Development of export-oriented agriculture in Russia in the context of a pandemic

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Abstract. Given the turbulence of the external and internal environment caused by the coronavirus pandemic, the agro-industrial complex is one of the few sectors that continued to show growth during the crisis of the global and Russian economies. Factors of the stability of the agro-industrial complex development were not only active state support, introduction of innovations, use of import substitution programs, but the fact that the sector did not stop working during the Covid19 pandemic. This has had an impact on the change in the Russian foreign trade system in terms of the geography of supplies, their volumes, and the commodity structure. The agricultural sector has become export-oriented and, in the sales structure, the traditional group of leaders, which include various types of raw materials for energetics, has given way to the sale of agricultural products. The article analyzes statistical information on foreign trade in agricultural products, concludes about the impact on the agricultural trade balance of the coronavirus pandemic, the ruble devaluation, changes in consumer demand and gap in international supply logistics due to restrictions on movement between countries.

1 Introduction

The coronavirus pandemic has made its own adjustments to the stability of the sales process of energy resources. Russia's export system is becoming more diversified, new agricultural markets are being developed, and the volume of export of agricultural products is increasing. The development of the export of agricultural products has been brought to the rank of strategic state tasks. The state is called upon not only to improve the existing export support system, but also to form an organizational and economic mechanism for creating a model of a new, export-oriented agriculture in our country. All this predetermined the relevance of scientific research [1].

The purpose is to analyze statistical information on the dynamics of export and import of the Russian Federation during the period of restrictions and to identify factors hindering the formation of an export-oriented agriculture model.

In the course of the research, the following tasks were set:
• to analyze the dynamics of export and import in Russia, as well as its structure;
• to analyze the volume of export and import of individual food products;

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to study the system of foreign economic trade relations of the Russian Federation with the main foreign partners;
• to identify measures of additional state support for export in Russia.

2 Materials and methods

The object of the study is the processes of foreign trade goods movement of the Russian Federation. The research methodology was based on the use of monographic, abstract-logical, analytical, statistical methods of cognition. The information base was the materials of the Federal State Statistics Service of the Russian Federation, the Ministry of Agriculture of the Russian Federation.

3 Results and discussion

Agriculture is one of the most important branches of the national economy, which accounts for almost 4% of Russia's GDP. Despite the difficult epidemiological situation and a decrease in domestic demand for agri-food products, in 2020, the volume of agricultural production at comparable prices increased by 1.5% compared to the pre-pandemic period [2].

In the reporting period, agricultural products were produced in the amount of 6.11 trillion rubles, which is 5% higher than in 2019. The performance of the industry was significantly influenced by such factors as an increased harvest of grain crops, milk yield and an increase in cattle live weight. The government sets goals for the formation of export-oriented agriculture, but external threats, including the spread of the coronavirus pandemic, make their own adjustments to the possibility of achieving them.

The spread of coronavirus infection around the world and retaliatory restrictive measures have caused significant damage to Russian export of goods and services. In the reporting period, the country's foreign trade turnover decreased by 15.3 % compared to the level of 2019. The volume of export amounted to only 79.0% ($331 billion), and import - 94.2% ($239.7 billion) of the level of 2019. The trade balance has almost halved compared to 2019 ($92.0 billion) (Fig. 2). [3].
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![Fig. 1. Production of agricultural products.](image)

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![Fig. 2. Foreign trade balance of the Russian Federation, %](image)

In the second and third quarters of the pandemic year, the value of export of goods decreased by 32% and 26.4%, respectively, compared to the same period last year, which was mainly due to a decrease in energy export. The sharp decline in import of goods and services was affected by the weakening of the ruble, drop in domestic demand and additional costs for measures to combat Covid19.

Structure of export of goods is presented in Table 1.

| Indicator | 2020 | 2019 |
|-----------|------|------|
| million US dollars | in % to 2019 | in % to the total | in % to 2018 | in % to the total |
| Export - total | 336394 | 79.3 | 100 | 94.4 | 100 |
| including: fuel and energy products | 166955 | 63.4 | 49.6 | 91.6 | 62.1 |
| machinery, equipment and vehicles | 25053 | 89.9 | 7.4 | 95.4 | 6.6 |
| chemical industry products | 23915 | 88.1 | 7.1 | 98.8 | 6.4 |
| wood and pulp and paper products | 12383 | 96.7 | 3.7 | 92.0 | 3.0 |
| food products and agricultural raw materials | 29616 | 119.2 | 8.8 | 99.5 | 5.9 |
| of these: cereals | 10126 | 127.7 | 3.0 | 75.8 | 1.9 |

The sharp decline in exports of fuel and energy products was due to the price effect and the terms of the OPEC+ agreement. In the second quarter of 2020, oil prices fell by 54% compared to the same period of the last year, energy export in the study period amounted to 63.4% of the level of 2019. Non-energy export, especially agricultural export, proved to be quite resistant to the shocks caused by the pandemic. The volume of export of food products and agricultural raw materials increased by 19.2% compared to the level of 2019, including...
cereals by 23.7 %. Nevertheless, not all food products show export growth, there are leaders and outsiders in the sales structure (Table 2).

Table 2. Export and import of individual food products.

| Indicator                                      | 2020 in thousand tons | 2019 in % to 2019 | 2018 in % to 2019 |
|-----------------------------------------------|-----------------------|-------------------|-------------------|
| **Export**                                    |                       |                   |                   |
| Cereals                                       | 48739                 | 123.7             | 71.8              |
| of these: wheat                               | 37381                 | 117.5             | 72.3              |
| barley                                        | 4959                  | 136.8             | 66.5              |
| corn                                          | 2288                  | 85.2              | 56.0              |
| rice                                          | 145                   | 83.8              | 115.0             |
| Wheat flour or wheat-rye flour                | 248                   | 79.2              | 122.2             |
| Sunflower seeds                               | 1371                  | 192.1             | by 7.6 times      |
| **Import**                                    |                       |                   |                   |
| Fresh and frozen meat                         | 270                   | 70.2              | 93.3              |
| Milk and cream, not condensed                 | 264                   | 105.5             | 95.6              |
| Butter                                        | 111                   | 104.9             | 131.1             |
| Cheeses and cottage cheese                    | 311                   | 112.0             | 102.8             |
| Fresh and frozen fish                         | 394                   | 88.6              | 109.1             |
| Onion, garlic, fresh or chilled               | 289                   | 114.2             | 117.9             |
| Fresh apples                                  | 641                   | 92.1              | 82.3              |

The analysis of the presented data allows to conclude that during the pandemic, export of wheat (117.65%), barley (136.8 %) and especially sunflower seeds (192.1%) increased. But sales of corn, rice, flour abroad are below the level of the pre-crisis year. International agricultural markets are subject to the negative impact of the coronavirus pandemic, since most foreign countries have introduced restrictive quotas for the export of agricultural products, ensuring national food security.

The coronavirus pandemic and the weakening of the ruble exchange rate have become opportunities for the formation of advantages in certain areas of agriculture, a new round of import substitution is being formed. Imported products have become more expensive for the Russian consumer. In this regard, the demand for domestic products will grow, there is a new incentive for import substitution. Dairy cattle breeding can become one of the main beneficiaries. According to experts, to reduce the import of dairy cattle products, it is necessary to put into operation additional dairy farms with a total capacity of more than 3 million tons of milk per year.

A positive trend is a decrease in meat import. In 2020, 30% less was imported than in the pre-pandemic period. At the same time, the country has maintained a high level of consumption of meat products - 76 kg per year per person. Consequently, the country is limited to domestic production and self-sufficiency.

Analysts expect that the decline in household incomes during the pandemic will affect the change in the structure of consumption of meat products. Consumers are switching to more affordable poultry meat, which takes up almost 50 percent of purchases. Pig meat accounts for just over thirty percent of consumption, and the more expensive type of meat, beef, occupies only 18 percent of consumer preferences. There are opportunities for growth and import substitution among producers of the most affordable poultry meat, and beef cattle breeding will continue to experience the pressure of crisis factors [4].

The dependence of our country on fruit import is revealed, which decreased by eight percent in 2020 compared to the level of 2019. More than 1.2 million tons of apples are produced annually, but to saturate the domestic market with domestic fruits, it is necessary to involve more than sixty thousand hectares of intensive gardens in turnover.
The coronavirus pandemic and the devaluation of the ruble have a negative impact on the fishing industry. The ruble devaluation leads to an increase in the cost of ship fuel in foreign currency, there is an increase in the cost of investment projects, the cost of imported fish processing equipment increases, which has no analogues in Russia. The growth rates of the effective indicators of the fishing enterprises are decreasing. In addition, in 2020, the volume of import of fresh and frozen fish decreased by almost 12%, which will eventually negatively affect the consumption of fish products.

Russian export has undergone significant changes not only in terms of volumes and commodity structure, but also in the geography of supplies [5].

Russia's foreign trade turnover with its main trading partners decreased by $100,993 million during the pandemic, or 17.8%.

As a result of the sanctions imposed by the EU countries and the retaliatory measures of the Russian Federation, the trade system is changing with a focus on partners from the EAEU, APEC, and CIS member states.

Table 3. Foreign trade turnover of the Russian Federation with the main trading partners.

| Indicator                  | 2020          | 2019          |
|----------------------------|---------------|---------------|
|                            | million US dol-
|                            | 2019 in % to total | 2018 in % to total |
| Foreign trade turnover      | 567823        | 84.9 100      | 668816        | 97.2 100     |
| including: non-CIS coun-
| tries                     | 494411        | 84.2 87.1     | 587402        | 96.8 87.8    |
| of these: EU countries     | 218807        | 78.7 38.5     | 278195        | 94.3 41.6    |
| APEC countries             | 192085        | 90.3 33.8     | 212724        | 99.8 31.8    |
| CIS member states          | 73412         | 90.2 12.9     | 81414         | 100.0 12.2   |
| EAEU countries             | 51607         | 88.4 9.1      | 58362         | 102.3 8.7    |

Foreign demand for Russian food is growing, and the geography of supplies is changing, so the government plans to simplify the registration of export of agricultural products.

4 Conclusions

Thus, the high efficiency of the agro-industrial complex in 2020 was manifested in record harvests of cereals and oilseeds, an increase in the production of meat and dairy products, as well as products of their processing. During the pandemic, foreign sales agents tried to create significant stocks of agricultural raw materials and food, so they increased the volume of purchases, creating a favorable market environment. In the process of domestic market saturation, surplus food was supplied abroad, significantly increasing Russia's export revenues.

In general, the foreign trade balance in 2020 is positive. In terms of value, export of food products amounted to $30.7 billion, import - $29.4 billion. The Russian Federation has delivered 79 million tons of agricultural products to one hundred and fifty countries of the world. China, Turkey and Kazakhstan have become the leaders of trade relations. The main export crops were cereals and fat-and-oil crops. This indicates significant success in stimulating the export of food and agricultural raw materials.

It is necessary not only to increase the export volume, but also to change its structure, giving preference to processed agricultural products. First, foreign exchange earnings from the sale of processed products will increase. Second, by selling not raw materials, but products with improved consumer properties, we are selling, in fact, the value added in Russia [6, 7].
The pandemic crisis is certainly affecting the agricultural sector. Additional state support measures are needed. For economic agents implementing business projects in the agricultural sector and faced with the problem of foreign currency growth, it is necessary to develop measures to reduce the credit burden in the form of subsidizing costs when extending short-term working capital loans and investment loans.

In the context of the digitalization development, additional state support measures are needed to facilitate the organization of online platforms for the development of trade by small agricultural enterprises and farmers.

To reduce the volume of import of vegetable products, it is advisable to establish preferential energy tariffs for greenhouse farms, which contribute to reducing the cost of production and increasing their competitiveness in the domestic market.

For agricultural organizations, PSP and P(F)E, selling products through cafes and restaurants, it is necessary to introduce proposals for the prolongation of short-term and investment loans during lockdown periods. Among the measures of tax regulation, it is necessary to highlight the possibility of granting a deferral on the payment of taxes for agricultural enterprises and P(F)E, actively exporting products [8].

In addition, the Ministry of Agriculture of Russia has launched new measures to support the development of exports of agricultural products with high added value since 2021. Within the framework of the federal project "Export of agricultural products", economic incentive mechanisms have been identified that diversify the export of agricultural products. In particular, it is expected to reimburse part of the costs for the creation and modernization of enterprises implementing investment business projects for deep processing of grain, oilseeds, fish, crustaceans and shellfish. They provide for compensation of the amount of costs for the purchase of high-tech equipment for processing enterprises.

All these measures will contribute to the implementation of the task set out in the "The Plan of activity of the Ministry of Agriculture of the Russian Federation for 2020 - 2025" (approved by the Ministry of Agriculture of the Russian Federation). by the Ministry of Agriculture of the Russian Federation on 24.08.2020 N DP-5215) to achieve the volume of exports (in value terms) of agricultural and food products at the level of $ 45 billion according to the results of 2024 [9].

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