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REINFORCEMENT OF THE ECONOMIC SECURITY OF RUSSIA BY MEANS OF THE IMPLEMENTATION OF IMPORT SUBSTITUTION STRATEGIES IN THE MILITARY-INDUSTRIAL COMPLEX*Larin Sergey Nicolaevich**PhD in technical sciences, head scientist researcher
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Peoples' Friendship University of Russia, Moscow*DOI: [10.31618/nas.2413-5291.2019.2.45.43](https://doi.org/10.31618/nas.2413-5291.2019.2.45.43)**УКРЕПЛЕНИЕ ЭКОНОМИЧЕСКОЙ БЕЗОПАСНОСТИ РОССИИ ПУТЕМ РЕАЛИЗАЦИИ СТРАТЕГИЙ ИМПОРТОЗАМЕЩЕНИЯ В ОБОРОННО-ПРОМЫШЛЕННОМ КОМПЛЕКСЕ***Ларин Сергей Николаевич**Кандидат технических наук, ведущий научный сотрудник
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Development and implementation of import substitution strategies became the Roland for Oliver of our country and key sectors of Russian economics, answering the sanction pressure of leading Western countries. In itself, the implementation of sanction restrictions promoted the revealing of the potential for the substitution of the imported production by the in-house one, as well as of possibilities of its implementation in leading areas of Russian economics.

The actuality of the article topic is determined by the comprehensive approach, used at the development of import substitution strategies in each sector of Russian economics. The essence of its implementation was that the import substitution strategy for each sector comprised its own complex of measures, oriented to the reduction of dependence from the imported production and completing parts or its full substitution by national analogues.

The main target of this work is to select the requirement for the correspondence of the quality of new kinds of the released production and of substituted completing parts with international standards as one of determining conditions of the implementation of import substitution strategies. The purpose of this research is to evaluate the dynamics and structural changes in the development of the military-industrial complex of Russian economics, caused by the implementation of import support strategies. The research covered functional peculiarities of the military-industrial complex of Russian economics at the implementation of import substitution strategies.

The methodological base of the research used statistic analysis methods, groups and comparisons of indices in the context of several leading sectors of Russian economics.

The implementation of import substitution strategies in the military-industrial complex of Russian economics caused qualitative infrastructure shifts, which dynamics will be headlined in this article.

Аннотация

Разработка и реализация стратегий импортозамещения стали достойным ответом нашей страны и ключевых секторов российской экономики на санкционное давление ведущих стран Запада. Введение санкционных ограничений, по сути, способствовало выявлению наличия потенциала замещения импортной продукции отечественной и возможностей его реализации в ведущих отраслях российской экономики.

Актуальность темы статьи определяется комплексным подходом, используемым при разработке стратегий импортозамещения в каждом секторе российской экономики. Его реализация заключалась в том, что в стратегию импортозамещения каждого сектора был положен свой комплекс мероприятий, направленных на снижение зависимости от импортной продукции и комплектующих или их полное замещение аналогами отечественного производства.

Основной целью данной работы является выбор в качестве одного из определяющих условий реализации стратегий импортозамещения требования соответствия качества новых видов выпускаемой продукции и замещаемых комплектующих международным стандартам. Предметом настоящего исследования выступает оценка динамики и структурных сдвигов развития оборонно-промышленного комплекса российской экономики, вызванных реализацией стратегий импортозамещения. Объектом исследования стали функциональные особенности деятельности промышленных предприятий оборонно-промышленного комплекса российской экономики при реализации стратегий импортозамещения.

В качестве методологической основы исследования были использованы методы статистического анализа, группировки и сравнения показателей в разрезе некоторых из ведущих секторов российской экономики.

В результате реализации стратегий импортозамещения в оборонно-промышленном комплексе российской экономики произошли качественные инфраструктурные сдвиги, динамика которых будет кратко освещена в данной статье.

Key words: Russian economics; military-industrial complex; sanction restrictions; substitution potential; import substitution strategy; development.

Ключевые слова: российская экономика; оборонно-промышленный комплекс; санкционные ограничения; потенциал замещения; стратегия импортозамещения; развитие.

Introduction

As we know, the purpose of sanction restrictions, introduced by Western countries, was to restrain the development of Russian economics by all means. In order to support its development the nationwide decision was made to accelerate the diversification of Russian economics. The comprehensive influence of mentioned circumstances caused necessary precursors and favorable conditions for the change of the main paradigm of the economic development of Russia. In this juncture industrial enterprises of key branches of Russian economics, mainly referred to the provision for the economic and military security of our country, were re-oriented to the development and implementation of import substitution strategies of supplies of the foreign equipment and completing parts with the equivalent in-house production [2, p. 33; 5, p. 21; 8, p. 68].

With that it is necessary to keep in mind that the implementation of import substitution strategies in the modern context is in large part a coercive measure, which will support leading sectors of Russian economics, being under sanction restrictions. Besides that, methods and instruments of the import substitution notably restrict conditions for the development of Russian economics, as the absence of foreign equipment and completing parts in the market essentially reduces the competitive ability of national manufacturers. Under its influence it can lose the motivation for the production of quality goods at international standards. In this juncture the successful implementation of import substitution strategies is possible only in case of the manufacturing of the high quality production at the level of world requirements or exceeding such [5, p. 22; 11, p. 14].

At the example of the military-industrial complex of Russian economics the article will show the implementation of the import substantiation potential for several kinds of equipment and completing parts, dynamics and structural changes in the manufacturing of the national production within frames of measures, developed within import substitution strategies.

Main part

1. Essence and purpose of import substitution strategies

As import substitution should be understood a certain economic strategy, implemented within frames of the industrial policy, implemented by the state and oriented to the development of the national production.

It is implemented by means of the substitution of foreign made equipment and spare parts, manufactured at national industrial enterprises [2, p. 38; 3, p. 81]. With that the basic purpose of the implementation of measures of the import substantiation strategy is to enhance the competitive ability of the in-house production and to improve its quality indices by means of the upgrading of production technologies and the implementation of innovations.

The import substantiation strategy provides the substantiation of the mass production of the obsolete commodity nomenclature by the increase of release volumes of the science consuming and high technology production. It requires the enhancement of the level of production development, as well as the considerable widening of the practice of application of innovative technologies [5, p. 25]. These conditions are especially relevant for our country, as the development level in certain leading sectors of Russian economics is considerably lower than the production development level in countries, being our economic counterparts.

The stable economic development of Russian economics should be based on the material enhancement of the use by national industrial enterprises of internal resources and volumes of the release of the in-house production. Mentioned factors are of the paramount importance due to the enhanced instability of the development of the world economics with the following limitation of the access of Russian enterprises to the involvement of foreign credits. As matters it is important to understand that the main source of the growth impulse of Russian economics should be financial resources, obtained in the form of incomes from the export of the in-house production, created within frames of the implementation of the import substitution strategy. In this juncture the in-house production should exceed foreign analogues by its quality indices and be competitive at the world level in order to be of high demand at both the internal and export market.

2. Import dependence level of different branches of Russian economics

The systemic approach to the analysis of measures within frames of adopted programs and import substantiation strategies, provided different measures of its financial support, allows to obtain expected evaluations of the efficiency of its implementation till 2020 (see table) [7, p. 188].

Table

EXPECTED EVALUATIONS OF THE EFFICIENCY OF THE IMPLEMENTATION OF IMPORT SUBSTITUTION STRATEGIES

Branch	Import dependence in 2015	Import dependence decreasing till 2020
Aircraft engineering for the civil aviation	more than 80%	40%
Heavy engineering industry	about 70%	35%
Oil-and-gas machine building	60%	40%
Power engineering	about 50%	30%
Agricultural machine building (by production categories)	50% - 90%	20%

The successful implementation of import substitution strategies till 2020 can decrease values of the import dependence index for different indices from current 70-90% till expected 20-40%. It is likely that a range of branches can achieve much lower import dependence indices. With that the re-orientation of national enterprises to the production of the import substantiating production will take NLT 2-3 years [6, p. 6].

3. Measures for the substantiation of the imported equipment in the military-industrial complex

The volume of supplies of certain foreign made items, equipment and completing parts for needs of the Russian military-industrial complex (MIC), already in 2011-2013 was evaluated as 75 mln euro [1, p. 131]. The annual export of double purpose items and technologies only from EC countries was about 20 bln euro. The use of foreign made items, equipment and completing parts stipulated the reduction of periods of development of new samples of armaments and of the military technique, and, in some cases, has caused the decrease of its self-cost. So, foreign made items, equipment and completing parts were provided to Armata tank platform, IFV-3 infantry fighting vehicles, Typhoon-K armored vehicles, several kinds of combat vessels, ranges of samples of the modern aviation technique and many other systems.

In the modern context the provision for the independency of the national MIC developments from foreign made items, equipment and completing parts, becomes an actual task as never before. Over the last years Russian MIC industrial enterprises have obtained considerable successes in the decrease of the dependence of production of contemporary samples of the military technique and armaments from foreign supplies. Nowadays adopted import substitution program and strategies are being successfully implemented. Nowadays Russian made items, equipment and completing parts have fully substituted foreign analogues in more than 200 samples of armaments and military technique and in another 100 samples of armaments the Ukraine-made samples of armaments and military technique were replaced by national in-house analogues.

So, the United Engine Building Corporation (UEC), a member of Rostech State Corporation, in 2018 has manufactured 130 BK-2500 helicopter engines and in 2019 has fully completed the import substitution program for this equipment. The BK-2500 turboshaft is distinguished by its advanced reliability

and performance, while it is managed by the modern digital system. The production of this engine allowed to upgrade the production portfolio of middle class combat helicopters of MI and KA series. In comparison with the basic TB3-117BMA engine the BK-2500 engine has got 15-20% higher capacity, is equipped with the new digital automatic regulation and control system and is characterized by the enhanced endurance [9].

Till the middle of 2018 the United Ship Building Corporation (USC) has fully substituted gas-turbine power plants (GPP), earlier supplied from Ukraine, with the Russian made production for several types of surface combatants. Moreover, since 2017 USC started the creation and production of newest power diesel plants for other kinds of surface combatants. It is obvious that since 2019 the corporation will be able to manufacture by its forces the whole process line of power facilities for different types of warships [8, p. 68].

The united instrument-making corporation is the leading supplier of the communication automation means and systems, as well as of the telecommunication equipment for the Russian MIC. Leaders of the development of newest information products and management systems are such famous manufacturers as SAP, Oracle, IBM, Microsoft, as well as the range of other American, European and Asian companies. Anyway, such a situation cannot be accepted by equipment and military technique systems of Russian MIC enterprises. It seems obvious that nowadays the whole information, contained in Russian MIC (normative, financial, project, production, military etc.) should be safely protected and unavailable for any external threats, and the used equipment and software should guarantee the full impossibility of the external interference, should exclude any possibility of the unauthorized collection or copying of the information, to maintain the stable working capacity in any circumstances [10, p. 119].

Over recent years the corporation has obtained serious successes in solving of such issues as “artificial vision”, DBMS, artificial intellect. Namely, was developed the technology of the computer analysis and processing of huge volumes of the text information of the different complexity level. This technology is unique due to the use of advanced topics of Big Data analysis systems and of the systemic organization of the documentation procedure. Nowadays such technologies can be created by such world level companies as Google or Facebook. For the instrument

manufacturing corporation the creation of such a technology became the implementation of one of measure of the import substantiation strategy [9]. It is necessary to highlight that this technology is 100 % a Russian one, created without any assimilations by national experts in most different areas.

Nowadays the creation of the consolidate module program platform is one of priority developments of the United instrument making corporation. After the implementation of this product Russian MIC enterprises will have new opportunities for the performance of the finished cycle of the design-to-manufacture preparation of any manufacturing sites starting by the design of the 3D item model and ending by the necessary settlements and development of the design documentation for the serial production of ready samples. As the previous one, this sample is being developed on the basis of the only Russian software, which can be used without restrictions at Russian MIC enterprises.

Conclusion

In the course of research were obtained several results, serving as reason for following opinions.

1. The essence and purpose of import substitution strategies for the successful development of Russian economics and its leading branches have been determined. It has been substantiated that the successful implementation of the import substantiation strategy will promote the appearance of the whole range of positive trends of the development of Russian economics, including its stable growth. The competitive recovery of the in-house production at the world level, as well as its exceeding foreign analogues by its qualitative indicators should be the determining factor for the trend fixation.

2. It was established that nowadays the import dependence level for several branches of Russian economics remains rather high. In order to avoid such a situation was developed the complex of measures, as well as were established terms of the reduction of the share of the imported equipment and of completing parts according to the basic nomenclature of the manufactured production for the majority of branches by the already 2020.

3. During last years industrial enterprises of the Russian MIC obtained considerable successes in order to decrease the dependence of the production of modern samples of military technique and equipment from

foreign supplies. At the example of several Russian MIC corporations are shown the dynamics and some structural shifts, as well as prospects for the successful implementation of adopted programs and import substitution strategies.

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