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ENERGY INTELLIGENCE **FINANCE**®

CONTENTS

OUR TAKE

Too Good for Repsol to Resist

Repsol's sale of a 25% stake in its upstream business to EIG Global Energy Partners — valuing the unit at a higher-than-consensus $19 billion — is a coup for the Spanish major that will have its peers asking whether they should be doing something similar. The upstream valuation roughly equals Repsol's total market capitalization and Energy Intelligence believes the divestment ticks a number of transition-related boxes for the company, with the added bonus of allowing it to retain overall control of a business it views as strategic.

- Money talks, even in a high oil-price environment. The $4.8 billion offer — $3.4 billion in equity and $1.4 billion in debt — proved too good for Repsol to turn down. While some of the proceeds will go to the upstream division itself, help optimize Repsol's debt structure, strengthen its balance sheet and/or accelerate shareholder returns, the company appears to mostly view the funds as a valuable source of cash for continued investment in the energy transition. It wants its low-carbon business to represent 45% of group capital employed by 2030.

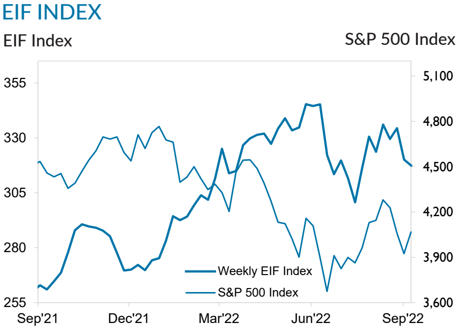
- The fact that the sale was unsolicited, with EIG making the initial approach, is further confirmation that hydrocarbons remain appealing to investors, especially in the US. Indeed, Repsol says its gas-weighted upstream operations will have a focus on the US, where the company already has assets in Alaska, the Gulf of Mexico, the Marcellus Shale and the Eagle Ford Shale.

- That said, Washington-based EIG stressed the attraction of Repsol was its determination to lead the energy transition, having become — in December 2019 — the first major oil and gas firm to target net-zero emissions by 2050. Repsol will likewise burnish its environmental, social and governance (ESG) credentials by bringing in a reputable investor like EIG with a solid transition track record and $24 billion of assets under management.

- Partial divestments are a winning formula. The deal marked the second time in three months Repsol agreed to sell part of a key business unit privately, having announced the sale of 25% of its renewables arm in June. Such sales secure some cash upfront without having to go down the unpredictable IPO route straightaway. The door to a future IPO is not closed, however. EIG will be able to appoint two senior executives at Repsol Upstream, with one of these leading special projects including preparations for a potential IPO in the US from 2026. The other will serve as ESG director.

- We will be playing close attention to how the sale is received by Repsol shareholders, with the company having essentially selected a financial partner for its upstream business that offers no obvious operational synergies. Repsol's Italian counterpart Eni, which has postponed an IPO of its renewables and retail unit, opted to put its upstream assets in Angola into a joint venture with BP known as Azule Energy.

EIF INDEX



EIF Global Oil and Gas Index of 22 traded equities

CORPORATE STRATEGY

Sanctions Strengthen Novatek's LNG Role in Russia

- *Novatek's LNG expansion plans tie in well with Moscow's strategic energy objectives as Europe looks to wean itself off Russian pipeline gas supplies.*
- *Independent Novatek aims to establish almost as much liquefaction capacity in the Russian Arctic as there currently is in LNG powerhouse Qatar.*
- *TotalEnergies, which remains committed to its investment in Novatek and its flagship Yamal LNG plant, has stakes in other Novatek projects due to start up next year.*

The Issue

Western sanctions and the exodus of foreign investors from Russia in the wake of the Ukraine conflict have prompted Moscow to rely even more heavily on its LNG export champion, Novatek. An independent company which is nonetheless believed to be close to Kremlin, Novatek may replace Shell in Russia's first LNG plant, Sakhalin-2, and will focus on developing domestic liquefaction equipment to help Russia catch up with the world's largest LNG exporters.

Homegrown Technology

Moscow- and London-listed Novatek took the crown as Russia's LNG export champion in late 2017 when its flagship Yamal LNG plant in the Arctic came on line. At the same time, it approved a long-term strategy to build up 57 million tons per year of liquefaction capacity in the region by 2030, later increasing that target to up to 70 million tons/yr — almost as much as LNG powerhouse Qatar currently has operating.

Novatek's Arctic projects have enjoyed strong support from the Kremlin, which offered preferential terms at upstream auctions won by Novatek, as well as tax breaks and even direct financial aid, with the state funding infrastructure such as roads, an airport and seaport.

With EU sanctions banning exports of key equipment for Russian LNG plants, leaving many new projects facing delays or even cancellation, Novatek's own liquefaction technology will be in greater demand, as will the experience it has acquired since taking the lead on Yamal LNG in 2009. It retains 50.1% in the project, having been joined by Total (20%), China National Petroleum Corp. (20%) and China's Silk Road Fund (9.9%).

Novatek last year launched a 900,000 ton/yr train at Yamal LNG based on its own Arctic Cascade technology and is now scaling up for larger 2.5 million ton/yr trains at the proposed Obsky LNG plant at the nearby port of Sabetta, which might see a final investment decision next year. The company plans to spend almost $500 million on research and development for domestic liquefaction equipment, Novatek CEO Leonid Mikhelson said this month.

Kremlin Connection

The Kremlin's support for Novatek is often attributed to Russian President Vladimir Putin's alleged longstanding links to Gennady Timchenko. The billionaire, who co-founded commodity trader Gunvor, bought into Novatek in 2008 when it was a modest upstream oil and gas producer in West Siberia. It soon started posing a greater challenge to state-controlled Gazprom. Timchenko quit Novatek's board of directors in March this year, shortly after being blacklisted by the EU over Russia's invasion of Ukraine, but retains a 23.49% stake in the company, making him the second-biggest shareholder after Mikhelson.

Novatek's LNG ambitions and development of the Arctic match the Kremlin's strategic energy objectives. Historically, Novatek's LNG expansion plans have irritated Gazprom, which considers them to pose unnecessary competition to its pipeline exports and believes the tax breaks they have been granted undermine Russia's budget revenue. But that may be an irrelevance if the EU phases out Russian pipeline gas imports by 2027.

And unlike Gazprom, which has been reluctant to involve foreign partners in its key upstream projects in Russia, Novatek has built up its LNG credentials largely through a long-term partnership with France's Total, the world's second-largest LNG portfolio player. Total's decision to stop investing in new projects in Russia potentially presents risks for Novatek's Arctic expansion, but the French major is — at least for now — not divesting its 19.4% in Novatek.

The same goes for its 20% in Yamal LNG, its 10% in Novatek's 19.8 million ton/yr Arctic LNG 2 project, scheduled to start up in late 2023, and its 10% in Novatek's Murmansk and Kamchatka LNG transshipment terminals, which are likewise slated to come on line next year. Total also retains two representatives on Novatek's board.

Welcome to Sakhalin

The Kremlin also appears to be pinning its hopes on Novatek stepping in to fill the void left at Sakhalin-2 by Shell, which is not keeping its 27.5% stake following the change of operator at the LNG project in the Russian Far East. Novatek is the sole company that meets the criteria set by the government for bidders for the stake, although Mikhelson says Novatek will only make a decision once it has finished an audit of the project.

If Novatek joins, it will be involved in Russia's two largest LNG plants and have export capacity in all three of its proposed LNG production hubs: Yamal, Sakhalin and Vysotsk on the Baltic Sea.

A role at Sakhalin-2 may mitigate the risk of delay at Arctic projects for Novatek and give it a decent foothold on the doorstep of key LNG markets in Asia. It has hitherto made long-haul LNG shipments from Yamal to customers in China, Japan and South Korea, using the Northern Sea Route shortcut in the summer months.

Sakhalin-2 shareholders Mitsui and Mitsubishi, which are retaining their stakes in the project, will likely welcome Novatek's participation. Mitsui and Japan's state-owned Jogmec have together acquired a 10% stake in Novatek's Arctic LNG 2 project and signed up for 2 million tons/yr of offtake. And even Gazprom — itself a 9.99% shareholder in Novatek — may benefit from having an experienced partner on board to replace Shell, which is understood to have been supervising the plant's operations.

Offtake Options

Novatek is understood to have a strong enough financial position to buy the Sakhalin-2 stake. Like many other Russian companies, it stopped publishing quarterly financial reports this year but its board last month recommended paying 136.6 billion rubles ($2.3 billion) in dividends for the first half of 2022, up 63% from a year earlier as high energy prices boost profitability.

Less than half of Novatek's revenues come from gas sales at this stage and it sold 67.9 billion cubic meters of pipeline gas domestically last year, versus just 7.9 Bcm in LNG exports. It has a direct offtake contract at Yamal LNG of some 3 million tons/yr and sells 60% of Yamal's spot cargoes. From Arctic LNG 2 it will offtake some 12 million tons/yr into its portfolio, of which it has already resold some 3 million-4 million tons/yr under long-term deals, according to Mikhelson.

It is not clear whether Novatek will sign a long-term offtake deal with the new Sakhalin-2 operator. Sakhalin Energy LLC may look for buyers for the 1 million tons/yr the project can no longer ship to Moscow-blacklisted Gazprom Marketing & Trading, which was taken over by Germany in April, and possibly the 1 million tons/yr of offtake currently going to Shell.

Staff Reports

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PEER STRATEGY

Corporates Struggle to Fathom Europe's Future Gas Market

- *Rising state intervention on the European energy market in the form of price caps on oil and gas has created an unpredictable outlook for corporates.*
- *Executives warn that any caps could have unintended consequences, and see LNG suppliers simply opt to seek out higher prices in Asia.*
- *While record profits have put oil and gas producers under the political spotlight, the energy crisis has underlined the importance of what they do.*

The Issue

Rapidly changing price-cap policies in the EU are blurring corporates' already fuzzy picture of what a future European gas market will look like. As it battens down for a tough winter with unpredictable Russian gas flows, the EU has already exceeded its target of filling 80% of its gas storage capacity by Nov. 1 but still wants Western energy producers to supply more LNG. As Europe's reliance on the global LNG market grows, however, executives warn that future winters could prove equally challenging.

Cap and Trade

The specter of oil and gas price caps loomed large at the Gastech conference in Milan last week as the EU endorsed setting an upper limit on prices for natural gas imports, although there is still disagreement over what any gas price cap should look like in practice. The 27-nation EU bloc discussed a range of measures that would impact corporate earnings. These include a proposal to require fossil fuel producers to make "solidarity payments" from their own profits, with funds directed toward consumers or investment in renewable power.

Another, similar measure would cap the revenue of "infra-marginal" electricity producers — those generating electricity from any source other than high-cost natural gas — and direct funds back to consumers. The European

Commission, the EU's executive arm, will also consider options to increase the liquidity of energy markets, while the bloc's biggest economy, Germany, is weighing an energy windfall tax to create a €65 billion ($65.8 billion) fund to help consumers and industry.

Disquiet over the potential caps was widespread at the event, attended by majors, national oil companies and trading houses. The primary fear was that any cap would have unintended consequences — that gas producers might decline to bid in the European market and that LNG suppliers would simply seek out higher prices in Asia. The result would then be that Europe would face a similar energy crisis next winter, warned RWE Supply & Trading CEO Andree Stracke. The continent is in the throes of a crisis of supply not of demand, and countries were late in developing the necessary import infrastructure, he said.

Long-Term Answers

Some continue to see the implementation of a price cap on Russian oil, which appears to be gaining political momentum among G7 nations, as impractical. "It's a short-term mandate, not a long-term solution. It will not work if everyone doesn't play ball," ConocoPhillips CEO Ryan Lance told the conference. On the prospect of a full EU embargo on Russian oil from Dec. 5, he added: "We are very worried. We are going to deplete our own strategic reserves. 2 million barrels per day off the market is the high price case we have to consider."

Replacing annual flows of 155 billion cubic meters of Russian pipeline gas will also be a huge challenge for Europe, although Brussels — under its REPowerEU plan — has until 2030 to get there. With LNG set to provide a key segment of Europe's gas needs going forward, industry analysts believe that to secure global LNG supply, long-term contracts of 15-20 years are crucial to allow Europe to compete with Asian demand and give LNG operators the assurances they need to get projects off the ground.

For liquefaction projects to proceed, "there needs to be a growth in long-term contracting, to be able to support final investment decisions [and] to be able to support the investments," said Andrew Barry, vice president of global LNG marketing at Exxon Mobil.

At Gastech, there was a sense that a past preference in Europe for short-term contracts offering flexibility — along with risk — was morphing into a desire to lock in long-term contracts now. Even so, only one such deal was announced at the event. Australian independent Woodside inked an agreement with a term of up to 16 years to supply as much as 800,000 tonnes of LNG (or 1 billion cubic meters of natural gas) per year to Germany's Uniper. Shipments are slated to start in January 2023.

Industry Under Fire

Amid rapid price inflation, energy companies are fully aware of the backlash they face over their record profits as consumers in Europe and elsewhere struggle to cope with soaring fuel costs. A panel at Gastech acknowledged the public relations challenge they face but underlined how access to energy now trumped all other concerns and only energy producers could deliver this. "The industry is under fire but the war in Ukraine has helped moderate the criticism. The world cannot continue without affordable energy," said Woodside CEO Meg O'Neill. She pointed to the differing approaches from European policymakers before and after Russia's invasion of Ukraine in February, highlighting how coal was now back in the European energy mix while Italy was pushing hard for gas price caps.

ConocoPhillips' Lance also defended the industry, suggesting producers were at the mercy of a market that had seen three oil price upcycles and two downcycles in recent years. "We don't make the market — we take what it has … re-investment only really started at end-2021," he said.

Both O'Neill and Lance, as well as Baker Hughes boss Lorenzo Simonelli, agreed that demand for gas in the near term in Europe would remain "very strong" and that continued growth in the global population and energy demand would continue to buttress the industry's prospects amid the energy transition. But the pace of investment in the transition is not fast enough, argued Lance. "Today, we are only investing half — $400 billion of the [estimated] $800 billion investment needed," he said. Companies that want to remain resilient should be working on portfolios that work at $30-$40 per barrel of oil, taking out both Scope 1 and 2 emissions, he added, referring to direct and indirect emissions from operations.

Tom Pepper, London, and Daniel Stemler, Madrid

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CORPORATE STRATEGY

Q&A: Aker BP Seeks Growth in Turbulent Times

Norway-focused E&P Aker BP is poised to sanction a new wave of offshore projects this year to take advantage of high prices and beneficial tax terms. Having almost doubled output to some 400,000 barrels of oil equivalent per day with its recent acquisition of Lundin Energy's oil and gas business, the Oslo-listed independent will spend upward of $15 billion on developments to further lift production to 525,000 boe/d by 2028 — up to 25% of it gas. Energy Intelligence caught up with Aker

BP CEO Karl Johnny Hersvik to discuss the company's plans in turbulent times. An edited transcript follows.

Q: How is the current volatility in energy markets influencing your plans? Is there any rethink around the production mix and development timelines?

A: The timeline on an E&P project is relatively large and it's usually three to five years from [when] we make a decision to [when] we have an installation in production. And that means that [if] retrospective events are allowed to impact your strategy, ultimately, [it] will become retrospective. And that is usually not a good idea.

So we're having to plan on a longer time horizon than the current, let's say, volatility both in energy prices and energy balances, etcetera. That being said, I do believe that gas will have a higher price point for a longer period of time than it's been historically. But from an Aker BP perspective, we've always looked for hydrocarbons.

We're always extremely value driven and developing hydrocarbons where it's value accretive to our investors, regardless of whether it's gas or oil. And then for historical reasons, we've ended up in a mix which is oil-dominated. But we're essentially not making any significant adjustments neither to our exploration strategy, development strategy, timelines or perspectives.

Q: Your Noaka area project will be one of Norway's biggest future developments. Can you talk a bit about the project plans and timeline?

A: We plan to invest roughly $10 billion in this area. The project itself consists of a field center called the Noaka PDQ [process, drilling and living quarters]. Then there's an unmanned production platform at Krafla and there is an unmanned dry wellhead platform at Froy, and the rest is subsea. So we're roughly at 50 subsea wells and then 20-odd dry wells.

So it's one of the bigger field developments. There are 12 different reservoirs that will be commingled in production, so it's highly complex. But it also means that the individual risk for the individual reservoir is mitigated. So it's a pretty interesting field development concept. Production levels are roughly at 150,000 barrels [per day] of oil at plateau and we are roughly 20 million standard cubic meters of gas [per day]. It will be phased by the fact that we will tie back each of these 12 reservoirs in sequence, but it's not phased if you mean that we have test production and early production and full-field production.

Q: Do you see sufficient and consistent longer-term demand from Europe to support investment in new gas projects and infrastructure?

A: Right now, I would probably say that the expectations of a higher gas mix utilization in Europe are on balance on the high side. From a distribution perspective, I think there's a trust issue with Russian supplies, which is probably going to outlast even if supplies come back. [That] probably will mean that on balance you will prioritize deliveries that are securing supply, rather than price, which could be beneficial for Norwegian oil and gas, indeed for oil and gas from the North Sea in total.

Whether that will actually impact an increase in infrastructure, well that depends on how much gas is actually found, and how the markets develop. I would say as of right now, I think it's probably more likely that we'll end up with a high utilization degree for longer, than with new infrastructure.

Q: How are Norway's power problems, and criticism over the push to electrify offshore oil and gas installations, affecting your own electrification plans?

A: Right now it's not affecting our advance. We made a strategic choice to connect into the backbone of the Norwegian electricity grid and not in the branches, specifically, for the Noaka project, which has avoided a lot of the ongoing debate, which is not necessarily about production capacity, but it's about transfer capacity.

So on the western coast of Norway there are points in the grid, which are weaker than we would probably like. Other industries have been refused [permission] to connect, and that's caused some criticism because oil and gas is of course a very high consumer in these branches.

In Noaka, we've gone to the backbone where there are no such issues. And then what remains is a pricing issue, and a pricing issue is a total market capacity issue in Norway and not necessarily connected to oil and gas. Oil and gas is only about 4% of the total consumption on the Norwegian electricity market at peak.

Q: What you are doing to deal with cost inflation and supply chain bottlenecks, particularly in view of the increased activity before beneficial tax terms expire this year?

A: We have established since 2016 a number of alliances with key suppliers. These alliances have long-dated contracts. They are based on a collaborative environment, on net prices etcetera and on an incentive mechanism that incentivizes the alliance to minimize waste. 95% of all our capex is actually going through these alliances and that means that we're not in the market right now doing procurement activity — we're in the market placing contracts. We've just placed a five-year drilling contract. We've just set a big contract for preassembled units to Rosenberg Worley, to Aker Solutions at Stord, and there's a host of such contracts coming out.

The number two measure is to be early in the market and set these contracts and show these vendors that we are committed. And the third element is of course to discuss the contractual mechanism for managing risk because oil and gas companies are far better suited to manage volatility than the supplier, which is limited by its working capital capacity. So we also open up that discussion with a number of these vendors. And then of course, what we're left with is the residual risk related to global price increases and stuff like food, energies, steel, etcetera, which is very difficult to manage. But because of the Norwegian tax system and how that kind of bridges out these effects, we're not as impacted as we would be if we were in the UK or onshore US, for example.

Q: Is that putting pressure on your capex?

A: Yes, but remember our net capex is only 8.9% of the total capex as the tax bill is taking 91.6% of the capex and then 78%-80% of the cash flow. So that means that as the capex is predating the cash flow, we're not necessarily as a company that impacted.

The totality of the project pre-tax is of course far more impacted by this, but that will also be impacted by subsequent prices, right? So the tax system in Norway works like a relationship between the public and private in as much as we are incentivized to invest, that creates a huge amount of jobs in Norwegian yards, and the government is our partner in investment, shielding us to a certain degree from the capex risk, but taking the lion's share of the income, too.

Q: To what extent do you think the energy crisis has affected gas' role as a transition fuel? Is it helping or harming transition efforts?

A: All of the above actually. One — I think the energy crisis has cemented gas as a transition fuel, maybe as a permanent fuel. Two — the shortage of energy supply in the market has meant that capacity that we used to believe was outdated is now coming back. The US, the Germans' redeployment of coal is an example of that. And at the same point in time, European politicians have also approved [REPowerEU] in record speed time, I would say, which is putting immense capital at work to develop renewables.

So you're kind of doing all the above. You are increasing CO_2 emissions, but you're also increasing the speed of the buildout of renewables. You are utilizing gas to the best of your abilities to bridge. And then the question is more about what will actually win over time?

Well, that's dependent on ... two things. How long will gas prices in Europe remain high? And the answer to that is with only one man, and he's sitting in camp. And the second one is how speedy can we actually build out renewables, which is a far more industrial question. And then of course, every day that goes by with high CO_2 we have less time to implement measures to meet the 2 degree [climate] scenario.

Deb Kelly, London

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ENERGY AND EQUITY MARKET DATA For the week ended Sep 9, 2022

EIF GLOBAL INDEX COMPONENTS*

	Close Sep 9	1-Wk Chg.	% Chg. 1-Wk	52-Wk	YTD
Ecopetrol (bvc)	0.54	+0.02	+4.60	-19.80	-18.90
Sinopec-S (sesh)	0.47	+0.01	+2.49	-33.56	-28.94
Reliance Industries (bse)	32.25	+0.52	+1.64	-2.23	+1.43
Chevron (nyse)	159.97	+2.12	+1.34	+66.64	+36.32
ONGC (bse)	1.68	+0.02	+1.08	+1.28	-12.01
Exxon Mobil (nyse)	96.50	+0.91	+0.95	+78.41	+57.71
BP (lse)	5.22	+0.00	+0.05	+28.11	+16.82
Shell (lse)	26.65	-0.09	-0.34	+35.86	+21.46
Suncor (tse)	31.66	-0.17	-0.54	+70.95	+26.38
Saudi Aramco (sse)	9.73	-0.14	-1.44	+14.83	+12.21
Rosneft (mos)	6.25	-0.14	-2.25	-16.77	-22.35
Eni (mise)	11.73	-0.30	-2.49	-6.31	-15.58
TotalEnergies (par)	50.03	-1.28	-2.49	+14.52	-1.39
Sinopec-H (sehk)	0.45	-0.01	-2.74	-7.94	-3.41
Lukoil (mos)	73.88	-2.38	-3.12	-14.77	-16.15
Petrobras-3 (spse)	6.89	-0.32	-4.45	+84.02	+80.91
Petrobras-4 (spse)	6.18	-0.29	-4.47	+65.72	+80.46
PetroChina-H (sehk)	0.45	-0.02	-4.62	+3.54	+0.19
Equinor (osl)	35.97	-1.98	-5.23	+59.86	+34.27
CNOOC-H (sehk)	1.24	-0.09	-6.76	+23.03	+33.61
EIF Global Index	**333.75**	**-2.65**	**-0.79**	**+27.89**	**+15.02**

*Converted US$/share.

INDEXES

Equity Indexes	Close Sep 9	1-Wk Chg.	% Chg. 1-Wk	52-Wk	YTD
DJIA	32,151.71	+833.27	+2.66	-7.82	-11.52
S&P 500	4,067.36	+143.10	+3.65	-9.48	-14.66
FTSE 100	7,351.07	+69.88	+0.96	+4.65	-0.45
FTSE All-World	742.85	+19.79	+2.74	-15.12	-17.28
EIF Global	333.75	-2.65	-0.79	+27.89	+15.02
S&P Global Oil	1,756.74	-6.16	-0.35	+24.79	+13.17
FT Oil, Gas & Coal	7,983.83	-61.00	-0.76	+57.67	+39.38
TSE Oil & Gas	2,877.72	-17.13	-0.59	+39.14	+26.30
Emerging Markets					
Hang Seng Energy (HK)	23,201.01	+534.66	+2.36	+35.46	+38.05
BSE Oil & Gas (India)	20,034.31	+301.30	+1.53	+15.36	+14.43
RTS Oil & Gas (Russia)	+211.28	-3.82	-1.78	-10.92	-11.17

COMMODITY PRICES

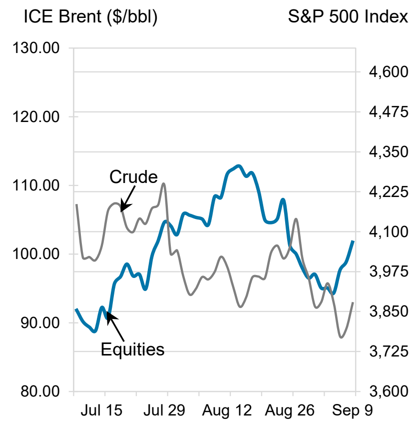
	Close Sep 9	1-Wk Chg.	% Chg. 1-Wk	52-Wk	YTD
Dated Brent	91.30	-2.06	-2.21	+28.23	+18.05
Brent 1st ICE	92.84	-0.18	-0.19	+29.94	+19.36
WTI 1st (Nymex)	86.79	-0.08	-0.09	+27.37	+15.40
Oman 1st (DME)	92.70	-0.24	-0.26	+32.52	+20.88
RBOB (Nymex)	2.43	-0.03	-1.24	+15.88	+9.18
Heating Oil (Nymex)	3.58	+0.00	+0.02	+69.31	+53.59
Gas Oil (ICE)	1,085.00	-6.25	-0.57	+79.19	+62.67
Henry Hub (Nymex)	8.00	-0.79	-8.99	+58.93	+114.37
Henry Hub (Cash)	8.31	-0.87	-9.51	+78.26	+117.23
UK NBP (Cash)	335.00	+185.00	+123.33	+137.59	+157.69

SHARE PRICES IN LOCAL CURRENCY†

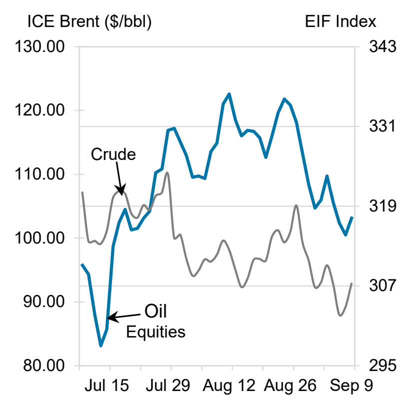
NOCs	Close Sep 9	1-Wk Chg.	% Chg. 1-Wk	52-Wk	YTD
PetroChina-S (sesh)	5.59	+0.17	+3.14	+6.07	+13.85
Sinopec-S (sesh)	3.23	+0.09	+2.87	-28.70	-22.54
CNOOC-S (sesh)	16.27	+0.24	+1.50	NA	NA
Ecopetrol (bvc)	2,332.00	+34.00	+1.48	-9.26	-13.31
Saudi Aramco (sse)	36.55	-0.55	-1.48	+15.04	+12.30
Rosneft (mos)	378.00	-7.10	-1.84	-30.97	-36.99
Sinopec-H (sehk)	3.53	-0.10	-2.75	-7.11	-2.75
Gazprom (micex)	245.34	-7.46	-2.95	-24.97	-28.53
PetroChina-H (sehk)	3.50	-0.17	-4.63	+4.48	+0.86
Petrobras-3 (spse)	35.48	-1.81	-4.85	+82.20	+67.14
Petrobras-4 (spse)	31.79	-1.63	-4.88	+64.08	+66.72
PTTEP (set)	160.00	-8.50	-5.04	+50.23	+35.59
Equinor (osl)	356.20	-23.60	-6.21	+82.65	+51.00
CNOOC-H (sehk)	9.77	-0.71	-6.77	+24.14	+34.51
Majors					
Chevron (nyse)	159.97	+2.12	+1.34	+66.64	+36.32
Exxon Mobil (nyse)	96.50	+0.91	+0.95	+78.41	+57.71
BP (lse)	450.80	-2.90	-0.64	+52.97	+36.40
Shell (lse)	2,300.00	-24.00	-1.03	+62.22	+41.82
TotalEnergies (par)	49.84	-1.73	-3.35	+34.89	+11.66
Regional Integrateds					
Repsol (bme)	13.11	-0.27	-2.02	+40.05	+25.62
OMV (vse)	41.40	-0.97	-2.29	-12.08	-17.12
Lukoil (mos)	4,470.00	-125.00	-2.72	-29.32	-31.96
Eni (mise)	11.68	-0.40	-3.34	+10.35	-4.40
Global Independents					
ConocoPhillips (nyse)	111.97	+1.71	+1.55	+101.46	+55.13
EOG Resources (nyse)	123.36	+1.84	+1.51	+89.04	+42.00
Hess (nyse)	122.47	+1.56	+1.29	+78.58	+65.43
APA (nyse)	38.09	-0.71	-1.83	+101.22	+41.65
Woodside Petroleum (asx)	32.52	-1.13	-3.36	+69.38	+48.29
Occidental (nyse)	65.61	-3.16	-4.60	+161.71	+126.32
Kosmos Energy (nyse)	6.35	-0.45	-6.62	+173.71	+83.53
Refiners					
Reliance Industries (bse)	2,568.60	+38.80	+1.53	+5.68	+8.46
Marathon Petroleum (nyse)	100.01	+0.88	+0.89	+74.69	+56.29
Eneos (tyo)	514.50	+3.00	+0.59	+14.54	+19.57
PBF Energy (nyse)	33.46	0.00	0.00	+252.21	+157.98
Valero (nyse)	113.32	-0.50	-0.44	+78.34	+50.87
Phillips66 (nyse)	88.03	-0.43	-0.49	+31.90	+21.49
HollyFrontier (nyse)	53.13	-0.36	-0.67	+77.45	+62.08
Oil-Field Services, EPC					
TechnipFMC (nyse)	9.04	+0.71	+8.52	+43.04	+52.70
Fluor (nyse)	27.84	+2.17	+8.45	+73.46	+12.39
Transocean (nyse)	3.75	+0.19	+5.34	+5.04	+35.87
Schlumberger (nyse)	39.65	+1.58	+4.15	+48.95	+32.39
Petrofac (lse)	118.90	+2.90	+2.50	+16.59	+3.12
Wood Group (lse)	132.55	+1.60	+1.22	-42.89	-30.64
Worley (asx)	13.94	+0.12	+0.87	+36.67	+31.14
Baker Hughes (nyse)	25.26	-0.04	-0.14	+7.42	+5.01
Halliburton (nyse)	29.66	-0.35	-1.17	+53.52	+29.69
Saipem (mise)	0.67	-0.01	-1.83	-92.91	-85.43
Midstream					
Enterprise Products (nyse)	26.70	+0.41	+1.56	+20.22	+21.58
Plains All-American (nyse)	11.95	+0.11	+0.93	+24.22	+27.94
Kinder Morgan (nyse)	18.31	+0.09	+0.49	+14.58	+15.45
Enbridge (tsx)	54.47	+0.16	+0.29	+7.37	+10.24
TC Energy (tsx)	63.26	+0.15	+0.24	+3.67	+7.53
Williams (nyse)	32.77	-0.95	-2.82	+35.75	+25.84

*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

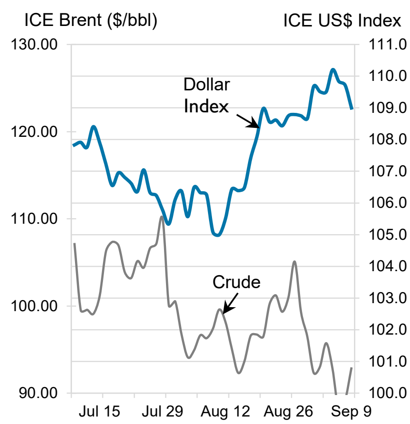
CRUDE VS. EQUITIES



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.