State support for agricultural sector: challenges and development prospects

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Abstract. Nowadays agricultural production is experiencing certain difficulties that negatively affect the profitability of agricultural organizations. Despite all the efforts of the state and its attempts to support agricultural producers, one can observe a decrease in production volumes of some types of products, as well as a lack of high-tech equipment. These challenges can be solved by improving the tools and methods of regulating the activities of agricultural organizations. The implementation of new state control scientific approaches, primarily financial and credit, informative consulting and personnel issues of agricultural sector, will help overcome negative trends. The priority task of strengthening the state stimulating role in control of inter-farm relations in the regional agricultural sector is state support for the development of peasant (farm) households and cooperation in agriculture, while maintaining the existing level of support for medium and large agricultural. The article presents an assessment of the effectiveness of public investments in the development of agriculture on the example of the Chuvash Republic, which indicates a decrease in the effectiveness of the selected forms of support for the agricultural sector. There is a growing need to develop new tools to stimulate the innovative development of the agro-industrial complex.

1. Introduction

An important socio-economic role in the development of the national economy of any state is assigned to agricultural sector, since this sector, on the one hand, provides employment for a large number of labor forces, and, on the other hand, solves the issues of food security and political stability of the state. In this regard, issues of improving state control of agricultural sector do not become irrelevant, since agribusiness is constantly influenced by many external and internal factors, many of which are modified that determines the need to revise the forms of state control.

This problem is widely studied by both foreign and domestic scientists. The works of foreign scientists are devoted to the support and development of agriculture: Cardwell R, Kerr W [1], Dimitri C, Effland A [2], Paššová L [3], Baur I, Schläpfer F [4] and others.

The works of such Russian researchers as V I Denisov [5], M V Kuznetsova, E G Zinovyeva, A V Skripchenko [6], V P Neganova, A V Dudnik [7], D V Parshukov, Z E Shaporova, Y I Koloskova [8], N M Svetlov, R G Yanbykh, D A Loginova [9] and others, formed the basis for studying the sustainability of agribusiness development in Russia.
The economic sanctions imposed by our country against leading Western countries have significantly reduced the competitive pressure of imported products on the Russian domestic food market. Agriculture has gained additional opportunities for mobilizing domestic reserves, innovative equipping the agricultural sector, production ramp-up, intensive growth of import substitution and reconfiguration of the mechanism for ensuring the country's food security.

Despite the positive developments, the further successful development of agriculture is hampered by high production costs, price disparity, low profitability and operating at a loss, shortage of assets liquidity, high cost of debt, high risks of its allocation, difficult financial status of most agricultural producers, unequal opportunities of large, medium and small businesses. There is a great dependence on seed imports, technology gap, outdated material and technical resources, low activity of production participants in state programs to support the development of agriculture due to their insufficient development and transparency.

Political instability increases the climatic and economic risks in agriculture. Political discords seriously reduce the horizons of capital planning; complicate the economic status of agricultural producers. The initial period of agribusiness organization causes particular problem. There are great difficulties on marketing of manufactured products in small agricultural business.

Support for agricultural producers is aimed to ensure the economic ramp-up of agricultural sector and it is a priority for domestic economic policy not only in Russia, but also in other countries of the world. The main aim is the stability of economic development of industry, growth of income, employment of population and food security.

2. Methods of state management of the agricultural sector

The main sources in the research were modern economic theory, the works of domestic scientists, federal and regional state programs on the problems of state control of agricultural development elaborated by the execution authorities and management bodies of agricultural sector, the regulatory and legislative framework of the Russian Federation and its subjects.

The need for state control of a market economy, where forms and methods may be different and depend on the objectives of social and economic policy is currently being disputed by few people. There are various theories ranging from mercantilism, classical, Keynesian to modern ones about the role of state in economy. World experience shows that the state and business should coexist complementing each other in the optimal ratio which seems to be a symbiosis of active control and independence in solving financial and economic issues. The strategy of active state intervention in the development of the economy is to implement the main task - to ensure the economic growth of national economy. Authorities can intensify their role in organizing and financing programs and projects especially important for the national economy, the implementation of which makes a significant contribution to the development of national economy.

State control of agricultural production includes a system of legislative, administrative and economic impact of the state on agricultural production, as well as "processing and sale of agricultural products, raw materials and foodstuffs".

State control of agricultural sector is aimed to ensure the country's food security, stable development of agricultural production, markets for agricultural products, raw materials and foodstuffs. The following areas: maintaining economic parity between the agricultural sector and other sectors of the economy, import substitution, protecting domestic producers, and solving the demographic problem in the countryside are under the charge of state bodies.

There are methods of direct and indirect influence depending on the method of influencing the agricultural economy. Direct control method is considered such control when economic entities make decisions based on regulations and legislative proposals of the state. Method of indirect influence, however, implies the independence of economic decision making, but at the same time, preference should be given to the decisions that are consistent with the goals of economic and agricultural policy. At the same time, the state creates motivations for making these decisions.
The purpose of an effective agricultural policy is to create conditions for the development of market relations, building mechanisms that ensure expanded reproduction in the agricultural sector. All goals can be divided by types into macroeconomic, industrial, long-term, tactical and others. Organizational, economic, investment, industrial and social tasks are considered as the priority of agricultural policy [10].

The most effective and widely used method of state control of the agricultural sector is goal programming. This approach allows you to orient the industrial economics to achieve certain results, organize and manage the implementation of the program, determine the need for labor, material and financial resources for the execution of these programs. The control programs for agricultural sector can be divided into: federal and regional according to the level of decision-making; social and economic, scientific-technical programs, programs for social rural development and others - as intended.

3. Analysis of the effectiveness of state support measures
Since the beginning of the implementation of state programs for the development of agriculture and the control of markets of agricultural products, raw materials and foodstuffs, the indicators of domestic agriculture have significantly improved [11]. The self-sufficiency of own production increased for 2014–2020. Food independence was achieved not only in cereals, but also in the main types of meat, eggs, and potatoes. The growth of agricultural production from 4,031.1 billion rubles to 6,468.8 billion rubles, that is, by 60%, can be considered a positive moment. At the same time, the crop products increased almost by 45% and the livestock products – by 27%. More than half of the volume of livestock products is provided by the enterprises. In addition, medium and large agricultural enterprises mainly specialize in the production of grain, sugar beets, meat, eggs. At the same time, meat production is a priority. Farmers mainly prefer to engage in crop production, especially the cultivation of grain, potatoes and vegetables. Private farms are actively engaged in milk production. Wool gathering is almost fully provided by the population. Private households of citizens play a significant role in the development of agriculture in the region. They are just the private households that produce most of the potatoes, vegetables, milk, and wool.

Moreover, the dynamics of production volumes indicates the uneven development of different categories of households. The agricultural development program was adopted in 2013. It was this state act that became the impetus for the development of rural entrepreneurship and successfully contributed to the activation of farming movement.

Despite the introduction of tough economic sanctions and crisis phenomena, the agricultural sector of Russia continues to develop and achieve significant success. Agriculture managed to adapt to new economic conditions faster than other sectors of the economy. However, certain difficulties remain with the increase of quantitative indicators. There appears a marked tendency in reduction in the number of cattle. In recent years, the number of cattle in farms of all categories has decreased by more than 2 times.

Despite all efforts, agriculture continues to belong to industries with very poor effectiveness and does not have the potential for expanded reproduction without state financial injections. The financial appropriations provided from the budgets of various levels help to ensure a sufficient level of efficiency. So the state subsidies in the Chuvash Republic ensured an increase in profitability by 14.3%, in the Volga Federal District – by 16.3%, in Russia – by 12.6% as a whole.

But there are also negative trends. Thus, there is a steady trend of annual decline in the profitability of agricultural production calculated without taking into account subsidies from the budgets. This confirms the assumption of misallocation of public funds.

We propose to evaluate the effectiveness of government investment in agricultural development regularly. Besides the standard indicators of the ratio of growth rates of production volumes and appropriations, it is recommended to calculate the value of agricultural production volumes per ruble of state investments:

\[ Q = \frac{V}{W} \]  

(1)
where $V$ – volume of agricultural production expressed in monetary terms; $W$ – total volume of state investments in the industry (the volume of appropriations from the federal and regional budgets) in monetary terms.

**Table 1.** Efficiency indicators of government appropriations for agriculture in the Chuvash Republic for 2013-2020 [12].

| Indicators                                                                 | 2013     | 2014     | 2015     | 2016     | 2017     | 2018     | 2019     | 2020     |
|---------------------------------------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Total appropriations from the federal and republican budgets, mln. RUB     | 856.04   | 1146.62  | 1516.93  | 2074.79  | 2239.39  | 2051.2   | 1732.2   | 2075.8   |
| growth rate, %                                                             | 133.9    | 132.3    | 136.8    | 107.9    | 91.6     | 84.4     | 119.8    |          |
| Volume of agricultural production in households of all categories, mln. RUB | 36707.58 | 37765.0  | 39347.2  | 39338.3  | 38736.9  | 37467.7  | 42902.6  | 44837.1  |
| growth rate, %                                                             | 102.8    | 104.2    | 100.0    | 98.5     | 96.7     | 114.5    | 104.5    |          |
| The share of budget appropriations in the total value of agricultural products, % | 2.3      | 3.0      | 3.9      | 5.3      | 5.8      | 5.5      | 4.0      | 4.6      |
| Accounted for 1% increase in budget appropriations for agricultural production growth, % | 0.77     | 0.79     | 0.73     | 0.82     | 0.91     | 1.35     | 0.87     |          |
| Agricultural production per ruble of state investments, RUB                 | 42.9     | 32.9     | 25.9     | 19.0     | 17.3     | 18.3     | 24.8     | 21.6     |

Table 1 shows that the volume of financial state support for the agricultural sector has increased almost 3 times since 2013. Only in 2019 there was a decrease in appropriations from budgets of all levels. Agricultural sector has been increasing the production volume during the first four years after the adoption of the State Program for Development of Agriculture and Regulation of Agricultural Commodity Markets. But in 2017-2018, there is a decrease in the volume of products produced in households of all categories. The share of budget appropriations in the total value of agricultural products increased over the research period from 2.3 to 4.6%. On average, 1% of the increase in budget appropriations was provided by an increase in agricultural production by an average of 0.87% that in turn indicates the inefficiency of budget appropriations. It is confirmed by the indicator of agricultural production per ruble of state investments which we proposed for calculation. In 2013, this indicator had the maximum value for the entire research period – the products to the value 42.9 rubles were manufactured for 1 ruble of state investments in the industry. Every year, this indicator was decreasing and amounted to only 17.3 rubles in 2017. The increase in agricultural production with a decrease in
state support was reflected in the increase of this indicator to 21.6 rubles in 2020. Thus, it can be said that the return on invested public resources decreased over the research period by 2 times.

Today the agricultural production has almost exhausted the possibilities of extensive development by replacing foreign suppliers and expanding their share in the agricultural market. The stage of increasing production and developing the domestic market should be replaced by access to foreign markets. The development of foreign trade relations will not only increase revenue, but also reduce risks in various areas of supply. The scale effect will allow to get additional savings with an increase in production output, as well as a gain of exchange when selling currency earnings. At the same time, access to world markets will require higher competitiveness and appropriate quality of Russian products. In this regard, it is advisable to orient the measures of state control of the agricultural sector towards increasing the efficiency and competitiveness of production that will undoubtedly require the revitalization of agricultural organizations [13].

Thus, the dynamics of the effectiveness of the implementation of state control and financing of agricultural sector shows a decline in efficiency. It indicates the need to improve state control of the agricultural sector of the Chuvash Republic.

4. Conclusion
Thus, the system of state support for the agricultural sector in the region needs additional development and improvement of the applied tools and methods of influence. To solve the identified problems, we came up with the following recommendations:

- optimization of the system of state investment policy in the agricultural sector that requires the creation in the regions of a system of independent territorial and market investment financial institutions capable of ensuring sustainable innovative development of the local agri-food complex; the formation of progressive trends in improving regional mechanisms for managing investment and financial relations in the agri-food sector, the qualitative improvement of state financial and investment instruments for managing agro-industrial relations;

- advanced training of members of management in the agricultural sector through the implementation of the concept of continuous cluster education that is especially important in innovative development and digitalization of the economy;

- development of a support system for peasant (farm) households by stimulating the development of processing plants, solving the problem of deficit in financing agricultural producers who work in peasant (farm) households.

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