

методических основ расчетов объемов производства продукции растениеводства в Республике Казахстан в различных категориях хозяйств.

*Результаты исследования.* В данной работе проведен анализ изменения валового выпуска продукции растениеводства и посевных площадей Республики Казахстан за период 2000-2021 годы на основе построения модели парной линейной регрессии. Произведена оценка качества модели, рассчитан интервал для нижней и верхней границ прогноза изменения показателей валового выпуска продукции растениеводства от объемов посевной площади. Дана экономическая интерпретация полученных в результате построения модели линейной парной регрессии расчетных данных. Исследование подтверждает значимость разумного подхода к разработке рациональной структуры посевных площадей, исходя из стратегической задачи обеспечения продовольственной безопасности Республики Казахстан.

*Ключевые слова:* растениеводство, выпуск сельскохозяйственной продукции, посевные площади, продовольственная безопасность.

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#### KAZAKHSTAN'S FOREIGN TRADE IN AGRICULTURAL PRODUCTS: OPPORTUNITIES FOR GROWTH AND DIFFERENTIATION

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#### ABSTRACT

*Purpose of the study.* Assessment of the dynamics and structure of agro-food exports of the Republic of Kazakhstan and justification of the development prospects of exports of agricultural products as a factor of growth of competitiveness of the national agro-food complex

*Methodology.* The article used the classical methodology of scientific research in economics and calculated a number of specific indicators of country and product exports. The sources of data were the materials of statistical compilations of official state agencies of the Republic of Kazakhstan, COMTRADE international trade database.

*Originality / value of the research.* The article substantiates the prospects of development of exports of agricultural and food products as a factor of growth of competitiveness of the national agro-food complex. The system of universal indicators that characterize structural changes in the agro-food complex is calculated.

*Findings.* The calculation of the degree of concentration of exports of the Republic of Kazakhstan in the studied sector characterizes the weak level of diversification of agro-industrial exports. This trend persists for

a long time. Research on the trend of parameters of structural shifts in the export of agro-industrial complex of the Republic of Kazakhstan showed the stabilization of the structure of agro-food export, strengthening the specialization and concentration of domestic agro-food export. However, the main share of exported products is agricultural raw materials, which negatively affects the development prospects of the national agro-food complex.

*Keywords:* economics of agro-industrial complex, food industry, export, export diversification.

## INTRODUCTION

At present, there are dynamic changes in the external and domestic markets for agricultural products, in this regard, opportunities for growth and diversification of foreign trade require in-depth study.

Note that given the current geopolitical situation, import substitution is of particular importance for the economy of Kazakhstan. Thus, to ensure its competitiveness, on behalf of the Head of State the Import Substitution Program until 2025 is being developed, under which the share of Kazakhstan content is planned to reach 60 %. In turn, the head of the Ministry of Agriculture of the Republic of Kazakhstan Yerbol Karashukkeyev said that by the end of 2021, the provision of the domestic market for 29 major food products through domestic production is 80 % or more. In addition, the commissioning of 24 meat packing plants, the implementation of 22 projects on laying gardens on the area of 8.2 thousand hectares, the launch of 20 milk processing plants, the construction and expansion of 23 poultry farms, the construction of a new sugar factory by the end of 2025 [1].

It is known that the improvement of living standards based on the acceleration of economic growth is possible based on the process of industrialization, where the main role is played by the optimal foreign trade policy with a change in the priority of import substitution to export orientation [2-3].

In his work, B. B. Imanbayev talks about the need to diversify Kazakhstan's economy as a whole, including the agro-industrial sector. He notes the partnership of the country with various countries of the European Union, the EAEU and China, which provides an opportunity not only to move to a new level of economic development, but also to become an important participant in the geopolitical map of the Asia-Pacific region and the Eurasian space [4].

R. K. Konuspaeva, T. J. Demesinova and T. A. Taipova studied the diversification of agribusiness production in more detail, as a result of which they highlighted the organization of new crop and livestock production sectors as a priority, contributing to the growth of revenue from sales of products, and as a consequence, profit and profitability [5].

The results of T. S. Zaurbekov's research have shown that over the last decade there has been an increase in trade in agricultural products of Kazakhstan, but at the same time there has been an increase in demand for imported foodstuffs. The problem for Kazakhstani exporters of agro-industrial products is the "hidden" import substitution of subsidies in the markets of other member states of the Eurasian Economic Union [6].

Studies by a number of authors, such as V. A. Semakin, T. N. Solovyov, V. V. Safronov and V. P. Terekhov have shown that import substitution based on the diversification of the agro-industrial economy will increase the efficiency of foreign economic relations, employment of able-bodied population, strengthen the ruble exchange rate, and reduce foreign debt [7].

Having studied the development trend of agricultural exports, the authors N. A. Yakovenko, I. S. Ivanenko and A. S. Voronov substantiate the importance of its diversification in modern conditions. In their opinion, entering the foreign market of competitive products allows the agro-industrial complex to be more resistant to external influences and to use the available resources rationally [8].

The work of D. J. Ermekbaev, A. U. Mukhammedov and A. B. Tasmagambetov analyses the indicators of agricultural exports in the country.

The authors analyzed indicators of the country's agricultural export, which allowed them to identify a low share of agricultural exports in the overall structure of the country's exports. The key factor of economic growth is recommended to expand foreign trade activities, markets and increase exports of agricultural sector products [9].

Kazakhstan has a huge potential for integration into the world trade in agro-industrial products. The existing conditions and limitations cause the need to improve the state agro-food policy of the country, the main

priority of which should be the development of the system to promote agricultural exports as a factor in the growth of competitiveness of the national agro-food complex.

**Problem (problem) formulation.** Under context of globalization and the strengthening of the international division of labor, it is particularly important to assess the export potential of the agro-food complex of Kazakhstan, to study its development trends and implementation details. New challenges and constraints require further improvement of Kazakhstan's national agro-food policy. The main priorities are the creation of long-term factors for increasing competitiveness, the development of export promotion and financial activities to increase the geographical access of Kazakh products to foreign markets.

There is an extensive literature on agricultural export competitiveness. However, most studies focus on developing countries [10-13] and only a few studies on developed countries [14; 15]. In recent years, interest in studying the Kazakh food market has increased in anticipation of promising export opportunities.

The export-oriented strategy for the development of the agro-food system of Kazakhstan should be supported within the framework of ensuring food safety, which includes the development and implementation of export potential, as well as the resolution of the conflict between the national interest in the saturation of the domestic market of the Republic and the emphasis on increasing competitiveness in the global food market. In this context, we were tasked with studying the export potential of Kazakhstan's agro-food system, identifying the main problems in the development of agricultural exports and outlining possible ways of addressing them within the framework of this study.

## MAIN PART

**Research methods.** In order to assess and monitor the multifaceted aspects of export efficiency and competitiveness of the agro-industrial complex of the Republic of Kazakhstan, the article used the indicators of foreign trade efficiency of Kazakhstan, and specifically – indicators of commodity diversification and concentration, calculated on the basis of COMTRADE data (UN Statistics Division).

Taking into account the large volumes of information used in the analysis of trade on the tariff line, as well as the difficulty of perceiving such volumes for the study, statistical data on trade on 6 signs of the HS were used.

In dividing goods into processed products and raw materials, we used the classification of Broad Economic Categories (BEC) adopted by the UN Statistics Division, as well as the General Classifier of Economic Activities (OKED).

COMTRADE information is generated by direct and mirror methods. About 130 countries of the world systematically provide information from official sources to the UN Statistics Division. Export and import transactions of other countries are consolidated by the "mirror method" based on export-import data of trading partner countries.

To determine the development of product exports, we used the indicators accepted in international practice: the degree of export concentration, the standard deviation from the average export value, the unit weight of the standard deviation from the average export value [16-18].

*The degree of export concentration is a theoretical value determining the number of similarly sized export products. This indicator is more suitable for sectoral studies, as it is less sensitive to evaluation relative to overall indicators. The degree of export concentration is estimated using the formula below:*

$$NE_{ict}^t = \frac{1}{\sum_{k=1}^n \left( \frac{X_{i,k}^t}{X_{i,cl}^t} \right)^2} \quad (1)$$

Where:

$X_{i,k}$  – exports of products  $k$  from country  $i$  in period  $t$ ;

$X_{i,cl}$  – export of commodity group  $cl$  from country  $i$  in period  $t$ ;

$X_{i,k}/X_{i,cl}$  – the share of products  $k$  in the exports of commodity group  $cl$  of country  $i$

The standard deviation from the average export value complements the degree of export concentration and is the dispersion—a measure of dispersion between the highest and lowest values of a statistical series, that is, the deviation from the average. This index reflects the distribution of each country's export production and compares it to the average export value.

The specific weight of the standard deviation from the average export value ( $SD_{cl}$ ) is calculated as follows: first we find the variance, then the standard deviation (SD) and then the specific weight by the following formula:

$$S_{cl}^t = \left[ \frac{\sqrt{\sum_{k=1}^{cl} (X_{i,k}^t - \bar{X}_{i,cl}^t)^2}}{N(\bar{X}_{i,cl}^t)} \right] \quad (2)$$

Where:

$X_{i,k}$  – exports of products  $k$  from country  $i$  in period  $t$ ;

$\bar{X}_{i,cl}$  is the average export value of country  $i$  for all the products included in product group  $cl$  for period  $t$ ;

$(X_{i,k} - \bar{X}_{i,cl})$  is the deviation from the average value of production  $k$  from country  $i$  for period  $t$ ;

$\sqrt{\sum_{k=1}^{cl} (X_{i,k}^t - \bar{X}_{i,cl}^t)^2}$  – standard deviation;

$S_{cl}^t$  – the specific weight of the standard deviation.

**Findings and Discussions.** The Republic of Kazakhstan is an industrial-agrarian country, where the stabilizer of economic development is the creation of conditions to ensure the competitiveness of products of animal and plant origin and support the timely sale, processing and export of agro-industrial products.

Improving the competitiveness of agricultural products is impossible without state support, where the main measures are additional state subsidizing of interest on loans of agricultural producers, insurance of agricultural activities, development of infrastructure and other levers of effective impact.

Agriculture of the country specializes in the production of meat – beef, lamb, horse meat and grain – wheat, barley, rye, millet.

Currently, Kazakhstan's high-quality and environmentally friendly organic agricultural products are exported to almost 70 countries around the world. Kazakhstan plays a leading role in food security in the entire Central Asian region, occupying the leading position in the production and export of grain and oilseeds.

In addition, Kazakhstan is among the world leaders in the export of wheat and flour, where Kazakh grain ranks high on quality indicators.

The analysis of relative indicators – the production of major agricultural products per capita in the country for 2016-2020 is presented in Table 1.

This table shows that the dynamics of production growth is observed for almost all types of presented agricultural products, except for cereals and legumes. The decrease in the production of this indicator per capita in 2019-2020 was caused by the abnormal drought, due to which the volume of crop production decreased by 6.7 % (4.2 trillion tenge), while the volume of livestock production achieved growth by 3.6 % (3.1 trillion tenge) [19].

Thus, in 2020 the production of livestock and poultry increased by 15.4 % compared with the base year. The growth of meat production is due to the availability of pastures, forage of own production and the possibility of distant cattle breeding, which complies with Halal requirements and confirms the huge export potential of the country.

In 2021, the volume of exports of Kazakhstani products of animal and plant origin increased threefold compared to 2020. Thus, this indicator amounted to \$20.101 million and 13.376 million euros, \$1.457 million and 9.226 million euros respectively.

Table 1 – Production of main agricultural products per capita in the Republic of Kazakhstan, kg

Types of products	2016	2017	2018	2019	2020	2020 as % of 2016	On average in the Republic of Kazakhstan
Cereals and legumes	1159,6	1141,2	1109,3	941,4	1069,8	92,3	1084,3
Potatoes	199,3	196,9	208,3	211,3	213,6	107,2	205,9
Vegetables	213,3	210,2	223,3	235,2	244,8	114,8	225,4
Bahrain crops	116,4	116,1	117,2	128,7	129,3	111,1	121,5
Meat of livestock and poultry (slaughter weight)	54,0	56,4	58,0	60,5	62,3	115,4	58,2
Milk	300,2	305,1	311,1	316,8	322,6	107,5	311,2
Eggs (pieces)	267,3	282,9	305,9	298,8	270,1	101,0	285,0
Note – Data are based on the source [11].							

The main countries that consume agricultural products from Kazakhstan are: Germany, Sweden, Great Britain, as well as Belgium, the Czech Republic, and Lithuania. In 2021, for the first time agricultural products were supplied to Ukraine and China. Thus, for the years 2020-2021 Kazakhstan exported 5.576 tons and 29.219 tons of organic wheat, 14.727 tons and 12.07 tons of organic flax, 321.4 tons and 9.61 tons of organic soybeans and 328 tons of organic millet, respectively [20].

It is planned to maintain a similar trend in the future. The trends observed in the agricultural sector are due to the fact that this market is a priority for the economy of West Kazakhstan region. Farmers and agricultural producers are supported by the state within the framework of the State Program of Agro-industrial Complex Development of the Republic of Kazakhstan for 2017-2021.

The Strategic Development Plan of the Republic of Kazakhstan until 2025 sets the target for non-resource exports at \$41 billion. The target indicator of non-resource exports is \$41 billion. Achievement of the target indicator of the Strategic Plan on the volume of non-resource exports is only possible with the creation of favorable conditions for entrepreneurs and the provision of government support measures for domestic producers and service providers.

The food industry of Kazakhstan is one of the strategically important industries, designed to provide a sustainable supply of the population with the necessary quantity and quality of food products. Domestic market of livestock products, is characterized by a sufficient degree of saturation in the form of raw materials, which fully covers the solvent demand of the population. At the same time, the annual growth of livestock production in the Republic is within 5 %. The Republic of Kazakhstan in recent years confidently takes the third place in the world in terms of flour exports. For the past period flour exports were 4.7 % higher compared to the previous year, in addition, exports of condensed milk increased by 73 times, processed milk by 2 times, canned fruit by 1.9 times, rice by 85.5 % [21].

Since 2010, over the past 10 years, the volume of food production in the country as a whole grew by 2.45 times and amounted to 1,708 billion tenge.

Kazakhstan's key challenges in expanding the food industry are:

- support for innovative enterprises in the food industry;



- expansion of the product range and improvement of marketable appearance;
- improving the quality and safety of food and other products to preserve public health [22].

Increasing domestic food production could help improve the structure of social production, since the successful development of the food industry stimulates the development of agriculture, as well as related industries.

Analysis of the development of the food industry of the Republic of Kazakhstan shows its stable growth (Table 2).

Table 2 – Growth of food industry production by sector

Industries, billion tenge	2016	2017	2018	2019	2020	Growth 2020/2016	Growth 2020/2019
Meat processing and canning, and production of meat products	204	205	228	297	313	53 %	5 %
Processing and canning of fish, crustaceans and mollusks	14	17	19	22	27	89 %	19 %
Processing and canning of fruits and vegetables	105	106	103	93	99	-6 %	7 %
Production of vegetable and animal oils and fats	121	138	136	154	175	45 %	13 %
Production of dairy products	225	245	277	311	359	59 %	16 %
Production of flour industry products, starches and starch products	307	302	265	309	375	22 %	21 %
Production of bakery and flour products	196	223	223	210	252	28 %	20 %
Production of other food products	241	233	210	230	240	0 %	5 %
Production of finished animal feed	35	55	69	82	89	153 %	8 %
Beverage production	254	312	344	398	433	70 %	9 %
Note – Data are based on the source [23]							

Considering the structure of the food industry in comparison with 2020 in 2016, the last 5 years high growth showed such commodity items as «Production of ready-made animal feed» growth – 153 % from 35 billion tenge in 2016 to 89 billion tenge in 2020, «Processing and canning of fish, crustaceans and molluscs» growth – 89 % from 14 billion tenge in 2016 to 27 billion tenge in 2020, «Beverage production» growth – 70 % from 254 billion tenge in 2016 to 433 billion tenge in 2020. Decrease is observed in «Processing and preserving of fruits and vegetables» sectors decrease by 6 % from 105 billion tenge in 2016 to 99 billion tenge in 2020 and «Production of other food products» decrease by 0,1 % from 241 billion tenge in 2016 to 240 billion tenge in 2020.

Given the difficult year of 2020 caused by the coronavirus pandemic, the food industry has a positive growth in relation to 2019. Thus, high growth for the year was shown by «Production of flour industry products, starches and starch products» – 21 %, «Production of bakery and flour products» – 20 %, «Processing and canning of fish, crustaceans and mollusks» – 19 % and «Production of dairy products» – 16 %.

There are more than 59 export destinations in 2020, and the main supply markets for the Kazakh food industry are six countries, which account for 90 % of the market. Afghanistan accounts for about 24 per cent of exports and Russia for 19 per cent of products. The Uzbek market accounts for 18 % of Kazakhstan's total exports, China 12 %, Kyrgyzstan 11 % and Tajikistan 7 %. Other countries account for about 10 % (Figure 1).

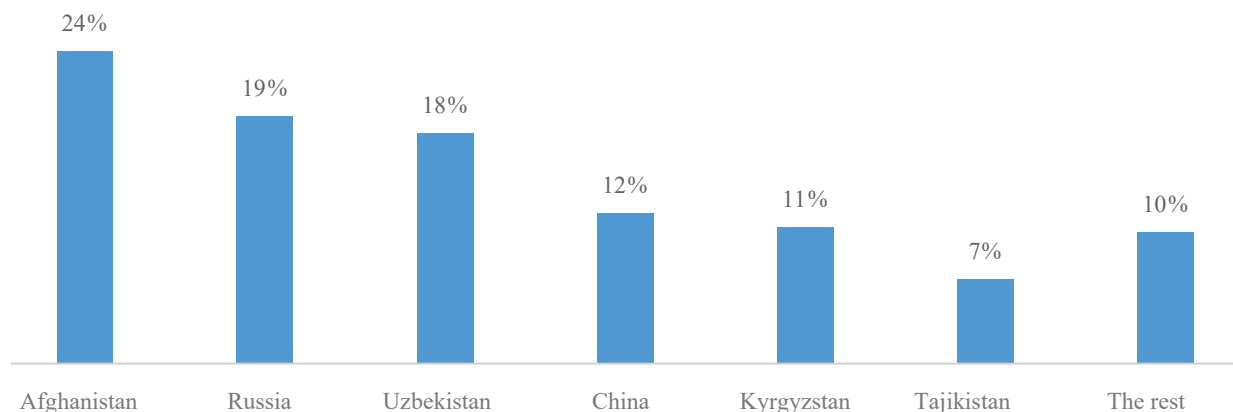


Figure 1 – Share of Kazakhstan's exports by importer, %

Note – Data are based on the source [23]

In comparing Kazakhstan's export volumes with the world leaders in this industry, our country is at a relatively low level. Thus, the volume of U.S. exports exceeds that of Kazakhstan by 55 times, Germany – by 51 times, the Netherlands – by 48 times. The volume of exports of Kazakhstan's food industry products is 11 times less than that of Russia (Figure 2).

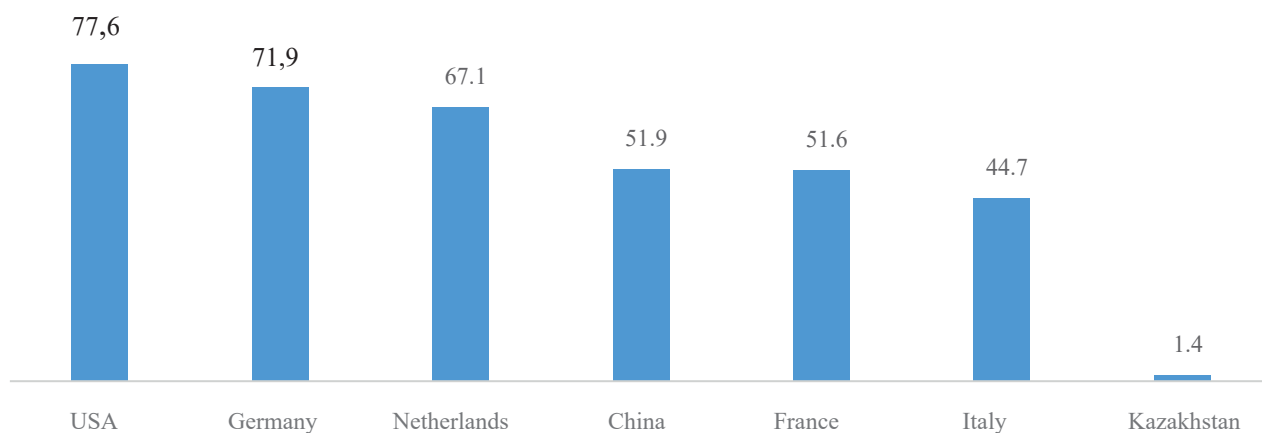


Figure 2 – Comparison of Kazakhstan's food industry exports with the world leaders, \$ billion USD

Note – Data are based on the source [24]

The main instruments of export support in our country are the creation of a favorable tax environment for exported products of deep processing. Also, state institutions provide advisory support to exporters and compensate them for participation in international exhibitions, fairs, etc.

Support for exports of products of the agro-industrial complex and its processing industry will increase their competitiveness. This can be achieved through additional state subsidies for payment of interest on loans, insurance of activities, development of infrastructure, and creation of other competitive advantages.

The head of state has set a goal of increasing productivity and exports of processed agricultural products by 2.5 times by 2022.

In 2019, exports of agribusiness products totaled 12.41 million tons worth \$3.29 billion, an increase of \$198 million or 6.4 % over 2018 (according to the MNE Statistics Committee).

At the same time, the share of exports of processed products in the total exports of agribusiness products in 2018 was 33.65 % (2.8 million tons worth USD 1.107 billion). The State Agribusiness Development Program over-fulfilled its targets for exports of agribusiness products by 24.1 % (\$3.29 billion vs. the plan of \$2.65 billion).

Export of Kazakhstan's agro-industrial products to priority markets is growing. Thus, the export of agricultural products to China increased by 50.5 % (total export – 388 million USD), to the Persian Gulf countries (Qatar, Kuwait, UAE, KSA, Oman, Bahrain) by 3.2 times (11.5 million USD), to Central Asian countries (Uzbekistan, Afghanistan, Tajikistan, Kyrgyzstan, Turkmenistan) by 7.4 % (1,559 million USD), to the EAEC countries by 8.2 % (598.0 million USD) [23].

Support for exports of products of the agro-industrial complex and its processing industry will increase their competitiveness. This can be achieved through additional state subsidies for payment of interest on loans, insurance of activities, development of infrastructure, and creation of other competitive advantages.

Deliveries of the top 15 commodities in the 10 digits of the TN VED account for 80.4 % of exports, with crude oil accounting for 57.8 % of all exports. In the structure of Kazakhstan's processed exports, exports of intermediate goods have the largest specific weight. For 2019, exports of passenger cars increased 2.7 times compared to 2018. Exports of gasoline fuel (2.9 times) and means of production (2.2 times) also increased markedly.

Commodity diversification and concentration, measured through exports, is an important indicator of the efficiency of the production structure and level of industrial development. Diversification reduces dependence on a limited number of products and hence reduces a country's vulnerability to external shocks associated with a particular industry. Two indicators are calculated to determine the degree of diversification: the degree of export concentration (equivalent number of products) and the standard deviation of average exports (standard deviation or distributional index) (Table 3).

The higher the value of the index, the more exports are diversified and, as a consequence, the rating of the exporting country is higher.

The lower the value of the «standard deviation from the average export value» in the total volume of exports, the more diversified exports are. Ideally, when a country exports all types of goods, the use of one of these indices is sufficient, but since this assumption is impossible, the simultaneous use of both indicators provides the most realistic picture of diversification of goods.

Table 3 – The main indicators of the commodity group «Products of animal and plant origin, finished food products» in the Republic of Kazakhstan

Export performance	Unit.	2016	2017	2018	2019	2020
Export volume	million dollars. USD	2 150,0	2 417,6	3 102,1	3 282,5	3 352,7
Number of export items at the 4-digit level of TN VED	export article	165	164	166	171	169
Degree of export concentration (equivalent number)	number	5,901	8,049	7,396	8,116	6,672
Standard deviation from the average export value (standard deviation)	million dollars. USD	67,66	64,89	86,54	86,00	97,80
Specific weight of the standard deviation from the total volume of exports	%	3,15	2,68	2,79	2,62	2,90
Note – Data are based on the source [24]						

In 2016-2020, 165-169 types of products were exported in the commodity groups «Products of animal and plant origin, finished food products» at the level of 4 digits of the TN VED. At the same time, the indices that characterize the diversification of products have the following values:

Degree of export concentration: 5.901 to 6.672. Standard deviation from the average value of exports: from 67.66 to 97.8 million USD, or 3.15 % to 2.90 % by share of total exports by commodity group.



Wheat and flour have the largest share by commodity, their aggregate share in this commodity group by the end of 2020 was 48.9 %. In recent years, there is a trend of increasing exports of flour and decreasing exports of wheat. The impact on the diversification of other goods is insignificant. Below are the first 14 types of export products of the considered commodity group.

The structure of foreign trade in agro-food products for the period 2016-2020 is becoming more and more stable. The set of goods that make up domestic agro-food exports has stabilized.

Over the past 10 years, there has been an increase in Kazakhstan's specialization in the global food market. With all the diversity of export structure, the share of export of traditional products for the country is increasing. This trend has persisted for a long period of time. The results of the analysis show that in recent years, there has been an increase in the specialization and concentration of Kazakhstan's agro-food exports. With a significant increase in exports, its raw material orientation remains. The main share of exported products is agricultural raw materials, which negatively affects the development prospects of the national agro-food complex.

Table 4 shows the data on the dynamics of exports of agro-industrial products of the Republic of Kazakhstan for 2017-2021. Products of animal and plant origin occupy on average 0.3 % of total exports of the region.

Table 4 – Export of TOP 14 agro-industrial products in the total exports of the Republic of Kazakhstan for 2017-2021

№	Name	2017	2018	2019	2020	2021	
						thousand dollars U.S.	% of total
1	Live cattle	555,5	1 228,6	50,6	179,9	507,3	0,07
2	Cattle meat	595,3	2631,6	2 527,9	1078,8	262,7	0,04
3	Pork	77,0	133,1	187,9	123,9	0	0,00
4	Lamb	96,0	230,7	232,8	720,9	0	0,00
5	Poultry meat	883,5	1 033,1	1 562,1	2 399,5	1 610,1	0,23
6	Cheeses and cottage cheese	817,1	543,7	1 360,1	695,0	821,7	0,12
7	Eggs	277,0	1 348,5	1 014,6	54,4	718,5	0,10
8	Wheat	3 899,6	11 174,2	9 022,9	11 331,0	1 095,9	0,16
9	Barley	43,4	1469,9	543,3	163,1	0	0,00
10	Rice	734,8	539,4	1 054,3	810,4	2 077,4	0,30
11	Wheat flour or wheat and rye flour	978,9	1 687,4	2 164,3	1 399,0	1 109,3	0,16
12	Flax seeds	1 134,1	138,0	2 233,4	1 187,0	2 250,4	0,33
13	Sunflower oil	644,5	588,8	790,4	904,0	328,1	0,05
14	Margarine	1 087,7	1 060,7	1 231,9	668,6	1 051,6	0,15
15	Other	471 010,90	484 589,62	639 853,44	531 241,55	674 835,80	98,28
	Total	482 835,40	508 397,50	663 830,0	552 956,9	686 668,8	100

Note – Data are based on the source [24]

According to the data on the export of agro-industrial complex products for the last 5 years, it can be seen that the largest share in the total exports of agro-industrial complex of Kazakhstan is wheat flour (wheat and rye), so the average indicator is – 25.6 %. Until 2020, there were growth dynamics, but due to the pandemic COVID-19, as well as changes in climatic conditions, wheat flour exports decreased by 8 % compared to 2019, and in 2021 by 9 % compared to the previous year.

In addition, Kazakhstan exports livestock products, where the leading position is taken by the meat of cattle and poultry, so the average share for the analyzed period is 25 % and 26 %, respectively.

In 2021 the export of rice to the amount of 1,267.0 thousand dollars sharply increases and reaches 0.3 % in the total structure of exports. While the export of mutton and pork is not observed due to the need to supply the domestic market. Earlier, the main export of mutton (up to 97 %) was made to the United Arab Emirates (UAE), Uzbekistan and Russia. And also to Iran, Azerbaijan, Bahrain and Oman.

Also in 2021 there were no barley exports, this is due to the fact that there were problems with the shipment of barley to China. In addition, some other major buyers of Kazakh barley began active purchases only since December, which also affected the final volume of shipments.

According to FAO projections, the world will need to feed 8.5 billion people by 2030. At the same time, the expected growth of world crop production by 2030 will be achieved by increasing crop yields by 87 %, by introducing new lands into circulation by 6 %, by increasing the intensity of farming by 7 %. The expected growth of livestock and fishery production will also be achieved, primarily due to an increase in productivity. An increase in livestock numbers in emerging and low-income countries is expected to be one of the most important drivers of livestock production growth.

The next billion consumers are diverse, ranging from low-income consumers in Africa, rural consumers in Asia, all the way to the emerging middle class in Latin America and consumers in many developed markets who developed the habit of consuming online shopping products during the COVID-19 pandemic.

At the same time, amid the pandemic and the Russian Federation's military invasion of Ukraine and subsequent sanctions, food prices continue to rise. The FAO Food Price Index (FFPI) averaged 154.2 points in June 2022, up 23.1 % from June 2021 and 48.7 % from June 2020. This is the highest level since June 2011. The increase from the previous month was mainly due to the continued rise in world prices for vegetable oils and grains.

Today, the key trends in the food industry are:

- consumer interest in environmentally friendly products;
- Tightening environmental standards (both by certain countries and international organizations), a priority for «green technology» – the main factor in the development of industry, including the production of finished and semi-finished products, will be the availability of raw materials for processing.

In the developed countries of the world a qualitatively new economy based on technological innovation, digitalization and resource saving has been developing over the last 20 years. In the future, these three trends will drive the development of the world economy, and the competitiveness of export efficiency depends on how successfully we join this movement. Therefore, we believe that the new strategy for the development of Kazakhstan's agro-food complex should be focused on the adaptation of Kazakh producers to the changes taking place in the global agro-food system. The expansion and deepening of global value chains is actively developing. Innovative changes in the process of agricultural production and processing should form effective conditions for the diversification of Kazakh exports. The calculation of the index of export concentration showed that for the period under study there is a low level of export diversification. Only 5-8 nomenclature positions from the average 167 leave the main share of Kazakhstan's exports.

The long-term economic growth potential of the agro-food complex of Kazakhstan is associated with an increase in the volume of food exports and its diversification. Further growth in the production of agricultural products and food will bring domestic agro-food markets closer to their capacity limits. In these conditions, development of a new policy in the field of agro-food exports aimed at its diversification will expand the basis for economic growth and reduce the vulnerability of the national agro-food complex to the impact of external factors [8].

The activation of measures of state support for foreign trade in agricultural products and food will create opportunities for national commodity producers to enter international markets and will help them to acquire the necessary qualities for this. The priority task enshrined in the program «National Export Strategy» is the diversification of agro-food exports, development of new commodity markets, production of new commodity mass, including products with high added value. The implementation of this task is possible with the creation of favorable conditions for the development of productions, institutional support of products with high added value, supplied to domestic and foreign markets, assistance with access to premium segments [25].

## CONCLUSION

**Managerial Implications and Limitation.** Thus, the food industry is one of the leading manufacturing industries of the country. The state is taking measures to cover domestic demand with local products, investments in the industry are increasing significantly, including at the expense of its own funds. global and regional

comparative advantage in a number of products has already been achieved. At the same time, we should take into account such features of the industry as excess of imports over exports, high concentration of exports by individual products, and high concentration of enterprises in the context of sectors.

Active state support of the national agro-food complex stimulated the growth of agro-food exports. Since 2016, there is not only a positive dynamics of exports, but also a significant increase in the share of Kazakhstan in global agro-food exports.

Kazakh producers have strengthened their competitive advantages in traditional markets – wheat, vegetable oil, fish and meat. The dynamics of the export diversification index characterizes the growth of export concentration, strengthening of specialization of the national agro-food complex in the foreign market. The values of the indicators of structural shifts in the agro-food export show that the process of diversification develops slowly.

Diversification of agro-industrial exports involves structural reorganization of agricultural production and processing aimed at the accelerated development of industries with high added value, development of digitalization and resource saving.

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## ҚАЗАҚСТАННЫҢ АГРАРЛЫҚ ӨНІММЕН СЫРТҚЫ САУДАСЫ: ДАМУ МҮМКІНДІКТЕРІ МЕН ПЕРСПЕКТИВАЛАРЫ

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### АНДАТПА

*Зерттеу мақсаты:* Қазақстан Республикасының тамақ өнеркәсібінің экспорттық әлеуетін зерттеу және ел экспортының құрылымындағы оның үлесін ұлғайту жөнінде ұсыныстар әзірлеу.

*Әдіснамасы.* Мақалада экономикадағы ғылыми зерттеулердің классикалық әдістемесі қолданылды, ел мен өнім экспортының бірқатар нақты көрсеткіштері есептелді. Деректер көзі ретінде Қазақстан Республикасының ресми мемлекеттік органдарының статистикалық жинақтары, COMTRADE халықаралық сауда дерекқоры материалдары қызмет етті.

*Зерттеудің бірегейлігі / құндылығы.* Мақалада ұлттық аграрлық азық-түлік кешенінің бәсекеге қабілеттілігінің өсу факторы ретінде ауыл шаруашылығы және тамақ өнімдерінің экспортын дамыту перспективалары негізделген. Аграрлық азық-түлік кешеніндегі құрылымдық өзгерістерді сипаттайтын әмбебап көрсеткіштер жүйесі есептелген.

*Зерттеу нәтижелері.* Қазақстан Республикасы экспортының зерттеліп отырған саладағы шоғырлану дәрежесін есептеу аграрлық азық-түлік экспортын әртараптандырудың төмен деңгейін сипаттайды. Бұл үрдіс ұзақ уақытқа созылады. Қазақстан Республикасының АӨК экспортындағы құрылымдық ілгерілеу көрсеткіштерінің серпінін талдау агроазық-түлік экспорты құрылымының тұрақтануын, отандық агроазық-түлік экспортының мамандануы мен шоғырлануының күшеюін көрсетті. Алайда, әкетілетін өнімнің негізгі үлесін ауыл шаруашылығы шикізаты құрайды, бұл ұлттық аграрлық азық-түлік кешенінің даму перспективаларына теріс әсер етеді.

*Түйін сөздер:* агроөнеркәсіптік кешен экономикасы, тамақ өнеркәсібі, экспорт, экспортты әртараптандыру

## ВНЕШНЯЯ ТОРГОВЛЯ КАЗАХСТАНА АГРАРНОЙ ПРОДУКЦИЕЙ: ВОЗМОЖНОСТИ И ПЕРСПЕКТИВЫ РАЗВИТИЯ

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### АННОТАЦИЯ

*Цель исследования:* оценка динамики и структуры агропродовольственного экспорта Республики Казахстан и обоснование перспектив развития экспорта продукции АПК как фактора роста конкурентоспособности национального агропродовольственного комплекса.

*Методология.* В статье использовалась классическая методология научных исследований в экономике, был рассчитан ряд специфических показателей странового и продуктового экспорта. В качестве источников данных послужили материалы статистических сборников официальных государственных органов Республики Казахстан, базы данных международной торговли COMTRADE.

*Оригинальность / ценность исследования.* В статье обоснованы перспективы развития экспорта сельскохозяйственной и пищевой продукции как фактора роста конкурентоспособности национального



агропродовольственного комплекса. Рассчитана система универсальных показателей, характеризующих структурные изменения в агропродовольственном комплексе.

*Результаты исследования.* Расчет степени концентрации экспорта Республики Казахстан в исследуемой отрасли характеризует низкий уровень диверсификации агропродовольственного экспорта. Данная тенденция сохраняется длительное время. Анализ динамики показателей структурных сдвигов в экспорте АПК Республики Казахстан показал стабилизацию структуры агропродовольственного экспорта, усиление специализации и концентрации отечественного агропродовольственного экспорта. Однако, основную долю вывозимой продукции составляет сельскохозяйственное сырье, что отрицательно сказывается на перспективах развития национального агропродовольственного комплекса.

*Ключевые слова:* экономика агропромышленного комплекса, пищевая промышленность, экспорт, диверсификация экспорта

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