RUSSIA–CHINA TRADE ACTIVITIES UNDER WESTERN SANCTIONS (2014–2024)

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Abstract - In 2014, following Russia's annexation of Crimea, Western countries, including the United States and the European Union (EU), imposed sanctions on Russia. These sanctions exerted a profound impact on the Russian economy, particularly in the financial, energy, and high-tech sectors. In this context, commercial relations between Russia and China have undergone marked transformations. This study analyzes the trends and changes in Russia - China bilateral trade under the influence of sanctions, with a focus on main sectors such as energy, finance, and technology. Furthermore, it discusses not only the policy adjustments and adaptive measures of the two countries, but also the role of domestic currencies, and provides forecasts on the challenges and prospects of China-Russia trade cooperation towards 2030.

Key words - Western sanctions; Russia-China trade; economic cooperation

1. Introduction

In 2014, following Russia's annexation of Crimea, Western countries, including the United States and the European Union (EU), imposed sanctions on Russia. These sanctions had a profound impact on the Russian economy, particularly in the financial, energy, and high-tech sectors. Initially, the sanctions mainly targeted Russian individuals and businesses, aiming to restrict their access to international capital markets. However, in response to the escalation of the Russia–Ukraine conflict in 2022, the West expanded the scope of sanctions to include asset freezes, restrictions on technology exports, and embargoes on the energy sector, with the objective of weakening the Russian economy and increasing pressure on the Russian government.

Because Russia's economic structure is heavily dependent on energy exports, especially oil and gas. These sanctions forced Russia to reorient its trade strategy. This reorientation included the adoption of import substitution policies, with a focus on developing domestic production in critical sectors such as food, military, and technology. Therefore, Russia's international trade relations have undergone significant shifts, with China emerging as its most important partner. In response to the challenges posed by Western sanctions, Russia and China have intensified their trade cooperation, resulting in a substantial increase in bilateral trade turnover, particularly in energy, basic commodities, and technology. Despite the increased transportation costs due to geographical distance, the redirection of trade flows away from the West has enabled Russian oil and gas prices to adjust accordingly, thereby sustaining export revenues. However, most current studies primarily focus on quantitative growth of exports and imports between the two countries in quantitative terms, without delving into the structural shifts in traded sectors, the role of strategic industries, or fully assessing the bilateral consequences of this trend towards deeper cooperation. Therefore, research and analysis that clarifies how Russia – China trade activities are being reshaped under the impact of Western sanctions is significant, not only from an academic perspective but also for practical policy-making in the context of increasingly complex global geoeconomic and geopolitical competition. This study aims to tackle a research issue that hasn't been explored yet by conducting empirical analysis, drawing sectoral comparisons, and evaluating the long-term consequences of the ongoing restructuring of bilateral trade relations under the pressure of sanctions.

2. Western sanctions against the Russian federation

The annexation of Crimea by Russia in February 2014 triggered a major geopolitical crisis, pushing relations between Russia and the West to their most tense state since the Cold War. In response, the United States, the EU, and allies such as Canada, Japan, and Australia simultaneously imposed a series of robust sanctions aimed at isolating Russia economically, financially, and technologically. These measures targeted not only individuals and organizations directly involved in Crimea but also the entire Russian economy, with the goal of weakening Russia's ability to finance military activities and diminishing its influence on the international stage [1], [2].

As early as March 2014, the United States imposed asset freezes on seven senior Russian officials, including several influential government and military figures. By the end of March, the U.S. expanded the sanctions list to include over 20 Russian businessmen, including Kremlin-linked billionaires such as Gennady Timchenko, Arkady Rotenberg, and Boris Rotenberg [3]. The most significant step occurred in July 2014, when the U.S. and EU restricted major Russian banks' access to Western financial markets. Banks such as Sberbank, VTB Bank, Gazprombank, Vnesheconombank (VEB), and Rosselkhozbank were banned from accessing capital from the U.S. and Europe and prohibited from obtaining long-term loans exceeding 30 days. As a result, Russia lost access to international capital markets and was forced to seek alternatives

including the issuance of domestic bonds and enhanced cooperation with China. Consequently, capital markets from Russia reached a record $151 billion in 2014, and the ruble depreciated by 50% against the U.S. dollar by the end of that year [4].

In addition to financial sanctions, the U.S. and Western countries targeted Russia's energy sector. In July 2014, the U.S. and EU banned exports of cutting-edge extraction technologies to Russia, especially those related to offshore oil extraction, shale oil, and Arctic gas fields [3]. Major Russian energy corporations such as Rosneft, Gazprom, Lukoil, Surgutneftegas, and Novatek were prohibited from accessing capital and technological cooperation from the West, forcing them to seek technology suppliers from China and India. One of the most critical U.S. moves was banning ExxonMobil and BP from cooperating with Rosneft on new oil and gas projects, seriously hampering Russia's production expansion plans. These policies led to the suspension or cancellation of Arctic offshore oil and gas projects due to a lack of technology and financing [2].

Recognizing the importance of high technology in the military industry, the U.S. and EU imposed bans on the export of weapons, military components, and dual-use technology to Russia in April 2014. Leading Russian defense companies such as Rostec, Kalashnikov Concern, and Uralvagonzavod were added to the sanctions list, meaning they could no longer import components from the West. The EU also halted licensing for dual-use technology exports, severely affecting Russia's manufacturing industry, particularly in microchips, electronic components, and military navigation systems [5]. As a result, Russia lost access to vital chip technology and electronic components, forcing it to seek alternative sources from China and Iran. However, this transition has not been easy and has slowed the development of Russia's military industry for years. The U.S. and Western strategy also included targeting Russian oligarchs, who have significant influence over Kremlin policy. Over 150 individuals and businesses, including billionaires and government officials, were sanctioned. Their assets in the West were frozen, and they were banned from entering the U.S. and EU. Additionally, the West imposed a comprehensive embargo on Crimea, prohibiting Western companies from investing, providing services, or exporting goods to the region. As a result, many Russian businessmen moved their assets abroad, particularly to the UAE, Turkey, and other non-sanctioning countries, while Crimea became economically isolated and entirely dependent on Moscow's support.

Following the initial round of economic sanctions imposed in 2014 in response to Russia's annexation of Crimea, the U.S. and EU continued to escalate pressure on Russia between 2018 and 2020. This expansion of sanctions was driven by a series of geopolitical events, including allegations of Russian interference in the 2016 U.S. presidential election, the poisoning of former spy Sergei Skripal in the UK in 2018, and growing concerns about Russia's influence in Eastern Europe and the Middle East [1], [2]. During this period, sanctions not only expanded in range, but also increased in severity, shifting from economic and financial restrictions to the targeting of strategic sectors such as energy, technology, and defense. Notably, the U.S. utilized secondary sanctions to threaten European companies cooperating with Russia, creating an unstable environment for the Russian economy and significantly impacting critical projects such as Nord Stream 2 – Russia's strategic gas pipeline to Europe [3]. Western sanctions between 2018 and 2020 targeted three key Russian sectors: finance, technology, and energy.

(i) Financial sanctions are considered among the most powerful tools used by the U.S. and EU to limit Russia's access to the global financial system. These measures targeted not only major Russian financial institutions but also individuals associated with President Vladimir Putin's administration and key economic sectors. This represented a systematic effort to isolate Russia's economy, restrict its ability to raise international capital, and weaken Moscow's financial strength over the long term [1]. Given Russia's status as an open economy dependent on USD and EUR transactions, financial sanctions delivered major shocks to its banking system. As a result of being cut off from Western financial channels forced Russia to grapple with liquidity challenges, exchange rate instability, and difficulties financing state-owned enterprises, especially in the energy and defense sectors.

One of the most significant sanctions by the U.S. and EU was banning major Russian banks from raising capital in Western financial markets. According to decisions by the European Council (2014) and the U.S. Department of the Treasury (2019), banks such as VTB, Sberbank, Gazprombank, Vnesheconombank (VEB), and Rosselkhozbank were prohibited from: (a) issuing bonds in U.S. and EU financial markets; (b) raising long-term capital (over 30 days) from Western financial institutions; and (c) participating in international financial support programs. These measures reduced Russia's ability to raise capital and caused foreign investment inflows to drop sharply from $25.2 billion in 2017 to just $8.6 billion in 2019 [6], placing significant pressure on the Russian government budget and forcing Moscow to increase domestic taxes and cut public spending to offset the decline in international investment revenue.

Additionally, it was through the use of secondary sanctions that the United States effectively deterred international financial institutions from engaging in transactions with Russia. Under the Countering America's Adversaries Through Sanctions Act (CAATSA), enacted in 2017 and expanded between 2018 and 2020 [7], any financial institution worldwide transacting with Russia risked severe U.S. sanctions - being cut off from the U.S. financial system and restricted from doing business in the U.S. Simultaneously, the EU and U.S. also blocked Russia's access to USD and EUR transactions through measures such as: (a) banning Russian banks from making USD payments via U.S. banks; (b) limiting some Russian banks' access to the SWIFT international payment system; and (c) preventing Western investment funds from trading Russian government bonds, reducing liquidity in Russia's

domestic financial markets [5]. As a result, the Russian ruble depreciated sharply, losing 15% of its value against the USD in 2018, causing inflation to rise and eroding consumers' purchasing power.

(ii) The period from 2018 to 2024 marked an intensification of comprehensive high-tech sanctions imposed by the U.S., EU, and allies targeting Russia, aiming to severing its access to strategic technology products, especially semiconductors, artificial intelligence (AI), software, electronic components, and advanced oil and gas extraction technologies [8]. While sanctions from 2014-2017 mainly targeted finance and energy to restrict Moscow's foreign currency earnings, since 2018, the U.S. and EU expanded sanctions to target the high-tech industry, intending to sever Russia's access to advanced technology and undermine its capacity for innovation [9]. These sanctions triggered the most severe technological crisis since the Cold War, as they have affected not only the economic and military capabilities of Russia but also the development of its civilian industries. Being isolated from global technology supply chains undermined the production and innovation capabilities of Russia's leading corporations, such as Rostec, Roscosmos, Gazprom, and Yandex, forcing Russia to adapt through various measures, from expanding cooperation with China and developing domestic technology to importing components through unofficial channels [10].

One of the most severe sanctions was the prohibition of Russian access to semiconductors and high-tech components, which are major determinants of Russian's defense, electronics, and artificial intelligence industries. The U.S., EU, Japan, and South Korea halted the supply of advanced semiconductors to Russia; TSMC (Taiwan), Samsung (South Korea), and European firms were prohibited from supplying chips to Russia; and Western companies such as Intel, AMD, Nvidia, and Qualcomm ceased cooperation, collapsing Russia's microchip supply chain [9]. Notably, Russia was excluded from international research projects such as Horizon Europe, CERN, and the European Space Agency (ESA), losing access to cutting-edge research. Russian research institutes and universities were also cut off from major scientific databases such as IEEE, Elsevier, and Springer, severely impacting Russian scientific and technological research [11]. The U.S. and EU also tightened controls over technology imports via third parties, closely monitoring Chinese companies like Huawei and ZTE to ensure they did not supply banned technologies to Russia [12].

(iii) Sanctions became even more severe as the U.S. and the West targeted Russia's energy sector. Prior to sanctions, Russia supplied about 40% of Europe's natural gas imports and 10% of global crude oil [13]. The West used energy sanctions as a tool to weaken Russia's economy, restrict foreign currency income, and reduce Europe's dependence on Russian energy. From 2022, the U.S. and EU banned imports of Russian crude oil, targeting Moscow's most important consumer market. The Nord Stream 2 pipeline project-expected to boost Russian gas exports to Germany-was indefinitely suspended, while a ban on Russian seaborne oil was implemented to prevent Moscow from shipping oil to European customers [8]. Moreover, the EU and G7 set a price cap of $60 per barrel on Russian oil, forcing Russia to sell at steep discounts to maintain exports to other markets. One of the most significant sanctions was the ban on Russian access to advanced oil and gas extraction technology, especially for shale oil, offshore drilling, and liquefied natural gas (LNG) [14]. Western companies such as ExxonMobil, Shell, and BP withdrew from energy projects in Russia, leading to the loss of tens of billions of dollars in foreign investment and advanced technology. At the same time, the U.S. and EU imposed a ban on the export of oil and gas drilling equipment to Russia, which significantly delayed the development of complex oil fields in the Arctic and Siberia [15].

Faced with the negative impact and expanding scope of U.S. and Western sanctions, Russia sought to adapt by pivoting toward Asia, developing domestic technology, and establishing alternative financial systems. This raises an important question: Have the sanctions truly weakened Russia, or have they merely pushed the country toward greater self-sufficiency and strengthened ties with non-Western partners such as China, Iran, and India? Regardless, one thing is certain: the economic confrontation between Russia and the West will persist, and sanctions will continue to play a crucial role in the ongoing global geopolitical competition.

3. The impact of sanctions on China–Russia trade activities in the period 2014–2024

Since 2014, trade relations between Russia and China have not simply developed based on market demand but have been consolidated through a strategic foreign policy roadmap, reflecting extensive policy adjustments by both sides amid geopolitical instability. In 2014, the two countries signed a $400 billion gas supply agreement via the Power of Siberia, clearly demonstrating Russia's energy pivot to Asia. Subsequently, from 2015 to 2019, the mechanism of the "China–Russia Investment Cooperation Conference" was maintained annually, promoting financial cooperation and gradually expanding trade payments in local currencies, thereby reducing dependence on the Western financial system. A key milestone occurred in February 2022, the foreign ministers of the two countries announced the establishment of a "no-limits partnership", accompanied by agreements on energy, supply chains, and technology. Especially in 2023, the two countries officially connected Russia's SPFS payment system and China's CIPS, allowing direct transactions in Rubles and Yuan, limiting the role of the US dollar and the SWIFT system. These steps show that China–Russia trade cooperation in the period 2014–2024 was not a reactive response to sanctions but the result of an institutionalized economic linkage process, guided by strategic vision and consistent diplomatic commitments from both sides.

Immediately after Russia's annexation of Crimea, imports from Russia into the Chinese market dropped rapidly from $41.594 billion (2014) to $33.259 billion (2015) but quickly recovered in 2017 to $41.390 billion.

From 2018 to 2021, the total import turnover from Russia continuously increased year by year, especially in 2021, reaching $78.971 billion. According to the General Administration of Customs of China announced on January 12, 2021, the two-way trade turnover between Russia and China reached $240.112 billion in 2023, up 26.3% compared to the same period in 2022 [16]. Of this, China's exports to Russia exceeded $110.9 billion, up 46.9% year-on-year; China's imports from Russia reached $129.14 billion, up 12.7% year-on-year. The structure of goods exported from China to Russia is quite diverse, with significant changes over the years.

Table 1. *Trade Data Between China and Major Trading Partner Countries in 2023 (Unit: USD 10 billion)*

No.	Country	Total Trade	Exports	Imports	YTD Change ±%		
					Total Trade	Exports	Imports
1	United States	6,645	5,003	1,642	-11.6	-13.1	-6.8
2	Japan	3,180	1,575	1,605	-10.7	-8.4	-12.9
3	South Korea	3,107	1,490	1,618	-13.5	-7.2	-18.7
4	Russia	2,401	1,110	1,291	26.3	46.9	12.7
5	Vietnam	2,298	1,376	922	-0.5	-3.7	4.8
6	Australia	2,292	738	1,554	4.1	-5.3	9.3
7	Germany	2,068	1,006	1,062	-8.7	-13.0	-4.2
8	Malaysia	1,902	874	1,029	-5.2	-3.9	-6.3
9	Brazil	1,815	591	1,224	6.1	-4.3	11.9
10	Indonesia	1,394	652	742	-5.9	-7.3	-4.7

Source: Compiled from the General Administration of Customs of the People's Republic of China [26].

The three important areas of cooperation between the two countriesk are energy, finance, and technology. These pillars have been most severely affected by sanctions packages throughout the period 2014–2024, and are also the areas that most clearly reflect the trend of strategic adjustment and restructuring of bilateral cooperation.

(1) In the field of energy

Before the conflict, Europe accounted for more than 50% of Russia's total oil and gas exports. However, following the imposition of import bans by the EU and the US, Russia was forced to find alternative markets, and China emerged as a strategic customer due to its huge energy demand and willingness to buy Russian oil and gas at a discount. In 2023, Russia became China's largest oil supplier, surpassing Saudi Arabia, with total oil exports reaching 106.3 million tons, accounting for 40% of China's total oil imports. Western sanctions forced Moscow to sell crude oil at a discount of 20–30%, allowing China to buy energy at lower costs, saving Beijing's economy billions of dollars. Therefore, this shift has not only brought significant advantages to China amid volatile global energy prices, but also helped Russia maintain important revenues despite losing major European customers. In addition to crude oil, Russia also expanded natural gas exports to China through the Power of Siberia project. In 2023, Russia supplied 22 billion m³ of gas through this the Power of Siberia, and is expected to increase to 38 billion m³ by 2025 when capacity is expanded [21]. Russia is currently negotiating with China to implement the Power of Siberia 2 project, expected to supply an additional 50 billion m³ of gas per year, equivalent to the amount Russia used to export to Europe before sanctions. If successful, this will help Russia strengthen its position in the Asian gas market, while helping China diversify its energy supply, reducing dependence on LNG imports from the US and the Middle East. At the same time, Russia is also increasing LNG exports to China. In 2023, Russia exported 6.5 million tons of LNG to China, up 50% from the previous year. This helps Beijing strengthen energy security, while Russia continues to play the role of a strategic energy supplier for the East Asian region. Notably, most oil and gas transactions between Russia and China are settled in Yuan, which enables Moscow to reduce its dependence on the USD and to limit the influence of the Western financial system.

(2) In the field of finance

Since 2022, one of the most profound impacts of Western sanctions on Russia has been the severe curtailment of its access to the international financial system, exemplified by the exclusion of major Russian banks from the SWIFT global payment network. In this context, China became a key financial partner, not only maintaining trade activities but also playing an important role in establishing a strategically alternative bilateral payment system. In response to sanctions, Russia and China have intensified their process to de-dollarize bilateral transactions, marking a significant step toward reducing RMB dependence. According to data from the Central Bank of Russia, in 2021, only about 17% of Russia's trade with China was conducted in RMB. However, by mid-2023, this figure had surged to over 80% in the field of imports. Payments in RMB not only enable Russia to avoid risks associated with financial sanctions but also contribute to strengthening the international role of the RMB in the Eurasian region.

Along with the de-dollarization process, the two countries have also connected their national financial payment systems, SPFS and CIPS. This connection facilitates direct fund transfers and payments in RMB or RUB between banks of the two countries without relying on the Western financial system. By the end of 2023, more than 20 Russian banks operated within the CIPS framework, and CIPS was also integrated with the SPFS network through a technical mechanism for synchronizing financial messages.

(3) In the field of technology

Since the West first imposed sanctions on the Russian Federation in 2014, the technology sector has been one of the primary targets, with increased intensity after the Ukraine conflict in 2022. Sanctions include blocking exports of semiconductors, control devices, chip design software, dual-use technology, and defense aviation electronic systems originating from the US, EU, Japan, and South Korea. In this context, China has become Russia's most important strategic partner, with exports from China to Russia being very diverse, specifically: The technology sector has been one of the primary targets of Western sanctions imposed on the Russian Federation since 2014, with escalating intensity following the outbreak of the Ukraine conflict in 2022. These sanctions include restrictions on the export of semiconductor components,

control devices, chip design software, dual-use technologies, and aerospace defense electronic systems originating from the United States, the European Union, Japan, and South Korea.

Table 2. *Types and Export Values of Chinese Goods to Russia, 2015–2023 (Unit: USD 10 billion)*

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023
Group 1	1.56	2.15	2.2	2.23	2,35	1,72	2.12	1.97	1.76
Group 2	8.18	9.02	9.35	9.35	8.77	5.76	6.38	8.46	9.06
Group 3	0.04	0.04	0.04	0.06	0.05	0.04	0.05	0.12	0.15
Group 4	7.29	7.37	7.29	7.84	7.1	6.41	7.32	11.48	12.32
Group 5	2.3	1.96	2,99	4.32	4.23	1.74	2.05	3.59	3.71
Group 6	15.04	15.24	19.16	22.93	23.93	26.89	37.89	66.97	63.59
Group 7	14.75	14.78	16.82	19.75	21.81	23.84	36	52.99	67.11
Group 8	25.19	29.34	32.22	37.45	37.07	23.04	20.69	16.16	15.07
Group 9	1.78	1.46	1.48	1,49	1.43	1.27	1.51	1.15	1.31
Group 10	2.44	2.37	2.63	3.16	3.05	3.55	3.53	9.9	10.9
Group 11	66.71	57.25	59.3	58.08	53.57	54.03	54.33	54.08	65.63
Group 12	21.5	21.44	23.47	22.38	22.24	17.7	26.49	28.38	38.3
Group 13	7.09	5.62	7.52	8.63	8.59	9.92	10.88	11.6	14.43
Group 14	1.39	0.58	0.24	0.24	0.23	0.31	0.32	0.3	0.44
Group 15	27.16	27.21	30.24	35.17	38.77	37.02	56.6	55.66	69.33
Group 16	103.57	132	161.16	182.45	187.81	209.36	288.01	302.12	423.13
Group 17	13.85	18.96	18.85	26.22	26.82	26.85	50.39	74.19	233.45
Group 18	8.61	8.55	11.2	13.38	12.24	14.98	19.64	19.9	29.91
Group 19	0.01	0.01	0.01	0.02	0.01	0.01	0.02	0.03	0.06
Group 20	19.35	17.38	21.93	23.63	28.14	35.94	41.63	34.45	40.84
Group 21	0.03	0.02	0.01	0.01	0.07	0.12	0.05	0.06	0.04
Group 22	0	0.61	0.85	0.74	9.23	5.33	9.75	7.66	9.21
Total	347.84	373.34	428.97	479.75	497.52	505.85	675.65	761.23	1109.72

Source: Compiled from the General Administration of Customs of the People's Republic of China [26].

One of the main items that China exports to the Russian market is Group 16 (electrical equipment, mechanical equipment, audiovisual equipment) with export turnover increasing from $10.357 billion (2015) to $42.313 billion (2023). The export value of Group 17 (cars, airplanes, ships, and transport equipment) also increased significantly from $1.385 billion to $23.345 billion. This category shows a sustainable and stable growth trend, not only reflecting China's technological competitive advantage but also showing Russia's increasing demand for high-tech Chinese products after Western sanctions.

The export value of Group 6 (chemical industry and related products), Group 7 (plastics and plastic products), and Group 15 (base metals and products) also showed rapid growth, increasing from $1.504 billion to $6.359 billion, from $1.475 billion to $6.711 billion, and from $2.716 billion to $6.933 billion, respectively. Group 11 (textile materials and textile products) is also one of the important export items of China to the Russian market, with an average value of $5.812 billion. The export value of Group 4 (food, beverages, and tobacco products) experienced some fluctuations and minor changes from 2015 to 2023, except for a decrease to $641 million in 2016, but basically remained at about $700 million. Starting from 2021, the trade turnover of this group began to increase significantly, from $734 million to $1.148 billion in 2022 and even reaching a peak of $1.232 billion in 2023. Group 19 (weapons, ammunition, and related parts and accessories) and Group 21 (art, collectibles, and antiques) have relatively low trade values and are considered categories with little trade. With the development of China's manufacturing industry and improved technological level, the structure of China's exports to Russia is undergoing positive changes. Exports of Chinese products in fields such as vehicles, airplanes, ships, and transport equipment have grown rapidly, bringing new vitality to China – Russia trade. China has quickly filled the gap left by Western goods in the Russian market. According to data from Firanchuk & Knobel (2025) [27], China's exports to Russia reached $111 billion in 2023, up 67% compared to 2021. At the same time, the share of Chinese goods in Russia's total imports increased sharply to 38%, while the share of Russian exports to China accounted for 31% of Moscow's total export turnover. When the U.S. and the West imposed sanctions, many suppliers from the U.S. and Europe stopped exporting technological components and industrial machinery to Russia, causing Russian manufacturing to face the risk of disruption. In this context, China quickly became the leading supplier of industrial equipment, mechanical machinery, and electronic components. Chinese companies such as Huawei, Xiaomi, Lenovo, and ZTE have expanded operations in Russia, providing alternative solutions in telecommunications equipment, electronic components, and computers to maintain the production capacity of Russian industries [17]. In 2023, exports of mechanical machinery and electronic equipment from China to Russia increased by 60%, helping Moscow continue to maintain its production supply chain despite sanctions. This is especially important for heavy industry, machinery manufacturing, and weapons production, as Russian enterprises can no longer import components from the West. While European companies previously played an important role in providing advanced machinery to Russia, China has now replaced this position by exporting equipment from enterprises such as SANY, XCMG, and Zoomlion, helping Russian factories continue operating without major disruptions. It was the growing demand from the Russian market that enabled Beijing to become the number one automobile supplier to Moscow in just two years [18]. The 594% surge in Chinese automobile exports to Russia in 2023 represents a major turning point in bilateral trade, which was largely driven by the withdrawal of major

Western automakers-including Volkswagen, Toyota, and Renault-from the Russian market in response to EU and U.S. sanctions [18]. As European and Japanese car brands withdrew from the Russian market, a substantial gap emerged—one that China was quick to exploit by strategically expanding its automotive presence and capturing a growing share of the market. Chinese companies such as BYD, Chery, Geely, Haval, and Great Wall Motors have not only supplied fully assembled vehicles but have also provided components and assembly technology, thereby enabling Russia to sustain its automotive supply chains, which have been severely disrupted [19]. Imports of trucks and tractors from China to Russia also increased by nearly 700%, underscoring China's strategic importance in maintaining Russia's transportation and industrial systems. At present, Chinese brands account for 55% of the Russian automobile market, effectively replacing their European and Japanese counterparts [20].

4. Challenges and prospects for China – Russia trade cooperation to 2030 amid Western sanctions

In 2022, China and Russia achieved positive results amid the Russia–Ukraine conflict, not only making progress in trade in goods, services, and investment but also demonstrating resilience and adaptability in facing various challenges and risks [22]. The statistics on merchandise trade between China and Russia have steadily increased since 2015. This growth has been made possible by a sharp decline in EU exports to Russia and a rapid increase in global commodity prices. At the same time, Russia–China cooperation in the services trade has also shown new positive developments, with cross-border transportation playing a prominent role, while continuous innovation in the financial services sector has provided strong support for the economic development of both countries. In addition, the foundation for China–Russia trade cooperation has been continuously strengthened, the bilateral investment protection agreement has been upgraded, and cross-border infrastructure connectivity has gradually improved, thereby laying a solid groundwork for future cooperation. However, the development of China–Russia trade also faces some potential risks. Sanctions and counter-sanctions have negatively affected bilateral trade activities, and weaknesses in cross-border transport have created obstacles to economic and trade cooperation. Factors such as the global economic slowdown, the projected decline in international energy prices, and the continued impact of secondary sanctions imposed by the U.S. and Western countries are expected to pose significant challenges to the future development of Russia–China trade. Russia's growing dependence on China in the fields of technology, finance, and energy has helped Moscow sustain its economic operations; however, it also raises concerns over trade imbalances and the risk of increasing Chinese leverage over Russia. One of the biggest challenges for this relationship is secondary sanctions from the West, as the United States and the European Union have issued warnings to Chinese companies against providing direct support to the Russian economy, especially in semiconductors, military components, and international payment systems [23]. If these sanctions are expanded, China may have to adjust its trade strategy with Russia by restricting the export of some sensitive goods in order to avoid isolation from the West.

The increasingly severe trade imbalance is becoming a major issue in the cooperation between these two powers. In 2023, Chinese goods accounted for 38% of Russia's total imports, whereas Russian exports to China represented only 31% of Moscow's total export volume, consisting primarily of oil, gas, and raw materials [24]. This shows that Russia is becoming a major consumer market for China, rather than an equal trading partner. If this trajectory continues, Russia risks being locked in the role of resource supplier, while Beijing controls technology and industry sectors in Russia. Nevertheless, energy cooperation remains one of the most promising areas in Russia–China trade relations. Based on the current growth rate, it is predicted that China will significantly increase its gas imports from Russia to over 100 billion m^3 by 2030. This will be made possible by the implementation of the Power of Siberia 2 project and the use of LNG transport routes through the Arctic. This partnership will not only benefit China by providing a stable energy supply at lower prices, but it will also allow Russia to compensate for the loss of the European market. However, it is crucial for Russia to diversify its export markets in order to avoid over-reliance on China and potential price pressures in the future.

In addition to energy, finance has become another crucial pillar in Russia–China trade relations. Currently, more than 80% of transactions between the two countries are settled in Chinese Yuan and Russian Ruble, which has significantly reduced Russia's reliance on the USD and the SWIFT system [25]. By 2030, China and Russia may expand their cross-border payment systems, facilitating stronger bilateral trade unaffected by Western sanctions. Infrastructure and transportation cooperation is also expected to develop in the next decade. The Trans-Siberian Railway, the Belt and Road Initiative (BRI), and Arctic shipping routes will help enhance the flow of goods between the two countries, opening up many opportunities for China–Russia trade [24]. However, unless Russia adopts more flexible trade policies and diversifies its economic partnerships, it risks becoming increasingly dependent on China—not only in commerce but also in political and geoeconomic terms.

5. Conclusion

Trade cooperation between China and Russia has made significant progress despite Western sanctions on Russia. China has rapidly become Russia's most important trading partner, filling the void left by Western businesses in various sectors such as energy, technology, finance, automobiles, and consumer goods. Bilateral trade has substantially increased, with China accounting for up to 38% of Russia's total imports in 2023, and China has emerged as the leading supplier of technological components and transportation equipment to Moscow. However, this relationship remains structurally imbalanced, as Russia primarily exports raw materials while China

dominates the industrial supply chain within Russia. Despite promising development prospects through 2030, Russia–China trade cooperation faces significant risks, particularly the threat of secondary sanctions imposed by the West, persistent trade imbalances, and Russia's growing dependence on Beijing. If Russia fails to diversify its export markets, enhance its domestic production capacity, and develop high-tech industries, it risks becoming an economic satellite of China rather than an equal trading partner. Therefore, the future of Russia–China cooperation will depend on Moscow's ability to recalibrate its economic strategy to maintain autonomy while also taking advantage of the opportunities presented by its commercial partnership with Beijing.

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