Requirements for improving the public procurement system of the EAEU countries, caused by the challenge of import substitution

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Abstract. The article considers the problem of import substitution as a topical issue in the recent history of both Russia and other EAEU countries. The authors investigate dynamics of the average import ratios of EAEU exports in the period of the economic crises of 2008-2009 and 2020-2021. The implementation of a new approach to government and municipal procurement in the EAEU countries, caused by the potential of a common market space, would solve many important market problems, including the urgent practical problem of import substitution, exacerbated by Western sanctions. It allows formulate the conceptual proposals for solving the problem of import substitution in the field of information and communication technologies. The results of identifying the needs for improving the domestic public procurement system due to the urgent practical problem of import substitution allow to propose: scientific development of ICT tools on a competitive basis (procurement of scientific and technical products simultaneously from several suppliers, including enterprises of EAEU); science-based decision-making regarding the best ICT development option; production of ICT by several producers simultaneously (including enterprises of EAEU) with a possible rotation of producers.

Keywords: improvement needs, public procurement system, EAEU countries, import substitution problems.

JEL codes: C12, C10, O17

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Introduction

Keeping the USSR, and later Russia and many other post-Soviet countries, in the state of technological backwardness always was the one of the most important trends of the West's hybrid warfare against our country (Tebekin & Anisimov, 2020).

The results of "market reforms" of the 1990s (led by Western consultants), based on Rosstat data, are shown in Figure 1. According to them, the one of their primary objectives was the destruction of Russian domestic machine-building, including the manufacturing means. It leads to the country's automatically depending on imports.

We should note the successfully achieving of this objective by the "reformers". For example, in 1987 there were 10 union ministries of mechanical engineering, and there were several dozen union ministries of industry in the USSR. But nowadays in Russia there is still no single proper ministry of industry. The federal ministry in charge of industry is permanently a hybrid complex, merging alternately with energy and commerce.

When the sanctions pressure on Russia intensified, especially in 2014 and later in 2022, the problem of import substitution became even more acute.

This is particularly evident in the procedure of public procurement, where along with the traditional



problem of corrupt collusion, the absence of real domestic competition is clear, as domestic industry declined for a long period of time. There are a lot of quasi-monopolies in many industry segments; in some segments there are no domestic manufacturers.

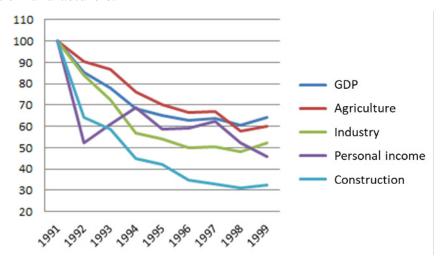


Figure 1. Dynamics of the Russian Federation economic development in 1991-1999 (%, to the 1991 level) *Source: composed by authors*

In this respect, we would like to consider inviting businesses from EAEU member states to participate in public procurement tenders in order to increase competition among manufacturers and ultimately stimulate import substitution processes.

Thus, the purpose of this study is to improve the public procurement system of the EAEU countries, caused by the import substitution problems on a competitive basis, accompanied by an increase in the range, quality and price of the products produced.

Methods

The study of the requirements for improving the system of public procurement of the EAEU countries due to the need to solve urgent practical problems of import substitution we study the scientific developments in this field, which are reflected in the works of Volkodavova & Zhabin (2016a; 2016b), Ershov (2015), Levchegov (2015), Mensa (2016), Moiseev, Nitsevich & Petrovichev (2015), Novikov & Somov (2016), Polovinkin & Fomichev (2019), Serikova (2015), Cherkasova (2015), Shuvalov (2015), Shcherbina (2016), etc.

The methodological basis of the research was also formed by the author's achievements on the topic of research reflected in the works (Tebekin, 2015; 2017; 2022).

Results

Import substitution is a crucial issue in the recent history of both Russia and other EAEU countries. It is demonstrated by the export and import characteristics of the EAEU countries; the dynamics is presented in Table 1-5 and Figure 1-5 (TrendEconomy, 2022).

Table 1 – The export-to-import ratio in the foreign trade turnover of the Republic of Armenia in 2009-2020 (bn, USD)

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Year	Import	Export	The export-to-import ratio
2009	3.17	0.68	4.66
2010	3.78	1.01	3.74
2011	4.10	1.32	3.11
2012	4.26	1.42	3.00
2013	4.25	1.46	2.91
2014	4.15	1.49	2.78
	1.10	1,17	2., 0

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Year	Import	Export	The export-to-import ratio
2015	3.25	1.48	2.19
2016	3.21	1.80	1.78
2017	3.89	2.14	1.81
2018	4.84	2.38	2.03
2019	5.07	2.62	1.93
2020	4.56	2.51	1.81

Source: TrendEconomy, 2022

 $\textbf{Table 2} - \textbf{The export-to-import ratio in the foreign trade turnover of the Republic of Belarus in 2009-2020 (bn, USD)$

Year	Import	Export	The export-to- import ratio
2009	28.56	21.30	1.340845
2010	34.88	25.28	1.379747
2011	45.75	41.41	1.104806
2012	46.40	46.05	1.0076
2013	43.02	37.20	1.156452
2014	40.50	36.08	1.122506
2015	30.29	26.66	1.136159
2016	27.60	23.53	1.172971
2017	34.23	29.23	1.171057
2018	38.40	33.72	1.13879
2019	39.47	32.95	1.197876
2020	32.76	29.17	1.123072

Source: TrendEconomy, 2022

Table 3 – The export-to-import ratio in the foreign trade turnover of the Republic of Kazakhstan in 2009-2020 (bn, USD)

Year	Import	Export	The export-to- import ratio
2009	28.40	43.19	0.65756
2010	24.02	57.24	0.419637
2011	38.01	88.10	0.431442
2012	44.53	92.28	0.482553
2013	48.80	84.69	0.576219
2014	41.29	79.45	0.519698
2015	30.56	45.95	0.665071
2016	25.17	36.77	0.684525
2017	29.59	48.50	0.610103
2018	33.65	61.10	0.550736
2019	38.35	57.72	0.664414
2020	38.08	46.94	0.811248

Source: TrendEconomy, 2022

Table 4 – The export-to-import ratio in the foreign trade turnover of the Republic of Kyrgyzstan in 2009-2020 (bn, USD)

Year	Import	Export	The export-to- import ratio
2009	2.97	1.17	2.538462
2010	3.22	1.48	2.175676
2011	4.26	1.97	2.162437
2012	5.37	1.68	3.196429
2013	5.98	1.77	3.378531
2014	5.73	1.88	3.047872
2015	4.06	1.44	2.819444
2016	3.84	1.42	2.704225
2017	4.48	1.75	2.56
2018	5.29	1.83	2.89071
2019	4.98	1.98	2.515152
2020	3.38	1.86	1.817204

Source: TrendEconomy, 2022

Table 5 – The export-to-import ratio in the foreign trade turnover of the Russian Federation in 2009-2020 (bn, USD)

Year	Import	Export	The export-to- import ratio
2009	170.82	301.79	0.566023
2010	228.91	397.06	0.576512
2011	306.09	516.99	0.592062
2012	316.19	524.76	0.602542
2013	314.94	527.26	0.597314
2014	286.64	497.83	0.575779
2015	182.78	343.90	0.531492
2016	207.44	301.78	0.687388
2017	259.96	379.20	0.685549
2018	240.22	451.49	0.532061
2019	247.16	426.72	0.579209
2020	231.66	337.10	0.687214

Source: TrendEconomy, 2022

According to Tables 1-5 and Figures 1-5, the average import ratio of EAEU member countries (except Armenia) remained almost constant, varying by around 2% per year in the period between the economic crises of 2008-2009 and 2020-2021.

The implementation of a new approach to government and municipal procurement in the EAEU countries, caused by the potential of a common market space, would solve many important market problems, including the urgent practical problem of import substitution, exacerbated by Western sanctions.

For example, there is the import substitution problem for the EAEU countries in the field of information and communication technologies (ICT), which recognised as one of the key development areas in recent human history.

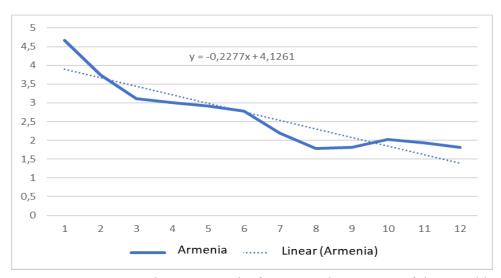


Figure 2. The export-to-import ratio dynamics in the foreign trade turnover of the Republic of Armenia in 2009-2020

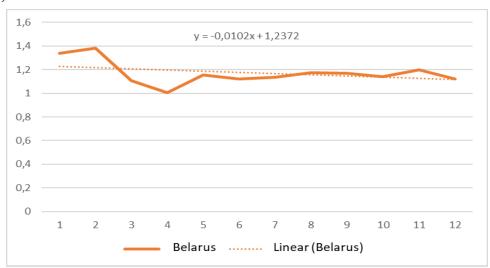


Figure 3. The export-to-import ratio dynamics in the foreign trade turnover of the Republic of Belarus in 2009-2020

Source: composed by authors

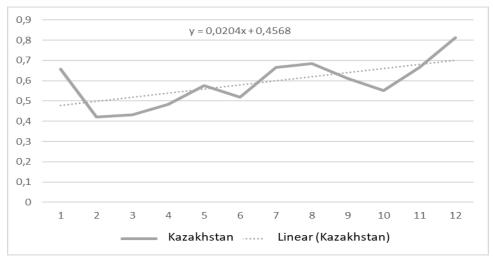


Figure 4. The export-to-import ratio dynamics in the foreign trade turnover of the Republic of Kazakhstan in 2009-2020

Source: composed by authors

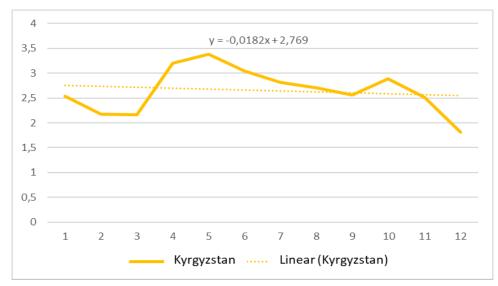


Figure 5. The export-to-import ratio dynamics in the foreign trade turnover of the Republic of Kyrgyzstan in 2009-2020

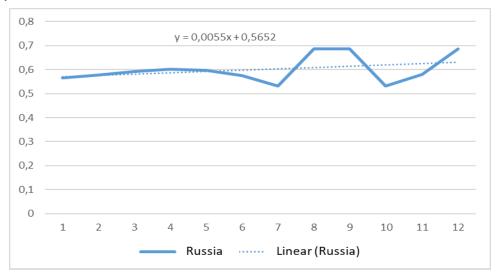


Figure 6. The export-to-import ratio dynamics in the foreign trade turnover of the Russian Federation in 2009-2020

Source: composed by authors

We consider this problem on the example of the Russian Federation as the largest economic participant of the EAEU.

The share of imported equipment in strategic for the Russian Federation ICT sector reached 90% in the 1990s. Nowadays this dangerous for national security level unfortunately remains.

Obviously, the basis of import substitution for any state is the establishment of a strong domestic industry capable of saturating the national market with high-tech products of domestic production with high added value.

Since the mid-2010s the Ministry of Communications and Mass Media and the Ministry of Industry and Trade of the Russian Federation have been working on this task by implementation an import substitution plan for the radioelectronic industry.

The software import substitution programme supervised by the Ministry of Communications is divided into three regulatory blocks (Figure 6).

The software import substitution plan of the Ministry of Communications and Mass Media of the Russian Federation approved by Order No. 96 on 01.04.2015 included three blocks (Figure 7).

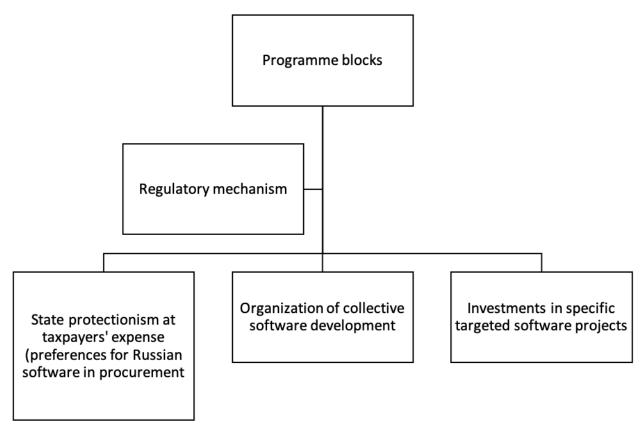


Figure 7. Blocks of the software import substitution programme overseen by the Ministry of Communications, separated by regulatory mechanism

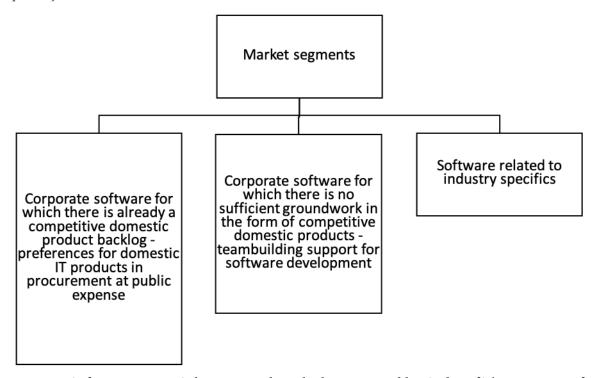


Figure 8. Software Import Substitution Plan Blocks, approved by Order of The Ministry of Communications and Mass Media of the Russian Federation No. 96 on 01.04.2015 *Source: composed by authors*

Figure 8 shows the planned dynamics of import reduction in the segments of the corporate software market for which there was a margin of competitive domestic products in 2014 – the preference of domestic

ICT products when procuring at public expense for the period until 2025.

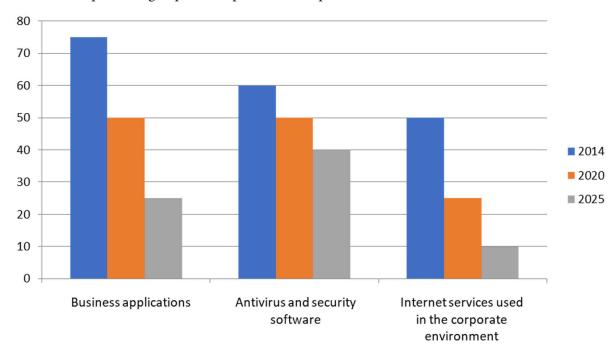


Figure 9. Planned dynamics of import reduction in the segments of the corporate software market for which in 2014 there was a margin of competitive domestic products for the period until 2025 *Source: composed by authors*

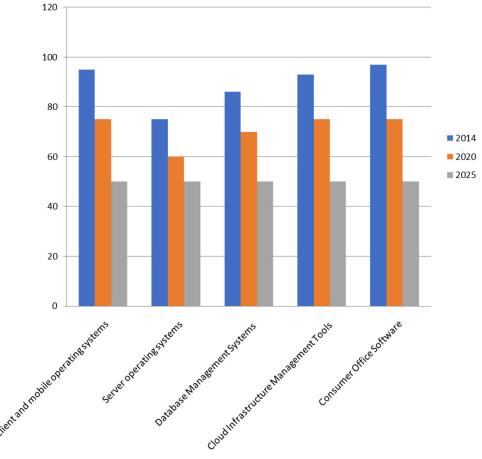


Figure 10. Planned dynamics of import reduction in the segments of the corporate software market for which in 2014 there was not a margin of competitive domestic products for the period until 2025 *Source: composed by authors*

Figure 9 shows the planned dynamics of import reduction in the segments of the corporate software market for which in 2014 there was not a margin of competitive domestic products – support for collaborative software development for the period until 2025.

Figure 10 shows the projected decline of imports volume in the industry-specific segments of the software market in the period 2014-2025.

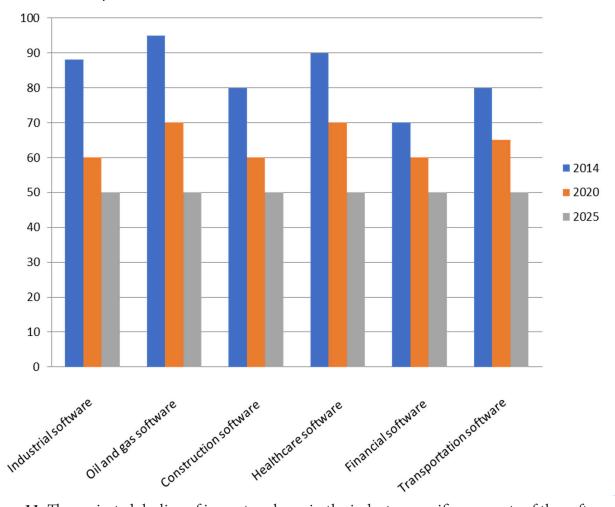


Figure 11. The projected decline of imports volume in the industry-specific segments of the software market in the period 2014-2025

Source: composed by authors

When commenting on this problem, that time the Head of the Russian government Dmitry Medvedev said that import substitution "is not a situational short-term event, but... a strategic direction of work for the coming years outside the context of all kinds of sanctions" (RIA News, 2015).

It should be mentioned that this statement was made seven years before the West imposed anti-Russian sanctions in 2022.

According to Dmitry Medvedev, to 2015 year a rather diverse ("although not comprehensive") set of instruments of state support for import substitution had been formed: subsidies, co-financing of research, grants, preferences in public procurement.

At a meeting of the Russian Government on 3 April 2015 on the issue of ensuring the implementation of sectoral import substitution programmes, Medvedev also noted that: "The import substitution course must take into account both our interests above all and our international obligations. And, of course, to take into account the co-operative links we have developed with our partners who have already invested in our industry, agriculture and used modern technology".

Import substitution programmes for industry, energy, agriculture and software were adopted in 2015 in accordance with point 41 of the 2015 "crisis bailout plan" of the Russian Government.

According to paragraph 41 of the "crisis bailout plan", aimed at approving and ensuring the implementation of sectoral import substitution programmes (plans), the expected result was "the formation of favourable conditions for the development of production of Russian competitive products in priority sectors".

Unfortunately, the phrasing of the expected outcome of the "crisis bailout plan" item on import substitution (as well as the other items of the plan) was extremely imprecise.

An assessment of the implementation of the 2015 crisis bailout plan made by representatives of the Court of Audit clearly showed (Figure 12) (Tebekin & Zhigulin, 2016) the poor implementation of this plan that not much more than a quarter of the plan was fully implemented.

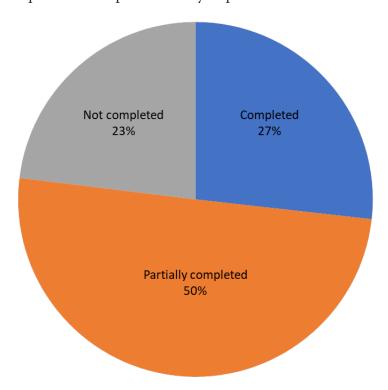


Figure 12. An assessment of the implementation of the 2015 crisis bailout plan made by representatives of the Court of Audit (on 1 January 2016)

Source: composed by authors

Of course, such a result of the implementation of the Priority Action Plan for Sustainable Economic Development and Social Stability in 2015 could not provide the solving of import substitution problem.

On the other hand, if we try to compare the Russian government's views on the problem of import substitution in the 2010s with those of the 1990s under the conventional motto "let's pour all the problems by petrodollars", they have clearly been progressive, primarily in their assumptions. The course towards filling market with Russian goods become completely correspond to the national interest of the Russian Federation.

The Russian government's import substitution policy of the 2010s is undoubtedly constructive from a goal-setting point of view. This refers to the tasks:

- reducing the economy's dependence on raw materials,
- increasing the volume of higher value-added products (increasing the share of higher value-added products),
 - approving a state programme of import substitution for the industrial and agricultural sectors.

Despite the fact that by 2015 the Russian Government believed that "a sufficiently diverse (although not comprehensive) set of instruments of state support for import substitution had been formed" (Figure 13). In practice, the mechanisms of their use have not worked properly. The modern situation clearly shows that the improvement of the public and municipal procurement systems of the EAEU countries can be considered as a valid mechanism.

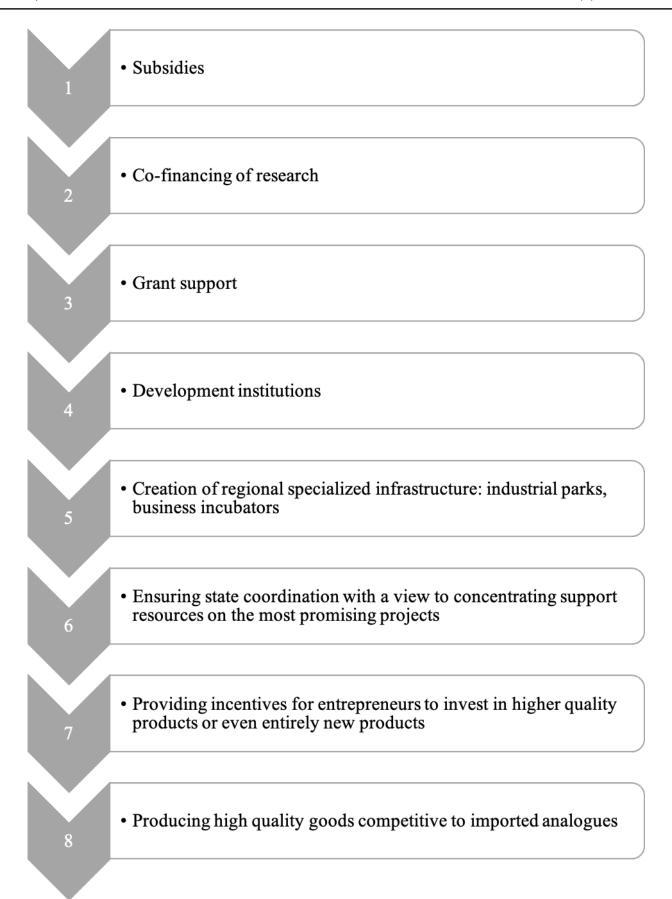


Figure 13. A set of instruments of state support for import substitution processes *Source: composed by authors*

However, imports continue to dominate many key sectors of the Russian economy (Figure 14).

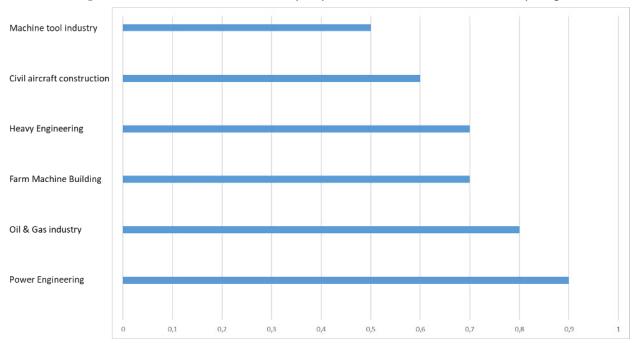


Figure 14. Share of imports in key sectors of the Russian economy in 2022

Source: composed by authors

In this regard, on the one hand, we can note a conscious choice of decisions regarding import substitution made by Russia, including

delegating of some responsibilities to the EAEU supranational level on trade policy, customs and tariffs, and technical regulation of import substitution.

On the other hand, there are imperfect conditions for the market development of free competition of domestic companies dealing with the problem of import substitution.

For example, by the Ministry of Economic Development estimates, the state companies purchased goods and services worth RUB 23.1 trillion in 2015 under 223-FZ. However, the five largest players, led by Rosneft and Gazprom, consumed 70% of this amount (Figure 15).

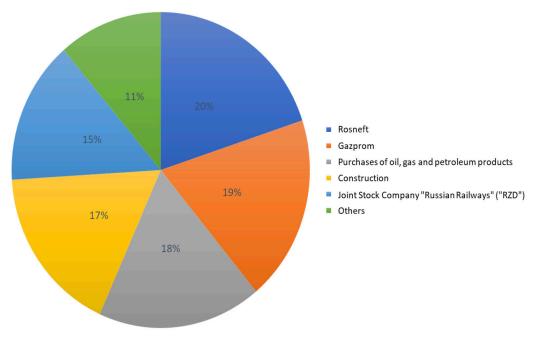


Figure 15. Example of distribution of 223-FZ procurement by customer in 2015 *Source: composed by authors*

However, the volume of Rosneft's procurements under 223-FZ alone (RUB 4.6 trillion) is comparable to the total volume of state purchases made in 2015 under 44-FZ.

But there are no progress in the distribution of 223-FZ procurement across customers in terms of unequal volumes over the last seven years (2015 to 2021).

Thus, the volume of purchases made under FZ-223 by the Renovation Fund (Moscow) according to the initial guaranteed maximal price (GMP) in 2021 (5.6 trillion rubles) exceeded the total volume of purchases by nine other participants, which were included in the TOP-10 by this indicator (Table 6) (Analysis of the Russian procurement market, 2021).

Table 6 – Top 10 customers by total amount of GMP under 223-FZ in the Russian Federation in 2021

	7		
Customer	Customers INN	Customers KPP	Volume of purchases made under FZ-223
Renovation Fund, Moscow	7703434808	771001001	5 590 255 422 255,12
JSC Russian Railways, Moscow	7708503727	770801001	1 130 332 628 182,73
JSC Centralnaya PPK, Moscow	7705705370	770501001	504 737 281 311,47
OOO Gazprom komplektatsiya, St. Petersburg	7740000044	781001001	407 513 584 724,17
PJSC Aeroflot, Moscow State Unitary Enterprise Ecotehprom, Moscow	7712040126	770401001	247 133 880 589,69
PJSC Aeroflot, Moscow	7706043312	770601001	231 286 716 640,08
FSUE Atomflot, Murmansk Region	5192110268	519001001	205 334 612 917,04
PJSC FSK UES, Moscow	4716016979	772801001	182 308 139 324,53
PJSC Kuzbassenergo, Kemerovo Region	4200000333	420501001	124 460 862 542,05
JSC MosInzhproekt, Moscow	7701885820	770101001	117 268 231946,59
Region	7701885820		

Source: Analysis of the Russian procurement market, 2021

According to the Ministry of Economic Development, 95% of procurements in the Russian Federation are non-competitive; the half of them were placed by a single supplier only.

The Ministry of Economic Development of Russia in its assessments also concerns about:

- 1) contractual nature of deals,
- 2) unreliable character of the customers information,
- 3) small businesses reduced interest in supplying goods and services to state-owned companies.

Similar problems in ensuring proper competition in public procurement are experienced by other EAEU countries (Amelchenya, 2020): Republic of Armenia, Republic of Belarus, Republic of Kazakhstan, Republic of Kyrgyzstan (Moskalievich, 2019; Khamitov & Junusbekova, 2021; Abdukarimova, 2020).

This also highlight the need to improve the system of public and municipal procurement of the EAEU countries in the single market space.

Figure 16 shows the possible solutions to the import substitution problem.

The intermediate option "state regulation + free market", which is the most common in world practice, is the most preferable of those presented in Figure 16. By it, developed countries have tended to reduce government regulation while increasing the share of the free market. This is a rather radical step for the existing domestic system of state capitalism and other EAEU countries. However, the "critical mass" (share) of state regulation of all developed countries is limited in order to maintain control over the market situation and avoid the negative effects of a free market on national security.

The dynamics of import substitution levels requiring implementation of the strategic development perspective of the national economy. Figure 17 shows it in the IT field.

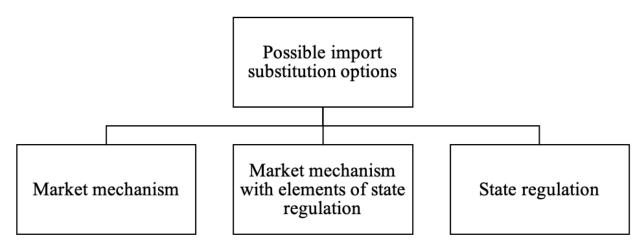


Figure 16. The possible solutions to the import substitution problem

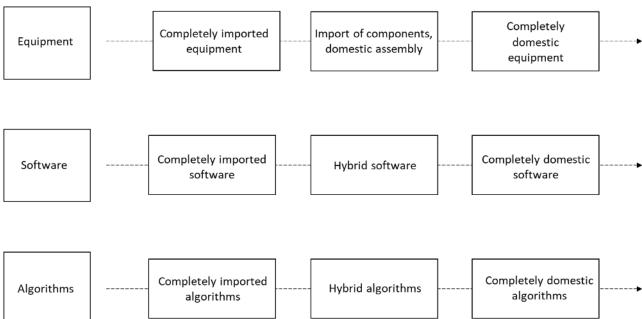


Figure 17. An example of a model of the dynamics of import substitution levels requiring implementation in the IT field in the strategic perspective of the national economy

Source: composed by authors

To achieve the required level of import substitution, it seems appropriate to implement the following measures of state support for the development of domestic information and communication technologies in the public procurement system as a strategic direction of national economic development (Figure 18).

The problems of import substitution in the IT include the registration of business abroad by many well-known companies of Russia.

This is clearly indicate the absence of a business-friendly environment for IT.

What are the possible solutions to the problem of import substitution in the IT field?

Three vectors could be defined.

The first vector is related to I. Ansoff's identification of the company's strategic business areas (SBAs) in terms of strategic management (Figure 19) (Ansoff, 1989).

Nowadays IT field is SBA for any modern company and the national economy as a whole.

The second vector relates to the designation of special (free) economic zones (SFEZs). In particular, these are functional FEZs, in which incentives are granted for specific activities.

The third vector relates to the expansion of the public procurement zone into the EAEU states in the

interest of increasing competition for businesses. State order for equipment and software within the competitive environment within the EAEU member countries An order for the creation of know-how of equipment and software not only in state corporations of Russia, but also in state and commercial structures of the EAEU countries on a competitive basis Development of competition among domestic manufacturers by attracting manufacturers from other EAEU member states to participate in public procurement in the Russian Federation Production of equipment based on Russian developments in other EAEU member countries with cheaper labor resources Implementation of a set of mechanisms to protect the domestic market of information technology from foreign competitors from unfriendly countries (differentiated approach)

Figure 18. Appropriate measures of state support for the development of domestic IT field in the public procurement system as a strategic direction of national economic development by extending the public procurement system for the EAEU countries

Source: composed by authors

Discussion

According to the identified analogies, we propose the following ways to solve the problem of import substitution in the IT field.

Firstly, the identification of IT field as an area of strategic management (SBA).

Secondly, the provision of tax incentives and preferences to domestic manufacturers in IT field within special economic zones (SFEZs) of the technology-innovative and industrial-production type.

Thirdly, domestic developments and productions (including public procurement) should be implemented in a competitive environment within the EAEU common economic space, taking into account the life cycle stages of various types of information and communication technology products.

According to Gordon Moore's law, the production technology is updated every 18 months for

telecommunications and a number of other technologies (pharmaceutical, chemical, electronic, aerospace, computer, biotechnology, etc.).

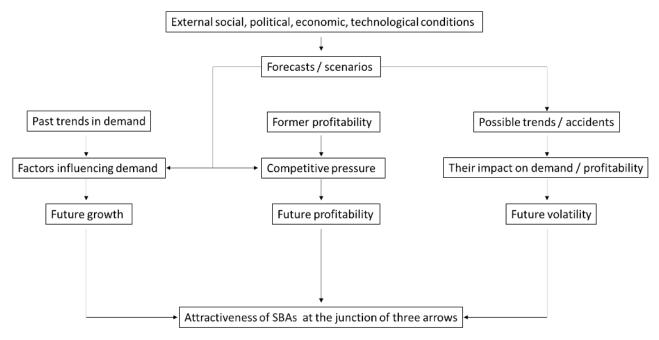


Figure 19. The basis for the formation of SBAs

Source: Ansoff, 1989

But the necessity to procure updated technologies, taking into account the stages of their life cycles in the common economic space of the EAEU does not only concern IT field, but refers to the need to improve the entire domestic system of public procurement, due to the urgent practical problem of import substitution (Table 7).

Table 7 – Relating public procurement to product lifecycle types, demonstrating the realisation of the needs for improving the domestic public procurement system

Type of cycle	Working titles of the cycle	Cycle time	Main features	Reasonable public procurement
G. Moore's cycles	Renewal cycle of promising technologies	0.75-1.5 years	Qualitative (multiple) changes in a particular technology	Procurement of high-tech products (e.g. in IT field)
J. Kitchin's business cycles	Business cycles, short-term cycles	2-4 years	Inventory levels, GNP fluctuations, inflation, employment, business cycles	Procurement of necessary products generated by projects corresponding to short-term business cycles
Small cycles of economic activity by C. Juglar	Business (industrial) cycles	7-12 years	The investment cycle, GNP fluctuations, inflation and employment	Procurement of necessary products generated by projects and programmes by business cycles
Average cycles of economic activity by S. Kuznets	Investment (construction) cycles	16-25 years	Income - immigration - housing - aggregate demand - income	Procurement of necessary products and infrastructure built under programmes by investment cycles

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Type of cycle	Working titles of the cycle	Cycle time	Main features	Reasonable public procurement
Great cycles of economic activity by N.D. Kondratiev	Long technological (opportunistic) cycles	40-60 years	Technical progress, structural change	Procurement of technologies, determining the development prospects of the current (future) technological stage
Century waves of F. Brodel	Material civilisation	100-150 years	Trends of material civilisation structures	Procurement of technology, determining the trends of the material development structures of society within the existing civilisation
J. Forrester's resource cycles	Civilisation cycles	200 years	Energy and materials	Procurement of technology, determining the long- term prospects for solving energy and resource conservation problems
E. Toffler's cycles	Cycles-epochs	1000- 2000 years	Development of civilisations	Agricultural, industrial and post-industrial civilisations

Source: composed by authors

Considering the life cycle of any product (Table 8), including those created on the basis of IT, we should note the mainly involvment of domestic companies in implementing stages 1-5 (more often 1-3) and 10-12 (more often 11-12) of the product life cycle.

Table 8 – Stages in the life cycle of the developed product

Name Content	
The emergence of an idea	Techno-economic assessment of the feasibility and effectiveness of an idea (business planning)
Search of the resources to implement the idea	The search for the necessary raw materials, real estate, technology and equipment to implement them, skilled labour and, ultimately, finance
Layout design	Implementation of the R&D phase with mathematical and physical modelling of new products
Prototype development	The implementation of the development phase with the manufacture of a trial batch of products, the tests of which result in the formation of standard documentation (design, technological), which will be used in series production
Production of a trial batch	The start of series production, accompanied by the testing of production technology, the study of consumer reactions to the products offered and the corresponding adjustments to the regulatory documentation
Start of series production,	Serial production, accompanied by an increase in production volumes and the emergence of profits from their sale
Reaching the payback point	Rapid growth of production and sales volumes, generating a profit sufficient to cover all previous costs
Continuation of growth	Continuing growth of production volumes and expansion of the market for the sale of products

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Growth retardation	Growth retardation of production and sales volume caused by the moral ageing of products, increased competition and saturation" of the market with the products offered
Growth stop	The market saturation of the products, corresponding to an equality of supply and constant demand. The results of the functional-cost analysis, however, continue to show an increase of sales profit
Decline	Demand for ageing products is falling. All investment in improving these products stops as the need for new products becomes evident. At the same time it solves the problem of replacing production with newer products and the gradual dismantling and sale to less demanding markets of production rights and related equipment for ageing products
End of life cycle	Discontinuation of ageing products once production volumes and profits from the sale of these products have reached minimum thresholds

Source: Tebekin, 2020

Russian companies and specialists are most active at stages 1 and 3 of the product life cycle (Table 8), as evidenced by the demand for Russian intellectual product specialists around the world, which is reflected in the continuing outflow of scientific personnel. Attempts of domestic industry to reproduce the most popular products in the world (stage 10) lead to its development it already becomes ageing during the time and corresponds to the stage 11 of the life cycle.

In addition, the problem of import substitution in IT field is compounded by the procurement problems outlined above. In addition, the duration of procurement procedures is increasingly approaching the length of the shrinking life cycle of products by Moore's Law.

Conclusions

Thus, as conceptual proposals for solving the problem of import substitution in the ICT field it seems appropriate to propose:

- scientific development of ICT tools on a competitive basis (procurement of scientific and technical products simultaneously from several suppliers, including enterprises of EAEU);
 - science-based decision-making regarding the best ICT development option;
- production of ICT by several producers simultaneously (including enterprises of EAEU) with a possible rotation of producers.

Overall, the results of identifying the needs for improving the domestic public procurement system due to the urgent practical problem of import substitution allow to provide a more detailed analysis of global experience and economic implications in the creation of economic alliances in public procurement.

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