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ENERGY INTELLIGENCE **FINANCE**®

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OUR TAKE

Crisis Moves Dial on 'Advantaged' Barrels

The Ukraine crisis has spurred a rethink of the global energy ecosystem, including the definition of "advantaged" barrels. This rethink is rooted in geopolitical risk exposure rather than breakeven thresholds, despite a multiplying of oil and natural gas prices over the past 18 months. With the energy transition challenging long-term oil and gas demand, we see the industry's appetite for geopolitical risk remaining depressed, even if Russia-Ukraine resolves soon.

- The 2020 downturn cemented the industry's shift toward highly selective reinvestment. Our initial definition of "advantaged" oil and gas resources included some combination of: (1) low costs (opex and/or capex), (2) high productivity, (3) short development cycles, (4) generous fiscal terms, (5) lower carbon footprints, (6) access to existing infrastructure, (7) strong market access and (8) options for integration.

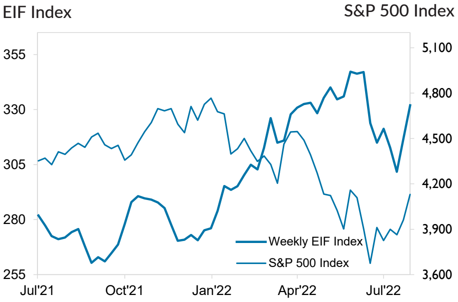
- Also on our list was "low aboveground risk," but we see this playing a more pronounced role going forward — even if cost and carbon footprint remain the highest-weighted criteria. Notably, significantly higher prices are not altering the calculus, as evidenced by Shell in Nigeria. "We want to be out of onshore oil, no matter how the macro might perhaps change the outlook for those assets," CEO Ben van Beurden said last week, calling it "a case of risk management."

- Energy investment veteran Dan Pickering expects so-called "Trustworthy Barrels" to become more valued in the post-Russia-Ukraine context, favoring production in "Western/developed countries." We agree that geopolitically risky barrels are likely to become more marginalized, but don't see the realignment so neatly tracking these geographic or socioeconomic lines.

- Advantaged assets included in our past assessments that still make the cut include LNG in Mauritania/Senegal and Qatar, deepwater Guyana and Brazil, tie-backs offshore Angola, and Abu Dhabi's onshore. Moving up the list are incremental opportunities in Africa (TotalEnergies, Eni and Chevron in Angola; Eni in Algeria) and quick deployment LNG in Mozambique (Eni-led Coral; possibly Exxon Mobil at Rovuma) and Congo (Brazzaville) (Eni). Expanded Western opportunities include fast-tracked US LNG (New Fortress) and Eastern Canada's offshore (Equinor, BP, Cenovus and Suncor). East Med gas' advantages have also improved.

- Heightened geopolitical risk has removed Russian gas from the advantaged resource list and driven an exodus from Myanmar. More universally, we see geopolitical exposure playing an upsized role in how producers manage tail demand risk, particularly for oil post-2030, with protracted aboveground issues more likely to drive a redeployment of capital elsewhere to protect returns. Where companies cannot avoid risk, they will seek to reduce it through new development concepts rather than relying solely on old-school geopolitical maneuvering. Exxon's reported eyeing of midscale, modular LNG in Mozambique's insurgent-riddled onshore is case in point. Tail risk considerations also inform how emerging provinces are now assessed, with fast-tracking considered for Namibia (Total, Shell) and Cote D'Ivoire (Eni).

EIF INDEX



EIF Global Oil and Gas Index of 22 traded equities

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PEER STRATEGY

Majors Plow Cash Into Buybacks and Tie-Backs

Riding high on the commodity price upcycle, Western majors reported another quarter of record profits in the three months to June, aggressively paying down debt and accelerating shareholder returns. Companies appear well placed to lift capex from recent multiyear lows to take advantage of the tight energy market. But a spending splurge is unlikely amid caution over rising costs, the potential political fallout from inflationary pressures on consumers and fickle government policies. Here are Energy Intelligence's key takeaways from second-quarter earnings season.

- **Debt reduction and share buybacks are continuing apace.**

All five Western majors plowed billions of dollars of their record free cash flow into shareholder returns and continued debt reduction in the second quarter. Share buybacks remained the preferred way of distributing cash on top of dividends this year, despite share price gains, offering flexibility should prices decline.

BP was the only major to announce a surprise 10% increase in its quarterly dividend plus an upgraded $3.5 billion buyback program running through to the third quarter. Shell announced a $6 billion share buyback for the current quarter and pledged to keep distributing more than 30% of operating cash flow to shareholders.

Exxon Mobil reaffirmed buyback spending of up to $30 billion through the end of 2023. But the company continues to take a conservative line on dividends, leaving the payout unchanged from the previous quarter after a 1¢ per share increase last year.

Fellow US major Chevron raised its annual buyback guidance by $5 billion to $10 billion-$15 billion — equivalent to 1% of its shares each quarter. The company said it intends to keep buybacks going "even when the commodity cycle turns down" since its net debt, at 8%, is "well below" its midcycle guidance range.

TotalEnergies held its share buyback guidance steady at $2 billion in the third quarter, disappointing some investors. But CEO Patrick Pouyanne pointed to unpredictable macroeconomic pressures and said deleveraging was the best way to protect shareholder returns through price cycles. Total also cut gearing to below 10% and intends to reduce it to 5% this year.

- **Cost inflation and capital discipline remain firmly in focus.**

The majors look well placed to take advantage of the tight energy market stoked by Europe's move to boycott Russian oil and gas. But companies were cautious about potential profit erosion from rising costs for raw materials and labor and supply-chain shortages. Capital discipline remains Shell's watchword as it maintained capex within its $23 billion-$27 billion range.

Total raised its annual capex guidance by $1 billion to $16 billon to pursue short-cycle tie-back opportunities and to invest in "opportunistic" M&A deals to accelerate its transformation. But the jump in the cost of raw materials such as steel led the French major to postpone an order for the East Africa Crude Oil Pipeline in Uganda "to wait and see some deflation."

BP added around $500 million in short-cycle spending. The cash will help boost activity in the Haynesville Shale play and the Gulf of Mexico in the US. But any spending changes will be "at the margin," CEO Bernard Looney said, adding that the company had no plans to stray from its $9 billion-$10 billion upstream budget.

Exxon gave no indication as to whether recent events would push annual spending to the top of its $20 billion-$25 billion range. But Exxon had already suggested it could squeeze more from its Permian Basin assets without "stepping up" its drilling program or spending. Moreover, given availability of rigs, "there's not a whole lot of opportunity to [expand] there," CEO Darren Woods said. Exxon's focus is around maximizing output from existing assets: PNG LNG hit record daily output in July, Liza Phase I off Guyana is producing 10% above nameplate capacity and Phase II ramped up faster than expected.

Chevron CFO Pierre Breber said 2022 capex will likely undershoot its $15 billion-$17 billion medium-term range. Spending in Kazakhstan is winding down and will fall by about $1 billion. What isn't clear is what Chevron might spend the incremental capital on. Management again talked up the viability of floating LNG in the East Med, without providing a timeline.

- **Complex withdrawals from Russia are proceeding with mixed results.**

Shell CEO Ben van Beurden said it was "highly unlikely" his company would apply for a stake in the new Russian operator of the Sakhalin-2 LNG project. The UK-based supermajor offloaded its Russian retail and lubricants business and quit one upstream joint venture in Russia in the second quarter, as companies make good on pledges to reduce their exposure to the country's energy sector following the invasion of Ukraine. But before Shell had managed to sell its 27.5% interest in Sakhalin-2, the Kremlin announced plans to create a new Russia-registered operating company. Executives from BP, meanwhile, dodged a question about the technicalities of getting out of its Russian assets, including its 19.75% in Rosneft.

Total has decided to stay in Russia but nonetheless took a $3.5 billion post-tax impairment against second-quarter earnings after assessing the potential impact of Western sanctions on the future value of its stake in Russian gas producer Novatek. The French major also transferred its 20% stake in the Kharyaga oil field to state-run partner Zarubezhneft. Even after stripping out the Russia business, which represents about 5% of Total's capital employed and cash flow, Pouyanne reckons "there will be a volume impact but not really any financial impact on performance."

- **Majors are adopting a multipronged approach to Europe's gas crisis.**

Companies are seeking ways to play the accelerated growth in gas and LNG as Europe seeks to wean itself off Russian imports. Total, Shell and Exxon expanded LNG footprints during the quarter, each landing roles in Qatar's LNG mega-expansion.

Total is moving floating storage and regasification units (FSRUs) for LNG to France and potential, close to the landing point of the Nord Stream gas pipeline in Germany. Pouyanne said he was more "comfortable" bringing in an FSRU than making a longer-term commitment to build an onshore regasification terminal "because if the market moves because policymakers want to change their policy around natural gas, we can move it."

Shell is focusing on new LNG import capacity in Europe and has agreed to book capacity in the German LNG Terminal at Brunsbuttel and the future Eemshaven Terminal near the Netherlands' northern maritime border with Germany, close to Groningen and European gas infrastructure.

It will also add vital gas output this fall from the UK North Sea at the Pierce field, having already taken FIDs for the UK Jackdaw gas field and the Crux field in Australia, earmarked to feed its Prelude FLNG facility, in the second quarter.

Exxon and Chevron are also ramping up LNG volumes. Exxon's Coral South LNG off Mozambique is on track to ship first LNG later this year, and Golden Pass LNG, due to start up in 2024, will boost US Gulf Coast LNG capacity by 20%. Exxon is evaluating projects to expand its European LNG import capacity, including at its majority-owned Adriatic LNG in Italy.

Deb Kelly, London

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CORPORATE STRATEGY

Petronas Sharpens Transition Focus With Clean Energy Unit

- *New Petronas unit Gentari aims to quickly build a diversified clean energy portfolio focused on the Asia-Pacific through inorganic growth and partnerships.*
- *Gentari's strategy is to make investments in renewable energy first to provide decarbonized electricity for its hydrogen and green mobility schemes.*
- *Parent Petronas will be its chief source of capital but Gentari says it could also try to tap the green finance market to fund its development.*

The Issue

Malaysia's state-owned Petronas has created a new stand-alone company called Gentari to take over its clean energy business. The move marks a first for a Southeast Asian national oil company and is part of Petronas' plans to achieve net-zero emissions by 2050, although Gentari's growth targets are far more ambitious than its parent's were.

Sustainable Generation

Petronas has designed Gentari — an amalgamation of "generation" and the Malay word "lestari," or sustainable — as a lean and nimble vehicle that is led by a separate board from its parent company. It is meant to act like a venture capital or private equity firm, taking stakes in fledgling companies and nurturing them to maturity. Only Petronas CEO Tengku Muhammad Taufik will have a seat on both companies' boards.

Such an independent structure is deemed more suitable to achieving the arduous task of rapidly growing Petronas' nascent renewable, hydrogen and green mobility portfolio through partnerships and acquisitions. "A key part of Gentari's strategy is to grow through collaboration and partnerships with like-minded organizations who will help us achieve our ambitions," a Gentari spokesperson told Energy Intelligence. The company did not share the specific metrics it will follow in its investment strategy.

The move to create Gentari is somewhat similar to the decisions by European firms Eni and Repsol to set up stand-alone companies to develop their green energy businesses. However, unlike those two companies, Petronas has not disclosed any plans to sell a stake in the new entity or sell shares to investors via an IPO as it did with its petrochemicals and retail subsidiaries Petronas Chemicals Group and Petronas Dagangan.

Regional Focus

Gentari is set to have a diversified and integrated portfolio of renewable and low-carbon businesses, with a focus on the high-growth Asia-Pacific market. Major investments are expected to be made in renewable energy, a stepping stone on the way to development of green mobility solutions and green hydrogen/ammonia. "Having utility-scale renewable capacity will help us to achieve the economics required to provide electrons for electricity, as well as for our green hydrogen and green mobility businesses," Gentari said.

The company is aiming to grow its renewable energy capacity, particularly ground-mounted and rooftop solar energy, to 30-40 gigawatts in the Asia-Pacific by the end of 2030. That represents a huge step up from Petronas' previous target of 3 GW of renewable generation capacity by 2024. Gentari gained a head-start on reaching this target by inheriting 1 GW that is already operating or under construction in India and Malaysia under Petronas brand M+.

It is also striving to have up to 1.2 million tons per year of hydrogen capacity by 2030, looking to start production at scale in Kerteh on the east coast of peninsular Malaysia and Bintulu on the island of Sarawak. Petronas has large gas-processing and LNG facilities at both locations. The carbon dioxide produced from the operations would be captured. Construction work is slated to start in 2023, with production earmarked for 2027 if Petronas and Gentari sanction the project.

Bold and Broad Targets

Gentari is also looking into the possibility of using hydropower to produce green hydrogen in Sarawak in partnership with local utility Sarawak Energy. The project could lead to construction of a "large-scale hydrogen production facility," Petronas said previously. It believes the site's proximity to potential future hydrogen markets such as Japan and South Korea — which are currently some of its largest LNG clients — is a key advantage. The company is aiming to halve its current green hydrogen production costs to $2 per kilogram by 2025.

Downstream, Gentari is targeting a 10% share of the electric vehicle (EV) charging market in key Asia-Pacific countries by the end of the decade. This is equivalent to about 25,000 charging points, up from Petronas' 60 or so in Malaysia today. It is also looking to establish vehicle-as-a-service fleets — which allow customers to use EVs for varying periods of time instead of owning them — in Malaysia, India and the wider Asia-Pacific.

Its ambitions are not limited to Asia, however. In the renewables space, Gentari is looking to make a foray into offshore wind in Europe, as well as Asia-Pacific, with a focus on countries that have "the right policies, incentives and financing that support the economics and opportunity for future growth." And the pipeline of hydrogen projects it has taken over includes plans to produce 1 million tons per year of blue ammonia based on natural gas extracted from a Petronas field in Alberta, Canada.

Green Finance Gains Traction

Gentari's aggressive growth plans suggest it will make substantial investments in the coming years, although it has yet to provide any capex guidance beyond saying spending will be "in line with our ambitions." It will, however, be able to count on some of the 10% of group capex allocated by Petronas this year for "nontraditional spaces" totaling about 6 billion ringgit ($1 billion). This segment includes solar energy and specialty chemicals.

Gentari also envisages leveraging green financing "at opportune junctures" to fund investments. It will have more appeal to the sustainable finance market than its parent, given its sole focus on renewable energy and low-carbon businesses.

Interest in sustainable finance has been growing recently in Southeast Asia. Green bonds, or fixed-income instruments earmarked to raise money for climate and environmental projects, are increasingly seen as a viable option in the region. Indonesia's Pertamina, for example, is looking to tap the sustainable finance market to fund its geothermal energy subsidiary. The state-owned company was eyeing a green bond issuance this year but the sale has yet to materialize. A Pertamina spokesperson told Energy Intelligence it is "still looking for the best option."

Thailand's state-owned energy conglomerate PTT, meanwhile, was a pioneer in this field with its 2 billion baht ($54 million) three-year climate bonds issued in 2020. The sale was the first of its kind globally for a company predominantly involved in oil and gas. The funds were raised for environmental projects, including reforestation initiatives designed to compensate for PTT's greenhouse gas emissions.

Marc Roussot, Singapore

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PEER STRATEGY

Producers Rethink Oil Price Assumptions on Tight Market

Oil producers, banks and research houses have all raised oil price assumptions in recent months, reflecting a more bullish outlook for the commodity whose prospects looked very dim only two years ago. Nudging up its Brent forecasts to $105 per barrel and $100/bbl for 2022 and 2023, respectively, Fitch Solutions said in a note last month that its revision reflected "stronger-than-expected price performance ... and a tighter supply outlook emerging." It noted that Russian oil exports would come under increasing pressure as a partial EU ban on Russian crude from Dec. 5 draws nearer, potentially tightening the market even more. The higher forecasts point to more bumper profits ahead for oil and gas producers but also have implications for their investment plans, borrowing and balance sheets.

• It's time to start reversing those write-downs.

Oil producers made tens of billions of dollars in write-downs in mid-2020, amid demand destruction at the height of the coronavirus pandemic and after West Texas Intermediate (WTI) briefly traded in negative territory. Some even trimmed projections for 2030 and beyond at the same time, on the expectation that the energy transition would curb demand for fossil fuels.

Two years on, however, and producers are well on their way to reversing some of those impairments. Italy's Eni last year reversed €446 million ($457 million) of impairment losses on upstream assets due to an improved pricing environment. This year, even before Russia's Feb. 24 invasion of Ukraine sent energy markets into a frenzy, Australia's Woodside felt confident enough in the gas price outlook to reverse $582 million of impairments taken on its Pluto-Scarborough and NWS gas projects.

More recently, Shell made $4.3 billion of post-tax impairment reversals in the second quarter of this year after adjusting its mid- and long-term commodity price assumptions, offsetting its Russia-related write-downs in the first quarter. The reversals were chiefly on its QGC gas asset, also in Australia, as well as two projects offshore Brazil and one in the US Gulf of Mexico.

In its impairment testing, Shell assumed $80/bbl Brent next year and a long-term gas price of $4 per million Btu. When it took the impairments in 2020, it used a Brent price of $60/bbl for 2023 and beyond, and a long-term gas price assumption of $3/MMBtu. "In general, we don't have firm views on oil prices but we test final investment decisions against a range of potential outcomes," a Shell spokesperson said.

• Bullish projections allow companies to offer up lucrative shareholder return schemes.

Upwardly revised oil price projections mean companies expect stronger cash flow, which in the current environment usually means they plan to return more money to shareholders. Eni last week hiked its 2022 Brent outlook to $105/bbl, up from $90/bbl previously, and simultaneously raised its operating cash flow projection to €20 billion from €16 billion, allowing it to increase its share buyback commitment by €1.3 billion to €2.4 billion.

Spanish counterpart Repsol, meanwhile, is sticking to its pledge to distribute 25%-30% of its operating cash flow to shareholders and expects to outline a higher cash dividend for 2023 in the current price environment. Repsol, for accounting purposes, has a conservative estimate of $69/bbl for Brent in 2022, according to its latest annual report, up from a $55/bbl assumption for 2022 made a year earlier. CEO Josu Jon Imaz is wise to the risky nature of the business, however. "We have to deploy ambitious, resilient measures to navigate our real and pretty challenging scenario of prices and demand without any external support," he told analysts last week.

Although he didn't provide precise forecasts, Shell CEO Ben van Beurden said on a second-quarter earnings call that the company is bullish on oil and gas in general — amid tight supply-demand balances and limited surplus capacity — and particularly "in areas of greater stress like in Europe." Seeing more upside risk than downside risk to prices, he believes the oil and gas outlook will allow Shell to keep paying out more than 30% of operating cash flow and raising its dividend payout by 4% per year. BP is targeting the same percentage growth in its dividend through 2025, as well as share buybacks of $4 billion per year, based on $60/bbl Brent, although it plans to ensure the dividend can still be funded in a $40/bbl world.

Chevron CFO Pierre Breber, meanwhile, said on an earnings call the company's enlarged $15 billion buyback program had been tested against a range of scenarios and is "consistent" with its "upside leverage case" of $75 flat Brent nominal prices over the next five years.

• The best laid plans need long-term forecasts.

Despite fears of a recession in Europe and spillover effects in the US, Energy Intelligence, in our midyear check-in, sees physical tightness giving Brent prices fundamental support in the $80-$90/bbl range out to 2026, with our forecasts remaining above consensus throughout. As the energy transition unfolds, we see Brent slipping to $75/bbl by 2030.

Long-term price forecasts remain crucial to underpinning large-scale investments for energy companies, and investors are increasingly seeking greater disclosure on them to ensure that companies are preparing for — and will be able to prosper in — a low-carbon world. US majors Exxon Mobil and Chevron continue to resist calls for them to disclose their long-term price assumptions, however.

BP, meanwhile, is also conscious of the fact that ratings agency S&P is forecasting $55/bbl Brent for 2024 and beyond. It therefore is allocating 40% of surplus cash flow to driving down net debt this year, to ensure that it will maintain a strong investment-grade credit rating even in a $55/bbl world, CFO Murray Auchincloss told analysts this week. BP's latest impairment testing assumptions have Brent at $60/bbl in 2030, falling to $45/bbl in 2060. TotalEnergies is evaluating its portfolio against an even more bearish scenario which has Brent moving toward $50/bbl by 2040, in line with the International Energy Agency's Paris-compliant Sustainable Development Scenario, before halving to $25/bbl by 2050.

Tom Daly, London

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ENERGY AND EQUITY MARKET DATA For the week ended Jul 29, 2022

EIF GLOBAL INDEX COMPONENTS*

	Close Jul 29	1-Wk Chg.	% Chg. 1-Wk	% Chg. 52-Wk	% Chg. YTD
Petrobras-4 (spse)	6.60	+1.27	+23.71	+50.93	+57.02
Petrobras-3 (spse)	7.14	+1.34	+22.99	+64.94	+55.07
Ecopetrol (bvc)	0.53	+0.07	+15.22	-22.57	-19.45
Chevron (nyse)	163.78	+19.59	+13.59	+59.68	+39.57
Exxon Mobil (nyse)	96.93	+9.85	+11.31	+64.48	+58.41
Equinor (osl)	38.22	+3.62	+10.45	+90.64	+42.67
Suncor (tse)	33.97	+3.17	+10.28	+69.84	+35.61
Shell (lse)	26.51	+2.03	+8.30	+30.18	+20.82
Eni (mise)	11.97	+0.77	+6.88	+0.58	-13.82
BP (lse)	4.87	+0.27	+5.78	+17.90	+8.84
Sinopec-H (sehk)	0.47	+0.02	+3.92	+2.59	+1.23
Saudi Aramco (sse)	10.57	0.28	+2.73	+13.75	+21.92
TotalEnergies (par)	50.84	1.29	+2.59	+14.06	+0.22
ONGC (bse)	1.69	0.03	+1.95	+9.40	-11.54
CNOOC-H (sehk)	1.27	+0.02	+1.51	+27.07	+36.73
PetroChina-H (sehk)	0.46	+0.01	+1.37	+10.83	+4.47
Reliance Industries (bse)	31.62	+0.27	+0.86	+14.23	-0.56
Sinopec-S (sesh)	0.45	-0.01	-1.51	-10.13	-30.88
Lukoil (mos)	64.89	-1.41	-2.13	-25.98	-26.36
Rosneft (mos)	5.91	-0.20	-3.34	-22.13	-26.57
EIF Global Index	**347.39**	**+16.11**	**+4.86**	**+27.79**	**+19.38**

*Converted US$/share.

INDEXES

Equity Indexes	Close Jul 29	1-Wk Chg.	% Chg. 1-Wk	% Chg. 52-Wk	% Chg. YTD
DJIA	32,845.13	+945.84	+2.97	-6.38	-9.61
S&P 500	4,130.29	+168.66	+4.26	-6.54	-13.34
FTSE 100	7,423.43	+147.06	+2.02	+4.87	+0.53
FTSE All-World	761.63	+25.59	+3.48	-11.88	-15.19
EIF Global	347.39	+16.11	+4.86	+27.79	+19.38
S&P Global Oil	1,743.90	+138.51	+8.63	+23.22	+12.35
FT Oil, Gas & Coal	7,393.74	+422.64	+6.06	+44.24	+29.08
TSE Oil & Gas	2,956.04	+185.97	+6.71	+43.97	+29.74
Emerging Markets					
Hang Seng Energy (HK)	21,314.96	+402.21	+1.92	+41.42	+26.83
BSE Oil & Gas (India)	18,999.02	+493.82	+2.67	+22.82	+8.52
RTS Oil & Gas (Russia)	+192.70	-6.13	-3.08	-15.04	-18.98

COMMODITY PRICES

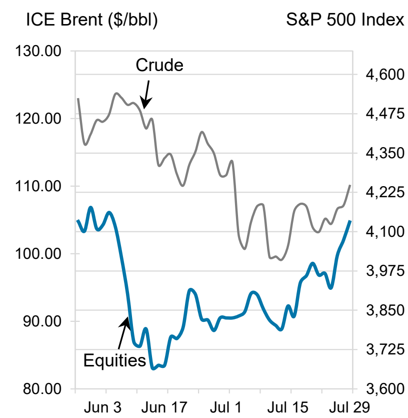
	Close Jul 29	1-Wk Chg.	% Chg. 1-Wk	% Chg. 52-Wk	% Chg. YTD
Dated Brent	111.50	+4.29	+4.00	+46.42	+44.17
Brent 1st ICE	103.97	+0.77	+0.75	+36.71	+33.67
WTI 1st (Nymex)	98.62	+3.92	+4.14	+33.96	+31.13
Oman 1st (DME)	104.96	+3.09	+3.03	+41.95	+36.86
RBOB (Nymex)	3.11	-0.11	-3.40	+32.40	+39.70
Heating Oil (Nymex)	3.55	+0.09	+2.70	+62.10	+52.31
Gas Oil (ICE)	1,106.50	+39.00	+3.65	+81.62	+65.89
Henry Hub (Nymex)	8.23	-0.07	-0.84	+102.73	+120.62
Henry Hub (Cash)	8.33	+0.08	+0.98	+106.78	+117.76
UK NBP (Cash)	264.00	+1.00	+0.38	+151.43	+103.08

SHARE PRICES IN LOCAL CURRENCY†

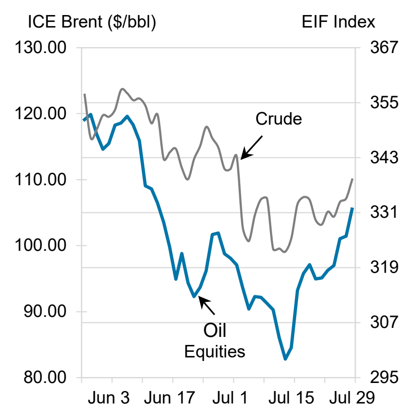
NOCs	Close Jul 29	1-Wk Chg.	% Chg. 1-Wk	% Chg. 52-Wk	% Chg. YTD
PTTEP (set)	162.50	+2.50	+1.56	+51.16	+37.71
Petrobras-4 (spse)	34.15	+4.82	+16.43	+53.67	+45.83
Petrobras-3 (spse)	36.96	+5.03	+15.75	+67.94	+44.02
Ecopetrol (bvc)	2,280.00	+220.00	+10.68	-13.83	-15.24
Equinor (osl)	369.00	+26.10	+7.61	+110.78	+56.42
Rosneft (mos)	353.00	+13.00	+3.82	-36.34	-41.16
Sinopec-H (sehk)	3.70	+0.13	+3.64	+3.64	+1.93
CNOOC-H (sehk)	10.00	+0.21	+2.15	+28.37	+37.68
Saudi Aramco (sse)	39.70	+0.80	+2.06	+13.75	+21.98
Gazprom (micex)	195.26	+3.01	+1.57	-31.92	-43.12
PetroChina-H (sehk)	3.65	+0.04	+1.11	+11.96	+5.19
PetroChina-S (sesh)	5.20	0.00	0.00	+12.07	+5.91
CNOOC-S (sesh)	15.10	-0.05	-0.33	NA	NA
Sinopec-S (sesh)	3.06	-0.05	-1.61	-6.13	-26.62
Majors					
Chevron (nyse)	163.78	+19.59	+13.59	+59.68	+39.57
Exxon Mobil (nyse)	96.93	+9.85	+11.31	+64.48	+58.41
Shell (lse)	2,179.00	+139.50	+6.84	+49.39	+34.36
BP (lse)	400.00	+16.70	+4.36	+35.30	+21.03
TotalEnergies (par)	49.76	+1.22	+2.51	+32.68	+11.49
Regional Integrateds					
Eni (mise)	11.72	+0.75	+6.80	+17.00	-4.12
Lukoil (mos)	3,877.00	+189.00	+5.12	-39.48	-40.99
Repsol (bme)	12.13	+0.10	+0.79	+27.73	+16.18
OMV (vse)	41.42	+0.04	+0.10	-12.43	-17.08
Global Independents					
Kosmos Energy (nyse)	6.34	+1.01	+18.95	+167.51	+83.24
APA (nyse)	37.17	+4.76	+14.69	+94.81	+38.23
Hess (nyse)	112.47	+11.08	+10.93	+44.82	+51.92
ConocoPhillips (nyse)	97.43	+9.30	+10.55	+70.69	+34.98
EOG Resources (nyse)	111.22	+10.22	+10.12	+55.73	+28.02
Occidental (nyse)	65.75	+4.69	+7.68	+145.52	+126.80
Woodside Petroleum (asx)	31.98	+1.01	+3.26	+44.77	+45.83
Refiners					
PBF Energy (nyse)	33.35	+6.94	+26.28	+257.45	+157.13
HollyFrontier (nyse)	47.82	+4.38	+10.08	+61.61	+45.88
Marathon Petroleum (nyse)	91.66	+6.01	+7.02	+63.88	+43.24
Valero (nyse)	110.77	+6.75	+6.49	+63.76	+47.48
Phillips66 (nyse)	89.00	+4.47	+5.29	+19.02	+22.83
Eneos (tyo)	511.70	+12.30	+2.46	+10.45	+18.92
Reliance Industries (bse)	2,508.75	+5.85	+0.23	+22.07	+5.94
Oil-Field Services, EPC					
Transocean (nyse)	3.38	+0.79	+30.50	-7.90	+22.46
TechnipFMC (nyse)	8.09	+1.87	+30.06	+9.03	+36.66
Saipem (mise)	0.81	+0.10	+13.54	-60.02	-82.51
Petrofac (lse)	115.20	+7.90	+7.36	+11.60	-0.09
Baker Hughes (nyse)	25.72	+1.62	+6.72	+21.44	+6.94
Halliburton (nyse)	29.30	+1.84	+6.70	+37.88	+28.12
Schlumberger (nyse)	37.03	+1.96	+5.59	+24.93	+23.64
Fluor (nyse)	25.41	+0.82	+3.33	+48.86	+2.58
Wood Group (lse)	156.95	+4.60	+3.02	-28.72	-17.87
Worley (asx)	14.31	+0.40	+2.88	+24.98	+34.62
Midstream					
Williams (nyse)	34.09	+1.75	+5.41	+33.95	+30.91
Plains All-American (nyse)	11.04	+0.53	+5.04	+10.18	+18.20
Enterprise Products (nyse)	26.73	+1.16	+4.54	+16.93	+21.72
Enbridge (tsx)	57.51	+2.22	+4.02	+16.30	+16.39
Kinder Morgan (nyse)	17.99	+0.34	+1.93	+0.50	+13.43
TC Energy (tsx)	68.27	+0.30	+0.44	+11.35	+16.05

*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

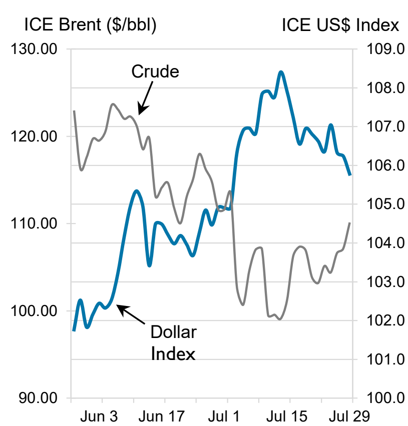
CRUDE VS. EQUITIES



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.