

The Impact of The Conflict Between Russia and Ukraine on China's Crude Oil Market

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Abstract. Following the commencement of hostilities in Ukraine in 2022, western nations decided to take the measure of imposing a number of sanctions on Russia. The sanctions placed on Russian companies that export crude oil have, among other things, had a significant impact on the crude oil market in China. China is significantly dependent on the exportation of crude oil by Russia because China is an oil importer. As a result, the investigation into how the conflict between Russia and Ukraine affected China's crude oil market has a significant bearing on the growth of China's manufacturing sector as well as the economy overall. By examining both policy and academic literature on the topic of export limitations of Russian crude oil in a variety of countries, this piece of writing performs an analysis of the influence that the start of war in Ukraine has had on the global crude oil market as well as the changes that are expected to take place in the Chinese crude oil market. In conclusion, it has been discovered that China's price of crude oil would rise in tandem with the price of crude oil on the world market in the near future. It is anticipated that China would, over the course of time, become less reliant on crude oil imported from Russia and other nations, gradually shifting its energy market in the direction of more environmentally friendly practices.

Keywords: Russia-Ukraine conflict; China; oil market.

1. Introduction

One of the fundamental components of industrialization is crude oil, in addition to its various byproducts. The manufacturing of polymers, resins, and several other chemical goods, as well as energy transportation, and a number of other disciplines, are the primary applications for oil. As a result of China's manufacturing-centric industrial structure and its abundant coal sector, but its dearth of crude oil and natural gas reserves, the country is extremely reliant on crude oil producers and exporters located in other countries across the world. [1] The United States of America, Saudi Arabia, and Russia are the three giants of the world's energy supply and control the majority of the world's energy supply between them. If people take oil production as an example, all three countries generate more than 10 million barrels of oil every single day. [2] However, as a result of sanctions placed on Russia's energy exports by Western countries led by the United States, Russia's proportion in total energy exports has decreased, and the country's status has shifted. The conflict between Russia and Ukraine has resulted in the adjustment and reconstruction of the pattern of energy supply around the world. According to statistics, the Organization of the Petroleum Exporting Countries (OPEC) oil price was around \$70 a barrel in 2021 but soared to \$100 a barrel in 2022 due to the Russia-Ukraine conflict. The conflict between Russia and Ukraine has caused a huge swing in global oil prices [3]. Changes in the pattern of global energy supply and demand will have a major effect on China's energy consumption structure. China is the world's largest consumer of energy and oil importer, and these changes will have a profound effect. As a result, the investigation of Russia's energy supply in the context of the conflict between Russia and Ukraine is of utmost importance for the investigation of China's future economic development and changes in the energy industry. This study examines the influence that the conflict in Ukraine has had on the crude oil market in China, focusing on how the amount of China's crude oil imports and the price of international crude oil have changed as a result of the conflict.

2. The Influence of the Conflict between Russia and Ukraine

2.1. Global Crude Oil Supply and Demand Structure Imbalance

Russia is the world's third-largest oil producer and second-largest natural gas producer and has an important position in the global energy supply. [4] However, after the outbreak of the war in Ukraine, the draft of the sixth round of EU sanctions against Russia plans to phase out imports of crude oil from Russia within six months and prohibit the landing of Russian oil by sea. [5] According to Statista, in January 2022, Russian crude oil landed in the EU at about 9.11 million metric tons, but then the share gradually declined, falling to 1.34 metric tons in February 2023. At the same time, landings in non-EU and non-G7 countries (such as China and India) increased significantly, peaking at around 11.5 million tonnes in December 2022 [6].

Table 1. Volume of Russian crude oil landings worldwide

	Jan 2022	Jun 2022	Oct 2022	Dec 2022
EU (total)	9.11	5.82	4.97	1.74
Non-EU&non-G7	3.25	8.09	11.06	11.54
Other	2.64	1.44	1.85	2.41
Total	15	15.35	17.88	15.69

As Table 1 shows, from January to December 2022, European Union (EU) imports from Russia fell sharply, while non-EU & non-G7 imports from Russia increased significantly. At the same time, Russia's total crude oil landing volume has remained stable at 15 million metric tons, indicating that the EU has gone from reduced crude oil imports from Russia to increased crude oil imports by non-EU & non-G7. As a result, Russian crude oil exports may shift due to U.S. and European sanctions, leading to a series of problems such as currency settlement failures and rising shipping costs.

2.2. Russian Crude Oil Production

In addition, US and EU sanctions on Russia's real economy have led to a decline in Russian oil production, which may affect Russia's oil exports to China. According to the Institute of Peace and Development of the Chinese Academy of Social Sciences, Russia's energy extraction, oil refining and liquefied natural gas processing still rely mainly on foreign equipment and software, mainly carried out by international oil service companies. With Chevron, ExxonMobil, Total, Shell, including the international nine major oil giants and six international oil service companies to divest in Russia business shares or stop production activities in Russia, the Russian oil and gas industry caused a second blow in addition to the energy embargo. Russian oil production is expected to fall by 17 percent or more in 2022, which would be the biggest decline since the collapse of the Soviet Union. [5] In addition, according to the U.S. Energy Information Administration, by May 2022, Russia's entire remaining crude oil production capacity has disappeared, leaving non-OPEC oil producers with only 280,000 barrels per day of remaining crude oil production capacity. [5] A significant reduction in crude oil supply will disperse the purchase channels of crude oil importing countries, thus affecting normal international settlement and leading to a rise in crude oil prices.

3. Import

Russia is the second largest importer of crude oil in China. According to Statista, the first and second major suppliers of crude oil to China in 2020 and 2021 are Saudi Arabia and Russia, respectively. Since 2011, China's crude oil imports have shown a steady upward trend. In the past three years, China's crude oil imports averaged more than 50,000 million tons. (Statista) [4] China's large energy consumption, coupled with the constant changes in the international energy market, China's energy supply pressure continues to increase. China's oil-related industries grew by 7.3% year-on-year and the increasing scope of industry applications forced China's dependence on oil

imports to gradually rise. [7] At present, China's dependence on oil import has reached 70%, and the impact of local conflicts on China's oil import has obvious stage characteristics, and gradually increases with the rise of China's oil import dependence. [2] Therefore, a series of political problems brought about by the conflict between Russia and Ukraine may lead to economic sanctions, which will reduce Russia's crude oil exports and thus make China short of imported crude oil.

4. Price

In addition to supply and demand, crude oil prices are also influenced by geopolitics and international relations. The political problems caused by the conflict between Russia and Ukraine have led to changes in crude oil prices. First of all, the outbreak of the conflict between Russia and Ukraine happened just after COVID-19 was lifted, and countries had a great demand for crude oil in order to restore economic and industrial production, which pushed up the price of crude oil. The ensuing war in Ukraine has further led to panic and uncertainty in the international oil market. According to an analysis by Mathew Emmanuel Pineda, Faisal Islam, the price of a barrel of oil climbed to \$139.00 after the outbreak of the war in Ukraine, the highest level in nearly 14 years. In addition, wholesale gas prices for next-day delivery more than doubled following the armed conflict between Russia and Ukraine. [8] As of the close of trading on March 8, 2022, Brent oil prices reached \$127.98 per barrel and WTI New York oil prices reached \$123.7 per barrel. Prices then began to fall as talks between Russia and Ukraine progressed and the US Federal Reserve expected to raise interest rates. From March 9, 2022, the international crude oil price continued to decline, to March 15, 2022, fell to \$96.44 per barrel, down more than 20% from the highest point. Typically, geopolitical tensions trigger market concerns that could lead to higher oil prices in the short term. Due to the slowing progress of the negotiations between Russia and Ukraine, the conflict continues to escalate and the market panic, the international crude oil price has risen again to more than \$100 per barrel and is at a high level. [1] According to the United Nations, as of August 2022, the price of crude oil in the market has increased by 33% since January 2022 [7]. However, the oil market is also influenced by other factors, such as global economic growth expectations, oil consumption demand, and production adjustments in oil-producing countries. Therefore, to fully assess the impact of the Russia-Ukraine conflict on international oil prices, we need to consider the combined effect of the above factors. The ultimate oil price movement will depend on the relative weight of these factors and market expectations. In addition, U.S. economic sanctions against Russia have led to higher transportation costs. In addition, higher transportation costs have also pushed up oil prices. Due to the need for safe havens, ship owners are reluctant to travel to Russia for loading and unloading, and some countries and companies have stopped hiring Russian oil vessels, causing Baltic oil transport costs to rise sharply, reaching their highest level since 2008. Russia's Aframax tanker to Europe is the most notable example, with daily rates soaring from \$30,000 at the end of March to \$63,597 at the beginning of April. [9] In addition, changes in the global energy supply and demand pattern caused by the Russia-Ukraine conflict will increase the shipping distance of global seaborne trade. As Europe tends to buy coal, oil and gas and other energy products from countries and regions farther away, such as Australia, the Middle East and the United States, while Russia increases its energy supply to Asian countries, the average distance of global energy transportation will increase. Clarkson expects that in 2022, due to the conflict between Russia and Ukraine, the global dry bulk cargo transportation distance will increase by 1.0% on average, and the dry bulk cargo shipping turnover will increase by 1.4%, which is 1.3 percentage points higher than the sea traffic growth rate. Crude oil seaborne turnover increased by 6.0%, 2.8 percentage points higher than the growth rate of maritime traffic; The seaborne turnover of refined oil products increased by 10.0%, 6.0 percentage points higher than the growth rate of seaborne traffic [3].

5. China's Renewable Energy Development

The change in world energy supply and demand patterns will affect China's energy consumption structure. With the change in the world energy market, China's energy consumption structure will change, and traditional energy such as coal and gasoline will gradually lose their advantages, while new energy, renewable energy, natural gas, nuclear energy and other energy will gradually be favored. According to the data of the National Energy Administration in 2023, China's new installed capacity of wind power and photovoltaic power generation exceeded 100 million kilowatts for three consecutive years, and the annual power generation of new energy exceeded 1 trillion KWH, an increase of more than 60% in two years. Non-fossil energy accounts for nearly 40% of the increase in energy consumption, and the pattern of energy utilization and development in China is undergoing profound changes, with the strong momentum of new energy growth. [1] According to statistics, investment in renewable energy in the Asia-Pacific region reached \$4.82 billion in 2019 and will continue to grow in the future [10]. The changes in the world energy pattern caused by the Russia-Ukraine conflict will intensify the challenges to China's energy structure adjustment. Once China's chemical industry moves towards a cleaner environment, the country will be less dependent on oil exporters.

6. Conclusion

The majority of China's crude oil imports come from Russia, the country's second-largest supplier behind Saudi Arabia. Both the United States and the European Union have imposed sanctions on Russia in direct response to the conflict. Russia's output of natural gas and crude oil for sale to the EU has reduced as a direct result of these limitations. Furthermore, the US imposed restrictions on Russia's energy and chemical sectors in terms of technologies related to crude oil production. The United States put these regulations in place. This has the ability to reduce the amount of oil produced by Russia. The lion's share of Russia's reduced crude oil exports to the European Union has gone to China and India. Because Russia's oil-related companies are susceptible to technological constraints imposed by the United States and Europe, China's oil imports are predicted to remain stable or even expand in the short term but decline in the long term. This is because China has purchased the vast majority of Russia's reduced crude oil supply to the EU. Furthermore, as a direct result of the conflict between Russia and Ukraine, global oil prices have seen huge changes. The global oil price peaked in 2022, but it began to fall the following year as a result of production changes made by a number of oil producers. In the short term, the price of crude oil in China will move in the same direction as the price of crude oil globally. It is possible that China may gradually shift to renewable energy sources in the long run to address the energy crisis and lessen its reliance on crude oil. This would be done to reduce China's reliance on foreign oil. As a result, the existing crude oil market, which has a high rate of energy consumption and is not environmentally friendly, may eventually be overtaken by a market for green and clean energy.

References

- [1] Zhao Liang&Wang Yaozheng. The influence of Russia-Ukraine conflict on the world energy supply and demand pattern and China's countermeasures [EB/OL]. (2023-02-13) [2023-08-28]. <http://kns.cnki.net/kcms/detail/36.1006.F.20230706.1639.010.html>
- [2] Yuan Siyuan, Chen Linshan&He Zhengguo. Analysis on the influence of China's oil import problem under the background of Russia-Ukraine conflict. *The Chinese business theory*, 2023, (09): 62-65.
- [3] Yu Qinghe & Xu Di. The impact of the Russia-Ukraine conflict on the energy transport market. *Water transport management*, 2023, 45(05): 38-42.
- [4] Statistic. China's major crude oil suppliers in 2020 and 2021[EB/OL]. (2022-04-21) [2023.8.29]. <http://statistics/1310953/oil-imports-by-country-china/>.

- [5] Li Jianmin. The impact, response and enlightenment of western sanctions on Russia. *Peace Development Watch*, 2022, 23(61) : 232.
- [6] Statistic. Volume of Russian crude oil landings worldwide from January 2022 to February 2023, by region (in million metric tons) [EB/OL]. (2022-03-11) [2023.8.29]. [statistics/1350837/russia-crude-oil-landings-by-region/](https://www.statista.com/statistics/1350837/russia-crude-oil-landings-by-region/).
- [7] United Nations. Global impact of war in Ukraine: Energy crisis. Global Crisis Response Group, 2022.
- [8] Mathew Emmanuel Pineda. Why Are Oil and Gas Prices Going Up: Impact of Russia-Ukraine War [EB/OL]. (2022-03-12) [2023-08-29]. <https://www.profolus.com/topics/why-are-oil-and-gas-prices-going-up-impact-of-russia-ukraine-war/>.
- [9] Statistics. Average annual OPEC crude oil price from 1960 to 2023(in U.S. dollars per barrel) [EB/OL]. (2023-02-12) [2023-08-29]. [/statistics/262858/change-in-opec-crude-oil-prices-since-1960/](https://www.statista.com/statistics/262858/change-in-opec-crude-oil-prices-since-1960/).
- [10] Statistics. Investment in renewable energy in the Asia-Pacific region from 2010 to 2019(in billion U.S. dollars) [EB/OL]. (2020-11-02) [2023.8.29]. [statistics/1187686/apac-investment-in-renewable-energy/](https://www.statista.com/statistics/1187686/apac-investment-in-renewable-energy/).