

Analysis of Indicators Characterizing Export Competitiveness of Goods and Their Interrelations Identification

Gulnara F. Ruchkina ^{1*}, Maxim V. Demchenko ¹, Svetlana V. Frumina ¹, Ilya S. Iksanov ¹,
Ekaterina I. Kobzeva ¹, Lyudmila Yu. Novitskaya ¹, Svetlana A. Panina ¹

¹ Financial University under the Government of the Russian Federation, Moscow, RUSSIA

Received 16 September 2018 • Revised 12 November 2018 • Accepted 28 November 2018

ABSTRACT

The urgency of the problem under study is due to the influence of the export support system on the competitiveness of the national economy. One of the elements of the export support system is a regulatory legal framework containing requirements for both the conditions of state support for exports and the procedure and technique for export competitiveness assessing. The regulatory legal framework for export support in the Russian Federation is formed by strategic planning documents and legislative acts, which are characterized by the lack of proper coordination between them. The foregoing will not allow conducting an effective state policy in the field of export and objectively assessing the export competitiveness of Russian goods. In this regard, the purpose of the article is to identify the relationship between indicators of export competitiveness based on the analysis of strategic planning documents and strategies of key actors in the development of export relations. The leading methods of cognition that underlie the study of this problem are analysis, synthesis and induction, which allow identifying the relationship between the applied indicators of export competitiveness and justifying proposals for their harmonization. The main results of the article are proposals for expanding the number of indicators of export competitiveness, aligning the target values of these indicators and amending the regulatory legal framework. The materials of the article can be useful for assessing the products' export competitiveness and will allow determining further directions to improve the state policy in the development of Russian exports and increase the attractiveness of the national economy in world markets.

Keywords: export competitiveness, indicators, regulatory legal framework, state support for exports

INTRODUCTION

The modern economy dictates the need to expand the boundaries of trade in goods and services, to identify reserves for the growth of production and sales of domestic products in foreign markets, to improve the efficiency of relations between countries in the field of export development, etc. The creation of favorable conditions for the access of domestic goods to foreign markets is one of the most important factors in supporting manufacturers and ensuring the economic growth of the country and is the object of close attention of national economies and their integration associations [1]. An effective mechanism for supporting the export of industrial products requires access to markets outside the Russian Federation, which is important for creating jobs and moving from a commodity to an innovative economy [2]. According to the economic development forecast prepared by the Development Bank, export volumes will continue to increase [3]. Along with the increase in exports, the role of indicators that contribute to assessing the effectiveness of its development and the competitiveness of products sold outside the borders of national economies is becoming stronger. In this regard, the formation of an integrated export support system,

© 2018 by the authors; licensee Modestum Ltd., UK. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>).

✉ Gumer@bk.ru (*Correspondence) ✉ mvdemchenko@fa.ru ✉ svfrumina@fa.ru ✉ iiksanov@fa.ru

✉ keti_v_7@mail.ru ✉ novilu@mail.ru ✉ PaninaS75@mail.ru

which is one of the prerequisites ensuring the competitiveness of the national economy on world markets [4], is of particular importance. Indicators assessing export competitiveness are contained in Russian regulatory legal documents, in strategies of export relations' subjects, and also proposed by the World Bank. Assessment of competitiveness in accordance with approved indicators allows assessing the state of export competitiveness of Russian goods and services on a global scale.

However, in order to increase export competitiveness, it is necessary to identify interrelations in the indicators that evaluate it, and bring their threshold values into compliance. The inconsistency of export competitiveness indicators in strategic planning documents and the lack of coordination between their threshold values can affect forecasting and taking measures to prevent budget risks, the magnitude of which depends on the trade balance, volumes and dynamics of exports, etc. [5]. Also, the lack of interrelation between indicators approved in regulatory legal documents may affect the quality of decisions taken by government bodies in the field of export development. In this regard, the authors of the article are considering the possibility of improving the legal field governing export competitiveness indicators in the Russian Federation.

RESEARCH METHODOLOGY

Methods

The work is based on the application of dialectical methods of knowledge. Analysis - allows you to make a comparison of indicators of export competitiveness used in various documents and considered in theoretical sources; Synthesis - provides for the systematization of regulatory legal documents, strategies of participants in export relations and international organizations containing specific indicators of export development. The paper also uses the induction method, which allows to identify the relationship between the applied indicators of export competitiveness and justify proposals for their harmonization.

The Concept of Export Competitiveness

To identify indicators characterizing the export competitiveness of goods, first of all, it is appropriate to clarify the concept of competitiveness. Considering *competitiveness* from a theoretical point of view, one can note that the term itself is nothing but a derivative of the common definition of *competition*, because it includes two components: on the one hand, it is competition, and on the other hand, ability. The competition study from a behavioral perspective [6], the combination of competition and ability will determine the ability to maintain rivalry aimed at achieving results. If we adhere to a functional approach to competition [7], then competitiveness will be the ability to ensure the interaction of supply and demand, allowing to balance market prices.

In addition, when interpreting the category of *competitiveness* in the narrow sense, it can be argued that the emphasis is primarily on the quantitative and qualitative characteristics of the products produced (in this section only the competitiveness of products is considered) in relation to the average costs and quality. Reducing the cost of production at the same time increases their consumer characteristics and competitiveness itself.

Under the "extended interpretation of product competitiveness, quantitative and qualitative characteristics should determine the potential for economic growth" [8].

Thus, it can be argued that the multifunctional nature of the definition of *competitiveness* manifests itself through the disclosure of its components such as improving product quality, using existing resources efficiently, imparting new properties, that is, through those characteristics that allow to give advantages to products (goods, services).

The *export competitiveness of products*, which is the object of this study, in economic theory is interpreted as the position of a product in the domestic and foreign markets due to economic and other factors, reflected through indicators (indices) that adequately characterize such a state and its dynamics [9].

RESULTS

Export Competitiveness Indicators in Strategic Planning Documents

To identify indicators characterizing the export competitiveness of products, one can turn to the strategic documents of the Russian Federation, which reflect and set the benchmarks for the development of exports in our country: Strategies for the development of innovation activities in the Russian Federation; the state program "Development of foreign economic activity of the Russian Federation"; The main directions of export development.

The targeted indicators of these documents, which assess the export competitiveness of products, are grouped in [Table 1](#).

Table 1. Reflection of indicators characterizing export competitiveness in the strategic documents of the Russian Federation

Document	Indicator	Value of the indicator
Strategy of innovative development of the Russian Federation for the period up to 2020	1. Increase in the share of exports of Russian high-tech goods in the total world volume of high-tech goods' exports	up to 2% by 2020
The main directions of export development for the period up to 2030	1. The increase in the value volumes of goods and services exports 2. The increase in the value volumes of exports of non-primary goods and services 3. The annual increase in the supply of machinery, equipment and vehicles in the export of goods 4. Increasing the coefficient of export product diversification 5. Increasing Russia's share in global exports of high-tech goods. 6. Increasing the share of services in Russia's total exports of goods and services 7. The increase of the proportion of knowledge-intensive and intellectual services in the structure of services' exports 8. The increase in the number of organizations exporting goods	2.2-2.4 times in 2030 1.4-1.45 times in 2020 1.45-1.5 times 1.3-1.5 times 1.7 times by 2030 up to 20% by 2030 1.5 times by 2020 and 3 times by 2030
State program <i>Development of foreign economic activity</i>	1. The growth rate of exports of non-primary goods 2. Growth rates of export of non-primary non-energy goods 3. Index of number of exporting organizations	119% by 2020 107% by 2020 150% by 2020
Subprogram 1	1. The share of machinery, equipment and vehicles in total exports of goods 2. The share of the countries of the Asia-Pacific Economic Cooperation in total exports of goods	5.5% by 2020 27% by 2020
Subprogram 3	1. The volume of export credits and other financing instruments similar to the economic essence granted to exporters by commercial banks and other market participants with the participation of the <i>Russian Export Center Joint-Stock Company</i> 2. Volume of credit and financial support for exports with the participation of the <i>Russian Export Center Joint-Stock Company</i> 3. The volume of loans provided by the <i>Russian Export-Import Bank Joint-Stock Company</i> in order to support exports	280 thousand rubles by 2020 330 billion rubles. by 2020

As the data of the presented **Table 1** show, the indicators characterizing the competitiveness of export products in the Russian Federation are not unified and in separate official documents are characterized by fragmentation and different values of threshold values or evaluation criteria.

In order to identify the interrelations of these indicators, we construct a contingency matrix (**Table 2**). Based on **Table 2**, it can be argued that as the main indicator of export competitiveness, which is formulated in the strategy and main directions of export development, most clearly reflecting the development of exports in this country, should be considered an increase in the share of exports of Russian high-tech goods (p_1).

However, only the export of high-tech products is not able to reflect the full picture of export's development in the country.

In this regard, we propose to expand the number of indicators reflecting the development of export competitiveness of products in the Innovation Development Strategy, separately taking into account the increase in the share of exports in general, p_1 , separately - the increase in the share of high-tech goods' exports p_{1_1} , and the increase in the share of exports of non-commodity goods p_{1_2} . Such clarification will allow more accurately reflect export competitiveness in relation to all products coming in for export, as well as highlight the share of high-tech products exported, which is especially important in the conditions of the digital economy development.

Returning to the indicators analyzed in **Table 2**, we note that some of them (p_3 , p_4 and p_8) although not literally, are very close in terms of semantic characteristics. In order to strengthen the coordination of strategic documents' indicators and simplify the assessment of the effectiveness of state programs' execution, we suggest that the names of indicators p_3 , p_4 и p_8 be brought into line. This will determine the continuity of strategic documents and improve the quality of their presentation. Thus, in the main directions of export development, the names of indicators reflecting the export competitiveness of products should be formalized in accordance with the provisions specified in the state program.

It also draws attention to the fact that the target values of indicators in different documents do not correspond. Thus, the indicator (p_1) in the Strategy is represented by the criterion of 2%, and in the Main Directions - 1.3-1.5% (see **Table 1**). A similar discrepancy is observed in the values of the export competitiveness index p_3 and p_4 .

Table 2. Matrix of export development targeted indicators' interface in the Russian Federation in accordance with the strategic planning documents

Export indicators	Increase in the share of Russian high-tech goods exports in the total world volume of high-tech goods exports	The increase in the value volumes of exports of goods and services	Increase in the value of primary goods' exports	Annual increase in the supply of machinery, equipment and vehicles in the goods' export	Increase in the coefficient of exports' commodity diversification	Increasing the share of services in Russia's total exports of goods and services	Increase in the share of knowledge-intensive and intellectual services in the structure of exports	Increase in the number of exporting organizations	Growth rates of exports of non-primary energy goods	The share of the countries of the Asia-Pacific Economic Cooperation in total exports of goods	Volume of export credits and other financing instruments
Conditional symbol of the indicator	p_1	p_2	p_3	p_4	p_5	p_6	p_7	p_8	p_9	p_{10}	p_{11}
1 Strategy	+	-	-	-	-	-	-	-	-	-	-
2 The main directions of export development	+	+	+	+	+	+	+	+	-	-	-
3 Government program	-	-	+	+	-	-	-	+	+	+	+
Conditional symbol of the indicator	p_1		p_3	p_4				p_8			
Indicator	Increasing Russia's share in global exports of high-tech products		The growth rate of exports of primary goods	The share of machinery, equipment and vehicles in total exports of goods				Growth index of the number of exporting organizations			

Source: compiled by the authors.

Interrelation of Export Competitiveness Indicators Approved In Regulatory Legal Documents and Strategies of Export Relations' Entities

In addition to the indicators of export competitiveness contained in official documents, special attention should be paid to the strategy of individual institutions' activity that are key actors in the development of export relations in the Russian Federation. In particular, the export development targeted indicators of Vnesheconombank (VEB) should be taken into account; a joint stock company that is a member of the VEB group - the Russian Export Center (REC); Joint Stock Company *Russian Export-Import Bank*. It is changes of indicators with the participation of these institutions are contained in the above-mentioned state program.

Thus, the Strategy of the state corporation VEB (Vnesheconombank), formed before 2020, provides for the achievement of targeted benchmarks of the following indicators):

- amount of loans provided in order to support exports;
- portfolio volume of export guarantees;
- Amount of attracted co-financing, etc.

Fragmentally, these indicators correlate with indicators of the state program *Development of foreign economic activity*. Thus, the state program provides that the Russian Export Center, created as part of the implementation of the VEB strategy for the formation of infrastructure for non-primary exports, should increase the amount of credit and financial support for exports to 300 billion rubles in 2019.

In its turn, the development strategy of the Russian Export Center JSC until 2019 provides for an increase in the volume of exports, supported by the REC in 2019 to \$ 34.7 billion (Table 3).

Table 3. Target indicators of export competitiveness development, provided by the Russian export center (extract)

№	Target indicator	Period, year		
		2017	2018	2019
1	The volume of exports supported by the Russian export center (including through the implementation of the subsidy program) (US \$ billion)	20.3	29.7	34.7
	Including export volume supported within the implementation of the agency function of the Russian Federation Government (billions of US dollars)	8.3	13.7	15.7
2	The number of exporters who used the services of the REC, including educational services, services of the Analytical Market Center, and services for the licensing of export supplies, etc., including services provided online (units).	6600	7400	7700
	Including the number of exporters supported in the framework of the implementation of the agency function of the Russian Federation Government with the participation of the Russian export center (units).	3200	3500	3700

Source: compiled according to the Russian export center

Table 4. Comparison of the values of export credit development indicators

Document	Values of the indicator volume of loans provided by JSC "Russian Export-Import Bank" to support exports by year, billion rubles.			
	2016	2017	2018	2019
State program for the development of foreign economic activity	-	80	-	-
Development Strategy of Roseximbank JSC	-	-	5,5	75

Source: compiled by the authors

The next institution supporting the development of non-primary exports in this country, which is a part of the REC group, is the State Specialized Russian Export-Import Bank (Roseximbank JSC).

According to the development of Roseximbank until 2019, the key indicator for evaluating its effectiveness is the volume of credit and financial support for exports with the participation of Roseximbank JSC in the amount of 25% in 2018 and 2019, which in absolute terms are 57.5 billion rubles in 2018 and 75 billion rubles in 2019. The values of these indicators contradict the indicators of the state program for the development of foreign economic activity (**Table 4**). Accordingly, the indicators of the state program are not achieved.

Continuing this study, we note that to assess the effectiveness of the development results of the export support system, not only national indicators can be used that define the objectives for export development, which are reflected in strategic documents, but also indicators used by leading international organizations, in particular the World Bank.

The most significant for assessing the Russian export support system is the *World Bank Rating (Doing Business) - International Trade*, the target indicator of increase of which is presented in the State Program for the *Development of Foreign Economic Activities*. This indicator also assesses export competitiveness, since it reflects the costs incurred by the participants in export relations when drawing up documents, undergoing control procedures, etc.

The value of the indicator taken into account by the World Bank is formed from the following indicators:

- export time: border and customs,
- export value: border and customs control,
- time for paperwork,
- Cost of paperwork.

According to the results of 2010, Russia was ranked 166th out of 183 in the World Bank's Doing Business ranking in terms of the *International Trade indicator*. At the same time, the World Bank emphasized that conducting foreign trade operations in Russia requires twice as many documents, three times more time and three times more expenditures compared with the developed economies of OECD (Organization for Economic Co-operation and Development) member countries. Also, in the period of the 2010s, the Russian indicator in the World Bank's Doing Business rating in the *International Trade* section was significantly lower than that of the BRICS partner countries.

In recent years, Russia's position in terms of international trade in Doing Business has improved significantly and by 2014 reached 155th place, while the number of countries evaluated has increased from 183 to 189.

By 2018, in the international ranking, Russia reached the level of 100th place. Consequently, the strategic guidelines for the development of Russia's foreign economic activity, assessed through the use of the World Bank rating, were achieved in 2018.

Table 5. Russia's position in the World Bank Rating (Doing Business) - international trade

A country	International Trade (PR)	International Trade Rating	Time for export: border and customs control (in hours)	Export value: border and customs control (US \$)	Time to export: paperwork (hours)	Cost of export: execution of documents (US \$)
Russian Federation	69.20	100	72	665	25.4	92
Russian Federation Moscow	22.45	-	72	665	26	80
Russian Federation St. Petersburg	61.61	-	72	665	24	120

Source: World Bank Group [Electronic resource]. Retrieved on 07/21/2018 from <http://russian.doingbusiness.org/data/exploretopics/trading-across-borders>

Taking into account the improvement of Russia's position in the rating, the achievement of the guidelines indicated in the State program *Development of foreign economic activity* - the 80th position in the World Bank's Doing Business rating in terms of the *International Trade* indicator in 2020 is quite realistic.

The index value by 01/01/2018 is presented in **Table 5**.

Thus, on the basis of the stated material, confirming the inconsistency of the Russian regulatory legal documents, we offer:

1) To align the strategic planning documents of the Russian Federation, reflecting the development of exports, in terms of clarifying targeted indicators and the formation of their interrelationships. In particular, to revise the main directions of export development in the context of the possibility of increasing the share of exports of Russian high-tech goods in the total global export volume to 2% by 2020;

2) to expand the list of indicators of the Innovation Development Strategy by complementing the increase in the share of exports of Russian high-tech goods with an indicator reflecting the increase in the share of exports in general and an increase in the share of exports of non-commodity goods.

In a modified form, the Innovation Development Strategy will correspond with the state program and the main directions of export development in the Russian Federation.

3) To clarify the possibility of increasing the growth rate of exports of non-commodity goods in the state program for the development of foreign economic activity;

4) to remain unchanged % the rate of increase in the number of organizations - exporters producing competitive products;

5) To eliminate the contradictions identified when comparing the strategy development of Roseximbank and the state program of development of foreign economic activity, clarify the values of the indicator *amount of loans provided by Russian Export-Import Bank* in order to support exports up to 75 billion rubles in accordance with the actual values provided by the bank.

DISCUSSIONS

In the scientific literature there are debatable questions about the methodology for assessing the export competitiveness of products, which are partially reflected in the studies of E.S. Mityakov [10], which proposes to consider the volume of exports per capita as an indicator of the competitive advantages of raw materials' exports or finished products; T.G. Maksimova, G.G. Chargaziya, S.I. Golovkina [11] on indicators reflecting the country's position in the international market, relating the share of exports in total foreign trade; E.A. Stepanov, who studied the method of export evaluation, used in foreign countries and adapted to Russian conditions, based on the calculation of the entropy coefficient [12], and other researchers.

Foreign authors who studied the development of exports and export potential were based on the idea of a positive impact on product demand and a negative one — obstacles in the form of customs duties, distance, etc. [13, 14]. In a number of studies, on the contrary, predominantly exported products were mainly considered and the magnitude of demand was not taken into account [15]. However, in recent years, studies on the evaluation of exports are based on the study and analysis of a large number of cross-country and inter-sector factors, which, in the opinion of scientists, in some cases not only complicate calculations, but can also, show inaccurate results [16].

Among foreign scientists whose works are devoted to assessing export competitiveness, the following should be singled out separately:

- Mafalda Roxo [17] for export performance considered productivity as a complex and multidimensional phenomenon, including three main aspects: efficiency in relation to the competitive environment, adaptability of response to environmental changes and resource utilization efficiency;
- Carlos M.P. Sousa [18], who studied the methodology for measuring export performance. The authors relied on the evaluation of empirical research and export indicators, which are reflected in the works of foreign economists and others.
- D. Kniahin, J. Sheng and M. Del Mar Cantero, who estimated export potential as a quantitative approach to identifying promising sectors and markets on a global scale, based on data on potential trade and market access [19].

In general, it can be stated that the indicators recommended by Russian and foreign scientists to assess the export competitiveness of goods are comparable and to some extent reflected in the analyzed strategic planning documents.

CONCLUSION

Thus, summarizing the above mentioned, we note that on the basis of the strategic planning documents' analysis of the Russian Federation regulating the development of exports and the strategies of export relations' leading subjects (Civil code of Vnesheconombank and JSC Russian export center):

- an interrelationship has been established between export competitiveness indicators approved by the VEB development strategy, the REC development strategy and the state program,
- a contingency matrix was built for export competitiveness indicators, reflecting partial compliance of indicators in strategic documents regulating export development in the Russian Federation,
- the absence of a unified system of indicators and criteria for assessing the export competitiveness of goods is established, which complicates the process of monitoring and executing the indicators laid down in the strategic documents of the Russian Federation,
- a discrepancy is revealed between the indicators of goods' export competitiveness and their criteria established by the strategic planning documents,
- Clarifications are proposed to the Main Directions for the Export Development of the Russian Federation and the state program for the development of foreign economic activity in terms of clarifying target values of indicators of goods' export competitiveness.

RECOMMENDATIONS

The conclusions and proposals formulated in the article can be used by legislative and executive authorities in assessing export competitiveness and making amendments in strategic planning documents. The results of the work determine further directions for improving the state policy in the development of Russian exports and increasing the attractiveness of the national economy in world markets.

ACKNOWLEDGEMENT

The article was prepared based on the results of research carried out at the expense of budget funds according to the state task of the Financial University.

REFERENCES

1. Spartak AN, Knobel AYu, Flegontova TA Prospects for increasing Russian non-oil exports. - Moscow: All-Russian Academy of Foreign Trade; 2018.
2. Demchenko MV, Churilova AV. International legal regulation of foreign investment in the context of Russian-Chinese investment cooperation. *International public and private law*. 2015;5:20-25.
3. Development Bank. Forecast of Russia's economic development for 2018-2020. Retrieved from <https://veb.ru/files/?file=4219f36263352da331f3763197199c97.pdf>
4. Frumina SV. Analysis of indicators characterizing export competitiveness in strategic planning documents. *Finance and credit*. 2018;11:2645-2658. <https://doi.org/10.24891/fc.24.11.2645>
5. Kutsuri GN, Shanin SA, Frumina SV, Gardapkhadze T, Ivanova EV. Russian Practice of Identifying and Assessing Budget Risks. *Journal of Applied Economic Sciences*. 2018;3(57):711-719.
6. McConel KR, Bru SV. *Economics*. Moscow: Infra; 2003.
7. Porter M. *Competitive Strategy. Methods of analyzing the industries of competitors*. Moscow: Alpina Publisher; 2018.

8. Kuropatkina OS. Features of determining the competitiveness of insurance organizations. *Modern Competition*. 2012;3(33):71-79.
9. Ukhmarova LKh. Competitiveness and investment opportunities of the industry; 2012. Retrieved from http://quality-journal.ru/wp-content/uploads/2016/07/Quality.Innovation.Education_05_-2012.pdf#10
10. Mityakov ES. Analysis of the external economic development of the Volga Federal District regions. *Basic research*. 2015;2:89-94.
11. Maksimova TG, Chargaziya GG, Golovkina SI. Statistical basis for monitoring the impact of foreign trade activities on the development of the services sector. *Economics and Management*. 2015;6:33-38.
12. Stepanov EA. The use of entropy in assessing the structure of exports in developed countries. *Bulletin of Chelyabinsk State University*. 2014;9:35-45.
13. Baldwin R. *Towards an Integrated Europe*, Centre for Economic Policy Research. London: Routledge; 1994.
14. Gros D, Gonciarz A. A note of the Trade Potential of Central and Eastern Europe, *European Journal of Political Economy*. 1996;12(4):709-721. [https://doi.org/10.1016/S0176-2680\(96\)00024-9](https://doi.org/10.1016/S0176-2680(96)00024-9)
15. Fortunato P, Razo C, Vrolijk K. Operationalizing the Product Space: A Road Map to Export Diversification, *UNCTAD Discussion Papers* №. 219; 2015.
16. Head K, Mayer T. Gravity Equations: Workhorse, Toolkit, and Cookbook, in: Gopinath, G., Helpman E, Rogoff K. *Handbook of International Economics*. Elsevier. 2014;4:131-195.
17. Mafalda Roxo. Export Performance. The case of the exports of cork stoppers from Portugal to emergent economies *Faculdade de Economia e Gestão* February; 2014. Retrieved from https://repositorio.ucp.pt/bitstream/10400.14/16988/1/TFM_mafalda_roxo.pdf
18. Carlos MP. Export performance measurement: An evaluation of the empirical research in the literature; 2004. Retrieved from https://www.researchgate.net/publication/228751641_Export_performance_measurement_An_evaluation_of_the_empirical_research_in_the_literature
19. Kniahin D, Sheng J, Del Mar Cantero M. A methodology to identify export opportunities for developing countries; 2015. Retrieved from https://exportpotential.intracen.org/media/1089/epa-methodology_141216.pdf

<http://www.eurasianjournals.com>