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CEREAL MARKET IN THE BLACK SEA REGION – COMPARATIVE ANALYSIS FOR ROMANIA AND UKRAINE

ABSTRACT

The aim of the paper is to provide an image of the dynamics of the cereal market, at regional level, in the Black Sea Region. The analysis focuses on Romania, as a member state of the European Union (EU) and Ukraine, as a member of the EU Eastern Partnership. Cereal markets in Romania and Ukraine have faced stiff competition from other Black Sea or EU countries. These are solid arguments for comparatively studying market developments in both countries and their characteristics. The research results show the size of the grain markets in both countries, represented by production size, areas and trade. The analysis identifies the factors that have influenced these developments over time. The elimination of those with a negative effect will attenuate production fluctuation and the pressure of competition on the international market. Farm consolidation and capitalizing on this sector with national or EU programmes are examples of solutions that we can offer.

Key words: cereals, dynamics, competitiveness, Romania, Ukraine.

JEL Classification: Q13, Q17, R11.

1. INTRODUCTION

In recent years, the international cereal market has had a dynamic evolution. The geopolitical changes in Europe in the last decades have directly influenced the world trade and the agri-food markets. The international trade agreements and the regulations developed at European Union (EU) level for agri-food markets have introduced new rules for the actors involved. This is also the case of the cereal markets. This paper will analyse the changes and challenges in the cereal markets from the Black Sea Region. Why the Black Sea Region? Because this region covers a huge area and is an active actor in the European and international market of agri-food products (see Figure 1). In this area, there are countries with a huge agricultural potential for grain production, fertile soils and good facilities for international trade, due to the presence of

important ports along the Black Sea coast and the Danube river, besides other ports on the important rivers from the former Commonwealth of Independent States (CIS).

Source: enviroGRIDS

Figure 1. The Black Sea Basin

The current situation of cereal market in the region reflects the effects of EU enlargement and trade globalization, as well as the influences that have appeared as a result of the high competitiveness level from other countries of the world. We shall focus on Romania and Ukraine, as active and important actors in the region. The main objective of the paper is to create a coherent picture of the current and future competitiveness on the cereal market, at regional level, in the Black Sea area, on the basis of previous developments on the cereal market, namely total productions obtained, average yields and cereal trade in both countries.

This region has developed in the global context of economic progress. As a consequence of international development, the demand for cereals on the world market is increasing. According to the Organization for Economic Cooperation and Development (OECD) and the Food and Agriculture Organization of the United Nations (FAO), the global consumption of cereals is likely to increase by 13% by the year 2026 compared to the base period taken into account (2014–2016), i.e. 2863 million tons. It is expected that globally, wheat consumption will increase by 11% by the year 2026. It is estimated that the use of wheat feed will increase in general, mainly in countries with a numerous population and high demand of

milling products and meat, like China, Pakistan and Vietnam. The share of the 5 great wheat importers (Egypt, Indonesia, Algeria, Brazil, Japan) is likely to remain constantly high. The intensification of world maize consumption is also expected. That is, maize consumption per capita will increase mainly in Africa, with an average of 3% per year. It is almost clear that Vietnam will join the above-mentioned group of countries and is likely to replace Egypt as the 5th largest importer of maize.

It is obvious that the increase of cereal consumption and demand worldwide is the result of economic development and of change in the population's consumption preferences, but in the first place it is the result of the growing world population. According to the United Nations Organization (UN), almost 10 billion people will live on Earth by the year 2050 (https://www.un.org/development/desa/en/news/population/world-population-prospects-2017.html). In fact, population growth will be noticeable mainly in Africa and Asia, continents that already have a large population. This is the current picture of international markets and the development prospects of the cereal market, which makes us believe that this market will have an upward trend in the future as well.

2. STATE OF KNOWLEDGE

The cereal market has been often investigated by several authors all over the world, from Romania and from Ukraine. As this is an important sector of crop production for both countries, we consider it useful to deepen this topic. We want to analyse the cereal market from another perspective, and for this purpose we decided to make a comparative study on common and specific problems in the two countries, which belong to the same geographical and commercial region, namely the Black Sea Basin. In our analysis, we started from the previous studies of authors, namely "Gains and losses of Romanian agri-food products on EU intra-trade market" (Voicilaş, 2013), "Cereal market in Romania – regional competitiveness" (Voicilaş, 2014), "Competitiveness of the Romanian agri-food trade and the new agricultural policies" (Gavrilescu, Voicilaş, 2014). We also used previous research works by other Romanian authors, such as "The Romanian cereal production at regional level" (Sima, 2009). The publications of statistics institutes and the reports of certain international organizations facilitated the realization of our study, such as "Production of main crops in the year 2010" (NIS, 2011), or "Territorial competitiveness – Creating a territorial development strategy in the light of the LEADER experience" (European Commission, 1999).

3. MATERIAL AND METHOD

The methodology used consists of a comparative analysis of statistical data, i.e. productions, yields, trade flows and related indicators. The focus was laid on comparing the evolution of cereal production and trade in the two countries, Romania and Ukraine. For Romania, the analysis covers the period 2000–2006, until the accession to the EU (2007) and next the period of EU membership. For Ukraine, the period of analysis started in the year 2000. Long data series were analysed that were supplied by the National Institute of Statistics (NIS) from Romania and Ukraine, the Ministry of Agriculture from the two countries, as well as EUROSTAT and FAO data. We also completed the study using the results of qualitative analyses based on interviews and opinions of experts in the field. In addition, we used information from the media, statements or interviews published in press by administration or business officials.

4. RESULTS AND DISCUSSIONS

4.1. CEREAL MARKET IN ROMANIA

Agriculture is a branch with old traditions in Romania's economy, which in recent years has contributed by about 5% to Gross Domestic Product (GDP) formation, according to data published by NIS. In Romania's agriculture, crop production prevails, while livestock farming has declined in the last three decades. Crop production concentrates on two main crops, cereals and oilseeds. Cereals represent the main crop on arable land, being grown on 67.8% of the arable land area (Sima, 2009); this as a result of tradition, on the one hand, and of the favourable fertile soil conditions in the southern, south-western and south-eastern parts of the country, on the other hand. Among cereals, wheat and maize are the main crops; barley, rye and oats are also grown, yet their share in total cultivated land is lower. Therefore, it can be said that Romania's agriculture is mainly based on cereal farming, which is traditionally determined by the need for self-sufficiency in the consumption of the population, and by the favourable environmental conditions (Sima, 2009) as well as by the export opportunities provided by the EU membership.

The statistical data support the above-mentioned facts. We shall divide the analysis of the main indicators into two periods, namely before and after the accession to the EU. In the pre-accession period, the evolution of main indicators, namely cultivated areas, average yields and total productions, for all cereals grown in Romania, is presented in Table 1.

Table 1

Cereal indicators in the pre-accession period

	Crop	2000	2001	2002	2003	2004	2005	2006
Cultivated area (thou.ha)	Wheat	1940	2546	2297	1735	2296	2476	2013
	Rye	14	12	12	13	22	21	17
	Barley	412	529	579	330	425	485	332
	Maize	3049	2974	2895	3200	3274	2628	2520
	Total	5655	6295	6038	5542	6265	5866	5114
Average yield (kg/ha)	Wheat	2286	3038	1924	1429	3403	2965	2746
	Rye	1549	2326	1636	1356	2511	2371	2072
	Barley	2105	2988	2005	1641	3312	2227	2331
	Maize	1603	3066	2902	2993	4441	3952	3565
Total production (thou.tons)	Wheat	4434.4	7735.1	4421.0	2479.1	7812.4	7340.7	5526.2
	Rye	21.8	28.6	20.1	17.4	55.0	49.0	35.7
	Barley	867.0	1580.0	1160.4	540.8	1406.0	1079.1	772.9
	Maize	4897.6	9119.2	8399.8	9577.0	14541.6	10388.5	8984.7
	Total	10477.5	18870.9	14356.5	12790.3	24403.0	19345.5	15759.3

Source: Sima, E. (2009). The Romanian cereal production at regional level, in Agricultural Economics and Rural Development, New Series, Year VI, no. 1, op. 91–102, 2009; NIS, 2011

In the investigated period, at least 5.5 million ha (2003) were cultivated with cereals in this period, which proves the specialization in cereals of the Romanian agriculture. The areas under maize prevailed (at least 44.8% of Romania's area cultivated with cereals in the year 2005), next the areas under wheat, with at least 31.3% in 2003. These shares reveal that maize and wheat are the main cereals grown in Romania, summing up 85.9% – 89% of the total area cultivated with cereals.

The average yields fluctuated from year to year, in all cereals. The lowest average yields were obtained in the year 2003 in wheat, rye and barley and in the year 2000 in maize. The year 2002 was also a year with poor yields, mainly in maize and rye. Only in one year (2004), the obtained yields were close to those from the western EU countries, both in wheat and in maize.

Overall, there were very great variations in total cereal production, from 10477.5 thousand tons in the year 2000, to 24403.0 thousand tons in 2004 (2.3 times as high). The greatest variations were in wheat, i.e. 3.1 times (2004 compared to 2003), in rye 3.1 times in the same period, in barley 2.9 times (2001 versus 2003) and 2.9 times in maize (2004 versus 2000). Therefore, it results that the year with the poorest harvests was 2003, and the best year 2004. It is obvious that the variations were mainly caused by weather conditions, by the lack of rainfall and of irrigation systems necessary to compensate the water deficit, as well as by the inadequate use of fertilisers and modern technologies.

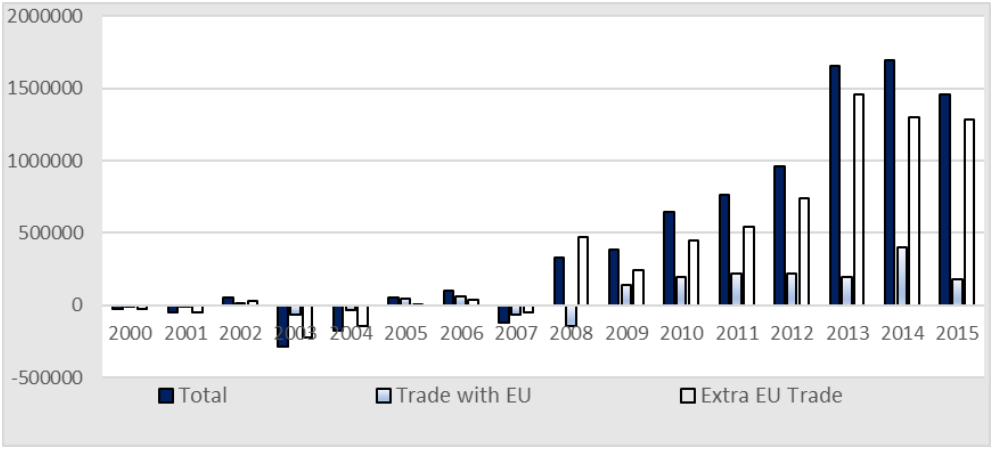
In the period of EU membership, the cereal situation in Romania, in the investigated period (2007–2015), did not radically change, yet it improved as

compared to the pre-accession period. As regards the indicators considered in the analysis, maize and wheat prevailed in the cultivated areas (4–5 mil. ha each year), productions fluctuated, and maize was preferred to wheat, like in the previous period.

The average yields obtained also continued to fluctuate, but not at the intensity of the previous period. As a general trend in the period 2007–2015, average yields had an upward dynamics, except for the year 2012 when the lowest yields of the entire period were obtained, as a result of unfavourable weather conditions and lack of irrigation systems.

As a result of the evolution of previous indicators, total production had an upward trend in general, with those variations caused by the extremely dry years (2012), or by the improper use of fertilisers, mainly in the early period of investigation. The improvements in cereal crops in the post-accession period are obvious, which reveals an increase of the economic performance and competitiveness of the sector. This growing competitiveness should be analysed by comparison with the previous period, not with the results obtained in other EU member states, such as France, Germany or the Netherlands in particular, which are the main EU competitors for Romania.

As regards trade in cereals, we analyse both exports and imports, across the EU and at extra-Community level, for both periods under analysis.

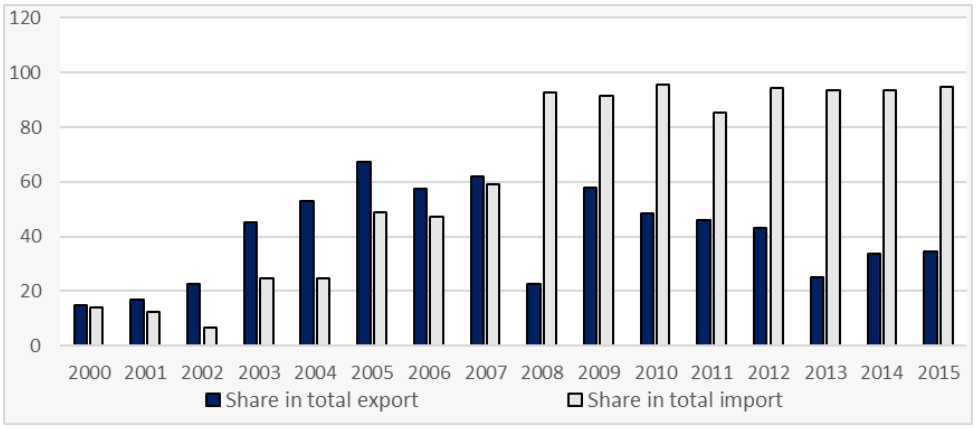


Source: author's processing based on Gavrilescu, C., Voicilaş, D.M. (2014). *Competitiveness of the Romanian agrifood trade and the new agricultural policies (Competitivitatea comerţului agroalimentar din România şi noile politici agricole)*, in Kowalski, A., Wigier, M., Bulkovska, M. (editors), "The new EU agricultural policy – continuation or revolution?" (Noua politica agricolă a UE-continuare sau revoluţie?), Agricultural and Food Economics Research Institute, Warsaw, Poland, no. 99.1: 95–106

Figure 2. Trade balance of cereals in Romania (thousand euros)

The period 2000–2006 was characterised by low trade flows, both at intra-Community and extra-Community level (Figure 2). Trade balance was both positive and negative, but in general trade was low in terms of value and quantity. Romania was not connected to international trade flows. After 2007, the EU membership brought many benefits to Romania, among which the access to the European Single Market and also the possibility to increase its extra-Community exports as a beneficiary of the EU trade agreements. Since 2008, trade with non-EU countries was steadily positive and growing. The same trend was noticed in the total balance of Romania's cereal trade. By comparison, the intra-Community trade balance was also positive, yet lower in value and quantity than the extra-Community trade balance.

Figure 3 presents the analysis of intra-Community trade in cereals.



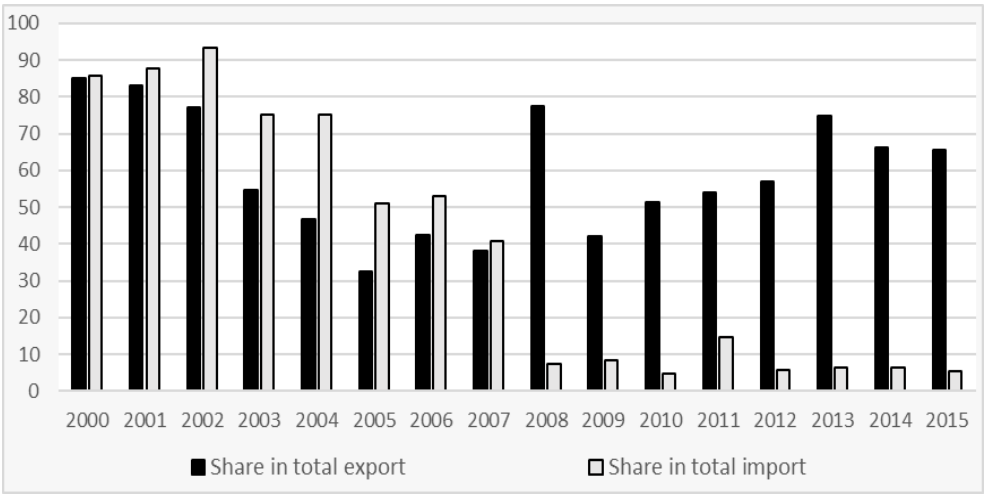
Source: author's processing of NIS data

Figure 3. Intra-EU cereal trade for Romania (%)

The share of the intra-Community trade in cereals in total exports, like in the case of imports, was permanently positive. The share in total exports in the period 2000–2006 was characterised by significant increases, while in the period 2007–2015 a continuous decrease followed, as a result of the pressure of products from the EU market, products with a high quality and competitiveness level. By comparison, the share of intra-Community cereal trade in total imports permanently increased in both investigated periods. A fast increase was noticed in 2008, as against 2007, when Romania was already a member state of the European Union, and the intra-Community market mechanisms were already working. The year 2008 was a weak year in terms of the share of exports in the intra-Community trade, when the EU products had an easy access on Romania's market as a result of the lack of strong competition from the part of domestic producers. Since that year, the share in total imports remained high, but relatively

constant for the investigated period. This reveals that immediately after the accession, Romania could not cope with the intra-Community competitiveness, and the impact was very strong. At the same time, this reveals that Romania's main partner in the case of imports is the EU (more than 90% of total cereal imports). In the case of exports, the intra-Community market is less accessible to Romanian products, which is reflected in their low share (not more than 40% of total exports) as compared to the share of imports, which again reveals the lack of competitiveness of Romanian products.

As regards the extra-Community trade in cereals, the situation is different from the intra-Community trade, as it can be seen from Figure 4.



Source: NIS

Figure 4. Extra-EU trade of cereals for Romania (%)

The share of extra-Community trade in cereals in total exports, like the share in total imports, was permanently positive, like in the case of the intra-Community trade. Yet the evolution was different. Thus, the share of extra-Community exports in total cereal exports decreased in the period 2000–2006, then fluctuated in the post-accession period. On the other hand, the share of extra-Community imports in total cereal imports gradually decreased in the period 2000–2006, and since 2008 it was at a low, but constant level. This is the clear evidence of the growing role that the non-EU countries have played since accession, as the main partner in the trade with grains, in terms of Romania's exports and of the decrease of trade flows with these countries in the case of imports. We mention again that in the case of grain imports, Romania's main partner is the EU.

At the end of this sub-chapter we would like to highlight a series of factors that we have identified as having had negative influences on the evolution of cereals in Romania, mainly in the pre-accession period.

Dualism and polarization of agricultural structures had negative influences on cultivated areas, yields and total production. The distribution of agricultural holdings has a strong dual character. The average agricultural area of an agricultural holding in Romania is much under the average farm size in the EU. Almost 80% of the Utilised Agricultural Area (UAA) is divided between two categories: a very large group (80% of total farms) that consists of small-sized farms, under 5 ha, and a very small group of farms with an average size of over 50 ha, as revealed by NIS data. The intermediate segment is poorly represented, but this segment deserves to be developed in order to maintain a certain balance between farmers and their supply on the domestic market. This can take place by the transformation of some small-sized farms into medium-sized farms, as well as by special government programmes or by accessing EU funds by small farmers who want to develop.

The unused (abandoned) land is an alarming phenomenon that was noticed in Romania's agriculture, but we do not include here only the land that was legally removed from the agricultural circuit as a result of development of localities, of industrial platforms and service spaces, or the land that is legally unused, in accordance with EU regulations, for regeneration. In this situation we also include a third category of land areas, namely unused land following land abandonment by owners, all these categories having negative effects on the Romanian agriculture performance.

The competitiveness of cereals from the Black Sea Basin has put pressure on the Romanian market for many years, following the tough competition from products originating in the main cereal producers from the Black Sea area, and we also include Ukraine among these countries.

Another factor that had a negative influence on the Romanian cereal market for many years was the "black market", tax evasion in general and export tax evasion in particular. Romanian officials (Financial Guard, ANAF, Competition Council) have often admitted that there is a "black market" for cereals (https://www.revista-ferma.ro/articole/afaceri-agricole/piata-neagra-a-cerealelor-pune-capac-hambarelor-romanesti; https://www.curentul.info/economic-financiar/piata-neagra-a-cerealelor-prospera-din-intermedieri-ilegale/; https://www.hotnews.ro/stiri-presa_regionala_arhiva-1723847-ultima-mare-lovitura-garzii-40-miliarde-lei-confiscate-piata-neagra-cerealelor.htm; https://evz.ro/piata-neagra-a-graului-de-contrabanda-857525.html), but no official figures exist to indicate the size of these markets, there are only estimates. According to some experts, the "black market" of cereal transactions, for wheat in particular, represented about half of the Romanian market in the past. For example, a

preliminary report by the Competition Council in early 2009 showed that the illicit wheat sales in Romania represent 40% of total transactions (Report on the useful investigation for bakery cereal market knowledge, launched by Order of the Competition Council President no. 264/06.09.2007).

The pressure on agricultural land price is another factor that we take into consideration. This pressure affects business in the cereal sector, either we speak about an increase as a result of real estate speculations, or strategic investments or there is a normal increase in prices due to the transition from the status of candidate country to EU member state status.

4.2. CEREAL MARKET IN UKRAINE

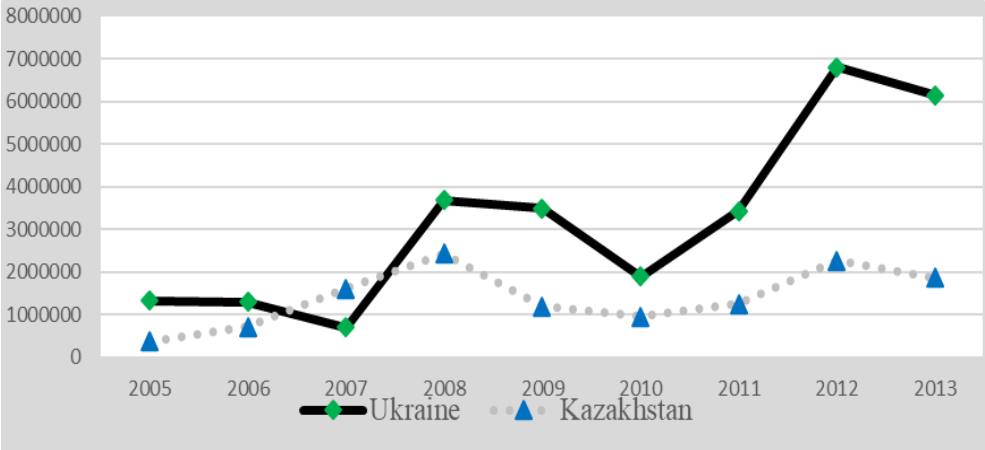
Ukraine is one of the greatest grain producers, not only in the Black Sea Region, but also in the world. The weather and soil conditions are favourable for obtaining significant grain productions each year.

Ukraine permanently exports cereals in countries from North Africa, Europe, Persian Gulf area, reaching 50% of total cereal exports (State Statistics Service of Ukraine, 2018). Countries where exports from Ukraine have significantly increased in recent years are also in Asia, including China, India and Vietnam, as well as in Southeast Asia (Indonesia). The future plans of the Government from Ukraine include the development of exports to Latin America, mainly to Mexico, Argentina and Brazil. Ukraine is an important player in the international cereal trade, accounting for 12% of the world market (Adama, 2017). Ukraine is in the top 5 cereal exporting countries. The expected increase of production and of cereal exports will significantly improve Ukraine's position in the world trade (Acs, 2013). Such a trend will certainly have a positive impact on the internal market of Ukraine and on population's well-being. One should not neglect that the players in the cereal market in Ukraine are the drivers of the country's economic development, and almost one third of the export revenues of the entire country come from agro-exports. Obviously, the question that we raise is the following: how is it possible to export finished products and not raw products under the form of cereals? Maybe the answer to this question will be given by the 10-year governmental plan for all the participants in the agricultural sector activities, plan that includes the targeted objectives, the international production standards to be implemented, food safety, storage of finished products and other standards.

In the year 2018, Ukraine generated agricultural exports worth 18.8 billion USD, up nearly 1 billion USD from 2017 (State Statistics Service of Ukraine Database). These results were achieved, in part, due to higher grain sales to world markets. If we take into consideration the physical volume, in the year 2018 Spain

became the main world consumer of Ukrainian cereals, i.e. about 4.5 million tons. According to data from the State Fiscal Service from Ukraine (DFS), China imported 4.3 million tons and the Netherlands 4.2 million tons. In terms of revenue, Egypt paid most of the grains, i.e. 666 million USD, Spain 643 million USD and the Netherlands 556 million USD, according to data from the NRC "Institute of Agrarian Economics".

Ukraine's balance of trade in cereals, as compared to Kazakhstan, another important player in the Black Sea Basin, is presented in Figure 5. In the analysed period, the trade balance was permanently positive and increasing. Ukraine, together with Kazakhstan, is one of the most important producers and exporters in the region.

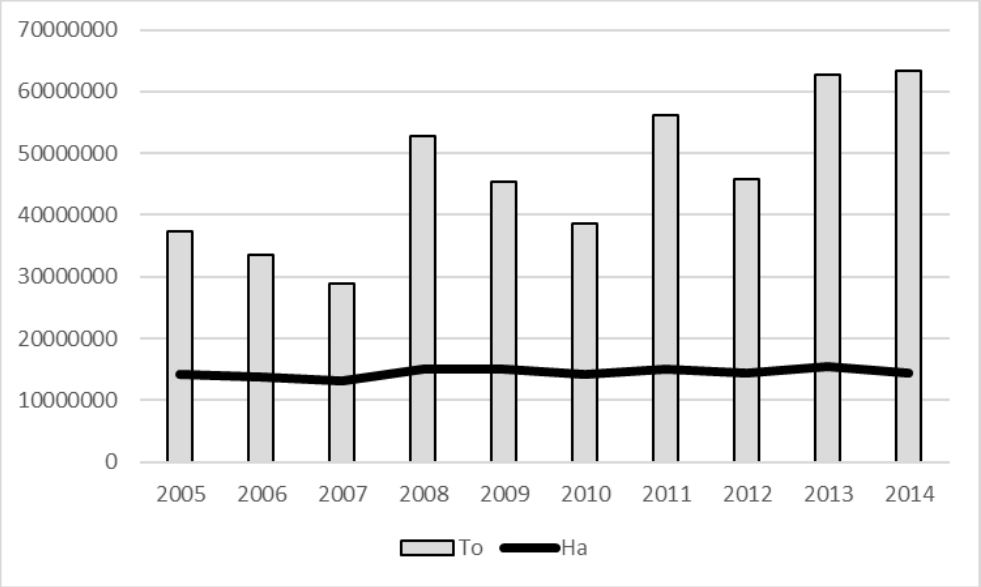


Source: FAO data

Figure 5. Balance of grain trade of Ukraine compared to Kazakhstan (thousand USD)

According to Harvest Online 2019 Bulletin, in Ukraine, 49.3 million tons of cereals and pulses were harvested on an area of 11.7 million hectares. The main exported crops were wheat – 28.2 million tons, maize – 9.5 million tons, sunflower – 11.5 million tons. In the year 2018, record-high grain harvests were obtained in Ukraine (70 million tons), which led to record exports of 50.4 million tons. Given these trends, it is predictable that Ukraine will be able to produce an annual harvest of 100 million tons.

The areas and productions obtained before the period discussed above are presented in Figure 6. The analysis of data reveal that although the areas remained relatively constant, production increased, in general, although there were also years when production decreased, mainly due to unfavourable weather conditions (no rainfall, frost) and lack of irrigations.



Source: FAO data

Figure 6. Areas and production of cereals in Ukraine

However, there are certain economic problems and risks that prevent the constant achievement of significant export results despite large harvests. Among these, we would like to mention the armed conflict in the eastern part of the country (FAO, 2016). In addition, we must also mention the logistical difficulties that farmers and traders are constantly facing. Besides the lack of proper and sufficient storage facilities, another problem is the precarious condition of transport networks. Due to the volume of production and need to export large amounts of cereals, the problem of transport to ports remains stringent, as a result of problems caused by rail transport in the first place.

Another unexpected problem that appeared for domestic producers is the significant strengthening of the exchange rate, which makes the current prices for cereals (mainly for maize) unacceptable to them (State Fiscal Service of Ukraine data). And this despite the fact that one of the main competitors of Ukraine on the world grain market, Argentina, has a currency that is devaluing, which gives Argentina's grains competitive advantage. However, many Ukrainian producers need capital, and this determines them to sell, despite the market conditions that are not very favourable. Egypt is one of the key markets for Ukrainian grains. Yet in the last auctions they did not prefer Ukraine. The reason was the appreciation of Ukrainian currency. Thus, as the local currency becomes stronger, the export-oriented products become less and less competitive. For instance, one of the usual Ukrainian clients – the Egyptian national operator, is more cautious in the purchase

of Ukrainian wheat at present (Odessa National Academy of Food Technologies). Its procurements diminished by about 30% (for instance, at present, its procurements are about 2.5 million tons, as against about 3.3 in the past).

The Ukrainian experts (ProAgro Group) estimated that in the year 2019 farmers have every chance to harvest record grain production. These estimates are presented in Table 2. The estimations were close to reality.

Table 2

Forecast of cereal crop production in Ukraine

Indicator	2018		2019		Dynamics, %
	Average yield, q/ha	Gross harvest, thou.tons	Average yield, q/ha	Gross harvest, thou.tons	
Total cereals	47.8	70118	50.2	74332	6.01
— wheat	37.3	24591	41.6	28202	14.68
— barley	29.6	7363	34.8	9025	22.57
— rye	26.6	392	27.7	318	- 19.04
— maize	79.0	36000	75.5	35195	- 2.24
— oats	21.4	419	24.7	455	8.52
— millet	15.1	77	19.1	168	118.53
— buckwheat	12.1	137	12.7	84	- 38.72

Source: according to ProAgro Group data

Unfortunately, rye continues to be a non-attractive crop to farmers in Ukraine. Thus, according to ProAgro data, while in the year 2018 farms planted 148 thousand hectares with this crop, in the year 2019 they planted only 117 thousand hectares. It is interesting to note that buckwheat and millet are not crops practiced by domestic producers, as they are considered niche crops. In 2020, buckwheat was planted on a record area, on over 125 thousand hectares (in 2019 - 50 thousand hectares) and consequently there was surplus buckwheat production on the domestic market.

Despite all the difficulties that have appeared over time, Ukraine traditionally sells about one third of its grain production to the EU markets, one third in Asia and one third in North Africa and Middle East (State Statistics Service of Ukraine, 2018). This is due in the first place to the general demographic situation worldwide, with an already significant population growth in Asian countries such as China, India, Indonesia, Philippines. It is true that in these countries it will be easier to find grains from Ukraine on the market in the future. Given the poor quality of cereal crops from the Russian Federation and the somewhat low export forecasts, it can be assumed that Ukrainian wheat and barley will be much easier to sell in Egypt, Saudi Arabia and other Middle East countries. At the same time, the large grain production in the EU countries in latest years and the dominant position of France are an impetus for finding new markets, countries with large populations and demographic growth. This strategy is applicable in the case of wheat, barley

and maize (Acs, 2013). Thus, the record grain harvest in the last year provides every reason to say that Ukraine will have the necessary potential to penetrate traditional world markets and not only these. The only challenge will be the situation on the domestic market, namely the agri-food industry, as the domestic procurement prices will be low due to surpluses, which will not be convenient for Ukrainian farmers. At the same time, the cereal traders will also compete on the world market with other important producers, and competition will be increasingly fierce. It should be mentioned that the Ukrainian market provides products not only for over 40 million Ukrainians, but also for other countries of the world, with a growing tendency of demand. Grain exports increased 5 times to nearly 50 million tons in 2018 (Adama, 2017). Maintaining this trend, Ukraine can grow to 100 million tons of cereals and can export nearly 70 million tons by the year 2022, according to forecasts from various studies (Vasylieva, 2018). In this case, the domestic demand for cereals will remain fully met. Ukrainian farmers harvest about 4 tons/ha of wheat and slightly over 5 tons/ha of maize, while on EU farms the average wheat yield is 8 tons/ha, and in the US the average maize yield is 11 tons/ha. In addition, in the last year a record yield of 16.82 tons/ha was obtained in Great Britain, and in the USA the maize hybrids yield more than 20 tons/ha (FAO data). Yet the Ukrainian farmers remain profitable. Even though the climate zones are shifting, an analysis of cereal production dynamics reveals that the yield index in Ukraine continues to rise. The reason for productivity growth resides in the cereal production technologies, as well as in the future expansion of irrigations (Odessa National Academy of Food Technologies). Another factor that affects cereal production increase and the efficient use of land as a resource is the right to buy agricultural land.

The main, topical question of decision-makers and farmers from Ukraine continues to remain the following: what are the factors that affect the development of Ukrainian grain market? Of course, these factors are diverse and encompass both natural conditions and anthropic actions. In addition to those we have already mentioned before, we would like to mention legislation, which is not perfectly in line with the producers' and traders' requirements, but it is always perfectible.

5. CONCLUSIONS

The results of the study show that the cereal markets in Romania and Ukraine had positive developments underpinned by the size of production, consumption and trade. At the same time, there were factors that slowed down the evolution of the analysed indicators. Thus, a problem that should be taken into consideration in the future development of the sector is the lack of adequate infrastructure and logistics for the productive potential. We have in view the lack of storage facilities, even though their construction process has accelerated in

recent years, or the lack of transport infrastructure to the main ports through which products are exported, i.e. the port of Constanţa and the port of Odessa. Other common problems that have been identified are the lack of functional irrigation systems, to compensate the lack of precipitations in certain years or in certain periods of the year, or finding solutions so that both Romania and Ukraine should no longer export raw products without value added and import finished products with value added, which affects the balance of trade. Oil price, as well as the refugee crisis may indirectly affect the analysed sector and the international trade in particular, to a certain extent. In this general context, we should not neglect the climate changes, increasingly noticeable in recent years, as well as the legislation, policies and strategies adopted by governments in the two countries, which encouraged the development of bipolar agriculture. At the same time, a problem specific to Ukraine is the political tension and the war with Russia. We consider that this is a high-risk factor with long-term effects, which will affect the development of the sector in Ukraine.

On the other hand, for Romania factors with positive effect on the cereal sector have been identified. We include here the accession to the EU, which forced the increase of competitiveness of agri-food products, even though it also had a negative impact on the trade balance on the short and medium term, due to the lack of competitiveness of Romanian products.

It is clear that for Romania, one of the most important competitors from the Black Sea Basin is Ukraine, alongside with Kazakhstan and Russia. There is a permanent competition, not only in terms of productions and yields obtained, but also in terms of trade that takes place through the main ports on the Black Sea. In recent years, the Black Sea Region has become the second largest grain market in Europe.

In the end, we would like to sum up our analysis in a few words: the cereal sector in Romania is less developed, compared to the similar sectors from other EU member states, directly influenced by internal and external factors; yet at the same time it is one of the most competitive Romanian sectors, by comparison to other national sectors. In Ukraine this sector is also performing well at national level compared to other sectors, undergoing transformation and developing, but we consider that this will be more difficult than expected. It is clear that for many years, the lack of stable and rigorous legislation and the weaknesses of national institutions in both countries have led to market uncertainty and underperformance, a market that cannot compete with other EU or world markets such as the USA and Canada. The aspects investigated in this study are only a part of the real problems of the sector, problems that appeared in the years of transition and have even perpetuated after the accession, in Romania's case, or after the declaration of independence in the case of Ukraine.

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