## Food production and rural development – Croatian perspective within the European context

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### ABSTRACT

This research tries to answer three main questions: how important is agri-food sector for Croatian economy, why is Croatian agriculture uncompetitive compared to sectors in majority of the EU countries and what mechanisms of CAP could be used to improve agricultural competitiveness and sustain and develop rural life. Results show that agriculture and food processing industry are rather important for Croatian economy, contributing with more than 9% in the total GDP, with about 11% in total export and import and with more than 20% in total employment. However, within the EU context, agrifood sector is of little importance with a share of only about 1% in main economic indicators. Despite favourable natural resources, historical, organizational, economic and institutional reasons explain difficult situation in agriculture and in rural areas. Policy makers are trying to resolve these issues, now by available CAP mechanisms of income support and rural development. Despite considerable financial resources available for Croatian farmers, there is fear that the funds will not be adequately utilized. However, results of the previous research suggest that Croatian agriculture and food production still has a chance to survive and grow within European political and economic circumstances.

Key words: agriculture, food production, rural development, Croatia, EU

#### **INTRODUCTION**

Providing livelihoods and jobs for 40% of today's global population, agriculture is the single largest employer in the world. GDP growth from agriculture generates at least twice as much poverty reduction than any other sector. Following this, future food security for a growing population or, from Croatian perspective, for enlarged and more sophisticated market, can only be assured if sufficient natural resources (area of fertile soils and water) will be available for food production. Croatia, as well as most of Western Balkan countries, has quite high but unused potential for agriculture, 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

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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). Since Croatian self-sufficiency in food products is still very low, the first policy objective is to increase domestic supply with high quality products at reasonable prices. However, some research from the past (Tolušić and Deže, 2001) show that less than 30% of domestic consumers think that origin of the purchased product is important. Therefore we may conclude that there is no demand to motivate domestic producers to increase their production, and domestic policy makers to present

the policy of geographical indications as a key to solve the problems of small producers.

In achieving better production results, a little disturbing may be results of some studies showing the consequences of the recent CAP reform through introduction of the Single Farm Payments and decoupling support for farmers with crosscompliance obligations. The results show that in some countries considerable number of farmers would idle a great part of their land once decoupling took place (Tranter et al., 2007). Potential economic and environmental gains, on the other hand, are expected from wider reforms of agricultural and trade policy, such as lower overall greenhouse gas emissions, reduced nutrient surpluses, reduced erosion, etc.. Nevertheless, there is likely to be a loss of low-intensity farmland (the areas perhaps most at risk of abandonment) leading to a further decline in farmland biodiversity across Europe. For some countries, a process of specialisation in production and simplification of the landscape will also occur which is also detrimental from a farmland biodiversity perspective. Conclusion is that untargeted, rather general agricultural policy measures which maintain land in production are likely to be an ineffective and inefficient way to address the perceived negative consequences of abandonment (Renwick, et al., 2013).

In order to estimate perspectives for Croatian agriculture, food production and sustainability of rural areas within the context of EU membership, which is the main objective of this research, it is necessary to provide answers on some key questions: (i) how important is agricultural and food sector for Croatian economy? (ii) what are the reasons for poor competitiveness of Croatian agriculture and (iii) what mechanisms offers the Common Agricultural Policy for supporting agricultural and rural development that could be useful for achieving Croatian policy goals in this sector of economy. Comparative analysis of main economic indicators accomplished by secondary literature review will serve in achieving the research objectives.

# *Importance of agriculture and food production for Croatia*

If agriculture and food-processing industry are observed as a complex in which agricultural outputs serve as inputs in food-processing industry, or as a complex whose outputs from both sectors are mostly used as food and feed, we conclude about its great importance, as from the aspect of the number of employed persons, generating value added, contributing to the foreign trade balance, so from the aspect of ensuring food security for Croatian people. The complex contributes to the total GDP with 9.1 ( $\emptyset$  2004 – 2007), with about 11% and 10% in total export and import respectively ( $\emptyset$ 2008 – 2011), and in total employment with more than 20%<sup>1</sup>.

Although regional diversity and natural characteristics provide favourable conditions for production of rather wide range of agricultural products, destructive political and economic phenomena since the beginning of 1990s reflected on rather modest agricultural results. Plant production is still at about 80% of pre-war level due to variety of reasons, from abandoning agricultural land and rural people exodus to natural disasters caused by climate change. Considerable support was put into livestock sector during the past two decades, but livestock production is still lower for about 30% in comparison to its level in 1990. Compared to the European average, yields in agriculture are low and uncertain, reflecting on unbalanced market situation and foreign trade balance which is in long-term deficit. Official data for the last two decades show that Croatia was a net-importer of agricultural goods and food products and the greater share of imports comes from the EU markets (Grgić et al., 2012). Value of agricultural production shows slight, but unsteady rise in the past decade (Franić, 2012), and the sector itself contributes to the total GDP for about 6% in 2011. The greatest part in total agricultural value has crop production, mostly cereals, while livestock products contribute with about 40% in total value of agricultural production. As a positive consequence of agricultural policy measures

1 Estimate made by Croatian Chamber of Economy based on official CBS statistics: Labour Survey and structural business statistics. carried out through several action plans (setting up of permanent crops plantations, vegetable growing, cattle production, pig production), areas under vineyards and olive plantations were increased in the Mediterranean region. Market liberalization was intensified after 2002, so, together with numerous bilaterateral arrangements, it changed considerably foreign trade relations and the structure of export markets. The most important export destinations are countries of Former Yugoslavia, especially Bosnia and Herzegovina, followed by the EU countries (Grgić et al., 2012).

# Competitiveness of Croatian agriculture and food production

From the EU perspective, Croatian agriculture is a minor factor of the total European agriculture:

the level of its share in the EU – in the total value of agricultural production, gross value added of agricultural production, utilized agricultural area and the number of livestock – doesn't exceed 1%. Regarding the number of farms and labour employed in agricultural sector, the level of indicators is about 2% (table 1).

Furthermore, the export of European agrifood products into Croatia makes 0.8% of the total European agri-food exports, while the import from Croatia consist only 0.2% of the total European agri-food imports. If we single out the food production sector, similar conclusions can be derived and confirmed by the same level of indicators as for the agricultural sector: Croatia is not in the team of the major European players (table 2).

Indicator	Share of Croatia in the EU, %		
Production value	0.7		
Gross value added	0.8		
Farms	1.9		
Labour	1.9		
Utilized agricultural area	0.8		
Livestock (LU)	0.8		

Source: Eurostat-Agriculture (Structural statistics, Economic accounts for agriculture, Foreign trade) – processed by the authors.

Table 2. off detural indicators of food production sector			
National classification of economic activities – C10 – production of food products	EU-27	Croatia	Share of Croatia in EU-27, %
Number of companies	261,233	2,968	1.1
Turnover, mill. EUR	814,892	4,410	0.5
Production value, mill. EUR	744,386	3,914	0.5
Value added, mill. EUR	161,947	1,012	0.6
Number of employees, mill.	3,8	0.6	1.5
Wages, mill. EUR	76,616	537	0.7

Table 2. Structural indicators of food production sector

Source: Eurostat – Structural business statistics, processed by the authors.

<sup>2</sup> Data on the number of farms, utilized agricultural area, livestock and labour are for 2010. Data on the production value and gross value added are average for the period 2010-2012.

Comparison of the main structural indicators and macroeconomic aggregates for Croatia and EU-member countries leads us to the conclusion that Croatian agriculture doesn't achieve high results. Some of the indicators point out directly on the week points of Croatian agriculture that should be solved by the policy measures if we expect for the sector to maintain and achieve better position on the European scene. Starting from the average farm size (14.1 ha), Eurostat data shows that with 5.6 ha Croatia is on the 24th place with regard to utilized agricultural area (figure 1). On the other hand, Croatia is in the group of countries with high share (49%) of farms that produce more than 50% of their output for own use<sup>3</sup>.

Besides small average farm size, a large number of small farms prevails in Croatia – there are 76.1% of farms up till 5 ha that utilize even 21.1% of agricultural area. European average shows that 69.2% of the farms up till 5 ha utilize only 6.9% of agricultural area. Similar is with the average farm size by the livestock unit, where Croatia is on the 23rd place. Insight into the results presented by annual work unit – utilized agricultural area, output of the agricultural industry and gross added value – Croatian ranking is below 20th place (figures 2-4).

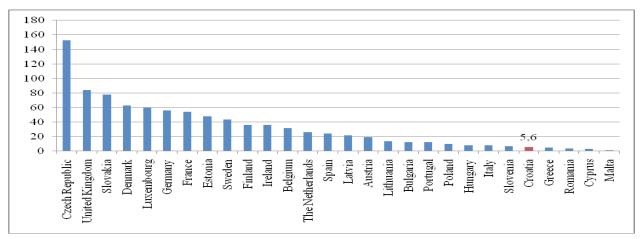


Figure 1. Average farm size in the EU by utilized agricultural area (UAA), ha Source: Eurostat-Agriculture (Structural statistics) – processed by the authors.

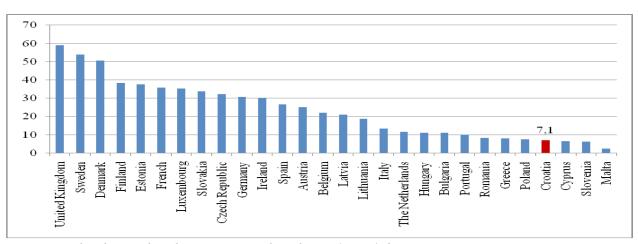


Figure 2. Utilized agricultural area per annual work unit (AWU), ha Source: same as for Figure 1.

<sup>3</sup> About a half or more than a half of such farms are registered in Bulgaria (48%), Cyprus and Malta (52%), Slovakia (53%), Slovenia (59%), Latvia (71%), Lithuania (57%) and Hungary (79%).

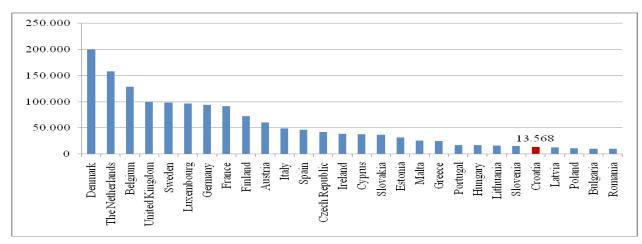


Figure 3. Output of agricultural industry per annual work unit (AWU), EUR (base price) Source: Eurostat – Agriculture (Structural statistics, Economic accounts in agriculture), processed by the authors

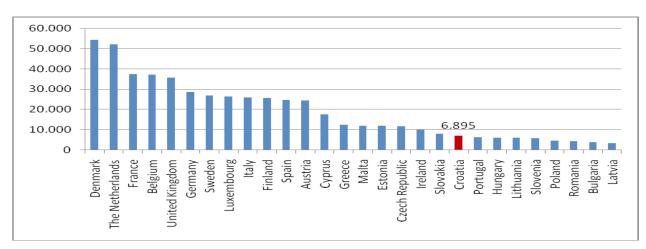


Figure 4. Gross value added per annual work unit (AWU), EUR (base price) Source: same as for figure 3.

Gross value added of Croatian agriculture per annual work unit is only at 44% of the average level of the EU-27. Besides sufficient resources (soil, water) and rather favourable climate conditions, there are numerous reasons of weak results in Croatian agriculture (Franić, 2012). Some of the most emphasized are unequalled economy of scale for the majority of farms (predominantly self-sufficient production, limited capacities, lack of production specialisation), inadequate production structure (low-profit sectors prevail), low yields in the majority of farms (due to lack of knowledge and skills, inadequate production technologies, machinery and equipment, lack of irrigation or drainage systems), high production costs (due to small and fragmented production area, bad production technology, high input costs – high fixed and variable costs) and problems with products sale (small quantities, non-standardized supply, weak purchase channels, long supply chains, bad link with processing industry, lack of product brands etc.).

These problems are the result of long-term negative political, social and economic circumstances, greatly as a consequence of destabilizing (external) factors such as aggressions

<sup>4</sup> Output of agricultural industry Ø 2010- 2012; AWU for 2010.

<sup>5</sup> Gross value added Ø 2010- 2012; AWU for 2010.

during War for Independence (1991-1995) with extensive material damage, the loss of many human and natural resources, out-migrations and post-war and transitional difficulties in all spheres of economic and social life. Not only agriculture as a sector, but also entire rural areas has difficulties: a process of depopulation, much stronger compared to urban regions, a much higher share of population of the 65 and older age group in total population (and it is an increasing trend), a much lower share of the work contingent than in urban areas, bad educational structure of rural population and all this generally characterized by a poor access of local population to a basic infrastructure (Franić et al., 2011). Such situation is contrary to the requirements of actual political and economic reality imposed by EU membership and, more specific, agricultural policy trends that introduce the culture of innovations and rational use of development and economic potential and faster adjustment to changes.

# CAP mechanisms for agricultural and rural support

CAP if financed through two European agricultural funds - the European Agricultural Guarantee Fund and the European Agricultural Fund for Rural Development, each functioning by its particular rules, but the common rule is that member states guarantee that procedures for financial allocation are in line with EU standards. The implementation of the CAP goes by two pillars - the first pillar encompasses mechanisms of the common organizations of the market for agricultural products and farmers income (direct payments), while the second pillar arrange agricultural structure and rural development measures. New financial period begins with 2014 and imply further CAP reform, for which Croatian agriculture should also be prepared, no matter differences in economic level of Croatian agriculture or unadjusted institutional and business structure.

In 2011, negotiations for the accession to the EU membership were finished for the chapter Agriculture and Rural Development. The negotiators point out that they have accomplished significant possibilities of financing the Croatian agriculture (MAFRD, 2011): 373 million Euros of financial envelope for direct payments to the farmers which should support and maintain the agricultural production and stabilize the farmers' income, the possibility of co-financing the support from the national budget (if the domestic budget is strong enough). In addition to this, about 10 million € annually will be available for support to the wine sector and almost 10 million annually for the next decade to solve potential agricultural areas that are still under mines. Although the system of single farm payment (decoupled payments) will apply, for some sectors coupled payments are kept (suckler cows, sheep and goats).

Particularly sensitive sectors will also be additionally supported from the national reserve in the form of decoupled payments - milk, beef fattening, sheep and goats and tobacco. State aid measures that are not the part of CAP will be applied during the next three year period for sugar beet, extra virgin and virgin olive oil, tobacco, dairy cows and breeding sows. Transitional period till 2018 is approved for introduction of crosscompliance standards - statutory management requirements and good agricultural and environmental conditions. Moreover, 333 million € negotiated for rural development measures, with special transitional measures of support for semisubsistence farms as well as for producers groups (which could save a vast number of Croatian farmers).

No matter how convenient it seems, application of European models in Croatia does not and would not function easy and without problems due to above mentioned structural limitations in the sector. Strong fear was expressed by the local farmers that they could not be able to meet the strict criteria for the European financing, due to a lack of their own capital, and the lack of ability and will for the cooperation and initiative needed to launch local (rural) community projects.

### Perspective for Croatian agriculture and rural areas within the EU

Regardless of Croatian EU membership, or just because of it, the aims of the agricultural policy remain: accomplishing the highest level possible of self-sufficiency in agricultural production (now within the Common European market), production competitiveness, acceptable food prices with respect towards health regulation, fulfilment of environment protection standards, good agricultural practice codes and contribution to the public goods. These aims are planned to be accomplished by means of a regulated land policy, proper market infrastructure and with intensive farmers' association – measures beyond the agricultural policy, including structural measures of educational and social policy.

To achieve policy goals by the EU standards, Croatian agriculture has to solve its long time preoccupation with a production of basic foodstuffs, predominantly arable crops, resulted from inherited ownership and technological structure of business entities in agriculture. Some segments of agricultural production have been neglected, as well as adequate processing into value added products. As concluded long before the "pressure" of EU membership, achieving these goals implies processing by strict standards, rational production and distribution technology and following European trends regarding assortment and processing technology solutions: increasing demand is for high value food ("bio" or "organic") within wide range of organoleptic and nutritive characteristics, including ethnical and regional particularities (Lovrić and Piližota, 1997).

Recent research point out that a large part of Croatian farmers see the possibilities for their survival and growth in non-agricultural activities (Franić at al., 2011). They are aware of comparative advantages of Croatian rural areas (quality natural resources, traditional and cultural values, attractive regional diversities) and expect positive consequences of the entrance into the EU: economic conditions for the rising productivity, better market organization and functioning and more effective use of state support for agriculture and rural development. They see opportunities

for farm income increase in achieving added value through organic production, traditional practices or new products development. Above all, the chance for Croatian agriculture is through "ennobling" agricultural activities through touristic activities such as agritourism or supplying tourists' demand during the season of conventional massive tourism. Knowing that Croatian farmers recognize their chances within the EU is a mitigating fact for positive expectation from the agricultural sector, food production and overall rural development. That is why we believe that Croatian agriculture can provide a quality contribution on the Common EU market and be a factor of Croatian recognition in the European context.

### CONCLUSION

In the situation when global demand for food imposes great challenges in front of agriculture, together with particular Croatian political and economic moment which require improvements in agricultural and food sector, it is more than justifiable to examine Croatian perspective within the European context. This research tries to answer three main questions: how important is agricultural and food sector for Croatian economy, why is Croatian agriculture uncompetitive compared to sectors in majority of the EU countries and what mechanisms of CAP could be used to improve agricultural competitiveness and sustain and develop rural life.

Insight into statistics shows that agriculture is rather important for Croatian economy. It contributes with about 6% to the total GDP and, together with food processing industry, with more than 9%. The complex contributes with about 11% in total export and about 11% in imports, and in total employment with more than 20%. From the EU perspective, Croatian agricultural and food sector is of little importance. Main economic indicators (total agricultural production value, gross value added, utilized agricultural area and the number of livestock) don't exceed 1%. Despite favourable natural resources, there are numerous reasons (historical, organizational, economic and institutional) that complicate the situation in agriculture and food production. Policy makers are trying to resolve these issues in the new agricultural policy circumstances, applying available CAP mechanisms of income support and rural development. Although considerable financial resources are available for Croatian farmers, there is fear that the funds will not be used due to a lack of their own capital and the lack of ability and will for cooperation and initiative need to launch local (rural) community projects. However, previous research suggests that Croatian agriculture and food production will be able to survive and grow within European political and economic circumstances, contributing to the overall Croatian identity.

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## Proizvodnja hrane i ruralni razvoj – izgledi za Hrvatsku u europskom kontekstu

### SAŽETAK

Ovim istraživanjem pokušavamo odgovoriti na tri osnovna pitanja: koliko je važan poljoprivrednoprehrambeni sektor za hrvatsko gospodarstvo, zašto je hrvatska poljoprivreda nekonkurentna u usporedbi sa sektorima većine zemalja EU-a i koji mehanizmi ZPP-a bi se trebali koristiti za unaprjeđenje poljoprivredne konkurentnosti te održavanje i razvoj života u ruralnom području. Rezultati pokazuju da su poljoprivreda i prehrambena industrija razmjerno važne za hrvatsko gospodarstvo, pridonoseći s više od 9% ukupnom BDP-u, s oko 11% ukupnom izvozu i uvozu te s više od 20% ukupnoj zaposlenosti. Međutim, u kontekstu EU-a, poljoprivredno-prehrambeni sektor je neznatan s udjelom od oko 1% u glavnim ekonomskim pokazateljima. Unatoč povoljnim prirodnim resursima, povijesni, organizacijski, ekonomski i institucijski razlozi objašnjavanju složenu situaciju u poljoprivredi i ruralnim područjima. Kreatori politika pokušavaju riješiti te probleme, sada pomoću dostupnih mehanizama dohodovne potpore i potpore ruralnom razvoju u okviru ZPP-a. Unatoč značajnim financijskim resursima koji su na raspolaganju hrvatskim poljoprivrednicima, postoji strah da se fondovi neće iskoristiti na odgovarajući način. Međutim, rezultati prijašnjih istraživanja upućuju na to da hrvatska poljoprivreda i proizvodnja hrane i dalje imaju priliku opstati i rasti u okviru europske politike i gospodarstva.

Ključne riječi: poljoprivreda, proizvodnja hrane, ruralni razvoj, Hrvatska, EU