Energy Intelligence

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ENERGY INTELLIGENCE **FINANCE**®

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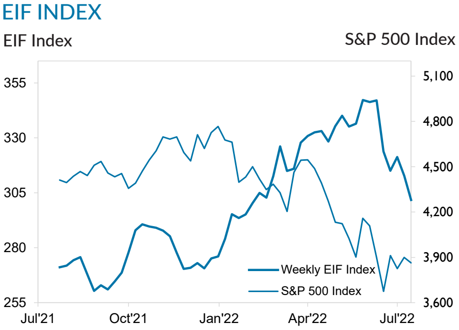

EIF Global Oil and Gas Index of 22 traded equities

OUR TAKE

Recession Clouds Gather Over M&A

Strong oil and gas prices are supporting E&P asset valuations and many energy companies have divestment agendas but Energy Intelligence sees heightened macroeconomic concerns continuing to slow upstream deal flow in the near term. M&A activity has been muted this year due to price volatility and geopolitical uncertainty following Russia's invasion of Ukraine, as well as ongoing corporate capital discipline. The recession clouds gathering on the horizon do not offer an immediately positive outlook for upstream M&A but we see supply-side support for higher-for-longer prices bolstering valuations and deals in the medium term.

- Upstream M&A activity in the second quarter of 2022 reached $20.8 billion, according to Energy Intelligence's quarterly Business Activity Monitor. That compared to $19.4 billion in the first quarter but was barely half the $39 billion seen a year earlier, continuing the recent signs of sluggishness.

- North American deals accounted for 70% of the overall value in the second quarter and were not confined to the ever-popular Permian Basin. Assets in legacy US gas plays, oil sands, offshore Canada and lesser shale basins all changed hands.

- The private equity sector, which is increasingly on the hunt for transition assets, is still driving the bulk of upstream transactions and had a hand in the top three deals of the quarter. The biggest was the $3.9 billion merger agreed in May of Nasdaq-listed Centennial Resource Development and private Colgate Energy Partners III. We expect private capital to continue seeking creative options as IPOs are deferred.

- A number of US Gulf of Mexico, Canada and North Sea deals struck in April-June underscore regional costing and/or emissions advantages. BP cited favorable emissions in its swap agreement with Cenovus for a stake in the offshore Bay du Nord project in Eastern Canada. Fellow UK-based major Shell, meanwhile, took a leap into the challenging North Platte project in the deepwater Gulf of Mexico, whose competitive economics and low carbon intensity have made it an upstream priority for both Shell and Norwegian partner Equinor.

- There was no shortage of upstream assets put on the market in the second quarter of this year and even more are said to have become available since. OMV's assets in Yemen, TotalEnergies' 10% interest in some oil licenses onshore Nigeria, Suncor's assets in the UK North Sea and PetroChina's assets in Australia and Canada are all looking for new owners. Offloading these may prove challenging in a turbulent 2022 but we see oil prices remaining at robust levels a little further down the line, too, potentially supporting M&A activity. In our midyear check-in on oil markets, we expect benchmark Brent crude prices to hold above $90 per barrel in 2023 and 2024, and above $80/bbl in 2025-26.

CORPORATE STRATEGY

BP Sets Out Its Stall for Low-Carbon Fuels in Australia

- *BP will start off supplying local markets with hydrogen/ammonia and biofuels produced in Australia before turning its attention to exports.*
- *Large-scale capacity projects will help the UK major lower production costs, a major barrier to the development of green hydrogen.*
- *The long-delayed Browse offshore gas project could be BP's last chance to turn the tide on its declining upstream activities Down Under.*

The Issue

BP aims to become one of the largest producers of low-carbon fuels in Australia. The UK major's decision last month to take over operatorship of the giant Asian Renewable Energy Hub (Areh) in the Pilbara region is testament to its energy transition ambitions Down Under. However, none of its biofuel or hydrogen projects have been sanctioned yet and details on timelines, capacities and costs are scarce.

Areh of Light

To achieve its targeted position in low-carbon fuels, BP will first focus on serving local markets in Australia, especially hard-to-abate sectors such as aviation and heavy industry, as well as heavy-duty and long-haul vehicles. It will then turn to exports once technologies are available to transport its products and when target markets — like Japan, South Korea and China — are mature enough to buy them. In line with this strategy, BP's most advanced low-carbon fuel projects are located in Western Australia, a region dominated by the mining industry which finds in biofuels and hydrogen two viable solutions to decarbonize its operations.

Areh, in which BP has a 40.5% stake, is the UK major's most recent Australian acquisition and one of the largest renewable power and green hydrogen projects in the world. BP is targeting phased development of up to 26 gigawatts of onshore wind and solar power generation at Areh in Pilbara, one of the world's biggest iron ore and lithium mining regions. Most of the renewable power will be used to produce around 1.6 million tons per year of green hydrogen or 9 million tons/yr of green ammonia but some is expected to be supplied to the mining and mineral processing industry.

Areh was first proposed in 2014 but has struggled to get off the ground, with Australia's federal government rejecting plans last year to convert it into a green ammonia export project on the basis that it would threaten wetlands and native species. As a result, BP could move the ammonia component of the project to a more suitable location to address environmental concerns, BP's Asia-Pacific vice president of low-carbon solutions, Lucy Nation, told the *West Australian* last month.

Economies of Scale

BP is also converting its former 150,000 barrel per day Kwinana oil refinery, near Perth, into a clean energy park. The soon-to-be biorefinery is being reconfigured to produce low-carbon fuels such as sustainable aviation fuel (SAF) and renewable diesel, Nation said previously. BP is expected to reduce costs there by reutilizing some of the processing equipment and tanks, Nation said, adding that the move would help BP speed up and "be somewhat less capital intensive." Airline Qantas and miner Rio Tinto would be natural clients as they have signed agreements with BP to trial or help develop biofuels in Australia.

BP's proposed low-carbon fuel projects are expected to play a major role in its energy transition strategy due to their large planned capacities. The UK major aims to have a 10% share in core hydrogen markets and a 20% marketing share in SAF globally by the end of this decade. The large scale will also contribute to reducing production costs, a major hurdle in the development of hydrogen. BP is focusing on green hydrogen, which is estimated to be two-three times more expensive than blue hydrogen, produced from fossil fuels in combination with carbon capture and storage. That's according to a report released by the International Renewable Energy Agency in December 2020.

However, a feasibility study conducted for BP's Geraldton Export-Scale Renewable Investment (Geri) project in Western Australia suggests that it is aiming for production costs below A$2 (US$1.36) per kg. That would put BP's costs on a par or even slightly under those of Santos, which is aiming to produce blue hydrogen in the Cooper Basin at a cost of A$2/kg, in line with the price the Australian government is targeting. Geri consists of the development of 4 GW of solar and wind capacity to produce 1 million tons/yr of ammonia from green hydrogen. Phase 1 could involve the installation of a 30 megawatt electrolyzer powered by solar and onshore wind to supply hydrogen to the domestic market, with deployment by 2025. Areh is expected to have an electrolyzer of at least 75 MW to produce hydrogen, which could provide supply for BP's own renewable fuels production.

Back to Browse?

In terms of hydrocarbons, the long-delayed 13.9 trillion cubic foot Browse gas project offshore Western Australia, in which BP has a 17.33% interest — could give its dwindling upstream activities a second wind. The company's production has declined as BP — like compatriot Shell — has practically stopped exploration in Australia. The last exploration well it drilled was a dry hole at the Ironbark gas prospect in Western Australia back in 2020. Prior to that, BP ditched plans to drill in the Great Australian Bight, offshore South Australia, in 2016. And by as early as 2024 the North West Shelf LNG plant — in which BP holds 16.67% — could have to shut one of its five trains if no third-party gas is found to replace the fast-maturing feeder fields.

BP expects Browse to be sanctioned in 2024, according to its latest annual report. The project has been increasingly talked about in Australia in recent months as energy security became a major issue following energy superpower Russia's invasion of Ukraine. It has the advantage of being a greenfield project, meaning that the time to market would be shorter, allowing BP and its partners to meet growing gas demand from Asian countries. They would also likely benefit from high gas prices: Energy Intelligence expects Northeast Asia spot LNG prices to average at US$30 per million Btu in 2024, US$20/MMBtu in 2005, and US$15/MMBtu in 2026. Prices have recently been around US$35-$40/MMBtu.

The Browse project involves connecting the Brecknock, Calliance and Torosa fields in the Indian Ocean via a 900 kilometer pipeline to the North West Shelf venture's onshore Karratha plant, where the gas would be processed. The facility is globally competitive with a unit production cost of US$4.7 per barrel of oil equivalent. However, the 8%-12% carbon dioxide contained in Browse's fields is a major barrier to the realization of the project. Operator Woodside is studying the feasibility of capturing the CO2 and reinjecting it back into the reservoir.

Marc Roussot, Singapore

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CORPORATE STRATEGY

ConocoPhillips Dips Back Into US LNG

- *ConocoPhillips has struck its second major LNG deal in a month, potentially securing an equity stake and offtake on its home US market.*
- *The nonbinding agreement with Sempra could be a sign of things to come in US LNG as operators look for different ways to monetize their gas assets.*
- *Projects are also getting an uplift with increased interest in US LNG and may be able to navigate the current market without the aid of consolidation.*

The Issue

ConocoPhillips announced last week it would partner with US energy infrastructure firm Sempra to pursue development of the Port Arthur LNG project in Texas. The deal comes more than three years after ConocoPhillips quit the Golden Pass LNG project and, while nonbinding, is representative of the growing favor with which global producers view US LNG amid the European energy crisis. It also marks another expansion into LNG by ConocoPhillips in the wake of gas giant Russia's invasion of Ukraine, after the company was awarded a coveted position in Qatar's North Field East (NFE).

'Pretty Big Fans'

Under a heads of agreement, ConocoPhillips will acquire a 30% direct equity holding from San Diego-based Sempra in the proposed 13.5 million ton per year first phase at Port Arthur LNG. The two firms will also consider a potential 20-year tolling agreement that would see ConocoPhillips become the facility's largest offtaker so far with 5 million tons/yr. Its return to US LNG does not come as a major surprise, even after its Golden Pass exit in 2019. "We're pretty big fans of LNG," CEO Ryan Lance said on the company's first-quarter earnings call in May.

"Certainly, LNG from the US to Europe or other places is something of interest as long as we can be in that full value chain," Lance told investors. "We're not necessarily interested in just being in the liquefaction tolling business, but if we get exposed to that full value chain, that's something that we would be interested in looking at, given the nature of the gas business that's out there today." About 30% of ConocoPhillips' portfolio is natural gas, Lance said.

The deal also makes sense following ConocoPhillips' acquisitions of Concho Resources and Shell's Permian Basin position, which could potentially supply Port Arthur. The award of a 3.125% stake in QatarEnergy's 32.6 million ton/yr LNG mega-expansion at NFE in June was a major coup for the independent. But ConocoPhillips was already growing its LNG portfolio before the European energy crisis. In February, a week before the Russian invasion, it increased its stake in the 9 million ton/yr Australia Pacific LNG (APLNG) project, where it operates the LNG export facility, to 47.5%.

The agreement between ConocoPhillips and Sempra envisages potential partnerships beyond Port Arthur. Those include possible carbon capture and hydrogen developments, as well as ConocoPhillips' participation in a second phase of Sempra's planned Energia Costa Azul LNG facility on the west coast of Mexico. That project could could provide another outlet for natural gas from ConocoPhillips' Permian assets, as well as some different destination options, with the location best suited to supplying LNG-hungry Asian markets.

Flexible Terms

ConocoPhillips is hardly the only company looking to increase exposure to US LNG. Exxon Mobil and Chevron executives said recently they are also on the hunt for US LNG deals for greater flexibility on destination, offtake and price. Both signed sales and purchase agreements with Venture Global to take 2 million tons/yr of LNG from its Louisiana projects, while Chevron additionally inked a 2 million ton/yr deal with Cheniere.

US LNG offers another advantage as well: If the market softens, buyers can cancel cargoes for a fee, allowing sellers to limit their losses. That's a big plus when it comes to developing a strategy in an uncertain market. "This is becoming even more important, certainly with the Europe situation, because with Europe you're getting some mixed signals about what those gas needs are actually going to be," said Ian Nathan, director of global LNG research at Energy Intelligence. "It's a scramble right now, but there is momentum for acceleration of renewables and lower gas use later this decade and into the 2030s. Europe's durability as a premium market is part of the calculation when it comes to exposure to long-term, flexible LNG."

The 5 million tons/yr that ConocoPhillips is negotiating for with Sempra may seem small compared to the portfolios of bigger LNG names like Shell and TotalEnergies, which already has a North America LNG alliance with Sempra. But it would still be "a very big step in availability of flexible volumes, and that, in some ways, becomes more interesting than the size (of ConocoPhillips' LNG holdings) alone," Nathan said.

Solid Foundations

The proposed ConocoPhillips-Sempra tie-up may be a sign of future partnerships to come. Appalachian natural gas player EQT has shown interest in taking a stake in a US LNG export facility, although specifics at this point are hazy. Apache, now part of APA Corp., and EOG Resources have in the past signed agreements with Cheniere to market their natural gas as LNG.

Interest in US LNG is also having an impact on the sector's consolidation potential. A number of facilities have been proposed in the US, and in the leaner years of 2019 and 2020 they appeared ripe for acquisitions by larger players. But following the invasion of Ukraine, the number of foundation deals for North American LNG has ticked up, Nathan notes. Commonwealth LNG, Energy Transfer and Mexico Pacific LNG have all racked up initial deals to move their projects forward.

"In this environment, with an uptick in commercial support for ventures under development, it may be easier for projects to navigate on their own," Nathan said. "But that does not necessarily change the opportunity for different kinds of partnerships."

Caroline Evans, Houston

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CORPORATE STRATEGY

Q&A: Chevron Sees Markets Split as Transition Advances

Global oil and gas markets have been upended by the West's push to move away from Russian volumes and the pressures of an energy transition where oil supply has declined faster than demand did in the wake of the coronavirus pandemic. Colin Parfitt is vice president, midstream at Chevron — a role in which he oversees the US giant's shipping, pipeline, power and energy management, and supply and trading operating units. He sat down with Energy Intelligence Finance *in London to discuss the role of midstream in Chevron's energy transition strategy, bifurcated oil markets, attitudes toward paying for lower emissions and the future of hydrogen.*

Q: What do you think about the midstream division's contribution to Chevron's overall carbon footprint and addressing the intensity of it?

A: One of the things we want to try and do is reduce emissions and get the biggest bang for our buck in doing it. Essentially, you try and go through all your assets and say: "Well, what are the projects you'll do? How much money would it cost you and what benefit would you get?" And then you try and rank them and say: "Let's put our money towards the things that give us the biggest benefit." The reason I go into that story is if I did nothing in midstream because there was more benefit in an upstream operation that would be just fine. We don't try and piece it down so small that everybody has to do something.

One of the really early things to do is just measure. There's a lot of measurement at the moment that can get purported to be fact, which is just averages. It's an average of the emissions from this space and average off that pipeline, average through an LNG plant, an average off that ship. I think we really need to measure. Once you know specifically, we can then start managing that and driving that down.

Q: We're certainly seeing those types of emissions pressures from capital markets, but is this also a request you're getting from your customers?

A: You definitely have a customer drive to do that. So with gas, often they're power customers and they also have plans to reduce their emissions. One of the interesting things always is that as you do all of this, if there is any cost entailed, what will the consumer pay? The interesting issue is how much premium or can you just recover the cost of doing this, which is, I would say, to be proven.

Q: Have you seen any changes in those attitudes now that we are seeing much higher prices for oil and gas?

A: One of the things we think about is affordable, reliable and ever cleaner energy. What we observe is if you get too focused on one of those things — so if you're too focused on the ever cleaner, but you forget reliability and affordability — that's an issue. What's the state of the world at the moment? A lot of people are concerned about reliability. Very simplistically, I think it's: Can you turn the light switch and the light goes on? Or turn up to your gasoline station or petrol station and there is petrol? I've got much more of a premium at the moment on "Can you supply me reliably?" The question is: Has that damped the other stuff? It's probably not as vocal, but it hasn't gone away. So I mean I could argue maybe it's just gone back more into balance than we might have seen earlier.

Q: How do you see the state of commodity markets and the ability to optimize your operations globally?

A: One of the things that's happened post Russia-Ukraine is oil flows have changed. Urals crude used to flow a lot to Europe. Now it flows to India and China. So what happens with Europe? Well, it's not buying Urals. What might it buy? West Africa crude, US crude, long freights. So actually, the world has stopped optimizing as a whole and has optimized in what I might call two spheres.

So I think the bifurcated energy is short term leading to more sea transportation, more miles of freight being used. I think about that as more cost.

Q: How far along are we in developing into that bifurcated energy system? Will we potentially see much more radical shifts in trade flows?

A: The answer is I don't know. But I think what I might expect to see is more of the same. Going back to the crude oil example, what's happened is more Russian crude oil is going to India and China, but there's still Russian crude oil flowing to Europe, because a lot of the announcements have been (to stop buying Russian crude) by the end of this year. You would expect, again, more of that to flow to India and China, and Europe to be buying more of something else. It will be a reallocation of crude all around the world. I think we've seen the start of the trend. Will we see more? Yes, I think we will. I don't think it radically changes direction.

Q: Has there been any relief on issues we've seen around shipping and insurance — some of the complications we've seen from this bifurcation of energy?

A: The way I might describe it is we're in a bit of a new normal. So I mean, our normal today is different from our normal six months ago. The problem is that the world changes and geopolitics changes so quickly. My new normal this week could change again next week. Fundamentally, the world supply or the world energy system is working. It's just tight everywhere. And because it's tight, it's high price and because it's all so tight this reliability issue pops up all the time. If I think about what the consumers want, they want to turn the light and the light goes on. Or turn up at a gasoline station and fill up or to an EV charging station. People just want that to happen. Actually, the energy systems provided that for decades and it really kind of rocks people when that doesn't work.

Q: I wanted to come back to these transition businesses Chevron is building out. How much of your existing midstream infrastructure is usable for these new businesses?

A: If I do some generalizations, renewable fuels actually tend to do quite well because they tend to be what you could drop in. If I'm thinking about doing renewable diesel, you can put it in a pipeline that pumps diesel. You can get to a filling station that pumps diesel. Fundamentally, the infrastructure works. With other things that I think about — carbon capture and sequestration — it depends where you are, but CO2 does go in pipelines, so if the pipelines go in the right direction, that's good.

With hydrogen it's just a bit harder, because essentially you need specialty coatings to move it, so not all pipes are going to fit for hydrogen. It's probably the same for ships. We can ship renewable fuels pretty easily. Hydrogen needs specialist carriers and ships that often aren't built yet.

Q: Does that inform your outlook for how the transition and these decarbonization efforts might progress?

A: Yes, some of that's certainly true. I think biofuel fits quite well in existing structure, so it makes it fairly easy to do. The question is: Does that give it an inherent advantage? Look, I think it should probably be quicker than things like hydrogen. Hydrogen has a bunch of potential, but there's not a clear business model yet for producing hydrogen through transporting it, through a customer using it at the scale you need to make it work.

Q: As you think about that hydrogen business model, what's your outlook for the global hydrogen market?

A: At the moment, we can't assume it's like LNG or like oil and gas. In oil and gas you can produce something — say crude oil in the Middle East. I can put it on a ship and I can send it to you and it's halfway around the world and that all works because maybe I spent $2 in freight on a $100 commodity. It's low cost, it works.

With hydrogen, it's both technically hard and very expensive to move it. If you had a hydrogen customer — let's say a steel plant — and you wanted to build a hydrogen plant, you'll build it right next to them because transportation is difficult. So at the moment I'm not bought into hydrogen being like LNG because we haven't figured out how to make transportation simple, reliable and cheap.

Noah Brenner, London

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ENERGY AND EQUITY MARKET DATA
For the week ended Jul 15, 2022

EIF GLOBAL INDEX COMPONENTS*

	Close Jul 15	1-Wk Chg.	% Chg. 1-Wk	% Chg. 52-Wk	% Chg. YTD
Lukoil (mos)	68.06	+5.38	+8.58	-21.58	-22.77
Rosneft (mos)	6.06	+0.44	+7.75	-20.41	-24.63
ONGC (bse)	1.59	+0.05	+3.42	+1.13	-17.06
Reliance Industries (bse)	30.11	-0.06	-0.21	+7.73	-5.32
Sinopec-H (sehk)	0.44	-0.01	-1.74	-9.99	-6.43
Exxon Mobil (nyse)	84.54	-1.54	-1.79	+43.41	+38.16
PetroChina-H (sehk)	0.44	-0.01	-2.82	-0.47	-0.97
Equinor (osl)	32.16	-1.18	-3.55	+62.43	+20.08
Chevron (nyse)	137.65	-5.12	-3.59	+35.88	+17.30
Shell (lse)	23.58	-1.00	-4.05	+21.17	+7.47
Sinopec-S (sesh)	0.45	-0.02	-4.09	-23.85	-31.91
Eni (mise)	10.93	-0.50	-4.37	-6.61	-21.30
TotalEnergies (par)	47.95	-2.22	-4.43	+10.77	-5.49
Saudi Aramco (sse)	9.65	-0.45	-4.50	+3.75	+11.36
BP (lse)	4.42	-0.23	-4.88	+8.02	-1.10
Petrobras-3 (spse)	5.60	-0.33	-5.63	+22.51	+21.65
Petrobras-4 (spse)	5.17	-0.31	-5.69	+11.98	+22.98
CNOOC-H (sehk)	1.19	-0.07	-5.78	+12.06	+27.43
Ecopetrol (bvc)	0.48	-0.04	-7.49	-28.46	-27.10
Suncor (tse)	30.18	-2.59	-7.91	+39.29	+20.46
EIF Global Index	**315.21**	**-11.42**	**-3.50**	**+15.68**	**+8.32**

*Converted US$/share.

INDEXES

Equity Indexes	Close Jul 15	1-Wk Chg.	% Chg. 1-Wk	% Chg. 52-Wk	% Chg. YTD
DJIA	31,288.26	-49.89	-0.16	-10.57	-13.90
S&P 500	3,863.16	-36.22	-0.93	-11.40	-18.95
FTSE 100	7,159.01	-37.23	-0.52	+2.10	-3.05
FTSE All-World	713.12	-10.21	-1.41	-16.46	-20.59
EIF Global	315.21	-11.42	-3.50	+15.68	+8.32
S&P Global Oil	1,543.10	-52.42	-3.29	+9.37	-0.59
FT Oil, Gas & Coal	6,791.89	-201.38	-2.88	+35.81	+18.57
TSE Oil & Gas	2,665.18	-99.96	-3.62	+28.13	+16.97
Emerging Markets					
Hang Seng Energy (HK)	20,252.99	-482.88	-2.33	+27.58	+20.51
BSE Oil & Gas (India)	18,058.33	+443.72	+2.52	+15.38	+3.14
RTS Oil & Gas (Russia)	+199.59	+3.20	+1.63	-11.74	-16.09

COMMODITY PRICES

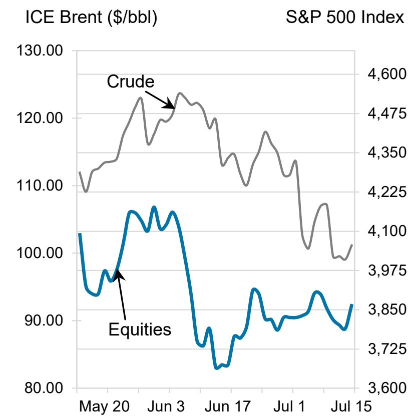
	Close Jul 15	1-Wk Chg.	% Chg. 1-Wk	% Chg. 52-Wk	% Chg. YTD
Dated Brent	112.20	-1.86	-1.63	+50.91	+45.07
Brent 1st ICE	101.16	-5.86	-5.48	+37.69	+30.06
WTI 1st (Nymex)	97.59	-7.20	-6.87	+36.20	+29.76
Oman 1st (DME)	100.56	-4.45	-4.24	+39.28	+31.13
RBOB (Nymex)	3.21	-0.23	-6.79	+42.79	+44.19
Heating Oil (Nymex)	3.70	+0.03	+0.71	+75.09	+58.75
Gas Oil (ICE)	1,112.50	-21.00	-1.85	+85.03	+66.79
Henry Hub (Nymex)	7.02	+0.98	+16.27	+94.13	+88.10
Henry Hub (Cash)	6.60	+0.20	+3.06	+79.24	+72.49
UK NBP (Cash)	173.00	-2.00	-1.14	+105.95	+33.08

SHARE PRICES IN LOCAL CURRENCY†

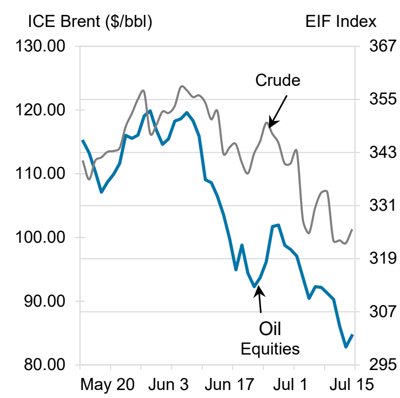
NOCs	Close Jul 15	1-Wk Chg.	% Chg. 1-Wk	% Chg. 52-Wk	% Chg. YTD
Saudi Aramco (sse)	36.25	-1.70	-4.48	+3.87	+11.38
PetroChina-H (sehk)	3.46	-0.07	-1.98	+0.58	-0.29
Sinopec-H (sehk)	3.42	-0.07	-2.01	-9.04	-5.79
Equinor (osl)	326.65	-8.10	-2.42	+86.96	+38.47
Petrobras-3 (spse)	30.31	-0.89	-2.85	+29.66	+18.11
Petrobras-4 (spse)	27.96	-0.84	-2.92	+18.51	+19.40
PTTEP (set)	154.00	-5.00	-3.14	+39.37	+30.51
Sinopec-S (sesh)	3.02	-0.10	-3.21	-20.32	-27.58
PetroChina-S (sesh)	5.01	-0.18	-3.47	+3.09	+2.04
Gazprom (micex)	187.61	-10.39	-5.25	-33.02	-45.35
CNOOC-H (sehk)	9.32	-0.52	-5.28	+13.24	+28.31
Rosneft (mos)	330.50	-20.70	-5.89	-41.56	-44.91
CNOOC-S (sesh)	14.88	-1.15	-7.17	NA	NA
Ecopetrol (bvc)	2,098.00	-202.00	-8.78	-18.37	-22.01
Majors					
Exxon Mobil (nyse)	84.54	-1.54	-1.79	+43.41	+38.16
Shell (lse)	1,989.60	-53.90	-2.64	+41.37	+22.68
BP (lse)	373.10	-13.45	-3.48	+26.03	+12.89
TotalEnergies (par)	47.54	-1.74	-3.52	+29.72	+6.51
Chevron (nyse)	137.65	-5.12	-3.59	+35.88	+17.30
Regional Integrateds					
OMV (vse)	40.16	-1.11	-2.69	-13.11	-19.60
Eni (mise)	10.84	-0.39	-3.46	+9.36	-11.31
Lukoil (mos)	3,709.00	-202.00	-5.16	-42.42	-43.55
Repsol (bme)	11.89	-1.10	-8.44	+27.45	+13.88
Global Independents					
Woodside Petroleum (asx)	30.63	-0.17	-0.55	+33.35	+39.67
Occidental (nyse)	58.71	-1.96	-3.23	+115.61	+102.52
ConocoPhillips (nyse)	82.89	-3.57	-4.13	+45.22	+14.84
Kosmos Energy (nyse)	5.31	-0.26	-4.67	+113.25	+53.47
Hess (nyse)	95.21	-4.97	-4.96	+21.47	+28.61
EOG Resources (nyse)	97.28	-8.24	-7.81	+31.78	+11.98
APA (nyse)	31.99	-2.86	-8.21	+73.20	+18.97
Refiners					
Marathon Petroleum (nyse)	84.42	+1.15	+1.38	+55.61	+31.93
Reliance Industries (bse)	2,401.55	+10.05	+0.42	+15.28	+1.41
Phillips66 (nyse)	81.64	-0.37	-0.45	+5.79	+12.67
Eneos (tyo)	493.10	-6.30	-1.26	+4.27	+14.59
Valero (nyse)	104.59	-2.44	-2.28	+56.57	+39.25
HollyFrontier (nyse)	44.16	-1.49	-3.26	+48.99	+34.72
PBF Energy (nyse)	27.49	-1.12	-3.91	+154.77	+111.95
Oil-Field Services, EPC					
Fluor (nyse)	23.68	-0.57	-2.35	+46.08	-4.40
Worley (asx)	13.17	-0.55	-4.01	+14.72	+23.89
Schlumberger (nyse)	32.30	-2.02	-5.89	+12.43	+7.85
Baker Hughes (nyse)	26.70	-1.77	-6.20	+25.80	+11.00
TechnipFMC (nyse)	5.94	-0.42	-6.60	-23.26	+0.34
Halliburton (nyse)	27.86	-1.98	-6.64	+34.65	+21.82
Petrofac (lse)	103.10	-9.30	-8.27	+7.26	-10.58
Wood Group (lse)	142.55	-13.45	-8.62	-33.33	-25.41
Transocean (nyse)	2.54	-0.60	-19.11	-30.41	-7.97
Saipem (mise)	0.82	-2.78	-77.22	-58.01	-82.29
Midstream					
Williams (nyse)	31.38	+0.06	+0.19	+22.77	+20.51
Plains All-American (nyse)	10.12	-0.06	-0.59	-0.88	+8.35
Enbridge (tsx)	54.13	-0.38	-0.70	+9.55	+9.55
TC Energy (tsx)	66.37	-0.52	-0.78	+7.39	+12.82
Kinder Morgan (nyse)	16.76	-0.21	-1.24	-6.16	+5.67
Enterprise Products (nyse)	24.52	-0.46	-1.84	+2.42	+11.66

*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

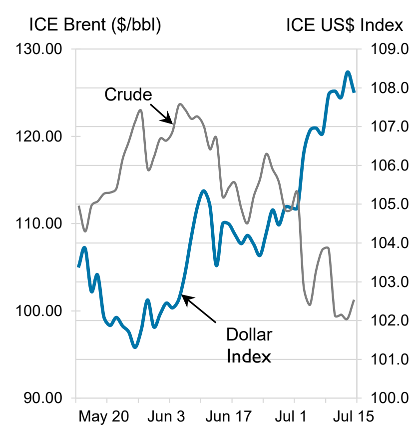
CRUDE VS. EQUITIES



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.