

S&P Global Ratings Raises Oil And Gas Price **Assumptions On Persistent Geopolitical And Supply Concerns**

April 28, 2022

Table 1

- S&P Global Ratings raised its Henry Hub and AECO natural gas price assumptions for the remainder of 2022 and 2023. We raised our Title Transfer Facility (TTF) price assumptions for 2023 and our 2024 long term price assumption. We also raised our Brent and West Texas Intermediate (WTI) oil price assumptions for 2022 and 2023.
- We expect natural gas prices to remain elevated over the next couple of years as European countries look to reduce their reliance on Russian-sourced natural gas and increase sourcing of liquefied natural gas (LNG) from the U.S. Furthermore, global economic reopenings and the ongoing energy transition to more climate-friendly energy sources will continue to sustain higher gas prices.
- Oil prices will remain volatile as users of Russian oil continue to look elsewhere and as EU restrictions on May 15 begin to take effect. However, COVID-related lockdowns in China continue to counter concerns about supply shortages from Russia.
- Although we anticipate the higher oil and natural gas price assumptions will lead to improved near-term leverage metrics for oil and gas producers at all rating levels, we remain focused on investment-grade issuers' financial policies and their intended use of any additional cash flow over the next one to two years. Many speculative-grade issuers already have very strong credit measures, with ratings for the most part capped, pending improvement in their business risk profiles. Consequently, we do not expect our near-term oil and natural gas price deck changes to result in widespread upgrades to the exploration and production (E&P) portfolio.

S&P Global Ratings' Oil And Natural Gas Price Assumptions

| | New Prices | | | | | Old Prices | | | | |
|----------------------|-----------------|----|-------------------------|--------------------|-------------------|-----------------|----|-------------------------|--------------------|-------------------|
| | WTI (\$/bbl) | | Henry Hub (\$/mmBtu) | AECO (\$/mmBtu) | TTF (\$/mmBtu) | WTI (\$/bbl) | | Henry Hub (\$/mmBtu) | AECO (\$/mmBtu) | TTF (\$/mmBtu) |
| Remainder of 2022 | 85 | 90 | 5.75 | 4.25 | 30 | 80 | 85 | 4.75 | 3.5 | 30 |
| 2023 | 70 | 75 | 4.25 | 3.25 | 25 | 65 | 70 | 3.75 | 3 | 18 |
| 2024 and beyond | 50 | 55 | 2.75 | 2.25 | 15 | 50 | 55 | 2.75 | 2.25 | 12 |

bbl--Barrel, WTI--West Texas Intermediate, mmBtu--Million British thermal units, AECO--Alberta Energy Co. TTF--Title Transfer Facility, Note: Prices are in U.S. dollars and are rounded to the nearest \$5/bbl and \$0.25/mmBtu. Source: S&P Global Ratings.

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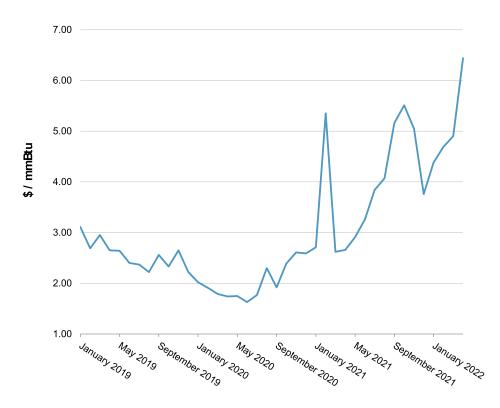
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We Raised Our Henry Hub, TTF, and AECO Natural Gas Price **Assumptions**

Typically, natural gas demand and prices wanes as the weather warms. Yet, North American natural gas prices continue to increase. This is due to several factors that we believe will remain in place for the next couple of years.

Chart 1

Henry Hub Price

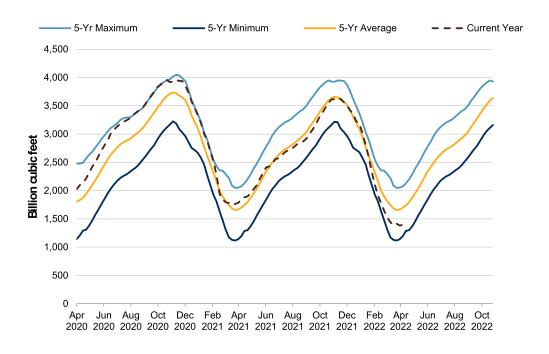


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Following two years of the pandemic, the economy in North America has strongly rebounded and coupled with an insufficient response in supply (driven by producers' capital discipline), U.S natural gas inventory levels are at a three-year low and 25% below the five-year average heading into the restocking season.

Chart 2

U.S. Natural Gas Inventory



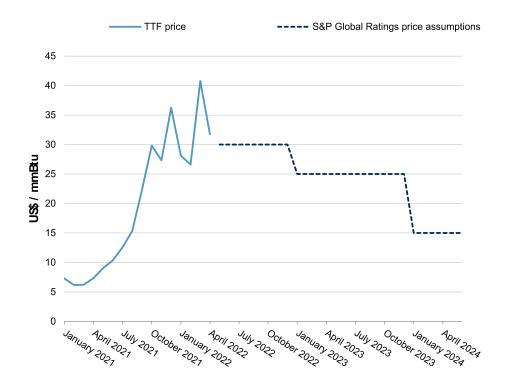
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Similarly, Canada's natural gas in-storage is about 220 billion cubic feet (bcf), which is over 100 bcf lower than the same period last year, further supporting current higher pricing levels.

North American gas supply growth remains subdued as companies continue to heed investor sentiment to limit capital spending (capex) and production growth, and to direct free cash flow for shareholder enhancement. We also expect record LNG demand from Europe will continue to surge as EU sanctions take hold and many European countries look to reduce their exposure to Russian natural gas. Given the logistics, we believe North America is best suited to respond to this demand. The EIA predicts that by 2025, LNG export capacity will grow by 3-4 bcf/day (bcf/d) to 16-17 bcf/d, and that the majority of it will find its way to Europe. We also believe the current high level of LNG exports from the U.S. lower 48 should extend to supporting demand for Canadian natural gas through 2023. Moreover, natural gas is gaining acceptance as a bridge fuel in order to meet increasingly stringent global emission regulations.

Chart 3

TTF Prices



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The extreme geopolitical uncertainty from the Russia-Ukraine conflict continues to compound the already tight European gas market. Even though Russia continues to supply gas to most major markets, concerns about sufficient gas persist, given sanctions on Nord Stream 2 and risks related to Ukrainian transit, as well as potential sanctions and the new payment mechanism instigated by the Russian government. High prices are supported by the structural decline in Europe's indigenous production and the fact that most global LNG supply is locked into long-term contracts. Still, as the heating season in Europe is over and Asian LNG demand shows some price-sensitivity, we believe prices of about \$30 per million British thermal unit (mmBtu) could be sufficient to justify gas demand destruction and redirect flexible LNG cargoes from Asia for the rest of 2022. The 2022-23 heating season will be tight, and Europe's plan to refill gas storages to 80% by Nov. 1, 2022, and 90% by Oct. 1, 2023, adds price pressure. The planned phaseout of coal-fired and nuclear power generation in Europe, as well as the lack of energy storage to complement intermittent renewable generation, leaves limited feasible alternatives to gas in the next year or longer.

At this stage, the full ban of Russian gas in Europe is not part of our base case. Despite recent announcements about potential Russian supply stoppages to Poland and Bulgaria, who refused to use the new euro-to-ruble payment mechanism, shipments to Germany, Italy, Hungary and other big markets continue. Still, a material cut in Russian gas supply remains a clear downside, and could trigger additional volatility spikes and possibly government intervention.

We have raised our price assumptions for 2023 and 2024 because we expect market rebalancing

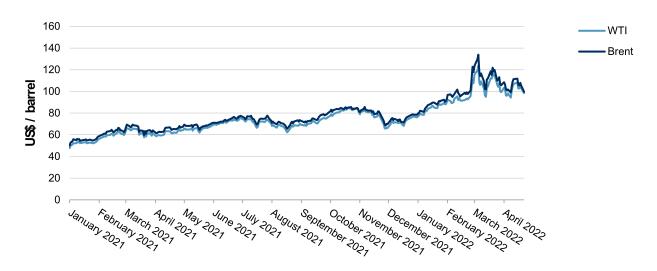
to take longer, due to structurally limited volumes available for spot sales or redirection before large new LNG production capacity comes on stream by 2025. Longer term, we can see TTF declining to about \$8, at a \$5 premium over Henry Hub.

Oil Prices Will Remain Volatile

Oil prices, although at credit supportive levels, remain highly volatile and are exhibiting a high political risk premium due to the Russia-Ukraine conflict.

Chart 4

WTI And Brent Spot Prices



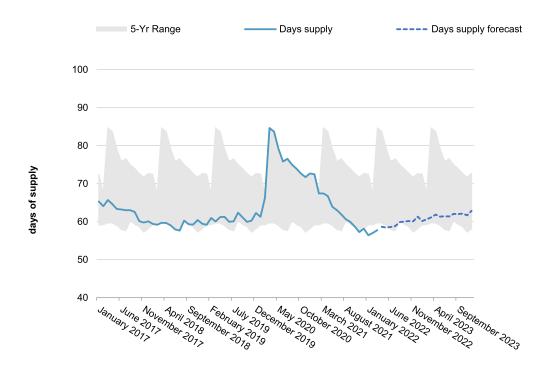
Source: Bloomberg.

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Prices currently are lacking direction and are gyrating over concerns about further EU sanctions of Russian oil and demand destruction from China lockdowns to combat the spread of COVID. Nevertheless, the underlying fundamentals of supply and demand remain supportive for strong prices. The supply side of the equation is benefitting from the same public producer discipline supporting North American gas prices and OPEC remains steadfast in its discipline to keep production quotas. North American producers, even if they wanted to increase production, would not be able to quickly do so as labor shortages and supply chain issues would delay well development. We believe new well development from spud to production would take close to nine months. OPEC has some spare capacity, mostly with Saudi Arabia and the U.A.E., but has demonstrated little willingness to increase production more than their stated pace of 400,000 barrels per day (bbl/d) per month. Moreover, the prospects of offline Iranian production (around 1.5 bbl/d) coming back on line anytime soon seems to be diminished. The demand side of the equation is still benefitting from global economic reopenings and pent-up consumer demand for vacations, travel, and leisure. This has resulted in reported inventory levels at or near five-year lows, which means any potential disruption to supply could result in quick and meaningful price increases.

Chart 5

OECD Commercial Stocks Of Crude Oil And Other Liquids



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Later in 2022 and 2023, the demand growth trajectory may be tempered in tandem with weaker market expectations for economic performance as inflation and interest rate headwinds are coupled with conflict-related challenges.

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