International Journal of Engineering Research and Technology. ISSN 0974-3154, Volume 13, Number 12 (2020), pp. 4475-4479
© International Research Publication House. http://www.irphouse.com

Economic Problems of Russia's Grain Complex Competitiveness System in the World Market

Alina R. Battalova[1], Ruslan Sh. Tukhvatullin[2], Farit N. Mukhametgaliev[3], Landysh F. Sitdikova.[4], Farida F. Mukhametgalieva[5]

[1]Associate professor, Department of Economic Theory and Econometrics, Institute of Management, Economics and Finance, Kazan Federal University, Russia. Author ID=56422388600, ORCID: 0000-0003-0971-9575

[2]Associate professor, Department of Accounting, audit and analysis, Institute of Management, Economics and Finance, Kazan Federal University, Russia. AuthorId=56422163800, ORCID: 0000-0002-5873-6673

[3]Professor, Department of Organization of Agricultural Production, Institute of Economics, Kazan State Agrarian University, Russia. authorId=57208838651, ORCID: 0000-0003-3377-4785

[4]Associate professor, Department of Organization of Agricultural Production, Institute of Economics, Kazan State Agrarian University, authorId=57208838411, ORCID: 0000-0003-1706-4898

[5]Master student, Department of Organization of Agricultural Production, Institute of Economics, Kazan State Agrarian University, Russia.authorId=57208838498, ORCID: 0000-0001-7142-4562

Abstract

The relevance of the topic is associated with the need to increase the efficiency of grain exports in the face of new challenges to the external economy. All these problems are caused by difficult situations and development trends of the world grain market. The novelty of the research is to identify trends in the development of the Russian grain complex and justify the necessary priority measures to increase the efficiency of grain export sales. The article presents the results of the grain complex current state analysis and the problems of forming a sales market, identifies the main tasks of ensuring the competitiveness of the grain complex in the world market, and identifies priority directions for the development of the grain market and the development of Russian exports.

Keywords: Grain Complex, Competitiveness, Export Infrastructure, Production, Grain Market.

I. INTRODUCTION

Russia is a major exporter of raw materials. Currently, government decisions have been adopted to accelerate the increase in exports of products and services in the main sectors of the economy. One of the most important projects at the federal level as the passport part of the national project "International Cooperation and Export" is "Export of agricultural products". The aim of the project is to develop measures to increase the export of agricultural products by half by 2024, to $ 45 billion by providing access to agricultural products to target markets, creating a system for promoting and positioning agricultural products [9]. At the same time, it is necessary to update sectoral programs or sections of strategies providing for the achievement of targets, to solve a number of other methodological and organizational issues to achieve the goals. The grain complex of Russia is one of the domestic economy sectors, where a significant export potential has formed. Over the years, significant indicators have been achieved of grain exports, which occupies a leading share in Russian food exports. Along with this, the country's grain industry is tasked with satisfying the demand for grain by at least 95% due to the domestic grain market of its own production [2; 12]. These tasks can be accomplished by increasing the competitiveness of the grain complex, bringing this industry to the forefront in terms of a potentially export-oriented industry based on effective management of the technology for production, storage and processing of grain.

II. METHODS

The theoretical and methodological basis of the research was the work of the classics of economic science, publications of modern domestic economists on the regulation problems of investment processes, materials of international and all-Russian scientific and practical conferences. The general methodological basis of the study is system analysis. In the process of work, a combination of monographic, abstract-logical, analytical, economic-statistical, calculation-constructive and other methods of scientific research was used. As the research information base, we used official data from the Federal State Statistics Service of the Russian Federation, ministries and departments of the Russian Federation, materials contained in monographs, dissertations, reports of research institutes, publications, materials of scientific conferences, expert assessments, data obtained during analysis and calculations of the authors.

III. RESULTS AND DISCUSSION

Full satisfaction of the population's needs for food products of deep processing of grain mainly depends on the level of development of the country's grain complex. To meet the domestic needs of agricultural enterprises, farms and peasant farms with feed grain, the formation of a food fund and the development of export potential, the volume of grain production in Russia should be at least 100-120 million tons per year [12]. In this regard, the strategic directions of the development of the grain complex are the creation of reserves for emergencies (food for the population, feed for livestock, raw materials for processing and food enterprises) and increasing the country's export potential in the global food market [4]. To assess food independence, indicators of the level of self-sufficiency were established in the form of a percentage ratio of the volume of domestic agricultural production to the volume of its domestic consumption, having threshold values of 95% for grain. Over the past 4 years, this indicator has been at the level of 140 - 150%, which not only guarantees self-sufficiency in grain, but also creates the prerequisites for the development of the livestock industry and high export potential [13]. The priority role of grain in ensuring food security is also determined by the technological ability to create reserves and stocks of grain intended for a guaranteed supply of the country, taking into account the agro-climatic and geographical features of the regions. The main state parameters of the Russian Federation grain complex at the beginning of 2020 are the following indicators. The gross harvest of grain and leguminous crops in 2019 amounted to 121.2 million tons, which was grown on 46.8 million hectares of sown areas of grain and leguminous crops with a yield of 25.9 centers per hectare. 76.8 million tons were used for domestic consumption of the country, which made it possible to sell grain products for export in the amount of 39.9 million tons. The export of grain processing products amounted to 1.7 million tons. At the same time, constant grain stocks in the Federal Intervention Fund at the end of the year remained in the amount of 3 million tons. As specific features of the development of the grain complex from the standpoint of available reserves, it can be noted that Russian farmers possess 9% of the world's sown area and 40% of the area of black soil soils and produce only 5% of the world grain and leguminous crops. The country has the potential to expand the sown area by 20.2 million ha by expanding the cultivated area of unused arable land in 2018 [13; 1].

Under the conditions of using market principles for organizing the economy, the development of the grain complex follows the intensification path of the industry due to changes in the structure of the national economy, increased government support for the agricultural sector and the active attraction of private investment. As a result, a significant increase in productivity has been observed lately, due to which the average annual gross grain harvest for 2015-2019. amounted to 119.1 million tons. An analysis of the dynamics over a longer period shows that the production of grain and leguminous crops in the Russian Federation increased from 65.4 million tons in 2000 to 121.2 million tons in 2019. Wheat plays a significant part in the structure of grain production. in 2019 amounted to 61.3% with a gross yield of 74.3 million tons [13; 1]. The almost twofold increase in production volumes allowed us to increase the country's grain export potential and gain our niche in the global food market. The high competitiveness of grain products contributed to a gradual increase in export demand from the permanent major countries of importers of Russian grain. In a short time, the Russian Federation has turned from a net importer of grain into one of its largest exporters, taking the first place in the world in wheat export and the second place in grain export according to the results of the last two years. In connection with the growth of the world's population, it is assumed that the demand for grain will increase to 2.5 billion tons, and the potential for increasing grain production in Russia will be in demand [3].

Increasing the export potential of the grain industry is one of the strategic priorities for the development of the agricultural business in Russia, requiring the creation of conditions for increasing the competitiveness of the domestic grain complex. In the context of globalization, the competitiveness of grain production largely depends on the effectiveness of state regulation based on the development and implementation of competitive trade and economic systems, financial, monetary, investment, scientific, technical and educational policies (Monitoring the economic situation in Russia, 2019). The grain market should be formed taking into account the situation, competition and the development of market infrastructure. Unfortunately, in today's conditions of import substitution of grain and bakery products, the main trend and the main feature of the development of the grain production industry is that the market conditions are largely affected by the factor of production and export volumes across the country (Table 1) [13; 1].

Table 1. The production volume and use of grain in the Russian Federation, mln tons

Indicators	Years								
	2011	2012	2013	2014	2015	2016	2017	2018	2019
Production (gross yield in weight after refinement)	94,2	70,9	92,4	105,2	104,7	120,7	135,5	113,3	121,2
Production consumption	20,9	20,5	20,0	20,9	20,9	22,3	24,4	23,2	23,8
In % to the volume of production	22,2	28,9	21,6	19,9	20,0	18,5	18,0	20,5	19,6
Processed for flour, cereals, animal feed and other purposes	47,4	43,8	44,5	46,4	48,1	51,8	53,4	52,5	53,0
In % to the volume of production	50,3	61,8	48,2	44,1	45,9	42,9	39,4	46,3	43,7
Export	18,3	22,5	19,0	30,1	30,7	33,9	43,3	54,8	39,3
In% to the volume of production	19,4	31,7	20,6	28,6	29,3	28,1	32,0	48,4	32,4

The volume of grain production in Russia as a whole in recent years has been steadily growing. If we compare the average annual indicators of the last three years (2017-2019), with the indicators of three years at the beginning of the decade (2011-2013), the increase in production amounted to 44%, production consumption of agricultural production increased by 3.3 million tons, or 16% , including seeds of 0.6 million tons and animal feed 2.7 million tons, respectively. 45.2 million tons and 53.0 million tons were used for processing over the same periods, an increase of 7.8 million tons (17.3%). With an increase in production, their share in the gross grain harvest decreased from 72.5% in 2011 to 63.3% in 2019. Sustainable development of the grain production industry over the past decade made it possible to fully satisfy domestic demand for grain products and contributed to the growth of grain exports. Outstripping growth in world trade compared to production means an increase in demand for cereals and legumes. A steady increase in demand for grain in the world is maintained primarily due to the countries of Asia and Africa, in which the production of grain crops is limited by land and water resources. The export geography of Russian grain and leguminous crops, as well as products of their processing over the past 5 years covers more than 150 countries. The countries of the Middle East and Africa (primarily West Asia and North Africa) are traditional consumers of Russian grain, but in recent years, grain has been delivered from the Russian Federation to the countries of the Asia-Pacific basin and South America, which can become significant volumes buyers of grain (Monitoring the economic situation in Russia 2018; 7; 8]. At the same time, there is a tendency to increase competition in the international grain market as a result of Romania, Pakistan and the Baltic countries entering these markets. At the end of 2019, the main countries importing Russian grain are Egypt - 9.6 million tons, Turkey - 6.8 million tons, European Union countries - 3.5 million tons, Vietnam - 2.6 million tons and Iran - 2.6 million tons.

Agribusiness entities were given the task of increasing revenue from exports of agricultural products and foodstuffs from $ 25.8 billion in 2018 to $ 45 billion by 2024. Along with this, revenue from grain exports should be at least 11 , $ 4 billion with a parallel increase in revenue from export of grain processing products by more than $ 2.2 billion. In general, the share of grain export should be 4.9 percent of total revenue from export of agricultural products (Fig. 1) (Monitoring the economic situation in Russia, 2019).

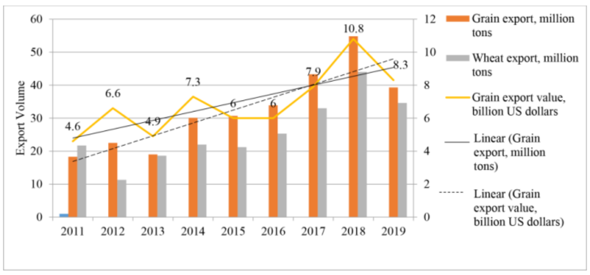

Figure 1. Dynamics of the volume and revenue from grain exports in Russia for 2011-2019.

Figure 1 shows that from year to year the volume of exports is growing, but the growth rate of export earnings is declining. A comparison of the average annual indicators of the last three years (2017-2019), with the indicators of three years at the beginning of the analyzed period (2011-2013) shows that the volume of grain exports grew by 2.1 times, and the increase in export earnings amounted to only 1.8 times. The trend lines show that this trend will continue due to lower unit prices, i.e. an increase in the supply volume of products for export, an increase in supply on the market is accompanied by a decrease in prices. It should be noted that in Russia, the main export product is wheat. In the structure of export grain, it occupies 82% of the total volume. Outstripping growth in wheat production and supply compared with the dynamics of demand in the domestic and foreign markets has an opposite effect on export prices. In particular, the average price of wheat in the world market, peaking in 2014 - $ 245, steadily decreased in subsequent periods, and in 2019 amounted to $ 207 (Fig. 2) (Monitoring the economic situation in Russia 2019).

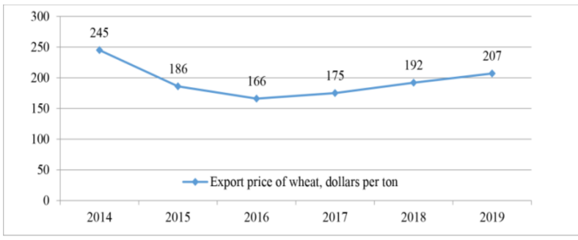

Figure 2. Dynamics of average export prices for wheat, dollars per ton (Monitoring the economic situation in Russia: trends and challenges of socio-economic development, 2019).

The current level of prices for Russian wheat is much lower than in leading countries in export terms of this crop to the world. The ratio of average export prices for wheat produced in Russia to producer prices of the countries in the top five in terms of world exports is 0.75 to the USA, 0.71 to Australia, 0.69 to Canada, to France, 79, i.e. prices are lower by 20-25%, which means that Russian grain is inferior in terms of consumer properties to the main competitors products quality of grain exporting countries [11]. Analysis of changes in prices on the grain market in transactions with major importing countries shows that the export price is greatly influenced by the timing of sales. According to the analytical materials of the Department of Strategic Marketing of AO "Rusagrotrans" (Joint Stock Company), prices in January increase by 16-20% compared with prices in August (Fig. 3) [10].

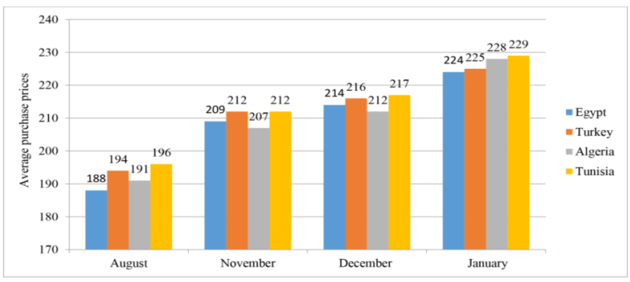

Figure 3. Average purchase prices at tenders for soft wheat in August 2019-January 2020 for importing countries, dollars per ton [10].

It turns out that it is profitable to sell grain in the late autumn and winter months. In this regard, the question arises of solving the problem of grain long-term storage without compromising on quality parameters. According to official figures, the volume of grain storage capacities in the Russian Federation amounted to 156.9 million tons by 2019, of which 89.2 million tons (57%) were from agricultural producers, 50 million tons (32%) were from procurement organizations, 17.7 million tons (11%) - for processing companies. Despite the fact that the available grain storage volumes exceed the gross harvest of grain and leguminous crops in the country, a number of systemic problems are observed in the field of grain storage. The largest share of grain storage capacities in the total volume is accounted for by agricultural producers, who have mainly floor storage facilities [4; 6].

About 60% of the total volume of storage capacities meet modern requirements in the field of grain storage. At the same time, the remaining storage capacities are used in practice mainly for short-term storage in the period after harvesting.

The lack problem of modern granaries can lead to an increase in transport and logistics costs and a decrease in the quality of grain, as well as a decrease in its competitiveness in foreign markets and a rise in price in the domestic market. In this regard, a necessary condition for the further development of the grain product complex is the high-quality modernization of grain storage capacities.

An important direction in the development of the grain complex is to reduce transport and logistics costs and optimize the structure of domestic transportation both in the context of ensuring interregional trade and the delivery of grain to ports and customs checkpoints during export deliveries. In accordance with the expected increase in export volume by 2035, it is necessary to increase the capacity of railway land and port transshipment by at least 20 percent, primarily deep-sea in the ports of the Azov-Black Sea and Baltic basins.

IV. SUMMARY

The most important factor in increasing the competitiveness of the grain complex is the high liquidity of manufactured products, a gradual increase in export demand from the permanent major countries of Russian grain importers. An increase in the world's population implies an increase in the demand for grain up to 2.5 billion tons and contributes to the expansion of potential opportunities for increasing grain production in Russia. The development of the grain complex takes place along the path of intensification, but there is the possibility of expanding the cultivated area by 20.2 million hectares by increasing the cultivated area of unused arable land in recent years. The systemic problems of increasing the competitiveness of the grain complex are the limited range of grain export products, the small volume of grain processed products exported, and the limited geography of Russian grain products exported mainly to the countries of the Middle East and Africa. Important systemic problems are traditionally low export prices compared to other countries and the consumer properties of the exported grain. A significant obstacle to increasing the competitiveness of the grain complex on the market today is the insufficient development of market infrastructure, the technical condition and capacity of grain storage that does not meet today's requirements, the discrepancy with the needs of the grain market turnover growth, and the development level of transport infrastructure.

V. CONCLUSIONS

Summarizing the foregoing discussion, it can be stated that the export of grain products is becoming an increasingly profitable area of international trade due to rising demand and prices for grain products. In these conditions, the struggle for influence on the world food market is growing and the importance of the competitive development of the national grain complex is increasing. The systemic problem of the grain market is that, while maintaining the current level of competitiveness of domestic grain and its processed products, the development opportunities for the grain industry will not be sufficient to fully utilize the country's agro-climatic potential, sustainable reproduction of the material, technical, personnel and natural-ecological potential of agriculture. Consequently, agricultural policy, the activities of agricultural business structures should be aimed at overcoming these trends and creating developed agri-food markets, developing effective sustainable agro-industrial production, realizing export potential, increasing food security and allowing us to take a stable position in the world grain and grain products market.

ACKNOWLEDGEMENTS

The work is performed according to the Russian Government Program of Competitive Growth of Kazan Federal University.

REFERENCES

[1] Agriculture in Russia. Sel'skoe hozyajstvo v Rossii. Stat.sb./Rosstat – M., 2019: –91 p.

[2] Ajdinova AT. Economics and Management: Modern Determinants of Modernization and Transformation. Ekonomika i menedzhment: sovremennye determinanty modernizacii i transformacii. A.T. Ajdinova. – M .: Miracle. 2017:– 184 p.

[3] Avhadiev FN. Improving the sustainability of grain production (based on materials of the Republic of Tatarstan) Povyshenie ustojchivosti proizvodstva zerna (na materialah Respubliki Tatarstan). Vestnik Kazanskogo GAU. 2016;4:104-108.

[4] Battalova AR, Mukhametgaliev FN, Mukhametgalieva FF, Sitdikova LF. Issues on Increasing Efficiency of Agricultural Business in the Republic of Tatarstan. SCOPUS-2019-7--SID85076924955. 2019 Jan 1.

[5] Gurevich VS, Drobyshevskiy SM, Kadochnikov PA, Kolesnikov AV, Mau VA, Sinel'nikov-Murylev SG. Monitoring the economic situation in Russia: trends and challenges of socio-economic development. № 2, February, 2018.

[6] Battalova A, Ignatjeva O, Mukhametgaliev F, Sitdikova L. Organizational and economic mechanism of improving the efficiency of grain production at the regional level. SCOPUS09758364-2019-10-2-SID85074657767. 2019 Jan 1.

[7] Mukhametgaliev FN, Sitdikova LF, Mukhametgalieva FF, Sadrieva ER, Avkhadiev FN. Trends in the Formation of the Current Agrifood Policy of Russia. Studies on Russian Economic Development. 2019 Mar 1;30(2):162-5.

[8] Mukhametgaliev F, Sitdikova L, Avkhadiev F, Gainutdinov I, Petrova V. Problems of regional grain market development. InBIO Web of Conferences 2020 (Vol. 17, p. 00082). EDP Sciences.

[9] Passport of the priority project “Export of agricultural products”. – URL: https://rulaws.ru/acts/ Pasport-prioritetnogo-proekta-Eksport-produktsii-APK/

[10] The main trends in export traffic in the first half of the 2019/20 season and forecast for the second half of the season. Osnovnye tendencii v eksportnyh perevozkah v pervoj polovine sezona 2019/20 i prognoz na vtoruyu polovinu sezona. URL https://www.rusagrotrans.ru/upload/% 20202.pd.

[11] Ushachev IG, Papcov AG, Serkov AF. Ushachev I.G. Development of the export potential of the agro-industrial complex of Russia: price aspect. Razvitie eksportnogo potenciala APK Rossii: cenovoj aspekt: nauch. izd./ i dr. M.: FGBNU «Rosinformagrotekh». 2019: - 312 p.

[12] Zhidkov SA. Priority directions for the development of the grain market in Russia. Prioritetnye napravleniya razvitiya rynka zerna v Rossii– Michurinsk .: OOO BIS. 2018:–313 p.

[13] Федеральная служба государственной статистики РФ// [Электронный ресурс]. – URL:http://www.gks.ru/.

Alina R. Battalova

In 2013 she graduated from Institute of Management, Economics and Finance, Kazan Federal University. In 2017, she received a Ph.D. in Economics. Today works in Department of Economic Theory and Econometrics, Institute of Management, Economics and Finance, Kazan Federal University. Scientific interests are in the field of economics, innovative entrepreneurship, trade policy/

Ruslan Sh. Tukhvatullin

In 2006 he graduated from Institute of Management, Economics and Finance, Kazan Federal University. In 2009, he received a Ph.D. in Economics. Today works in Department of Accounting, audit and analysis , Institute of Management, Economics and Finance, Kazan Federal University. Scientific interests are in the field of accounting, taxation , audit and etc.

Farit N. Mukhametgaliev

Works for the past 20 years in Kazan State Agrarian University. Today holds the position of professor at Department of Organization of Agricultural Production, Institute of Economics, Kazan State Agrarian University. He has scientific papers on agricultural development in Russia. Periodically published in domestic and foreign journals on economic issues.

Landysh F. Sitdikova

In 2011 she graduated from Kazan State Agrarian University. In 2013, she received a Ph.D. in Economics. Today works in the Department of Organization of Agricultural Production, Institute of Economics, Kazan State Agrarian University. Scientific interests are in the field of economics, entrepreneurship, labor organization in the agricultural sector

Farida F. Mukhametgalieva

In 2018 she graduated from Institute of Management, Economics and Finance, Kazan Federal University. Now she is studying at magistracy in Institute of Economics, Kazan State Agrarian University. Scientific interests comprise the development of the agro-industrial complex. She has an internship in an audit company.