

COMPARISON OF THE AGRICULTURAL COMPLEXES OF UKRAINE AND POLAND AS BASIS OF COMPETITIVENESS ANALYSIS OF THE UKRAINIAN AGRICULTURAL ENTERPRISES

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Abstract

The main indicators of the agrarian sectors of Ukraine and Poland were analyzed in the article. Such indicators as agricultural land in absolute and relative terms, agriculture, forestry, and fishing value added were selected. In addition, the number of agricultural workers and their salaries in local currencies and in terms of euros, the dynamics of prices for major agricultural products and the structure of export-import of agricultural products were considered. Based on the analysis, the main features of the Ukrainian agrarian complex and its development trends were highlighted. The study will be the beginning for the analysis of the competitiveness of Ukrainian agricultural enterprises.

Keywords: agricultural product, agricultural market, Ukraine, Poland, agricultural enterprise.

Introduction

In modern economic conditions, the success of national economy depends on the consistent management actions of its leaders and on the effective development of its separate enterprise subjects. Each country chooses its own economic sphere in which it can achieve the highest results. Such area for Ukraine is the market for agricultural products. Not the first year Ukraine is one of the world leading exporters of wheat, barley, corn, oats, rye, and oilseeds.^{1 2} Fertile lands and temperate climate give to the agrarian enterprises strong competitive advantages. Therefore, it is so important to help to realize the potential of the Ukrainian agrarian enterprises.

Poland has similar features of the territory and climate. Poland made huge races in economy development since association and EU membership. However, for today a considerable part in GDP is occupied by production of goods with high added value, also Poland is the advanced world and European exporter of some agrarian products (for example, enters in TOP-10 exporters of the frozen vegetables³). Therefore, comparison with the Polish agrarian complex is relevant for the analysis of

¹ United States Department of Agriculture (2019). Grain: World Markets and Trade. Retrieved from <https://apps.fas.usda.gov/psdonline/circulars/grain.pdf>.

² United States Department of Agriculture (2019). Oilseeds: World Markets and Trade. Retrieved from <https://apps.fas.usda.gov/psdonline/circulars/oilseeds.pdf>.

³ Rijswick, C. (2018). World Vegetable Map 2018: More than Just a Local Affair. Retrieved from https://research.rabobank.com/far/en/sectors/regional-food-agri/world_vegetable_map_2018.html

competitiveness of the Ukrainian agrarian enterprises.

The agrarian sector and the agrarian market of Ukraine often become the object of researches of domestic scientists-economists as the agrarian sector gives a significant part of GDP of Ukraine. It is possible to allocate works of some scientists which are devoted to the analysis of agrarian enterprises activities, innovative management aspects, the analysis of the agrarian market of Ukraine, allocation of trends of its development, comparison with Poland and characteristic of association process with the EU: I. Buriachek (2018), Yu. Danko (2016), V. Korchun (2013), S. Kovalchuk (2016), I. Salkova (2016), O. Zakharchuk (2015), T. Zinchuk (2016) and others.

For further analysis of the competitiveness of Ukrainian agrarian enterprises, it is necessary to update the analysis of the agrarian sector of Ukraine. Therefore, the article purpose is to analyze the main indicators of the agrarian complexes of Ukraine and Poland, highlighting the main features and trends of Ukrainian agrarian sector development.

1. General indicators of the agricultural sectors of Ukraine and Poland

Ukraine and Poland are countries with rather large territories in Europe, much of which are occupied by agricultural land. According to the World Bank (Table 1), agricultural land in Poland in 2016 was 143,740 sq. km or almost 47% of the entire land area. In Ukraine, more land is allocated for agricultural needs – 415 150 sq. km or almost 72% of land area.^{4 5}

Table 1. The indicators of land using under agrarian needs in 2013-2019 (Ukraine and Poland)

	Indicator	2013	2014	2015	2016
Ukraine	Agricultural land (sq. km)	415260	415110	415080	415150
	Agricultural land (% of land area)	71,68	71,66	71,65	71,67
	Land under cereal production (sq. km)	155486,0	144020,0	143956,1	140167,0
	Land under cereal production (% of agricultural land)	37,44	34,69	34,68	33,76
	Cereal yield (kg per hectare)	4031,2	4400,7	4141,8	4652,4
Poland	Agricultural land (sq. km)	144100	144240	143710	143740
	Agricultural land (% of land area)	47,06	47,11	46,93	46,94
	Land under cereal production (sq. km)	74794,5	74849,6	75118,5	74624,2
	Land under cereal production (% of agricultural land)	51,90	51,89	52,27	51,92
	Cereal yield (kg per hectare)	3804,4	4268	3727,8	3999,9

Source: own elaboration on the base of the World Bank Data

It is also necessary to note that cereal production occupies nearly 52% of agricultural land in Poland.

⁴ The World Bank. (n.d.). Agricultural land (sq. km). Retrieved from <https://data.worldbank.org/indicator/AG.LND.AGRI.K2>

⁵ The World Bank. (n.d.). Agricultural land (% of land area). Retrieved from <https://data.worldbank.org/indicator/AG.LND.AGRI.ZS>

Cereals include wheat, rice, maize, barley, oats, rye, millet, sorghum, buckwheat, and mixed grains. Cereal crops harvested for hay or harvested green for food, feed, or silage and those used for grazing are excluded. In Ukraine, this percent is much less – only than 34%. Though on the area of the territory this indicator is twice more than the Polish land under cereal production (140167 sq. km in Ukraine and 74624.2 sq. km in Poland).⁶ In addition, the yield of cereal in Ukraine is more and constantly increases. In 2016 it amounted 4652,4 kg per hectare, whereas in 2012 it still amounted 3157.1 kg per hectare. In Poland cereal yield growth rates are not as significant, but also tend to increase. Cereal yield, measured as kilograms per hectare of harvested land, includes wheat, rice, maize, barley, oats, rye, millet, sorghum, buckwheat, and mixed grains. Production data on cereals relate to crops harvested for dry grain only. Cereal crops harvested for hay or harvested green for food, feed, or silage and those used for grazing are excluded.⁷

This gives Ukraine the opportunity to remain a global exporter of cereal products. Moreover, at the same time, to increase other areas of agricultural production in the rest of the agricultural land.

Let's consider indicators of agrarian activities efficiency of the countries (table 2). For example, value added per worker is a measure of labor productivity—value added per unit of input. Value added denotes the net output of a sector after adding up all outputs and subtracting intermediate inputs. Data are in constant 2010 U.S. dollars. So, in Ukraine this indicator is 4801,36 USD in 2017 that is much higher than a similar indicator in 2013 (3273,73 USD). In Poland this indicator is higher than in Ukraine and makes 6736,73 USD. However, its growth is not so significant compared with 2013 (6305,74 USD).⁸

Table 2. The indicators of land using under agrarian needs in 2013-2019 (Ukraine and Poland)

	Indicator	2013	2014	2015	2016	2017
Ukraine	Agriculture, forestry, and fishing, value added per worker (constant 2010 USD)	3273,73	4782,80	4423,50	4829,23	4801,36
	Agriculture, forestry, and fishing, value added (% of GDP)	8,79	10,15	12,06	11,73	10,23
Poland	Agriculture, forestry, and fishing, value added per worker (constant 2010 USD)	6305,74	6488,70	5842,36	6442,20	6736,73
	Agriculture, forestry, and fishing, value added (% of GDP)	2,87	2,61	2,20	2,38	2,78

Source: own elaboration on the base of the World Bank Data

If we talk about the part of GDP, which occupies agriculture, forestry, and fishing, value, then in Poland it is 2,78%, whereas in Ukraine it is 10,23% in 2017.⁹

⁶ The World Bank. (n.d.). Land under cereal production (hectares). Retrieved from <https://data.worldbank.org/indicator/AG.LND.CREL.HA>

⁷ The World Bank. (n.d.). Cereal yield (kg per hectare). Retrieved from <https://data.worldbank.org/indicator/AG.YLD.CREL.KG>

⁸ The World Bank. (n.d.). Agriculture, forestry, and fishing, value added per worker (constant 2010 US\$). Retrieved from <https://data.worldbank.org/indicator/NV.AGR.EMPL.KD>

⁹ The World Bank. (n.d.). Agriculture, forestry, and fishing, value added (% of GDP). Retrieved from <https://data.worldbank.org/indicator/NV.AGR.TOTL.ZS>

2. Characteristic of the agrarian complexes of Ukraine and Poland

In this paragraph, we consider in more detail the agrarian complexes of Ukraine and Poland. For the analysis, official data of the State Statistics Service of Ukraine ¹⁰ and Poland ¹¹ was used.

The average number of employees in the agricultural sector of Ukraine was 405,4 thousand people in 2017. This is 5% of the total number of employees in Ukraine. In Poland, much less workers are employed in the agrarian sector. The average number of employees in the agricultural sector was 86 thousand people at the end of 2017, 87 thousand people at the end of 2018. This is 0,9% of the total number of employees in Poland.

The average salary in Ukraine in the agrarian sector was 7617 UAH or approximately 237.6 euros (at the rate of the National Bank of Ukraine on 03.12.3018 ¹²) at the end of 2018.

At the end of 2017 it was 5761 UAH. Thus, over the year, the salary of agricultural workers increased by 32.2%. This is 72% in 2018 and 81.1% in 2017 from the average salary in the country. It is also lower by 34.1% in 2018 and by 24.5% in 2017 compared to the salary in the industry.

In Poland, salary rates in the agrarian sector are significantly higher both in comparison with Ukraine and in comparison with the average salary in the country. The average salary for the first 9 months of 2017 was 4836,22 zloty (for the entire year 2017, it was 5034,20 zloty, in 2016 – 4847,60 zloty). For 9 months of 2018 – 5072,61 zloty or 1180,94 euros (at the rate of the National Bank of Poland on 03.09.2018 ¹³). It makes 113% in 2017 and 111% in 2018 of the average salary about the country. Also salary in the agrarian sector is 8% higher from the average salary in the industry in 2017 and by 5.5% – in 2018.

Let's consider the price change in dynamics of the main grain crops: wheat and rye. Average procurement prices in national currencies for ton on wheat and a rye in 2012-2017 for Ukraine (figure 1) and in 2012-2018 for Poland (figure 2) are given below. Dynamics of the price change is also displayed. Apparently, price fluctuations in Ukraine are more considerable, than in Poland. Also in Poland there is a tendency to increase the price, while in Ukraine – to decrease. Among other factors, this can be explained by large yields on grain crops, which have been observed in recent years in Ukraine.

¹⁰ Official site of the State Statistics Service of Ukraine. Retrieved from <http://ukrstat.gov.ua/>

¹¹ Official site of the State Statistics Service of Poland. Retrieved from <https://stat.gov.pl/>

¹² Minfin. (2018). NBU rate - euro (EUR). Retrieved from <https://minfin.com.ua/ua/currency/nbu/eur/2018-12-03/2018-12-28/>

¹³ Narodowy Bank Polski. (2018). Middle exchange rates archive. Retrieved from <https://www.nbp.pl/homen.aspx?navid=archen&c=/ascx/TabArchAen.ascx&n=18a170en>

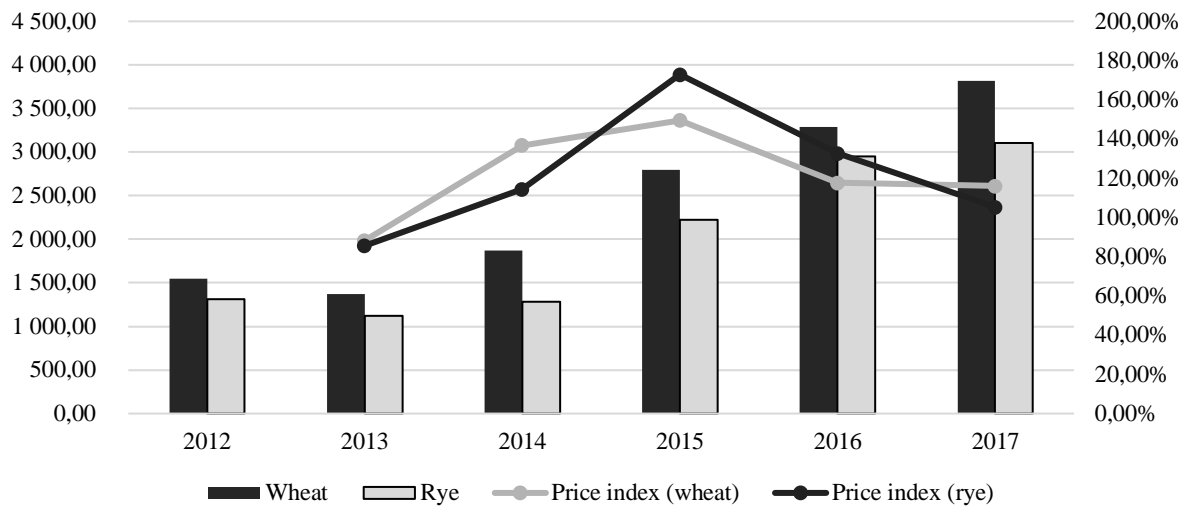


Figure 1. Average procurement prices and price index of wheat and rye in 2012-2017 (Ukraine), in UAH per t

Source: own elaboration on the base of State Statistics Service of Ukraine Data

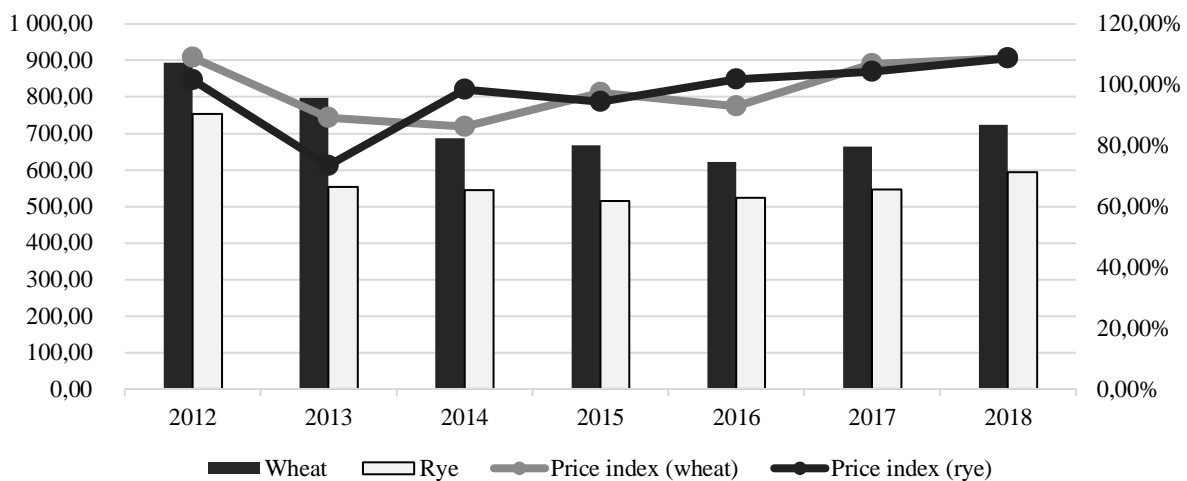


Figure 2. Average procurement prices and price index of wheat and rye in 2012-2018 (Poland), in zloty per t

Source: own elaboration on the base of Statistics Poland

If we talk about the livestock part of agricultural activity, then also the price trends are diverse in the two countries. In Ukraine, there is a significant fluctuation in prices for cattle, but a steady increase in prices for cow's milk in recent years (Figure 3). In Poland, on the contrary, cattle prices are relatively stable, and the price of milk dropped significantly from 2017 to 2018 (Figure 4).

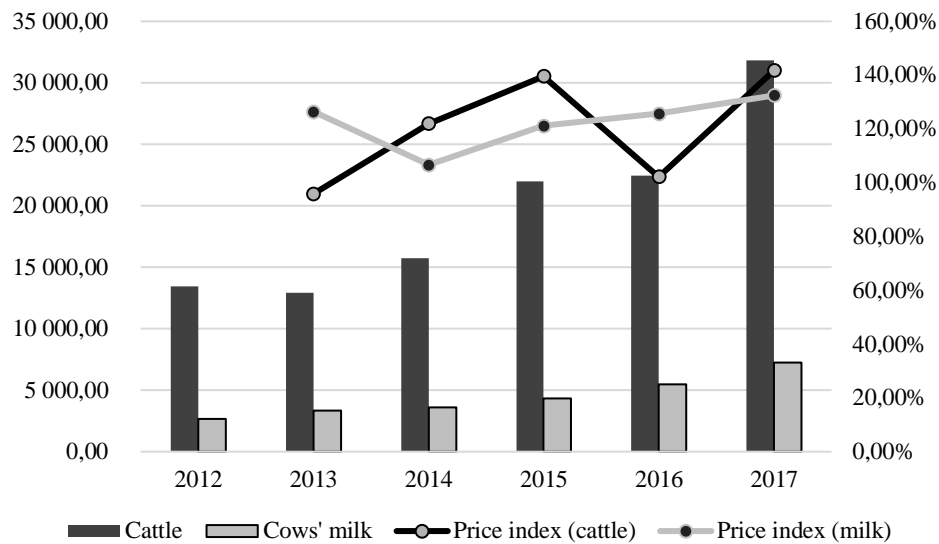


Figure 3. Average procurement prices and price index of cattle and cows' milk in 2012-2017 (Ukraine), in UAH per t

Source: own elaboration on the base of State Statistics Service of Ukraine Data

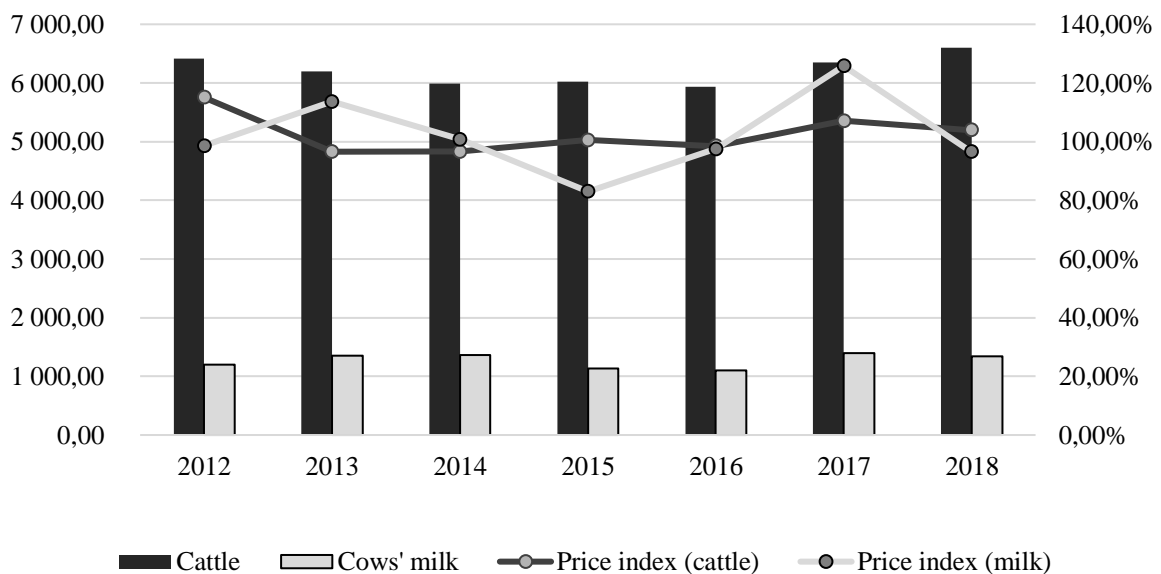


Figure 4. Average procurement prices and price index of cattle and cows' milk in 2012-2018 (Poland), in zł per t

Source: own elaboration on the base of Statistics Poland

The overall price dynamics for 2013-2017 is given in Table 2. Also, approximate prices for the agricultural products in terms of euro in 2017 were submitted there. As we see the prices in Poland for agricultural products are higher. In total different factors, this is also explained by the higher salaries of agricultural workers in the country, as indicated above.

Table 2. The price dynamics for main agricultural products in 2013-2019 (Ukraine and Poland)

Product		Price index, %					Price, in euros per ton
		2013	2014	2015	2016	2017	
Ukraine	Wheat	88,25%	136,74%	149,47%	117,58%	116,02%	125,55
	Rye	85,58%	114,33%	172,91%	132,76%	105,29%	102,24
	Cattle	95,87%	121,98%	139,58%	102,28%	141,71%	1047,90
	Cows' milk	126,36%	106,67%	121,15%	125,64%	132,45%	238,09
Poland	Wheat	89,20%	86,24%	97,26%	93,01%	106,89%	156,49
	Rye	73,47%	98,43%	94,37%	101,87%	104,37%	128,76
	Cattle	96,57%	96,61%	100,50%	98,50%	107,08%	1495,63
	Cows' milk	113,58%	100,73%	83,00%	97,48%	125,79%	327,51

Source: own elaboration on the base of State Statistics Service of Ukraine Data and Statistics Poland

Ukraine and Poland actively export agricultural products to the European and world markets. The structure of imports and exports of Ukraine in 2017 is presented in Figure 5. Apparently, exports prevail over imports. This is explained by the fact that the Ukrainian agricultural enterprises almost completely satisfy the domestic demand of the population. Products of the premium segment and those crops, which, due to the climatic features of Ukraine, cannot be grown on its territory, are imported.

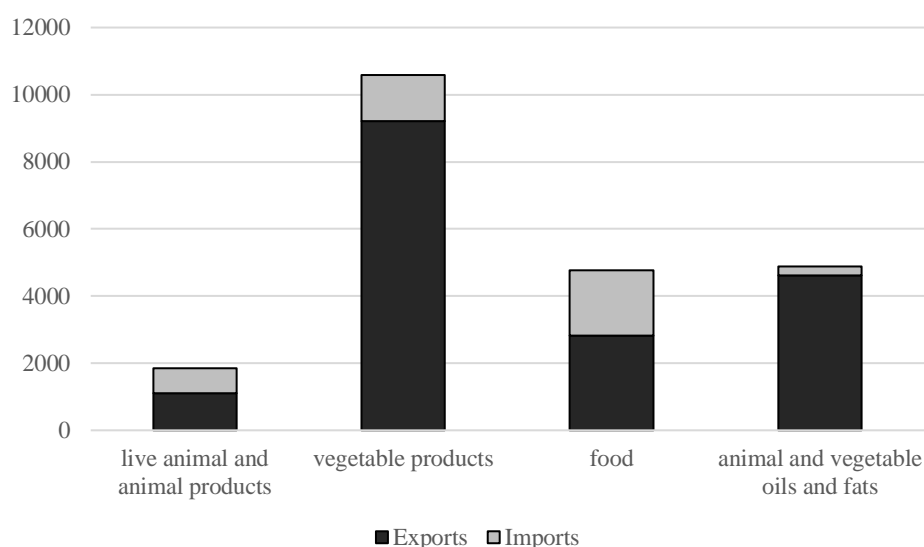


Figure 5. Structure of agricultural products exports and imports in 2017 (Ukraine), million USD

Source: own elaboration on the base of State Statistics Service of Ukraine Data

In 2017 Polish exports of food and live animals amounted to 96949 million zloty, while imports – 880078,4, animal and vegetable oils, fats and waxes – 1337,8 million zloty exports and 65838,1 million zloty imports. Accordingly, in Poland imports prevail over exports.

Comparison of exports and imports of agricultural products from the total exports and imports of Ukraine and Poland is given in Table 3.

Table 3. Compare of Ukrainian and Polish of structure of agricultural products exports and imports in 2017

	Agricultural products	Part in exports, %	Part in imports, %
Ukraine	live animal and animal products	2,6%	1,5%
	vegetable products	21,3%	2,8%
	food	6,5%	3,9%
	animal and vegetable oils and fats	10,6%	0,5%
Poland	food and live animals	10,98%	7,48%
	animal and vegetable oils, fats and waxes	0,14%	0,41%

Source: own elaboration on the base of State Statistics Service of Ukraine and Statistics Poland

In Ukraine, vegetable products account for the second largest share of exports (leading exports of base metals and products from them – 23,4%).

3. Features of the agricultural complex of Ukraine and its development trends

In 2015 Ukraine signed an association agreement with the EU. Within the framework of which, Ukrainian agrarians received certain benefits and privileges. Nevertheless, Ukraine also pledged to bring the legislation to the requirements of the agrarian market in Europe, and Ukrainian agrarians should standardize their production in accordance with EU requirements. The process has been going on for several years already, a lot has already been done, but more needs to be done. It remains to be hoped that Ukrainian agrarian enterprises will not miss the opportunity to fully enter the European market. Let us also highlight a few more features and trends in the development of the agrarian market of Ukraine.

1. The impact of price fluctuations in the market of grain and beans. In recent years, Ukrainian agrarians have been constantly increasing their grain and bean yields. But it is impossible to use it to the full because of lower prices for products. To offset the impact of price fluctuations by introducing innovative approaches and technologies, reorienting to organic products, etc.

2. In Ukraine the moratorium on land sale still works. This question regularly rises, but it is more reason for political speculation. Creation of the free market of the land is an important factor of development both modern market economy and agriculture.

3. Raider seizures of agricultural enterprises. The instability of the judiciary and law enforcement systems of Ukraine gives a chance to block the work of successful enterprises and even the illegitimate seizure of them. Moreover, although the level of success in setting up work after raider seizures is constantly increasing, and their number is decreasing, this factor still has a strong influence within the agrarian activity in Ukraine. ¹⁴

4. Features of agrarian enterprises of Ukraine. Given the historical peculiarities of the development

¹⁴ Proposition. (2019). Year 2018: New record and new challenges. Retrieved from <https://propozitsiya.com/ua/rik-2018-y-novyy-rekord-i-novi-problemy>

of the agrarian sector, Ukrainian enterprises are characterized by confidentiality from the outside world, a complex structure of management and communication, lack of development strategy, inability to seek information, market analysis, and present their company to foreign partners.¹⁵

5. Chicken exports to the European market. Although the European Union, under pressure from local producers, has blocked the legal loophole that allowed Ukrainian producers to export chicken breasts with bones still inside — since dubbed the "Batman cut" — and avoid tariffs, since the product is different from chicken breast. The European Union is going to increase the import quota of chicken breast from Ukraine from 20 thousand tons to 50 thousand tons, according to some data, or even up to 70 thousand tons on the other.¹⁶ It should be noted that in 2015, Ukrainian producers did not export chicken breast to Europe, and in 2017 they exported 27 thousand tons.¹⁷ Therefore, such a change in quota will be quite promising.

6. Increasing the export of agricultural products to Luxembourg. Negotiations on the conclusion of the intergovernmental economic complementation agreement between Ukraine and Luxembourg are now conducted. This will allow Ukraine to increase exports. Only in 2018, the trade turnover between the countries amounted to almost 90 million USD. Luxembourg is also in the top 10 investors in Ukraine. In this context, Ukraine is interested in exporting grain and grain beans to Luxembourg¹⁸.

7. Increase the export of tomato paste to Europe. Today in Ukraine, 38 enterprises operate in the production of tomato paste. Ukraine is ranked the 10th in the world and the 3rd in Europe in terms of tomato paste production. The volume of the tomato paste market in Europe is 1 million tons. Therefore, Ukrainian producers are asking the EU and the Ukrainian government to increase the duty-free quota for the import of tomato paste from 13 thousand tons to 50 thousand tons. This will reduce the price of products and make them more competitive in the European market.¹⁹

Conclusions

The agricultural sector plays a more significant role in the economy of Ukraine than Poland. Although now the indicators of the agrarian sector in Poland are significantly higher (taking into account the value added, the level of salaries and so on). Ukrainian producers have significant potential considering the natural features of the country.

¹⁵ Tsybul'skaia S. (2017). Master-class on development of export direction of agro enterprises. Retrieved from <https://propozitsiya.com.ua/master-klass-iz-rozvitku-eksportnogo-napryamku-agropidpriemstv>

¹⁶ Livingstone, E. (2019). Chicken Kiev baron on course for big EU trade win. Retrieved from <https://www.politico.eu/article/yuriy-kosyuk-ukraine-chicken-kiev-baron-on-course-for-big-eu-trade-win/>

¹⁷ Agroinsider (2019). EU transfers of laser which allowed MHP to improve supply of chicken. Retrieved from <https://agroinsider.com.ua/2019/03/15/yes-perekriye-lazivku-yaka-dozvolila-mxp-narostiti-postavki-kuryatini/>

¹⁸ The Press Service of the Ministry of Economic Development and Trade (2019). Stepan Kubiv in Luxembourg met with Romain Schneider, Minister of Social Policy, Agriculture, Winemaking and Land Development. Retrieved from <https://bit.ly/2Fvj18i>

¹⁹ AgroPortal (2019). Agrarians are asked to increase euroquats for tomato paste almost 4 times. Retrieved from <http://agroportal.ua/news/ukraina/agrarii-prosyat-velichit-evrokvoty-na-tomatnuyu-pastu-pochti-v-4-raza/>

The association with the EU opens up significant prospects for Ukrainian agrarian enterprises. The support from the government and the desire of the agrarians themselves to use them are only needed.

The research will form the basis for further analysis of the competitiveness of Ukrainian agricultural enterprises and finding ways to increase it.

References

1. Agroinsider (2019). EU transfers of laser which allowed MHP to improve supply of chicken. Retrieved from <https://agroinsider.com.ua/2019/03/15/yes-perekriye-lazivku-yaka-dozvolila-mxp-narostiti-postavki-kuryatini/>.
2. AgroPortal (2019). Agrarians are asked to increase euroquats for tomato paste almost 4 times. Retrieved from <http://agroportal.ua/news/ukraina/agrarii-prosyat-uvelichit-evrokvoty-na-tomatnyu-pastu-pochti-v-4-raza/>.
3. Burachek, I., & Mykhailenko, N. (2018). Modern condition and perspective directions of agricultural development in Ukraine. *Global and National Problems of Economy*,(21), 134-137. Retrieved from <http://global-national.in.ua/archive/21-2018/27.pdf>.
4. Danko, Yu. (2016). Innovative Approaches to Ensuring the Competitiveness of Small Agricultural Enterprises. *The problems of economy*,(3), 153-158. Retrieved from http://www.problecon.com/export_pdf/problems-of-economy-2016-3_0-pages-153_158.pdf.
5. Korchun, V. (2013). Agricultural policy in Poland and Ukraine: Using of the polish experience in European integration of Ukraine. *Scientific Bulletin of the Lesia Ukrainka Eastern European National University*,(10), 172-180.
6. Kovalchuk, S. (2016). European orientiri of agrarian sphere of Ukraine: Prospects and possibilities. *Economy and Society*,(2), 54-60. Retrieved from <http://economyandsociety.in.ua/eng/journal-2/9-articles-2/39-kovalchuk-s-ya>.
7. Livingstone, E. (2019). Chicken Kiev baron on course for big EU trade win. Retrieved from <https://www.politico.eu/article/yuriy-kosyuk-ukraine-chicken-kiev-baron-on-course-for-big-eu-trade-win/>.
8. Minfin. (2018). NBU rate - euro (EUR). Retrieved from <https://minfin.com.ua/ua/currency/nbu/eur/2018-12-03/2018-12-28/>.
9. Narodowy Bank Polski. (2018). Middle exchange rates archive. Retrieved from <https://www.nbp.pl/homen.aspx?navid=archen&c=/ascx/TabArchAen.ascx&n=18a170en>.
10. Official site of the State Statistics Service of Ukraine. Retrieved from <http://ukrstat.gov.ua/>.
11. Official site of the State Statistics Service of Poland. Retrieved from <https://stat.gov.pl/>.
12. Proposition. (2019). Year 2018: New record and new challenges. Retrieved from <https://propozitsiya.com.ua/rik-2018-y-novyj-rekord-i-novi-problemy>.
13. Rijswick, C. (2018). World Vegetable Map 2018: More than Just a Local Affair. Retrieved from https://research.rabobank.com/far/en/sectors/regional-food-agri/world_vegetable_map_2018.html.
14. Salkova, I., Glovyuk, A., & Oleksienko, O. (2016). Measures To Ensure The Development Of Agriculture Of Ukraine In Terms Of European Integration. *Agrosvit*,(9), 45-50. Retrieved from <http://www.agrosvit.info/?op=1&z=2177&i=8>.
15. The Press Service of the Ministry of Economic Development and Trade (2019). Stepan Kubiv in Luxembourg met with Romain Schneider, Minister of Social Policy, Agriculture, Winemaking and Land Development. Retrieved from <https://bit.ly/2Fvj18i>.
16. The World Bank. (n.d.). Agricultural land (sq. km). Retrieved from <https://data.worldbank.org/indicator/AG.LND.AGRI.K2>.
17. The World Bank. (n.d.). Agricultural land (% of land area). Retrieved from <https://data.worldbank.org/indicator/AG.LND.AGRI.ZS>.
18. The World Bank. (n.d.). Agriculture, forestry, and fishing, value added per worker (constant 2010 US\$). Retrieved from <https://data.worldbank.org/indicator/NV.AGR.EMPL.KD>.
19. The World Bank. (n.d.). Agriculture, forestry, and fishing, value added (% of GDP). Retrieved

from <https://data.worldbank.org/indicator/NV.AGR.TOTL.ZS>.

20. The World Bank. (n.d.). Cereal yield (kg per hectare). Retrieved from <https://data.worldbank.org/indicator/AG.YLD.CREL.KG>.

21. The World Bank. (n.d.). Land under cereal production (hectares). Retrieved from <https://data.worldbank.org/indicator/AG.LND.CREL.HA>.

22. Tsybulskaia, S. (2017). Master-class on development of export direction of agro enterprises. Retrieved from <https://propozitsiya.com/ua/master-klass-iz-rozvitku-eksportnogo-napryamku-agropidpriemstv>.

23. United States Department of Agriculture (2019). Grain: World Markets and Trade. Retrieved from <https://apps.fas.usda.gov/psdonline/circulars/grain.pdf>.

24. United States Department of Agriculture (2019). Oilseeds: World Markets and Trade. Retrieved from <https://apps.fas.usda.gov/psdonline/circulars/oilseeds.pdf>.

25. Zakharchuk, O. (2015). Experience of agricultural development in Poland. *The Economy of Agro-Industrial Complex*, (10), 59-65. Retrieved from <http://eapk.org.ua/en/contents/2015/10/59>.

26. Zinchuk, T. (2016). Agri-Food Potential of Cooperation between Ukraine and Poland. *Zeszyty Naukowe Uczelni Vistula*, 47(2), 285-300. Retrieved from <http://cejsh.icm.edu.pl/cejsh/element/bwmeta1.element.desklight-514a6eb5-3d3e-4e18-add5-d9dfb4e12267>.

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