Macro Notes – Russia: The Impact of an EU Oil Embargo

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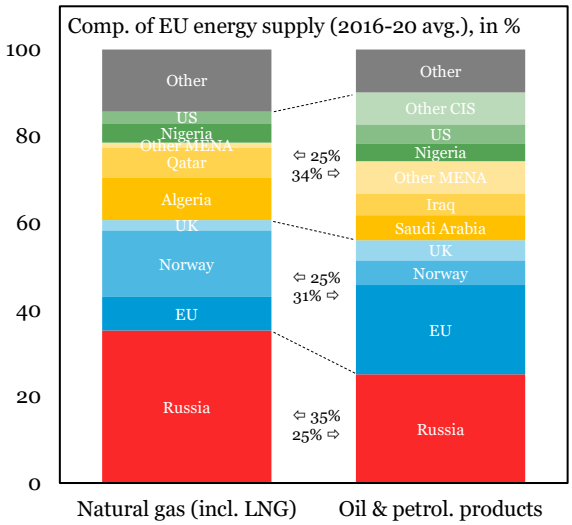
Elina Ribakova, Deputy Chief Economist, eribakova@iif.com, @ElinaRibakova
Benjamin Hilgenstock, Economist, bhilgenstock@iif.com, @BHilgenstockIIF

- An EU embargo on Russian crude oil exports would have a meaningful impact.
- Oil accounts for one-fourth of Russian exports and around 30% of fiscal revenues.
- Ultimately, the effect will depend on the country's capacity to redirect exports.
- Infrastructure constraints and the threat of secondary sanctions are key challenges.
- European decision-makers may prefer direct sanctions on the shipping industry.
- Overall, the EU has a better chance of limiting *"seaborn"* (vs. pipeline) oil exports.

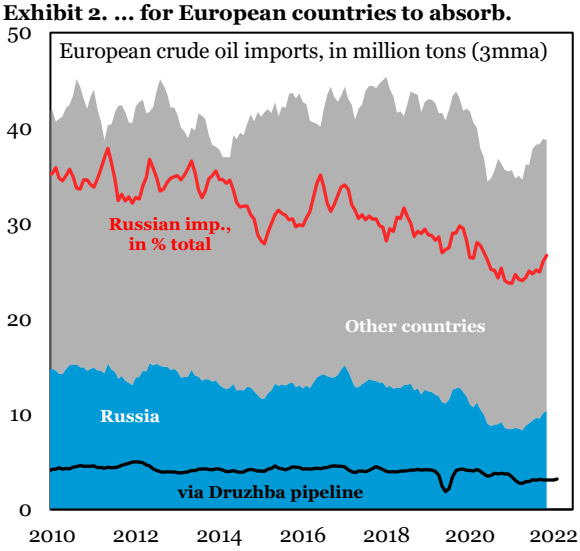
Following our recent publications on Europe's dependence on Russian natural gas, in this ***Macro Notes***, we look at the continent's ability to limit—or fully cut off—its purchases of crude oil. Furthermore, we assess Russia's options to redirect exports away from Europe and towards, among others, China. As far as additional sanctions in the context of Russia's invasion of Ukraine are concerned, an oil embargo appears to be the next major step currently being discussed in the European Union—although significant opposition remains. Oil is where the EU has more leverage vis-à-vis Russia: diversification away from oil is less challenging than natural gas, and Russia's reliance on oil for FX inflows and budget revenues is substantially higher. We expect an oil embargo by the EU to be a multi-step approach rather than an abrupt discontinuation of imports. Current policy discussions focus on specific modalities (monthly targets vs. tariffs) and implementation challenges (use of U.S. secondary sanctions' leverage vs. sanctions on the shipping industry). The EU's upcoming 6th sanctions package is expected to contain at least a reference to oil. However, EU sanctions require unanimity, and a more comprehensive embargo may take time to pass. While paying for oil into an escrow account—another often discussed option—might be technically easiest to implement, Russia could consider it a breach of contract.

Exhibit 1. An oil embargo may be easier …



Source: Eurostat, IIF

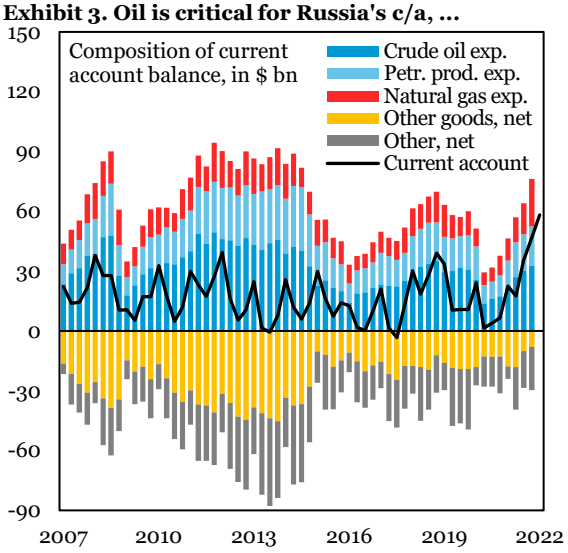
Exhibit 2. … for European countries to absorb.



Source: Eurostat, Transneft, IIF

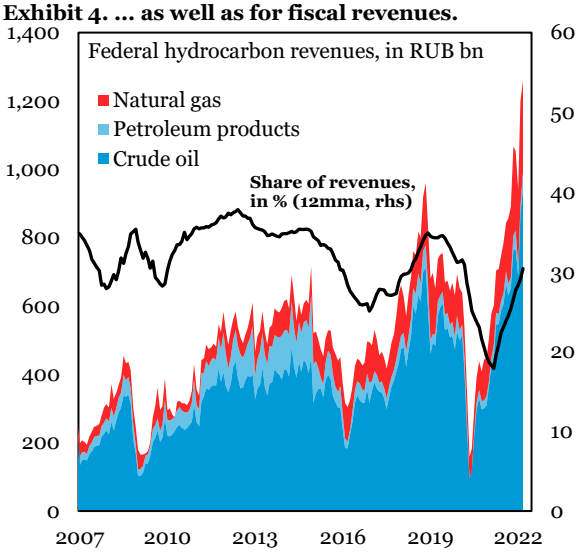
Russian crude oil imports would be easier to replace for EU countries than those of natural gas for two reasons: (1) Supply is substantially more diversified (Exhibit 1)—with Russia accounting for roughly 25% of total imports (vs. 35% for natural gas) and Europe's own production making up a larger share as well. (2) While natural gas imports from Russia almost exclusively occur via pipelines—with significant implications for their substitutability—the corresponding share for crude oil lies only at around 30% (Exhibit 2). The Druzhba pipeline network, fully commencing operations in 1964, transported 720 thousand bbl/day from oil fields in Russia's Western regions to refineries in the Czech Republic, Germany, Poland, and the Slovak Republic last year. The remaining roughly 70% are so-called *"seaborn"* oil, exported overwhelmingly from Baltic Sea ports. To put these numbers into perspective, daily crude oil production in Russia amounted to 10.5 million bbl/day, total exports to 4.4 million bbl/day, and exports to EU countries to 2.3 million bbl/day in 2021. A partial or complete EU embargo of Russian crude oil would undoubtedly have a meaningful effect on prices, possibly driving Brent up to $200/bbl, but substituting volumes would likely be possible.

Exhibit 3. Oil is critical for Russia's c/a, ...



Source: Bank of Russia, IIF

Exhibit 4. ... as well as for fiscal revenues.

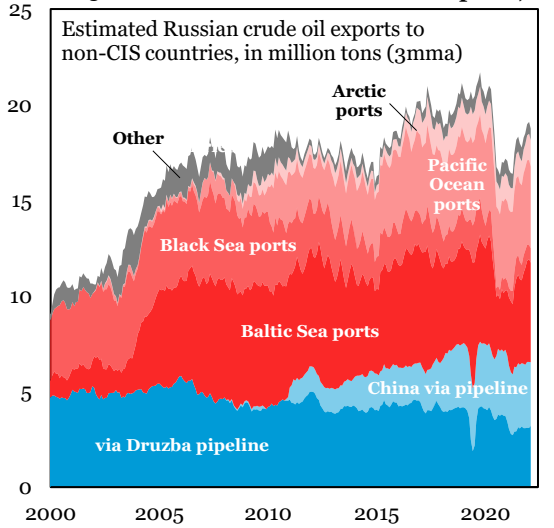


Source: Federal Treasury, Ministry of Finance, IIF

From the Russian perspective, an EU embargo on crude oil exports could have significant implications—from an external financing as well as fiscal perspective. Hydrocarbon exports have accounted for around 50-60% of total goods exports in the recent past and reached $76.3 bn in 2021Q4, the highest in ten years (Exhibit 3). For the year as a whole, their value stood at $243.8 bn. Considering price dynamics in 2022, especially since Russia's invasion of Ukraine, this is unlikely to have changed in 2022Q1; in fact, an all-time record current account surplus of $58.3 bn points to a further increase. Depending on Russia's ability to redirect exports to other buyers, an EU embargo could dramatically impact FX inflows. Russia is dependent on such inflows as it imports mostly non-commodities, including consumer goods and machinery/equipment.

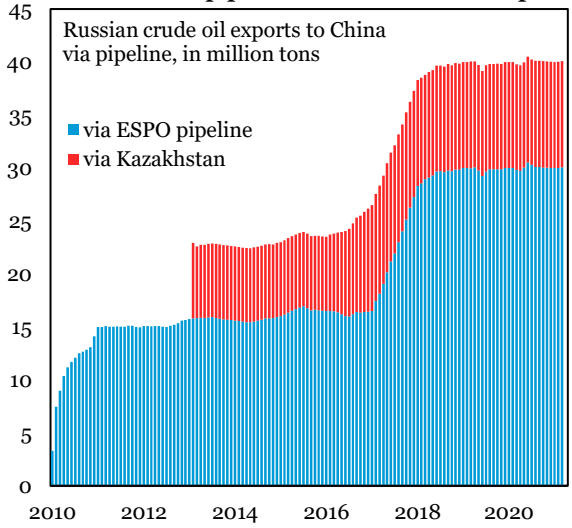
On the fiscal side, Russia relies heavily on revenues from the extraction and export of hydrocarbons (Exhibit 4). Crude oil, petroleum products, and natural gas brought in RUB11 tn over the past twelve months—or 25% of total revenues over the same period—with mining and quarrying taxes on crude oil accounting for almost two-thirds of the total. A significant decline in exports and eventually production, as a result of an embargo, could have a meaningful impact on the budget and may make difficult spending cuts necessary. One important caveat: a decline in volumes would be partially compensated for by the likely increase in global oil prices. In addition, a weaker Ruble could, depending on the size of the depreciation, even lead to an increase in revenues in local currency terms. However, through its impact on FX inflows, an oil embargo would still represent a significant challenge for Russia.

Exhibit 5. "Seaborn" oil still dominates exports, ...



Source: Eurostat, Transneft, IIF

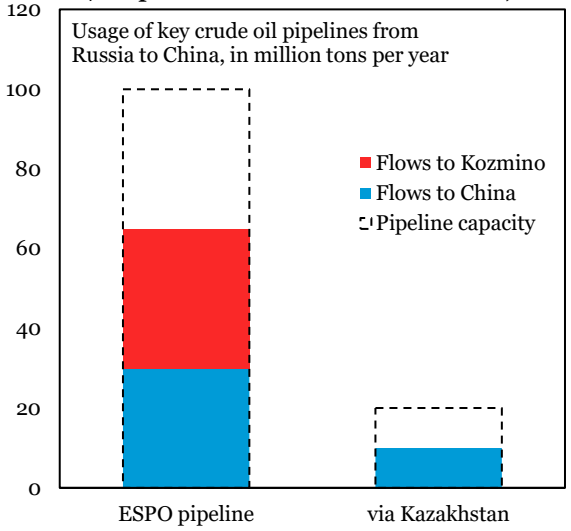
Exhibit 6. ... while pipeline flows to China are up.



Source: Transneft, IIF

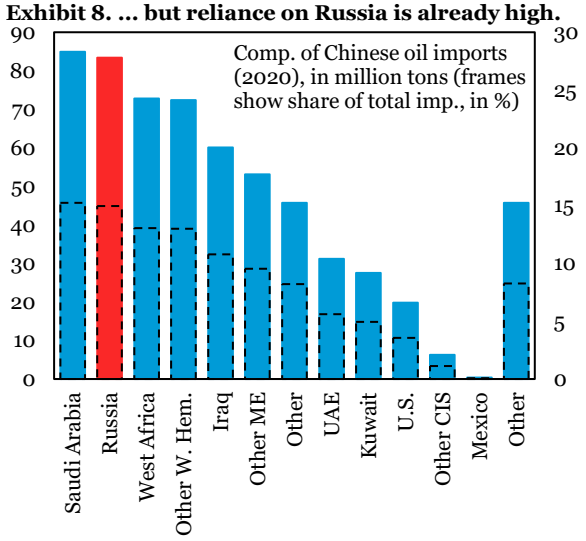
The key question is to what extent the country would be able to redirect crude oil to other potential buyers, including China and India. Russia is already an important energy partner for China as the second-largest supplier of crude oil and coal and the third-largest supplier of natural gas. A look at the composition of Russian oil exports is instructive (Exhibit 5). Over the last twelve months, pipeline crude oil deliveries to Europe and China accounted for 16.9% and 18.4% of the total, respectively. The other key export modes were Baltic Sea ports (26.0%) and Pacific Ocean ports (23.3%). While oil tankers can theoretically be rerouted anywhere, Baltic Sea ports would be highly unsuitable for exports to Asia due to the extremely long and expensive journey. This means that crude oil would have to be redistributed within Russia via pipelines, either to China or to ports allowing for reasonably quick shipments to China and/or India. Exports via pipeline have risen considerably in recent years (Exhibit 6); however, the capacities of the Atasu-Alashankou pipeline through Kazakhstan and the Eastern Siberia-Pacific Ocean (ESPO) pipeline are limited.

Exhibit 7. Exports to China could be increased, …



Source: Transneft, IIF

Exhibit 8. … but reliance on Russia is already high.



Source: BP Statistical Review of World Energy, IIF

As far as the ESPO pipeline is concerned, recent data indicates that 30% of its 100 million ton capacity is used for crude oil deliveries to China and an additional 35% for flows to Russia's most important Pacific Ocean terminal for *"seaborn"* oil in Kuzmino. The Atasu-Alashankou pipeline provides a capacity of 20 million tons per year, of which roughly 50% are used for shipments to China. This means that a little less than half of all Russian crude oil exports to China are conducted through pipelines and that the existing infrastructure would allow for an additional 45 million tons per year—roughly one-third of Russia's exports to the EU (Exhibit 7). It is important to highlight that the remaining capacities outlined here are estimates and may understate current pipeline usage. For example, they do not take into account possible flows of Kazakh oil to China.

In addition to infrastructure constraints, another point deserves consideration: China's stated objective is to limit the reliance on individual crude oil suppliers to around 15% of total imports. In 2020, Saudi Arabia and Russia reached this threshold (Exhibit 8). India, which relied on Russia for only 1.3% of its oil imports in the same year, may represent an even more promising option for Russia. Still, a rapid increase in oil imports from Russia could be technically challenging. Exports would have to be conducted exclusively via ships and create infrastructure-related challenges similar to those mentioned above.

In addition to infrastructure constraints, the threat of sanctions could significantly limit Russia's ability to redirect oil exports and, thus, complement an EU embargo. The U.S. has used secondary sanctions—measures that create effects outside of the sanctions-imposing entities' direct jurisdiction—very effectively in the case of Iran. However, the European Commission considers the extra-territorial application of sanctions illegal and may prefer the direct sanctioning of the shipping industry. Overall, the EU stands a better chance of preventing the redirection of *"seaborn"* vs. pipeline exports due to the involvement of third parties. With the war in Ukraine unlikely to end anytime soon, measures related to energy imports from Russia will remain at the top of the agenda.