



# The Mechanism of Activation of the Process of Import Substitution in the Agro-Industrial Complex for Provision of Food Security

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**Abstract.** The purpose of the work is to develop the practice-oriented mechanism of activation of the process of import substitution in the agro-industrial complex (AIC) for the purpose of provision of food security in modern Russia. The offered hypothesis is verified with the help of the regression and correlation analysis. In the course of the research, the authors prove that subsidizing, which is the only measure, used for stimulating import substitution in modern Russia, is not effective and leads to additional load on the deficit federal budget. In order to reduce the entering barriers and increase competition in the sphere of AIC in modern Russia, the authors offer to use the mechanism of public-private partnership. This will allow attracting flexible and adaptable small and medium business into this sphere due to provision of state production capacities, as well as private investments by means of state guarantees. The authors describe the functions of the state and private business, as well as logic of activation of the process of import substitution of the AIC for provision of food security by application of the mechanism of public-private partnership.

**Keywords:** Import substitution · AIC · National food security  
Public-private partnership · Modern Russia

## 1 Introduction

Agro-industrial specialization is not a peculiar feature of the modern Russian economy – both due to the influence of geographical factors and to striving of the national economic system to quick post-industrialization, which is conducted not by means of development of the service sphere but by means of increase of its share in the structure of economy with reduction of business activity in other spheres.

In view of high demand for agro-industrial products, caused by growth of the number of population and striving for increase of the living standards, this leads to the problem of provision of food security. This problem was traditionally solved with the help of import. However, in recent years, this method of solving it became less accessible due to violation of international economic connections of Russia in the conditions of the financial crisis, which was replaced by the sanctions.

Change of suppliers of imported agro-industrial products did not lead to complete solution of the problem of provision of food security in modern Russia, as in the conditions of instability of the geopolitical situation there is a risk of violation of shipment of agro-industrial products. Therefore, the most effective means of provision of food security of modern Russia's economy is import substitution in the agro-industrial complex.

The course at import substitution in the AIC was officially announced in the Strategy of socio-economic development of the agro-industrial complex of the RF until 2020, but over the five years of its implementation there were no substantial results, and the Russia's economy's dependence on import of agro-industrial products is preserved.

In this research, we offer the hypothesis that the reason for unsuccessfulness of implementation of the course for import substitution in the AIC in modern Russia consists in absence of practical measures of its implementation. The goal of this work is to develop the practice-oriented mechanism of activation of the process of import substitution in the AIC for provision of food security in modern Russia.

## 2 Materials and Method

The measures applied for implementation of the Strategy of socio-economic development of the agro-industrial complex of the RF until 2020 (Russian Academy of Agricultural Sciences 2017) are described in the program of state support for agro-industrial complex in the RF (Kuban Agricultural Information and Consultation Center 2017).

This program of state support for agro-industrial complex in the RF supposes exclusive subsidizing of enterprises of the AIC. Statistical information on the course of implementation of this strategy is given in the materials of the Ministry of Agriculture of the RF on distribution of subsidies in the agro-industrial complex in 2017 (Ministry of Agriculture of the RF 2017).

The offered hypothesis is verified by the authors with the help of the method of regression and correlation analysis. It is true if the coefficient of correlation of the number and turnover of enterprises of the AIC and the volume of their subsidizing by the state is below 90% - otherwise, the hypothesis will be overturned.

## 3 Discussion

The problem of provision of national food security has been studied in multiple works of modern authors, which include Bogoviz and Mezhev (2015); Popkova et al. (2016); Sadovnikova et al. (2013); Popova et al. (2015); Bogoviz et al. (2017); Sandu et al. (2017); Przhedetskaya and Akopova (2015); Dudukalov et al. (2016).

The performed content analysis of scientific literature on the topic of the research showed that despite the statement on the necessity for applying import substitution for provision of national food security, practical recommendations and mechanisms of activation of this process are not offered, which is a basis for further scientific research in this direction.

## 4 Results

The results of regression and correlation analysis showed that increase of the volume of state subsidizing of enterprises of the AIC by RUB 1 billion leads to increase of their turnover by RUB 2.3 billion (correlation coefficient constitutes 81.4%), and their number decreases by 2 companies (correlation coefficient constitutes 0.1%).

This shows that the applied measures for implementation of the Strategy of socio-economic development of the agro-industrial complex of the RF influence the process of development of import substitution in an insignificant way and even slow it down. It should be noted that the connection between the volume of state subsidies and turnover of enterprises could be predetermined not so much by their real interdependence as by the influence of inflation.

Thus, subsidizing is characterized by low effectiveness as to stimulation of import substitution in modern Russia and leads only to additional load on the deficit federal budget. It is risky to rely on the market mechanism that works successfully in other spheres of economy, as the spheres of AIC is of top-priority from the point of view of provision of national food security, and high dependence on the geographical factor (which influence in unfavorable in Russia) due to close connection to agriculture reduces investment attractiveness of this sphere.

The companies of the AIC are represented mostly by large business, the important role in the work of which belongs to fixed assets and production technologies, which determines high entering barriers for new players. Current companies of the AIC have stationary organizational structure, which does not allow them to react to market signals and leads to their low competitiveness.

In order to reduce the entering barriers and increase competition in the sphere of AIC in modern Russia, the authors offer to use the mechanism of public-private partnership. This will allow attracting flexible and adaptable small and medium business on the basis of provision of state production capacities and attracting private investments by means of state guarantees.

The state's functions within partnership in the sphere of AIC should be brought down to the following:

- provision of production capacities: state should be the initiator of partnership with private business, providing premises, equipment, and technologies. These could be production capacities which the state already owns or the ones specifically purchased for this goal;

- establishment of national priorities of the AIC for import substitution: projects of public-private partnership should be created in the segments of the AIC in which entrepreneurship is least developed, but there's a large demand for its products, i.e., there's deficit;
- provision of guarantees for investors: in the conditions of deficit of the federal budget, state investments might be not enough for formation of necessary production capacities, and there would be a need for private investments, attracted by means of state guarantees of their return.

The functions of private business within partnership in the AIC should be the following:

- flexible and adaptable management of projects of public-private partnership in the AIC: effective management within the partnership with the state is provided by small and medium companies;
- placement of investments into the projects of public-private partnership in the AIC: the main investment load will be placed on private business;
- marketing in the AIC: determining perspective directions of development of the AIC and new tendencies of demand.

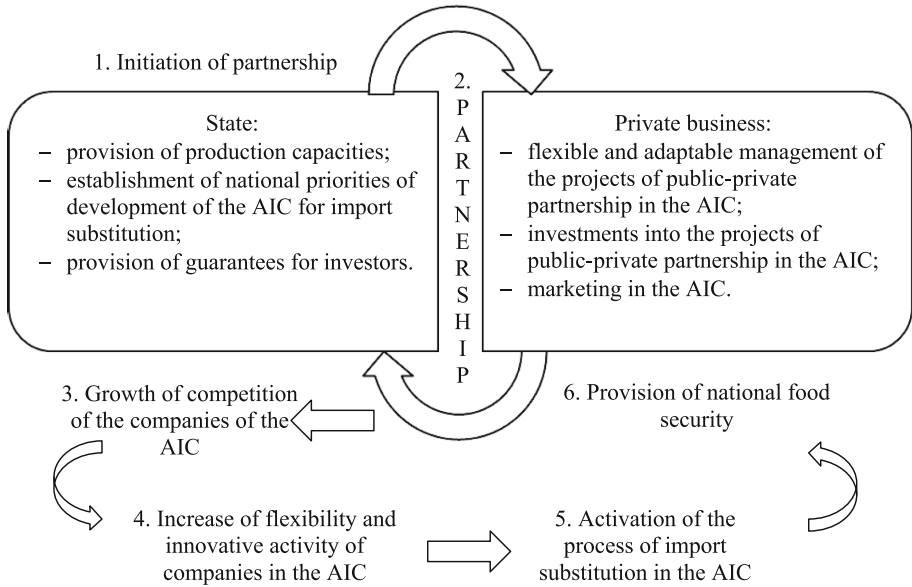
The offered mechanism of activation of the process of import substitution in the AIC for provision of food security is shown in Table 1.

**Table 1.** Dynamics of indicators of development of Russia's AIC in 2011-2016

Indicators	Values of indicators for the years					
	2011	2012	2013	2014	2015	2016
Turnover of enterprises, RUB billion	3,986.2	4,058.7	4,138.5	4,216.7	4,675.6	5,526.3
Number of enterprises, thousand	51.2	51.5	48.5	47.6	50.9	51.4
Volume of subsidies to enterprises, RUB billion	52.8	53.5	54.9	56.1	57.2	58.8

Source: compiled by the authors on the basis of: (Federal State Statistics Service, 2017), (Ministry of Agriculture of the RF 2017).

As is seen from Fig. 1, implementation of the mechanism of public-private partnership leads to growth of competition of enterprises in the AIC, as market barriers for players are reduced. This stimulates increase of flexibility and innovational activity of all enterprises in the AIC, as it makes them care for their competitiveness. This activate the process of import substitution in the AIC, as this leads to equal filling of its segments and manufacture of competitive products that satisfy the demand of domestic consumers. As a result, the problem of provision of national food security is achieved.



**Fig. 1.** Mechanism of public-private partnership for activation of the process of import substitution in the AIC for provision of food security. Source: compiled by the authors.

## 5 Conclusion

It should be concluded that only competitive environment can activate the process of import substitution in the AIC, as its absence became the reason for high dependence on import of products of the AIC in modern Russia. As it is difficult to achieve high level of competition in the AIC with private business only – due to high barriers for entering – it is necessary for the state to be involved.

Public-private partnership is an optimal variant of development of business activity in the AIC, as it allows reducing barriers for new players while preserving their marketing activity – which cannot be ensured by the measures for subsidizing the innovational activity of current enterprises in the Russia's AIC.

The results of the performed research are limited by underdevelopment of the mechanism of public-private partnership in domestic economic practice, which complicated the application of the offered authors' recommendations. That's why a perspective direction of further research should be development of the theoretical and methodological platform of public-private partnership and practical aspects of its implementation in modern Russia.

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