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As Capacity Thins, How Tight Could Oil Market Get?

How tight could the oil market get in the coming years as spare capacity fears mount? A preliminary Energy Intelligence analysis through 2024 shows the world should have enough crude and liquids supply to meet rising demand and still have 2.7 million barrels per day of spare capacity. But this would require everything to go right at a time when balances remain extremely vulnerable to unpredictable world events. Put simply, thin spare capacity means there is little room for error. The Ukraine war, the energy transition, the ongoing pandemic, the current natural gas crisis, and macroeconomic forces could all have large, unpredictable impacts. The biggest wild card will be how demand growth pans out in the coming years. High prices and recession pressures can seriously dent demand growth later this year and in 2023. The Energy Intelligence base case scenario sees demand growth of 1.9 million b/d this year, 1.3 million b/d in 2023 and a trickle more in 2024. Demand erosion fears are grappling with spare capacity and supply concerns for control of today's oil market. The recent slide in oil product prices suggests the market is more focused on demand fears, as consumers respond to high fuel prices. Refining margins show a red flag. They have fallen fast from record levels, with Singapore even showing a loss over the past week compared to a profit of $21 per barrel a month ago. US margins are down from $36 to $12/bbl over that period, and European margins have dropped from $31 to $8/bbl. This reflects lower consumer demand in the face of high prices, as well as recessionary effects in some regions.

On the face of it, our forecast for average annual demand growth of 1.5 million b/d for the 2022-24 period looks restrained. For 2023 alone, the International Energy Agency (IEA) predicts

(Please turn to p.4)

Volatile Markets Keep Opec-Plus Cautious

With less than a week before Opec-plus meets on Aug. 3, delegates say there is still no firm proposal on a new oil policy for after the current producer supply deal expires at the end of August. However, consensus has emerged around adopting a cautious approach to better manage exceptional oil market volatility. Deal expiry aside, this meeting will be carefully watched, especially as it comes after US President Joe Biden's visit to Saudi Arabia, which didn't result in any immediate oil production increase from the kingdom or any other Gulf Opec states. US officials tell Energy Intelligence they are still hopeful that the upcoming meeting will result in some joint effort to gradually add more supply, which they believe would help cool off oil prices. But with spare capacity still tight and only Saudi Arabia and the United Arab Emirates able to immediately ramp up supply, any increase in production is likely to be modest, according to delegates. Overall, the Opec-plus alliance could come to a smooth agreement on a new output policy since all member states see value in continuing to manage the markets jointly.

For Russia, there are two main priorities: maintaining production and exports in the face of Western sanctions and supporting high oil prices, which Moscow needs to sustain robust income since it must sell its crude at a significant discount. Energy Intelligence understands Moscow will resist any substantial production increase from Opec-plus members after August. These objectives do not collide with fellow Opec-plus co-leader Saudi Arabia's, as Riyadh is

Opec's View on the 2023 Supply-Demand Agenda

(million b/d)	2022	Q1'23	Q2'23	Q3'23	Q4'23	2023	Annual Chg.
Oil Demand	100.29	101.72	101.12	103.64	105.40	102.99	2.70
Non-Opec Supply	65.73	67.28	67.15	67.37	67.96	67.44	1.71
Opec NGLs and Non-Conventionals	5.39	5.44	5.47	5.43	5.44	5.44	0.05
Total Non-Opec Oil and Opec NGL Supply	71.13	72.71	72.63	72.80	72.88	72.88	1.76
Call on Opec Crude	29.16	29.01	28.50	30.84	32.01	30.10	0.94

Source: July 2022 Opec Monthly Oil Market Report

keen on maintaining its strategic partnership with Moscow. This was evident by the fact that Saudi Crown Prince Mohammed bin Salman held oil market discussions with Russian President Vladimir Putin immediately after Biden's visit. Sources say the two leaders remain closely aligned and will continue cooperation via the Opec-plus alliance. This new level of coordination could include how oil flows are directed after Western sanctions on Russia upended traditional trade patterns. Saudi Arabia is not opposed to the idea of gradually bringing in more supply but there must be market justification for it, officials said following the Biden visit. They also noted that adding more supply might not work to reduce prices due to concerns about dwindling spare capacity in the market. Energy Intelligence estimates Opec-plus' quickly available spare capacity at 3.32 million barrels per day based on June production, but this would narrow dramatically by September if Saudi Arabia and the UAE pump more.

Under-production continues to dog Opec-plus, with compliance levels now north of 200%. Nevertheless, the politically sensitive issue of revising baselines is unlikely to be addressed next week, delegates say. Energy Intelligence understands that the two likeliest outcomes may involve a moderate increase in supply in September or an extension of August quotas for another month. However, pressure for change will intensify. The UAE, in particular, wants to hike production within the Opec-plus framework, especially with Abu Dhabi National Oil Co. (Adnoc) speeding up its upstream expansion plan to 5 million b/d. Opec remains bullish on demand, with growth this year pegged at 3.4 million b/d and a healthy 2.7 million b/d in 2023, according to the group's latest Monthly Oil Market Report. This compares to growth rates of 1.7 million b/d and 2.1 million b/d for 2022 and 2023, respectively, projected by the International Energy Agency. More modest increases in non-Opec supply mean Opec thinks global demand for its crude will also rise by 940,000 b/d in 2023. This would be on top of a 1.66 million b/d projected rise in the call on Opec for the second half of this year. Theoretically, this should allow for some increases for those with capacity. But producers are likely to opt for caution, and it should be noted that projected 2023 demand growth is heavily weighted toward the fourth quarter.

Oil Supply Cut a Real Option for Russia

Natural gas prices have skyrocketed in Europe in response to the reduction of Russian flows via the Nord Stream 1 pipeline just to 20% of capacity. It begs the question: could the same thing happen in oil markets? Russian President Vladimir Putin has warned that it could in the face of Western embargoes on Russian oil and a developing price cap scheme. "We hear all sorts of crazy ideas about capping the volume of Russian oil imports or the price of Russian oil," Putin told reporters during his recent visit to Tehran. "This is going to lead to the same situation as with gas. The result will be the same — rising prices." In both oil and gas markets this year, Russia has shown that rising global commodity prices can offset lower sales volumes and result in higher income for Moscow.

The price cap planned by the G7 countries, which would be introduced with the EU oil embargo at the end of the year, could prompt an unwelcome response from Russia. Moscow could stop selling oil to countries imposing the cap, cut production outright, or set a "price floor" for its volumes, according to Russian officials and analysts. As with gas payments, Moscow could also try to switch to new currencies to settle oil deals. And this could happen before EU states and other "unfriendly countries" build up stocks before winter and before new restrictions against Russian oil come into force. There is already a strong push in Russia to end payments in US dollars and euros for oil exports and instead use Chinese and Emirati currencies, sources say. Moscow no longer needs as many dollars for imports due to Western restrictions blocking these purchases. The government is also devising a new budget rule that envisages the use of currencies of "friendly countries" by the Central Bank for its interventions to counter big gains by the ruble. But Western buyers of Russian oil say payment settlements continue as usual, mainly in euros, and it is doubtful that a switch to yuan would be acceptable to them. Earlier this year, Moscow demanded payments for its gas in rubles. Several European customers rejected the move and stopped receiving Russian gas a result.

Russian Deputy Prime Minister Alexander Novak has said that Russia would stop oil supplies if the price caps are lower than production costs. These range from $15 to $40 per barrel and will increase as Russia taps more hard-to-recover reserves in the future. Transportation expenses must also be factored in. Import replacement could add to future well costs, too. Moscow also plans to increase the threshold for sending additional income from higher oil prices to the rainy day National Welfare Fund, which would keep more cash for today. This will rise to $60/bbl from $44.20/bbl currently. Russia has already been selling its crude oil at a discount of some $30/bbl to Brent, putting it at about $80/bbl, and would like to maintain control of these discounts.

Cooperation with Opec-plus remains critical to Moscow as oil and gas market power provides important leverage over the West. Russia does not want any substantial increase in Opec-plus output after the group's current supply deal ends in September. The goal is to avoid a price decline and losing market share, but the issue of Russia's production capacity must be dealt with at some point in the future.

EU Looks to Gas Demand Cuts to Weather Winter

The EU is racing to cut its gas demand to avoid a winter crunch and realizes the quickest path is to free up the molecules it already has to store underground. The 27-member bloc passed a new plan to reduce gas use in Europe by 15% until spring 2023. The latest move signals a recognition that after all the frantic gas diplomacy following Russia's invasion of Ukraine, the push to diversify away from Russian piped gas by two-thirds this year ultimately has its limits. Cutting demand is now the mantra as Russia this week reduced flows via Nord Stream, Europe's largest gas pipeline, to 33 million cubic meters, or 20%, of the pipe's capacity from a previous 40%. This sent European gas prices soaring to their highest levels since March. The EU's "Save Gas for a Safe Winter" plan has its critics, who say exemptions for some countries and gas-hungry industries undercut its aims. But if the EU can maintain consensus, the plan could save up to 45 billion cubic meters from August to March. Russia's Gazprom said on Jul. 25 that flows via Nord Stream would plummet because of turbine maintenance issues. In reaction, the front-month (August) Dutch TTF gas futures contract surged the following day to €227.5 per megawatt hour (about $68/MMBtu) and has hovered above €200. EU officials say they hope to dampen the massive swings in prices driven by Moscow but privately admit to Energy Intelligence that there is little hope of returning to the price levels seen before the war. "We need to get rid of the Russian blackmail just to calm the markets," says one diplomat.

European analysts and diplomats swing between optimism and despair when describing the continent's gas storage levels. Currently storage sits about 67% full against a goal of having 80% of available storage filled by November. The reduction in Russian volumes on Nord Stream and further announcements of cuts to gas supplies through Ukraine will make accelerating storage gains even harder. Most agree Europe will have enough gas to get through this winter but whether it will exit the year with enough in storage to avert a catastrophe in 2023-24 is unclear. EU energy commissioner Kadri Simson insists deeper cuts to consumption are urgently needed and has already warned that countries have only reduced their combined gas demand by 5% despite months of dwindling supplies from Russia and soaring prices. On the sidelines of an EU summit in Brussels this week, ministers from some member countries claimed demand cuts in excess of 20% and said more is possible. Given the exemptions, one policy analyst familiar with the plan estimated a total savings of 30 Bcm might be more realistic. "I would say this is enough for this winter even if the winter is hard," said Raphael Hanoteaux, senior policy adviser for gas politics at policy group E3G. "The big question is what happens next winter if we end heating season with empty storage and then enter October 2023 in a horrible situation."

Cutting demand will require a mix of slashing energy usage, fuel switching and suspending environmental ambitions. At this week's extraordinary meeting of EU energy officials, ministers outlined the substitution of fuel oil into gas power plants, keeping coal plants on standby and delaying the phase out of nuclear power, as well as advancing renewable power capacity. Most officials say they have begun to address gas use at their government buildings but admit massive

public awareness campaigns are now needed to curb consumption. But with the International Monetary Fund warning last week that a Russian gas cut could plunge Europe into recession, the EU has little choice. The bloc needs solid results from its largest gas users — Germany, France and Italy, which account for 60% of the continent's total gas consumption. Germany and Italy are heavily reliant on Russian volumes. EU figures show the potential savings could be split roughly 50-50 from the effects of fuel switching and those of reduced energy demand. Brussels suggested governments could use auctions to allow industries that cut gas use to sell it to others and place limits on heating and cooling temperatures in public buildings. Households remain classified as "protected consumers" and would be shielded from such curbs.

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(Continued from p.1)

demand growth of 2.1 million b/d, while Opec sees 2.7 million b/d. But limited refining capacity is holding back product availability and keeping product prices high at a time when consumers are grappling with soaring inflation. Continued high oil prices are expected to accelerate efficiencies and increase use of alternatives. Jet fuel remains the big-ticket item that is expected to hike oil demand in the coming years. Fuel switching from high gas prices can be another big support. Gasoline is sensitive to high prices. Diesel remains tight. Until recently, the market has been exceedingly focused on supply disruptions from Russia, ignoring signals of deteriorating demand. New gas price spikes in Europe are set to cripple portions of the euro zone economy and slow growth there to a trickle. Global GDP momentum has continued to decline. The International Monetary Fund has cut its 2022 growth forecast by another 0.4 percentage points to 3.2%. Average annual oil demand growth for the 2010-22 period was 1 million b/d.

Non-Opec capacity increases will take the lead in meeting projected demand growth through 2024. The US, Canada, Guyana and Brazil are the key countries adding capacity. If demand comes in higher than expected, replenishing inventories will be slower, and more help from Opec-plus might be needed. That essentially means that Saudi Arabia and the United Arab Emirates — the only members with meaningful spare capacity — would need to pump more. Saudi Arabia is slated to add 675,000 b/d in new capacity in 2024. Russia remains the biggest wild card on the supply side, followed by Iran and Libya. In our forecast, Russian output drops by 1.3 million b/d in 2023 and another 200,000 b/d in 2024. The IEA says investments in new crude output capacity are not high enough to meet future demand, even with oil prices stubbornly around $100/bbl. But oil services giants like Schlumberger see an upstream boom that is not done yet, led by North America. Schlumberger CEO Olivier Le Peuch sees a "broad-based ... multiyear upcycle" around the world, with "spending visibly higher across all customer types." Our forecast sees the US posting supply growth of 1.1 million b/d in 2022, 1.2 million b/d in 2023 and 900,000 b/d in 2024.

Shipping Sanctions Pose Big Risk to Russian Exports

The EU embargo grabs headlines, but shipping sanctions on Russia's oil exports pose another big risk to oil markets in the coming months. The EU's plan to stop buying Russian crude by Dec. 5 and products by Feb. 5, 2023 will force about 2 million barrels per day of Russian petroleum to find new markets. That alone will be a challenge, but shipping restrictions could reduce Russia's ability to export its oil, even if Moscow finds other buyers. There are simply not enough non-Western tankers to keep all this oil flowing and avoid more severe supply disruptions elsewhere, which has forced the EU to allow some exemptions. Shipping sanctions could hit Russia's refined product exports particularly hard. The US Treasury Department reckons that 75% of Russia's refined products were exported on tankers with Western owners, insurance or financing. Greece alone handles almost 50% of Russian crude deliveries, traders note. Greece says it will comply with the plan despite owning about 20% of the world's shipping tonnage, including more than half of EU tonnage. But the recent EU decision to allow third-country shipments of Russian oil was primarily driven by Greek lobby interests in a bid to protect a vital business. This carve-out provision leaves a backdoor for exports as some of the third countries buying Russian crude will re-export it as diesel to Europe. However, lower-profile players that have stepped in to keep supplying Russian products to European customers could face trouble in December.

The EU import ban is set in stone. The EU shipping ban remains under discussion and could be waived for Western tankers under a price cap scheme on Russian exports. The price cap is under review by the US, EU, UK and other G7 nations. Its basic principle is to keep Russian oil flowing while restricting Moscow's income. But imposing a Western price cap on Russian fuels

could force Moscow to limit exports, jacking up global prices and defeating the purpose. Traders also think buyers could, on the surface, comply with the price cap but pay Russia more under the table, maintaining the flow of cash to Moscow. A price cap system "is not going to hold for anything that sails by sea," one broker noted. He says it could be defeated by issuing two bills of lading: one for Western scrutiny that shows the price cap as the official price for the cargo, and another that has the actual, higher price, including the additional payment for Moscow that could be settled in other ways. One trader said the whole price cap plan poses a danger to global supply. "The Russians would immediately cut production," he said.

Voluntary actions have already lowered EU imports of Russian crude by nearly 1 million b/d, and import volumes for both crude and products look weaker this month compared to June. Traders say that term contracts are rolling off, with only occasional cargoes trickling to the likes of Finland or France. Russia's Surgutneftegaz has stopped holding crude tenders. Alternative buyers, led by China and India, are now picking up additional Russian cargoes. China and India will take the bulk of displaced Russian crude, but they won't take all of it to ensure supply diversity. Both countries reduced imports of spot Russian oil in June, and again in July. Meanwhile, fresh spikes in gas and LNG prices have enticed countries to burn cheap Russian fuel oil instead of gas, either to save on the costs (Bangladesh, Pakistan) or to monetize their own gas or crude oil rather than burning it (Egypt, Saudi Arabia).

More Russian volumes could flow to countries that have traditionally not taken much, notably in Africa. More gasoline has already shipped to Nigeria, and Brazil will buy some Russian diesel. However, Russian product exports are wilting — a big concern for product-short global markets. Russian product exports from the Baltic and Black Sea ports fell to 1.7 million b/d in the first three weeks of July from 2.4 million b/d before the war. Russian seaborne crude exports from these ports are just below pre-war levels and down 400,000 b/d from post-war peaks of 2 million b/d. Despite a steep 500,000 b/d rebound to 10.7 million b/d in June, recent data suggest Russian oil production may have plateaued.

Services 'Upcycle' May Not Add Much Supply

The Big Three oil services companies — Halliburton, Schlumberger and Baker Hughes — all reported sequential jumps in revenue in the second quarter and struck a decidedly bullish tone looking ahead, predicting their boomtime will last for years. Halliburton executives used the word "upcycle" no fewer than 15 times on the Houston-based company's earnings call. Their counterparts at rival Schlumberger used the same phrase on their own investor call, while Baker Hughes — despite posting a $839 million net loss due to Russia-related write-downs in April-June — was still optimistic enough to talk of a "multiyear upstream spending cycle" in its earnings release. Explaining that the world was facing a "structural oil undersupply problem" that no economic slowdown would solve, Halliburton CEO Jeff Miller even suggested the current upturn would be more lucrative for his firm than any that had come before, since operators were currently drilling more wells by focusing on "known resources" rather than long-term exploration programs.

But such proclamations clash with continued pledges of capital discipline by Western oil majors. These firms say they will keep capital expenditures within promised ranges, implying modest but not huge growth. Continued warnings of underinvestment in the upstream sector by Opec and the International Energy Agency also suggest that capex may still be insufficient. Indeed, majors warn that higher spending plans reflect soaring cost inflation. While this is a boon for services industry profits, it means producers are getting less bang for their buck with upstream investments. Shell CFO Sinead Gorman assured that the company's upstream spending in 2022 would remain around $7 billion-$9 billion. "That's the range and we're very, very disciplined around that," she said. TotalEnergies now thinks 2022 capex will come in "closer to $16 billion," according to CEO Patrick Pouyanne, who provided annual guidance of $13 billion-$16 billion for the 2022-25 period in March. Equinor maintained its medium term annual capital spending guidance at $10 billion for 2022-23 and $12 billion for 2024-25. But it also flagged concern over significant cost inflation and supply chain disruptions.

To be sure, service giants acknowledge that bumper profits are down to a mix of increased upstream activity and rocketing services rates due to supply-chain issues and labor shortages. Regionally, they say the Middle East could be one of the strongest markets in 2022, with much of the business coming in the second half of the year as capital budgets increase, while Latin America — led by Brazil and Mexico — is another market generating strong orders, said Baker Hughes CEO Lorenzo Simonelli. Halliburton's Miller concurred the Middle East was still in "early innings" for now, while Schlumberger boss Olivier Le Peuch noted oil capacity hike commitments by Opec members

Saudi Arabia, the United Arab Emirates and Kuwait were still to play out as Western countries look to replace Russian barrels. Indeed, some national oil companies in the Middle East like Saudi Aramco and Abu Dhabi National Oil Co. (Adnoc) are investing more aggressively in upstream capacity than Western majors. In the US, privately owned shale producers, which don't face the same investor pressures for capital discipline as their publicly owned counterparts, have been most responsible for the rising rig count. However, Schlumberger also noted that its second-quarter US offshore revenue growth was more than twice as fast as US land, boosted by increased exploration data licensing in the Gulf of Mexico.

Services cost inflation still has room to accelerate but will be manageable for upstream-weighted companies as long as oil and gas prices — and their earnings — remain high. A steep and sudden decline in prices, however, could reduce upstream activity and halt the services boom's momentum. Equinor CFO Ulrica Fearn noted that while most of Equinor's capex guidance is linked to its sanctioned projects portfolio where a lot of its contracts are already locked in, "our non-sanctioned portfolio is more exposed" to macro uncertainty. Barclays in a recent note confirmed that "service companies now have pricing leverage in North America. The only question is the pace of pricing gains over the next 12 months." The bank pointed out that the lack of drilling rigs and other equipment in today's market had resulted from an industry-wide focus on capital discipline. Short-cycle barrels, such as US shale, will be sensitive to any sharp drop in oil prices, it added.

Mideast Keeps Adding Market Share in China

China's imports of Mideast crude surged in the first half of 2022 despite a plunge in the country's overall oil imports and an influx of cheap Russian barrels into Asia. Mideast producers were able to capture a greater share of the world's most coveted oil market in the face of new challenges, building on the notable gains they made in 2021. Demand patterns and pricing dynamics will help determine how the trend plays out in the rest of the year. Chinese crude imports averaged 10.23 million barrels per day in the first six months, plummeting by 331,000 b/d from the same period last year, according to Chinese customs data. Widespread Covid-19 lockdowns, refinery run cuts ahead of the Winter Olympics in Beijing and soft domestic refining margins contributed to the drop. Still, Chinese refiners doubled down on Mideast crude, landing 5.4 million b/d in the first six months — up 303,000 b/d from the same period in 2021. Mideast crude's share of total Chinese imports was 52.8% in the first half, up 4.5 percentage points from a year earlier. This continues a trend for Mideast producers, which have seen their market share in China rise steadily in recent years — in 2020 their share of overall Chinese imports was 46.7%.

China's appetite for Mideast crude this year has been bolstered by the plunge in the Mideast benchmark Dubai price, which at one point hit a record low relative to international marker Brent. Unsurprisingly, Chinese refiners have also favored Mideast grades over less competitive, long-haul arbitrage crudes. The Brent-Dubai Exchange of Futures for Swaps (EFS), which broadly tracks Brent's strength relative to Dubai, widened dramatically, especially after Russia's Feb. 24 invasion of Ukraine. On Mar. 9, the Brent-Dubai EFS spiked to $14.38 per barrel — its highest level in Energy Intelligence records dating back to 2004. The Brent-Dubai EFS averaged $6.02/bbl in the period when the market was buying term Mideast crudes that arrived in the first half of 2022. That is up from $1.49/bbl in the same period in 2021. This made Mideast crude more attractive than Brent-priced arbitrage crudes, prompting Chinese refiners to turn away from those long-haul crudes. Chinese imports of North Sea and African crudes, which are predominantly priced off Brent, plunged by 527,000 b/d to 1.43 million b/d year-to-year in the first half.

China's imports of Russian crude also grew in the first half, as Moscow offered steep discounts to keep its oil exports flowing in the face of Western sanctions. Imports of Russian oil rose significantly in May and June, and they could hit nearly 1.9 million b/d this month. There may be an opportunity for China to buy more cheap Russian oil in the second half since Moscow must find alternative markets for another 1 million b/d ahead of the EU's embargo, which takes effect by year-end. Around 1.1 million b/d of seaborne Russian crude has arrived at Chinese ports in the first 25 days of July, according to data analytics firm Vortexa. If that average holds up and China imports the same 774,000 b/d of Russian pipeline crude that it took in June, total Chinese imports of Russian crude could be around 1.87 million b/d this month. China officially imported 1.78 million b/d of Russian crude in June and a record high 1.99 million b/d in May. Some market sources believe China could be under-reporting its June crude imports from Russia by relabeling their country of origin. Officially, China imported 1.67 million b/d of Russian crude in the first half, up 63,000 b/d from the same period last year.

China H1 2022 Crude Imports

('000 b/d)	H1'22	H1'21	Chg.
Middle East	5,404	5,101	303
Saudi Arabia	1,752	1,773	-20
Iraq	1,083	1,059	23
UAE	787	579	208
Russia	1,673	1,610	63
Malaysia	449	299	150
North Sea	270	531	-262
Africa	1,165	1,430	-265
Angola	696	808	-111
US	180	332	-152
Latin America	805	997	-192
Total	**10,227**	**10,557**	**-331**

Source: Chinese customs data

What's New Around the World

COUNTRIES

CANADA — Canada is weighing two options for an oil and gas industry cap on greenhouse gas emissions in support of its economy-wide reduction goals: an industry-specific carbon price and a sector-wide cap-and-trade system. The preferred options for enforcing a cap on oil and gas emissions were outlined earlier this month by the Canadian federal government, which is accepting comments through Sep. 30. Several questions are under consideration as both options are examined, including whether to give more flexibility to smaller emitters; whether to exempt refineries and natural gas transmission lines; and how stringently to set or ratchet up the cap's trajectory over the next decade through 2050. Ottawa is targeting economy-wide emissions cuts of 40%-45% below 2005 levels by 2030 and net-zero emissions by 2050. Reducing emissions from the oil and gas sector, which is responsible for 27% of Canada's emissions, is considered a major prong of the strategy to get there. But questions remain over how exactly the government might enact a cap, including whether and how different provinces might have leeway in implementation.

INDIA — India's Reliance Industries said it expects refining margins to remain high due to strong demand for petroleum products and limited global refining capacity, but it also flagged growing concerns about a possible recession. During a quarterly earnings call, the company's joint chief financial officer, Venkatchari Srikanth, said the easing of Covid-19 lockdowns in China should support growth in consumption of transportation fuels this year. As a result, Reliance sees global oil demand rising by 1.7 million b/d to 99.2 million b/d in 2022. The EU's decision to ban imports of refined products from Russia from next February is likely to boost demand in Europe for imports of middle distillates from Asia and the Middle East, which should support margins, Srikanth said. However, that assumption could be countered by the challenging macroeconomic environment. Srikanth noted that central banks have been raising interest rates as they seek to tame runaway inflation and that this has fueled concerns about a global economic slowdown or a full-blown recession. Reliance reported a net profit of 179.6 billion rupees ($2.3 billion) for the April-June quarter. That was up 46% versus the same period of last year, but fell short of analysts' expectations.

KUWAIT — Kuwait appointed its current ruler's son as prime minister on Sunday amid hopes that he can deliver some much-needed reforms. A change at the oil ministry is also likely in due course. Sheikh Ahmad Nawaf al-Sabah — who was deputy prime minister and interior minister in the outgoing government — is taking over from caretaker prime minister Sheikh Sabah al-Khalid. Political appointments in Kuwait have frequently failed to deliver substantive reforms. But Sheikh Ahmad comes to his post with a mandate to drive real change, analysts say. Kuwait's oil industry has gone through a troubled few years, with production capacity slipping and serious delays at several downstream projects. But momentum has picked up lately, helped by the appointment of Sheikh Nawaf al-Sabah as the new head of state-owned Kuwait Petroleum Corp. in March. Refinery runs are up, following the completion of the multibillion-dollar Clean Fuels Project late last year, and commissioning has begun at the country's new 615,000 b/d al-Zour refinery, with start-up expected by year-end. In the upstream, Kuwait and Saudi Arabia are teaming up for development of their shared Dorra gas field, which Kuwait says is capable of producing 1 Bcf/d. Separately, Kuwait is also undertaking its first offshore exploration program.

SOUTH KOREA — South Korea landed just 2.47 million b/d of crude in June, its lowest level since March 2021, according to data from the Korea National Oil Corp. (KNOC). Volumes fell by 164,000 b/d from May. Saudi crude imports suffered the biggest decline, dropping by 171,000 b/d from May to 706,000 b/d in June — their lowest level in nearly a year. The declines in overall Korean imports were likely driven mainly by lower refining runs, which dropped by 103,000 b/d from May to 2.64 million b/d in June, with run rates losing 2.9 percentage points to a relatively low 74.5%. Imports of Russian crude stayed mostly stable at 26,000 b/d in June, up by a slight 3,000 b/d from May. But this is a considerable decline from pre-Ukraine war volume — South Korea imported an average of 147,000 b/d of Russian crude in 2021.

South Korea's Top Crude Suppliers

('000 b/d)	Jun '22	May '22	Chg.	Jun '21	Chg.	Jan-Jun '22
Saudi Arabia	706	877	-171	732	-26	876
US	257	319	-62	379	-122	377
Iraq	251	224	27	129	122	204
UAE	228	158	70	150	78	165
Kuwait	219	219	0	228	-9	310
Kazakhstan	210	103	108	98	112	145
Mexico	148	79	69	98	51	109
Qatar	116	163	-47	149	-33	135
Australia	84	127	-42	44	40	66
Brazil	65	30	35	130	-64	64
Others	184	334	-150	535	-351	318
Total	**2,469**	**2,633**	**-164**	**2,672**	**-204**	**2,771**

Source: Korea National Oil Corp.

RUSSIA — Rosneft said it has started development drilling at the Payakha field — part of its Vostok Oil megaproject in Russia's onshore Arctic region. By the end of this year, it expects to drill 80 wells at Payakha. The move shows Rosneft's determination to press ahead with the showcase project, even as Western partners cut their ties with the state-controlled Russian oil giant, which was hit by sanctions after Russia invaded Ukraine earlier this year. Vostok Oil chief Vladimir Chernov said the project is on track to reach output of 600,000 b/d in 2024 and 2 million b/d in 2030, as planned. Oil trader Trafigura recently sold its 10% stake in Vostok Oil, while its peer Vitol also plans to divest its 3.5% stake in the project. BP, meanwhile, has said it will sell its 19.75% strategic holding in Rosneft in protest of the war in Ukraine. Payakha is estimated to hold more than 7 billion barrels of resources and production from the field is scheduled to start in 2024. Vostok is already producing more than 300,000 b/d from the operational Vankor group of fields.

UNITED STATES — Biofuels developer Gevo has struck a new offtake deal for 100 million gallons/yr of sustainable aviation fuel (SAF) with American Airlines, marking the Colorado-based company's largest single fuel sales deal to date. Gevo expects the 5-year contract with American to generate about $2.75 billion of revenue over the contract term, with deliveries due to begin in 2026. The deal highlights the increasing demand for SAF, which airlines see as the quickest and most reliable way to decarbonize operations. Gevo already had more than 200 million gallons/yr of mostly take-or-pay SAF supply agreements in place and intends to break ground on its first SAF production facility in September this year. It has finalized the purchase of 245 acres in Lake Preston, South Dakota, where it plans to build the facility, dubbed Net Zero 1. Gevo will be capable of producing 55 million gallons/yr of SAF, with deliveries set to begin in 2025. The deal with American falls under the purview of a memorandum of understanding Gevo signed earlier this year with the Oneworld global alliance of airlines, which laid groundwork for the 14-member airlines to purchase 200 million gallons/yr of SAF. Gevo aims to produce and commercialize 1 billion gallons of SAF by 2030.

UNITED STATES — Not two weeks after US Senator Joe Manchin all but killed off hope for a spending bill with a significant climate and energy package, the swing senator announced an agreement with Democratic leadership to advance the legislation. Details were thin as news broke late Wednesday, but Manchin's announcement says the bill includes investments in "technologies needed for all fuel types — from hydrogen, nuclear renewables, fossil fuels and energy storage — to be produced and used in the cleanest way possible." That likely also indicates support for carbon capture and storage, something Manchin has consistently supported. The bill — reframed as the "Inflation Reduction Act" rather than the "Build Back Better" plan, as it was previously known — also "invests heavily" in methane and CO2 emissions-reduction technologies, according to Manchin's statement. Senators need only a simple majority to pass budget-related bills through the so-called "reconciliation" process. That means the spending measure can likely pass.

Marketview

Gasoline Grit

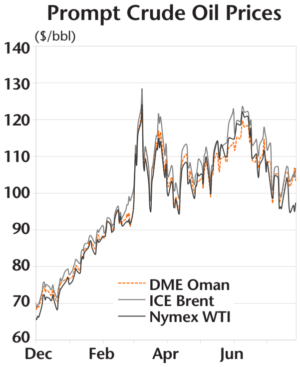
Brent was poised to regain $5 per barrel week-on-week, trading north of $108/bbl mid-session on Thursday. The ICE Brent September contract ceased trading on Jul. 29, meaning that the market is already bidding October barrels with potential winter disruptions in mind. In Europe, all eyes were on oil after the EU formally implemented gas rationing measures.

The spot market for light, sweet crude remains tight, as evidenced by the strength in the Dated Brent spot price. The average spread between Dated and the Brent front-month futures price was more than $7/bbl in the past month, including a peak of $11/bbl. European refineries are snapping up light, sweet oil faster than medium, heavy crude because the savings on energy costs to process it make it more economical and the higher yields of very-low-sulfur fuel oil (VLSFO) for shipping make it more profitable.

"The cost of energy and refining has gone up from something like $5 per ton to $20, $25 per ton [of crude]", TotalEnergies CEO Patrick Pouyanne said on his company's earnings call. This explains why the sweet-sour spread between Brent futures and the Dubai cash market remains obstinately above $10/bbl, essentially signaling that these light barrels are needed in the Atlantic Basin and thus not allowed to move East of Suez.

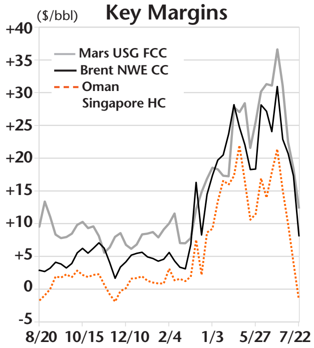
But refining margins are coming off their highs regardless. This is especially true for gasoline. One reason is that European refiners produce too much of it and not enough diesel.

Prompt Crude Oil Prices



Source: Nymex, ICE, DME

Historic Trends for Key Margins



Source: OMI

"The refining system in Europe was mostly designed to produce gasoline. In the past, we made some investments, but not enough to cover the diesel demand," Pouyanne said. Too much naphtha and gasoline come out of the runs, reflecting the typical yields of light, sweet crude and facing refiners with an insoluble conundrum: saving on energy costs by running sweet oil, or running more expensive sour crude with Russian supply now out of the picture.

So far, exports from the US and Saudi Arabia have more than compensated for the lost Russian volumes. A widening price spread between Brent and West Texas Intermediate (WTI) teased US oil exports to a record 4.55 million barrels per day last week, based on an average differential of $7.30/bbl.

The problem is that the US is also one of the largest buyers of European gasoline. With the Brent-WTI spread now straying north of $9/bbl, the physical arbitrage to the US is shut for European gasoline. A glut has started to show up in European and Asian inventories. To make matters worse, US gasoline demand remains about 500,000 b/d below its 2016-2019 average, in large part because of the high prices.

More US crude is likely to be drawn into Europe by the ample price differential. But crude releases from the US Strategic Petroleum Reserve, which started in May, are set to end in October and will not be extended. It means that global crude supply will lose 1 million b/d when that happens, with a likely effect on prices. "This was only a stop-gap measure. The US [SPR] cannot be an oil supplier," said Amos Hochstein, president Biden's energy adviser.

US Oil Production Rebounds

Crude oil production in the US jumped last week to return to its most recent high of 12.1 million b/d, according to estimates from the US Energy Information Administration (EIA), ending a two-week decline.

The mid-July rebound puts domestic oil production back on track to meet the agency's forecast for the month from its latest *Short-Term Energy Outlook* (STEO), which projected output to average just under 12 million b/d in July. US crude output is expected to continue gradually growing. In the STEO, the EIA said it sees US crude output rising to 12.2 million b/d in September and 12.5 million b/d by the end of the year.

PIW Market Indicators

($/barrel)	Jul 25-Jul 27	Jul 18-Jul 22	Jun 27-Jul 1
Spot Crude			
Opec Basket	$107.91	$108.82	$115.78
UK Brent (Dtd.)	108.72	113.39	120.39
US WTI (Cushing)	98.87	102.22	110.96
Nigeria Bonny Lt.	118.47	123.52	127.24
Dubai Fateh	102.50	103.31	111.40
US Mars	96.28	99.22	105.99
Russia Urals (NWE)	76.13	81.02	87.46
Crude Futures			
Brent 1st (ICE)	105.39	105.52	115.15
Brent 2nd (ICE)	100.44	100.99	110.81
B-wave (ICE)	105.23	104.94	115.10
WTI 1st (Nymex)	96.31	100.03	109.06
WTI 2nd (Nymex)	94.20	97.25	106.15
Oman 1st (DME)	104.61	104.24	110.63
Oman 2nd (DME)	99.53	99.15	107.26
Murban 1st (ICE)	104.65	107.52	117.78
Murban 2nd (ICE)	100.73	101.39	110.13
Forward Spreads			
Brent (1st-Dtd.)	-$3.33	-$7.87	-$5.24
Brent (2nd-1st)	-4.95	-4.53	-4.34
WTI (2nd-1st)	-2.12	-2.78	-2.91
WTI (3rd-2nd)	-1.63	-2.65	-2.95
Oman (2nd-1st)	-5.08	-5.09	-3.37
Oman (3rd-2nd)	-4.19	-3.79	-3.71
Murban (2nd-1st)	-3.92	-6.13	-7.65
Murban (3rd-2nd)	-3.55	-4.10	-3.82
Grade Differentials			
WTI-Brent (1st)	-$9.08	-$7.30	-$6.70
WTI-LLS	-3.16	-2.88	-1.40
WTI-Mars	+2.58	+3.00	+4.98
Brent(Dtd)-Dubai	+6.22	+10.08	+8.99
Brent(Dtd.)-Urals	+32.59	+32.37	+32.93
Brent(Dtd.)-Bonny Lt.	-9.74	-10.13	-6.85
Term Crude Formulas			
Arab Lt.-US (c.i.f.)	$103.41	$106.35	$113.12
Arab Lt.-Europe (Med)	109.13	108.84	119.00
Arab Lt.-Far East (f.o.b.)	111.54	110.79	117.78
Nigeria Bonny Lt.	113.67	118.34	125.34
Arab Light Gross Product Worth			
Rotterdam	$110.19	$109.90	$133.97
US Gulf Coast	121.00	116.62	142.66
Singapore	102.86	104.27	127.53
Gross Product Worth & Margins			
Rotterdam			
UK Brent GPW	$122.99	$123.20	$133.78
UK Brent Margin	+12.39	+8.16	+12.12
US Gulf Coast			
Mars GPW	116.25	111.79	137.16
Mars Margin	+19.87	+12.47	+31.07
Singapore			
Oman GPW	102.58	104.13	126.72
Oman Margin	-5.67	-1.73	+15.07
US Nymex			
WTI 3-2-1 Crack	+$49.05	+$41.01	+$53.84
Refined Products			
Rotterdam ($/ton)			
Eurobob Gasoline	$1042.83	$1046.08	$1296.86
Gasoil (0.1%)	1105.67	1100.60	1270.95
Fuel Oil (0.5%)*	717.50	742.60	863.20
US Gulf Coast (¢/gal)			
RBOB Gasoline	329.08¢	308.60¢	379.19¢
ULS Diesel	356.78	355.89	405.33
Fuel Oil (0.5%, $/ton)	$805.00	$821.60	$892.20
Singapore ($/bbl)			
Naphtha	$82.52	$83.79	$90.77
Gasoil (0.05%)	127.96	131.11	161.23
Fuel Oil (0.5%, $/ton)	872.67	950.80	1101.60

*ARA fuel oil prices for 1% sulfur fuel oil (LSFO) have been discontinued as the market becomes increasingly illiquid. The new 0.5% sulfur fuel oil (VLSFO) specs reflect the transition to new emissions standards set by the International Maritime Organization effective Jan. 1 2020. Latest week's data are preliminary. For GPW and margin calculations, see Refining Profitability Methodologies on the Energy Intelligence website in Reference Tools Publication Methodologies. Spot prices from Thomson Reuters. Opec basket source, Opecna. 3-2-1 crack spread for 3 parts crude, 2 parts gasoline, and 1 part heating oil. PIW Numerical Datasource subscribers can download all indicators in Excel worksheets.