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COMPETITIVENESS OF AGRICULTURAL PRODUCTS OF UKRAINE IN THE FOREIGN MARKET

The article is devoted to the study of the export potential of agricultural products and their competitiveness in the foreign market. The peculiarities and dynamics of changes in the export and import of agro-food products are revealed and the main directions of development of the industry are taken into account, including the factors of global influence.

The internal agrarian market by the level of provision of agricultural products, as well as the external market by the volume of export and import of agrarian products in Ukraine is investigated. The article substantiates and systematizes the indicator and competitiveness of agricultural food products. A comparative analysis of indices of relative competitive advantages for certain types of agricultural products, which provide an opportunity to assess their competitiveness in the global agricultural market was conducted.

Keywords: agro-food products, agricultural market, exports, imports, competitiveness, indices.

1. INTRODUCTION

Ukraine's transition to a market-based economic system necessitates reforms in order to enhance the role of the state in the development of the economy and, in particular, its agrarian sector. Effective state regulation of the industry is necessary to overcome crisis phenomena and ensure further intensive development of the agroindustrial complex.

In a market economy, the decisive factor in the commercial success of a product is its competitiveness. This is a multifactorial concept that implies the conformity of a particular product to the conditions of a given market, specific requirements of consumers not only in terms of quality, technical, economic characteristics, but also taking into account commercial and other conditions of sales of the product (price, delivery time, channels of sale, service, advertising). Moreover, an important part of a product's competitiveness is the level of consumer spending over its lifetime.

In today's globalization of the economy, competitiveness issues come to the fore, and the economic and social status of any country depends largely on how successfully they are solved. The integration of Ukraine into the world economic space requires domestic

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producers to produce competitive products. Provided that in the export potential of our country the first place is occupied by agricultural products and foodstuffs, the competitiveness of agricultural products largely determines the competitiveness of Ukraine in the world market.

The purpose of this work is to research competitive agricultural products Ukraine on the international market and justify proposals for areas of improvement.

2. LITERATURE REVIEW

Issues of competitiveness of production in general and agricultural products, in particular, were investigated in the works of domestic scientists, namely: S. Kvashi (Kvasha, Golomsha, 2006), V. Lagutina (Lagutina, 2016), D. Legezi (Legeza, 2013), M. Malika (Malik, Needa, 2007), V. Pavlova (Pavlova, Kuzmenko, 2011), N. Tarnavskaya (Tarnavskaya, 2008), R. Fatkhutdinov (Fatkhutdinov, 2015), I. Yatsiva (Yatsiv, 2018) and others.

Despite the considerable number of papers in this area, some aspects remain debatable and need further investigation. In particular, there is a need for a more detailed analysis of agricultural exports and an assessment of their competitiveness in the world market.

3. METHODOLOGY

The methodological basis of the study is a systematic approach to determine the fundamental provisions of competitiveness theory, as one of the determining factors of production efficiency. The study used organic alloy method: dialectical and abstractly logical with conducting theoretical and methodological generalizations; statistically-economic – the analysis of the competitiveness of products on the international market; monographic – in illuminating the views of sheep sciences on problems and categories.

4. CASE STUDIES

The process of gradual integration of Ukraine into the world economic community should be based on a certain specialization of the Ukrainian economy, taking into account certain competitive advantages of the industry level. Competitive advantages ensure the efficient operation of agricultural enterprises in the long run, i.e. the competitiveness of a particular entity is largely ensured by its competitive advantages, due to the fact that they have the opportunity to offer specific consumer goods with a specific value for him.

Transformation of market relations between agrarian units, an increase of competitiveness and economic efficiency of agrarian production has a direct connection with the development of foreign trade in agricultural products. Ukraine's place in the global food market is determined by the number of products exported, its quality, and its value. Achieving stable profits from exports of agricultural products and raw materials requires a constant analysis of the development of agro-food markets, as well as a systematic and effective assessment of the competitiveness of export groups of goods in the international market. In these conditions, it is necessary to pay sufficient attention to diagnostics of the competitiveness of domestic agricultural products on the foreign market (Kvasha, Luka, 2003).

The Ukrainian agrarian sector with a production potential far exceeding the needs of the internal market is a link that, on the one hand, can be a way of development of the national

economy and its effective integration into the world economic space, and on the other one – an increase in incomes involved in the agrarian economy of the rural population, which is more than a third of the total population of the country, can have a multiplier effect in the development of other sectors of the national economy.

The strategy of development of the agrarian sector of the economy of Ukraine is aimed at the formation of an effective socially oriented sector of the economy of the state, capable of meeting the needs of the internal market and securing leading positions in the world market of agricultural products and food based on consolidating its multifaceted nature, which at this stage of development requires the priority of the formation of different economic categories village-like households), whose owners live in rural areas, combined with the right to land, and their economic interests with social responsibility to the community (Zadoi, 2016).

The importance of the rural economy for Ukraine is obvious because the agrarian sector is one of the main sectors of the national economy. The share of the agriculture sector in GDP Ukraine is over 12%, and exports of agricultural products in 2019 he was more than 40% of all exports Ukraine (Danylenko, 2013). In addition, a large proportion of government revenue is generated through tax revenues from agricultural products. Although the state of the agro-industrial complex is comparatively better than other sectors of the Ukrainian economy, Ukrainian agricultural producers today face serious challenges related to both the economic and political crises and the global market situation.

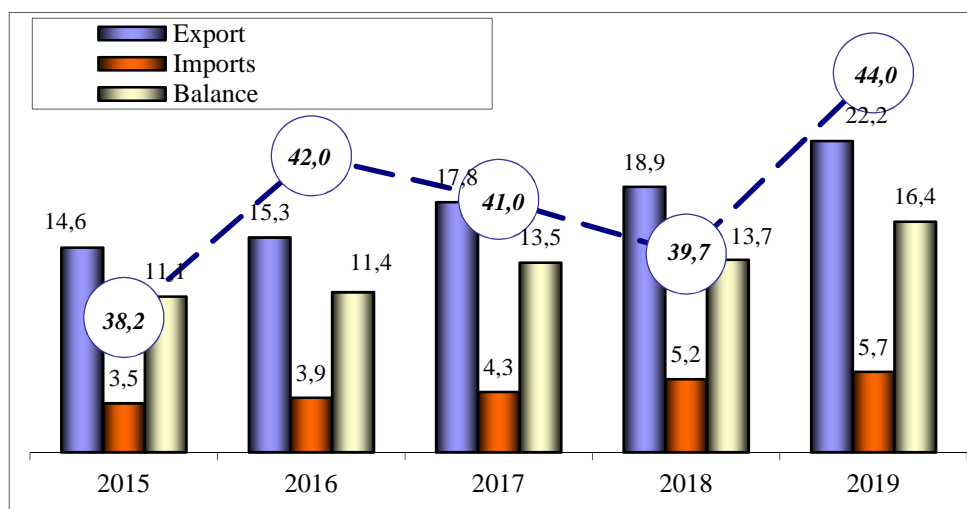


Fig. 1. Dynamics of export-import of agro-food products, billion USD. USA

Dynamics of export of agricultural products mainly corresponds to the trends in total exports of Ukraine. The volume of exports of agricultural products in 2019, increased more than 50% (from 14.6 to 22.2 billion. Dollars. USA). It should be noted that during the period under review, the share of agri-food exports in total exports of Ukraine is increasing. Thus, in 2019 this indicator constituted 44.3%, in comparison with 2015 has increased as well by 6.1%. Despite the positive trends in the industry, there are certain negative factors. In

particular, during the analyzed period, imports of agro-food products increased from 3.5 bln. USD. The US in 2015 to 5.7 bln. USD. In 2019 However, it is expedient to note that the balance remains positive and in 2019 it amounted to 16.4 bln. dollars . US, despite the fact that in 2015 imports were lower surplus amounted to only 11.1 billion. USD (Fig. 1).

The analysis of agro-food exports shows that the largest share of crop production, the share of which increased during the period by 3.6% and 2019 was 58.3% of total exports of agricultural products. It is worth noting that fats of animal or vegetable origin occupy a considerable share in exports – 21.4% in 2019. and finished foods – 14.5% in 2019. However, studies show that their share decreased by 1.3% and 2.4%, respectively, during the study period. As for the products of animal origin, their share is the lowest in total agricultural exports and is only 5.8%. It should be noted that during the last five years this category of goods has undergone no significant changes (Fig. 2).

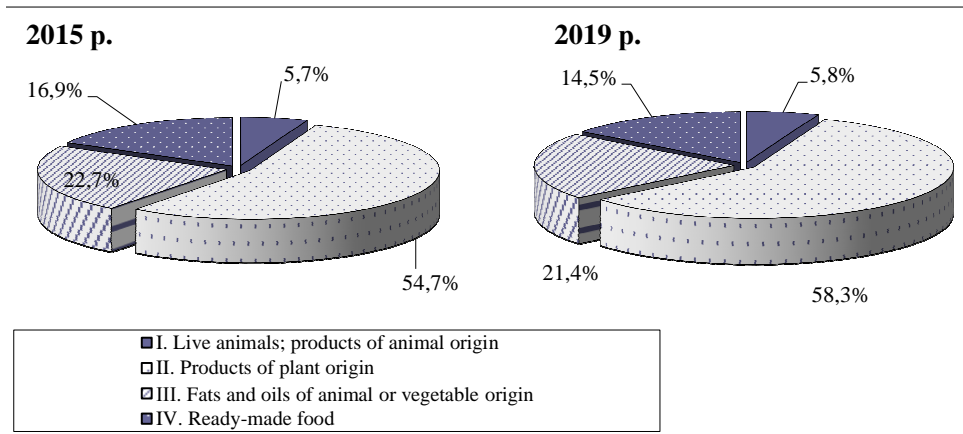


Fig. 2. Export structure of agri-food products (%)

Although Ukraine is constantly increasing its export potential, it continues to import certain types of agri-food products. Thus, during the period significantly increased imports of food products from 1.6 billion USD in 2015 to 2.6 in 2019. This situation is legitimate because studies show that Ukraine is largely exporting raw materials in and finished products forced and deliver that there is evidence of a negative trend. Imports of plant and animal products increased significantly. Thus, imports of plant products increased by more than 60% in 2019 and totaled 1.8 bln. USD, while as animal products increased more than 2 times in 2019 and is 1,14 bln. USD. Regarding fats of animal and vegetable origin that during the period of import has not undergone significant change and amounted to 0.2–0.3 bln. USD (Fig. 3).

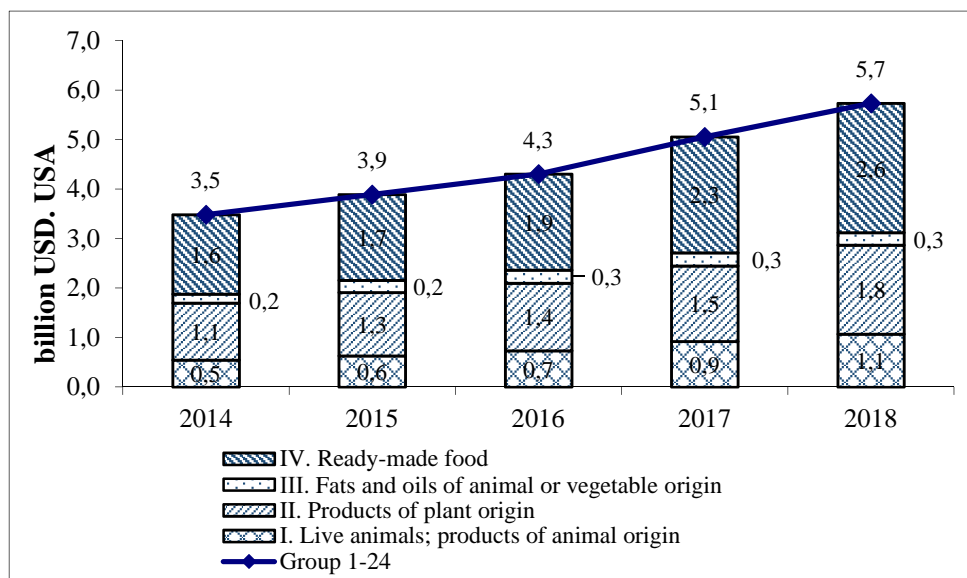


Fig. 3. Dynamics of import of agro products, bln. USD

The structure of imports of agro-food products for the last five years practically has not undergone significant changes. Almost 46% of the total weight is in finished foods. Vegetable products accounted for 31.3% of total agricultural imports in 2019, it should be noted that during the period under review, their share decreased by 1.7%. The conducted studies show that there was a slight increase in the share of imports of animal products by 2.7% and in 2019 in the overall structure they were 18.7%. Animal and vegetable fats occupy the lowest proportion in 2019. their share was 4.4%.

Today we are dealing with a paradoxical situation: the subjects of the agrarian sector of the economy, who have all the necessary conditions for effective development and long traditions of creating high-quality products, do not withstand competition with suppliers of foreign production even in the domestic market, not to mention the formation and development of the export potential of industries. That is why the issue of ensuring the competitiveness of agricultural and food products of domestic production is a key factor in shaping the strategy of domestic economy development (Krasnorutsky, 2009).

Among the indicators that are most commonly used by foreign scientists, we should highlight an index of relative comparative advantage RCA (Relative Comparative Advantage Index), index of relative export competitiveness RXA (Relative Export Advantage Index), an index of import dependence RMP (Relative Import Penetration Index), an index of relative trade advantages RTA (Relative Trade Advantage Index).

The RXA Relative Export Competitiveness Index is defined as the ratio of a country's share of world exports of a given commodity to its share of world exports of all other commodities. A specific feature of this meter is that world exports of goods are always determined as the sum of exports by all countries except the one under the study. Similarly, exports of goods subject to research are excluded from the number of world exports of other goods. This avoids double-counting, such an aspect is especially relevant if the country has

a significant share in world trade and the commodity under the study accounts for a significant share of world exports:

$$RXA = \frac{X_{ij} / \sum X_{nj}}{(\sum X_{ik} / \sum \sum X_{nk})}$$

$$n, n \neq j \quad k, k \neq j \quad n \neq ik, k \neq j$$

If RXA is greater than 1, then the country has a comparative competitive advantage in exporting the product under consideration, if less than 1, it indicates a competitive disadvantage.

The index of relative dependence on imports is very similar to the index R X A with the only difference being that in this case the import denoted by M is taken into account:

$$RMP = \frac{M_{ij} / n_j M_{nj}}{(\sum M_{ik} / n M_{nk})}$$

$$n, n \neq ik, k \neq jn, \quad n \neq ik, \quad k \neq j$$

If the index value RLL is greater than 1, the import dependency is high (i.e. there are rival Categories and disadvantages) if less than 1, then low (i.e. there are a comparative competitive advantage) (Peskovsky, 2005).

However, it is worth noting that the RMP index can be very misleading as its value can be significantly distorted as a result of protecting the internal market. If there is a ban on imports or a ban on the level of import duties, this figure will reflect a high level of competitive advantage, whereas the opposite may be true. A similar disadvantage is also inherent in the index RHA. For example, if a country is only a transit country, then this index may reflect a high level of competitive advantage that is not true.

When calculating the index of relative trade preferences, both export and import indicators for a given commodity are taken into account at the same time. It is calculated by the formula:

$$RTA = RXA_{ij} - RMP_{ij}$$

where: RXA_{ij} is the index of relative export competitiveness of the i - commodity in the j - country; RMP is the index of relative dependence on imports of the i - a commodity in the j - country.

The positive value of this indicator indicates the relative competitive advantages in foreign trade, and the negative value indicates the relative competitive disadvantages (Itsenko, 2013).

The importance of using both export and import in calculating competitiveness is becoming increasingly important as intra-industry trade grows. The indices of the relative competitiveness of agricultural products allow us to draw several general conclusions. The index of relative export competitiveness of RHA for all types of products is more than one, which indicates that there are certain competitive advantages in these types of products on the foreign market (Legeza, 2013).

The index analysis of the relative competitiveness of agro-food products allows us to draw the following conclusions (Table 1). In theory, it is noted that if the value of the relative export competitiveness index RHA is bigger than one, then it indicates that there are certain competitive advantages in the world market, in our case, it is more than 1 in almost all types of products, which is a testament to the relative advantages in the world

market. The substantial growth of RHA is followed by barley and sunflower oil, which is evidence of the growing competitive advantage in the world market.

With regard to poultry and buckwheat meat, there is no competitive advantage in these products at all, since RHA was less than 1. During the whole study period, it is important to note that soybean oil significantly increased its relative competitive advantage during the study period.

Table 1. The relative competitive advantages of agri-food products in the foreign market

Production	2014	2015	2016	2017	2018
RMP					
Barley	0,079	0,087	0,072	0,067	0,098
Maize	1,307	2,408	1,447	1,430	1,569
Poultry meat	0,002	0,016	0,036	0,022	0,022
Sunflower oil	0,057	0,062	0,108	0,032	0,005
Soybean oil	0,002	0,004	0,002	0,002	0,001
Rape	0,520	0,592	0,831	0,912	1,080
Soybeans	0,012	0,018	0,038	0,033	0,034
Buckwheat	5,316	6,323	8,289	7,221	16,615
Millet	0,222	1,922	0,040	0,017	0,149
Pea	0,153	0,192	0,080	0,161	0,214
RXA					
Barley	5,956	10,619	9,855	10,455	9,225
Maize	12,629	11,758	12,612	9,846	10,319
Poultry meat	0,747	0,499	0,682	0,603	0,574
Sunflower oil	48,740	62,160	61,979	69,122	68,173
Soybean oil	0,573	0,894	1,001	1,009	1,094
Rape	9,158	7,494	6,030	3,756	6,835
Soybeans	1,069	1,016	1,408	1,628	1,482
Buckwheat	0,465	0,906	0,763	0,250	0,262
Millet	8,724	6,985	9,088	14,132	8,090
Pea	1,612	2,132	2,395	4,040	4,987
RTA					
Barley	5,877	10,532	9,783	10,389	9,127
Maize	11,322	9,350	11,165	8,417	8,750
Poultry meat	0,745	0,484	0,646	0,582	0,551
Sunflower oil	48,683	62,098	61,871	69,090	68,168
Soybean oil	0,571	0,890	0,999	1,007	1,093
Rape	8,638	6,902	5,199	2,844	5,755
Soybeans	1,057	0,998	1,369	1,595	1,447
Buckwheat	-4,850	-5,417	-7,526	-6,971	-16,354
Millet	8,502	5,064	9,048	14,115	7,941
Pea	1,458	1,939	2,314	3,879	4,773

The RMP Import Relation Index indicates no competitive disadvantage or dependence on global agri-food imports.

In our case, during the study period RMP is greater than 1, in maize and buckwheat, which is evidence of relative import dependence. With regard to the ore cook, this situation is explained by the import of seed material. It should be noted that during the whole study period RMP is the lowest in sunflower oil, which indicates a low dependence on imports, that is, there are comparative competitive advantages for this type of product.

Positive is the index relative trade advantages RTA indicates the relative competitive advantages in foreign trade and negative – relative to competitive disadvantages.

In our case, the RTA index is greater than 1 in almost all types of products, which clearly shows the presence of trade advantages in foreign trade in these types of products. With regard to buckwheat, RTA has a negative value, which has been increasing over the study period, indicating that there is no trade advantage in foreign trade.

5. CONCLUSION

The research conducted testifies that stimulation of development of the export potential of agroindustrial production is possible based on modern structural-transformational changes in the agrarian sector with the purpose of stabilization and increase of production of competitive production. Restriction of competition by foreign firms and other partners in the domestic and foreign markets is possible provided that their production and proper state regulation are established. Important is the formation of market infrastructure, informatization of the industry, stimulation of integration processes between economic entities, effective use of marketing tools, development of a long-term strategy for the development of the industry.

REFERENCES

- Danylenko, A. (2013). *Organizational and economic principles of realization of export potential of agricultural enterprises*. „AIC economy and management” № 11.
- Fathutdinov, R.A. (2005). *Managing the competitiveness of the organization*. M.: Exmo.
- Itsenko, O.M. (2013). *Konkurentospromozhnist areas of rural economy in terms of globalization of markets food*. „AIC economy” № 1.
- Krasnorutsky, O. (2009). *Problems of implementation of the modern doctrine of agroindustrial complex development*. Economic and Social Development of Ukraine in the 21st Century: National Identity and Trends in Globalization: Coll. abstracts of the sixth report Scientific and practical conf. young scientists. Part 1.
- Kvasha, S.M., Golomsha, N.Y. (2006). *Competitiveness of domestic agricultural products on the world agricultural market*. „APK's economy” № 5.
- Kvasha, S., Luka, O. (2003). *Competitiveness of domestic agricultural products in the context of Ukraine's accession to the WTO*. „The economy of Ukraine” № 10.
- Lagutin, V. (2016). *Competitive state policy : a mechanism for implementation*. „Bulletin of the Kyiv National University of Trade and Economics” № 4.
- Legeza, D.G. (2013). *Competitiveness of agricultural products*. Kyiv: IAE Research Center.
- Malik, M.Y., Needa, A.A. (2007). *Competitiveness of agrarian enterprises: methodology and mechanisms*. K.: Institute of Agrarian Economy.
- Pavlova, V.A., Kuzmenko, O.V. (2011). *Competitiveness of enterprise, management, evaluation, strategy: monograph*. D.: You DUEL-in the name of Alfred Nobel.
- Peskovsky, P.A. (2005). *Methodical bases of modern research in agrarian economy*. Materialy Int. Theorem. Conf. Part 2.

- Tarnavskaya, N.P. (2008). *Enterprise competitiveness management: theory, methodology, practice*. The Rnopil Economic University Turn Opil: Economic Thought.
- Yatsiv, I.B. (2018). *Features of concentration of production and its impact on efficiency of agricultural enterprises*. „Bulletin of Lviv National Agrarian University. Series: Economics of AIC” № 25.
- Zadoi, A. (2016). *Ukraine's Foreign Trade: Current Scales, Structure, and Trends*. „Academic Review” № 2 (45).

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