yields in crop production and stagnation in stock production.

Negative indicators in agricultural production are in direct connection to enormous import and negative foreign trade balance, while import/export ratio is 57%. Croatia export a lot of unprocessed products (cereals, fish eg.) and import meat, milk products and other product with added value and this situation should be changed. Joining EU shifted the trade from CEFTA to EU because Croatian products have not privileged free access anymore. Croatian agricultural policy should urgently be addressed to the weak points if we want to sustain the sector and better position on the European scene. The mechanisms of the CAP match the needs and offer solutions for solving the problems of Croatian agriculture and rural areas by implementing measures of rural development.

References:

Božić, Miroslav, Gelo, Ružica and Sever – Koren., Anita. Croatian Agriculture and the European Union: which path for the future? Sociologija sela. 43 167 (1). 2005: 129 – 151.

Čudina, Andrijana and Sušić, Gordi. The impact of Croatia's accession to the EU on economic relations with the CEFTA countries. Ekonomski pregled. 64 (4). 2013: 376 – 396.

FaoStat (2017): http://faostat.fao.org/ (8.3.2017.).

Franić, Ramona, Jurišić, Žaklina and Gelo, Ružica. Food production and rural development – Croatian perspective within the European context. Agroeconomia Croatica. Vol. 4 (1). 2014: 16 – 24.

Franić, Ramona and Žimbrek, Tito. Pretpostavke za uključivanje poljoprivrede u proces pridruživanja Hrvatske Europskoj uniji. Pridruživanje Hrvatske Europskoj uniji. Izazovi ekonomske i pravne prilagodbe. Chapter 7. Institut za javne financije. Zagreb. 2003: 161 – 162

Gelo, Ružica and Gelo Tomislav. Hrvatska poljoprivreda u kontekstu pristupanja Hrvatske u Europsku uniju. In: Grahovac, Petar (Ed.). Poljoprivreda i privredni razvoj. Proceedings of meeting agriculture and economic development. The anniversary of 80th birthday of academician Vladimir Stipetić. University of Zagreb. Faculty of Economy. Zagreb. 2008.
Grgić, Ivo, Hadelan, Lari, Prišenk, Jernej and Zrakić, Magdalena. Animal husbandry in Republic of Croatia: current situation and expectations. Meso. No. 3, Vol. XVIII. 2016: 256 – 263.
Grgić, Ivo, Zrakić, Magdalena and Županac, Gordana. Croatian foreign trade of agricultural and food products. Agronomski glasnik. 4 – 5. 2011: 263 – 276.
Horvat Hrvoje. The future of Croatian family farms (in Croatian: Budućnost hrvatskih obiteljskih poljoprivrednih gospodarstava). HND. 2014.
Jurišić, Žaklina. Croatian agriculture in common agrcultural policy of the EU – today and tomorrow. Civitas Crisiensis. Vol. 1. 2013: 207 - 221.
Lončarić, Ružica and Zmaić, Krunoslav. Liberalization influence on livestock production market. Ekonomski vjesnik. No. 1 and 2 (17). 2004: 43 – 52.
Marković, Monika, Kralik, Igor and Peruzović, Ana. Family farming in the Republic of Croatia withion the way for the law on enviroment protection in agricultural production in European Union. Agronomski glasnik. 4. 2013: 197 -208
Volk, Tina, Rednak, Miro and Erjavec, Emil. Western Balkans agriculture and European integration: unused potential and policy failures? Post-communist economies 24 (1). 2012: 111-123
Statistical yearbook. Croatian Bureau of Statistics. Zagreb. 2002-2016