

**ISCKMC 2020****International Scientific Congress «KNOWLEDGE, MAN AND CIVILIZATION»****INNOVATIVE DEVELOPMENT OF IMPORT SUBSTITUTION IN  
HIGH-TECH INDUSTRIES**

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**Abstract**

The article discusses the basics of the need for import substitution; issues of import substitution of innovative and technologically advanced products; development of appropriate industrial policy in the field of innovative and scientific and technical production, which will create favorable conditions for import substitution, and will also be carried out in the course of active cooperation with countries with developed innovative economies for knowledge exchange and technology transfer. The concept of "import substitution" is considered as some kind of economic process and it does not follow from the definition that this process must be initiated by the state or somehow politically justified. Import substitution is due only to economic opportunities and occurs to some extent regardless of policy - "natural import substitution" caused by an increase in national income, an increase in the competitiveness of domestic products in the domestic market. Based on these characteristics, the differences between the concepts of "import substitution" and "policy of import substitution" are defined. Three types of import dependencies are considered and the term "import substitution" is also closely related to the concept of import dependence, which reflects the relationship between the volume of imports, economic growth and the welfare of the country. An import substitution policy with a protectionist policy is a set of macro- and microeconomic measures: tariffs, quotas, duties, embargoes, restrictions on foreign investments, currency regulation, devaluation of the national currency, subsidies, soft loans, tax incentives for producers in the domestic market.

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*Keywords:* Import substitution, import substitution policy, high-tech import substitution, innovative import substitution



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## 1. Introduction

The prospects for the Russian economy as a whole largely depend on the ability of domestic companies to compete with foreign companies in the domestic market. Following the introduction of sanctions against Russia by Western countries, the issue of implementing the import substitution policy becomes urgent. This problem is especially relevant for the industrial sector, which is one of the main sectors that determine the sustainability of the country's economic development (Kamberdieva et al., 2013; Sopoeva et al., 2020).

Import substitution is the process of ensuring the production of goods and services necessary for domestic consumption through the development of domestic production that is, increasing the production of companies operating in the country.

The introduction of economic sanctions by Western countries against Russia in 2014–2019 determines the need to develop and market import substitution products in the country. The foreign policy of the Russian Federation has a significant impact on economic development, in addition to increasing risks, but also the emergence of new opportunities.

Import substitution means "a decrease or termination of imports of goods through the growth of domestic production of products or their analogues, produced by domestic producers at production facilities located within the country."

The total amount of funds aimed at promoting import substitution for the period 2015–2018 amounted to about 1.6 trillion rubles. In the period 2019–2020, the volume amounted to almost 1.3 trillion.

Import substitution should be considered as some kind of economic process, and it does not follow from the definition that this process must necessarily be initiated by the state or somehow politically justified. Import substitution can only be due to economic opportunities and occur to some extent regardless of policy - this is called "natural import substitution" caused by an increase in national income, an increase in the competitiveness of domestic products in the domestic market. Based on these characteristics, it is possible to distinguish between the concepts of "import substitution" and "policy of import substitution": the latter means a situation in which the need to replace imports with products of own production is indicated at the political level and this is not necessarily related to the economic situation. This difference is of fundamental importance when it is necessary to assess the validity of import substitution and its effectiveness, since in the event of political influence the criteria for such an assessment cannot remain exclusively economic, etc. (Kutsuri et al., 2019).

The term "import substitution" is also closely related to the concept of dependence on imports, which reflects the relationship between the volume of imports, economic growth and the well-being of a country.

There are three types of import dependencies:

- Dependence on imported manufacturing equipment;
- Dependence on imports of raw materials, materials, semi-finished products and spare parts;
- Dependence on imports of finished products.

Import substitution policy is in many respects similar to protectionist policy and is a set of macro- and microeconomic measures:

- Instruments of foreign macroeconomic policy: tariffs, quotas, duties, embargo, restrictions on foreign investment, etc.
- Macroeconomic instruments of monetary policy: foreign exchange regulation, devaluation of the national currency
- Instruments of non-tariff macroeconomic regulation: subsidies, preferential loans, tax incentives for producers in the domestic market.

Import substitution of high technologies is a high-tech import substitution of goods and services, and innovative import substitution can be defined as the substitution of products imported from abroad or used in production processes, technological novelty, products and processes of domestic production with comparable performance characteristics (Sopoeva et al., 2020).

Tapscott (1995) was one of the first authors who started to envisage modern digital economy. It is a system of economic, social and cultural relations that are based on using digital information and communication technologies. Technological infrastructure development and big databases have led to global digital transformation of the society. Integration of digital services, products and systems is a distinctive feature of this stage. All these factors drastically change the scheme of the global system, for example, consumers' possibilities, structure of the industries, the role that the states play (Kholodkova, 2013; Tapscott, 2014; Timchuk, 2018).

## **2. Problem Statement**

The globalization of the economy makes all countries of the world more or less dependent on the import of goods and services. This dependence is threatened if the imported goods have such a large share in domestic consumption that their own production becomes unprofitable, or if the supply of imported goods is interrupted or reduced for any reason. In such a situation, import substitution is necessary to ensure economic security, which in this context means a set of conditions provided by the state that characterize the resistance of a particular country to economic threats, the ability to function and develop.

In order to assist Russian companies in introducing world-class technological solutions and achieving the competitiveness of domestic products, the following determinants (tasks) have been identified (Castells, 1996; Mesenbourg, 2001; Rogers, 2016):

- search and purchase of modern technologies;
- creation of joint ventures;
- assistance in obtaining state support;
- assistance in the export of Russian technologies;
- technology exchange between industries.

## **3. Research Questions**

With the indisputable scientific and practical significance of the study, it is necessary to update the consideration of a set of issues affecting the theoretical aspect of import substitution and dependence on imports, based on the current situation in the domestic and global economy.

The relevance of conducting research, taking into account the existing and future state of the world and domestic competitive environment in industry for the development of a scientific and methodological apparatus for the development of import substitution, determined the choice of the research topic and predetermined the object, subject, purpose and objectives of the work.

**Research questions define the following segments:**

- The need for a transition to an innovative, socially oriented type of import substitution;
- the role of import substitution in high- and medium-tech sectors of the economy;
- In the implementation of world-class technological solutions and the achievement of the competitiveness of domestic products.

#### **4. Purpose of the Study**

Infrastructure support of the state for import substitution in Russia is carried out taking into account certain algorithms and, first of all, determines the following goals:

- work on the development of competitiveness;
- improving the quality of the Russian economy – increasing the production of goods in accordance with world standards;
- attention to the protection and development of domestic producers;
- ensuring the economic security of the country;
- to occupy the market of imported goods with its own domestic production.

#### **5. Research Methods**

The theoretical and methodological base is formed by the fundamental paradigm of modern economic science, which form the socio-mental basis and theoretical-conceptual basis of analysis of import substitution problems.

The methodological basis of the study is formed by the fundamental paradigms of modern economic science, which form the socio-mental basis and the theoretical and conceptual basis for the analysis of import substitution problems; In solving specific analytical problems, traditional and generally accepted scientific methods of modeling, statistical data processing and analysis of development options were used (Kamberdieva et al., 2013; Kutsuri et al., 2019).

#### **6. Findings**

The developed infrastructure allows more institutions to work with innovative industries. It is the formation and achievement of an improved system of the newest imperatives of import substitution that ultimately contributes to the creation of new qualified jobs. Due to the modernization of the technological base, in the civil aircraft industry by 2021, the maximum share of imports should decrease and amount to 30–50 % instead of 100 % in 2014.

In the field of industry, there is an increase in the production of domestic goods. For example, the share of imports for the development of Internet services fell to 25 %, the production of automatic transmissions – to 20–30 %, and fabrics for home textiles – to 15 %.

In particular, 601 drugs are included in the plan of measures for import substitution in the pharmaceutical industry. For most medicines, the maximum share of imports should be reduced from 100 to 50 or 10 % by 2021.

The previously planned development of technical regulations, an increase in the number of patented technologies developed using international standards and national standards for the complete elimination of barriers in the trade sphere have been successfully introduced into practice.

It should be noted that in order to maintain employment and load capacity in industry, the Government took anti-crisis measures. Among them, the support of strategic organizations, access to preferential loans to replenish working capital stands out.

Since 2015, some industries have multiplied their presence in the domestic market. In particular, the share of Russian products in the food processing industry has increased almost 4 times, and in agricultural engineering more than doubled. On average, there is an increase in mechanical engineering from 38 to 60 %, and in general, 13 industries have already surpassed the 50 % bar in processing, five of them exceeded the 75 % mark.

This contributes to the promotion of domestic products in procurement, including in the framework of import substitution and in the implementation of national projects. And of course, this will create favorable conditions for Russian business enterprises and increase the volume of their products.

## **7. Conclusion**

In the long term, diversification of the import substitution market solely through government incentives may lead to strategic competitive failure, especially in the case of Russian IT exports. It is necessary to use various mechanisms, including market ones.

In general, the policy of import substitution is strategically justified, it has a multiplier effect, since money remains in the country and works for its development.

Over the course of several years, a lot of work has been done: developers bring new solutions to the market, partnerships are developing, but in the near future it will be impossible to completely abandon foreign software.

Import substitution itself can be effective only for a limited period: for its long-term use, it is necessary to combine the import substitution policy with the policy of innovation and measures to expand the market.

The negative consequences of government intervention in the policy of import substitution can be eliminated if, at the same time, exports are actively stimulated, and import substitution becomes a tool for increasing exports.

Import substitution of innovative and technologically advanced products cannot be achieved by strict import restriction measures. The most reasonable strategy in this context may be the development of an appropriate industrial policy in the field of innovative and scientific and technological production, which will be primarily horizontal and create favorable conditions for import substitution, and would also be carried out in the course of active cooperation with countries with developed innovative economies to exchange knowledge and technology transfer.

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