

RUSSIAN OIL EXPORTS - ARE SANCTIONS FINALLY STARTING TO BITE?

After the Russian invasion of Ukraine at the end of February 2022, the major Western countries imposed a series of sanctions aiming to cripple the Russian economy and halt its war effort. Among the targeted sectors are key sections of the Russian energy industry.

However, rising energy prices mean that Russia can reap windfall profits if it manages to sell its energy resources abroad. Therefore, it is increasingly important to understand how much crude oil Russia can export from a geopolitical standpoint.

Is Russia benefitting from higher oil prices?

Russian authorities have suspended the publication of official statistics on its oil exports since the end of 2021. This means that it is difficult to gain insights into the state of Russian oil exports. For this reason, the use of alternative data became critical to assess the situation in real-time. QuantCube Commodity Trade Indicator - Russian Crude Oil Exports leverages the geolocation of crude oil tankers to provide a real-time nowcast for Russian

crude oil exports. As Exhibit 1 shows, Russian oil exports fell quickly after the Ukraine invasion.

However, the invasion pressured the already-stretched oil markets further and pushed the Brent crude oil price to above 100 US Dollars per barrel for the first time since 2014. The higher oil prices put certain countries in a challenging situation to secure energy products. Several countries that were not involved in the sanctions against Russia took advantage of the discounts offered by Russian dealers and increased

their oil reserves at lower prices. Subsequently, during the first week of May 2022, Russian oil exports reached their highest level since September 2019.

Exhibit 2 shows the Russian Balance of Payments for Current & Goods and Services Account Balances for 2021 and 2022. It shows that the Russian economy recorded significant surpluses in its external accounts between January and May 2022 compared to the same period in 2021.

Exhibit 1 - QuantCube Commodity Trade Indicator – Russian Crude Oil Exports

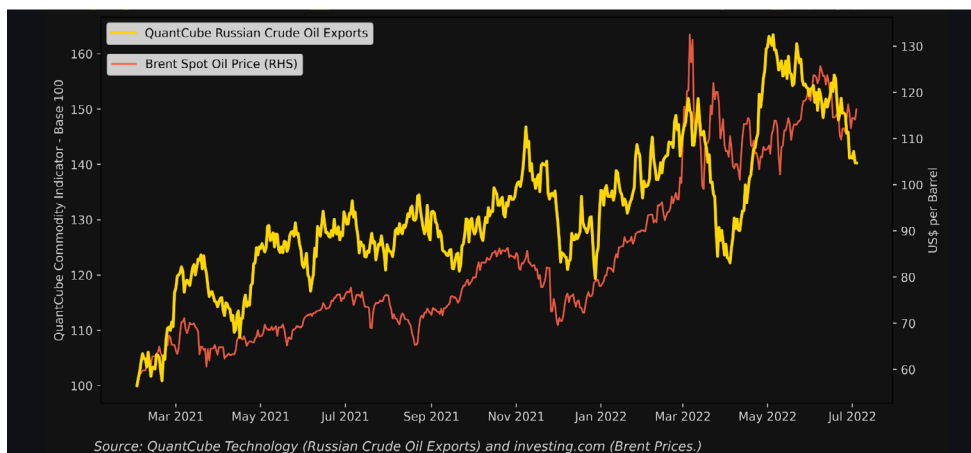
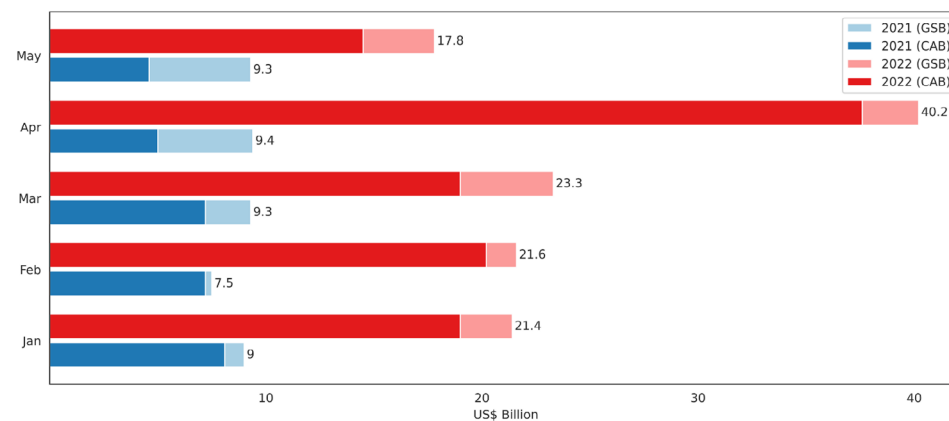


Exhibit 2 - Russian Balance of Payments: Current & Goods and Services Account Balances



Notes: Current Account Balance (CAB) and Goods and Services Account Balance (GSB). The CAB corresponds to the darkest sections of each bar while the GSB corresponds to the entirety of each bar.

Source: QuantCube Technology calculations based on data from the Russian Central Bank.

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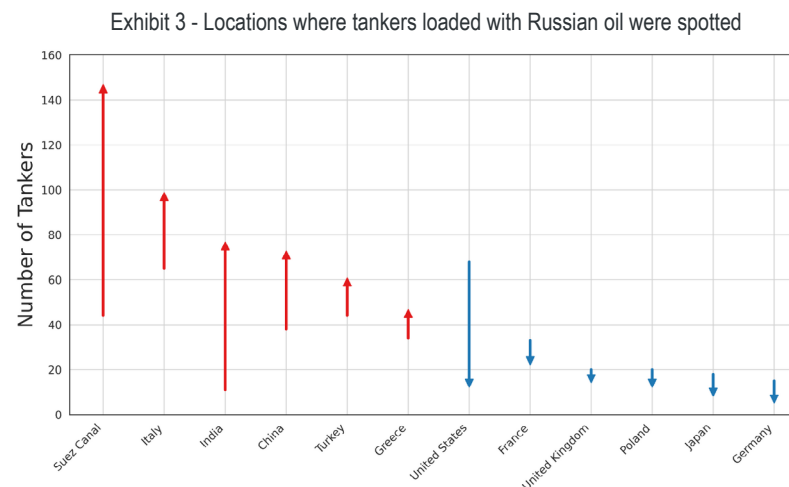
Since Russian external accounts heavily depend on the performance of its energy exports, this data reinforces our observation that Russia has been able to sell its energy resources and has been making extraordinary profits from energy price hikes since the beginning of 2022. In April 2022 alone, the balance of goods and services registered a surplus of more than 40 billion US Dollars, more than the total surplus from January to April 2021.

However, the QuantCube Commodity Trade Indicator - Russian Crude Oil Exports also shows that Russian oil exports have been falling since May 2022 (Exhibit 1) – an observation supported by the fact that May witnessed the lowest monthly surplus on the Russian goods and services account in 2022. We identified two possible reasons for this shift. Firstly, the sanctions by Western countries might have started to bite. In early March, President Joe Biden ordered a ban on Russian oil imports to the US, while British authorities prohibited

all Russian-related vessels from entering British ports. In April, the fifth round of EU sanctions prohibited all Russian vessels from calling in EU ports. In early June, the sixth round of EU sanctions included a gradual ban on all seaborne oil imports from Russia and the measures to prevent insurance companies from securing oil cargoes from Russia. Given the dominance of European insurers in the global oil market, this latest sanction has the potential to disrupt Russian seaborne oil exports effectively if it is fully implemented. Secondly, the reorientation of Russian exports towards Asia might be impacting the delivery process. The reorientation forces tankers delivering Russian oil to spend more time in the sea, extending the delivery process in general.

Where are the tankers with Russian oil going?

Identifying a vessel's precise destination is a complex task. However, QuantCube developed a methodology to measure how often tankers loaded with Russian oil were spotted in different countries.



Note: the tail of the arrows correspond to the number of crude oil tankers seen in each location between February 25, 2021 and July 3, 2021, after being spotted in Russian ports, while the head of the arrows correspond to the number of tankers seen in each location between February 25, 2022 and July 3, 2022.

Source: QuantCube Technology

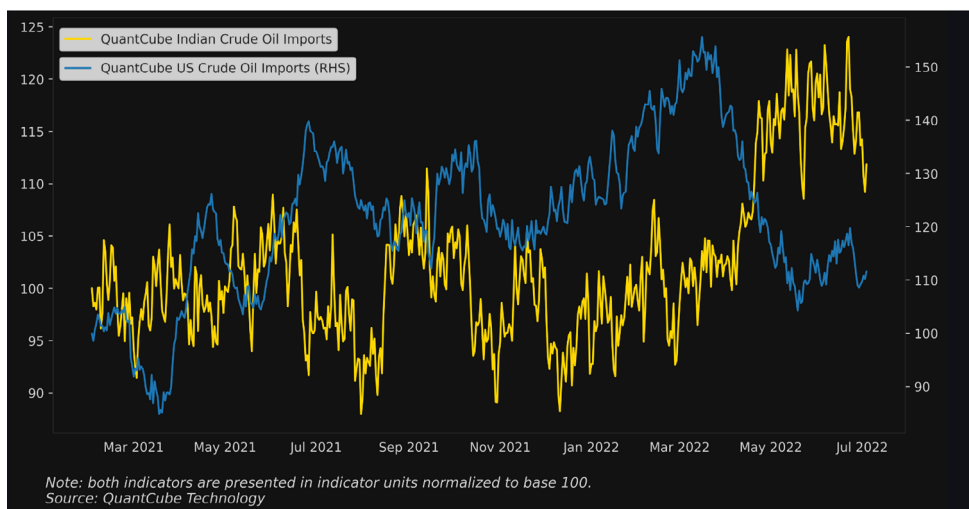
According to our observation, the number of vessels crossing the Suez Canal after loading Russian oil more than tripled between 25 February 2022 and 03 July 2022, compared with the same period in 2021. In terms of countries, two countries stand out as Exhibit 3 indicates: India and the US. India attracted almost 80 tankers in 2022 compared to the same period in 2021, where little more than 10 tankers were spotted. In the US, however, the number of tankers declined significantly – the

numbers in 2022 were only a small fraction of the level observed in 2021. QuantCube Commodity Trade Indicators for India and US Crude Oil Imports confirm the trend in India and the US, as Exhibit 4 shows. We observe that US oil imports declined significantly since March 2022, while Indian oil imports reached its highest level in two years in the beginning May 2022. Traditionally Russian oil served mostly European and, to a lesser extent, US ports, reflecting the

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shorter travel distance to reach these destinations. Shorter distances allow more frequent deliveries; therefore, it brings more stable revenue streams. However, with the mounting and reluctance by EU countries to import Russian oil, the vessels carrying Russian crude oil now need to travel further.

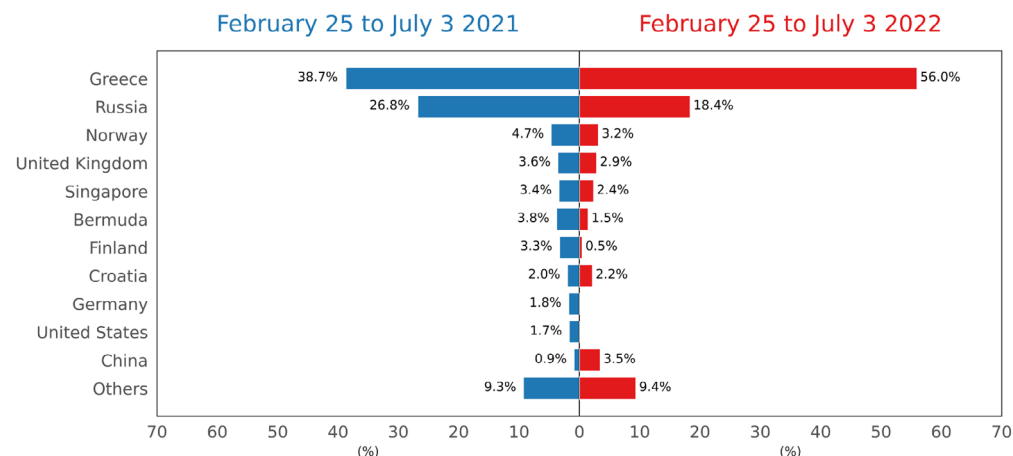
Exhibit 4 - QuantCube Commodity Indicators - India and US Crude Oil Imports



Who is shipping the Russian Oil?
Exhibit 5 shows the headquarters locations of the shipping companies delivering Russian oil. It seems that the western sanctions against Russia started to impact the activity of the Russian fleet. Their participation in the crude oil collection at Russian ports fell by a third compared to the same period in 2021. So, who is shipping the Russian oil now?

The Russian oil delivery market historically has a strong tie with the Greek shipping industry. Interestingly, despite the recent global political tension with Russia, Greek shipping companies increased their exposure to Russian oil by almost 50% between 25 February 2022 and 03 July 2022, compared to the same period in 2021. In real terms, the Greek fleet is now responsible

Exhibit 5 - Who is delivering Russian oil?
Headquarter locations of the shipping companies delivering Russian oil



Note: Only identified tankers were included in the calculations.
Source: QuantCube Technology

for more than 50% of Russian oil deliveries. Russia's dependence on the Greek fleet exposes a vulnerability in the Russian crude oil exports network. It explains why the sanctions such as a ban on oil cargoes insurance may be effective in driving Greek operators away from the Russian market, potentially limiting Russia's ability to export oil by the sea.

Conclusion

Our analysis indicates that Russia is profiting from rising oil prices,

despite the growing sanctions imposed by the Western economies. We observe that after an initial drop, Russian oil exports quickly rebounded at the end of April to their highest level since 2019. It appears it was partially driven by the increasing demand by India and China.

However, after the record exports in April 2022, there is a sign that Russian oil exports are stumbling. We will continue to monitor the development with our Russian Oil Exports Indicator.

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COMPANY BACKGROUND

QuantCube analyses billions of alternative data points in real time, using artificial intelligence and big data analytics to deliver insights ahead of the market – giving users an edge in their investment strategies. Today we are the global leader in macroeconomic intelligence nowcasting and in pinpointing macro regime change.

Our vision is to become the standard point of reference for macroeconomic, sector, corporate and environmental intelligence. By delivering timely, comprehensive and actionable economic insights we empower users within financial institutions, corporates and public bodies to reach their financial performance and sustainability goals. Headquartered in Paris, QuantCube employs a diverse international team of economists, quant analysts and data scientists with expertise in multilingual NLP, deep learning and machine learning techniques. The company’s shareholders include Moody’s and Caisse des Dépôts and its R&D in computer vision has been partially funded by the European Space Agency (ESA) and French government space agency CNES.

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