The Import Substitution Trap in the Realities of the Automotive Industry

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Abstract—The article examines mechanisms underlying the formation of the “import substitution trap,” which is a stable ineffective institution that serves as a means of protecting national producers from foreign competition. The costs and risks of rooting this institution in the Russian automotive industry are analyzed, the import substitution strategies of the Russian government at the current stage of the industry’s development are investigated, the experience of import substitution in the foreign automotive industry is summarized. The conclusion is substantiated that the import substitution policy brings short-term effects but is disadvantageous in the long term. Domestic substitutes can gain a strong market position but their success is fragile and requires continued government support and protectionist patronage. The author shows that the policy of import substitution becomes successful when it relies on competition, when the domestic import substitute, having entered the market and strengthened its position, is gradually deprived of preferential conditions, and the state support of its manufacturer is gradually cut while the market is transferred to a “free-wheeling” mode for all players.

Keywords: import substitution, protectionism, industrial policy, competition, automotive industry, import substitution trap

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The famous American economist J. Mainstring, in his journal article written in 1970, compared import substitution with “the assisted procreation of individual branches and spheres of the national economy, which will then suddenly have to give rise to amazing, previously unproduced in the country, innovative products,” and was sure that success in this matter could only be achieved locally and through targeted “immaculate conceptions,” therefore, he emphasized that import substitution “was not able to turn into the main (and even less so large-scale) policy of the national economy” [1, p. 125–126].

Today, half a century later, such an intimate interpretation of import substitution seems to have lost its relevance: in many countries that have embarked on a course of authoritarian modernization, catching up development, and other similar strategies, import substitution is elevated to the rank of official state economic policy. In modern Russia, for example, dozens of different state programs, sectoral plans of the federal and regional levels have been adopted, aimed at reducing dependence on imports in various sectors of the economy, and there is even an actively operating Government Commission on Import Substitution.

However, the far from impressive successes of this policy ascertained by various economists in relation not only to modern Russian practice [2–4] but also to the practical experience of other “catching up” states [5–8] make one wonder whether the “appeal” inherent in import substitution is less than modest.

“Glitter and poverty” of import substitution. By itself, this process in a broad context implies not only the replacement of imported goods by products produced domestically but also the output of domestic goods that have no analogs in the domestic market and are created on the basis of borrowed foreign technology [9]. It is assumed that the product released in this way either replaces the imported analog, or restrains its penetration into the market and also testifies to the success of the national industry in mastering new types of production and achieving technological independence from other countries.

The import substitution policy implies the state’s targeted efforts aimed at restricting imports of a product and stimulating the production of its analog in its own country as well as at maintaining domestic demand for it with the help of various support measures. The set of available instruments is rather large and ranges from establishing import customs duties (tariffs), quotas, licensing, and introducing other protectionist measures to the provision of subsidies and tax incentives to national producers or end consumers.
The automotive industry is a traditional testing ground for import substitution. When in 1970 the first Zhiguli cars rolled off the assembly line of the Volga Automobile Plant (AvtoVAZ) in Tolyatti, reporters of the central TV proudly noted that “almost the entire country participated in the creation of this car”, despite the fact that they were developed on the basis of the FIAT car and in cooperation with engineers and designers from Italy. With some assumption, it could be concluded, nevertheless, that the policy pursued by the Soviet state prevented the penetration of foreign passenger cars into the Soviet Union, and the project for the construction and launch of this plant itself can be called a successful example of import substitution. It can also be noted that Zhiguli, along with cars produced by other car factories (AZLK, GAZ), were at that time quite competitive in the world market: soon after the plant was launched, they were exported under the Lada brand and were in good demand in non-CIS countries and the total export of Soviet passenger cars in the 1970s increased annually, reaching a record 388000 cars in 1978 (Fig. 1).

However, successes in import substitution attained by AvtoVAZ as well as by the Soviet auto industry as a whole, turned out to be fragile: in the 1980s, annual export volumes significantly decreased, and over the course of a decade they did not return to the maximum level reached earlier. Subsequently, the demand for domestic cars in the world market continued to decline: while by the end of the 1980s the annual export was about 360000 cars, by the end of the 1990s it “slipped down” to the level of 70000 cars, and in the 2000s it plunged to its minimum values, until some of the enterprises were acquired by “global automotive OEMs” (the same AvtoVAZ was bought out by Renault) and Russia launched the massive construction of automobile plants producing foreign car models and exporting them to the markets of CIS and far abroad. Nevertheless, the physical volumes of exports from Russia have not “returned” to the Soviet level: in 2019, only 110000 cars were exported, in pandemic 2020, around 65000. Similar ups and downs have occurred (and are observed now) with many domestic substitutes of importable goods in other industries. The fate of Zhiguli cars was shared not only by such “made in USSR” goods as Horizont and Rubin TV sets, Malyutka washing machines, Ural vacuum cleaners, Morozko, Oka, and Apsheron refrigerators, but also by those produced in the countries of the socialist bloc: Ikarus Hungarian buses and Videoton TV sets, Java Czechoslovak motorcycles, and others. These brands (like the brands of other socialist-oriented countries) had long ago become things of the past.

Common to all these unsuccessful attempts at import substitution is one circumstance: after the launch of serial production of import substitution goods, they circulate in the country in the absence or at minimum level of competition. The policy of import substitution presupposes strict but temporary protection of national producers from foreign competition, however, in practice, in many cases, it is continuously pursued even after the successful substitution of imports by domestic production. In a socialist economy, this was justified for ideological reasons, which prescribed to minimize trade relations with capitalist countries. For many years, the import of foreign goods into the Soviet Union was not officially carried out or was severely limited, and Soviet enterprises, which successfully launched the output of quality products—imported analogs, were reliably protected from competition. However, the lack of competitive pressure objectively reduced incentives for the renovation and development of manufactured products, and the guaranteed demand provided by the system of state economic planning and regulated pricing reduced the

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Fig. 1. Dynamics of passenger cars exports from the USSR in 1970–1990. 
—▲— the share of exports in the production of passenger cars in the USSR. ★ export of passenger cars from the USSR.

Source: compiled by the author based on the data of the annual statistical collections “Foreign trade of the USSR” for the period from 1970 to 1990.

1 Retrovideo: what was said in the USSR about the first Zhiguli. Rossiiskaya gazeta. October 27. https://rg.ru/2019/10/27/retrovideo-chto-govorili-v-ssr-o-pervyh-zhiguliah.html.

2 External economic relations of the USSR in 1990: Statistical collection. Moscow: Ministry of Foreign Economic Relations of the USSR, Goskomstat of the USSR, 1991.

3 Russian Statistical Yearbook 2000: Statistical Compendium. Moscow: Goskomstat of Russia, 2000.

4 Russia in numbers. 2021: Statistical abstract. Moscow: Rosstat, 2021.
motivation of enterprise directors for introducing innovations, improving the quality of products, and developing their sales channels.

In countries with market economies, import substitution loses its ideological connotation and develops into the form of certain measures aimed at supporting domestic production and related import restrictions taken for a certain period of time. Their goal is to create temporary preferential conditions for national enterprises in the domestic market, to help to promote the sale of their goods by both artificially increasing the price of competitors’ products and maintaining demand for it with the help of direct subsidies, cheap loans, tax incentives, and other types of financial support for enterprises and end consumers. However, even in the free market economy countries, import substitution projects are also doomed to failure if the local manufacturer, who substituted imported goods and organized the launch of new products on the market, continues enjoying the paternalistic tutelage of the state from year to year. The state prompted by such manufacturers will find a variety of reasons for further restricting competition in the market and maintaining domestic demand for these products.

In conditions of permanent state support, market incentives cease to play the role of a driver of business efficiency and competitiveness of manufactured products, dooming enterprises and the industry to stagnation. In addition, manufacturers receiving preferences from the state (including foreign localized companies) objectively cannot reject them so as not to worsen their position in the market in comparison with their recipients. Thus, the state and the enterprises it supports fall into a kind of institutional trap [10]—the “import substitution trap”—which cannot be overcome without mobilizing political will and destroying the established schemes of financial and administrative support based on the “sectoral ministry—enterprise” connection. Actually, we observe a semblance of reproduced intraindustry relationships that existed between government bodies and enterprises in the realities of centrally planned economy, and the enterprises find themselves in conditions of “soft budget constraints” when their outputs that cannot withstand competition continue to receive government support [11].

The foregoing brings us back to Mainstring’s assertion that success in import substitution can only be attained locally and pointwise. The author is undoubtedly right but also overly optimistic, since even locally and pointwise efforts at import substitution will be doomed to failure without nurturing (supporting) competition in a specific market sector hosting the implementation of an import substitution project. It is not enough to successfully launch a project, it is still necessary to ensure the long-term sustainability of this success, which is impossible without a good competitive environment in the market.

**Import substitution in the Russian automotive industry: the modern stage.** In the modern Russian automotive industry, for example, waves of import substitution are repeated with a certain regularity and for various purposes, from creating a competitive automotive industry with a high level of localization to reducing the dependence of national car manufacturers on restrictive measures and sanctions imposed against Russia.

In practice, however, this policy loses its timeframe. The industrial assembly program introduced in 2005 provided for customs privileges on the import of automotive components for a period of up to eight years in exchange for the construction of car factories in Russia and an increase in the localization of manufactured vehicles. The privileges could be granted to automotive OEMs that entered into a corresponding agreement with the Ministry of Economic Development of Russia before November 10, 2007. This restriction was later removed, and most companies renegotiated agreements during 2011—2012 receiving an extension of the benefits for a new period while taking on more stringent obligations to increase the level of localization and further investment in the development of production facilities. In addition to preferential duties on the import of components, the signatories of agreements, unlike car importing companies, began to receive various types of subsidies that de facto compensated for the recycling fee paid in Russia for each vehicle. In addition, under this agreement, the automakers were granted admission to state support programs, which are in effect in one form or another up to the present, as well as the opportunity to participate in tenders for the purchase of cars for state needs. Up to now, there is a complete ban put on participation in these programs and tenders of poorly localized and imported products, and government authorities and state owned companies are not legally entitled to purchase such vehicles. For example, in 2018, enterprises in the automotive industry, including foreign localized companies, received over 110 billion rubles of the state funds, which is about a quarter of federal budget subsidies under the section “National Economy” excluding the public sector [12].

On the one hand, the policy of import substitution and the accompanying protectionist measures in the Russian automobile market resulted in the fourfold decrease in the number of imported cars over the past 10 years (Fig. 2). At the same time, the production capacity of the relevant national enterprises increased, factories of the world’s leading automotive OEMs appeared in the country providing a high level of localization of their production, a local component base was formed, and large automotive clusters were set up in the Volga region, in the North-West, and in the center of Russia [13, 14].
At the same time, over the past years, this policy has become a kind of the industry’s appanage, and national enterprises began to perceive it as a policy with an open-ended time frame. The industrial assembly mode, I repeat, originally designed for a period until 2012, was extended and formally ended in 2018. However, in reality, the automotive industry has readjusted to a new mode of state support for the industry designed by that time: a special investment contract (SPIC) concluded for a 10-year period, during which auto concerns retain part of the benefits, continue to receive most types of subsidies, and participate in various state programs for supporting demand and vehicle fleet renewal in exchange for deepening the level of localization and additional investment. Thus, the preferential mode of operation of auto concerns, tuned, in particular, for the localization of vehicles in Russia, will operate at least until 2028.

A side effect of the import substitution policy is that the strategies and business plans for the development of many national enterprises are a priori drawn based on the assumed constant financial support from the budget and state protection of the industry, and their leaders regularly apply for another portion of subsidies to launch a particular project and requesting through incentives, budget financing, and restriction of competition, and even threaten to suspend production activities should their subsidy programs be canceled.6

The long-term government programs and strategies adopted in recent years, affecting various development aspects of the Russian automotive production, pose very ambitious tasks for the industry but they still retain the logic of state support in an established form and do not help the industry to get out of the import substitution trap. In the Strategy for the Development of the Automotive Industry of the Russian Federation for the Period up to 2025,7 the vector of the import substitution policy is clearly expressed and it is based on the current or updated tools of state support. The strategy, in particular, is designed to ensure an increase in the scale of production on existing automotive platforms by establishing stricter requirements for localization and further state support. The potential for competition is not taken into account in achieving the stated objectives.

As a positive trend, it is worth noting the shift in emphasis indicated in the Strategy in the tools for the support of domestic demand for cars: monetary stimulation of demand was recognized as “less and less effective” and the target volumes of the domestic market are expected to be achieved “mainly by nonmone-
tary measures.” However, due to the crisis in the car market caused by the spread of COVID-19, the state returned to direct monetary support for the industry in the amount of more than 20 billion rubles already two years after the adoption of the Strategy.8

It is also noteworthy that the Strategy does not specify the expected economic and regulatory barriers to imports but at the same time, a significant decrease in the share of imports for each segment is predicted by 2025 (Fig. 3).

Despite the obvious focus of the Strategy on establishing a self-sufficient and minimally dependent on imports automotive industry, the document contains a statement on “the gradual integration of the automotive industry of the Russian Federation into the global industry” and sets a target vision for the development of new markets (electrified, autonomous, and environmentally friendly vehicles) in accordance with global trends. It was assumed, for example, that the sales volume of electric vehicles would be 15000–25000 units in 2020. However, such estimates turned out to be overly optimistic: only 687 electric vehicles were sold in Russia in 2020.9

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5 S. Chemezov asked Putin to help finance the modernization of KamAZ. Interfax. December 13, 2019. https://www.interfax.ru/business/687945.
6 Rostselmash “may suspend work due to the abolition of subsidies.” Kommersant. June 25, 2019. https://www.kommersant.ru/doc/4011774.
7 The Strategy was approved by the Order of the Government of the Russian Federation of April 28, 2018.
8 V. Putin instructed to allocate 20.5 billion rubles to support the auto industry. RBC May 8, 2020. https://www.rbc.ru/rbcfree-news/Srb5895d9a794738bb884ca84.
Car factories are asking the state to pay extra for the export of cars. The Strategy was approved by the Order of the Government of the Russian Federation for the Period up to 2025, approved by the Order of the Government of the Russian Federation dated April 28, 2018. No. 831–r.

Special attention should be paid to the Strategy for the Development of Export of Products of the Automotive Industry of the Russian Federation for the Period up to 2025, which is notable primarily for the fact that, on the one hand, it poses extremely ambitious tasks for the industry, such as “ensuring the priority positions of Russian companies in global markets” or a full-fledged “integration into the international system of division of labor.” On the other hand, the export strategy is written in the spirit of adherence to the principles of protectionism, and the support system laid down in it is focused primarily on “national producers with a high localization of production.” This approach leads, firstly, to unequal support for companies exporting automotive products: an exporter of cars manufactured in Russia, but poorly localized, cannot count on an equal amount of support in comparison with an exporter of highly localized cars. Secondly, a breeding ground for the import substitution trap is being formed, since the export projects of car manufacturers are guided by constant financial support from the state budget, without which supplies to foreign markets may be suspended. Cases have already emerged when enterprises threaten to close a number of projects, since it becomes unprofitable to export cars without incentive subsidies.

Of interest are also the target indicators of export volumes by 2025 (Fig. 4). As in the case of the indicators laid down in the Strategy for the Development of the Automotive Industry of the Russian Federation for the period up to 2025, the indicators of the export strategy seem to be overestimated. They fail to take into account not only the risks of recurring unpredictable events (pandemic, economic sanctions, etc.) that can interrupt the linear growth of exports but also the limited opportunities for export development in the presence of an import substitution trap.

**Import substitution in the foreign automotive industry: experience of competition development.** In the automotive industry, long-term success of import substitution is achieved by countries in which this policy is focused on attracting global automotive OEMs to localizing production in the country through various preferences that are temporarily provided and terminate within a specified period. In parallel, these measures are accompanied by a softening of localization requirements and a phased elimination of restrictions on competition in the domestic market, as well as by the creation of conditions for the effective integration of national enterprises into global value-added chains. China, for example, at the beginning of efforts aimed at creating the world’s largest automotive market, suggested that global automakers organize joint ventures (JVs) with local companies on the territory of the country on the basis of equal participation of the parties and exemption of the established enterprises from paying a number of taxes for up to five years [15]. In addition, buyers of domestically produced vehicles received direct subsidies from the central and provincial governments. At the same time, China imposed high duties on imported cars, which in some periods reached 250%, and introduced annual quotas on their imports.
import. To date, tax incentives and deductions for these enterprises, as well as programs for subsidizing buyers of cars with an internal combustion engine, have been minimized or completely canceled, duties on imported cars do not exceed 15%, and the requirement to create a joint venture in exchange for preferences has been canceled for manufacturers of electric vehicles from 2018, for commercial vehicle manufacturers from 2020, and will be canceled for passenger car manufacturers from 2022 [16]. At the same time, government support began to focus on the production of electric, autonomous, connected, and other innovative vehicles and on the formation of relevant markets within the country.

As a result of this flexible import substitution policy, all of the world’s largest automotive companies have built factories in China, including Tesla, which opened its electric vehicle plant in Shanghai in early 2020. Moreover, over the past two decades, private Chinese automakers, such as BYD, Geely, Great Wall, and Lifan, have burgeoned out next to the factories of the world’s auto giants, and their products have already entered the global car market while the companies themselves are actively involved in mergers and acquisitions and are integrating into the processes of transnationalization of production, gaining access to the latest developments and technologies of the global automotive industry. In 2019, there were officially about 500 electric vehicle manufacturers in China, and in 2020 the volume of the Chinese market for electric and hybrid cars amounted to 1.3 million units, or 41% of global sales.15

A similar path, started in an earlier period, was followed by the automobile industry of the Republic of Korea, where, due to the import substitution policy based on competition, Daewoo, SsangYong, Kia, and Hyundai enterprises appeared next to the assembly plants of Japanese, American, and European automakers, and soon Korean cars entered the export markets and took up stable positions in them [17]. The last two brands, for example, at the end of 2020, held a total of 22.9% of the Russian passenger car market share and the Kia Rio and Hyundai Creta models entered the Top-5 best-selling cars in Russia.16

Special attention should be paid to the experience of the EU where the focus of industrial policy has shifted from support of production and import substitution to the formation of breakthrough markets and state support of the end consumer without linking the purchased products to the country of origin and the level of their localization. This also applies to the electric vehicle market, the emergence of which in the EU countries required a host of various subsidies and benefits for their buyers and owners [18–20]. In Norway, for example, owing to all kinds of support measures, electric vehicles have become cheaper than many traditional cars and accounted for 73% of all new cars sold in 2020.17 At the same time, none of the Norwegian politicians is outraged by the fact that the citizens of the country can receive a subsidy for the purchase of electric vehicles produced in other countries and even continents.

A similar situation is observed in Germany, where the country’s authorities enthusiastically embraced Tesla’s decision to build its electric vehicle plant near the headquarters of Volkswagen. And local politicians are not at all worried about the fact that the American company is the main competitor of the German auto giant for global leadership in this market18 as well as about the fact that the German buyer can receive subsidies for the purchase of any electric car, even imported into the EU. At the same time, as the market matures and becomes saturated, the amount of state support is reduced, as is the case in Norway19 and manufacturers of electric vehicles are gradually transferred to “freewheeling” mode and compete on equal terms with each other and with manufacturers of traditional cars. It is noteworthy that in 2020, in Germany’s largest automotive market in Europe, despite the COVID–19 pandemic and a large-scale economic recession, sales of battery electric vehicles grew by 207%, and hybrids by 342%.20

Thus, the policy of import substitution in many countries has already outgrown or is still growing out of a set of measures that deliberately “fence off” national markets and drive local and localized foreign producers into various types of institutional traps, into a policy focused on the gradual reduction of preferences, benefits and subsidies provided to national producers and relies on competition as a driver of the efficiency and quality of import substitution products. Without such flexibility, the import substitution policy

13Elon Musk Set Up His Shanghai Gigafactory in Record Time. Bloomberg. 2019. October 23rd. https://www.bloomberg.com/news/articles/2019-10-23/elon-musk-opened-tesla-s-shanghai-gigafactory-in-just-168-days.
14Communism plus electrification of the car industry. Kommersant April 21, 2019. https://www.kommersant.ru/doc/3946834.
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20Global EV Outlook. IEA. 2021. https://www.iea.org/reports/global-ev-outlook-2021.
leads to losses arising from weak competition and having a very tangible macroeconomic dimension [21, 22].

Conclusions. Many countries have resorted to the policy of import substitution in one form or another in an effort to create their own production facilities, localize technologies, develop and diversify the economy, and reduce dependence on imports. While the positive effects of this policy at the level of the national economy are by no means obvious, specific import substitution projects implemented in a number of countries indicate the achievability of the goals set locally at the level of individual enterprises, markets or industries. The success of such projects is due to the specifics of the economic and legal mechanisms that accompany the policy of import substitution, but it is more important to limit this policy in time and to gradually weaken it (and then cancel it) in order to expand the “room” for competition and transfer national enterprises to a free market mode.

The uncertain duration of the import substitution policy and the lack of clearly formulated conditions for its completion do not contribute to the formation of the necessary incentives for national enterprises aimed at reducing costs and increasing production efficiency; and the government, together with supported producers, become hostages of this policy, forming an import substitution trap, escaping from which would require colossal efforts and political will.

The achievements and failures of the import substitution policy are clearly visible in the automotive industry. In many cases, it somehow paid off over the period when the production of import-substituting automotive vehicles was launched and the output was promoted to the market while the national automaker was established and developed, but state support and protectionism becoming permanent had a destructive effect on the competitiveness of products in the long term, dooming the industry to falling into the trap of import substitution and did not contribute to the emergence of new domestic players.

The policy of import substitution and localization pursued in recent years in the Russian automobile industry, on the one hand, has demonstrated serious achievements—market needs are largely met through domestic production of cars, a qualitative transition has been made from a country-importer of used cars to a country with a developed production and assembly cycle. At the same time, today the industry faces new challenges, the solutions of which require flexible approaches, timely readjustment of the tools inherent in the system of state support and reliance on the potential of competition, as was done in the Republic of Korea, China, and a few other countries that have achieved success in creating competitive products with a high level of localization and export potential. It is precisely such a readjustment that the Russian version of import substitution in the auto industry is lacking and is required for the country to have its own Geely, KIA, Lifan’s, and Tesla, and the industry itself to fully integrate into the global supply chain and the global automotive industry.

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