
TURN TO THE EAST: CHINA'S CARGO FLOW TO RUSSIA IN 2023 AND CHALLENGES TO THE TRANSPORT SYSTEM



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INTRODUCTION

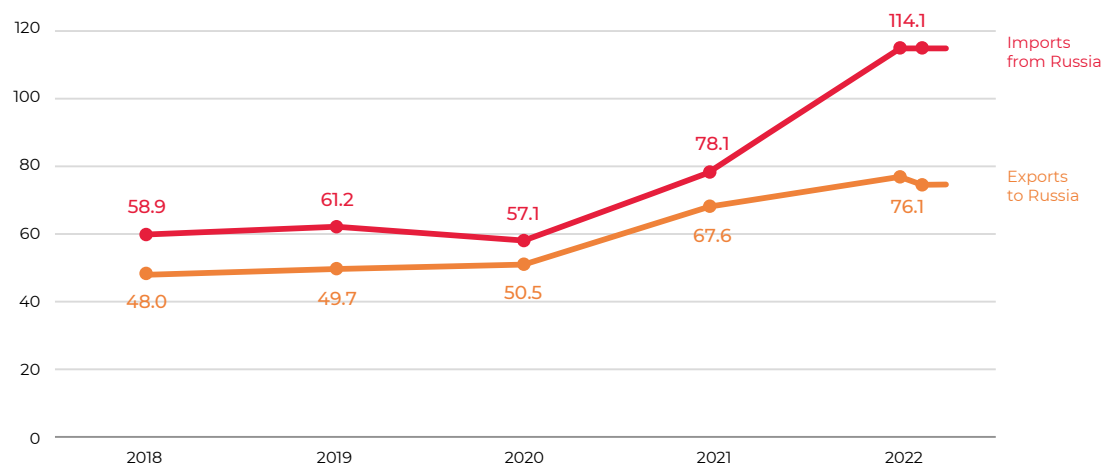
For a long time, the European Union has been Russia's key foreign trade priority and the largest supplier of goods to the Russian market. Last year, 2022, was a turning point in many respects; among other things, it led to a sharp change in Russia's foreign trade. China quickly became Russia's principal supplier; the volume of Chinese exports, for the first time in modern history, exceeds the total exports to Russia of the European Union's 27 countries. The rapid development of trade and economic relations between Russia and China has kicked off a new chapter in Russian foreign policy. The 'turn to the East' brings both new opportunities and challenges, particularly in terms of logistics and transport infrastructure.

In 2022, the volume of Russian-Chinese trade set a historical record, reaching \$190.3 billion, an increase of 29.3% year-on-year. According to the forecasts of Russian President Vladimir Putin, trade turnover will reach \$200 billion in the foreseeable future. At the moment, Russian-Chinese relations can be characterized as strategic interaction and a long-term partnership. In October, within the framework of the One Belt, One Road international forum, the leaders of the two countries announced the integration of the One Belt, One Road initiative and the transport projects of the Eurasian Economic Union. The coordination and unification of efforts to develop new routes entails a further increase in trade between countries. This review provides an analysis of current indicators, prospects and challenges for the flow of goods from China to Russia.

MUTUAL TRADE BETWEEN RUSSIA AND CHINA

The main trends in mutual trade between Russia and China over the past five years are associated with a decrease in trade volumes during the 2020 pandemic, systematic recovery in 2021 and rapid growth in 2022. In 2021, trade between China and Russia was \$145 billion, up 35.8% from 2020. By the end of 2022, China had become Russia's leading trading partner, with trade turnover rising to \$190.27 billion, an increase of 29.5% compared to 2021. At the same time, Chinese exports of goods to Russia in 2022 increased by 12.8%, to \$76.1 billion, and imports by 43.4%, to \$114.1 billion. This was the largest increase among China's major trading partners.

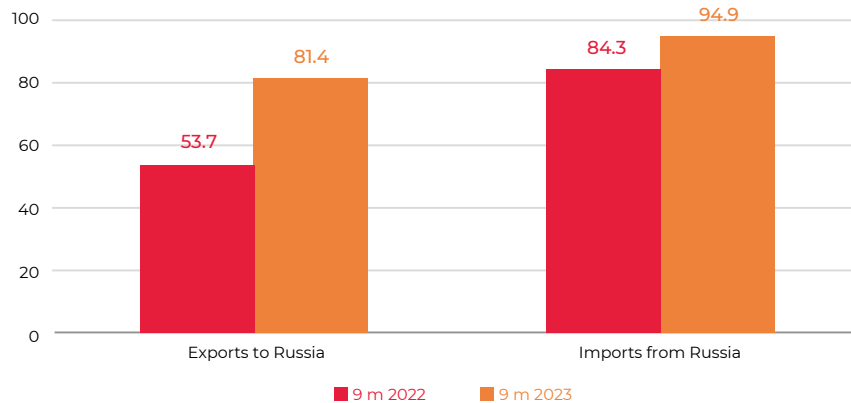
DYNAMICS OF MUTUAL TRADE BETWEEN CHINA AND RUSSIA IN 2018–2022, BILLION US DOLLARS



Source: China Customs

According to data from the General Administration of Customs of the People's Republic of China for the first nine months of 2023, the growth trend has continued; trade turnover between Russia and China increased by 29.5%, or by \$40 billion, reaching \$176.4 billion. Russia's position as China's trading partner has also strengthened, although its share in China's trade turnover is still small, at about 4%.

DYNAMICS OF MUTUAL TRADE BETWEEN CHINA AND RUSSIA IN 2022–2023, BILLION US DOLLARS



Source: China Customs Service

According to the customs service, in the first nine months of 2023, China's exports to Russia increased by 56.9% compared to the same period in 2022, reaching \$81.4 billion. At the same time, Chinese [imports of Russian goods](#) grew less intensively, increasing by 12.7% to \$94.9 billion. Given this trend, the goal of achieving \$200 billion in trade turnover by 2024, set by the leaders of China and Russia, is highly likely to be achieved ahead of schedule.

Oil, petroleum products and gas account for approximately 83% of the value of Chinese imports from Russia, about \$79 billion. Although the export value of these types of raw materials exceeded last year's level by 12%, its share remained unchanged.

At the same time, the structure of China's supplies to Russia maintains a high degree of diversification and added value — about 60% of the total volume is accounted for by various types of equipment, cars and their components, as well as household appliances and electronics. For all these categories, a significant increase is observed in 2023: exports of equipment increased 61%, there was a 4.5-fold increase in Chinese car exports, and the value of Chinese equipment and electronics exported to Russia rose 31%. Also, among the main imported Chinese goods, supplies of rubber increased significantly (by 64%), as well as optics (62%) and hardware (52%).

STRUCTURE OF CHINA'S EXPORTS TO RUSSIA IN 2022–2023, BILLION US DOLLARS



Source: calculations based on data from the PRC Customs Service

FREIGHT TRAFFIC FROM CHINA TO RUSSIA

The growth rate of China's exports to Russia for the first nine months of 2023 was slightly lower in terms of tonnage (+46%) than in terms of value (+56.9%). This is due to the fact that the structure of Chinese supplies is dominated by high value-added goods, which have been systematically replacing European-made goods in the Russian market.

Table 1.

DYNAMICS OF PHYSICAL EXPORTS FROM CHINA TO RUSSIA BY ABSOLUTE GROWTH IN 2022–2023, TONS

Nº	Product categories	9 months 2022	9 months 2023	Absolute growth	Relative growth
	Total	11,697,055	17,074,547	5,377,492	46%
1	Automotive equipment	741,297	2,532,748	1,791,451	242%
2	Universal equipment	1 113,032	1 558,595	445,563	40%
3	Special industry equipment	526,808	902,145	375,337	71%
4	Plastics	1 049,058	1 378,476	329,418	31%
5	Metal products	781,390	1 042,040	260,650	33%
6	Chemicals and materials	1 256,141	1 504,965	248,823	20%
7	Black metals	402,223	616,463	214,240	53%
8	Finished chemical products	643,498	856,737	213,239	33%
9	Miscellaneous industrial products	422,919	586,978	164,059	39%
10	Non-ferrous metals	755,274	914,973	159,699	21%
11	Energy, power and electrical equipment	271,252	410,466	139,213	51%
12	Appliances	297,170	435,333	138,163	46%
13	Textile materials and products	398,440	512,288	113,848	29%
14	Paper and cardboard	328,375	429,623	101,248	31%
15	Machine tools	81,349	178,482	97,133	119%
	Others	2,628,828	3,214,235	585,407	22%

Source: calculations based on data from the PRC Customs Service

The commodity structure of the increase in physical cargo flow largely mirrors the cost structure — vehicles and various types of equipment are also in the lead. In addition, physical exports of plastics, metals and products made from them, chemical materials and products, household appliances, textile materials and products, paper and cardboard, and various manufactured goods have increased significantly. In just the first nine months of 2023, 17,074,547 tons of goods were imported, most of which was containerized cargo. Out of 1,050 commodity items specified in the [Harmonized System](#), at least 820 items can be transported via containers. The volume of deliveries for these items during the period under study amounted to 15,984,902 tons, or 93% of the total cargo flow. To transport such a volume of cargo, at least 1,332,708 TEU is required¹.

The combination of Western sanctions, logistics problems, the departure of Western companies from Russia, and difficulties in purchasing spare parts have ensured the creation of favorable new conditions for Chinese automakers in the Russian market.

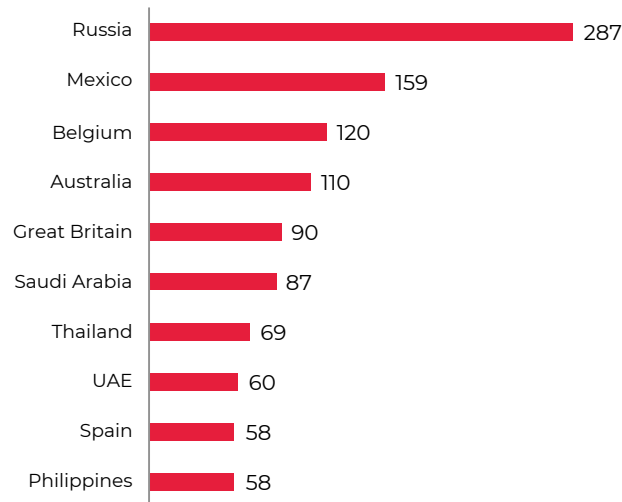
In the first half of 2023, automobiles led China's exports to Russia. Over the first nine months of 2023, the share of sales of Chinese car brands in Russia increased by 27 percentage points, from 13% to 40%.

The product range includes cars, SUVs, trucks, tractors, bulldozers, excavators, and loaders. The [Chinese automobile industry](#) is developing rapidly, and in recent years a number of automakers have mastered the production of high-quality diesel trucks.

Imports of Chinese cars began to grow especially rapidly in the third quarter of 2022, when the Russian market reoriented towards embracing the Chinese automobile industry amid new sanctions and restrictions. Car exports in the first six months of the year amounted to 287 thousand units, which is 77% more than the total figure for 2022: 152 thousand units. The Russian Federal Customs Service said that in just the first nine months of 2023, imports of Chinese passenger cars reached 400 thousand units, which is five times higher than during the same period in 2022. In value terms, vehicles and components worth \$16.4 billion were supplied from China to Russia in these nine months (a 4.5-fold increase year-on-year).

¹ To estimate the volume in TEU, the data on the specific mass of various goods is used (the ratio of weight to volume for individual product items), calculated on the basis of ERAI freight transport statistics: <https://index1520.com/statistics/>.

CAR EXPORTS FROM CHINA BY COUNTRY, FIRST HALF OF 2023, THOUSAND UNITS



Source: China Association of Automobile Manufacturers

The transportation of cars can be carried out in different ways, including using a specialized fleet (car carriers) and using containers, which on average are packed with 3-4 cars. In 2023, Chinese operators began to actively containerize automobile export shipments. Containers began to be used due to the growing demand for transportation along the railway corridor through the territory of Russia during the period when there was a shortage of maritime transport capacity as a result of the coronavirus crisis. Today, this shipping technique is also widely used in maritime transport, due to the lack of a sufficient specialized fleet of car carrier vessels.

Car imports from China usually go through the Far East. However, given the shortage of railway infrastructure in the Eastern range, in recent months there has been a sharp recovery in container imports through the ports of Northwest Russia. In April 2023, deliveries of cars in containers through Baltic terminals resumed. In connection with the rapid expansion of cargo flows, development issues regarding transport and customs infrastructure are gaining new relevance.

BORDER INFRASTRUCTURE

Turn to the East has led to an increase in rail freight traffic with China. According to JSC Russian Railways, in 2022 more than 120 million tons of cargo were transported between China and Russia, and in the first nine months of 2023, more than 128 million tons were sent, which is 52% more than during the same period of 2022.

There are 377 border crossings along the entire length of Russia's borders. Of these, the border with China accounts for 6.4%, or 24 checkpoints for various types of transport.

Of the 19 automobile (including mixed) points, only nine are functioning at this time. There are also three railway border crossings and two river checkpoints; their total capacity since the beginning of 2023 has been up to 600 trucks and 120 railcars per day. To increase capacity, the Chinese side gradually abolished the trans-shipment/reconnection mode. Currently, entry is possible through seven crossings: Pogranichny — Suifenhe, Poltavka — Dongning, Kraskino — Hunchun, Turii Rog — Mishan, Amurzet — Hayudao, Pokrovka — Zhaohe, and Zabaikal'sk — Manzhouli. The abolition of the transshipment/interchange regime has allowed Russian drivers to enter China and proceed into the warehouse of the receiving country, where goods are loaded for export to Russia.

The Zabaikal'sk — Manzhouli border crossing is the largest in terms of volume of rail cargo transportation between China and Russia. Throughput capacity is about 16 million tons per year. The throughput capacity of the railway border crossing is 52 trains per day (32 on the 1,520 mm gauge and 20 on the 1,435 mm gauge). Timber, ores, coal, and mineral fertilizers pass through the border crossing. The terminal's capacity by 2023 had reached 555 thousand TEUs per year. The capacity of the Zabaikal'sk — Manzhouli automobile checkpoint is up to 360 vehicles daily in both directions.

The Pogranichny — Suifenhe border checkpoint is a road and rail crossing. The total capacity of the railway crossing is 10 million metric tons of cargo per year, or 32 freight trains per day. The railway border crossing includes the Grodekovo inter-state freight station. From there, there are routes to Vladivostok, Nakhodka and Vostochny. Over the first seven months of 2023, 16 thousand tons of container cargo and 65.5 thousand tons of construction materials passed through the checkpoint. According to the Russian Railways investment program, the modernization of the railway border crossing will increase the carrying capacity of the Grodekovo — Suifenhe section to 17.7 million tons per year. The maximum capacity of the Pogranichny automobile checkpoint is 70 trucks per day.

The Kanikurgan — Heihe automobile checkpoint was launched with the opening of the Blagoveshchensk — Heihe bridge. It has a capacity of 190 units of transport per day. The government of Russia's Amur region [stated](#) that by the end of 2023, a permanent Kanikurgan checkpoint will be built, which will increase cargo flow, and the throughput will increase to 630 units of freight transport per day.

Considering the strengthening of economic ties between Russia and China, one of the most urgent tasks facing the two countries is the development of cross-border routes, and transport projects are currently being developed to create new railway checkpoints on Russia's border with China: Jalinda — Mohe and Priargunsk — Hailar. The implementation of these projects will reduce the route of goods from China to the European part of Russia by more than 2,000 km.

In addition to direct routes, Russian imports from China involve two alternate transit countries: Mongolia and Kazakhstan. Through the territory of Mongolia, the main route is Erlian — Zamiin Uud — Sukhbaatar — Naushki. Routes pass through Kazakhstan using the Altynkol-Khorgos and Dostyk-Alashankou railway border crossings. Due to its geographical location, transit through Kazakhstan takes less time than transit through Mongolia. In addition, when exporting from China, the fundamental factor for the shipper in choosing a route remains the distance to the nearest railway border point in China, to which one or another province of the country gravitates.

SEA TRANSPORT

Occupying an advantageous geographical position, China exports its products to almost every country in the world, mainly by sea. Chinese sea shipments to Russia are sent via the Far East or St. Petersburg.

In the Far East, Chinese products most often go to the seaport of Vladivostok and the port of Vostochny (Nakhodka). In the Baltic region, they travel to the seaport of St. Petersburg.

However, the refusal of large container operators (Maersk, MSC, CMA CGM, Yang Ming, Ocean Network Express) to work with Russian cargo and enter Russian ports has significantly affected container turnover in the Baltic Basin, especially transshipment in St. Petersburg.

In September, a FESCO transport group container ship from China and India completed its first voyage along the sea container line between China and the northwest region of Russia through the Suez Canal without transshipment in European ports. The container ship was loaded in five Chinese ports: Rizhao, Lianyungang, Shanghai, Ningbo and Yantian, as well as in the Indian port of Mundra. Transit time from the port of Yantian to St. Petersburg was 35 days, from Mundra — 23 days.

The development of the Northern Sea Route (NSR) is a strategically important project. By 2024, the construction of the port of Lavna in the Murmansk region will be completed, which will become the stronghold of the Northern Sea Route. A rail line is also being built to the port, which will speed up the delivery of goods. Container transportation along the NSR will provide an additional opportunity to increase the volume of traffic from China.

In July 2023, the Chinese shipping company NewNew Shipping Line sent the first container ship from St. Petersburg via the NSR. By the end of 2023, the company plans to put four more container ships on the line, and in 2024 — another 8-10 new ships on the Kaliningrad — St. Petersburg — Qingdao — Tianjin — Shanghai route. The demand for the route for the transportation of export and import goods is determined by the speed of transportation. Thus, the route through the NSR takes 28 days, while through the Suez Canal it takes 45-50 days.

The delivery time for cargo to the ports of the Far East is up to 15 days, and to the western regions of the Russian Federation — up to 45-50 days. Cargo from China is delivered to the ports of Nakhodka, Vladivostok, Kaliningrad, Ust-Luga and Novorossiysk.

ROUTE MAP CHINA – RUSSIA



Source: ERAI

CONTAINER TRANSPORTATION RATES

For the first nine months of 2023, container turnover of Russian ports amounted to 3.67 million TEU, which exceeds the same period last year by 12.9%, or 473 thousand TEU.

The growth in container turnover occurs against the backdrop of lower transportation rates. Since the beginning of 2023, the cost of container transportation from China to Russia has fallen by 30-35%. In late 2022 and early 2023, transportation rates from Chinese ports to Moscow were 8-9 thousand dollars per FEU, while in 2021, the cost was 12-13 thousand dollars per FEU. In May 2023, the rate dropped to \$6,000-6,500 per FEU. In October 2023, the cost of transportation by rail and sea through the Far East fell to \$4 thousand per FEU.

In October 2023, the rate for transporting a universal FEU as part of container trains between China and Russia through the Dostyk and Altynkol border crossings (Kazakhstan) for any number of FEUs as part of one container train was the same. The fewer FEUs on a train, the higher the rate. Thus, when there are 41-49 FEUs, the rate is \$3 thousand per FEU, with 55 or more FEUs, it's about \$2,840 per FEU.

Imports from China in transit through Mongolia along the Zamiin — Uud — Moscow route are carried out with 55 or more FEUs as part of a container train; the rate is about \$2,600 per FEU. It is important to note that the average transit time for transportation through Mongolia is about 10 days, and is typically 6-7 days for services through Kazakhstan. This difference in transportation time is, of course, reflected in the cost of services.

Table 2.

RATES FOR TRANSPORTATION AS PART OF REGULAR CONTAINER TRAINS FROM CHINA TO RUSSIA ALONG ROUTES THROUGH KAZAKHSTAN AND MONGOLIA, OCTOBER 2023, USD/FEU

Route	FEU as part of regular container trains		
	41 – 49	50 – 54	55 and more
Altynkol — Moscow	3,000	2,910	2,840
Dostyk — Moscow	3,000	2,910	2,840
Zamyn-Uud — Moscow	–	–	2,600 – 2,700

Source: [UTLC](#); [Logbox](#); Teustat

The downward trend in rates is explained by increased supply in the market, especially in sea freight. In addition, the cost of the containers themselves has decreased significantly, and therefore companies have begun to actively buy them.

CONTAINER MARKET IMBALANCE

According to China's customs statistics, there has been a significant increase in container shipments — for almost all types, but especially for TEU and specially designed cargo containers. Between January and September 2023, 20,241 TEU were imported — 4,812 more than in 2021. Imports of specially designed cargo containers also showed high growth: 34,285 were imported, which significantly exceeds the figure of 11 units for the same period in 2022. The total number of containers delivered in the first nine months of 2023 almost doubled and amounted to 86,760 units.

Table 3.

DYNAMICS OF CONTAINER EXPORTS FROM CHINA TO RUSSIA BY PRODUCT SUBITEM, UNITS

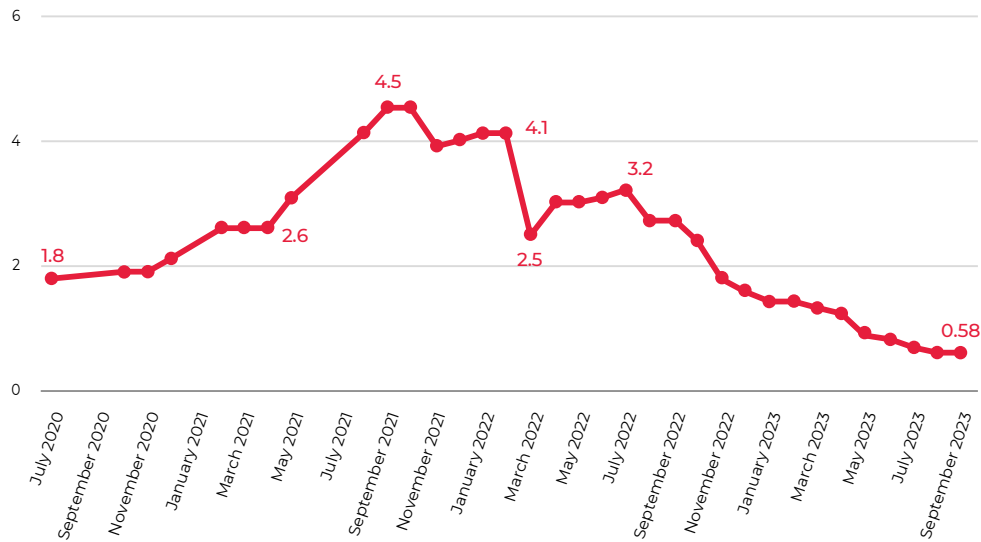
HS8 code	Item	8 months 2022	8 months 2023
	Total	45,448	86,760
86090011	Thermally insulated cargo containers, 20 feet	92	33
86090012	Cargo tank containers, 20 feet	133	1,870
86090019	Other cargo containers, 20 feet	15,429	20,241
86090021	Thermally insulated cargo containers, 40 feet	1,453	975
86090022	Cargo tank containers, 40 feet	20	17
86090029	Other cargo containers, 40 feet	28,310	29,339
86090090	Special design cargo containers not included in other categories	11	34,285

Source: calculations based on data from the [PRC Customs Service](#)

Turn to the East has led to an increase in imports of huge quantities of goods from China, including cars, auto parts, consumer goods, and equipment, being transported in containers. However, the trends in the outbound cargo flow are the opposite: Russia is increasing supplies to China of mainly non-containerable cargo — oil, gas, coal, metal and wood. The high imbalance of supply and demand has a detrimental effect on the container logistics business. The different structure of outbound cargo flows leads to an [imbalance](#) in the market for commodity containers. To date, about 150 thousand Chinese containers have accumulated in Russia, which is leading to the collapse of the secondary container market. The accumulation of containers on the Russian side has led to a significant decrease in their market value — today the price of a container in Russia is almost half the world average.

The average price for a [used FEU](#) (High cube) in China is \$1,400, in the USA — \$1,850, in Europe — \$1,800. In Russia, in February 2022, a similar container cost about \$4,000, and as of at the end of September, supplier offers start at \$580.

DYNAMICS OF THE MINIMUM COST OF FEUS IN MOSCOW, THOUSAND US DOLLARS



Source: [Container xChange](#)

The imbalance of export-import container cargo flows has led to the accumulation of a significant number of empty containers in the European part of Russia, including at the terminals of the Moscow Transport Hub (MTU). The problem with the accumulation of containers has led to the overstuffing of sites, economic damage in the form of equipment downtime, and the need to reduce rates for the return of empty containers

Container accumulations are also observed at ports and railway border crossings in the Far East. The shortage of carrying capacity affects the border crossing time. Today, the average time for the transshipment of containers from China from ships to railways in the ports of the Far East is two weeks. For port terminals in the Far East and the Far Eastern Railway, a necessary measure was the use of gondola cars to speed up the dispatch of containers from the ports of the Far East due to a shortage of fitting platforms.

A possible solution could be the use of commercial measures; the rate for storing empty containers could be increased to encourage owners to remove them. In addition, a balanced flow is likely to encourage the emergence of new container lines in northwest Russia, which could use some of their capacity to export empty containers back to China.

PROSPECTS

The regulatory crisis in global trade and the era of trade wars and the Western sanctions against China and Russia that have unfolded in recent years have hastened already-rapid growth in bilateral trade between the states.

Both Russia and China are consciously and systematically diversifying their partnerships, and the complementarity of these two economies is obvious. Russia can more or less compensate for its loss of Western goods by turning to China without large losses and obtain a relatively reliable supplier of strategically necessary commodities.

Russian-Chinese trade and economic relations are developing rapidly. In the medium term, Russia's trade turnover with China will only increase. Within the first nine months of 2023, this figure exceeded \$176 billion. Given the current pace, we can predict that trade between the countries could reach at least \$220-230 billion by the end of the year.

In the long term, the growth of Russian-Chinese trade turnover will be maintained due to Chinese demand for Russian energy resources and Russian demand for Chinese consumer goods, due to the cessation of supplies from EU countries.

In fact, China can replace a significant share of imports of engineering products from Europe. It is likely that in the coming years, we will see a significant increase in imports of cars, high-tech products, medical equipment, and chemical products. In addition, we can probably expect a significant increase in imports of light industrial goods from China (clothing, footwear, fabrics), which previously occupied a significant share of the Russian market.

Due to the increase in imports from China, a problem has arisen regarding the accumulation of empty containers in central Russia, and operators are forced to provide negative rental rates in order to return containers to the East. This happens almost every year during the period of container accumulation in Russia, so we can assume that this situation will continue in the short term.

There remains a need to improve the infrastructure of mutual trade, primarily transport. Amid the current imbalance, when containerized goods predominantly go in one direction, from China to Russia, it is difficult for the transport infrastructure to cope with the growing flows of goods. There is a need to solve the limitations associated with the capacity of container terminals and the availability of container equipment.