

Commodity Export: Risks and Opportunities

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Abstract: Russia remains one of the world's largest exporters of energy and metals. However, in recent years, commodity exports from Russia have faced challenges and restrictions that may adversely affect the economy. The main challenge for Russia's commodity exports is growing competition in world markets, including from countries developing their mining industries. Additionally, geopolitical risks and foreign policy conflicts can negatively affect exports. In the present conditions, logistics risks are among the most common in the commercial sector. Justifying conditions and ways to minimize barriers is an urgent research topic. This research presents the analysis of export volumes for the year 2022, considers the prospects for the current state with reference to export partners, explores logistic ways to form profitable transport corridors (given promising development paths), and summarizes the risks and prospects for developing export activities, considering sanctions and restrictions.

Keywords: export, commodity, competition, logistics, transport

JEL codes: L9, N7, P23, R4

Russia is one of the world's largest exporters of oil, gas, coal, and other commodities. However, in the context of introducing economic sanctions by Western countries, commodity exports have become one of the main challenges for the Russian economy. Sanctions affect financial flows, make access to technology and new markets more difficult, and increase investor risks. This research aims to analyze the main trends and problems associated with commodity exports from Russia under sanctions and find possible ways to develop export potential in the future. Undoubtedly, revenues from commodity exports form budgets of many countries; in other words, "...the sector commodities are the foundation of the economy of many developing countries, and its role in the export cannot be underestimated..." (Kuznetsov, 2022). The level of development of Russia most likely cannot be defined as developing. Therefore, there is a risk of dependence on commodities. It is worth paying

attention to the risks associated with commodity dependence “...the main problem of commodity exports is that it can lead to a decrease in the diversification of the economy and an increase in dependence on fluctuations in world prices for commodities...” (Masoud et al., 2015). In this case, two opposing points of view can be smoothed out by the correct remark that “...commodity exports can be beneficial for the country’s economy if the government effectively uses the income from it to develop other sectors of the economy and improve the welfare of the population ...” (Kuznetsova, 2019).

The fact of a significant share of commodity exports in Russia’s GDP does not require proof; the dependence of the country’s economy on commodities and their sale penetrate all sectors of the economy. According to the Central Bank of Russia, the share of the export of non-resource goods in Russia’s GDP in 2021 was 24.7%; the share of commodity and energy exports was 61.1% (Central Bank of the Russian Federation, 2023). The relevance of this research is due to the high risks of marketing commodities due to sanctions and restrictions, the closure of European sales markets, and the political situation, which affects the budgetary part and the stability of the economy and participants in international relations. “The modern world economy, influenced by deglobalization, the viral economic cycle, and post-pandemic changes in the disintegration of world economic systems, is characterized by a tendency to increase imbalances. It does not fit into the theoretical models of the classical and traditional institutional economic schools...” (Pirogova et al., 2021).

Many scientists considered the problems of commodity exports. The discussed problem was considered (taking into account current data and circumstances) by the following authors (the time interval is two years): V. Belykh (2011); E. I. Baltusova, V. S. Lebedenko, and P. V. Samsonova (2021); D. I. Ushkalova (2022); A. A. Sozinova and N. K. Savelyeva (2022, 2023); and J. Masoud, D. Juggernaut, and K. Matson (2015). Foreign trade is one of the main drivers of economic development because it allows countries to use their resources and achieve economic growth efficiently. It contributes to expanding production, increases global sales and competitiveness, and attracts foreign investment. In international trade, countries can exchange goods and services that are not produced or produced efficiently in their economies. This allows them to use their strengths and compete in global markets. Additionally, foreign trade contributes to disseminating new technologies, improving product quality, and increasing living standards.

Methodology

According to the Federal Customs Service of the Russian Federation, in 2021, Russia’s main partner countries for the export of food products and agricultural raw materials were China, Turkey, Kazakhstan, Egypt, India, Azerbaijan, Uzbekistan, Lebanon, Iran, and Belarus. China is the largest buyer of Russian soybeans and other oilseeds, meat, and fish. Turkey imports cereals, meat, fish, and dairy products. Kazakhstan is a major buyer of grains and fish. Egypt is a major buyer of meat and grains. The comparative analysis with the last year’s data showed a positive trend. According to the data of March 2023, “... Russia can export 4.2 million tons of wheat, the SovEcon analytical center predicts. Export figures for this month may double last year’s data. Russia is increasing exports, which decreased in February

because of bad weather. Analysts noted that exports of wheat from ports rose to 1 million tons last week against 0.8 million tons a week earlier – this is the highest volume since December 2022...” (Litvinova, 2023).

Russia is one of the world’s largest exporters of oil and refined products. Some main buyers of Russian oil and petroleum products include China, Germany, the Netherlands, Belarus, Ukraine, Poland, Korea, and Turkey. According to the Federal Customs Service of the Russian Federation, for January-March 2022, Russia exported the largest volumes of oil and oil products to China (6.87 million tons), Germany (4.07 million tons), the Netherlands (3.67 million tons), and Belarus (3.48 million tons). As for bituminous substances, according to the Federal State Statistics Service of the Russian Federation (Rosstat), the largest buyers of Russian bitumen are China, the Netherlands, Turkey, Lithuania, Poland, and Kazakhstan.

Russia exports various types of fertilizers, such as ammonium nitrate, carbamide, potash salts, phosphate fertilizers, and others. The specific volume and composition of fertilizer exports may vary depending on the market situation and other factors. As of 2021, the largest consumers of Russian fertilizers were Asian countries (mainly China and India), as well as European and Latin American countries. In 2020, Russia exported about 17 million tons of fertilizers worth more than \$4 billion (Litvinova, 2023).

According to the data of the Federal Customs Service of the Russian Federation, in 2022, Russia exported the following goods in the category “wood and products made of it; charcoal” (commodity item code according to the Commodity Nomenclature for Foreign Economic Activities 44 and 27, respectively) to other countries (Federal Customs Service of the Russian Federation, 2023):

- Wood, planed and polished (44.07) – the main buyers are China, Japan, South Korea, Turkey, Egypt, and Germany.
- Roundwood (44.01) – the main buyers are China, Japan, Finland, South Korea, Egypt, and Germany.
- Plywood and other wood panel materials (44.12) – the main buyers are China, Japan, South Korea, Germany, the Netherlands, and Poland.
- Charcoal (27.01) – the main buyers are Japan, China, Korea, Taiwan, the UK, and Italy.

Despite the high characteristics of sawmill products, in 2022, there was a decline in exports by almost 25%, which significantly affects the Russian market in general and manufacturers in particular.

A significant drop is observed in the export of “natural or cultured pearls, precious or semi-precious” – a decrease of 40% compared to the previous period. The main buyers were Switzerland, Japan, and Hong Kong.

The volume of exports of ferrous metals declined – the fall was about 15%. Currently, there is no data for partner countries in 2022. Based on the report of the Federal Customs Service of the Russian Federation, the main importing countries of metal products from Russia in 2021 were China (export share 15.9%), the Netherlands (11.5%), Germany (8.5%), Turkey (7.9%), Italy (6.1%), Poland (4.2%), South Korea (4.0%), the USA (3.9%), Spain

(3.4%), and France (2.7%). The changes of 2022 are most likely reflected in the absence of hostile countries.

According to the data on Russian foreign economic activity for 2022, aluminum and products made of it in various forms were exported to the following countries (Rosstat, n.d.):

1. Raw aluminum (profiles, rods, sheets, and other shapes): China, the USA, Kazakhstan, Korea, Spain, Turkey, Uzbekistan, Italy, the Netherlands, Germany, etc.
2. Aluminum alloys and products made of them (profiles, rods, sheets, and other forms): China, Germany, the USA, Korea, Turkey, Spain, Kazakhstan, Poland, France, etc.
3. Aluminum containers, barrels, canisters: China, Kazakhstan, Germany, Turkey, Azerbaijan, Uzbekistan, Spain, Italy, and the Netherlands.
4. Aluminum foil and film: China, Ukraine, Kazakhstan, Belarus, Germany, Turkey, Poland, Saudi Arabia, Israel, etc.

Results

It is possible to form a general circle of Russia's export partners based on the analysis carried out. China is undoubtedly the leader of domestic products, then Korea, Kazakhstan, Turkey, Spain, Italy, Uzbekistan, Azerbaijan, etc.

Due to sanctions restrictions and bans on the import of Russian products to unfriendly countries, political instability creates risks for the export activities of enterprises. These factors are exacerbated by the logistic costs associated with long distances, transportation, and storage at intermediate stages. The formation of stable relations of the country is associated with the search for new sales markets, stable commodity-money relations, and regulation of transactions. As of the end of 2022, Russia was actively cooperating with the countries of the Middle East, Latin America, and Central Asia, as well as China, South Korea, India, and Africa. Currently, problems with logistics are the priority; it is not profitable for Russian producers to export goods due to strong competition. In this case, it refers to pricing in which a significant share is taken up by the cost of delivering the goods to the recipient, significantly increasing the price. We will analyze the logistics routes in promising areas of international cooperation (Table 1).

Table 1

Water transport logistics corridors for commodity exports

Port	South Korea	China	Latin America	Central Asia	India	Africa	Middle East
Vladivostok	+	+	+		+	+	
Nakhodka	+	+	+			+	+
Vanino (Far East)	+						
Novorossiysk (Black Sea)	+	+	+	+	+	+	+
Saint Petersburg		+			+	+	+
Murmansk			+				

Astrakhan				+			
Aktau				+			
Cherepovets				+			
Makhachkala				+			
Taganrog						+	
Tuapse							+

Source: Developed by the authors

Table 1 presents various options for sending export goods to friendly countries, which is needed to be analyzed in more detail. There are several ports in Russia from which goods are exported to China. The port of Vladivostok is located in the Far East of Russia; it is one of the largest seaports in the Pacific region. This port exports oil, coal, timber, metals, grain, and other cargoes to China and other Asian countries. The port of Nakhodka is also located in the Far East of Russia; it is one of the largest transport hubs in Eastern Siberia and the Far East. This port is engaged in the export of oil, gas, timber, grain, ore, and other goods to China and other Asian countries. The port of Vanino is located in the Khabarovsk Territory in the Far East. This port exports oil, coal, metals, and other goods to China and other Asian countries. The port of Novorossiysk is located in the south of Russia, on the Black Sea coast. This port is engaged in the export of grain, metals, oil and oil products, coal, and other cargoes to China and other countries of the world. The port of St. Petersburg is located in the northwest of Russia, on the shores of the Gulf of Finland. This port exports metals, chemical products, grain, and other cargoes to China and other countries in Europe and Asia.

Russia exports goods to many countries in Latin America. Ports of departure may depend on the specific destination and type of goods. Some of the main Russian ports from which goods are exported to Latin America include the ports of St. Petersburg, Novorossiysk, Vladivostok, Nakhodka, and Murmansk. For example, the port of St. Petersburg ships goods such as agricultural products (grain, oil, and sugar), metal products, engineering equipment, and other goods to Latin America. The port of Novorossiysk ships grain, mineral fertilizers, cement, metal products, and oil and oil products.

Russia has several ports from which goods are exported to Central Asia. Some of the main ports used to export goods to Central Asia include:

1. The port of Novorossiysk located on the Black Sea coast. Cargoes are sent to Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, and Turkmenistan.
2. The port of Astrakhan located on the Volga River. Cargoes are sent to Kazakhstan, Uzbekistan, and Turkmenistan.
3. The port of Aktau located on the coast of the Caspian Sea. Cargoes are sent to Kazakhstan.
4. The port of Omsk located on the Irtysh River, which connects with the Ob River. From here, cargoes are sent to Kazakhstan and Uzbekistan.
5. The port of Cherepovets located on the Volga. Cargoes are sent to Kazakhstan, Turkmenistan, and Uzbekistan.
6. The port of Makhachkala located on the Caspian Sea. It sends goods to Kazakhstan and Turkmenistan.

Some of Russia's main ports for exporting goods to Africa include the port of Novorossiysk (exports of agricultural products, fuel, metals, and other goods to various countries in Africa), the port of Nakhodka (exports of oil, coal, timber, and other goods to the countries of Asia and Africa), the port of St. Petersburg (exports of various goods to the countries of Europe, Asia, and Africa, including food, metals, and chemical products), the port of Taganrog (export of agricultural products, fuel, and metals to various African countries), and the port of Vladivostok (exports of oil, gas, metals, and other goods to Asian and African countries).

Russia exports goods to the countries of the Middle East through several ports. Some of the largest and most important ports through which Russia sends goods for export to the countries of the Middle East are as follows:

- The port of Novorossiysk serves cargo flows to Iran, Iraq, Oman, Kuwait, Saudi Arabia, and other Middle East countries;
- The port of Tuapse is located on the Black Sea and is one of the largest ports in Russia. It exports oil, coal, ores, and other raw materials to the Mediterranean, including Syria, Lebanon, and Israel;
- The port of St. Petersburg exports oil, coal, ore, timber, and other cargoes to the Baltic countries, Scandinavia, the Mediterranean regions, and other regions, including Middle East countries;
- The port of Vladivostok exports coal, iron ore, timber, and other cargoes to Japan, China, Korea, and other countries of Asia and the Pacific region, including Middle East countries.

In today's conditions, water transport is the most effective way to deliver goods to partner countries. It is also worth considering the railway communication between Russia and promising areas for trade relations. Russia and China have railway borders, making it possible to use rail transport to deliver goods between these countries. There is also an international railway corridor "Eurasia," which connects China and Western Europe through the territory of Russia, which makes rail transportation between these regions possible. Various transport corridors are used for railway communication from Russia to neighboring countries, China, Latin America, Central Asia, India, and Africa, including the Trans-Siberian Railway, the Southern Transport Corridor, the Turkmen-Afghan railway bridge, the Caspian Sea port of Aktau, and others (RZD Logistics, n.d.).

Discussion

Commodity exports are an important part of economic processes. An unstable political situation, an extensive package of sanctions, restrictions, barriers, the ban on trade with unfriendly countries, the closure of borders, and the elimination of stable transport corridors (the European direction) for commodity-money relations between countries create risks for suppliers and the development of exports. In 2022, there are risks for Russia's commodity exports due to sanctions that may be imposed by other countries. Some countries have already imposed sanctions, with more sanctions that may be introduced. This has already led to reduced exports, decreased income, and negative consequences for the Russian economy. Additionally, the sanctions have led to the fact that Russia will be forced to search for new

markets for its products, which can be difficult in the face of increased competition in world markets. According to the report of the Bank of Russia, "...the key constraint for new companies to enter export markets is the discrepancy between the quality of manufactured products and export demand (36% of non-exporters noted) (Central Bank of the Russian Federation, 2023). It is also necessary to consider that sanctions may lead to restrictions on access to technology and investment, which may hinder the development of Russian industry and the country's economy. The opportunities and threats associated with the export of raw materials from Russia are considered in Table 2.

Table 2

SWOT analysis of commodity exports in Russia

Strengths	Weaknesses
<ul style="list-style-type: none"> • Rich reserves of natural resources, including oil, gas, coal, timber, and metals; • High level of technological equipment and qualification of workers in the industry of extraction and processing of raw materials; • Good geographical position of Russia, due to which the export of raw materials can be carried out in various regions of the world; • Steady demand for raw materials from various importing countries; • Experience and competencies in the field of international trade acquired by Russia over the years. 	<ul style="list-style-type: none"> • High dependence on world market prices, which can fluctuate significantly and affect export earnings; • Insufficient diversification of exports, mainly concentrating on a few types of raw materials; • Insufficient infrastructure and investment in the development of vehicles and logistics systems; • Limited access to new technologies and innovations in the extraction and processing of raw materials; • Insufficient competitiveness in global markets.
Opportunities	Threats
<ul style="list-style-type: none"> • Development of trade relations with various importing countries and expansion of sales markets; • Introduction of new technologies in the industry that can increase the efficiency of extraction and processing of raw materials; • Development of alternative energy sources allows Russia to focus on other types of exports, such as food and engineering; • Russia can use its natural resources to develop new sectors of the economy, such as the production of equipment for the extraction and processing of raw materials; 	<ul style="list-style-type: none"> • Decrease in prices for oil and gas in the world markets, which leads to the deterioration of the economic situation in Russia; • Increased competition from other countries that also export raw materials; • Deterioration of the environmental situation in Russia, which may lead to restrictions on the extraction and export of raw materials; • Sanctions: Russia has been and continues to be subject to numerous sanctions by Western countries that may restrict the export of raw materials and raw products; • Global economic downturn: an economic downturn could lead to reduced demand for commodities and lower commodity prices, which could negatively impact exports;

<ul style="list-style-type: none"> • Development of new markets such as Asia-Pacific and Africa. 	<ul style="list-style-type: none"> • Foreign exchange fluctuations: Russia frequently exports its oil and gas abroad, and significant exchange rate fluctuations can negatively impact export earnings; • Prospects for the emergence of competitors in the market: with the development of technologies and the discovery of new deposits of raw materials in other countries, competition in world markets may increase, which may lead to a decrease in Russia's share in the export of raw materials; • Climate change: Climate change may adversely affect the production and export of raw materials, as some types of raw materials (e.g., oil and gas) may be more difficult to extract and exploit in a changing climate.
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Source: Developed by the authors

Conclusion

Based on the analysis, significant strengths for the development of commodity exports can be noted. It is necessary to focus on threats as external factors hindering development. The analysis points to the need to diversify the economy and develop non-resource sectors in Russia. Commodity exports remain Russia's main source of income but with limited growth opportunities and risks in the form of sanctions and changes in world oil and gas prices. However, there are prospects for developing new sectors of the economy, such as IT, pharmaceuticals, and engineering, which can become additional sources of economic growth and reduce dependence on the commodity sector. In general, to achieve stability and sustainability in the Russian economy, it is necessary to develop the sector of raw materials and other sectors of the economy, especially those that can bring high added value and create new jobs. The formation of efficient and, most importantly, financially profitable logistics will contribute to the formation of sustainable interstate relations; transport accessibility leads to an increase in exports in all areas and sectors of the economy. The analysis of the opportunities for commodity and non-commodity exports in the context of transport corridors by sea and railroads indicates that there are opportunities to increase the volume of exported goods. However, it is worth noting that availability is not equal to quality, namely the limited capacity of ports and railways, as well as high rates for the transportation and transshipment of goods, leading to high export costs, which can become unaffordable for small suppliers. For these companies, exporting through specialized distribution intermediaries created through collaboration is one way to enter foreign markets because such intermediaries can group small batches of goods into larger ones. In this case, state assistance is needed in terms of subsidized assistance, benefits, and investment policy in terms of forming the infrastructure of transport export routes.

There are several exogenous restrictions that prevent companies from developing exports. One of the problems is the high costs of marketing promotion in foreign markets, as well as the need to adapt products to the preferences and needs of consumers in the importing

country. The lack of information about foreign markets is also a factor that hinders the activity of international interaction. These problems can be solved through government-business cooperation to help exporters enter foreign markets, which can lead to savings in the effort and financial costs of developing new markets. Nowadays, the state is forming electronic platforms, such as “My Export” based on the Russian Export Center (REC) under the national project “International cooperation and export.” In this case, active attention should be paid to the content of the site, its practicality, and information content for the participants of the two or more countries.

Other obstacles include special requirements for Russian products abroad, as well as trade restrictions on the import of Russian goods into importing countries. Active participation of the state in lobbying Russian commercial interests in foreign markets is necessary to eliminate these problems.

Some companies also face administrative and customs obstacles, including difficulties at customs related to lengthy customs procedures, documentary requirements, etc., as well as difficulties in obtaining export permits. These restrictions increase the transaction costs of export operations and reduce the competitiveness of Russian products on world markets.

The listed strengths, weaknesses, opportunities, and threats of commodity exports are considered a set of factors that should be taken in complex, as a set of initial data, each of which leaves an imprint on the prospects for the development of exports in Russia. Sanctions, restrictions, and the political situation are important for exports. The formation of new sales markets and competent reorientation to the countries of the Middle East, Asia, and Africa with state support cannot increase volumes compared to previous periods of pre-crisis values but partially compensate for losses in the short term.

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