кредитним ризиком за допомогою важелів внутрішньої політики банку.

Враховуючи залежність між рівнем ризику та доходністю позичкової операції, банк повинен будувати свою кредитну політику так, щоб забезпечити баланс між ризикованістю та обережністю. Надмірна обережність позбавляє банк багатьох прибуткових можливостей, а надмірна ризикованість створює загрозу втрати не тільки доходу від процентів, а й запозичених коштів.

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## TO THE QUESTION OF HIGH-TECH EXPORT IN RUSSIA

## К ВОПРОСУ О ВЫСОКОТЕХНОЛОГИЧНОМ ЭКСПОРТЕ В РОССИИ

**Abstract.** The article presents an analysis of Russian high-tech exports. The state of the constituent commodity groups in Russian exports is analyzed. The analysis of Russian export support is presented. In conclusion, the author draws conclusions and proposes a number of provisions aimed at stimulating Russian high-tech exports, taking into account the development of SME.

**Keywords:** economy, high-tech export, entrepreneurship, territory, development.

**Аннотация.** В статье представлен анализ российского высокотехнологичного экспорта. Проанализировано состояние составляющих товарных групп в российском

экспорте. Представлен анализ поддержки российского экспорта. В заключении делаются выводы и предложен ряд положений, направленный на стимулирование российского высокотехнологичного экспорта с учетом развития субъектов МСП.

**Ключевые слова:** экономика, высокотехнологичный экспорт, предпринимательство, территория, развитие.

*Problem statement.* Lagging behind industrialized countries in the innovative development and volume of commodity exports of high-tech sectors of the real economy is one of the key problems in Russia in the transition to a highly structured economy capable of providing faster growth rates.

The development of high-tech industries and the expansion of the presence of their products in the supply of world markets in an unfavorable economic environment are among the priorities, both at the national and regional levels. In the absence of the development of exports of high-tech industries, its full integration into the world economic space and the effective development of the country and its territories, and hence the implementation of strategic objectives for accelerated economic growth [7].

Analysis of recent research and publications. Issues relating to aspects of high-tech products and exports were considered in the studies of scientists I.P. Gurovoy, E.V. Zykova, N. Gavrilova, I. Belyakova, E.B. Sklyarova, M.V. Dolgovoy, O.N. Cherednikova, P. Kokhno, A. Kokhno, O.B. Koshovets, N.A. Ganicheva, T.V. Shutovoy, T.E. Startseva, I.A. Rodionova, A.S. Gordeeva, I.E. Frolova, N.A. Ganicheva, A.V. Fomina, B.N. Avdonina, A.M. Batkovsky, G. Fetisov, V.P. Shuisky.

Formulation of goals and objectives. In this regard, the aim of the study is to determine the specifics of high-tech exports with the possibility of diversification to find new ways to strengthen and grow the Russian economy. To achieve this goal, it is necessary to solve the following tasks: to clarify the concept of the economic category «high-tech exports», to analyze the specialization of exports, to highlight the vector of development of high-tech exports with the development of tools aimed at the growth of the Russian economy.

Presentation of the main material. Currently, the world Bank estimates the volume of the global market for high-tech products at 3 trillion. dollars (energy market – 0.7 trillion. dollars) [10]. At the same time, it is worth noting that one of the priorities of the state policy of the Russian Federation in the export sector is to increase the share of exports of Russian high-tech goods in the total world exports of high-tech goods to 2 percent by 2020 (0.9% at the end of 2017) [8].

At the same time, the economic category «high-tech export», from our point of view, should be understood as the supply of technically complex products to foreign markets, for the production of which complex technological processes (advanced technologies) are used, based on the results of not only applied but also fundamental scientific research [7].

Russia's exports from 2007 to 2017 were formed due to commodity categories of raw materials orientation and low degree of processing (on average in the range from 77.8 to 80.9%), while the trend of non-primary products of high processing shows a tendency to

decrease by 2.8 percent [5]. However, the direction of Russian exports in the global comparison on four indicators has «broken» trends (fig. 1).

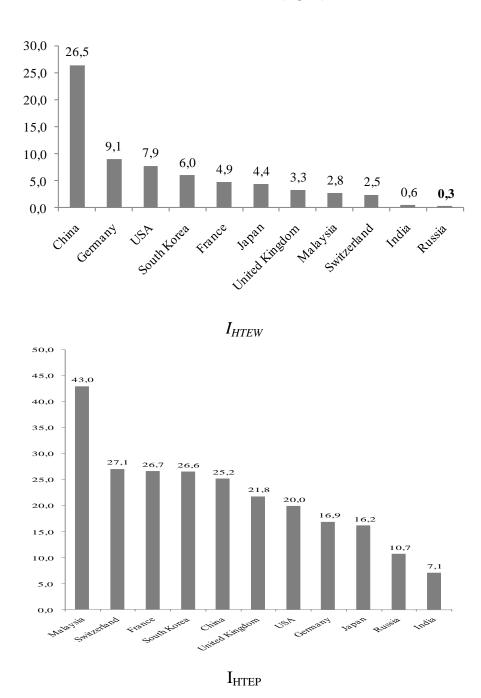


Fig. 1. Indicators of Russian high-tech exports in global comparison, 2016 [12]

Explanation:  $I_{\text{HTEW}}$  – the share of high-tech exports of the country (territory) in global volumes;

 $I_{\text{HTEP}}$  – the share of high-tech exports in the volume of all foreign supplies of the manufacturing industry of the country (territory).

Source: author's calculations on: World Development Indicators. High-technology exports. URL: https://databank.worldbank.org/reports.aspx?source=2&series=TX.VAL. TECH.CD&country=#

Russia is in the top ten countries by the share of exports in GDP, while being in the top five among developed countries [2]. However, Russia's share in world exports of high-tech products is 0.3% and compared with a number of developed and developing countries is several times less (in the range from 10.2 to 56 times) [1]. So, for comparison, in China the share of high-tech products in world exports is 26.5%, Germany – 9.1%, Japan – 4.4% [1]. At the same time, the share of high-tech exports in Russia's total manufacturing industry is 10.7%, but in comparison with foreign countries (Malaysia, South Korea, France, the UK) is the smallest [1]. As for non-resource exports in the total volume of supplies to foreign markets, it is worth noting that the share in Russia, though – 34%, but at the same time, the specification compared to foreign countries (Germany, Japan, South Korea, Malaysia) is based on the production of simple products [1].

This is confirmed by the component of Russia's exports, so for 10 years the main commodity group in supplies to foreign markets were mineral products, goods of the fuel and energy complex, which throughout the period (from 2007 to 2017) holds the largest share in total volumes (table 1).

Table 1 Component of Russian exports, 2007-2017

	2007		2017	
Commodity group	The volume	Share,	The volume	Share,
(component of the export – FEACN of the cu)	of export,	% /	of export,	% /
	bln. USA	Place	bln. USA	Place
Mineral products, goods of fuel and energy complex (25-27)	218,4	65,1/1	216,2	60,4/1
Metals and articles thereof (72-83)	47,6	14,2/2	37,1	10,4/2
Chemical industry products, rubber (28-40)	19,6	5,8/3	24	6,7/4
Machinery, equipment and vehicles (84-90)	17,7	5,3/4	28,3	7,9/3
Wood and pulp and paper products (44-49)	11,9	3,6/5	11,8	3,3/6
Food products and agricultural raw materials (except textile, 01-24)	8,3	2,5/6	20,7	5,8/5
Precious stones, precious metals and articles thereof (71)	6,8	2/7	11	3,1/7
Other goods (consumer goods, other industrial products, consumer goods, 68-70, 91-97)	4,2	1,3/8	7,3	2/8
Textiles, textiles and footwear (50-67)	0,6	0,2/9	1,1	0,3/9
Raw hides, furs and articles thereof (41-43)	0,3	0,1/10	0,3	0,1/10

Source: author's calculations by: Official publications of the Federal customs service on customs statistics of foreign trade of the Russian Federation URL. http://stat.customs.ru/apex/f?p= 201:7:5263952287712982::NO

In addition, the main export commodity groups in 2017 in Russia are the following: crude oil, including natural gas condensate -26.1%, natural gas -10.8%, low-processing goods -33.9% [5; 7]. At the same time, in Japan, Germany, China, the key group of

supplies to foreign markets is mechanical engineering products. For example, in China, the share of General and special engineering products in total exports is 44.9% [2]. In Germany, the main group of exported goods is divided into two categories: machinery products – 31.7%, vehicles – 20.7% [2].

In General, the value of high-tech exports in the Russian Federation amounts to \$56.6 million. The share of all the country's supplies to foreign markets amounted to only 1.5%, and GDP -0.5% [5; 12].

From this it follows that in Russia the development of high-tech exports, from the point of view of methodological support is poorly identified in comparison with world experience and is a «basket» consisting of an assortment of both simple products and the least complex products [4]. This is also confirmed by the results of the analysis of Russian high-tech exports in the context of Federal districts, where the share of high-tech products was not less than 0.5% of gross exports.

According to the results of the analysis, it can be noted that the largest share of high-tech products in exports is in the Siberian Federal district -22.3% (the key commodity group with a share of 30% is pulp and paper woodworking products and products, followed by radio engineering, electronic, telecommunication equipment including medical devices -12%) [6; 12]. In second place is the Central, the value of which in total is -22.1%. Where, the basis of supply is machine-technical products with a value of more than 70% (cars and their components, turbine generators, nuclear reactors, etc.).

The third place among the districts is occupied by Privolzhsky with a share of 21.3% supplying foreign markets with metal products, which are used in construction (68%). The northwestern district is in fourth place with a 17.6% share. The key commodity items of high-tech exports in the district are electrical products and optical devices – 18% (in General, precision engineering products – 36%), fertilizers (chemical) – 19%, metallurgy products 14%, including those used in the construction industry). In the Ural Federal district, the value of high-tech exports is at the level of 13.5%, so the main commodity item, which occupies the largest share, is metallurgy products used in the construction sector. In the southern Federal district, the key commodity group is also the products of the metallurgical industry used in construction – 32% and engineering products – 23.5% (shipbuilding, including floating structures, boats and others) [6; 12].

It turns out that the development of high-tech exports in the country is at a low level. And priorities towards increasing the share of high-tech exports on the global stage need to build support at the Federal level, and to create in the Russian regions the conditions stimulating the development of non-oil exports, particularly high-tech. This aspect is very important to realize, since the expansion of presence in foreign markets for the main commodity groups of low processing creates the effect of obtaining short-term benefits. However, in the long term, it may lead to a decrease in demand for raw materials and a loss of market share in high-value-added goods and a decrease in the efficiency of export activities [9].

Over the past 5 years, the infrastructure to support non-oil exports in Russia is formed quite actively. JSC «Russian export center» was established as a specialized

organization representing a «single window» for working with exporters in the field of financial and non-financial support measures [6]. In 2016, the REC Group was formed, which provides comprehensive support to all exporters of non-primary products without industry restrictions [6]. For example, EXIMBANK JSC, a member of the REC group and an agent of the Russian Government to provide state support for exports, lends to companies and issues various types of guarantees on its behalf upon request [6; 7]. JSC «Eximbank» was established in 1994 to implement in practice the state policy of stimulating and supporting the export of engineering products [6; 9]. Currently, the Bank is implementing a program to support high-tech exports with the provision of special credit conditions. Where the key criterion for obtaining financing (credit) is the correlation of goods or services produced or exported by the enterprise (company) are high-tech exports according to the order of the Ministry of industry and trade of the Russian Federation dated July 17, 2017 №1993 [7]. However, if we turn to the world experience, the presented classification of goods weakly correlates with the commodity groups related to the indicator «high-tech exports» in the statistics of the world Bank based on the methodology of calculation of the OECD together with Eurostat [1].

Summary. It follows that with a small share of high – tech exports (1.5% - 2017) in the total volume of supplies to foreign markets, Russia today is a country with a large range of production of simple products, i.e. relating most to the products of low processing, which in turn requires a systematic approach in the formation of both economic policy in General and export in particular in the direction of the development of non-primary industries producing high-tech products.

However, without ensuring the content of an effective export policy based on diversification and an integrated approach, the solution of topical domestic economic problems is extremely difficult in practice [4].

Thus, in the direction of stimulating the development of high-tech exports as a driver of growth of the Russian economy if the interest of the authorities and administration in charge of foreign economic issues, you need to consider the following points: first, at the Federal level, it is necessary to improve methodological tools for evaluation, based on the study of foreign experience and world practices to determine the economic effect in the regions of implemented programmes and support the development of strategic documents aimed at proactive policies in the export; develop systems of methodological support with the construction of classification in high-tech exports for the formation of statistics and construction of predictive models; implementation of system approach in infrastructure support to SMEs to carry out export activities with a choice of priority, improving the human infrastructure to work in conditions of high competition and the WTO [10], the formation and construction of the system of support and stimulation of development of techno products non-oil exports based on non-financial and financial instruments (taxes, credits, insurance, economic and trade measures) on all cycles, export activities with the gradual possibility of their implementation.

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