Ukraine invasion is driving energy prices higher

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Global oil inventories were already strained heading into 2022, hovering around the lowest levels since 2014. The crisis in Ukraine is further straining the supply/demand balance in energy markets and is pushing prices to their highest levels in recent history.

Given the impact of recent events on energy markets, we present our updated views on supply, demand, inventory and the impact of higher geopolitical risk premium on price expectations.

The crisis hits global supply

Russia is a major exporter of oil and natural gas. It is the third largest global oil producer, representing 10% of the world's oil (10 million barrels per day), half of which is exported.[1] Russia also supplies 35%–40% of Europe's natural gas usage.[2] The impact of the current crisis on global oil supply could total 1.5 million–2 million of barrels per day, at a time when oil markets are already very tight. Oil exports from Russia to the U.S. and Europe are being disrupted by the U.S. ban on Russian oil, the U.K.'s gradual phaseout of Russian oil (and oil product imports) and private sector self-sanctions of oil from Russia on moral grounds. Notably, the EU has not issued a formal ban on Russian oil imports (2.6 million barrels per day[3]) and there are several large non-sanctioning countries (e.g., China, India) that are still importing oil from Russia.

At the same time, the current supply of natural gas from Russia to Europe continues undisrupted. Given the importance of Russian natural gas within Europe, a ban is unlikely as it would require significant rationing of natural gas usage. The U.S. does not import natural gas from Russia, so its ban on Russian imports of natural gas is largely symbolic.

Options for supply replacement are limited

With supply already constrained, the options to replace Russia's oil supply in global markets are limited:

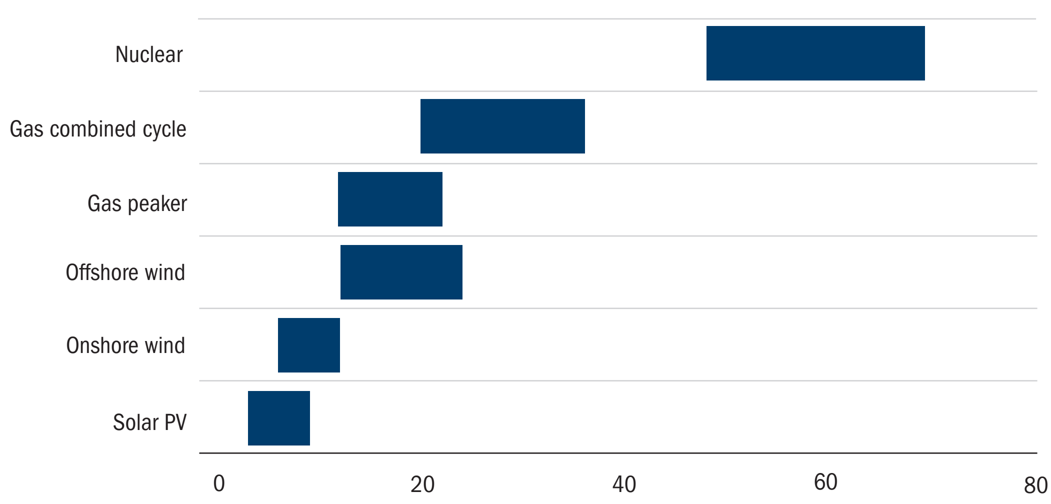
- **Strategic oil reserves**. The initial announcement by the International Energy Agency of a coordinated effort across countries to deploy 60 million barrels from reserves wouldn't have made much of a dent in supply, as it represents only two weeks of Russian crude exports. More recently, the Biden administration announced a planned release of one million barrels per day for six months from the strategic petroleum reserves (SPR), the largest release in U.S. history. Such a release would draw down the current U.S. SPR of 568 million to 388 million barrels, a level not seen since the mid-1980s. President Biden also indicated that other countries would join the effort. The additional barrels will help balance supply and demand in the near term but further reduce global inventory levels. In addition, future demand will be bolstered by the need to restock the SPR.

- **Iran** Iran's oil exports have been limited in recent years due to U.S. sanctions. Production may come back online should a nuclear agreement be reached, but this does not appear imminent. In this scenario, we are modeling an incremental 800,000 barrels per day in 2022.
- **Venezuela** Given that current production levels of 0.6 million barrels per day relative to more than 2 million barrels per day in the past decade, there has been discussion that Venezuela could add back supply. However, production is highly unlikely to ramp up in the short term due to significant underinvestment in maintenance and operations for so many years. The heavy nature of Venezuela's oil and the lack of remaining energy service industry to support the growth would also impede these efforts.
- **U.S.** Production is up from a low of 9.7 million barrels per day during the height of the pandemic, but it is still below the pre-COVID peak of 13 million barrels per day. We expect U.S. production to increase by the end of the year but remain below pre-COVID levels.
- **OPEC+** Production for OPEC+ countries is ramping up from COVID-related production cuts. The addition of 0.4 million barrels per day per month is expected to be completed by September 2022. But production has been falling short of OPEC+ quotas as some countries have struggled to add back supply quickly enough due to underinvestment during the 2020 downturn. Additional supply from the UAE and Saudi Arabia is possible if OPEC+ quotas are restructured with the loss of Russia.

The alternatives to Russia's supply of natural gas are even more limited. Given Europe's high dependence on Russian natural gas (35%–40% of consumption),[4] there is very little near-term flexibility for replacing Russian supply. Countries could offset some loss of natural gas supply by relying more on coal for power production in the short term — despite ambitions to exit coal — and delaying closures of nuclear plants. In the medium term, Europe will likely sign contracts for natural gas supply with other countries. Longer term, this incentivizes Europe to accelerate renewable power generation to improve energy security.

There are also significant challenges to bringing alternative energy sources online. It could take a significant amount of time to bring alternatives to market (Exhibit 1). Nuclear power plants, for example, have been in various stages of decommissioning and cannot be brought back online. Offshore and onshore wind supply is facing disruption and bottlenecks — the median delivery time for turbines is about 11 months, and construction of onshore wind farms takes six to 12 months.

Figure 1: Project construction timelines (number of months)



Source: Bloomberg Intelligence, Energy Information Administration, Sargent & Lundy

The possibility of demand destruction is unclear

We had increased confidence of a return to normal in demand, with a return to prepandemic levels expected by mid-2022. The spike in oil prices has led to discussion of demand destruction — a level of prices high enough that it would begin to have a negative effect on demand. Currently, there are no signs of such an impact on demand, and there's a lot of uncertainty about what that price might be. Most analysts believe that demand destruction could occur at prices higher than $120. The most recent example of such demand destruction was in 2008 at $120-$140 per barrel.

Rising geopolitical risk premium

Our most recent outlook for oil prices in January notably included the potential impact of geopolitical risk premium on price. When the oil market is loose and oversupplied, there is a negligible impact of geopolitical risk on price. But because supply is tight and inventories are low, risk of supply disruptions due to geopolitical events has a meaningful impact on oil price. The risk premium increased significantly as tensions mounted between Ukraine and Russia. As a historical rule of thumb, the geopolitical risk premium has ranged from $5 to $15. Following Russia's invasion, the geopolitical risk premium embedded in the oil price has skyrocketed. In today's market, which is characterized by supply and demand dynamics that are constraining inventories, we believe a high geopolitical risk premium will be sustainable on a persistent basis until the supply/demand outlook for 2023 improves or inventory — currently ~10% below the 5-year average on U.S./OECD inventories — returns to more normal levels.

Pricing continues to be driven by tight inventories

Prior to Russia's invasion of Ukraine, we expected global oil supply/demand to be roughly balanced in 2022. However, assuming only modest demand destruction from Russia itself, the market could now be nearly one million barrels per day undersupplied this year, driving oil inventories even lower. While global oil markets are likely to adapt to the disruption and additional supply could find its way to market in 2022 and 2023, inventories will remain below the 5-year average and not likely to normalize for some time. We are raising our oil price forecasts for 2022 to $91/barrel on average from $73/barrel reflecting the full impact of the geopolitical risk premium due to the indirect and direct implications of Russia's invasion.

Additional price volatility could come from uncertainty relating to: the potential for additional supply from Iran depending on the outcomes of negotiations; U.S. production could grow faster than anticipated; there could be a slowdown in demand due to the potential for an economic slowdown (if interest rates rise); reduction in OPEC space capacity; unintended consequences of policy marker decisions in energy transition efforts; and geopolitical risk growing even further should the conflict escalate.

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[1] Source: Bloomberg, L.P.
[2] Source: Columbia Threadneedle Investments.
[3] Source: "Ukraine crisis could hit Russia-Europe oil flows." Energy Intelligence. Jan. 26, 2022.
[4] Source: Columbia Threadneedle Investments.

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