ISSN 2228-9860 eISSN 1906-9642 CODEN: ITJEA8

International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies

http://TuEngr.com

Domestic Market Stability through Concentration Assessment: The Case of Russian Grain Exports

Inna V. Andronova[1], Veronika Yu. Chernova[1*], Nataliya V. Dyuzheva[1], Andrei A. Karavdin[1]

[1] Department of International Economic Relations, People's Friendships University of Russia, Moscow, RUSSIA.
**Corresponding Author (Tel: +7-4954335029, Email: veronica.urievna@mail.ru)*

Paper ID: 12A10T

Volume 12 Issue 10

Received 14 April 2021
Received in revised form 26 July 2021
Accepted 04 August 2021
Available online 10 August 2021

Keywords:
Grain market; Trade concentration; Herfindahl-Hirschman index; Concentration index; Linda indices; Agro exports; Government regulation; Russian wheat export.

Abstract

The article is devoted to the assessment of concentration and analysis of the competitive environment in the grain export market in the context of strengthening regulatory measures and an increase in the share of the public sector. The authors consider the case of Russia as one of the leaders in food exports in the global market. To assess the concentration, a stage-by-stage approach was adopted with the calculation of the Herfindahl-Hirschman indices, concentration coefficient, and Linda index. The consistency of the obtained data on various parameters makes it reasonable to use the selected indices in the analysis of concentration in the agro-industrial complex. The results show that the concentration of sellers in the grain export market is low. It was confirmed that the introduction of a grain export quota and the distribution of its volume among market members against the background of an increase in the share of the public sector in the industry did not cause an increase in concentration and strengthening of the competitive positions of leading firms. Three groups of exporting companies were identified and an increase in the share of exporting companies partially owned by the state was recorded, which led to an aggravation of the competition. The growth of the public sector in the grain export market can be considered a manifestation of a purposeful policy to squeeze foreign traders out of the Russian market. Trends also indicate that the competitive position of individual exporters may strengthen in the near future.

Disciplinary: Agricultural Economic, Marketing (Market behavior), International Agricultural Trade & Policy.

Cite This Article:

Andronova, I. V., Chernova, V. Yu., Dyuzheva, N. V., and Karavdin, A. A. (2021). Domestic Market Stability through Concentration Assessment: The Case of Russian Grain Exports. *International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies, 12*(10), 12A10T, 1-10. http://TUENGR.COM/V12/12A10T.pdf DOI: 10.14456/ITJEMAST.2021.209

1 Introduction

The food industry and agriculture can be characterised by a high market concentration around the world (HLPE, 2017). Only a few companies dominate each link in the food chain. For example, in most sectors of the US agricultural and food industry, the four largest firms control 40–45% of the market, and in more specialised segments up to 85%, which is considered by many experts as a threat to the competitiveness of the industry (Murphy *et al*., 2012; Uzun and Shagaida, 2019). However, a high degree of concentration and market power saturation in the hands of a small number of players is not a new phenomenon for the economy.

In the grain trades, several large companies have dominated the global market for over a century (Murphy *et al*., 2012). Currently, the increased concentration and enhanced market power from the largest agricultural product sellers have become a global topic (Sexton and Xia, 2018; Laurent, 2017). The market power of big businesses began to go far beyond economic relations. Many foods and agribusiness corporations have a strong presence in government institutions where they can influence policy for their own benefit (Murphy, 2006; Murphy *et al*., 2012; Moon, 2019).

The restoration by Russia of the status of a world agrarian power and the growth of Russian agricultural exports have led to an aggravation of the competition between global exporters and Russian grain traders. Obviously, owning by global traders (Murphy *et al*., 2012) of the export infrastructure in Russia allows these companies to export any amount of food, which can lead to higher prices in the domestic market and pose a threat to food security (Dvinsky, 2021). At the same time, domestic food inflation forced the Russian government in 2020 to apply tough measures to regulate grain exports. Those measures, against the backdrop of an increase in the state's share in the export market, sparked a heated debate about their impact on competition and the position of other market members. Therefore, the focus of the research was on assessing the level of concentration in the grain export market in Russia, as well as determining the nature of the influence of the growth in the share of the public sector and the tightening of state regulation of exports on the competitive situation in the industry.

2 Literature Review

A firm with market power can influence not only the price but also the rules governing the market in which it operates. The growing concentration of leading grain export companies in the World Bank's vision may have negative consequences for at least three groups of other stakeholders in the chain, including farmers, consumers, and the world community as a whole (World Bank, 2009). Rigid export regulation measures complicate the activities of grain traders and force companies to leave the market or reduce their presence in it, which leads to a cyclical increase in concentration and a decrease in competition among exporters (Sinitsyna, 2021).

One of the main criteria for increasing or decreasing competition in the market is the degree of concentration of the industry market. A wide range of instruments is used in the research literature to assess concentration levels. With all the variety of concentration measurement indices, in practice, the Herfindahl-Hirschman index and the concentration index are most often

used (Bukvic and Zakharov, 2013). A disadvantage of the concentration index is its insensitivity to the presence of a gap between the shares of the largest firms and changes in market power among the leading firms while maintaining their total share at the same level; it does not reflect the competitive situation outside the group of largest firms. Nevertheless, in a situation of limited information, the concentration ratio (CR) index turns out to be indispensable. However, unlike the concentration index, the Linda index (Linda, 1976) discovers differences at the very core of the market (Bukvić, 2020). By using the Linda Index, one can determine how many firms (and which ones) occupy a dominant position in the market. It is possible to measure the level of concentration with other indices, in particular, the entropy index, only if there is reliable data on each firm in the industry, which is an impossible condition for most real markets. (Sunde and Charumbira, 2010).

3 Method

During the research, the authors used a series of indices, such as concentration, Herfindahl-Hirschman, and Linda, as the most representative for assessing market concentration. The competition in the grain export market was assessed in two stages. At the first stage, the concentration level of the entire industry was measured with the Herfindahl-Hirschman index. At the second stage, the concentration of only the largest firms in the industry was examined.

The Herfindahl-Hirschman index is calculated with the firm size relative to market size. For agricultural entities, such indicators can be the volume of gross and marketable products, the area of the land bank and the area of crops, the number of machinery units, the number of livestock and poultry, and the number of employees (Zubareva and Oznobikhina, 2019). For export operators, the volume of product exports can be this indicator. It is assumed that the greater the share of a firm in the industry, the more potential it has for demonstrating market power. The Herfindahl-Hirschman index is calculated as the sum of the squares of the shares of all firms operating in the market (Herfindahl, 1959; Hirschman, 1964)

$$HHI = \sum_{i=1}^{n} S_i^2, \quad (1),$$

where S_i – the share of output by the i-th firm of agricultural products in the total output of this type of agricultural products by all firms in the market; n – the number of firms producing this kind of agricultural product.

As the input data for calculating the Herfindahl-Hirschman index, due to the lack of publicly available data on grain exports by individual small exporters, the data of the Ministry of Agriculture of Russia regarding the volume of the tariff quota, the distribution of which among the foreign economic activity members was made according to the export volumes of each member in 2020, were used (RMA, 2021a).

CR shows the market share controlled by the largest firms (usually 4, 5, 8, 10 top firms):

$$\mathrm{CR}_k = \sum_{i=1}^{k} S_i, \quad (2),$$

where S_i – the share of the *i*-th largest firm in the industry in %; *k* – the number of firms producing this type of agricultural products.

The CR Index is measured in relative proportions or percentages. The higher its value, the stronger the market power of the largest firms, the degree of market concentration, and the weaker competition. A market can be considered competitive if the share of the top four firms in the industry does not exceed 40% (Murphy, 2006), and that of three firms in the industry is less than 45%. With a concentration index in the range of 45–70%, the market is considered moderately concentrated, with concentration index values over 70%, it is highly concentrated (Kotsofana, & Stazhkova, 2011).

The Linda index is calculated in stages. In general terms, the formula for calculating the Linda index is as follows:

$$IL_m = \frac{1}{m(m-1)} \sum_{i=1}^{m-1} \left(\frac{m-i}{i} \right) \times \left(\frac{S_i}{S_m - S_i} \right), \quad (3),$$

where IL_m – the Linda index for a sample of *m* largest firms, *m* – the number of firms in the sample, *i* – the serial number of the company in the sample, CR_i – the market share of the *i*-th firm, CR_m – the sum of the market shares of firms in the sample.

The minimum point on the Linda curve shows the border of the oligopolistic core. If one of the firms dominates the market, the index will first rise, since the oligopolistic core consists of one largest firm. If the index decreases for the entire population of large firms, this means that there are no dominant firms in the market (Linda, 1976).

To calculate the concentration indices and Linda indices, some data from the files of the Ministry of Agriculture of Russia were used with empirical additions from the files of the AGI (2021) for 2018–2020.

4 Result and Discussion

Russia is one of the world's leading food exporters. Since 2018, cereals have been ranked second in Russian exports after fuel and energy resources and metallurgical products (Ministry of Economic Development of the Russian Federation, 2020). Although food exports cannot fully compensate for the losses of the Russian economy from the collapse in oil prices, food exports are now a key driver of Russia's foreign trade growth (DAR, 2020). The key exporters of Russian agricultural products in 2020 were China ($352 million), Turkey ($280 million), the EU ($252 million), Egypt ($164 million), South Korea ($91 million), and Ukraine ($67 million). Grain is exported to 132 countries of the world, the main buyers (by a significant margin) being Egypt, Turkey, Iran, as well as Saudi Arabia, Bangladesh, Vietnam, Indonesia, Nigeria, Sudan, and others. At the end of 2020, the agricultural product exports amounted to $1.836 billion, of which grain was exported of $559 million, where 89% was wheat (RMA, 2021b) (Figure 1).

In Russia, 562 companies are engaged in the export of grain crops. The composition of the leaders by the grain exporter changes annually (RMA, 2021a; Pavensky, 2018, 2019, 2020).

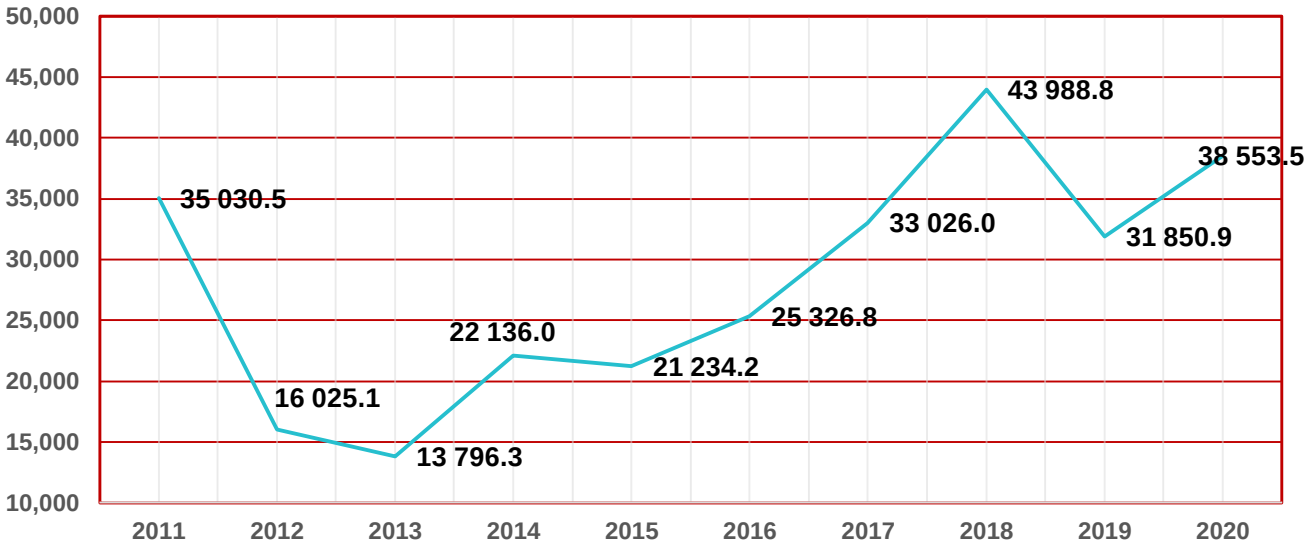

Figure 1: Dynamics of Russian wheat exports in 2011–2020, thousand tons
Source: (FCS, 2021).

At the first stage of the research, the concentration level of the entire industry with the Herfindahl-Hirschman index was measured. The results show that the concentration of sellers in the grain export market is low (U.S. Department of Justice and the Federal Trade Commission, 2010), the index value as of 2020 was 662.86 p.

At the second stage, the concentration of only the largest firms in the industry was determined, whose shares in the total volume of exports are presented in Table 1.

Table 1: Shares of the ten largest exporters in the volume of grain exports in 2018–2021, %

Market member	Year			
	2018	2019	2020	2021
1	12.57	16.07	12.05	15.38
2	9.46	8.51	8.33	12.14
3	6.00	8.03	6.64	10.05
4	4.82	4.96	6.55	7.05
5	4.32	3.78	5.86	5.10
6	4.32	3.07	4.73	4.73
7	3.66	2.72	3.29	4.40
8	3.38	2.60	3.06	4.07
9	3.19	2.55	2.48	3.66
10	2.72	2.50	2.36	3.11
Total	54.43	54.80	55.36	69.70

Source: (RMA, 2021a; Pavensky, 2018, 2019, 2020)

The values of the calculated concentration indices for the grain market show that the grain traders' market is low-concentrated, the value of the index for the three largest players did not exceed 45% (Bukvic & Zakharov, 2013).

Linda indices are designed to discover an oligopolistic structure in the market. In the case of a competitive market, the values of the index are constantly decreasing, and for all m the condition $IL_m+1 < IL_m$ is satisfied. Violation of this pattern indicates that there is an oligopoly in this market. In this case, none of the options obviously indicates the existence of an oligopoly (Table 2).

Table 2: Concentration indices (CR) and Linda index (IL) for the grain export market in Russia for 2018-2021.

Market member	2018		2019		2020		2021 (within the quota)	
	CR_{2018}	IL_{2018}	CR_{2019}	IL_{2019}	CR_{2020}	IL_{2020}	CR_{2021}	IL_{2021}
1	-	-	-	-	-	-	-	-
2	22.03	0.66	24.58	0.94	20.38	0.72	27.51	0.63
3	28.03	0.34	32.61	0.28	27.03	0.31	37.57	0.32
4	32.85	0.19	37.57	0.20	33.58	0.18	44.62	0.18
5	37.17	0.14	41.35	0.16	39.44	0.12	49.72	0.12
6	41.48	0.10	44.43	0.12	44.17	0.08	54.45	0.09
7	45.14	0.08	47.14	0.10	47.45	0.07	58.85	0.08
8	48.52	0.06	49.74	0.08	50.52	0.06	62.93	0.06
9	51.71	0.05	52.30	0.07	53.00	0.05	66.59	0.05
10	54.43	0.04	54.80	0.05	55.36	0.04	69.70	0.04

A graphical representation of the Linda indices and concentration indices is presented in Fig. 2. In contrast to the concentration index CR, which is a monotonically increasing value with the inclusion of each following company ($CR_1 < CR_2 < \ldots < CR_n$) and thus shapes a convex curve, the Linda indices graphically represent a broken curve that can increase, have a horizontal appearance or decrease. The decreasing view of the Linda curves clearly demonstrates the absence of an oligopolistic core in the grain export market.

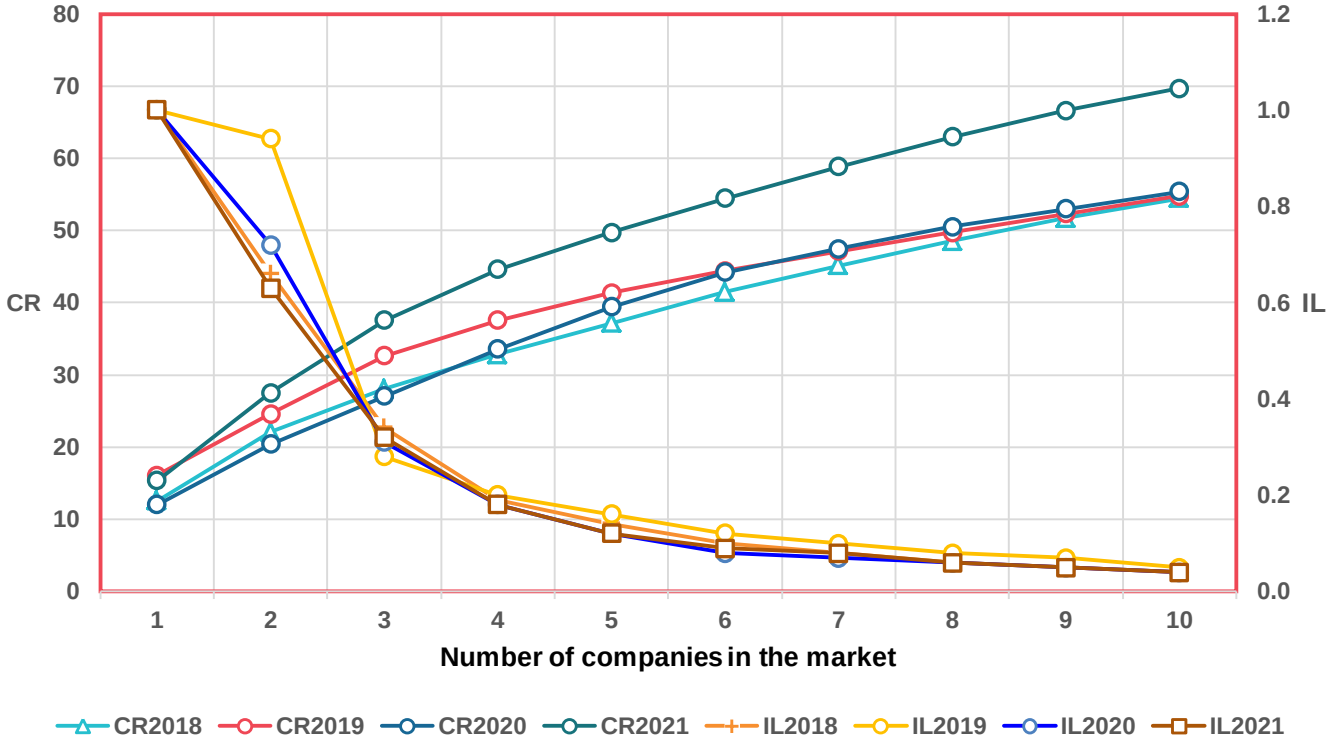

Figure 2: The concentration coefficient and the Linda index for the grain export market in 2018–2021.

However, the results obtained cannot indicate the absence of an oligopolistic nature of competition. The index value $IL = 0.2$ indicates the presence of an oligopolistic region with satisfactory competition conditions, and an excess of the index $IL \geq 0.5$ indicates the existence of excessive "oligopolistic density" but without a high degree of dominance by any firm. However, this situation can be an obstacle to competition.

In the considered case, excessive oligopolistic density can be observed when two exporting firms are included in the sample, with the Linda index reaching its maximum value *IL* = 0.94 in 2019 when the export volume of the leading company (16.07%) almost doubled the export volume of the second member in export activities (8.51%). An oligopolistic region with satisfactory competition conditions can be recorded when the fourth firm is included in the sample in 2018, 2020, and 2021, and only the fifth firm in 2019.

Thus, although the distribution of the export quota, when the ten largest exporters accounted for about 70% of the quota volume, did not cause a significant increase in the concentration of the industry, nor it led to an increase in the competitive positions of individual leading firms. Moreover, an increase in market concentration and competition within the oligopolistic region could be recorded in 2019 and decreased by 2021.

According to the World Bank, the level of concentration on the Russian grain trade market is comparable to the level of concentration on the EU grain market. At the same time, almost one-third of the total volume of exports from Russia currently accounting for by foreign companies, which increased their share from 6% in the mid-2000s up to 60% in the 2010s. The increased presence of overseas companies in the Russian grain market has raised concerns about the risk of outstripping supply in domestic markets and higher prices, as well as the fact that foreign companies may use their market power and drive down the prices of agricultural producers. The widespread opinion that foreign companies put their commercial interests above the interests of Russia's food security, according to the World Bank experts (World Bank, 2009), cannot be refuted, although it has not been convincingly confirmed.

There are currently three groups of the largest companies in the grain market:

- international grain traders, whose total market share is gradually decreasing (from 22.6% in 2016/2017 to 16.5% in 2019/2020);
- Russian diversified agricultural holding companies, whose share is also decreasing (from 35% in 2016/2017 to 25.7% in 2019/2020);
- Russian grain traders are partially owned by the state, the share of which is rapidly increasing (from 5.18% in 2016/2017 to 15.1% in 2019/2020).

At the end of 2020, in the top ten grain exporters, the shares of overseas grain traders and grain traders partially government-owned were almost equal (RMA, 2021a). The growth of the public sector in the grain export market is regarded by some researchers as squeezing foreign traders out of the Russian market. According to the grain trading market members and experts, the appearance on the market of a partially government-owned bank (VTB Bank) had a significant impact on the grain market. In 2019, VTB Bank consolidated the largest grain transhipment capacities in deep-water ports. The acquisition by the bank of the largest grain transhipment capacities in deep-water ports allows, due to significant volumes, to transport cargo to far abroad countries at lower costs, which gives a significant competitive advantage in the market.

5 Conclusion

The results show that the concentration of sellers in the grain export market is low. The decreasing shape of the Linda curves for the considered period of assessment clearly demonstrates the absence of an oligopolistic core in the grain export market. The study confirmed that the introduction of a grain export quota and the distribution of its volume among market members against the background of an increase in the share of the public sector in the industry did not cause an increase in the concentration of the industry, nor an increase in the competitive position of leading firms. With a structural analysis of the market, it can be stated that currently there are three groups of the largest members, such as international grain traders, Russian diversified agricultural holding companies, and Russian grain traders publicly owned, the share of which is rapidly increasing. The growth of the public sector in the grain export market can be considered a manifestation of a purposeful policy to squeeze overseas traders out of the Russian market. Trends also indicate that the competitive position of individual exporters may strengthen in the near future.

6 Availability of Data And Material

Data can be made available by contacting the corresponding author.

7 Acknowledgement

This study has been supported by the RUDN University Strategic Academic Leadership Program.

8 References

AGI. (2021). Agro Data. *Agroinvestor Magazine*. Retrieved Jan 2021, https://www.agroinvestor.ru

Bukvić, R. (2020). Concentration and competition in Serbian banking sector in the period 2016-2018. *Ekonomika, 66*, 17-35. DOI: 10.5937/ekonomika2002017B

Bukvic, R., & Zakharov, V. (2013). The use of index concentration Linda and discriminant analysis in research of market structures. In *7th International Multidisciplinary Scientific Conference Eurobrand, TQM centar, Zrenjanin,* 194-213. Retrieved Jan 2021, from https://ssrn.com/abstract=2735564

DAR. (2020). *Don't Feed with Bread: Russian Wheat Has Become More Expensive than Oil*. Daily Agricultural Review. Retrieved Jan 2021, http://agroobzor.ru/article/a-1176.html

Dvinsky, K. (2021). *Safety Comes First: There is no Room for Foreigners in our Grain Market*. Retrieved Jan 2021, https://tsargrad.tv/articles/bezopasnost-prevyshe-vsego-inostrancam-net-mesta-na-nashem-zernovom-rynke_320343

FCS. (2021). Russian wheat exports in 2011-2020. *Federal Customs Service of the Russian Federation* Retrieved Jan 2021, https://customs.gov.ru/statistic/

Herfindahl, O. (1959). *Copper Costs and Prices: 1870-1957*. Baltimore: The John Hopkins Press.

Hirschman, A.O. (1964). The paternity of an index. *The American Economic Review, 54*(5), 761-762.

HLPE. (2017). *Nutrition and Food Systems. Report of the High-Level Panel of Experts on Food Security and Nutrition of the Committee for World Food Security*. Rome.

Kotsofana, T.V., & Stazhkova, P.S. (2011). Comparative analysis of the application of concentration indicators by the example of the banking sector of the Russian Federation. *St Petersburg University Journal of Economic Studies, 4*, 30-40.

Laurent, P. (2017). Concentration of the agricultural production in the EU: the two sides of a coin. In *2017 International Congress, August 28-September 1, 2017, Parma, Italy 261439*. European Association of Agricultural Economists.

Linda, R. (1976). *Methodology of Concentration Analysis Applied to the Study of Industries and Markets. Studies. EU Commission - Working Document*. Retrieved Jan 2021, https://core.ac.uk/download/pdf/5091475.pdf

MEDRF. (2020). *Results of Foreign Economic Activity of the Russian Federation in 2019*. Ministry of Economic Development of the Russian Federation. Retrieved Jan 2021, from https://economy.gov.ru/material/dokumenty/itogi_vneshneekonomicheskoy_deyatelnosti_rossiyskoy_federacii_v_2019_godu.html

Moon, E. (2019). *Big Ag Monopolies Have Stifled Small Farmers. 2020 Democrats Want to Break Them Up*. Retrieved Jan 2021, https://psmag.com/social-justice/big-ag-monopolies-have-stifled-small-farmers-2020-democrats-want-to-break-them-up

Murphy, S. (2006). *Concentrated Market Power and Agricultural Trade*. EcoFair Trade Dialogue Discussion Paper No. 13.

Murphy, S., Burch, D., & Clapp, J. (2012). *Cereal Secrets: The World's Largest Commodity Traders and Global Trends in Agriculture*. Oxfam Research Reports. Retrieved Jan 2021, https://www-cdn.oxfam.org/s3fs-public/file_attachments/rr-cereal-secrets-grain-traders-agriculture-30082012-en_4.pdf

Pavensky, I. (2018). *Top-30 Grain Exporters*. Agroinvestor. Retrieved Jan 2021, https://www.agroinvestor.ru/rating/article/30049-top-30-eksporterov-zerna/

Pavensky, I. (2019). *Potential Fell - Records Remained*. Agroinvestor. Retrieved Jan 2021, https://www.agroinvestor.ru/rating/article/32008-potentsial-upal-rekordy-ostalis/

Pavensky, I. (2020). *Staying in the Leaders*. Agroinvestor. Retrieved Jan 2021, https://www.agroinvestor.ru/analytics/article/33967-ostatsya-v-liderakh-nesmotrya-na-slozhnyy-sezon-rossiya-sokhranila-pervoe-mesto-v-mirovom-eksporte-p/

RMA. (2021a). *Grain Exports Tariff Quota*. Ministry of Agriculture of the Russian Federation. Retrieved Jan 2021, https://mcx.gov.ru/ministry/departments/departament-ekonomiki-investitsiy-i-regulirovaniya-rynkov/industry-information/info-tarifnaya-kvota-na-eksport-zernovyh/

RMA. (2021b). *Operational Review of the Agricultural Product Exports (as of February 7, 2021)*. Ministry of Agriculture of the Russian Federation. Retrieved Feb 2021, from https://mcx.gov.ru/upload/iblock/43e/43ebeccde18f0c579da0faed3306e062.pdf

Sexton, R.J., & Xia, T. (2018). Increasing concentration in the agricultural supply chain: Implications for market power and sector performance. *Annual Review of Resource Economics, 10*, 229-251. https://doi.org/10.1146/annurev-resource-100517-023312

Sinitsyna, I. (2021). *Foods Continue to Rise in Price Despite the Bans of Officials*. Retrieved Jan 2021, https://www.vtimes.io/2021/02/04/produkti-prodolzhayut-dorozhat-vopreki-zapretam-chinovnikov-a2967

Sunde, T., & Charumbira, M. (2010). Seller concentration in the grain milling industry. *American Journal of Economics and Business Administration, 2*. DOI: 10.3844/ajebasp.2010.247.252

USDoJ. (2010). *Horizontal Merger Guidelines*. U.S. Department of Justice and the Federal Trade Commission. Retrieved Jan 2021, https://www.justice.gov/atr/horizontal-merger-guidelines-08192010#5c

Uzun, V.Ya., & Shagaida, N.I. (2019). Assessment of the impact of institutional and structural changes on the development of the agricultural sector in Russia. *Economic Issues, 4*, 39-58. DOI: 10.32609/0042-8736-2019-4-39-58

World Bank. (2009). *A State Trading Enterprise for Grains in Russia? Issues and Options*. Washington, DC: World Bank. Retrieved Jan 2021, https://openknowledge.worldbank.org/handle/10986/18899

Zubareva, Yu.V., & Oznobikhina, A.O. (2019). The indicators of the size of agricultural enterprises and the method of their determination. *Moscow Economic Journal, 11*, 470-477. DOI: 10.24411/2413-046X-2019-10179

Dr. Inna V. ANDRONOVA is Professor and Head of the Department of International Economic Relations, Head of the International Economic Relations program. She is a member of the Expert Council for Economic Sciences of the Higher Attestation Commission under the Ministry of Science and Higher Education of the Russian Federation. She worked as CFO of the MMG Group of Companies. Her research interests are Economic and Foreign Economic Security, Economic Interests of Russia in the Regions of the World.
ORCID ID: orcid.org/0000-0002-7861-5414

Dr. Veronika Yu. CHERNOVA is an Associate Professor at the People's Friendships University of Russia, Department of International Economic Relations, Institute of Marketing, State University of Management. Her interests are World Economy, Marketing of Transnational Companies, Import Substitution, Product Personalization, One-to-one Marketing, Interactive Marketing Communications, Retailer's Communication Strategies; Product Personalization, Managing Data-driven Advertising Campaigns.
ORCID ID: orcid.org/0000-0001-5951-909

Nataliya V. DYUZHEVA is an Associate Professor, Graduate of the Department of International Economic Relations, Head of the Postgraduate Training Program. She is a Cand. Sci. (Economics). Her research and projects are commissioned by such structures as the Eurasian Economic Commission, Russian Conversion Fund, Russian Industrial Collegium, Almaz-Antey Air Defense Concern, Vega Radio Engineering Concern, Russian Space Agency, RSC Energia, S. Khrunichev and others, as well as consulting on foreign economic activity. Her research interests are International Trade, Regulation of International Trade (TTR, NTR), International Economic Integration.
ORCID ID: orcid.org/0000-0001-7976-4297

Andrei A. KARAVDIN is a Postgraduate student of the Department of International Economic Relations of RUDN University. His research interests are International Trade, Agricultural Economics, International Economic Integration, Import Substitution, Eurasian Economic Union, Common Agricultural Policy.
ORCID ID: orcid.org/0000-0002-0501-7050