Economic security of the Russian oil and gas sector in the context of geopolitical shocks: economic and legal analysis

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Abstract. The article reveals the key aspects of the problem of ensuring the economic security of the Russian oil and gas sector at the regional, national and global levels in the context of geopolitical and economic shocks caused primarily by the introduction of economic sanctions against Russia. The authors used complex and systemic approaches, which consisted in a comprehensive study of the problems of economic security of the oil and gas sector, considered as an open system, and the study of the impact of sanctions against it not only on individual companies, but also on the entire national economy. The relevance of such areas of scientific research as the assessment of the consequences of the anti-Russian sanctions policy against the oil and gas sector and the study of its systemic effect as a result of the integral impact on the national economy, as well as the analysis of measures has been confirmed, undertaken by domestic companies and the Russian Federation as a whole, in response to the economic sanctions of the West. A matrix of the effects of the anti-Russian sanctions policy on the oil and gas sector is proposed, which demonstrates, firstly, the ambiguous impact of sanctions on oil and gas companies and the Russian economy, and secondly, shows that sanctioning countries face significant costs of the sanctions war for their economies. It is established that the degree of negative impact of restrictions on the object of sanctions and the ability to resist them depends on a variety of economic and political factors that are different in nature and multidirectional in effect. The Russian oil and gas sector in 2022 showed a good ability to ensure the stability of functioning under economic pressure.

1 Introduction

Currently, a large-scale conflict of interests of the Russian Federation, on the one hand, and the collective West, on the other, is unfolding in the world. Since 2014, after the state coup in Ukraine and the accession of Crimea to Russia, the Russian Federation has been involved

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in a sanctions standoff that is taking place both economically and politically. In 2022, the
difficult international relations between the actors of the conflict and the impossibility of
resolving it within the framework of the previously reached Minsk agreements forced the
Russian Federation to launch a special military operation in Ukraine. This became a catalyst
for sanctions pressure on the Russian Federation – in 2022, the United States, the EU and
other Western countries adopted many packages of anti-Russian sanctions designed to
destroy the economic system of the state, reduce the pace of socio-economic growth and
development and, thereby, undermine the economic security of the Russian Federation.

One of the strategically important objects of economic pressure for the sanctioning
countries is the Russian oil and gas sector, which plays a huge role in the formation of the
federal budget and the budgets of the producing regions, and exerts a multiplicative influence
on the entire national economy. The sanctions imposed to date against the oil and gas sector
of the Russian Federation are of a very diverse nature. They also include individual sanctions
against specific companies or individuals (for example, against I. Sechin, the head of
Rosneft), and a ban on the import by Russian companies of equipment for oil and gas
production (for example, a ban on the import of equipment for oil production on the Arctic
shelf), and restrictions related to the turnover of oil and gas (for example, the introduction by
Western countries of a ceiling on oil prices), and sanctions in the financial sphere, limiting
the inflow of investment resources into the fuel and energy complex or affecting the sphere
of international payments for oil and gas supplied to the world market.

In these conditions, a popular area of scientific research is the assessment of the
consequences of the anti-Russian sanctions policy against the oil and gas sector, the study of
its systemic effect as a result of the integral impact on the national economy, as well as the
analysis of measures taken by domestic companies and the Russian Federation as a whole in
response to the economic sanctions of the West.

Analyzing the publication of this problem, it can be noted that the research is highly
relevant, but their content requires further development due to the high variability of factors
influencing the processes under study. Thus, it is not entirely clear from the publications to
what extent anti-Russian sanctions ensure the achievement of the desired effect for those who
impose them, especially from a strategic point of view. At the same time, it is noted that the
potential of economic pressure is almost exhausted and further sanctions lead, for the most
part, to increased global economic instability, destroying the established world order [1].In
particular, this is indirectly confirmed in the article by P. J. Cardwell and E. Moret, who note
that the readiness of the European Union to introduce autonomous (or unilateral) restrictive
measures against third countries, and in particular against Russia, manifested itself at a time
when the introduction of new sanctions within the United Nations (UN) has stalled. This
trend seems to reflect the growing ability to build consensus among EU member states and
use their economic might to support their foreign policy goals [2].

Scientist Vladimer Papava, updating and emphasizing the importance of the
consequences of sanctions for the country that has fallen under sanctions (i.e. Russia), and
for the countries that have imposed these sanctions, as well as other countries that have not
joined these sanctions, suggested that the area of economics studying these issues be called
sanctionomics [3].

It should be noted that about 10128 restrictions have been imposed on Russia, which is a
"world record", while the share of imports from the USA and the EU is quite high. Thus, the
share of imports from the EU alone is at least 36% of foreign trade turnover (this is more
than 280 billion dollars of income), which, according to experts, it will be impossible to
compensate for even five years [4]. Patrick Baras a from Research era the Security Studies
and Analysis Centre, notes in Daily Monitor that Western economic sanctions against Russia
may have serious economic consequences for the EU. The tightening of sanctions pressure
will lead to the need to search for alternative fuel sources, which will cause an increase in production costs and prices for goods and services, as well as a slowdown in their economic growth, unlike the United States, Canada and the United Kingdom, which are minimally connected with Russia. EU countries will suffer even more if Russia retaliates and suspends or reduces gas and oil supplies. Given the differences within the Western alliance, each of its states should assess the consequences of joining the sanctions against Russia independently.

This thesis is confirmed by Perdanaa S., Viellea M. and Schenckery M., pointing out that the high dependence on Russian energy supplies highlights the vulnerability of the EU's energy security, and the consequences for Russia when the EU extends sanctions on natural gas will be less significant than for the EU [5].

The result of modeling the economic indicators of bilateral trade between the EU and Russia under sanctions is interesting, presented in the article Garashchuk A., Isla Castill, Podadera Rivera P. The authors point out that if the sanctions were lifted, it would have a significant impact on the trade turnover between the EU and Russia [6].

The application of a sectoral approach to the analysis of the economic consequences of EU sanctions against Russia In the context of the special importance of hydrocarbons in the structure of its exports [7] on the basis of a partial equilibrium model for a particular sector shows that the total damage to Russia's welfare in the future may exceed 996 million dollars per year, while in 72 sectors sanctions will cause more harm to the EU than Russia, which will lead to losses of the EU exceeding $ 560 million. Thus, the EU may consider the possibility of adjusting the package of tariff sanctions without copying the US sanctions package [8].

At the same time, despite the general negative effect of economic sanctions, their impact on the Russian economy may manifest itself in the accelerated elimination of dependence on raw materials. Therefore, the forecast of Imangulu Muradzada, presented in the study of factors affecting the Russian oil and gas sector, can be adjusted in a positive direction [9].

Some scientists consider the sanctions pressure against Russia in the context of the current norms of international trade. For example, the Tone of Notermans notes the ever-increasing risk of discrediting international contractual relations, for example GATT/WTO, in the context of sanctions wars [10].

Despite the presence of publications on the problem under study, their analysis allows us to conclude that the effect of sanctions on Russia and the sanctioning countries is sometimes evaluated by scientists in diametrically opposite ways. In addition, it can be stated that there is no interdisciplinary economic and legal approach to the analysis of economic sanctions.

2 Materials and methods

The methodology of the research is determined by its purpose, takes into account the key features of the object of research and is based on the use of a system of general scientific and special methods.

The object of the study is the oil and gas sector of the Russian Federation, which is a set of industries engaged in the extraction, transportation, processing and distribution of the most important raw materials of the economy – oil and gas. The subject of the study is the economic security of the domestic oil and gas sector, understood by us as its ability to withstand the action of threats and to ensure on this basis the necessary pace of development in accordance with Russia's strategic priorities.

The purpose of the study is an economic and legal analysis of the economic security of the Russian oil and gas sector in the context of geopolitical and economic shocks.

Various methodological approaches and research methods were used in the research process. The main methodological approach is an integrated approach, which consists in a
comprehensive study of the problems of economic security of the oil and gas sector and the study of the impact of sanctions against the sector not only on individual companies, but also on the entire national economy. At the same time, the Russian oil and gas sector is considered as an open system, which means the implementation of a systematic approach in the study.

Research methods include general scientific and special methods. Among the general scientific methods, analysis, synthesis, and expert method are widely used. A distinctive feature of this work is an interdisciplinary approach to research based on the use of both methods of economic analysis (computational and statistical method) and methods of legal research (formal legal, comparative legal), which allows solving a scientific problem more effectively.

The theoretical basis of the research is the works of leading scientists investigating the problems and prospects of the development of the Russian oil and gas sector in the conditions of the sanctions economy. The information base of the study was data from the Federal State Statistics Service of Russia, open information from the Ministry of Finance of the Russian Federation and other executive authorities, information from the official websites of oil and gas companies.

3 Results and discussion

The most important economic resource of the Russian Federation is its developed oil and gas sector, which for a long time has been mainly export-oriented. The strategic importance of the oil and gas sector for the economic security of our country makes it a convenient target for the sanctions regimes of unfriendly states. Economic sanctions against the oil and gas sector include a wide range of coercive economic measures aimed at limiting its global competitiveness and the pace of development.


![Fig. 1. Dynamics of oil and gas and non-oil and gas revenues in the federal budget of Russia in 2018-2021, billion rubles. Data source: https://minfin.gov.ru/ru/statistics/](https://example.com)

Despite the sanctions imposed against the oil and gas sector, in 2022 it continued to act as the most important source of federal budget revenue. During the 11 months of 2022, oil and gas revenues showed significant fluctuations, but, nevertheless, accounted for 43% of the budget revenue.

Thus, it should be noted the high level of stability of the Russian oil and gas sector, which made it possible to exceed the indicators of oil and gas income for previous years in conditions of price volatility. According to the head of Rosneft, Igor Sechin, the idea of "cutting out" Russia from the world economy is absurd and illusory. According to him, with
the development of infrastructure, Russian oil exports to China and India exceeded 80 million tons in 2021. And the implementation of the Vostok Oil project will ensure the growing needs of the markets of Southeast Asia, India and China, long-term stability of the oil market and reduce price volatility, preventing the cost of energy resources that are not profitable to anyone.

Analyzing the forecasts of the impact of sanctions on the development of the mining regions of the Russian Federation, one can note the position of the expert of the Financial University and the National Energy Security Fund of the Russian Federation Igor Yushkov. He notes potential difficulties, for example, for the Khanty-Mansi Autonomous Okrug in early 2023, during the structural transformation of hydrocarbon markets. But, according to the expert from Information portal «2 cities», in the second half of 2023, a period of recovery in oil production will begin.

The sanctions had a significant impact on the departure of foreign oilfield service companies, which, according to Vygon Consulting, in 2020 occupied 52% of the market volume of these services in Russia. According to Pyotr Ryabtsev, director of the Akros oilfield services company, import dependence is strongest in high-tech production segments, specifically in intelligent well injection systems, systems for rotary controlled drilling, etc. Here the share of foreign companies reached 80%. At the same time, according to the «Vedomosti» resource if we talk about low-tech segments of oil production, here foreign firms occupied only 10-15% of the market.

In these conditions, Russia faces the need for accelerated import substitution in the production of modern equipment for the oil and gas sector. Denis Manturov, Minister of Industry and Trade of the Russian Federation, believes that at least six enterprises in Russia are ready to produce technological equipment for the oil and gas processing industry.

Thus, economic sanctions against the Russian oil and gas sector have an impact not only on the economic security of companies engaged in the extraction, processing and transportation of oil and gas. They create opportunities and threats to the economic development of related industries, as well as affect national economic security. In the table. 1 presents a matrix of the effects of the anti-Russian sanctions policy on the oil and gas sector, which demonstrates, firstly, the ambiguous impact of sanctions on oil and gas companies and the Russian economy, and also shows that the sanctioning countries face significant costs of the sanctions war for their economies.

Studying the impact of sanctions on the economic security of the oil and gas sector, it is necessary to understand that the regime of economic sanctions is, first of all, a legal regime. This means that for its proper application, it is necessary to develop high-quality regulatory legal acts that will not contain the possibility of circumventing sanctions with the help of certain mechanisms. Based on this, it seems relevant to analyze the legal framework by which Western countries are trying to destroy the Russian oil and gas sector.

Sanctions against the oil and gas sector of the Russian Federation can be divided into two types: restrictive measures that were imposed against specific individuals, and prohibitions provided for specific enterprises and organizations related, one way or another, to the turnover of petroleum products and products of the gas sector. Both types of sanctions are ultimately directed against the energy security and sovereignty of the Russian Federation.

Table 1. Matrix of the effects of the anti-Russian sanctions policy against the oil and gas sector.

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Consider the personal sanctions imposed in order to influence the political and economic situation in Russia and the decisions of its leadership by restricting the ability of specific individuals to move outside the country or conduct economic activities there. The first regulatory legal act in this area is the decision of the Council of the European Union No. 145 of March 17, 2014. (No. 2014/145 CFSP) on personal sanctions against persons involved in the situation in Ukraine. However, a significant number of other legal acts were subsequently adopted. The sanctioned list includes individuals affiliated with oil and gas companies (Igor Sechin, Nikolay Tokarev, Eduard Khudainatov) [11].

However, personal sanctions only indirectly affect the stability of the domestic fuel and energy complex and are not able to have a decisive impact on it. Such an impact is under the power of sectoral sanctions, which are aimed at critical elements of the entire oil and gas sector of the Russian Federation.

Ya.S. Dolya has mentioned that sectoral sanctions should be understood as a list of legal decisions that reduce the efficiency of the current activities of the industry and are aimed at Russia's capabilities for future production, storage and transportation of oil and gas products. Thus, as part of the fourth package of restrictive measures, the Council of the European Union adopted Resolution No. 2022/428 of March 15, 2022 and Decision No. 2022/430 of March 15, 2022 [12] on restrictive measures against actions undermining or threatening the territorial integrity, sovereignty and independence of Ukraine, which expands the sanctions specified in Resolution No. 833/2014 dated July 31, 2014, and prohibits providing financing to companies operating in the Russian energy sector.

The expansion of the sanctions regime affected the legal status of transactions with legal entities that belong to the Russian Federation as a public legal entity, as well as persons...
against whom personal sanctions were imposed - these transactions were prohibited to all residents of the European Union. There was also a ban on new investments in the Russian energy sector, significant restrictions were imposed on the export of equipment to the oil and gas sector of the Russian Federation. The opportunities for exporting energy sector technologies, as well as services related to oil and gas production, were significantly reduced. However, this sanctions regime also provided for exceptions — some sectors of energy transportation fell under them (Fig. 2).

![Fig. 2. Sanctions restrictions of Decision No. 2022/430.](image)

It is worth noting that the existence of this exception allowed the domestic oil and gas complex to absolutely legally receive significant income, most of which directly depended on the sale of products of the oil and gas complex in the countries of the European Union. So, in March, oil and gas budget revenues amounted to 1.2 trillion rubles. In April, the next month after the adoption of Decision No. 2022/430 on the expansion of the sanctions regime, oil and gas budget revenues amounted to almost 1.8 trillion rubles, in May they fell to 0.9 trillion. However, according to the «Kommersant» resource from June to September, this indicator assumed a value of about 0.7 trillion rubles, whereas in October it increased to 1.28 trillion rubles, and in November it fell to 0.87 trillion rubles.

In the summer of 2022, the sixth sanctions package was adopted, which includes a ban on the supply of Russian oil to the European Union and assistance in its delivery to third countries [13]. At the same time, European states will have the opportunity to purchase oil and petroleum products exported from Russia, provided that they were produced in another country and do not belong to residents of the Russian Federation (Fig. 3).
It is worth noting that the geographical location of a number of European states leads to the fact that restrictions are not imposed on the economic relations of enterprises of the Russian oil and gas complex with a number of European states that do not have their own energy sources. Thus, the bans do not apply to the import of crude oil of the Russian Federation, which is supplied to the Czech Republic and Slovakia and Hungary via the Druzhba oil pipeline. Bulgaria can import oil and petroleum products from Russia by sea until the end of 2024 under contracts concluded before June 4, 2022, Croatia is allowed to purchase vacuum gas oil. At the same time, it is indicated that these European states should make efforts to abandon the export of oil and gas products from Russia as soon as possible.

However, in fact, instead of strengthening prohibitions, the existence of exceptions in the sanctions regime for some states of the European Union may contribute to the continuation of supplies of products of the Russian oil and gas sector and even their increase. This is due to the fact that, despite the formal ban, the states for which exceptions are provided will be able to circumvent restrictions on the export of Russian petroleum products in one way or another. This is especially true in winter, when many European countries are experiencing a shortage of energy resources.

Also, European sanctions suggest that European countries will have the opportunity to purchase oil and petroleum products exported from Russia, provided that they were produced in another country and do not belong to residents of the Russian Federation. Accordingly, there is an opportunity to change domestic legislation in such a way as to allow oil exporters not to indicate the affiliation of products to Russia and its citizens, or to indicate another nationality.

By adopting the seventh package of anti-Russian sanctions, the EU countries relaxed some of the restrictions already in force, so it was decided to extend the exemption from the ban on transactions with certain state structures in relation to the transportation of oil to third countries [14].

In the eighth package of sanctions against Russia adopted by the EU on October 6, 2022, the EU legislation introduced gas standards to establish an upper limit on prices for the sea transportation of Russian oil to third countries and further restrictions on the sea transportation of crude oil and petroleum products to third countries. It was noted that it would be prohibited to provide sea transportation and provide technical assistance, intermediary services or financing or financial assistance, related to the sea transportation to third countries of crude oil (starting from December 2022) or petroleum products (starting from February 2023) that are produced from or exported from Russia. It is assumed that the
price ceiling will sharply reduce Russia's oil and gas revenues, and will also contribute to the stabilization of world energy prices [15].

Since December 5, the oil price ceiling has come into force, as part of the sanctions adopted: the European Union has stopped accepting Russian oil transported by sea, and the G7 countries, Australia and the EU have imposed a price restriction on it during sea transportation at the level of $60 per barrel – it is prohibited to transport and insure more expensive oil. It is expected that from February 5, similar measures will be introduced for petroleum products, although the price limit is not yet known. In response, Russia banned the supply of oil to foreign persons from February 1, if the contracts directly or indirectly provide for the use of a mechanism for fixing the marginal price. «RIA Novosti» reported that The European Union plans to revise the ceiling of prices for Russian oil every two months, the first revision is scheduled for mid-January 2023.

Next, we will analyze the US sanctions policy against the Russian oil and gas sector. The regulatory legal act that imposes US sanctions is US Presidential Decree No. 14066 of March 8, 2022, "A ban on certain imports and new investments in connection with the ongoing efforts of the Russian Federation to undermine the sovereignty and territorial integrity of Ukraine" [16].

In addition, the sanctions regime in the United States is regulated by such regulations as the Law on Trade with Hostile States, the Law on Foreign Aid, the Law on Emergency Provisions, the Law on International Emergency Economic Powers, the Law on Export Control.

U.S. Presidential Decree No. 14066 of March 8, 2022 prohibits the import into the United States of the following products of Russian origin: crude oil, petroleum products, petroleum fuels, oils and their distillation products, liquefied natural gas, coal, and coal products; a ban on investments in the energy sector of the Russian Federation by a person from the United States; a ban on approval, financing, assistance or guarantees by a person from the United States, wherever it is located, of Russian transactions in the energy sector (Fig. 4).

At the same time, the fact that the US Office of Foreign Assets Control issued clarifications that Russian origin should be understood as goods produced, mined or processed in the Russian Federation, with the exception of any goods of Russian origin that were included in a foreign-made product or substantially transformed for the purposes of applying sanctions legislation, is important [17].
Analyzing the legal mechanism of the US sanctions regime against the Russian oil and gas sector, it should be pointed out that it contains opportunities to circumvent sanctions in order to meet the needs of the American market. The products of the oil and gas sector can be supplied to us if they are included in a product having a different national origin. It seems that in this case, a scheme is possible to add Russian petroleum products to foreign ones in a certain proportion so that the entire volume of this mixture is recognized as a product created not in the Russian Federation (Fig. 5).

Fig. 5. Features of determining the Russian origin of oil and gas sector products for the US sanctions regime

4 Conclusions

Summing up, it should be noted that the degree of negative impact of restrictions on the object of sanctions and the ability to resist them depends on many economic and political factors that are different in nature and multidirectional in impact. The Russian oil and gas sector in 2022 showed a good ability to ensure the stability of functioning under economic pressure. It should also be concluded that, despite the formally strict regime of anti-Russian sanctions, from a legal point of view, foreign sanctions legislation presents significant opportunities to circumvent sanctions.

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