

State Policy on Ensuring Food Security in Conditions of Foreign Trade Restrictions

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Abstract

The influence of artificial and natural limitations on the development of the food market in the Russian Federation is considered. The effectiveness of the state policy on support of agricultural producers and the degree of its influence on the processes of import substitution and self-provision with food products are analyzed. It is proved that ensuring the necessary level of food security is related to the need to increase the competitiveness of domestic products in terms of price and quality parameters, stimulate export-oriented production and search for new global sales markets. The strategic priorities for the development of the agro-industrial complex are proposed, including a reduction in the level of technical and technological dependence, the development of territorial clusters with the aim of introducing innovative technologies for the production and processing of agricultural products.

Keywords: food security, food market, public policy, agro-industrial complex

1. Introduction

For any national economic system, the food sector is a sphere of strategic interests that requires special attention from the state. In the conditions of transformation of the current political and socio-economic situation on a global scale, there is an overall increase in instability, what negatively affects the level of food security of individual countries.

Traditionally, ensuring food security is associated with the use of instruments for state regulation of foreign economic operations concerning agricultural raw materials and food products. The need for this is due to the creation of a mechanism for the formation of an effective national agro-industrial complex as an integral element of food independence.

For the Russian Federation, the study of problems on state regulation of import and export operations with agricultural products is very relevant, as the tendencies of liberalization of world economic ties, coupled with the policy of sanctions pressure from the leading world countries, form the specifics of the domestic agro-industrial complex development and reveal new problems in ensuring food security.

In this regard, the current problems caused by the decline in global food security are one of the key factors in the functioning of the world food market. The mechanism for solving this problem is directly dependent on individual components of food security: national food self-sufficiency, economic and physical accessibility of food, ensuring the necessary quality of agricultural products.

2. Principles for the Formation of a Mechanism for Ensuring Food Security

Initially, national food security was considered at the macro level. For example, W. Zant analyzed the principles of optimizing food baskets (Zant, 2013), B. Lietaer proposed to use for researching the global food market the model of a multiple product standards to study the level of competitiveness of the economy on the basis of the form of the derivative (Lietaer, 2013). On the basis of this, the mutual export-import relations of the countries were analyzed (Swinnen, 1994), the possibility of forming a "specialized currency center for regulating the

prices of food raw materials" (Fuglie Keith, 1994); and tools for increasing the level of food security were suggested. Also, in the context of our study, it is worth mentioning the work of J. Clapp, who proposed a methodology for classifying states as donors and recipients on the basis of determining their place in the world food balance (Clapp, 2012).

Analysis of food security requires a detailed analysis of the mechanisms for its formation and regulation. According to P. Paramonov, "one of the key conditions for the effective functioning of the agrarian sector is the availability of regulatory mechanisms that include both market mechanisms and state regulation" (Paramonov, 2002). It is necessary to take into account that a rational combination of stimulating and regulating tools allows the formation of a more adaptive mechanism of state regulation. In the agro-industrial complex, the availability of such flexibility is a necessary condition for ensuring an acceptable level of food security, since it is formed taking into account the industry specificity (Akhmetshina, 2011): spatial dispersal, a variety of natural and climatic conditions, seasonality of production, and significance in connection with the production of socially significant low-margin products. In this regard, the functioning of the agro-industrial complex cannot be based only on market principles, so it requires increased attention from the state. As I. Kostusenko noted: "Food security of the population depends on agriculture, therefore this problem, in addition to the economic one, acquires a social and political color" (Kostusenko, 2009).

The need for state regulation of the agro-industrial complex is conditioned by a whole range of reasons, the main ones being the following. First, the specificity of the agricultural market is related to the need to meet the tasks on ensuring the necessary level of national food security and social welfare benefit of the population. Secondly, the increased volatility of market relations generates "market failures" which are especially evident in the food market. Particularly negative manifestations are disparity of prices for agricultural products and industrial resources consumed in the course of production process, increased volatility of prices for food products; the need to increase the level of socio-economic development of rural areas, etc.

Proceeding from this, the key objectives of state regulation of the agroindustrial complex are to raise the level of national food security, smooth price volatility in certain food markets, and stimulation of the economic activity of small and medium-sized businesses. According to A. Zeldner: "The state's influence on the development of the agro-industrial complex will be effective if the commodity producers can effectively carry out reproduction on the basis of self-financing and their own savings, and if market instruments and methods stimulate commodity producers to increase the efficiency of agricultural production" (Zeldner, 1993).

3. Current Trends in the Development of the Russian Agricultural Market

Despite the stagnation in the Russian economy, the gross output of the agro-industrial complex has increased over the past three years. On the one hand, this can be explained by the introduction of a food embargo and the intensification of domestic policy on import substitution. On the other hand, no less important factors were the growing interest on the part of private business to implement major investment projects in agriculture, the devaluation of the ruble, favorable weather conditions that led to an increase in crop yields.

Thus, the gross collection of the main types of crop production in Russia exceeded the pre-reform level: for wheat and sugar beet - more than 1.5 times, for sunflower - 3.5 times, for maize - 4.6 times (Table 1).

Table 1. Gross harvest of major crops, million tons

	On average for the years 1986-1990	2014	2015	2016	2016 as % of the average for the years 1986-1990.
Food grains	104.3	105.3	104.8	119.1	114.2
Including wheat	43.5	59.7	61.8	73.3	168.5
Corn	3.3	11.3	13.2	13.8	418.2
Sugar beet	33.2	33.5	39.0	48.3	145.5
Sunflower	3.1	9.0	9.3	10.7	345.2
Soybean	0.6	2.6	2.7	3.1	516.7
Potatoes	35.9	31.5	33.6	31.0	86.4
Vegetables and gourds	11.2	15.5	16.1	16.3	145.5
Fruits and berries	3.3	3.0	2.9	3.3	100.0

Higher growth rates are observed in highly profitable sectors, namely in plant growing, where Russian producers were able to take the leading positions in world food markets: the first place for wheat, the second place for barley, peas and sunflower oil.

In animal production, a more differentiated situation has developed. The production of poultry meat for the period under review has grown by 2.6 times; pork production also shows consistently high rates and has already reached pre-reform indicators. At the same time, the growth takes place not only due to extensive factors, production efficiency indicators also raise, so, productivity for these commodity items corresponds to those of developed countries. However, the decline in effective demand and the saturation of the domestic market led to a reduction in the growth rate in the production of poultry meat, therefore, in this case, the policy of import substitution is a kind of a brake, as domestic producers were not ready to enter the world market of poultry meat.

At the same time, there is a tendency for the continued reduction in the number of cattle, which has a heterogeneous dynamic in the various territorial entities of the Russian Federation and in categories of agricultural commodity producers. This is due to the fact that the implementation of the state support program for meat and dairy cattle breeding was targeted to large and medium-sized organizations that have an increase in the number of livestock and milk production, but its rates do not cover losses in small organizations and private subsidiary farms of the population. For example, in 2015, the growth of milk production in large enterprises amounted to 353 thousand tons, and the fall in private subsidiary farms amounted to 464 thousand tons. In our opinion, the main reason for this is the lack of efficient food chains, since small business has not been built into the structures of large agricultural holdings. In part, the realization of the potential for growth in the production of meat and dairy cattle takes place by reducing the barriers to access to land resources and increasing access to credit resources for peasant farm enterprises.

The effect of devaluation is manifested as follows. During the analyzed period, the dollar exchange rate against the Russian national currency more than doubled, while the world price of pork in dollars declined by 21%, and the import price by 7%. Thanks to the exchange rate difference, the price expressed in rubles grew steadily and by 2015 exceeded the level of 2011 by 83%, and domestic prices for pork grew only by 15% in the analyzed period. Thus, the dynamics of import and domestic prices led to a significant increase in the competitiveness of domestic pork producers. So, in 2015, domestic production of pork cost 26% cheaper than imported analogues, although if the weighted average dollar exchange rate in 2015 corresponded to the level of 2014, the price of imported pork would be lower than the domestic one. This effect manifests itself in other industries. This led to an increase in the profitability of production, which in 2015 was at the highest level over the past 10 years, and to an increase in production efficiency, what contributes to the policy of import substitution.

The negative effects of the ruble devaluation include the following: the growth of inflationary pressure, the decrease in real incomes of the population, the decline in the effective demand for foodstuffs, the growth in the share of food expenditures, especially in the budgets of low-income families, and the decline in the quality of consumed products through replacement with cheaper analogs.

The balance of import and export operations with food products has been also improved (Table 2), as domestic products began to oust from the market the imported products in the structure of potential consumption, while the share of imports relative to consumption volumes decreases. However, the process of import substitution is not so unambiguous. If to analyze the actual consumption, you can see that in 2015, a decrease in food imports was accompanied by a simultaneous decrease in actual consumption, except for vegetables, where both consumption and exports grew.

Table 2. Dynamics of indicators characterizing export-import operations with food products in 2015, %

Index	Meat and meat products	Milk and milk products	Vegetables and gourds	Fruits and berries
Balance of import-export,% to the corresponding period of the previous year	67	86	70	97
Share of domestic production in the structure of potential consumption,%	89	81	92	35
Ratio of import to consumption volumes, %	13	21	14	66

Similar conclusions can be drawn for groups of the most sensitive products (Table 3). As can be seen, only for poultry meat and vegetables, the process of import substitution is accompanied by a simultaneous increase in consumption. For beef, fruit and berries, cheeses and cheese products, the increase in domestic production does not cover the reduction in imports.

Table 3. Import substitution of food products, thousand tons

Types of products	Production			Import			Import substitution	Change
	2013	2015	2015 to 2013	2013	2015	2015 to 2013		
Beef, slaughter weight	1633	1649	16. 1	661	438	-222. 2	16. 1	-206. 1
Pork, slaughter weight	2816	3099	282. 5	620	305	-315. 6	282. 5	-33. 1
Poultry meat, slaughter weight	3831	4535. 5	704. 6	528	255	-272. 8	272. 8	431. 8
Vegetables	14689	16111	1422. 0	3000	2607	-392. 6	392. 6	1029. 4
Fruits and berries	3381	3379	-2,1	6412	5105	-1307. 5	-	-1309. 6
Butter	225	256	31. 4	118	90	-28. 1	28. 1	3. 3
Cheeses and cheese products	435	589	153. 8	440	208	-232. 6	153. 8	-78. 8
Powdered milk	116	124	7. 4	35	33	-1,1	1. 1	6. 3
Sugar	4986	5748	761. 7	612	1010	398. 3	-	1160. 0

Thus, artificial and natural restrictions on the market of agricultural products led to the emergence of positive signals for domestic producers, what allowed positive trends in production to form, but in fact import substitution had a maximum effect only on vegetables and poultry meat. A number of problems remain unresolved in the Russian agro-industrial complex, the main ones of which are low profitability of agricultural production, taking into account the existing disparity of prices, low level of activity to introduce innovative production and processing technologies. All this is aggravated by the growing share of morally and physically obsolete equipment, low wages in the industry, underdeveloped rural infrastructure, which adversely affects human potential. The key problem of reducing food security remains a high share of food imports, which, although it declines, remains high for certain commodity items, as well as a decline in the quality of both imported and produced food products.

The basic document aimed at solving the problem of increasing the level of food security is the "Strategy of the National Security of the Russian Federation until 2020" (Decree of the President of the Russian Federation, 2009) and the "Doctrine of Food Security of the Russian Federation" (The Doctrine of Food Security of the Russian Federation, 2010). The main reasons for the lack of sustainable and progressive development of the national agro-industrial complex are:

- Low rate of technical and technological modernization of the agro-industrial complex and renovation of fixed assets;
- Unsatisfactory state of the social infrastructure of rural areas;
- Unstable development of some segments of agricultural products, high level of the deficit of private investment resources, undeveloped agricultural insurance market;
- High transportation and processing costs related to the lack of efficient logistics systems.

4. Evaluation of the Effectiveness of the State Policy on Ensuring Food Security

In the Russian Federation, the main priorities of state policy in the agro-industrial complex are reflected in the Federal Law "On State Regulation of Agro-Industrial Production" (Federal Law, 1997):

- Preservation and enhancement of the resource potential in agriculture and the sphere of processing, primarily by increasing the fertility of the lands, developing livestock breeding, improving the system of seed production, introducing resource-saving technologies;

- Improvement of economic conditions for the development of production and entrepreneurship in the agricultural sector;
- Formation of the state protection mechanism for the domestic agricultural commodity producer;
- Maintenance of economic parity between agriculture and other branches of the economy;
- Convergence of income levels of workers in agriculture and industry. "

Within the framework of the subprogram "Technical and Technological Modernization, Innovative Development" starting in 2015, two main activities are being introduced: "Implementation of promising innovative projects in the agro-industrial complex" and "Development of biotechnologies".

State support measures aimed at modernization of fixed assets in the agro-industrial complex have practically no effect on the accumulated growth of investment resources, which is a negative trend. Until 2005, when only market mechanisms prevailed, the rate of capital accumulation in the agro-industrial complex ranged from 7% to 10%, while the average weighted figure for other industries was 17.3%. Since 2009, when the state regulation of economic processes has increased, the values of the corresponding indicators have grown in the national economy as a whole to 22.2%, and to 12.5% in agriculture. This minimal gap in the rates of capital accumulation in these periods confirms the thesis that the measures of state support for the agro-industrial complex that are being implemented, are not effective enough. It is necessary to adjust incentive tools to increase the investment activity of agricultural producers, as the reduction in the level of technical and technological characteristics of the production process in agriculture adversely affects the level of national food security.

As the main source of technological modernization of the agro-industrial complex and as a part of the implementation of the activities according to this program, there were used investment loans, the aggregate volume of which did not reach the planned indicators. For example, in 2009-2011, funding shortfall amounted to about 60 billion rubles and more than 85 billion rubles in 2012-2014.

The multi-branch nature of agricultural production has determined the expediency of using different approaches to the formation of a mechanism for stimulating the investment activity of agricultural producers of various organizational and legal forms. For example, budget funds were set in the amount of 2.3 billion rubles in the capacity of the main instruments of state support for technical and technological modernization in 2014 for the purchase of 1221 tractors, 1019 combine harvesters and 255 units of forage harvesters.

The subsidy mechanism is also imperfect, as the annual growth in arrears on investment loans, accompanied by an increase in the number of short-term loans, has led to an increase in spending of budget funds for subsidizing interest rates, which takes place against the background of a lower refinancing rate of the Central Bank of Russia. In total, from 2008 to 2012, about 340 billion rubles were transferred to these targets from federal and regional budgets. Thus, only from the federal budget, about 50% of the total funds of the state program accounted for subsidizing interest rates, what led to a reduction in the funding of other subprograms.

Another drawback of this model of subsidizing investment loans is the conditions under which agricultural producers receive soft loans, namely: a high level of solvency and the necessity to have highly liquid collateral. It is obvious that under these conditions a small number of producers (mostly advanced farms) enter the so-called Agro-300 group. Consequently, such groups as small agricultural organizations, peasant farms (farming enterprise), processing enterprises and services practically have no opportunity to obtain loans on preferential terms.

5. Strategic Priorities of the Agrarian Policy Aimed at Increasing the Level of Food Security

The solution of the problem on increasing the level of food security requires an increase in the level of technical and technological support of production processes in the agro-industrial complex.

During the implementation period of the National Project "Development of the agro-industrial complex", the growth rate of investment in fixed assets of enterprises in the agro-industrial complex grew by 95%. In the crisis period of 2008-2009, investment fell by 36%, followed by a 65% increase by 2013. However, in the last two years they have started to decline again.

Despite the lack of stable high growth rates of investment, over the past decade private business has managed to partially carry out the technical and technological modernization of fixed assets. The maximum dependence continues to be observed for seeds and hybrid varieties of foreign selection, and it approaches 100% in the plant growing sector. According to the Ministry of Agriculture, components for greenhouse complexes are imported by 80%, for pig-breeding complexes - 75%, for milk products - 70%, and more than 50% for imports of herbicides. Apparently, agricultural producers prefer to use imported seeds, livestock breeds, agricultural equipment,

biological additives, and plant protection products. Achievement of the breaking point for this negative trend due to the introduction of additional restrictive barriers is impossible, since there are no domestic analogues for them, so the introduction of quotas and custom duties will lead to an increase in prices.

The financing of agrarian science in the Russian Federation per one ruble of the added value of the agroindustrial complex is ten times less than in the developed countries (Khalyapin, 2012). In part, this is due to the fact that Western transnational corporations invest in far-reaching research in a much larger volume than it takes in the Russian state. In this regard, there is a need for a multiple increase in investment in basic science and applied research, defining breakthroughs for the production of innovative agricultural products, creating additional incentives for private investors to produce and promote high value-added products to the world food market.

As the analysis carried out by us showed, the existing drivers of growth, rising consumption level and import substitution have almost sputtered out. The population's diet has almost reached the recommended medical standards for consumption of basic foodstuffs (Understanding the WTO: Doha Agenda), almost all imports are replaced by domestic analogues, except for essential products and dairy products. In the current conditions, the further growth of the agro-industrial complex is connected with the reorientation to the world food markets and the increase in the competitiveness of domestic products in comparison with foreign counterparts.

The export-oriented vector of the Russian agro-industrial complex development requires a comprehensive revision of the sectoral development goals. Strategic priorities of agrarian policy should be formed on the basis of determining the competitive advantages of domestic producers in global markets. It is necessary to select individual commodity items for which it is possible to ensure the necessary quality of products and low costs due to existing natural and climatic conditions and available surplus resources. The large areas of unused forage lands can become a base for the creation of cattle breeding complexes and sheep farms. Labor-surplus regions of the south of Russia should be used for the production of labor-intensive vegetable and fruit crops. The production of agricultural products that are competitive in terms of quality and price is possible by stimulating the development of commodity farms using advanced and modern technologies and integrating them into the logistics chains of production, processing and marketing of products through agricultural cooperatives and integrating firms.

Thus, to increase the level of national food security, it is necessary to use all the undisclosed reserves in a comprehensive manner, what is possible due to the following prerequisites:

- Implementation of the innovation-oriented strategy for the development of the agro-industrial complex and the maximum growth in the level of investment activity of the subjects of the food market;
- Growth of competitiveness of domestic producers due to more active use of natural and climatic advantages of individual territories and renewal of fixed assets;
- Complex socio-economic development of rural areas in order to increase the level of human capital.

6. Conclusions

Increasing the level of food security requires the active use of the mechanism of the agricultural products market state regulation. The need for this is due to the increased volatility of exogenous factors that generate "market failures" and adversely affect the endogenous factors of sustainable development in individual segments of the world food market.

In the Russian Federation, the emergence of artificial and natural restrictions on the agricultural market served as the initial incentive for the development of import-substituting industries. However, the absence of a comprehensive balanced program of state support for the agro-industrial complex did not allow stable positive trends in increasing the competitiveness of domestic agricultural producers to form.

The main directions of extensive growth in the agricultural sector are the development of export-oriented industries due to the exhaustion of the traditional growth drivers: diet of the population has almost reached the recommended medical standards of consumption; substitution of imports by domestic analogues for the main commodity items and a reduction in effective demand of the population occur. In this regard, it is necessary to search for new global markets for food, therefore, it is necessary to reformat the strategic priorities of the agrarian policy in the direction of seeking competitive advantages of domestic producers and realizing the available potential.

Improving the quality of agricultural products is directly linked with the introduction of innovative production and processing technologies, which in turn requires accelerated technical and technological modernization of the agro-industrial complex, formation of efficient logistics chains, development of rural infrastructure, and the

enhancement of human resources. To solve these problems, it is necessary to determine the key territorial and branch complexes that make maximum use of the existing potential on the basis of which it is possible to create agro-industrial clusters which products can compete with foreign analogues in terms of price and quality parameters.

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