



Problems of the Russian Federation Food Security Ensuring in the Context of the Crisis, the COVID-19 Pandemic and the Instability of World Markets

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Abstract: The article outlines the problems of Russian Federation food security ensuring in the context of the crisis caused by COVID-19 pandemic and world markets instability. The key challenges of our time in the field of food security ensuring at the national and global levels are identified. The dynamics of international food markets' main indicators is analyzed. The possibilities of expanding the acreage in Russia are determined. The ways of balancing export supplies and the needs of the Russian food market are justified. The features of state price regulation as a factor of production volumes reducing are revealed. Promising directions for improving the level of food security are presented. The information base of the study is presented by data of Food and Agriculture Organization of the United Nations, the Ministry of Agriculture and the Federal State Statistics Service of the Russian Federation.


1 INTRODUCTION


A significant increase in food prices in the Russian Federation in late 2020 – early 2021 had a serious impact on the processes of social stability ensuring and required the adoption of appropriate measures by the national political leadership. Elements of state price regulation were introduced, as well as restrictions on the export of certain food products. Despite significant progress in the development of Russian agriculture and the results achieved in food import substitution, the high level of risks of threats' materialization in the field of national food security remains obvious.

The openness of the Russian economy and the high degree of its integration into the global division of labor objectively increases the dependence of the domestic market on the dynamics of the main indicators of foreign trading platforms. It should be noted that food supply planning parameters of the Russian Federation should be carried out taking into account the medium and long-term trends in the global production and distribution of food.

The authors of this paper turned their attention to the call of the President of the People's Republic of China Xi Jinping to start saving food, which he announced on 11.08.2020 during one of his public speeches. The Chinese leader urged his compatriots to refrain from wasteful eating and show restraint. At the same time, the population was advised not to take into account the success of Chinese farmers and the positive dynamics in agricultural production. Special attention should be paid to the fact that the head of the People's Republic of China has set the task to develop an appropriate legislative framework and supervisory mechanisms to ensure that food savings and the rejection of excesses are observed acquire a long-term character.

It is obvious that the long-term nature of this program is determined by the corresponding forecast horizon and the level of threats to China's food security. On 30.11.2021, the first law against food waste has already been passed in the People's Republic of China. This regulatory act provides for fines to visitors of public catering establishments if they leave a significant part of the purchased food

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products not fully consumed. In addition, the law provides for a number of non-fiscal measures to fight for the rational use of food, including propaganda, explanatory work, etc.

Starting from September 2020, almost immediately after the above-mentioned statement of Xi Jinping, world prices for a number of food products showed a significant increase. In our opinion, the Chinese analytical groups made the correct forecast about the upcoming food shortage, and the Chinese leadership voiced the call, taking into account the fact that food savings in the near future will become a long-term phenomenon.

In the context of global food shortages and rising prices on international markets, Russian producers have made an obvious choice in favor of export supplies, and traders have increased domestic prices in order to ensure the corresponding attractiveness of trade in the domestic market. Thus, the growth of domestic production and all the successes in the development of the Russian agricultural sector are significantly offset by the observed externalities in the world markets. It is obvious that state regulation of prices and export restrictions may have some positive impact on the dynamics of domestic prices, but this effect will be short-term. At the same time, in the future, the accumulated losses will be recouped by the market due to a longer, but progressive increase in prices, when the effect of deferred consumption will work.

In the context of the deepening economic crisis associated with the COVID-19 pandemic, the problem of food security ensuring is of particular

relevance. The decline in household incomes, the increase in the debt burden of households, corporations, regions and states multiply all the negative phenomena in the international food markets. The complex of issues related to the stable growth of the production of high-quality and affordable food products for the Russian population entire demand requires the development of appropriate mechanisms aimed at improving the level of national food security. The development of such mechanisms requires the identification of all significant trends that determine the content of the measures to be taken. The systematic implementation of these measures will increase the level of Russia's population food supply stability and protect the interests of domestic agricultural producers selling their products on world markets.

2 MATERIALS AND METHODS

The information base of the study is presented by the data of the Food and Agriculture Organization of the United Nations (FAO), the Ministry of Agriculture and the Federal State Statistics Service of the Russian Federation. The methodological basis of this study is formed by the works of specialists in the field of food security and the development of agro-industrial production. The research material is based on the ideas about the significant impact of climate change on the processes of food security ensuring (Michalk et al., 2019), as well as the importance of the

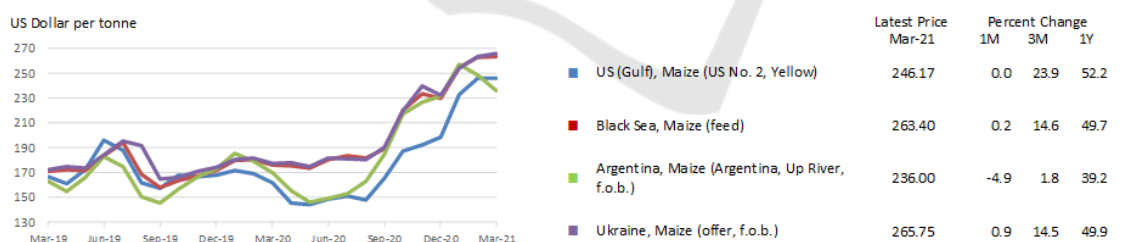


Figure 1: Dynamics of corn prices in the world's main producing regions (March 2019 – March 2021).

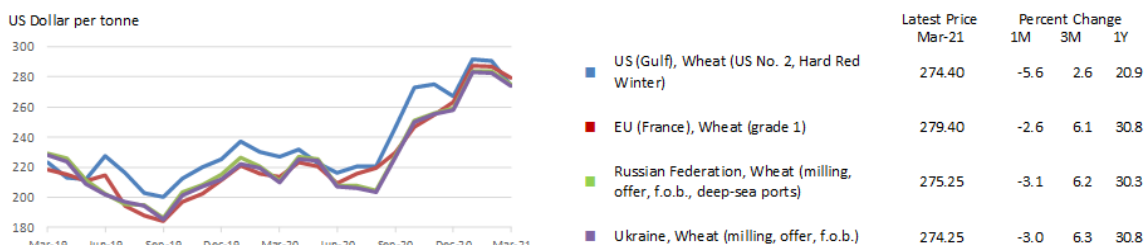


Figure 2: Dynamics of wheat prices in the world's main producing regions (March 2019 – March 2021)

transition to sustainable development of the world economy (Bindi et al., 2015). The paper also uses an approach to the analysis of the mutual influence of the world food market and the markets of individual large food producing countries (Vasylieva, 2020), as well as ideas about the global distribution of food (Kick et al., 2017) and the specialization of individual producing countries (Campi et al, 2021), as methods of food security ensuring. The study also examined and systematized the experience of food security ensuring in Argentina (Feeney & MacClay, 2016) and Egypt (Abdelaal & Thilmany, 2019), as well as analyzed foreign views on the import substitution policy of the Russian Federation (Wegren, 2014). Special attention was paid to current research on the impact of the COVID-19 pandemic on food security processes (Eileen & Cosmas, 2021).

3 RESULTS AND DISCUSSION

3.1 International Food Markets

According to the FAO, starting from September 2020 to February 2021, corn prices increased by 40-55 % (fig. 1) in various producing regions (USA, Argentina, Black Sea region, Ukraine).

A similar situation was observed in the grain market. The price of wheat produced in the United States, the European Union, the Russian Federation and Ukraine over the same period increased by 45-50% (fig. 2). Despite a slight decline in prices in March 2021, futures quotations on major commodity exchanges indicate a high potential for further growth in prices for basic agricultural commodities, which, accordingly, will affect the growth of livestock products prices worldwide.

Worth to be noted that a similar situation is observed in the market of sugar, oilseeds and other basic food products. It is noteworthy that the majority of experts in their forecasts published in mid-2020 assumed that the level of prices for agricultural products would remain stable and even slightly lower in the context of a deepening crisis, a decline in the global economy and other disincentive factors.

3.2 International Food Markets

It is obvious that in the context of the formation of long-term trends for the growth of food prices, as well as the increase in food shortages in the world's largest markets (primarily in South-East Asia), the urgent task is to increase the volume of agricultural production. The Russian Federation is one of the few

countries with significant reserves for the growth of used acreage. In most grain-producing countries, the ploughing of agricultural land has reached peak values or is limited by objective anthropogenic and natural-climatic factors (fig. 3). The Russian Federation has significant reserves of agricultural land that can be further involved in agricultural turnover to increase the production of cereals, oilseeds and industrial crops, as well as vegetables. It should also be noted that in most Russian agricultural regions there is no shortage of water resources typical for most countries of the world, which creates additional conditions for increasing the growth of agricultural production.

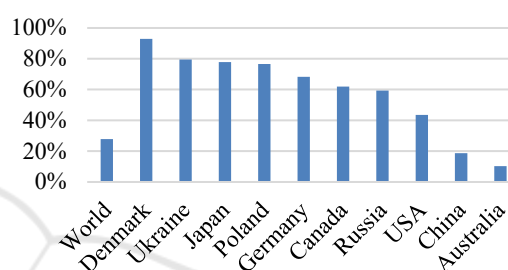


Figure 3: Ploughing of agricultural land in the countries of the world in 2014.

Data on the area of the main agricultural crops in the Russian Federation in 2020 (fig. 4-5) show that cereals, in particular wheat, occupy the largest part of the land bank used. In the conditions of further growth of prices for cereals and oilseeds, it is almost impossible to increase the area of land used for their cultivation by reducing the area under other crops. Thus, the introduction of new lands into circulation (in reality, the return to agricultural circulation of previously withdrawn ones) remains the most promising direction for ensuring the rapid growth of agricultural production.

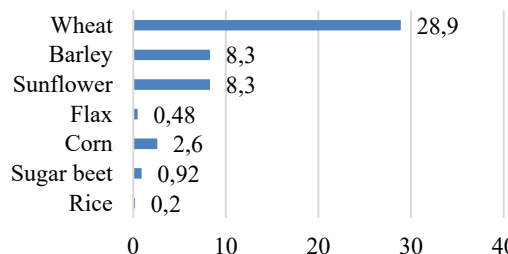


Figure 4: Acreage of major agricultural crops in the Russian Federation in 2020.

The scarcity of agricultural land in Europe is confirmed by the fact that the Republic of Belarus plans to start measures to return to agricultural circulation arable land that suffered from radioactive contamination after the tragedy at the Chernobyl nuclear power plant in 1986. It is planned to start work on the restoration and processing of 265 thousand hectares of fertile agricultural land.

3.3 Export vs Import: Ways to Balance the Russian Food Market

In 2020, Russian food exports exceeded the volume of agricultural imports for the first time. Domestic producers sold products worth 30.7 US dollars billion on the world markets. Special attention should be paid to the results in the export of meat products, as commodities with a high degree of added value.

Meat exports increased by 53%, reaching 887 million US dollars. Pork producers doubled their supplies to foreign partners (200 thousand tons worth 336 million US dollars).

The increase in domestic prices for cereals and industrial crops, respectively, will lead to an increase in the cost of feed, which will accordingly affect the competitiveness of Russian meat products. Restrictions on the export of grain and additional duties will have a disincentive effect on business activity in the grain market. In this case, we should look for ways to balance the interests of grain exporters and meat producers.

The relevance of this task is determined by the fact that grain exports in the amount of 49 million tons generated foreign exchange earnings of more than 10 billion US dollars, which had a positive impact on macroeconomic stability in the face of falling prices for the main export products of the Russian Federation – hydrocarbons.

A similar situation is observed in the market of fat and oil products. Revenue from the export of these products amounted to more than 5 billion US dollars, while the increase in prices on the domestic market significantly affected the prices of most finished food products. This situation had a negative impact on social stability and the actual decline in the our country citizens' standard of living.

3.4 Export vs Import: Ways to Balance the Russian Food Market

Government regulation of food prices and restrictions on the export of products in the context of a positive market situation on foreign trading platforms can have a short-term effect, allowing to restrain the

growth of retail prices. However, further use of these measures is futile and can only lead to the abandonment of the previous volumes of agricultural products production.

In this case, it is necessary to give as an example the volume of the gross harvest of sugar beet in the Russian Federation in 2014-2020 (fig. 6). In the context of a crop failure in 2020, as well as a decrease in interest in this crop due to state price regulation, the sugar market may show their unacceptably high growth with a parallel decrease in the volume of sugar beet production.

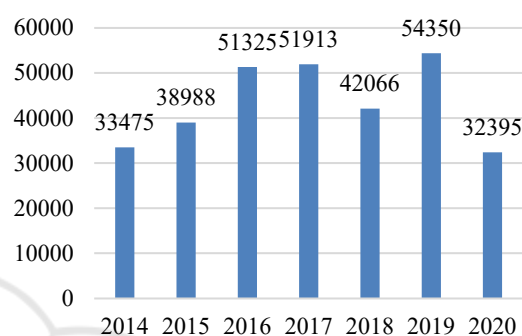


Figure 5: Gross sugar beet harvest in the Russian Federation in 2014-2020, thousand tons.

3.5 Promising Directions for Improving the Level of Food Security

In conditions of low efficiency of state price regulation, the most promising direction of development is a return to end-to-end planning of the agricultural sector with the involvement of large producers in the implementation of these plans. Small and medium-sized agribusinesses should be provided with information about the planned volumes of acreage under individual crops and the forecast values of the gross harvest of large producers.

An important task of the state is to ensure broad access to the infrastructure for the transportation and long-term storage of agricultural products. It should be noted that the role of the state in this case is to create conditions for ensuring transparency and stability of prices for these types of infrastructure and technical support.

Among the promising projects, it should be noted the further spread of agricultural machinery based on gas-engine fuel, which is a cheaper and more environmentally friendly analogue of diesel fuel, the prices of which are also under state regulation (in order to prevent price shocks in the markets)

Expanding access to grain storage infrastructure, as well as transportation and refueling with natural gas engines will significantly increase the competitiveness of producers, reduce their costs and risks.

Separately, it should also be noted the relevance of the interstate cooperation complex of issues. Combining the production capabilities of the Eurasian Economic Union countries with the prospective involvement of Ukraine (as one of the world's largest agricultural exporters) and Iran (as one of the largest importers and prospective transmitters of agricultural products) will in the future create the largest foreign trade association capable of regulating world prices for critical imports of most countries.

4 CONCLUSIONS

Thus, ensuring the food security of the Russian Federation in modern conditions requires the systematic implementation of a number of programs and projects aimed at increasing the volume of agricultural production in order to saturate the domestic market and simultaneously expand the presence and market share on foreign trading platforms. The return to state planning and the rejection of state price regulation, while developing programs to expand access to infrastructure and fuel resources, in our opinion, will help to stabilize the domestic market, increase the competitiveness of domestic producers and increase the export supply of Russian food products.

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