

Import substitution and self-sufficiency in basic foodstuffs

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Abstract. The relevance of the topic of the article is caused by the need to study the current situation in the food market and determine the level of development of the production potential of the domestic agri-food complex in the context of import substitution and fierce competition in the global food market. The purpose of the article is to assess the processes of development of the agro-food complex in the context of import substitution, identify trends, and substantiate priorities in the implementation of the country's food security strategy. The article carried out a comprehensive study of the current state of development of agricultural production, analyzed the current state of the food supply of the country's population, identified trends, identified priority strategic directions for the implementation of the import substitution policy, and ensured the country's food security. The article concludes on the long-term nature of the implementation of the import substitution strategy and ensuring food security. There is a need for an interconnected and balanced organization of import and export activities of enterprises of the agro-food complex. The authors substantiate the need for reorientation of enterprises after reaching the target indicators of food self-sufficiency from domestic sales of products to the development of international food markets. The theoretical provisions and practical recommendations proposed in the article make it possible to solve the problem of stable self-sufficiency of the country with competitive food products and the implementation of a food security strategy.

1 Introduction

The implementation of the strategy of self-sufficiency in basic food products of own production remains a priority for the development of the Russian agri-food complex. Along with this, the acceleration of innovative development, changes in the food market conditions, the need for a balanced and proportional development of agricultural production sectors, and the aggravation of regional and international competition have a huge impact on the dynamic changes in the country's agro-food complex enterprises. This implies filling the food security strategy with new content. Over the past eight years, global economic and political processes have taken place in the world food market. These changes contributed to Russia's transition to the implementation of an import substitution strategy. This strategy is focused on meeting domestic food needs with food at affordable prices for consumers through the development of the domestic agri-food business and the maximum reduction in import receipts of food products to the level determined by the Food Security Doctrine of the Russian Federation [1, 2, 3]. As a result of the transition to a new strategy of self-sufficiency in food supply for the population of the country, the following results were achieved. The volume of agricultural production has increased. The agrarian sector of the economy was diversified, and the subjects of the agrarian business were activated based on strengthening state support for the implementation of targeted programs for the

development of individual sectors of agriculture. Increased consumption of basic foodstuffs. The continuing growth of agricultural production leads to a glut of certain segments of the domestic food market, and a decrease in the profitability of domestic producers, which is confirmed by the studies of Russian scientists [4, 5]. At the same time, new problems have emerged, significant among which are the following:

- the diversion of significant budget funds to address the issues of the agricultural business to create complete food chicks of the completed cycle without the participation of international partners,
- restriction in the development of world-class technical and technological innovations,
- removal from new trends in the development of the world economy for robotization and digitalization of production processes,
- decreased competitiveness of products in the global food market.

All these processes, of course, show the relevance of the problem of choosing priority strategic directions for the further development of the agricultural sector of the economy. There is a need to further study the problems of food self-sufficiency, determine the directions for the development of the import substitution policy with the subsequent achievement of food security and increase the export potential of the country's agro-industrial complex.

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2 Materials and methods

The methodological basis for the study was the earlier work of domestic researchers, including the authors, devoted to the analysis of the level of development of the domestic agricultural sector, as well as the problems of implementing the strategy for ensuring the country's food security. The general methodological basis of the study is system analysis. The analysis of the indicators used was carried out by comparing the changes in values by years for 2017–2020 to identify fluctuations in these indicators in each subsequent year and improve the accuracy of calculations in the dynamic range of indicators. The information base for the study was the statistical data of the Federal State Statistics Service of the Russian Federation, the Ministry of Agriculture of the Russian Federation, data obtained during the analysis and calculations of the authors.

3 Results and discussion

Food security is currently a priority area of state support for the agro-food complex and the main direction of the state agrarian policy of Russia. The basis of food security is food independence, which is determined by the level of domestic production, and self-sufficiency in food products [6]. Domestic agricultural production is greatly influenced by the implementation of an export-oriented strategy for the development of the national economy. The introduction of an embargo on the import of foreign products after the events of 2014 accelerated the processes of import substitution in the food market. The implementation of the measures taken affected the structure and dynamics of imports of agricultural products and foodstuffs. Under the import, bans are meat and dairy products, vegetables, and fruits. As a result of the measures taken, by 2020, the targets for the level of self-sufficiency in basic food products were achieved or exceeded [7].

An analysis of the level of development of the agrarian sector of the economy over the past four years

showed that the growth rate of cost indicators of production in comparable prices in general for agriculture in 2020 compared to 2017 reached 105.7%. This indicator means the fulfillment of the indicators established by the State Program [8] and exceeds the targets by 1.9 percentage points. The sustainability of the economic development of the agro-food complex in recent years has been maintained due to the positive dynamics of economic growth, the complexity of the structure of the complex, the diversification of its structure, the emergence of new industries because of the implementation of the import substitution policy.

Outpacing growth in the sectors of the agro-food complex has become a characteristic feature of the Russian economy in recent times. Although in 2018, a slight decrease of 0.2% in the growth rate of agricultural products was allowed. An analysis of the indicators for 2017-2020 shows that the gross value added in basic prices in the agricultural sectors increased by 9.0% (including in 2020 by 0.5%), and in the food industry by 109.2% (in 2020 by 0.3%), which is higher than the growth but for the economy as a whole (4.3%, and in 2020 a drop of 2.7% was recorded) [9].

In 2020, the index of the physical volume of gross value added by the sectors of the agro-industrial complex also grew and amounted to 100.5%. In the production of food products and beverages, the index of the physical volume of gross value added by the branches of the agro-industrial complex is 100.3%. During this time, GDP and gross value added for the economy as a whole were declining; respectively, 97.0% and 97.3% to the level of 2019. In 2020, for the first time in recent Russian history, food imports did not exceed its exports.

The increase in crop production in general for all categories of producers in 2020 compared to 2017 amounted to 5.1%, which exceeds the indicative value included in the program by 3.7 percentage points. Along with this, the growth rate of livestock production, although it increased in 2020 compared to 2017, was 105.1%.

Table 1. Production of the main types of import-substituting food products in the Russian Federation, thousand tons.

Types of products	Years				Indicators of 2020 in relation to 2019, %
	2017	2018	2019	2020	
Cattle meat	261.7	298.4	309	342.3	110.8
Pork	2404	2669	2819	3186	113.0
Poultry meat	4839	4877	4847	4804	99.1
Sausages	2259	2282	2282	2355	103.2
Vegetables and mushrooms	96.1	93	116.3	141	121.2
Fruits, berries, and nuts	15.6	16.8	22.2	28.2	126.7
Milk	5390	5457	5378	5626	104.6
Cream	133	150	163	195	119.5
Curd cheese	486	501	468	487	103.9
Butter	270	267	269	277	103.1
Cheese	464	467	540	572	105.8
Condensed milk products, million cans	837	806	717	720	100.4

Dairy products	2896	2819	2792	2745	98.3
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But the value of the planned indicator remained unfulfilled by 0.4 percentage points. This indicator can be assessed as one of the limiting factors for sustainable agricultural growth. The growing potential of agricultural production, subsequently, led to an increase in the index of food production. The index of food production in 2020 (in comparable prices) compared to 2017, % amounted to 111.7%, which exceeds the target by 2.1%. There was an increase in the production of the main types of import-substituting food products (Table 1) [7, 9].

Table 1 shows that over the past four years, production has increased for almost all types of food products. The production of fruits, berries, vegetables, pork, and cattle meat is characterized by particularly high rates. The current import substitution trend has allowed Russia to increase its position in the World Food Security Ranking from 40th place in 2013 to 24th place in 2020 out of 113 countries assessed. In 2020, the global food security index of the Russian Federation amounted to 73.7 points and was 8.1 points higher than in 2013 [9].

The solution to the problems of ensuring the country's food security is associated with an increase in the level of consumption for a number of products and the achievement of target self-sufficiency in accordance with the requirements formulated in the Food Security

Doctrine of the Russian Federation. In 2000, per capita consumption was below the standard level for vegetables and melons (108 kg against the norm of 140 kg), fruits and berries (62 kg against the norm of 100 kg), milk and dairy products (234 kg against the norm of 325 kg), as well as red meat and potatoes [9].

According to the goal of ensuring the sustainable development of agricultural business in the Russian Federation, the agro-industrial complex of the country is set an ambitious goal of increasing the export of products and food to \$45 billion by 2025. This item is a fundamental position in the development and implementation of the state program and its subprograms. This position is because the results of the development of the national economy directly depend on the foreign economic activity of agricultural business entities to increase the export of food and agricultural raw materials [10, 11]. In this regard, improving the activities of agricultural business entities to increase exports is recognized as one of the priority areas. The reason for this is that the export potential and active foreign economic activity of agricultural business entities act as a catalyst in regulating equilibrium and balance in the organization of international trade in the country.

Table 2. Export of the main types of products of the agro-industrial complex of Russia, thousand tons [12].

Indicators	Years				Indicators of 2020 in relation to 2019, %
	2017	2018	2019	2020	
Food products and agricultural raw materials, \$ billion	21.6	25.8	25.8	30.7	119.0
Meat	307.4	354.4	415.3	609.0	146.6
Milk	607.6	576.3	611.0	707.2	115.7
Butter	3.6	3.4	2.8	2.6	92.9
Sunflower oil	2326.9	2109.5	3098.1	3268.3	105.5
Flakes	43230.4	54895.9	39482.5	48739.0	123.4
Flour and cereals	250.3	305.0	368.6	375.5	101.9
Oilseeds	1737.4	2087.2	2721.9	3574.0	131.3
Sugar	559.8	387.5	687.0	712.0	103.6

An analysis of the indicators in Table 2 gives grounds to assert that the main commodity items in the structure of exports of agricultural products are cereals, oilseeds, and sunflower oil. The main export destinations are such countries as China, Turkey, Kazakhstan, the Republic of Korea, Egypt, Belarus, the Netherlands, and Iran. For specific types of agricultural products and products of their processing, one can note an increase in 2020 compared to 2019 in meat exports by 46.6%, grain by 23.4%, oilseeds by 31.3%, and milk by 15.7%. sunflower oil by 5.5%, sugar by 3.6%, flour and cereals by 1.9%. Along with this, a reduction in the export of butter by 7.1% was allowed. In general, exports in 2020 exceeded food imports for the first time and have a

positive balance of \$1.0 billion [7, 9]. Table 3 shows the main indicators of imports of basic food products. Table 3 shows the following trends. Russia continues to import large volumes of animal products. And imports of goods related to crop production are declining. The analysis of foreign economic activity showed that the subjects of the agricultural business in the development of exports have significant problems associated with the lack of development of the organizational structure and forms of institutions for export activities, low competitiveness of products in terms of price, and compliance with quality standards. This situation hinders the development of export activities of agricultural business formations and reduces the volume of exports of agricultural products in

general [13, 14].

Table 3. Imports of basic food products to Russia, thousand tons [12].

Indicators	Years				Indicators of 2020 in relation to 2019, %
	2017	2018	2019	2020	
Food products and agricultural raw materials, \$ billion	28.9	29.8	30.0	29.7	99.0
Meat	1084.6	879.7	771.8	648.0	84.0
Milk	6996.9	6493.0	6727.8	7044.4	104.7
Butter	99.7	90.7	119.7	11.2	93.1
Sunflower oil	25.7	25.7	2.9	2.7	93.1
Flakes	746.3	629.5	515.5	489.0	94.9
Flour and cereals	128.6	89.4	88.3	88.0	99.7
Oilseeds	2556.5	2521.4	2338.0	2296.2	98.2
Sugar	226.3	324.8	241.3	208.6	86.4

Food security is defined as the level of self-sufficiency as a percentage and is calculated as the ratio of the volume of domestic production of agricultural products, raw materials, and food to the volume of their domestic consumption. After the Western European countries and the United States announced sanctions

against Russia, agriculture and the processing industry were given the task of providing the population of the country with products of their own production at affordable prices for the bulk of consumers. In a short period of time, the set level of self-sufficiency in basic foodstuffs was achieved (Table 4).

Table 4. Self-sufficiency in basic foodstuffs, % [7.9].

Indicators	Years					Threshold of the Food Security Doctrine of the Russian Federation
	2017	2018	2019	2020		
				plan	actual	
Corn	170.6	147.2	155.6	95	155.5	95
Vegetable oil	153.5	157.3	178.8	90	175.9	90
Sugar made from sugar beets	115.1	108	126.8	90	125.4	90
Potato	91.1	95.3	95.1	95	94.9	95
Milk and dairy products (in terms of milk)	82.3	83.9	83.9	85	84.4	90
Meat and meat products (in terms of meat)	93.5	95.7	97.4	85	96.7	85
Vegetables and gourds	86.8	87.4	87.7	87	88.4	90
Fruits and berries	32.5	32.5	38.8	40	39.5	60

Table 4 shows that in 2020 the threshold values of indicators of food independence (self-sufficiency) of the Russian Federation were reached or exceeded: grain – 155.5%, which is 1.6 times higher than the threshold set by the Food Security Doctrine, sugar – 125.4%, which is 1.4 times higher than the threshold value; vegetable oil – 175.9%, which is almost 2 times higher than the threshold value; meat and meat products – 96.7%, which is 11.7 percentage points above the threshold. Self-sufficiency remains below the thresholds of the Food Security Doctrine: milk and dairy products – 84.4%, which is 5.6 percentage points below the threshold; vegetables and melons – 88.4%, which is 1.6 percentage points below the threshold; fruits and berries – 39.5%, which is 1.5 times lower than the threshold value. Self-sufficiency in potatoes remained at the level of the previous year – 94.9%,

which is 0.1 percentage points below the threshold value [9,12]. An assessment of the level of self-sufficiency in basic food products shows that the indicators correspond to their criteria for ensuring food security.

4 Conclusion

The agrarian policy on import substitution, carried out after 2014, contributed to the growth of agricultural production and the development of processing industries. Ultimately, by 2020, a positive trend has been achieved in the production of the main types of import-substituting food products and self-sufficiency in food for almost all major food groups. At the same time, the problem of self-sufficiency persists in milk and dairy products, fruits, and berries. After the

Western European countries and the United States announced sanctions against Russia, agriculture and the processing industry were given the task of providing the population of the country with products of their own production at affordable prices for the bulk of consumers. As in all cases of history, Russian agriculture and the agro-industrial complex emerged with dignity from the current situation. In conditions of limited material, technical and labor resources, the set level of self-sufficiency in basic food products was achieved in a short period of time [15].

Russia is now confidently becoming one of the key exporters in the global agri-food markets. However, the increased attractiveness of supplies to the foreign market can lead to an increase in the aggravation of contradictions between the growth opportunities of export-oriented industries and the need to ensure national food security, primarily due to the growth of physical and economic accessibility of food for the population with low and middle incomes. State program regulation plays a major role in the implementation of sustainable development priorities and the growth of the competitiveness of the agri-food complex. A feature of the current stage of development of the state support system is the combination of the use of program-target methods aimed at the implementation of targeted programs for the development of sectors of the agro-industrial complex and system-wide measures aimed at the development of rural areas. Ultimately, the positive trends that have developed in the agri-food sector as a result of the implementation of the import-substituting development strategy made it possible to move to an export-oriented strategy and implement a strategy to ensure the country's food security.

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