

Global Energy Weekly

OPEC+ switches to a lower gear

OPEC+ set to pause supply additions due to seasonality

The Group of 8 in OPEC+ met briefly yesterday to review global oil market conditions and made two important decisions that could impact the oil market for months to come. First, the group agreed to implement an upward production adjustment of 137 thousand b/d in December 2025 from the 1.65mn b/d additional voluntary cuts implemented in 2023, signaling a desire to keep recovering market share. Second, the group decided to pause the production increments in January, February, and March 2026, arguing that seasonal dynamics limit market appetite for fresh crude oil barrels in the first quarter of the year. Importantly, the group has shown that it is prepared to act pre-emptively and limit supply additions to the global oil market even before the Brent or even the WTI crude oil curves flip into contango due to rising inventories and a growing surplus.

The rapid increase in oil on water is also a concern

One of the challenges facing OPEC+ over the next four months is the rapid increase in oil volumes-at-sea. Shipping data suggests that oil-on-water levels have increased dramatically in recent months. Since mid-August, Vortexa data suggests that oil on water volumes are up by as much as 250 million barrels to 1.4bn barrels. We noted recently (see report: [Oil armada sails into trade war](#)) that oil volumes on the ocean had increased substantially and that these barrels would eventually make their way into on-shore storage, possibly flipping the Brent crude market into contango as onshore oil storage expands. This jump in seaborne barrels is likely linked to fresh Russia sanctions, as ships will now have to travel longer distances and possibly face slower speeds as they await for buyers to emerge. Still, it is important to note that floating storage is nowhere near the levels observed during 2020, meaning that the economics are not there to store barrels at sea.

A shallow and long oil price war is still in play for OPEC+

The OPEC+ decision over the weekend reinforces our view that the group is engaged in a long and shallow price war (see report: [A slow grind oil price war](#)) to recover market share from higher cost producers such as the US shale oil industry. Moreover, we believe this price war could make oil more competitive over time with natural gas and other fuels, helping petroleum retain or even improve its share in the global energy mix. After all, oil demand growth in the past 10 years has lagged both natural gas and electricity by a large margin. So why should OPEC+'s price war be long and shallow? Yesterday's decision shows the group does not want to risk creating an oil glut that sends prices crashing below \$50/bbl. Meanwhile, the battle for market share is likely to be long because curbing oil production with Brent crude oil prices in the \$60/bbl range will take time.

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Commodities
Global**Global Commodity Research**
BofA Europe (Madrid)**Francisco Blanch**
Commodity & Deriv Strategist
BofA Europe (Madrid)
+34 91 514 3070**Danica Averion**
Commodity Strategist
MLI (UK)
danica_ana.averion@bofa.com**Rachel Wisner**
Commodity Strategist
BofAS
+1 646 743 4069**Tej Sathe**
Equity-Linked Analyst
BofAS
tej.sathe@bofa.com**Andy Pham**
FICC Quant Strategist
BofAS
apham3@bofa.com**Clifton White**
Commodity Strategist
BofAS
clifton.white@bofa.com**Michael Widmer**
Commodity Strategist
MLI (UK)
+44 20 7996 0694[See Team Page for List of Analysts](#)

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Refer to important disclosures on page 15 to 16.

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Timestamp: 03 November 2025 06:44PM EST

Exhibit 1: BofA Global Research Commodity Themes and Outlook

Key takeaways

	View	Recent report links
Macro outlook	<ul style="list-style-type: none"> Our economists see world GDP rising 3% in 2025 and 2026 before reaching 3.3% in 2027. 	
WTI and Brent crude oil	<ul style="list-style-type: none"> We project Brent and WTI to average \$67/bbl and \$64/bbl, respectively, in 2025 and \$70/bbl and \$66/bbl, respectively, in 2026. The global oil market should shift into a surplus in 2025 as global supply growth outpaces global demand growth. We forecast global demand growth of ~900k b/d YoY in 2025 and 1mn b/d in 2026. Non-OPEC supply should grow roughly 1.2mn b/d YoY in 2025 and 0.5mn b/d in 2026. We project total US crude and NGL supply to rise 540k b/d in 2025 and 90k b/d in 2026. 	<ul style="list-style-type: none"> Fill me once, shame on you 26 August 2025 Oil market surplus grows 14 August 2025 The fallout of peak American exceptionalism 11 March 2025 Punitive actions limit downside risks to oil 27 January 2025 Sanctions give oil bears a break 13 January 2025
Atlantic Basin oil products	<ul style="list-style-type: none"> We forecast RBOB-Brent to average \$12/bbl in 2025, and we see ULSB-Brent cracks averaging \$19/bbl over the same period 	<ul style="list-style-type: none"> Refining's platinum age comes to a close 18 October 2024
US natural gas	<ul style="list-style-type: none"> US gas supply and demand growth should hit 3.9Bcf/d and 3.1Bcf/d YoY in 2025, pushing stocks to ~3.9Tcf at the end of October. We forecast US Henry Hub natural gas prices will average \$3.3/mmbtu in 2025 and rise to \$4.0/mmbtu in 2026. 	<ul style="list-style-type: none"> Nat gas production déjà vu all over again 06 August 2025 Salts spoil summer gas 03 June 2025
LNG	<ul style="list-style-type: none"> Bullish near-term TTF as we estimate Europe is behind the injection pace needed to reach 90% target despite higher LNG impots YoY Geopolitical events and tropical storms could expose global gas markets to upward price shocks LNG prices could be under pressure by 2027 as China turns a more price sensitive buyer along with global gas supply influx; we estimate LNG supply is set to rise 25mn mt YoY in 2025 and 46mn mt in 2026. 	<ul style="list-style-type: none"> Stormy times not over for European gas 01 July 2025 TTF price drop masks 25/26 winter risk 01 April 2025
Thermal coal	<ul style="list-style-type: none"> Global coal prices have collapsed on rising stocks in China, pushing Newcastle into contango and compressing quality diffs. With prices close to marginal costs, supply and demand shifts should keep Australian prices supported above \$100/t in 2H25. 	<ul style="list-style-type: none"> King coal falls like a rock 25 March 2025 The down and dirty truth about coal 14 October 2024

Source: BofA Global Research estimates

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Exhibit 2: BofA Global Research Commodity Price Forecasts

	units	2024	1Q25F	2Q25F	3Q25F	4Q25F	2025	1Q26F	2Q26F	3Q26F	4Q26F	2026
WTI Crude Oil	(\$/bbl)	76	71	65	62	57	64	60	64	68	72	66
Brent Crude Oil	(\$/bbl)	80	75	67	66	61	67	64	68	72	76	70
US NY Harbor ULSB (HO) Cracks to Brent Crude Oil	(\$/bbl)	23	20	18	19	19	19	20	20	20	20	20
US RBOB Cracks to Brent Crude Oil	(\$/bbl)	17	11	16	13	8	12	12	17	15	9	13
NWE Low Sulphur Gasoil Cracks to Brent Crude Oil	(\$/bbl)	20	16	14	14	14	15	15	16	16	16	16
NWE Eurobob Cracks to Brent Crude Oil	(\$/bbl)	13	5	10	10	5	8	9	12	11	6	10
NWE 1% Residual Cracks to Brent Crude Oil	(\$/bbl)	-6	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5
NWE 0.5% Residual Cracks to Brent Crude Oil	(\$/bbl)	5	3	2	2	2	2	2	2	2	2	2
NWE 3.5% Residual Cracks to Brent Crude Oil	(\$/bbl)	-10	-11	-11	-11	-13	-12	-13	-11	-11	-13	-12
US Natural Gas	(\$/MMBtu)	2.41	3.65	3.44	3.07	3.00	3.29	4.20	3.90	3.90	4.00	4.00
Thermal coal, Newcastle FOB	(\$/t)	150	125	125	125	125	125	112	112	112	112	112
Aluminium	\$/t	2420	2626	2450	2620	2750	2611	2750	3000	2750	3000	2875
Copper	\$/t	9,150	9,347	9,519	9,815	10,500	9,795	10,000	10,750	12,000	12,500	11,313
Lead	\$/t	2,071	1,969	1,946	1,966	2,200	2,020	2,024	2,024	2,024	2,024	2,024
Nickel	\$/t	16,829	15,578	15,153	15,031	16,500	15,566	18,000	18,000	18,000	18,000	18,000
Zinc	\$/t	2,778	2,835	2,639	2,830	2,500	2,701	3,000	3,000	2,750	2,750	2,875
Gold	\$/oz	2387	2862	3289	3458	3800	3352	4000	4500	4750	4500	4438
Silver	\$/oz	28	32	34	40	48	38	50	55	60	60	56
Platinum	\$/oz	956	970	1,076	1,390	1,600	1,259	1,600	1,500	1,600	1,500	1,550
Palladium	\$/oz	984	962	991	1,173	1,300	1,106	1,500	1,500	1,400	1,400	1,450

Source: Bloomberg, BofA Global Research estimates

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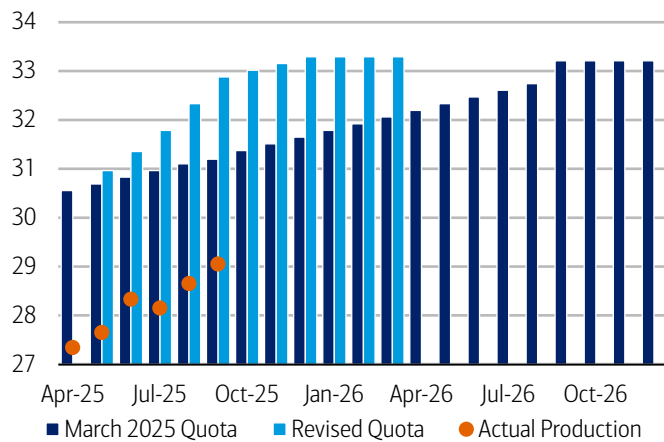
OPEC+ switches to a lower gear

Aware of seasonal dynamics, OPEC+ slows down pace...

The Group of 8 in OPEC+, which includes Saudi Arabia, Russia, Iraq, UAE, Kuwait, Kazakhstan, Algeria, and Oman met yesterday to review global oil market conditions and made two important decisions for the oil market. First, the group agreed to implement an upward production adjustment of 137 thousand b/d in December 2025 from the 1.65mn b/d additional voluntary cuts implemented in 2023 (Exhibit 3). Second, the group decided to pause the production increments in January, February, and March 2026 arguing that seasonal dynamics limit market appetite for fresh barrels in the first quarter of the year. Importantly, the group has shown that it is prepared to act pre-emptively and limit supply additions to the global oil market even before the Brent or even the WTI crude oil curves flip into contango as a result of rising inventories and a growing surplus (Exhibit 4).

Exhibit 3: OPEC announced quotas in March 2025 versus revised quotas versus actual crude-condensate production, mn b/d

OPEC+ revised quota and actual production, mn bbl/d

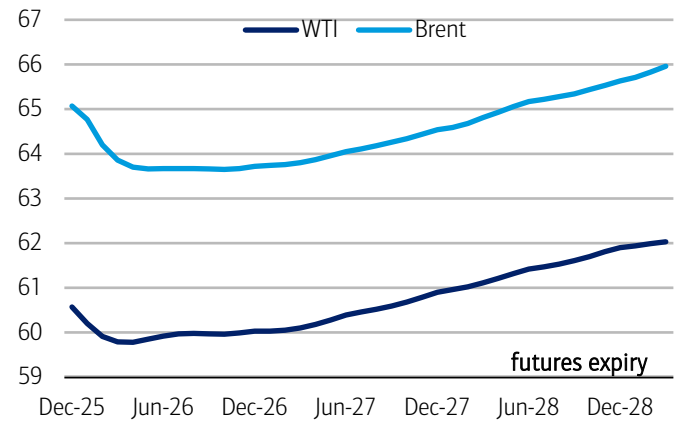


Note: EIA production data only available through September
 Source: OPEC, EIA, BofA Global Research

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Exhibit 4: OPEC+ has acted pre-emptively and limited supply additions to the market even before the oil curve flipped into contango

WTI and Brent forward curves, \$/bbl



Source: Energy Institute

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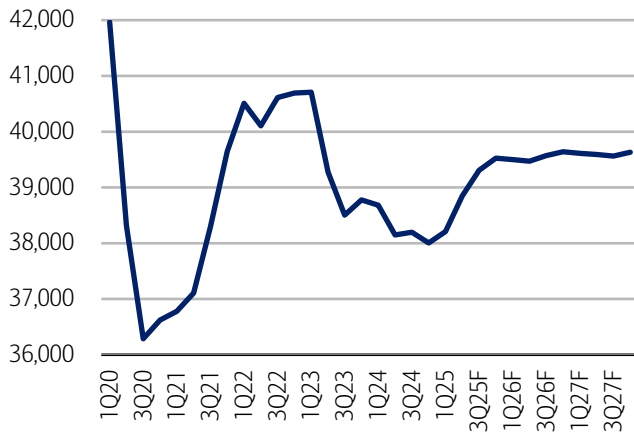
...of new barrels into the market, moderating the surplus

The Group of 8 reiterated that it remains committed to the return of the 1.65mn b/d in a gradual manner as long as market conditions warrant it. The statement from the organization even warned of the flexibility to continue pausing or even reversing the adjustments, including the previously announced return of the 2.2mn b/d implemented first in November 2023. Another important element of the decision yesterday is that the group highlighted the intention to fully compensate for any overproduced volume since January 2024, even as compliant members paused production increases. This situation leaves OPEC+ production collectively about 1.5mn b/d above the levels at the beginning of this year on a net basis (Exhibit 5). For the Group of 8, the figure should be slightly higher, with Saudi and Russia required production over the next four months at 10.1mn b/d and 9.6mn b/d respectively (Exhibit 6).



Exhibit 5: OPEC+ production collectively is about 1.5mn b/d above the levels at the beginning of this year on a net basis

OPEC+ Group of 8 crude oil production, k b/d

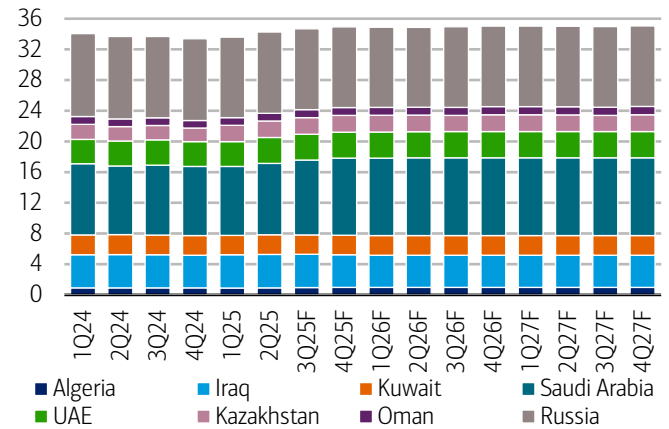


Source: IEA, BofA Global Research estimates

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Exhibit 6: Saudi and Russia required production over the next four months stands at 10.1mn b/d and 9.6mn b/d respectively

OPEC+ Group of 8 crude oil production, k b/d



Source: IEA, BofA Global Research estimates

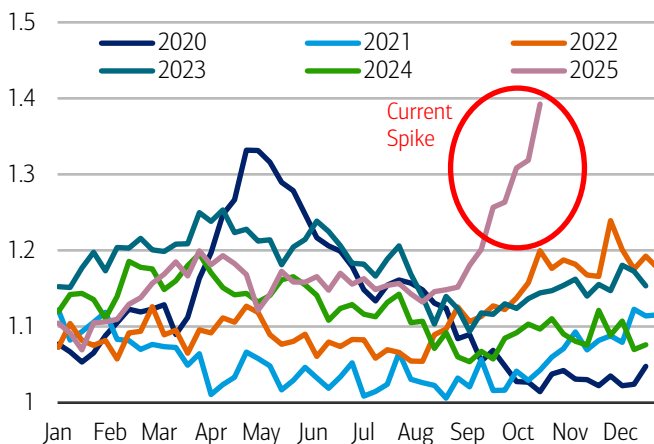
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The rapid increase in oil on water is a concern for the group...

Part of the challenge facing OPEC+ over the next four months is the rapid increase in oil volumes-at-sea. According to Vortexa, oil-on-water levels have increased dramatically in recent months. Since mid-August, the reported data suggests that oil on water volumes are up by as much as 250 million barrels to 1.4bn barrels (Exhibit 7). We noted recently (see report: [Oil armada sails into trade war](#)) that oil volumes on the ocean had increased substantially and that these barrels would eventually make their way into on-shore storage. Still, it is important that floating storage is nowhere near the levels observed during 2020, meaning that ships have slowed down, but the economics are not there to store barrels at sea (Exhibit 8). Interestingly, the rapid surge in seaborne barrels has occurred despite the improvement in global trade conditions in recent months, a positive surprise in light of trade tensions.

Exhibit 7: Higher OPEC+ production and falling refinery usage in Russia has resulted in a big spike in oil-on-water

Oil-on-water levels since 2020, bn bbl

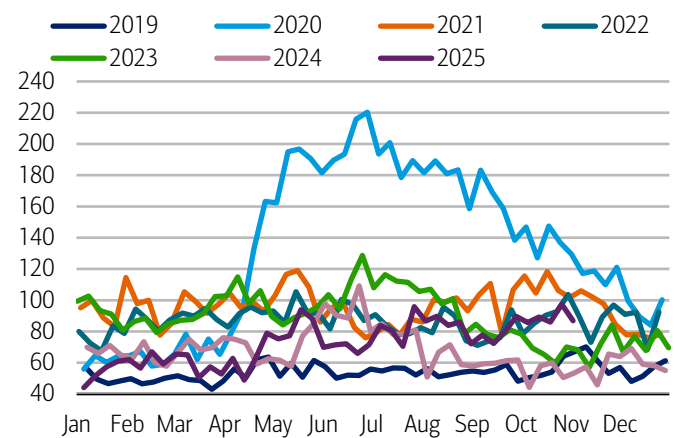


Source: Bloomberg, Vortexa, BofA Global Research

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Exhibit 8: Floating storage are still low, meaning that ships have slowed down, but the economics are not there to store barrels at sea

Floating oil storage levels, mn bbl



Source: Bloomberg, Vortexa, BofA Global Research

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...although longer routes and slow speeds partly justify it...

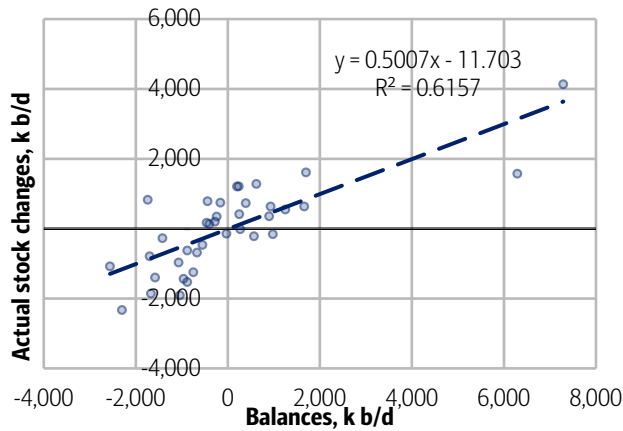
There are a number of theories that can help explain how the gargantuan surge in oil inventories at sea has not led to a complete collapse in oil prices or even a sharp spike in shipping rates. For starters, fresh sanctions on Russia have likely resulted in a major reshuffling of shipping rates, as they did earlier this year. Additionally, shipping data



around the strait of Malacca shows a major backlog in shipping movements in that area. Slower speeds and longer routes, coupled with the longer time required to move sanctioned Russian barrels, probably justify higher levels of oil-on-water. Even then, the increase in oil on water has been large enough to slow down OPEC+'s ambitions to recover market share at the fastest possible rate. In fact, when we adjust global inventories of oil by adding seaborne barrels, we note that the fit of the regression linking stock changes to oil balances increases from 49% to 62% and that the beta also moves up from 35% to 50% (Exhibit 9). This means that any global oil supply/demand imbalance can show up in seaborne stocks, and that some caution is warranted. When including oil on water data, total petroleum inventories have risen by about 330mn bbl in Q1-Q3 (Exhibit 9).

Exhibit 6: Adding oil on water significantly improves the fit of our model. Previous R2 was 49%

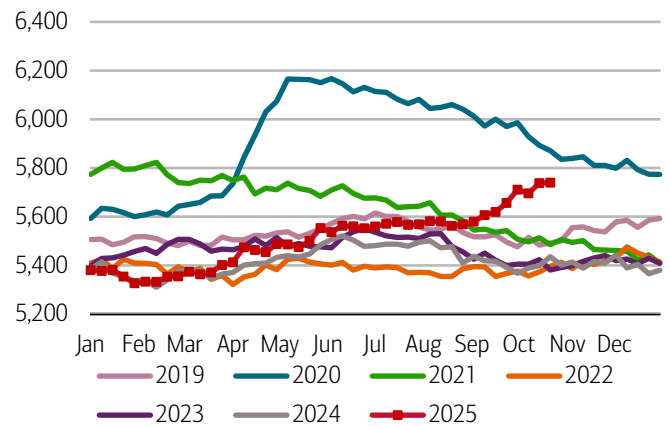
Global oil inventory changes vs supply/demand imbalances



Source: IEA, Kayrros, Bloomberg, BofA Global Research estimates
 Note: includes Kayrros, US products, ARA products, Singapore products, and US SPR
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Exhibit 9: When including oil on water data, total petroleum inventories have risen by about 330mn bbl in Q1-Q3

Global oil inventories including oil on water, mn bbl



Source: Kayrros, Bloomberg
 Note: includes Kayrros, US products, ARA products, Singapore products, US SPR, Vortexa oil on water
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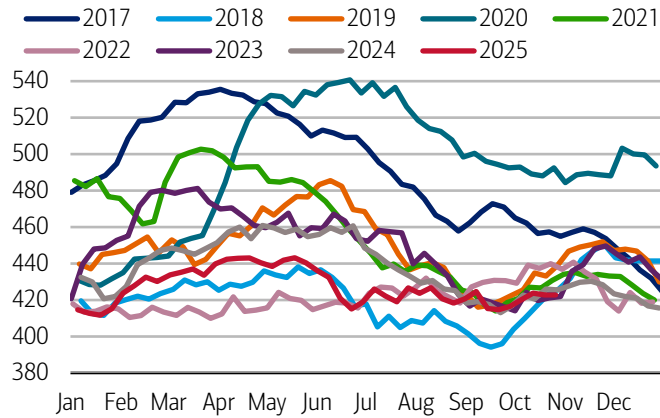
...and inventories on land remain low, excluding in China

At any rate, inventories on land remain quite low and, as we argued last week (see report: [Russian sanctions fuel diesel market](#)), there is a delay between supply/demand imbalances and inventories. For instance, US commercial crude oil inventories sit at the low end of the seasonal range (Exhibit 10), with the latest data reported showing stocks at 416mn barrels, the lowest in more than 10 years. Plus, demand for oil globally remains relatively healthy, driven by steady increases in a range of emerging economies. In our view, demand for oil across Asia will remain relatively steady into 2026 and perhaps even 2027 (Exhibit 11), despite the rapid increase in Chinese electric vehicle sales. But the most important aspect here is that most of the increases in inventories during the past year have occurred in China, and that this storage is likely strategic in nature (see report: [Fill me once, shame on you](#)).



Exhibit 10: US commercial crude oil inventories sit at the low end of the seasonal range

US commercial crude oil inventories, mn bbl

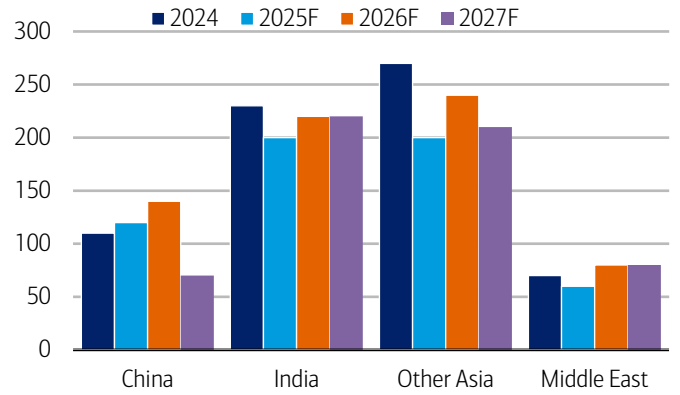


Source: Kayrros

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Exhibit 11: Demand for oil across Asia will remain relatively steady into 2026 and perhaps even 2027

EM oil demand growth, selected countries/regions, k b/d, YoY



Source: IEA, BofA Global Research estimates

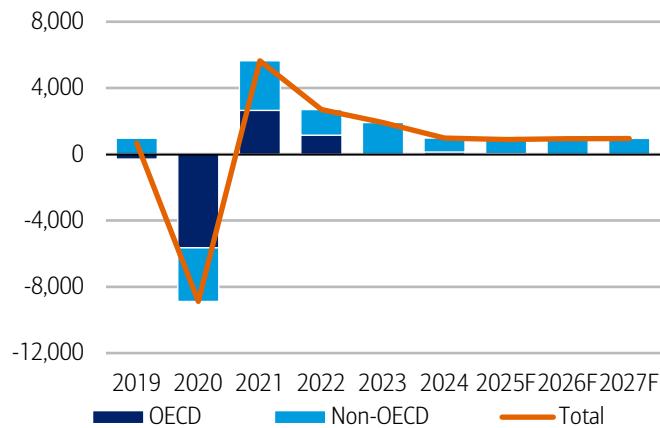
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Energy consumption is still healthy and is boosted by low prices

Helped by relatively low prices and a growing population in Asia, global oil and petroleum product demand remains steady. True, OECD demand is set to remain flat, but even that expectation is an improvement relative to gloomier forecasts from several years ago that called for major fuel efficiencies. In our view, oil consumption increases in 2025, 2026 and even 2027 will remain at around 1mn b/d (Exhibit 12), even if the share of transportation embedded in this growth continues to come down. Steady consumption increases from different sectors will likely push global oil demand above 106mn b/d over the next 2 years (Exhibit 13).

Exhibit 12: Oil consumption increases in 2025, 2026 and even 2027 will remain at around 1mn b/d

Global crude oil consumption (annual), k b/d, YoY

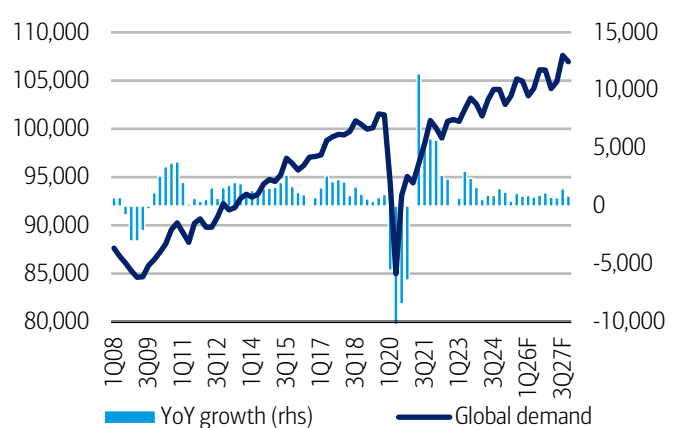


Source: IEA, BofA Global Research estimates

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Exhibit 13: Steady consumption increases from different sectors will likely push global oil demand above 106mn b/d over the next 2 years

Global crude oil demand (quarterly), k b/d



Source: IEA, BofA Global Research estimates

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Sanctions on Russia are a concern for the crude market...

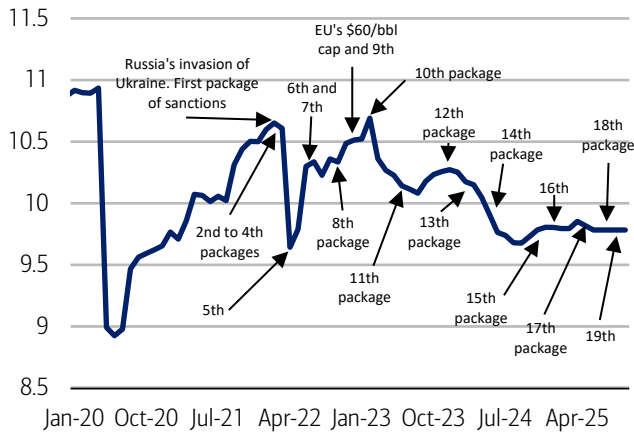
Also, US sanctions on Rosneft and Lukoil are a major blow to the economy and build on top of sanctions already issued in the last few days of the Biden Administration against Surgutneft and Gazpromneft (see report: [Punitive actions limit downside risks to oil](#)). As of today, the four largest operators in Russia (and the country's largest tax source) are now under US and EU sanctions with the intent of pressuring the Kremlin to end the Ukraine war (Exhibit 14). Some of these operators have since announced intentions to sell their international assets to be able to continue to operate. Russia is increasingly



hamstrung financially and militarily through a string of measures. Coupled with lower oil and gas prices, these constraints should continue to push down Russian government energy-linked revenues (Exhibit 15).

Exhibit 14: The four largest operators in Russia are now under US and EU sanctions, pressuring total output lower

Monthly Russian oil production and EU sanctions against Russia, mn b/d

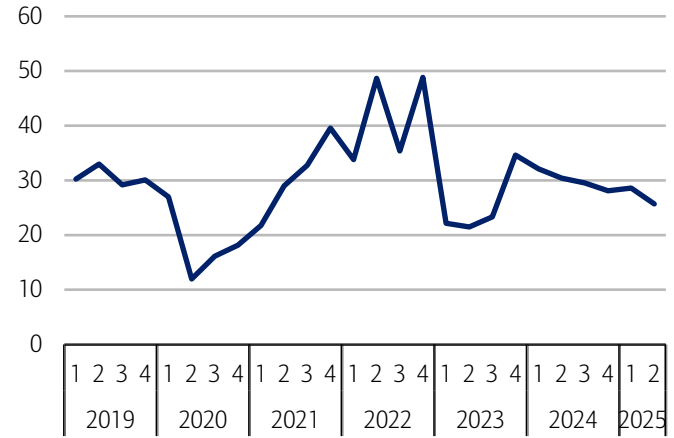


Source: Bloomberg, Europa

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Exhibit 15: These constraints, coupled with lower crude oil and natural gas prices should continue to push down Russian government energy-linked revenues

Quarterly Russian oil and gas revenue, bn \$



Source: Bloomberg

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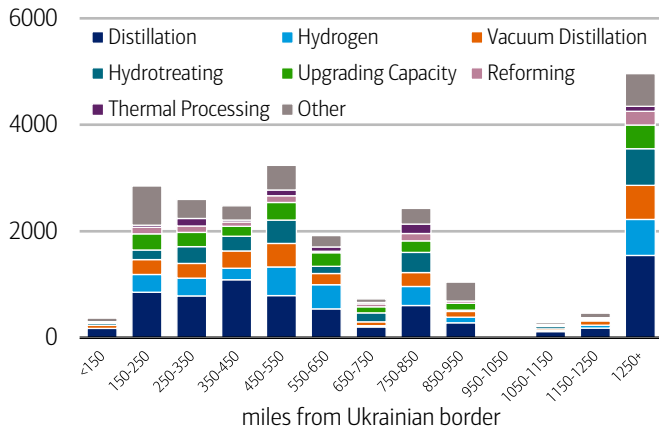
...but risks of supply disruptions are greater for products

As we stated last week (see report: [Russian sanctions fuel diesel market](#)), about 75% of Russian refining capacity is within a 1000 mile radius of the Ukrainian border and thus well within the Ukrainian attack range (Exhibit 16), as recent action over the weekend in the Black Sea showed once again. Surely, some Ukrainian attacks have impacted Russian crude oil export infrastructure, but the impact has been mostly felt on refineries. These complex energy assets are more delicate and can take longer to repair or replace than pipelines, export terminals, or vessels. As the ability to process more oil domestically has become increasingly constrained, Russia's seaborne oil exports have experienced a huge surge in volumes (Exhibit 17).



Exhibit 16: About 75% of Russian refining capacity is within a 1k mile radius of the Ukrainian border and Ukrainian attack range

Total capacity of Russian refineries by distance from Ukrainian border and process unit category, MBCD

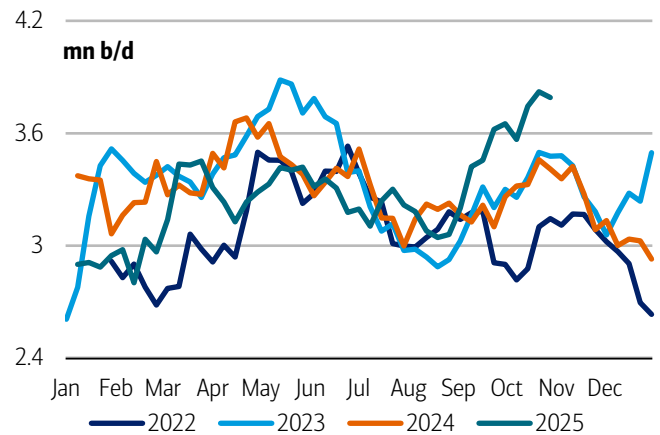


Source: S&P Global, Google Maps, BofA Global Research

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Exhibit 17: Russia's seaborne oil exports point to a huge surge in volumes

Four week rolling average Russian seaborne oil exports, mn bbl/d



Source: Bloomberg, BofA Global Research

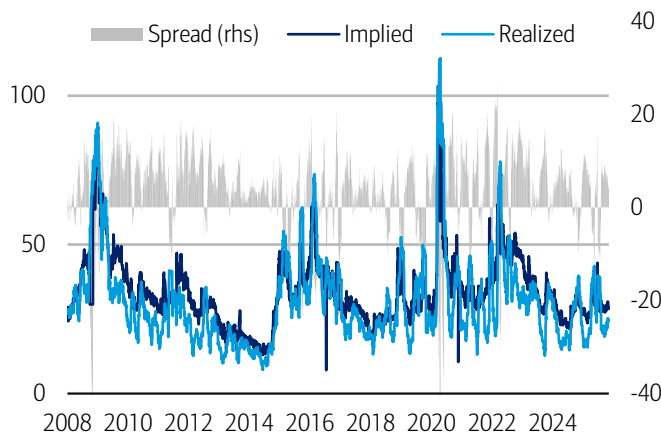
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The OPEC+ decision can help avoid worst case scenarios...

After the Group of 8 agreed to bring back production much faster than expected this year, we believe that there are several ways to interpret the latest OPEC+ decision. First, the organization is razor focused on preserving stability in the global oil market and thus prefers to maintain oil price volatility at the lower end of the range (Exhibit 18) than to risk a major downward meltdown in oil prices. Second, the group is both flexible and patient in its desire to recover the market share lost during 2023 and 2024, suggesting that the ongoing price war could take time to fully unfold. Third, the group will not wait until front-end spreads are in full contango to make a decision, suggesting that reduced Brent backwardation (Exhibit 19), rising inventories of oil-at-sea, and seasonal headwinds are enough to slow down the return of idle barrels.

Exhibit 18: OPEC+ remains focused on preserving stability in the global oil market and thus prefers to keep oil price volatility contained

3-month Brent crude implied volatility, 30-day trailing realized volatility, and spread

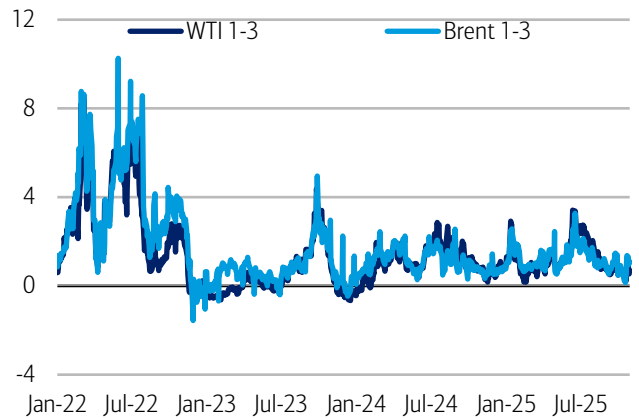


Source: Bloomberg, BofA Global Research

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Exhibit 19: The group has shown that it will not wait until front-end spreads are in full contango to make a decision

Brent and WTI 1-3 month timespreads, \$/bbl



Source: Bloomberg

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...yet the group remains far from recovering market share...

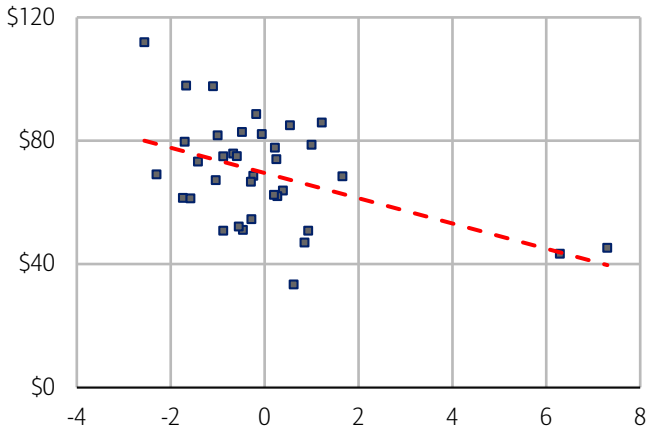
In any case, it is important to keep in mind that surplus markets typically lead to lower oil prices, while deficit markets instead often result in rising prices. True, the relationship is not perfect, but our work suggests that 2-quarter lagged crude oil



balances show a negative relationship with Brent crude oil prices (Exhibit 20). On average, a simple historical regression shows that a reported 1mn b/d surplus in the global oil has had a negative effect on prices of at least \$5/bbl, not adjusting for any other factors. So, OPEC+ needs to be careful when attempting to recover market share from US shale and other producers (Exhibit 21), as small increments in output could have pretty damaging effects on prices.

Exhibit 20: 2-quarter lagged crude oil balances show a negative relationship with prices

2-quarter lagged crude oil balances (mn bbl) against quarterly Brent prices



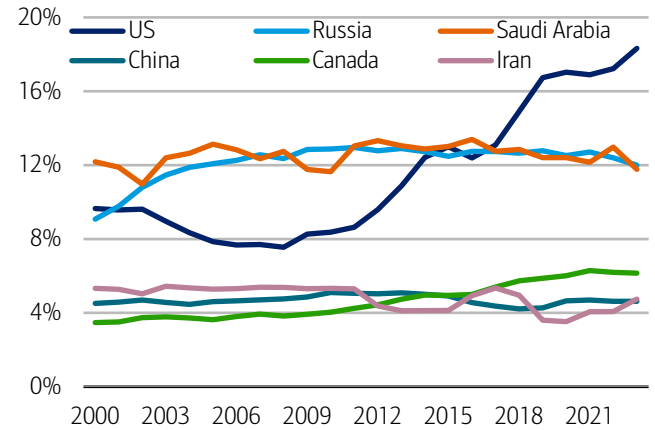
Note: EIA production data only available through September 2025

Source: OPEC, EIA, BofA Global Research

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Exhibit 21: OPEC+ needs to be careful when attempting to recover market share from US shale and other producers

Share of world oil production by country



Source: Energy Institute

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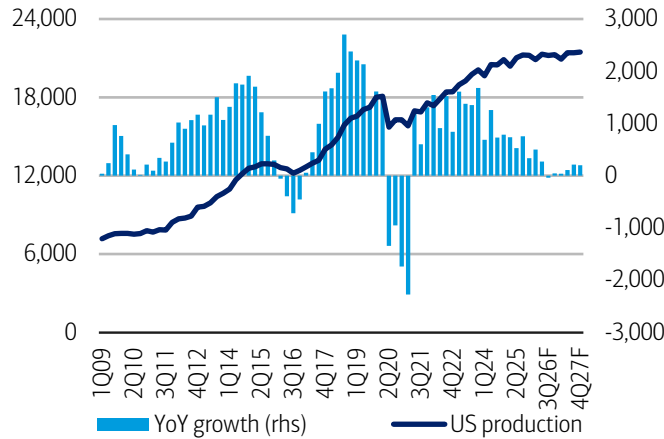
...and low prices are still needed to cap US shale output

The most price sensitive oil output across the entire global crude supply curve is likely US shale, followed by some Canadian heavy oil output. Recent data suggests that total US crude oil and liquids production has been stagnating (Exhibit 22) as Brent prices fell from an average of \$99/bbl in 2022 to an average of \$69/bbl so far this year. True, the latest two or three datapoints show an uplift in US crude output, but we believe these figures are likely to be an outlier in the context of falling oil prices and rising input costs such as steel and aluminum. Also, Canadian crude oil and liquids production growth has slowed down markedly, even if it remains more resilient to a cocktail of lower oil prices and US tariffs (Exhibit 23). We expect oil output growth to expand by ~120 thousand b/d next year and by ~100 thousand b/d in 2027, reflecting a poorer investment return environment for energy assets.



Exhibit 22: Recent data suggests that total US crude oil and liquids production has been stagnating

US crude oil and liquids production, k b/d

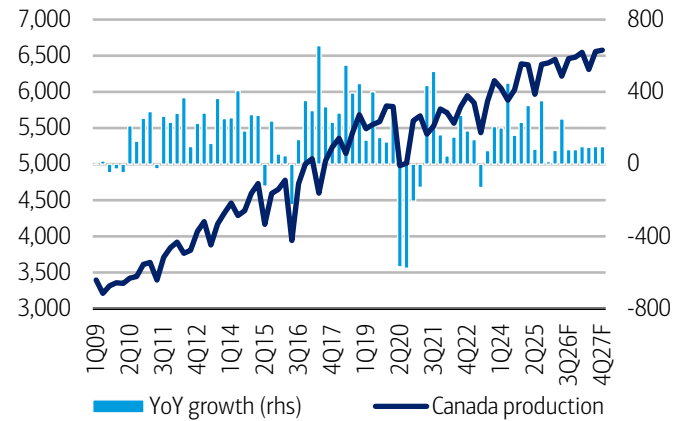


Source: IEA, BofA Global Research estimates

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Exhibit 23: Canadian oil output growth has slowed down markedly, even if it remains somewhat resilient to lower oil prices and US tariffs

Canada crude oil and liquids production, k b/d



Source: IEA, BofA Global Research estimates

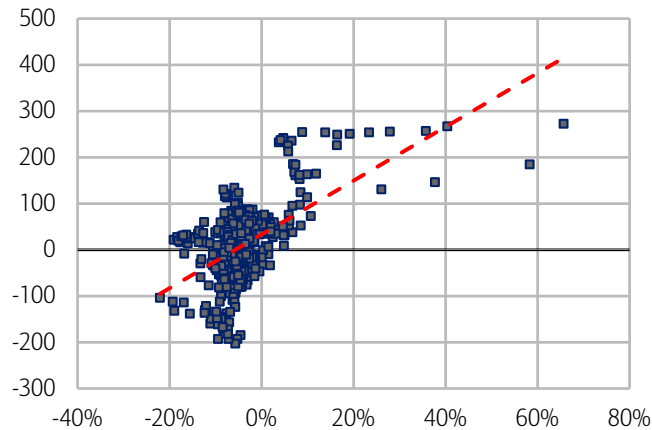
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Timespreads have softened but Brent is in backwardation

One very interesting aspect of the OPEC+ decision is that the group has not waited for inventories to build substantially and for the Brent crude oil market to flip into contango before hitting the pause button on adding fresh barrels to the market. After all, Brent timespreads have a correlation of 0.58 with 1-week lagged global crude oil inventories (Exhibit 24). Put differently, the Group of 8 could have waited for a more negative market backdrop to make the announcement. After all, our work suggests that Brent timespread changes show up in global crude oil inventories only around 1 week later (Exhibit 25). In our view, this means that OPEC+ continues to prioritize a pre-emptive and pro-active policy to supply side management in the global oil market.

Exhibit 24: Brent timespreads have a correlation of 0.58 with 1-week lagged global crude oil inventories

Lead-lag correlation of WTI 1st-12th timespread vs. normalized weekly US crude oil inventories

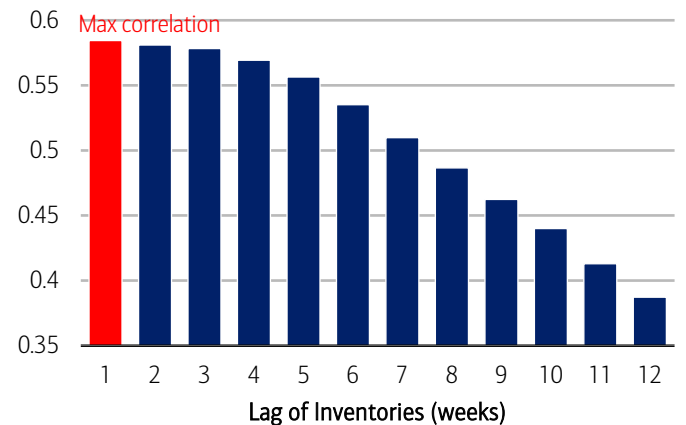


Source: Bloomberg, Kayros, BofA Global Research. Curve % is calculated as the ratio of the 12th month contract to the 1st month contract, minus 1. Positive values indicate contango, negative values indicate backwardation. Normalization is applied by subtracting the average inventory over the past 1 year

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Exhibit 25: Importantly, Brent timespread changes show up in global crude oil inventories only around 1 week later

Lead-lag correlation of Brent 1st-12th timespread vs. normalized weekly Global crude oil inventories



Source: Bloomberg, Kayros, BofA Global Research. Normalization is applied by subtracting the average inventory over the past 1 year.

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A shallow and long oil price war still in play for OPEC+

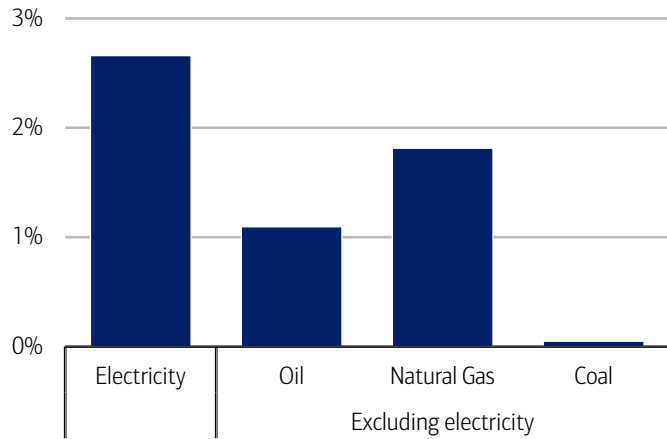
The OPEC+ decision over the weekend reinforces our view that the group is engaged in a long and shallow price war (see report: [A slow grind oil price war](#)) to recover market share from higher cost producers such as the US shale industry. Moreover, we believe



the oil price war could help oil retain or even improve its share in the global energy mix. After all, oil consumption growth in the past 10 years has lagged both natural gas and electricity by a large margin (Exhibit 26). As such, the price war is likely to be shallow because, as yesterday’s decision shows, the group does not want to risk creating an oil glut that sends prices crashing below \$50/bbl, or even trigger an output increase that could lead to much wider light-heavy crude oil price differentials. Meanwhile, the price war is likely to be long because curbing oil production around the world with Brent crude oil prices in the \$60/bbl range will take time.

Exhibit 26: Oil consumption growth in the past 10 years has lagged both natural gas and electricity by a large margin

Average year-on-year growth between 2015 and 2024

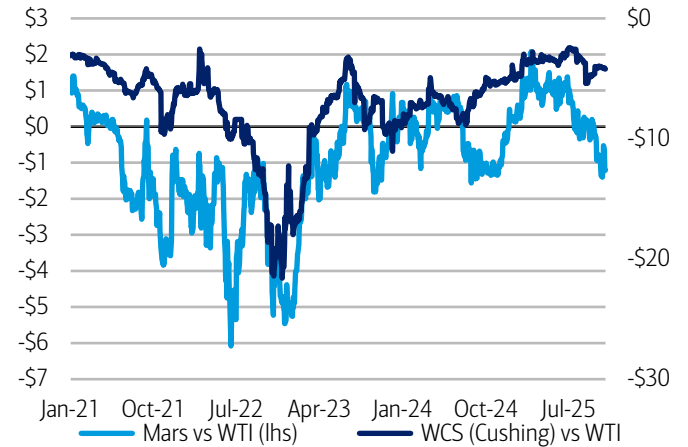


Source: Energy Institute

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Exhibit 27: OPEC+ does not want to trigger an output increase that could lead to much wider light-heavy crude oil price differentials

US crude oil quality differentials, \$/bbl



Source: Bloomberg, BofA Global Research, IEA. Forecasted prices are calculated as a function of our crude oil balances projections.

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Exhibit 28: Acronym list

Acronym	Definition
\$/bbl	dollars per barrel
2H	Second half of the year
ACR	American Carbon Registry
AI	artificial intelligence
ANWR	Alaska National Wildlife Refuge
API	American Petroleum Institute gravity
avg	average
b/d	barrels per day
bbl	barrel
Bcf	Billion cubic feet
Bcf/d	Billion cubic feet per day
BLM	Bureau of Land Management
bn	billion
boe	barrel of oil equivalent
Btu	British thermal unit
C1	methane
C2	ethane
C3	propane
C4	butane
CAFE	Corporate Average Fuel Economy
CAISO	California ISO
CAR	Climate Action Reserve
CARB	California Air Resources Board
CB	central bank
CC3	Corpus Christi stage 3
CCA	California Carbon Allowances
CCR	Cost Containment Reserve
CCS	carbon capture and storage
CI	carbon intensity
CNG	compressed natural gas
CO2	Carbon dioxide
CPI	consumer price index
CV	Calorific Value
D&C	Drilling and completion
DM	developed market
E&P	Exploration and production
EC	European Commission
ECB	European Central Bank
EM	European market
EM	emerging market
EO	Executive Order
EPA	Environmental Protection Agency
ERCOT	Electric Reliability Council of Texas
ETS	Emissions Trading System
EUA	European Union Allowance
EUR	Euro
EV	electric vehicle
F	Fahrenheit
FDR	Franklin Dellano Roosevelt
FEOC	Foreign Entity of Concern
FID	Final Investment Decision
FOB	Free on Board
FPSO	Floating production storage and offloading
FSRU	Floating Storage and Regasification Unit
FTA	Free Trade Agreement
GHG	Greenhouse gas
GoM	Gulf of Mexico
GW	Gigawatt
GWa	Average gigawatts
GWh	gigawatt hours
HH	Henry Hub



Exhibit 28: Acronym list

Acronym	Definition
Hz	Horizonntal
ICE	Internal combustion engine
IEA	International Energy Agency
IMO	International Maritime Organization
IP	industrial production
IRA	Inflation Reduction Act
ISO	independent system operator
ITC	Investment Tax Credit
JKM	Japan Korea Marker
JPY	Japanese Yen
kWh	kilowatt hours
LCFS	Low Carbon Fuel Standard
LCOE	levelized cost of energy
LDV	Light duty vehicle
LMP	locational marginal price
LNG	liquified natural gas
LPG	liquified petroleum gas
MA	moving average
mcm	million cubic meters
ME	Middle East
Mfg	manufacturing
MHDV	Medium and heavy duty vehicles
MMBtu	million British thermal units
mn	million
mt	metric ton
MVP	Mountain Valley Pipeline
MWh	Megawatt hours
NAAQS	National Ambient Air Quality Standards
NBS	National Bureau of Statistics of China
NDRC	National Development and Reform Commission
NEPA	National Environmental Policy Act
NEV	New Electric Vehicle
ngl	natural gas liquids
NPR-A	National Petroleum Reserve in Alaska
NWE	North west Europe
OBDD	One Big Beautiful Bill
OCTG	oil country tubular goods
OECD	Organisation for Economic Co-operation and Development
OPEC	Organization of the Petroleum Exporting Countries
OPEC+	OPEC countries plus ten additional countries
PDH	Propane Dehydrogenation
PFE	prohibited foreign entity
PJM	PJM ISO
plf	passenger loading factor
PMI	purchasing managers index
PTC	Production Tax Credit
PUC	Public Utility Commission
RD	renewable diesel
Res/Com	Residential and commercial
RGGI	Regional Greenhouse Gas Initiative
rhs	righthand side
RIN	Renewable Identification Number
SAF	sustainable aviation fuel
SPR	Strategic Petroleum Reserve
st	short tons
TEU	twenty foot equivalent
TMX	Trans Mountain Expansion
TTF	Dutch TTF
TWh	terawatt hours
UAE	Unleashing American Energy executive order
UCO	used cooking oil

Exhibit 28: Acronym list

Acronym	Definition
UKA	UK allowance
VCO	voluntary carbon offset
VCS	Verra
VLSFO	very low sulfur fuel oil
VMT	Vehicle miles traveled
WCS	Western Canadian Select
WTI	West Texas Intermediate
YoY	year over year
yr	year
Ytd	year to date

Source: BofA Global Research

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