

Macro Notes – Russia Sanctions: A Possible Energy Embargo

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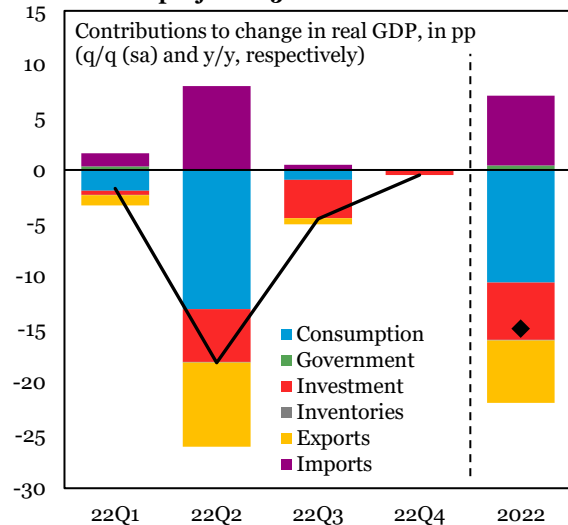


- Sanctions have hit the Russian economy hard, but more measures are likely coming.
- At this time, the discussion largely focuses on a potential embargo on energy exports.
- We show that a stop to natural gas imports would be much more difficult than to oil.
- This is due to both Europe’s gas supply composition as well as the mode of delivery.
- For Russia, an embargo would have a dramatic effect on overall activity and exports.
- The country could lose \$250-300 bn in export receipts, depending on price dynamics.

Last week, we outlined our baseline scenario for the Russian economy in 2022—a 15% output contraction, driven by sharply lower private consumption and investment while the contribution of net exports is only marginally positive (Exhibit 1). Together with a further 3% decline in activity in 2023, mainly due to base effects from this year, the current crisis will wipe out fifteen years of economic development. Nonetheless, risks are clearly to the downside, with the war in Ukraine entering its second month and no resolution of the conflict in sight. Thus, additional sanctions, including potentially an embargo on Russian oil and natural gas exports, become more likely as time passes and evidence of attacks on civilians in Ukraine emerges. In this **Macro Notes**, we attempt to assess the potential effect of several possible sanctions—on economic growth and external balances, and fiscal accounts.

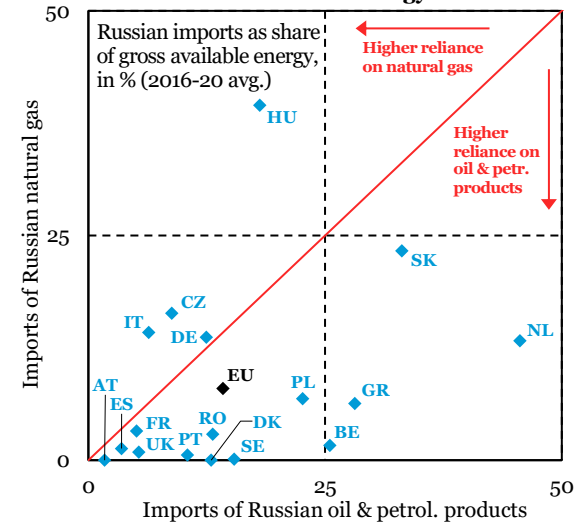
While the EU and U.S. have imposed additional sanctions in recent weeks, the discussion focuses largely on a potential embargo on Russian energy imports, including crude oil and petroleum products, natural gas, and coal. The U.S. has already banned imports of Russian oil and natural gas, and the United Kingdom will phase them out by the end of this year. However, these decisions will not have a meaningful impact unless and until the EU follows suit. Pressure is rising on European governments to cut off the large amounts of FX that Russia receives in return for its energy exports. For now, some, including first and foremost, Germany’s, are reluctant to impose an embargo, warning that it would trigger a recession on the continent. But a continuation of Russian attacks on civilian targets in Ukraine could leave them with no choice as public opinion on the issue has shifted dramatically.

Exhibit 1. We project a 15% GDP contraction in '22.



Source: Rosstat, IIF

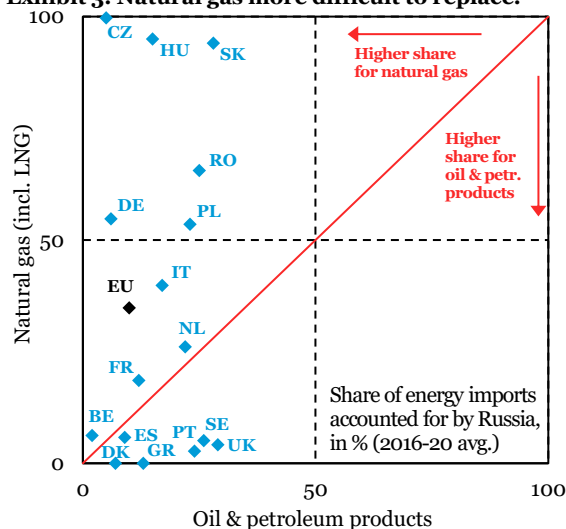
Exhibit 2. Reliance on Russian energy differs.



Source: Eurostat, IIF

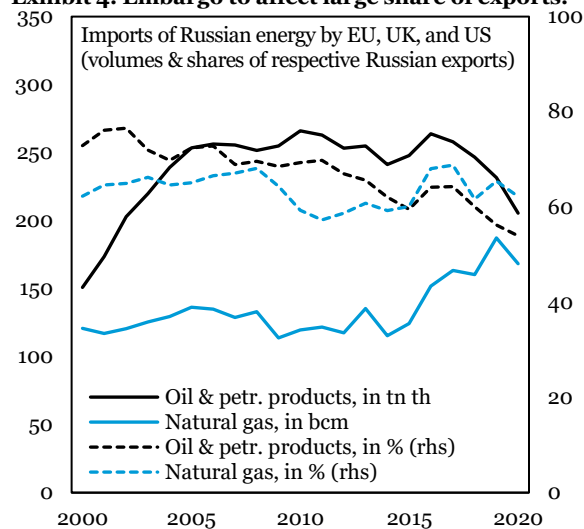
Political considerations aside, quickly replacing Russian oil and natural gas imports would certainly be an extremely difficult undertaking for Europe. To assess which countries could be facing the biggest challenges and how an embargo on oil exports would differ from one on natural gas, we look at two aspects: (1) the role that Russian imports of the two energy sources play in the overall energy supply in individual countries, and (2) Russia’s share of total imports of oil and natural gas. With regard to the first, we plot oil and gas imports as a share of gross available energy to evaluate overall dependence (Exhibit 2). European countries are generally more reliant on oil and petroleum products than natural gas, with the Czech Republic, Germany, Hungary, and Italy the exceptions. Overall, Russian energy sources play the largest role for the Netherlands, Hungary, and the Slovak Republic at around (55-60%); however, the relative shares of oil and natural gas differ.

Exhibit 3. Natural gas more difficult to replace.



Source: Eurostat, IIF

Exhibit 4. Embargo to affect large share of exports.

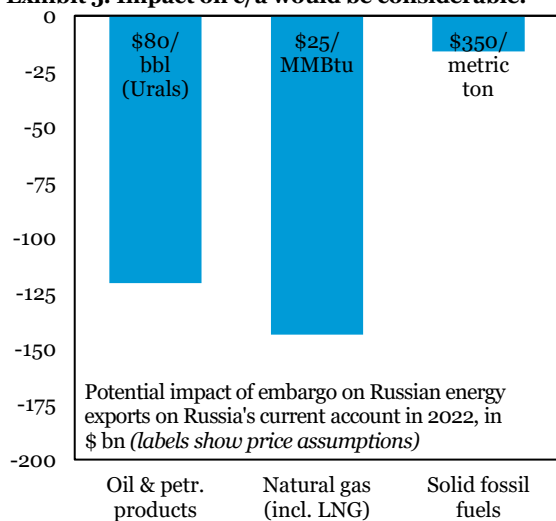


Source: CBR, EIA, Eurostat, IIF

While Russia’s overall role in a country’s energy mix is important, we also look at a second indicator to gauge the ability to replace Russia as a supplier in the case of an embargo: the share of Russian imports within total oil and natural gas imports (Exhibit 3). The share is generally much lower for oil and petroleum products than for natural gas. This is not surprising as more suppliers exist, and, even more importantly, oil supply routes are more flexible. Although the role of LNG is quickly rising, natural gas is largely transported via pipeline; thus, the transportation network has substantially higher sunk costs and cannot be adjusted as quickly and flexibly as the routes of oil tankers. Due to the geographic proximity, Russia’s role as Europe’s largest natural gas supplier has been well-established for decades. Dependence on the country is highest in Central and Eastern Europe, including the Czech Republic, Hungary, Poland, Romania, and the Slovak Republic. With EU-wide reliance on Russian oil at 10% and on natural gas at close to 35%, an embargo on the latter would be a more complex undertaking.

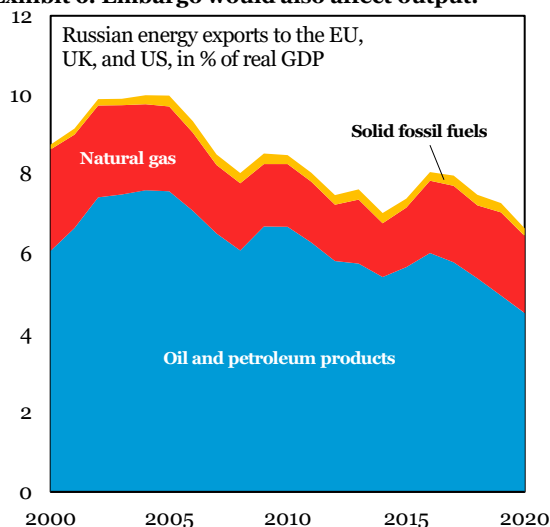
Changes are afoot, however, since Russia’s invasion of Ukraine. For example, Germany, which had supported and defended imports from Russia for years, is pushing for the construction of four LNG terminals with a total capacity of 50bcm by 2025-26. The capacity is slightly below Germany’s current annual natural gas imports from Russia. Due to limitations regarding the European pipeline system’s ability to flexibly distribute natural gas, especially from Western European LNG terminals to Eastern European countries, a greater geographical distribution of terminals will be critical. In recent days, the U.S. [promised](#) the EU an additional 15bcm of LNG in 2022, a more than 30% increase compared to 2021 but still only around 10% of Russia’s deliveries in 2021.

Exhibit 5. Impact on c/a would be considerable.



Source: EIA, Eurostat, IIF

Exhibit 6. Embargo would also affect output.

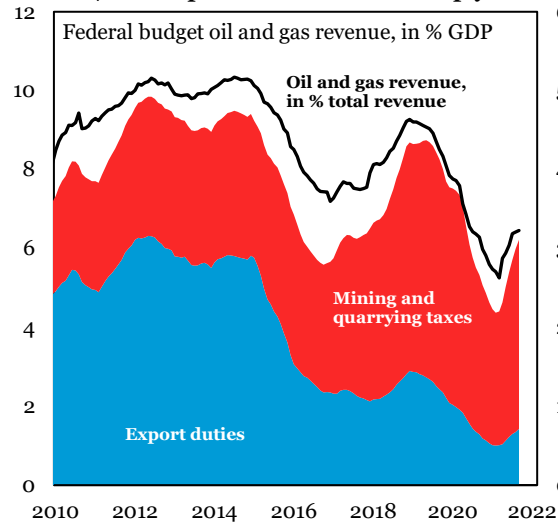


Source: CBR, EIA, Eurostat, IIF

From Russia’s perspective, an embargo on energy exports by the EU would have a dramatic impact—on economic activity as well as external balances. The EU, UK, and the U.S. account for close to 55% of Russia’s oil and petroleum product exports and more than 60% of natural gas exports, both in volume terms (Exhibit 4). We estimate that a total embargo by the three economies would lead to a loss of roughly \$120 bn in oil and petroleum product receipts (at a Urals price of \$80/bbl) and around \$145 bn in natural gas receipts (at a price of \$25/MMBtu). An embargo on coal exports, which has also been discussed, would be less impactful at around \$15 bn (Exhibit 5). It is important to acknowledge that the implications of a stop of Russian energy imports by the EU, UK, and the U.S. would be compensated for, to an extent, by a redirection of oil and coal exports to other destinations, including China and India. Due to the lack of pipeline infrastructure, the situation will be considerably different for natural gas. While some European countries are still resisting an embargo, oil traders have substantial reluctance to acquire Russian oil. Anecdotally, even shipments at a heavily discounted price (\$35/bbl below Brent) have not found buyers at times.

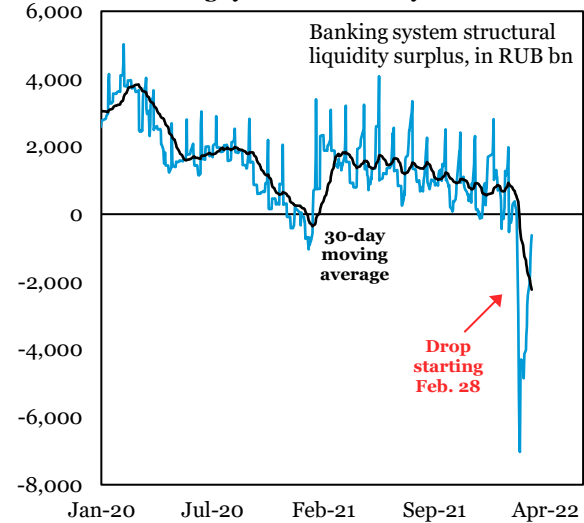
Another interesting development in recent days is Russia’s decision to require payments in Ruble for natural gas. We don’t believe that this will fundamentally alter FX dynamics. Currently, exports will exchange U.S. Dollars received in return for natural gas deliveries for Rubles at the central bank, thereby providing the CBR with additional foreign currency. Should buyers pay for deliveries in Rubles, they will likely have to exchange U.S. Dollars for local currency at the central bank, leading to the same outcome. However, should this be implemented, entities from sanction-imposing countries would be forced to interact with a sanctioned entity, the CBR, putting them in an uncomfortable position. Ultimately, as delivery contracts specify the currency of a transaction, we assign a low likelihood to European importers to pay in Rubles for natural gas.

Exhibit 7. Fiscal pressure could rise sharply.



Source: Ministry of Finance, Rosstat, IIF

Exhibit 8. Banking system hard hit by sanctions.



Source: CBR, IIF

Returning to the question of an energy exports embargo’s effects on the Russian economy, we estimate that oil and petroleum products, natural gas, and coal accounted for 6.5% of GDP in 2020. Thus, the 15% output contraction that we forecast in our baseline scenario is surrounded by considerably downside risk. Leaving aside the potential rerouting of exports to other countries, an EU, UK, and U.S. embargo could lead to a GDP contraction of above 20%, with net exports’ contribution turning markedly negative. Sharply lower exports and eventually extraction of hydrocarbons will also substantially impact Russia’s fiscal accounts. In recent years, oil and gas revenues stood at around 6% of GDP and 30% of total revenues. While reliance on oil and gas-sector-related revenue has decreased over the past decade, an embargo would still widen the deficit and/or force drastic spending cuts. With foreigners banned from participating in the local market for new sovereign debt (OFZ) and the Eurobond market, domestic financial institutions will have to provide the bulk of the funding. However, sanctions have led to a dramatic drop in banking system structural liquidity, resulting in the largest liquidity deficit on record (Exhibit 8).

In future publications, we will continue to assess existing sanctions and discuss additional measures. One key area could be Russian financial institutions’ access to SWIFT. Only seven banks have been disconnected from the system, with VTB, Otkritie, Sovcombank, and Rossiya the largest. We estimate that these institutions account for roughly 22% of total banking system assets. Thus, room remains for a tightening of sanctions should the situation in Ukraine require further actions.