

# ENERGY INTELLIGENCE **FINANCE**<sup>®</sup>

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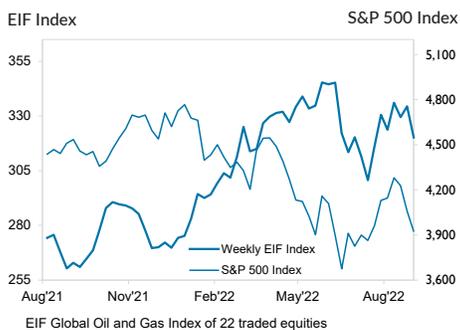
## OUR TAKE

### Iraq Impasse Tests Investors' Patience

*The explosion of unrest in Iraq in late August — triggered by powerful Shiite cleric Moqtada al-Sadr's decision to quit politics — may not have affected oil exports but the reputational damage wrought by the country's ongoing legislative deadlock is severe. Any expectations that oil and gas projects can move forward in the absence of a functional Iraqi government and federal budget since last year's disputed parliamentary elections are wishful thinking on the part of investors. And even when the impasse is finally resolved, they could face a familiar foe in resource nationalism.*

- Energy Intelligence's latest *Quarterly Risk Outlook* ranks Iraq as the sixth riskiest oil and gas jurisdiction in the world, with only Venezuela, Libya, Syria, Yemen and South Sudan considered more hazardous. "Greater political and regulatory volatility is likely to harm Baghdad's efforts to attract new investors," the report says. Should Iraq's Prime Minister Mustafa al-Kadhimi resign, this would "greatly increase political and security risks," it adds, warning that the stalemate is "entering a dangerous new phase."
- TotalEnergies will certainly be frustrated. One year ago, the French major inked a deal allowing it to invest \$27 billion in oil, gas and solar production in Iraq's southern Basrah region over 25 years. Yet the scheme has yet to make it off the ground amid contract wrangling and won't do so while the political crisis continues.
- The impasse will also hold up Exxon Mobil's long planned divestment of its 32.7% in the West Qurna-1 field. Iraq's Basra Oil Co. is set to buy the stake after Baghdad blocked a previously agreed sale to Chinese duo CNPC and CNOOC. But it cannot do so before a federal budget has been passed. The political standoff, meanwhile, only adds to the uncertainties surrounding longstanding plans by BP and Lukoil to expand at the Rumaila and West Qurna-2 fields, respectively.
- We think the violence is unlikely to lead to an exodus of international operators in Iraq, where a security threat is nothing new to those investors who believe the rewards outweigh the risks. All parties have an interest in keeping the hydrocarbons flowing and — while carbon intensity concerns remain front and center — bumper revenues are giving investors a big reason to stay put. At the same time, the surge in energy prices could embolden the Iraqis, who may decide they have enough cash to take on key projects without foreign assistance.
- Iraq's semi-autonomous Kurdistan region has not been spared the recent violence, with its Khor Mor gas field coming under rocket attacks. Companies operating there will also find it increasingly difficult to raise funds as Baghdad questions the validity of their contracts. Iraq's oil ministry says it has already secured pledges from oil-field services giants Baker Hughes, Halliburton and Schlumberger to wind down their Kurdistan operations amid threats they could be blacklisted from the rest of the country.

## EIF INDEX



## CORPORATE STRATEGY

# How Gazprom Is Using Europe's Energy Crisis to Its Advantage

- *Gazprom will likely keep exports to Europe at low levels, which will bring it high price realizations and give Moscow political leverage amid the war in Ukraine.*
- *The state-controlled company plans to pay out record dividends for the first half, as the Kremlin needs extra money for the sanctions-hit Russian economy.*
- *Gazprom is moving ahead with key investment projects, trying to fit them into its long-term eastern-looking export strategy.*

## The Issue

Russian gas giant Gazprom is losing its European market and will be forced to revise its export strategy in the long term. But for now it is reaping financial benefits from the war in Ukraine and energy crisis in Europe — something that could facilitate the task of building more gas pipelines running east. Windfall revenues from record-high prices have helped the state-run gas producer please its masters in the Kremlin with generous dividends and higher tax payments, while allowing it to complete near-term upstream and pipeline projects.

## Supply Cuts as Leverage

The short-term effect from the energy crisis is very positive for Gazprom and the Kremlin from a financial perspective. As long as Europe cannot fully stop importing Russian pipeline gas — which it hopes to do by 2027 — Gazprom's export strategy in Europe will likely be to supply minimal volumes to the continent in a bid to keep prices as high as possible and to use supply cuts as leverage in a political standoff with the West.

The current shutdown of the Nord Stream pipeline to Germany fits well into this strategy. Ostensibly caused by an oil leak on a turbine, the closure sent spot gas prices higher after they had eased last week amid higher storage levels, and added to the uncertainty around Russian supplies to Europe ahead of winter. Although Gazprom denies having deliberately cut exports, it has apparently been restricting pipeline gas supplies to Europe since the first half of 2021, when it underutilized prepaid Ukrainian transit capacity and instead drained its European underground storage facilities.

It then failed to refill the storage in the summer, giving spot prices more momentum in the second half of the year. While the demand-destructive nature of high prices was a key factor behind a decrease in Gazprom's export volumes last winter, deliberate and politically motivated supply cuts have come to the forefront during the war in Ukraine.

## Records Tumble

High prices helped Gazprom post a record annual net profit of 2.1 trillion rubles (\$34.7 billion) in 2021, up from 135 billion rubles in a coronavirus-affected 2020. It also beat the 1.46 billion rubles earned in 2018, when the company notched its best ever export volumes. In the first six months of 2022 alone, however, Gazprom's net profit smashed the annual record, reaching 2.5 trillion rubles, although the value of the Russian currency had fallen.

The bumper profits and significant cash reserves allowed Gazprom's board to recommend in late August distributing 1.2 trillion rubles, or 50% of adjusted net profit, in dividends for the first six months of this year, even though Gazprom has never paid interim dividends before. There is no guarantee, however, that the Russian government, which controls 50.23% of Gazprom directly and indirectly, won't repeat its move of voting against the payout and taking the entire sum in taxes instead of sharing half of it with minority investors. Shareholders will vote on the dividend on Sep. 30.

Gazprom's role as the Kremlin's "cash cow" is becoming increasingly important while Russia's economy is under the strain of Western sanctions. And Moscow may be realizing that Gazprom might not be able to bring in as much cash if European gas prices stabilize at lower levels in the medium to long term and the EU phases out Russian imports. Some experts believe Gazprom may be sending some 35 billion cubic meters per year to 45 Bcm/yr to the West after 2030, versus around 175 billion cubic meters in 2021, since Turkey, some Balkan states, Hungary and possibly Austria and Germany could still need Russian gas then.

## Rethinking Gas Flows

Gazprom is already exploring ways to diversify gas sales in the long run, looking for more opportunities on the domestic market and in Central Asia, advancing talks with China on increased exports, and even thinking of more exotic schemes, an insider tells Energy Intelligence. The prospect of lower exports to Europe in the future, which can hardly be replaced with domestic sales, may force Gazprom to rethink its upstream projects in the Arctic. But for now the company is

pressing ahead with fields already under development and thinking how to fit them into the new sales strategy. Gazprom is preparing for the launch of the 32 Bcm/yr Kharasaveiskoye field on the Yamal Peninsula, slated for 2023-24, and is starting predevelopment of the 20 Bcm/yr deeper deposits of the giant Bovanenkovskoye field nearby, from which first production is scheduled for 2025, CEO Alexei Miller told a company meeting last week.

The Arctic fields of the Yamal Peninsula had been earmarked to feed the Nord Stream and Nord Stream 2 export pipelines to Europe, and Gazprom may now have to delay some proposed upstream projects in the region, including offshore fields, while sending some Arctic gas to the Russian market and possibly to China. For that, Gazprom plans to connect Russia's united gas transmission system in West Siberia and the European part of the country with its eastern pipelines. That's "an objective that we are going to pursue in the nearest future," Miller said.

Gazprom also plans this year to connect the Kovyktinskoye field in West Siberia with the Power of Siberia pipeline to China, in line with a planned ramp-up of supplies under the 38 Bcm/yr contract signed in Shanghai in 2014, Miller reiterated. Gazprom has always prioritized pipeline gas exports ahead of LNG and that doesn't seem to have changed despite falling exports to Europe, especially as access to foreign liquefaction technology is closed off by sanctions.

Betting on forecasts that China will account for 40% of global incremental gas demand over the next 20 years, Gazprom wants to agree to more deals with Beijing, although the Chinese will hold the upper hand in price talks when Russia is losing its European market.

[Staff Reports](#)

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## PEER STRATEGY

# North Slope Takes Shape as Alaska Freeze Thaws

- Alaska's rig count has returned to levels seen three years ago amid more supportive oil prices and lower coronavirus risks.
- Alaska strategies revolve around low cost and infrastructure synergies but operators believe the state can also deliver the low-carbon barrels global buyers demand.
- ConocoPhillips sees gross oil production from four core Alaska units exceeding 450,000 barrels per day with investment over the coming decade.

## The Issue

A mass exodus of operators such as BP from the Alaska North Slope in recent years has kept the state's oil output averaging at less than 500,000 b/d, way below a peak of around 2 million b/d in 1988. But while operators were under pressure to quit Alaska to trim their portfolios and bulk up cash flows, the state still holds key advantages, including long-lived production and existing infrastructure, which translate into lower costs. With higher oil prices supporting expanded drilling campaigns, holdouts in the US' northernmost state — such as ConocoPhillips, Repsol and Eni — have disclosed plans to ramp up activity and grow production.

## Rig Rebound

Drilling activity is once again humming along in Alaska following several years of declines. The state rig count has climbed more or less steadily since hitting a low of two in 2020-21, according to data from oil-field services firm Baker Hughes. It currently sits at nine, the same figure recorded this time in 2019.

Energy Intelligence understands most of the rig gains have been driven by ConocoPhillips resuming drilling at its Kuparuk River Unit at end-2021, and by another US independent, Houston-based Hilcorp, which bought BP's Alaska assets, ramping up in Prudhoe Bay after pausing activity in 2020. But Italy's Eni has also recently filed plans to drill more this year at both its Oooguruk and Nikaitchuq offshore units, while Spain's Repsol and Australian partner Santos last month sanctioned the \$2.6 billion first phase of their onshore Pikka project.

Smaller independents are also drilling ahead and delineating their acreage. Alaska-focused E&P 88 Energy is to resume drilling on the North Slope next year after an independent resource estimate found its Icewine assets could hold more than 1 billion barrels of recoverable oil reserves. The acreage has also been de-risked by nearby drilling from peer Pantheon Resources, which has seen encouraging results from a string of well tests this year.

## Pikka the Bunch

Santos operates Pikka with a 51% stake, while Repsol holds the rest. The 45-well North Slope project aims to produce up to 80,000 b/d of oil starting in 2026. The project, says Santos CEO Kevin Gallagher, "has strong economics, is located in a world-class oil-producing province with significant existing infrastructure, has low emissions intensity, and strong support from the Alaskan government, indigenous and local communities."

This last point is especially important given the increasingly difficult circumstances many E&Ps operate in worldwide. Poor relations with local communities or strong opposition to fossil fuels can leave projects stuck on the drawing board for years. Gallagher noted Pikka "is in a jurisdiction with low sovereign

risk, an internationally competitive investment environment, and a workable regulatory regime.”

In addition, the partners have said the assets are compelling from an emissions standpoint, and Gallagher pledged to make Pikka a net-zero project for equity share Scope 1 and 2 emissions — those coming directly and indirectly from operations. Repsol CEO Josu Jon Imaz has also said Alaska could be a key part of the energy equation in terms of delivering low-cost, low-emission fossil fuels.

## Conoco Waits on Willow

ConocoPhillips, meanwhile, is waiting out a federal decision on its closely watched Willow project on the western North Slope. If approved and developed, Willow would have a potential peak production of more than 180,000 b/d over a 30–31-year life span and total projected output of up to 629 million bbl. But the company, which claims to be Alaska’s largest oil producer with 197,000 b/d last year, is moving forward elsewhere while it waits. A spokesperson for ConocoPhillips Alaska told Energy Intelligence it plans to develop several projects through the end of the year, including the Nuna discovery and the Coyote prospect, both of which are in the Kuparuk River Unit, North America’s second-largest oil field by area.

ConocoPhillips began evaluating the Brookian-age Coyote in 2021 and used an existing wellbore as a sidetrack well to perform a flow test early this year. “This information will help with the evaluation of the Coyote reservoir for future development potential, and outcomes will influence decisions on future drilling activity,” the spokesperson said. Like Santos and Repsol, ConocoPhillips also sees the potential for greater efficiency and lower emissions footprints. The company recently saw success drilling an extended-reach well in its Colville River Unit (Alpine), 34 miles west of Kuparuk. The well was drilled down to 35,526 feet, a land drilling record for North America, according to ConocoPhillips.

The company views the technology as a game changer, since it can eliminate the need for new gravel pads, additional pipelines or more roads. It will “allow us ... to reach areas that we otherwise could not get to because they are environmentally sensitive ... or are economically challenging,” the ConocoPhillips spokesperson said, adding that the company would evaluate opportunities globally to deploy the technology.

Willow’s design, meanwhile, calls for compressed air-driven pneumatic pumps instead of gas-fired ones, helping drive down emissions. It will also use waste heat recovery on its turbines, and implement 4-D seismic technology control to monitor efficiency. “Through the coming decade, we anticipate making significant capital investments at Colville River Unit, Greater Moose’s Tooth Unit, Kuparuk River Unit and Prudhoe Bay Unit which should enable gross production from these four units to grow and exceed ... 450,000 b/d,” the spokesperson said.

## Eni Gets Ready

Eni, meanwhile, is planning to carry out development drilling this year at its main fields offshore the eastern North Slope. While the company has been mostly focused on a workover program, it has also drilled a handful of producers and injection wells. Alaskan state regulators in July approved a permit allowing the Italian major to drill a development well at the Spy Island drill site at its Nikaitchuq field. Eni plans to finish the well next month and tentatively begin a second lateral well in the fourth quarter. The company also plans to conduct routine maintenance on the block over the next 12 months, and to use well and surveillance data to improve recovery.

Maintenance and recompletions are also in the cards for Oooguruk, but drilling is expected to restart in 2023, according to the block’s most recent development plan. Eni intends to drill two new wells in the middle of the year with first production pegged for 2024.

While exploration is not planned on Nikaitchuq for the foreseeable future, Eni is evaluating two appraisal wells targeting the northern Nuiqsut reservoir at Oooguruk. “The primary objective is to test the productivity and oil quality of the oil on the leases,” Eni told regulators. The company is also building a 20 million cubic foot per day gas-processing facility at Oooguruk to mitigate constraints and working to connect the electric grids of the two fields to “allow more robust and efficient power system sharing.”

*Caroline Evans, Houston, and Jeffrey Cavanaugh, New Orleans*

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## CORPORATE STRATEGY

# Sinopec Struggles to Juggle Key Priorities

- Sinopec Corp., China’s largest refiner, finds itself under pressure to meet both government policy requirements and corporate goals.
- Beijing’s demands include growing the company’s upstream output — a difficult and costly undertaking — and helping advance China’s energy transition.
- The company has meanwhile set its sights on upgrading its downstream, but last year’s bumper refining and chemical earnings are unlikely to be repeated in 2022.

## The Issue

A sluggish downstream performance took the shine off Sinopec Corp.’s record-high profit in the first half of 2022 amid surging oil prices. The refining giant has bet on creating a sophisticated,

integrated downstream segment, but the country's "zero-Covid" strategy and slower economic growth are hitting fuel sales hard. Its hydrogen-centered energy transition plan offers synergies with its existing businesses, but is still at an early stage and the company recently slashed its 2025 hydrogen refilling target by 40%.

## Upstream Laggard

Sinopec Corp., the Hong Kong-listed subsidiary of Sinopec Group, is increasingly falling behind rivals PetroChina and CNOOC Ltd. in upstream production and performance. Since the summer of 2018, when President Xi Jinping called for more domestic supply to bolster energy security, China's Big Three national oil companies (NOCs) have come under pressure to increase their output at all costs.

Sinopec certainly got the message. Compared with 2018, its upstream capex has tripled to 33 billion yuan (\$5 billion) this year but has so far had limited impact on output. The funds have largely been spent on domestic E&P given Sinopec has only small upstream operations overseas. But enhancing production at mature, declining oil fields and slow progress on shale oil have kept its domestic liquids output largely flat as its rivals make gains.

Sinopec's overall oil production, including overseas output, was down almost 3% from four years ago at 772,000 barrels per day in the first half, providing a limited hedge for its growing refining and chemicals segments. Upstream M&A could help remedy the situation but hurdles abound. The company's last upstream M&A spree in the late 2000s and early 2010s led to accusations of corruption and resulted in limited production gains, leaving the company's M&A team extremely cautious, sources say. Rising geopolitical tensions with most of the Western world have also restricted where Chinese NOCs can hunt for assets. Africa, the Middle East, Central Asia and Russia are seen as the most welcoming regions.

China's energy transition is likely to make acquiring gas assets more palatable than oil. And Sinopec's domestic gas production has actually risen by almost 29% in four years to 614 billion cubic feet (3.39 Bcf per day) in the first half of 2022. That growth may be tapering off, however. Sinopec's earlier plan to increase gas output by about 10% annually between 2021 and 2024 looks set to fall short this year, at least, with the company forecasting a smaller 4.8% lift in 2022.

## Downstream Pressures

Over the past few years, Sinopec has turned an increasing number of its refineries into integrated complexes with petrochemical plants producing more high-end products. Capex for the chemicals segment in 2022, at 66.1 billion yuan, exceeds refining capex for the third year in a row and on this occasion is almost three times higher.

But the company's downstream, already strained by rising oil prices, was hit hard in the second quarter of this year by Covid-19 lockdowns that paralyzed Shanghai and other major cities in China's southeast, where Sinopec is the main fuel retailer. The company's domestic sales of transportation fuels — gasoline, gasoil and jet fuel — fell 15% in the second quarter of 2022 from a year earlier, while refining throughput fell 11%. Operating profit in refining dropped 24.5% in the first half, dragged down by a steeper 32.6% plunge in the second quarter.

Despite hopes that government stimulus will help domestic oil demand recover in the second half, the company expects its 2022 fuel sales in China to fall by 3.5% this year and its refining runs to slip by 5.5% from 2021. Petchems demand has also turned sluggish after lockdowns disrupted plants' operations and logistics, while consumer appetite took a hit and a looming global recession casting a shadow over Chinese exports is not helping. Sinopec has revised down its 2022 forecast for ethylene production growth to 5% from the originally targeted 14%.

It also faces losing fuel export markets after Beijing started restricting oil product shipments overseas a year ago. The policy aims to cap carbon emissions by discouraging refiners from over-producing. It has led to an almost 60% fall in Chinese exports of gasoline, diesel and jet in the first half of 2022 to around 500,000 b/d, at a time when demand in much of the rest of the world was rebounding and would have allowed Sinopec to capture some of the price upside. There is talk that transportation fuel exports from China may not be permitted at all after 2025, or even 2023.

## Trailing Transition Targets

Sinopec has singled out hydrogen in its road to the energy transition as it seeks to take advantage of its network of more than 30,000 retail fuel stations. But the company last week quietly lowered its 2025 hydrogen refilling target to 120,000 tons, down from the 200,000 ton goal announced last year in its \$4.6 billion five-year hydrogen plan. The lower target came as Sinopec's network of hydrogen refilling stations stood at 83 at the end of June, with another 13 under construction, leaving the company far off its goal of having 1,000 stations by 2025.

Sinopec is aiming to become a major green hydrogen player, with a target of 500,000 tons of capacity by 2025. Its first 10,000 tons/yr plant in Inner Mongolia is expected on line this year. It is also a growing carbon capture, utilization and storage (CCUS) player in China, where its parent operates 14% of CCUS projects, according to consultancy Rystad Energy. The company recently brought on stream its first 1 million ton per year CCUS facility, which involves capturing carbon dioxide from the Qilu petchems complex in eastern China and injecting it into the Shengli oil field to increase oil recovery. It has two more CCUS demonstration projects in the hopper.

*Maryelle Demongeot, Singapore*

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# ENERGY AND EQUITY MARKET DATA For the week ended Sep 2, 2022

## EIF GLOBAL INDEX COMPONENTS\*

|                           | Close<br>Sep 2 | 1-Wk<br>Chg.  | 1-Wk         | % Chg.<br>52-Wk | YTD           |
|---------------------------|----------------|---------------|--------------|-----------------|---------------|
| Lukoil (mos)              | 76.27          | +6.87         | +9.90        | -13.22          | -13.45        |
| Rosneft (mos)             | 6.39           | +0.30         | +4.85        | -15.97          | -20.56        |
| Eni (mise)                | 12.03          | -0.24         | -1.97        | -4.73           | -13.42        |
| CNOOC-H (sehk)            | 1.34           | -0.03         | -2.09        | +35.26          | +43.30        |
| Exxon Mobil (nyse)        | 95.59          | -2.28         | -2.33        | +73.55          | +56.22        |
| Shell (lse)               | 26.74          | -0.68         | -2.46        | +32.87          | +21.88        |
| Petrobras-3 (spse)        | 7.22           | -0.19         | -2.53        | +66.10          | +89.33        |
| Sinopec-S (sesh)          | 0.46           | -0.01         | -2.56        | -13.83          | -30.66        |
| ONGC (bse)                | 1.66           | -0.04         | -2.63        | +2.37           | -12.95        |
| PetroChina-H (sehk)       | 0.47           | -0.01         | -2.69        | +5.62           | +5.04         |
| Petrobras-4 (spse)        | 6.47           | -0.18         | -2.73        | +48.78          | +88.91        |
| BP (lse)                  | 5.22           | -0.16         | -2.92        | +25.88          | +16.76        |
| Reliance Industries (bse) | 31.73          | -1.02         | -3.10        | +0.99           | -0.21         |
| Chevron (nyse)            | 157.85         | -5.56         | -3.40        | +61.55          | +34.51        |
| TotalEnergies (par)       | 51.31          | -2.44         | -4.54        | +14.99          | +1.13         |
| Sinopec-H (sehk)          | 0.46           | -0.02         | -5.01        | -5.43           | -0.68         |
| Saudi Aramco (sse)        | 9.87           | -0.60         | -5.77        | +16.02          | +13.85        |
| Ecopetrol (bvc)           | 0.51           | -0.04         | -6.77        | -27.13          | -22.47        |
| Suncor (tse)              | 31.83          | -2.49         | -7.25        | +68.50          | +27.06        |
| Equinor (osl)             | 37.95          | -3.64         | -8.75        | +70.47          | +41.67        |
| <b>EIF Global Index</b>   | <b>336.42</b>  | <b>-14.83</b> | <b>-4.22</b> | <b>+27.98</b>   | <b>+15.94</b> |

\*Converted US\$/share.

## SHARE PRICES IN LOCAL CURRENCY†

|                                | Close<br>Sep 2 | 1-Wk<br>Chg. | 1-Wk   | % Chg.<br>52-Wk | YTD     |
|--------------------------------|----------------|--------------|--------|-----------------|---------|
| <b>NOCs</b>                    |                |              |        |                 |         |
| Gazprom (micex)                | 252.80         | +69.18       | +37.68 | -19.51          | -26.36  |
| Rosneft (mos)                  | 385.10         | +23.60       | +6.53  | -30.49          | -35.81  |
| PetroChina-S (sesh)            | 5.42           | -0.02        | -0.37  | +9.27           | +10.39  |
| Petrobras-3 (spse)             | 37.29          | -0.17        | -0.45  | +65.66          | +75.66  |
| Petrobras-4 (spse)             | 33.42          | -0.22        | -0.65  | +48.39          | +75.27  |
| PTTEP (set)                    | 166.00         | -2.00        | -1.19  | +51.60          | +40.68  |
| CNOOC-H (sehk)                 | 10.48          | -0.22        | -2.06  | +36.64          | +44.29  |
| Sinopec-S (sesh)               | 3.14           | -0.07        | -2.18  | -7.92           | -24.70  |
| PetroChina-H (sehk)            | 3.67           | -0.10        | -2.65  | +6.69           | +5.76   |
| CNOOC-S (sesh)                 | 16.03          | -0.68        | -4.07  | NA              | NA      |
| Ecopetrol (bvc)                | 2,298.00       | -120.00      | -4.96  | -13.93          | -14.57  |
| Sinopec-H (sehk)               | 3.63           | -0.19        | -4.97  | -4.47           | 0.00    |
| Saudi Aramco (sse)             | 37.10          | -2.25        | -5.72  | +16.27          | +13.99  |
| Equinor (osl)                  | 379.80         | -26.35       | -6.49  | +97.40          | +61.00  |
| <b>Majors</b>                  |                |              |        |                 |         |
| Shell (lse)                    | 2,324.00       | -10.00       | -0.43  | +59.68          | +43.30  |
| BP (lse)                       | 453.70         | -4.10        | -0.90  | +51.28          | +37.28  |
| Exxon Mobil (nyse)             | 95.59          | -2.28        | -2.33  | +73.55          | +56.22  |
| Chevron (nyse)                 | 157.85         | -5.56        | -3.40  | +61.55          | +34.51  |
| TotalEnergies (par)            | 51.56          | -2.40        | -4.45  | +37.20          | +15.53  |
| <b>Regional Integrated</b>     |                |              |        |                 |         |
| Lukoil (mos)                   | 4,595.00       | +480.00      | +11.66 | -28.21          | -30.06  |
| OMV (vse)                      | 42.37          | +0.84        | +2.02  | -11.04          | -15.18  |
| Repsol (bme)                   | 13.38          | -0.05        | -0.37  | +37.27          | +28.21  |
| Eni (mise)                     | 12.09          | -0.23        | -1.87  | +13.68          | -1.10   |
| <b>Global Independents</b>     |                |              |        |                 |         |
| ConocoPhillips (nyse)          | 110.26         | -1.86        | -1.66  | +94.81          | +52.76  |
| EOG Resources (nyse)           | 121.52         | -3.05        | -2.45  | +83.47          | +39.88  |
| Hess (nyse)                    | 120.91         | -3.69        | -2.96  | +69.65          | +63.33  |
| APA (nyse)                     | 38.80          | -1.38        | -3.43  | +95.47          | +44.29  |
| Kosmos Energy (nyse)           | 6.80           | -0.43        | -5.95  | +180.99         | +96.53  |
| Woodside Petroleum (asx)       | 33.65          | -2.30        | -6.40  | +70.38          | +53.44  |
| Occidental (nyse)              | 68.77          | -4.78        | -6.50  | +158.73         | +137.22 |
| <b>Refiners</b>                |                |              |        |                 |         |
| HollyFrontier (nyse)           | 53.49          | -0.85        | -1.56  | +70.13          | +63.18  |
| Eneos (tyo)                    | 511.50         | -12.10       | -2.31  | +18.98          | +18.87  |
| Reliance Industries (bse)      | 2,529.80       | -88.95       | -3.40  | +11.46          | +6.83   |
| Phillips66 (nyse)              | 88.46          | -3.72        | -4.04  | +26.52          | +22.08  |
| Marathon Petroleum (nyse)      | 99.13          | -5.21        | -4.99  | +71.21          | +54.91  |
| Valero (nyse)                  | 113.82         | -8.06        | -6.61  | +74.57          | +51.54  |
| PBF Energy (nyse)              | 33.46          | -3.24        | -8.83  | +241.78         | +157.98 |
| <b>Oil-Field Services, EPC</b> |                |              |        |                 |         |
| Wood Group (lse)               | 130.95         | +3.25        | +2.55  | -47.85          | -31.48  |
| Petrofac (lse)                 | 116.00         | -2.30        | -1.94  | +11.33          | +0.61   |
| TechnipFMC (nyse)              | 8.33           | -0.25        | -2.91  | +22.68          | +40.71  |
| Baker Hughes (nyse)            | 25.29          | -0.83        | -3.18  | +8.31           | +5.16   |
| Schlumberger (nyse)            | 38.07          | -1.35        | -3.42  | +33.07          | +27.11  |
| Halliburton (nyse)             | 30.01          | -1.09        | -3.50  | +46.68          | +31.22  |
| Transocean (nyse)              | 3.56           | -0.15        | -4.04  | -5.57           | +28.99  |
| Saipem (mise)                  | 0.69           | -0.03        | -4.79  | -65.78          | -85.16  |
| Fluor (nyse)                   | 25.67          | -2.03        | -7.33  | +52.80          | +3.63   |
| Worley (asx)                   | 13.82          | -1.59        | -10.32 | +32.25          | +30.01  |
| <b>Midstream</b>               |                |              |        |                 |         |
| Enterprise Products (nyse)     | 26.29          | -0.59        | -2.19  | +15.21          | +19.72  |
| Plains All-American (nyse)     | 11.84          | -0.42        | -3.43  | +22.57          | +26.77  |
| Williams (nyse)                | 33.72          | -1.31        | -3.74  | +34.29          | +29.49  |
| TC Energy (tsx)                | 63.11          | -2.63        | -4.00  | +4.40           | +7.28   |
| Kinder Morgan (nyse)           | 18.22          | -0.77        | -4.05  | +10.96          | +14.88  |
| Enbridge (tsx)                 | 54.31          | -2.49        | -4.38  | +8.71           | +9.92   |

**Global Independents**

|                          |        |       |       |         |         |
|--------------------------|--------|-------|-------|---------|---------|
| ConocoPhillips (nyse)    | 110.26 | -1.86 | -1.66 | +94.81  | +52.76  |
| EOG Resources (nyse)     | 121.52 | -3.05 | -2.45 | +83.47  | +39.88  |
| Hess (nyse)              | 120.91 | -3.69 | -2.96 | +69.65  | +63.33  |
| APA (nyse)               | 38.80  | -1.38 | -3.43 | +95.47  | +44.29  |
| Kosmos Energy (nyse)     | 6.80   | -0.43 | -5.95 | +180.99 | +96.53  |
| Woodside Petroleum (asx) | 33.65  | -2.30 | -6.40 | +70.38  | +53.44  |
| Occidental (nyse)        | 68.77  | -4.78 | -6.50 | +158.73 | +137.22 |

**Refiners**

|                           |          |        |       |         |         |
|---------------------------|----------|--------|-------|---------|---------|
| HollyFrontier (nyse)      | 53.49    | -0.85  | -1.56 | +70.13  | +63.18  |
| Eneos (tyo)               | 511.50   | -12.10 | -2.31 | +18.98  | +18.87  |
| Reliance Industries (bse) | 2,529.80 | -88.95 | -3.40 | +11.46  | +6.83   |
| Phillips66 (nyse)         | 88.46    | -3.72  | -4.04 | +26.52  | +22.08  |
| Marathon Petroleum (nyse) | 99.13    | -5.21  | -4.99 | +71.21  | +54.91  |
| Valero (nyse)             | 113.82   | -8.06  | -6.61 | +74.57  | +51.54  |
| PBF Energy (nyse)         | 33.46    | -3.24  | -8.83 | +241.78 | +157.98 |

**Oil-Field Services, EPC**

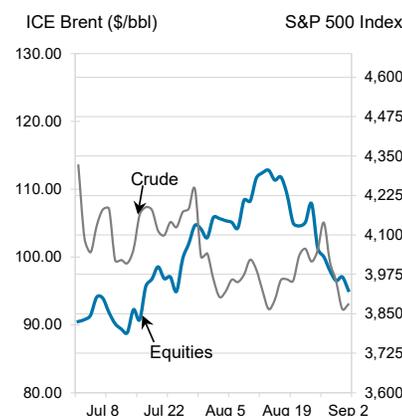
|                     |        |       |        |        |        |
|---------------------|--------|-------|--------|--------|--------|
| Wood Group (lse)    | 130.95 | +3.25 | +2.55  | -47.85 | -31.48 |
| Petrofac (lse)      | 116.00 | -2.30 | -1.94  | +11.33 | +0.61  |
| TechnipFMC (nyse)   | 8.33   | -0.25 | -2.91  | +22.68 | +40.71 |
| Baker Hughes (nyse) | 25.29  | -0.83 | -3.18  | +8.31  | +5.16  |
| Schlumberger (nyse) | 38.07  | -1.35 | -3.42  | +33.07 | +27.11 |
| Halliburton (nyse)  | 30.01  | -1.09 | -3.50  | +46.68 | +31.22 |
| Transocean (nyse)   | 3.56   | -0.15 | -4.04  | -5.57  | +28.99 |
| Saipem (mise)       | 0.69   | -0.03 | -4.79  | -65.78 | -85.16 |
| Fluor (nyse)        | 25.67  | -2.03 | -7.33  | +52.80 | +3.63  |
| Worley (asx)        | 13.82  | -1.59 | -10.32 | +32.25 | +30.01 |

**Midstream**

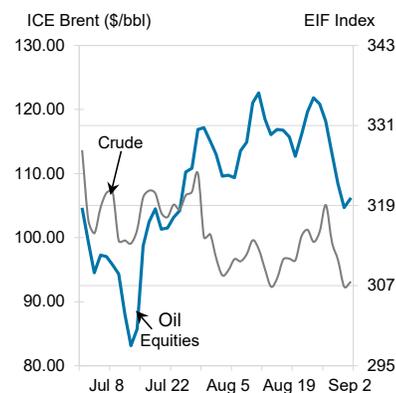
|                            |       |       |       |        |        |
|----------------------------|-------|-------|-------|--------|--------|
| Enterprise Products (nyse) | 26.29 | -0.59 | -2.19 | +15.21 | +19.72 |
| Plains All-American (nyse) | 11.84 | -0.42 | -3.43 | +22.57 | +26.77 |
| Williams (nyse)            | 33.72 | -1.31 | -3.74 | +34.29 | +29.49 |
| TC Energy (tsx)            | 63.11 | -2.63 | -4.00 | +4.40  | +7.28  |
| Kinder Morgan (nyse)       | 18.22 | -0.77 | -4.05 | +10.96 | +14.88 |
| Enbridge (tsx)             | 54.31 | -2.49 | -4.38 | +8.71  | +9.92  |

\*set=Bangkok; bme=Madrid; sehk=Hong Kong; osl=Oslo; bvc=Bogota; micex=Moscow; bse=Mumbai; par=Paris; nyse=New York; lse=London; mise=Milan; tyo=Tokyo; tsx=Toronto; asx=Sydney; spse=Sao Paulo; sse=Riyadh

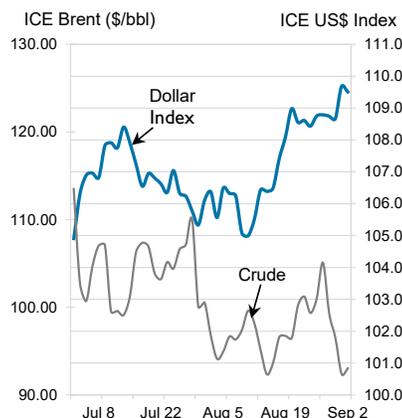
## CRUDE VS. EQUITIES



## CRUDE VS. OIL EQUITIES



## CRUDE VS. CURRENCY



EIF Index based on share prices of the 22 equities listed under EIF components, adjusted for US\$ market capitalization. All equities listed are ordered by percentage change over the previous week. Local share prices are shown in local currency. Crude prices in \$/bbl; Nymex oil products prices in \$/gallon; ICE gas oil in \$/ton; Henry Hub natural gas prices in \$/MMBtu; UK NBP natural gas prices in pence/therm.

## INDEXES

|                         | Close<br>Sep 2 | 1-Wk<br>Chg. | 1-Wk  | % Chg.<br>52-Wk | YTD    |
|-------------------------|----------------|--------------|-------|-----------------|--------|
| <b>Equity Indexes</b>   |                |              |       |                 |        |
| DJIA                    | 31,318.44      | -964.96      | -2.99 | -11.64          | -13.81 |
| S&P 500                 | 3,924.26       | -133.40      | -3.29 | -13.50          | -17.66 |
| FTSE 100                | 7,281.19       | -146.12      | -1.97 | +1.64           | -1.40  |
| FTSE All-World          | 723.06         | -25.43       | -3.40 | -18.06          | -19.48 |
| EIF Global              | 336.42         | -14.83       | -4.22 | +27.98          | +15.94 |
| S&P Global Oil          | 1,762.90       | -66.65       | -3.64 | +23.94          | +13.57 |
| FT Oil, Gas & Coal      | 8,044.83       | -58.32       | -0.72 | +55.34          | +40.44 |
| TSE Oil & Gas           | 2,894.85       | -98.85       | -3.30 | +40.27          | +27.05 |
| <b>Emerging Markets</b> |                |              |       |                 |        |
| Hang Seng Energy (HK)   | 22,666.35      | -573.66      | -2.47 | +38.68          | +34.87 |
| BSE Oil & Gas (India)   | 19,733.01      | +5.01        | +0.03 | +14.88          | +12.71 |
| RTS Oil & Gas (Russia)  | +215.10        | +14.56       | +7.26 | -8.73           | -9.56  |

## COMMODITY PRICES

|                     | Close<br>Sep 2 | 1-Wk<br>Chg. | 1-Wk   | % Chg.<br>52-Wk | YTD     |
|---------------------|----------------|--------------|--------|-----------------|---------|
| Dated Brent         | 93.35          | -7.30        | -7.25  | +27.20          | +20.70  |
| Brent 1st ICE       | 93.02          | -7.97        | -7.89  | +27.37          | +19.59  |
| WTI 1st (Nymex)     | 86.87          | -6.19        | -6.65  | +24.12          | +15.50  |
| Oman 1st (DME)      | 92.94          | -8.55        | -8.42  | +30.35          | +21.19  |
| RBOB (Nymex)        | 2.46           | -0.39        | -13.60 | +13.87          | +10.55  |
| Heating Oil (Nymex) | 3.58           | -0.43        | -10.72 | +65.06          | +53.56  |
| Gas Oil (ICE)       | 1,091.25       | -102.75      | -8.61  | +76.79          | +63.61  |
| Henry Hub (Nymex)   | 8.79           | -0.51        | -5.49  | +89.31          | +135.55 |
| Henry Hub (Cash)    | 9.18           | -0.30        | -3.15  | +106.34         | +140.06 |
| UK NBP (Cash)       | 150.00         | -400.00      | -72.73 | +12.95          | +15.38  |