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COMPARATIVE ANALYSIS OF GRAIN MARKET IN UKRAINE AND ITALY

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The importance of cereal crops in Ukraine and Italy was scrutinized. The wheat market in both countries was analyzed, made it possible to ensure that Ukraine, unlike Italy, is an exporter of these products. Regulatory changes of the volume limit of Ukrainian wheat export were evaluated. Determined main factors, which contribute increasing of wheat production.
Keywords: comparative analysis, market, grains, wheat, production, export, import.

Problem formulation. Grain market in both analysed countries plays an important role as in agriculture. In Ukraine it is stable supply of population of grain products. Italy is known the world over as the home of pasta, and Italy's grains sector is notable for the importance of durum wheat processing. Exports of pasta have helped Italy's flour milling sector to stay profitable.

Production, processing and export of grain as in Ukraine and Italy bring incomes to the budgets of both countries. Intensification of grain sector and increased grain production increase can be achieved through such basic factors as increasing yield due to improvement of land use, compliance crop rotation, tillage, fertilization and land reclamation of chemical plant protection, seed development, increase grain quality, use scientific methods of the grain market development.

Analysis of recent publications. Research of market crops considered by many Ukrainian and foreign scientists. Many Ukrainian scientists considering economic efficiency of grain production and ways to improve it in the agricultural enterprises of Ukraine. Lupenko and Mesel-Veselyak justifying the strategic directions of development of agriculture and its separate branches.

Many foreign scientists, including Hamulchuk research cereals market in terms of their relationship between prices for grains and oil prices.

Abbot and another siensts scrutinize the main drivers of increasing agricultural commodity prices are the result of compound interactions among macroeconomic factors such as crude oil prices, exchange rate, growing demand for food and slowing growth in agricultural productivity, as well as the policy choices made by nations. Although these factors are mutually reinforcing, high oil prices are thought to be the major factor driving up the agricultural commodity prices.

Unresolved parts of the general problem. Despite the great scientific and practical interest to the gain market in Ukraine and Italy, many questions remain open and unresolved. In the available literature we found many questions that were researched, e.g. market, competitiveness and others. However, we tried to combine as analysis of industry, competitiveness, and export tendency. This article is intended to complement the knowledge's in the available literature.

Setting tasks. The aims of the article are theoretical aspects of forming the competitiveness of grain market on the example the Ukraine and Italy markets. Consider consumption and export of grain analyzing balances of both countries. Evaluate the basic factors of increase the productivity of grain production.

Statement of the main material of the study. Ukraine is a country with high potential for agricultural production, where the aggregate of agro-climatic factors and the high quality of land resources favour the cultivation of cereal crops. However, due to low productivity the growth potential is not achieved [8].

The highest share in the grain area and production have wheat and corn. Let consider balance of wheat that is presented in the table 1.

Analyzing the wheat balance can be noted that in the study period 2012-2016 its production significantly increased in 2015 compared with previous years and amounted 27.3 million tons. Domestic consumption for food and feed purposes remains at a similar level. However, exports of this crop increased in 2015 and amounted to 17.43 million tons. In 2015 the share of wheat exports amounted to 64% of the total production.

Table 1

Balance of wheat use in Ukraine, mln t [1, 2]

Indexes	MY			
	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016
Beginning Stocks	5363	2579	3670	5678
Production	15761	22278	2750	27274
Imports	450	680	270	270
Total Supply	21169	24925	28447	32979
Exports	7190	9755	11269	17431
Feed and Residual	3100	3400	4000	51
FSI Consumption	8300	8100	8000	71
Total Consumption	11400	11500	12000	122
Ending Stocks	2579	3670	5178	3348

The market has a potential for further development, e.g. increasing wheat yield per ha. As we can see in 2014/2015 MY it was increased by 1.72 compared to1999-2000 MY. It can be explained by influencing of positive factors. The agricultural machinery fleet is being replaced. According to market operators' assessments, the new and used foreign machinery supplied to Ukraine, first of all, grain harvesters, has decreased loss of crops to 10-15%, while in '90s this indicator was as high

as 30%. Use of agrochemical technology is being improved as well. The application of mineral fertilizers for winter wheat has tripled compared to 2000 to 71 kg of active ingredient per hectare of the sown area. Many agricultural producers have begun to use micronutrient fertilizers along with traditional mineral fertilizers. The process of testing new innovation technologies in the agrarian production sector has been going on actively. For instance, some large agricultural companies use No-till technology in their production. The above factors have significantly decreased loss of wheat areas and increased crop yield.

Large transnational companies such as Toepfer, Cargill, WJ Ukraine, Serna, etc. established themselves as the key players on grain market. Ukrainian tradeing companies were also present in the market, but by and large acted as intermediaries between the producers and large grain traders, that were, in fact, direct exporters. On the one hand, this is due to the specifics of operation of the world grain market, which is dominated by 15-20 companies and where governmental agencies of importing countries or the above mentioned large traders are the buyers. On the other hand, transnational companies, in contrast to the Ukrainian ones, had access to low-interest long-term lending resources, which gave them additional competitive advantage. long-term lending resources, which gave them additional competitive advantage. Such situation had existed up until 2007, and was followed by a noticeable increase in influence of the exporters that were not only engaged in grain resale, but also invested themselves in agricultural production and formed their own grain resources. Such structural changes brought about redistribution of market shares of the largest grain traders. Among the companies that gained leading positions in grain exports we can name Nibulon, Kernel, Serna, Mironivskyi Hliboprodukt, and Rise. Such processes are a result of establishing major agro-industrial holdings in Ukraine, including those based on trading companies [8].

At the same time, the market was subject to processes of strong consolidation of the grain infrastructure, such as elevators and grain reception centers, by private companies. The new facilities were not only repurchased, but also rebuilt by the market players. As a result of these transformations, Ukraine made it to the top wheat suppliers in the world [8]. Important to note that the share of Ukrainian wheat export in world export in 2015 amounted to 10%, in 2016 – 9,6%

Together with increase of integration of Ukrainian grain market with world markets some policy interventions into the Ukrainian grain exports are observed [7, 8]. In October 2006 in response to rising global grain prices, Ukraine introduced wheat export quota that ranged from 3,000 tons to 1.2 million tons between 2006 and May 2008, when export quotas were abolished in light of an expected extraordinary large harvest. In August 2010, following the Russian ban on wheat exports, Ukraine implemented a new export quota in the amount of 500,000 tons which was increased to 1 million tons in December 2010. In March 2011, the government announced the extension of the 1 million quotas till July 2011. However, in May 2011, export quotas were substituted with export tariffs that remained in place till October 2011 [5].

In 2011 in Ukraine was signed a Memorandum of Understanding with the grain exporters. It established amount of allowed exports at 24 mln tons of grain for 2011-2012. According Memorandum of Understanding in 2014 and 2015 export volume was increased to 37 and 36 mln tons respectively.

The Italian agriculture is highly diversified in terms of its main characteristics, especially between the Alpine and Apennine regions and those of the northern, central and southern regions of the country. This diversification ranges, for example, from the intensive, high productivity farming of the northern regions to an extremely marginal situation in the mountain zones and the south of the country [3].

75% of Italian farms are specialized in crops: 21.3% in olives; 12.2% in cereals, oil seed and protein crops, 9.9% vineyards, 10.5% were engaged in mixed cropping and 10.4% were general field cropping.

The term ‘crop’ covers a very broad range of cultivated plants. Within each type of crop there can also be considerable diversity in terms of genetic and phenotypic (physical or biochemical) characteristics. The range and variety of crops grown across the EU reflects their heritable traits as well as the ability of plant breeders to harness those traits to best respond to the myriad of topographic and climatic conditions, pests and diseases [4]. Due to the challenges to analyze separately the wheat market in Italy, firstly we evaluate the cereal market in EU to find the biggest producers of wheat.

The main crops grown on the total Utilised Agricultural Area (UAA) of 107 million hectares of arable land available in the EU-28 in 2015 were cereals (including rice), which occupied around 57 million hectares. This equated to more than half of the total arable land or nearly one third of the total UAA (32.3%). Cereals together with plants harvested green (11.9% of the UAA), industrial crops (7.0%) and fallow land (3.9%) covered 92.3% of the total arable land.

Cereals, which occupied 57 mln hectares, were the main crops grown in the EU-28 in 2015 (Figure 1). The harvested cereal production amounted to nearly 317 million tonnes, of which 152 million tonnes was common wheat and spelt. This made common wheat and spelt by far the most important cereals grown (48.0% of EU-28 cereal production). The second largest harvested quantity was barley (62 million tonnes or 19.5% of total cereal production), followed closely by grain maize and corn-cob-mix (59 million tonnes or 18.6% of total cereal production). The production of other cereals (mostly triticale, rye and oats) had together a share of 12.9% and only around 0.9% of total EU production consisted of rice (around 3 million tonnes).

France (22.9%), Germany (15.4%) and Poland (8.8%) produced almost half of total EU-28 cereal production. Unsurprisingly, France and Germany were also the largest producers of wheat and barley. Together they accounted for nearly half (44.3%) of total EU-28 wheat and spelt production and 39.8% of total barley production. Other major producers of barley were Spain (10.8%) and the United Kingdom (11.9%).

France was also the largest grain maize producer, accounting for 23.3% of total grain maize production in the EU-28. Together with Romania (15.3%), Italy (12.0%) and Hungary (11.3%), these four Member States covered 61.8% of the total EU-28 grain maize production in 2015.

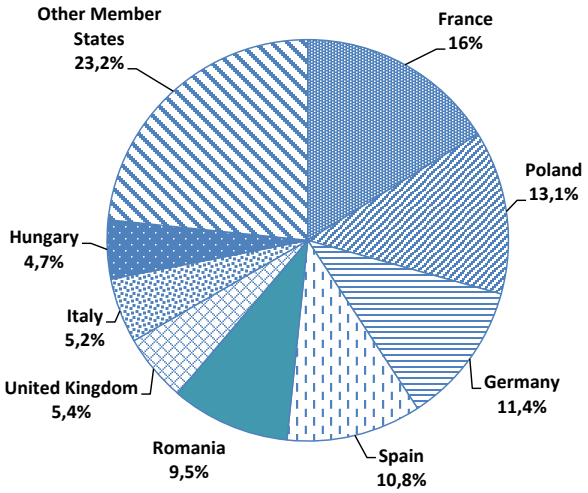

Fig. 1. Share of area under cereals by main EU Member States, 2015 (% of total EU-28 area under cereals) [6]

The International Grains Council (IGC) puts Italy's total grain production in 2013-14 at 16.3 million tonnes, down from 16.8 million the year before. Of that, total production of all wheat is put at 7.3 million tonnes, down from 7.7 the prior year. The maize crop is put at 7.6 million tonnes, up from 7.5 million the year before [10].

Cereal production has fluctuated considerably since 2007. Due to comparatively high cereal prices in 2007 caused by unbalanced supply and demand, EU farmers reacted with a significant production increase (+ 21.4%, from 2007 to 2008). However, unfavourable weather conditions led to a production decrease in 2009 (- 5.9% compared to 2008). The downward trend continued in 2010 and production decreased again by a further 5.2% compared with 2009. Although in 2011 cereal production increased slightly (+ 2.4% compared with 2010), a 2.8% drop was registered in 2012. In the next two years the EU cereal production grew, by 8.7% in 2013 and 7.9% in 2014. In 2015 the harvested production was 316.8 million tonnes of cereals, a 4.8% decrease compared with 2014. The 332.6 million tonnes of cereals in 2014 was the highest value recorded in the last 15 years for which data are available for all 28 Member States. Despite the production decreases of 2009, 2010, 2012 and 2015 the total level of cereal production in the EU-28 stood nevertheless 20.3% higher in 2015 than in 2007 (an increase of 53.5 million tonnes) [9].

Wheat production in EU in 2015 equals 51% to the total production of cereals. In figure 2 is presented Wheat production in EU-27 in the period of 1999-2016.

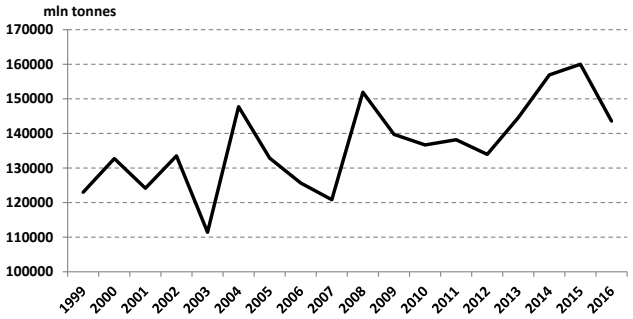

Fig. 2. Wheat production in European Union – 27 [9]

Consider the wheat production in Italy; its production equals approximately 2% of the total EU wheat production in 2015. Balance of wheat use in Italy is presented in the table 2.

Table 2

Balance of wheat use in Italy, mln t [10]

Indexes	MY		
	2012/2013	2013/2014	2014/2015
Beginning Stocks	1910	1710	1110
Production	6490	6120	6750
Imports	7531	7200	7220
Total Supply	15931	15030	15080
Exports	3059	3125	3185
Feed and Residual	2110	1970	1981
FSI Consumption	9052	8825	8834
Total Consumption	11162	10795	10815
Ending Stocks	1710	1110	1080

Thus, wheat production in Ukraine totally different from its production in Italy. The difference is in wheat balance of both countries, where Italy production in 2015 was 11% to the whole production in Ukraine. In compare to Ukraine where export of wheat equals 17.4 mln tons, import in Italy of that crop predominate its production during the analysed period.

Conclusions and proposals. Ukraine is really an advanced state of grain and grain is it strategic resource. Ukraine ranks third in the world in terms of grain exports and is one of the world's largest producers. The national economy depends largely on the efficiency of the sector of cereals, and an export brings considerable income and is substantial of filling state budget. One of the priorities of the government's economic policy should be exports stimulate and further development of Ukrainian grain industry. Grain industry is the basis and source of sustainable development of most sectors of agriculture and agricultural exports basis.

Wheat production in Ukraine is different from its production in Italy, where Italy exports this crop for their needs. However, domestic needs this crop for food in Italy keep stable production.

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ПОРІВНЯЛЬНИЙ АНАЛІЗ РИНКУ ЗЕРНА В УКРАЇНІ ТА ІТАЛІЇ

Анотація
Обгрунтовано важливість виробництва зернових культур в Україні та Італії. Проаналізовано ринок пшениці в обох країнах, що дало можливість стверджувати, що Україна на відміну від Італії є експортером даної продукції. Оцінено нормативні зміни щодо обмеження обсягів експорту пшениці в Україні. Визначено основні чинники, що зумовлюють підвищення виробництва пшениці.
Ключові слова: порівняльний аналіз, ринок, зернові культури, пшениця, виробництво, експорт, імпорт.

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СРАВНИТЕЛЬНЫЙ АНАЛИЗ РЫНКА ЗЕРНОВЫХ В УКРАИНЕ И ИТАЛИИ

Аннотация
Обоснованно важность производства зерновых культур в Украине и Италии. Проанализирован рынок пшеницы в обеих странах, что позволило утверждать, что Украина в отличие от Италии является экспортером данной продукции. Оценены нормативные изменения по ограничению объемов экспорта пшеницы в Украине. Определены основные факторы, обусловливающие повышение производства пшеницы.
Ключевые слова: сравнительный анализ, рынок, зерновые культуры, пшеница, производство, экспорт, импорт.