

# Oil Tracker: Global Stocks Increase Ahead of OPEC+ Meeting

Crude oil prices remained roughly unchanged week-on-week as the market focus shifts from the ceasefire in the Middle East to this Sunday's virtual OPEC+ meeting where eight members will decide on August production. We continue to expect the group to announce another 411kb/d increase in required production because:

- 1. Seasonally firm summer demand and continuing resilience in global activity keep oil prompt spreads backwardated;
- 2. Overall overproduction has decreased in our preliminary June estimates, but remains elevated on Kazakhstan overproduction (Exhibit 10).

We assume the August production hike to be the last one as a large inflow of non-OPEC ex shale projects softens the balance (<u>Exhibit 8</u>), but the risks skew to further OPEC+ quota increases after August.

We do not expect a large market reaction if OPEC8+ decides to increase production on Sunday as consensus has already <u>shifted</u> towards this outcome. A production hike would also offset a recent drop in Venezuela exports (<u>Exhibit 20</u>) as <u>US</u> sanctions came into effect last month.

Although investors are especially focused on draws in US oil stocks, global visible commercial stocks have actually built by 1.4mb/d over the last 3 months (Exhibit 5). Large builds on water in the Middle East, especially Iran (resulting from June geopolitical escalation and an acceleration in OPEC+ exports), more than offset draws on land (Exhibit 1). Large draws in the US likely also contributed to WTI's discount to Brent narrowing to the lowest level since May 2022 last week. We expect storage on water to eventually ease landed storage as oil disembarks, especially if geopolitical risks continue to subside.

On the products side, both gasoline and diesel margins retreated from their mid-June high but remain elevated. As clean products stocks remain tight and the hurricane season gains momentum, US Gulf Coast margins will likely stay supported, given that 50% of US refining spare capacity is located in US Gulf Coast.

Our trackable fundamentals were mixed-to-negative for prices as our trackable global commercial stocks increased by 17mb but our net trackable supply remained unchanged. US April crude production hit an all-time high in Monday's EIA report, but we expect production to decline sequentially in May and June. Our Russia production nowcast edged down again under the pressure of a stronger Ruble and lower crude prices.

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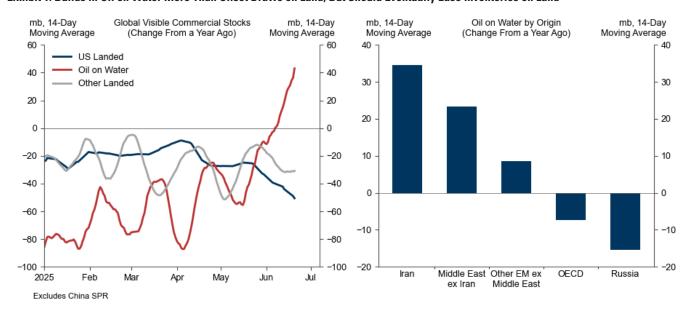
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#### Chart of the Week

Exhibit 1: Builds in Oil on Water More Than Offset Draws on Land, But Should Eventually Ease Inventories on Land



The chart shows the sum of all data available through the coverage period of the last US DoE Weekly Petroleum Report, and assumes a few datapoints not reported yet remain stable (by forward-filling). Areas of coverage include the US, ARA (Antwerp-Rotterdam-Amsterdam) in Europe, Fujairah in the Middle East, and Singapore and the locations covered by Longzhong in China.

Source: Kpler, DOE, Euroilstocks, ARA PJK, PAJ, Singapore Enterprise, Fujairah, OilChem, Goldman Sachs Global Investment Research

#### Other Key Trends

- On the negative side for prices:
  - ☐ Our US Lower 48 crude production nowcast remains resilient and stands 0.2mb/d above our June expectation.
  - □ Crude and condensate exports from OPEC8+ are now up 0.2mb/d YoY (42-day moving average) vs. down 0.6mb/d YoY in Q1 (Exhibit 11). While exports are noisy and influenced by swings in demand and inventories, this pick-up in YoY exports has coincided with announced production increases.
- On the positive side for prices:
  - □ Our Canada liquids production nowcast edged down 0.1mb/d to 5.7mb/d.
  - ☐ The US rig count decreased by 6 last week.
  - Our OECD commercial stocks nowcast edged down 7mb and now stands 91mb below its year-ago level (59 days of demand).
- The long-to-short oil ratio stands at the 72nd percentile (in a sample since May 1st, 2024).
- US ethane exports to China were nearly zero in June, but the carriers' activity have picked up recently on <u>policy easing</u>.

Exhibit 2: Our Trackable Net Supply Remained Roughly Unchanged Week-on-Week

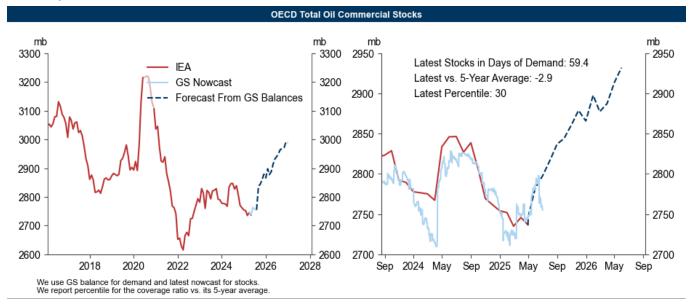
| Indicator   | Current value | Change from last<br>week | Change from 4 weeks ago |
|---|---------------|--------------------------|-------------------------|
| Inventories   |               |                          |                         |
| OECD commercial stocks (mb)                               | 2755          | -7                       | -32                     |
| Global commercial stocks (mb)                             | 6561          | 17                       | 59                      |
| Supply  |               |                          |                         |
| US Lower 48 crude nowcast (mb/d)                          | 11.1          | 0.1                      | -0.1                    |
| Canada liquids nowcast (mb/d)                             | 5.7           | -0.1                     | -0.1                    |
| Russia liquids nowcast (mb/d)                             | 10.3          | -0.1                     | -0.2                    |
| Iran crude nowcast (mb/d)                                 | 3.6           | 0.0                      | 0.0                     |
| Iraq crude nowcast (mb/d)                                 | 4.3           | 0.0                      | 0.0                     |
| Libya crude nowcast (mb/d)                                | 1.3           | 0.0                      | 0.0                     |
| Demand  |               |                          |                         |
| China oil (mb/d)  | 16.9          | -0.1                     | 0.0                     |
| OECD Europe oil   | 13.3          | 0.0                      | -0.1                    |
| Total change in trackable imbalance, Supply-Demand (mb/d) |               | 0.0                      | -0.3                    |
| Timespreads   |               |                          |                         |
| Brent 1M/36M gap with fair value (pp)                     | -14           | -8                       | -6                      |
| Average crude basis (%, change in pp)                     | 1.7           | -0.2                     | -0.1                    |
| Average crude prompt timespread (%, change in pp)         | 2.0           | 0.5                      | 0.8                     |
| Volatility  |               |                          |                         |
| Brent implied□volatility□gap with modeled fair value (pp) | -5            | -7                       | 1                       |
| Oil Long/Short Ratio                                      | 2.4           | -0.4                     | 0.7                     |

Our 1- and 4-week changes are the corresponding changes in the most recent indicators' estimates (i.e. most recent vintage of the corresponding series). Red color highlights changes in our trackable imbalance that are positive for prices, blue color highlights changes that are negative for prices.

Source: Goldman Sachs Global Investment Research

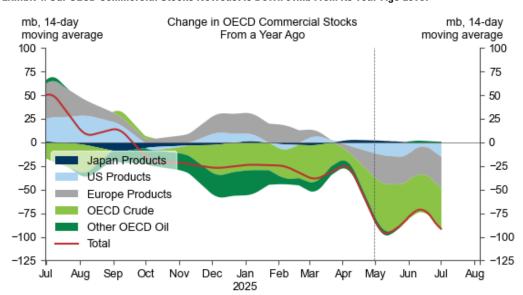
#### **Inventories**

Exhibit 3: Our OECD Total Oil Commercial Stocks Nowcast Edged Down by 7mb to 2,755mb Last Week and Now Stands 61mb Below Our End-of-July Forecast of 2,816mb



Source: IEA, Kpler, DOE, Euroilstocks, ARA PJK, PAJ, Haver, Goldman Sachs Global Investment Research

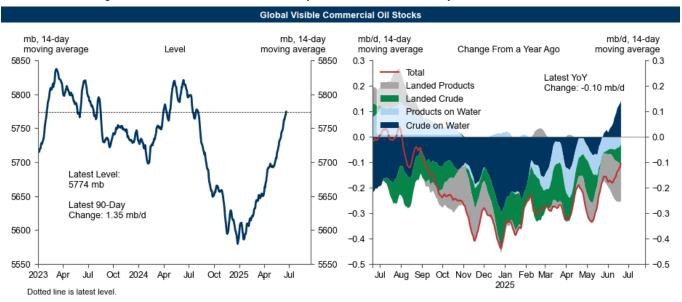
Exhibit 4: Our OECD Commercial Stocks Nowcast Is Down 91mb From Its Year-Ago Level



The dotted line indicates the latest realized observation from the IEA (end of April).

Source: IEA, Kpler, DOE, Euroilstocks, PAJ, ARA PJK, Haver, Goldman Sachs Global Investment Research

Exhibit 5: Our Tracking of Global Oil Commercial Stocks Built by 1.4mb/d Over the Last 90 Days

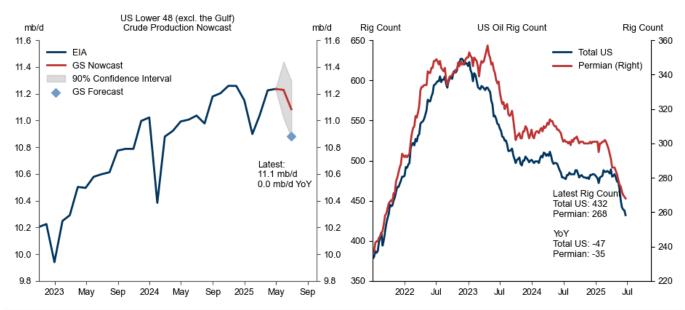


LHS: The chart shows the sum of all data available through the coverage period of the last US DoE Weekly Petroleum Report, and assumes a few datapoints not reported yet remain stable (by forward-filling). Areas of coverage include the US, ARA (Antwerp-Rotterdam-Amsterdam) in Europe, Fujairah in the Middle East, and Singapore and the locations covered by Longzhong in China. We now include China strategic reserves in our oil stocks tracking.

Source: Kpler, DOE, Euroilstocks, ARA PJK, PAJ, Singapore Enterprise, Fujairah, OilChem, Goldman Sachs Global Investment Research

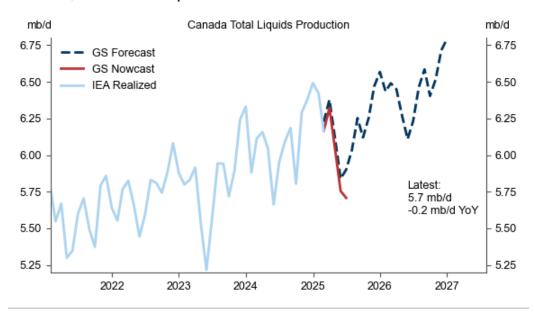
### **Supply**

Exhibit 6: Our US Lower 48 (excl the Gulf) Crude Production Nowcast Stands at 11.1mb/d (0.2mb/d Above Our June Expectation); the US Oil Rig Count Dropped by 6 to 432 Last Week



Source: EIA, Genscape, Baker Hughes, Haver Analytics, Bloomberg, Primary Vision, Goldman Sachs Global Investment Research

Exhibit 7: Our Canada Total Liquids Production Nowcast Edged Down by 0.1mb/d to 5.7mb/d and Now Stands 0.2mb/d Below Our June Expectation



Source: IEA, AER, EIA, Kpler, IIR, Goldman Sachs Global Investment Research

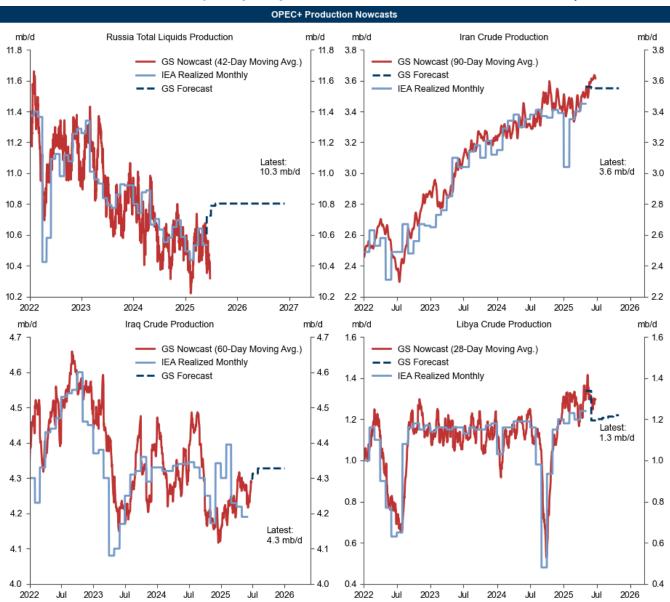
Exhibit 8: We Expect Strong Non-OPEC ex Russia ex Shale Supply Growth in 2025

| New Non-OPEC ex Russia ex US Shale Projects |                     |                         |         |  |  |
|---|---------------------|-------------------------|---------|--|--|
|   | Production<br>Start | Peak Production (kb/d)* | Country |  |  |
| Shenandoah                                  | Jun-25              | 90                      | US      |  |  |
| Liza Phase 4 (Yellowtail)                   | Aug-25              | 225                     | Guyana  |  |  |
| Leon-Castile (Salamanca)                    | Aug-25              | 60                      | US      |  |  |
| Bacalhau                                    | 2025 Q3             | 198                     | Brazil  |  |  |
| P-78  | Oct-25              | 180                     | Brazil  |  |  |
| Block 15-06 Agogo West                      | 2025 H2             | 108                     | Angola  |  |  |
| Balder X                                    | late 2025           | 68                      | Norway  |  |  |

\*Peak production figures are annual average estimates from GS Top Projects.

Source: IEA, EIA, Goldman Sachs Global Investment Research

Exhibit 9: Our Russia Total Liquids Production Nowcast (42-Day Moving Average) Stands at 10.3mb/d (0.4mb/d Below Our June Expectation); Our Iran Crude Production Nowcast (90-Day Moving Average) Remains Resilient at 3.6mb/d (0.1mb/d Above Our June Expectation)



Source: IEA, Petro-Logistics, Kpler, IIR, JODI, OPEC, GTT, Goldman Sachs Global Investment Research

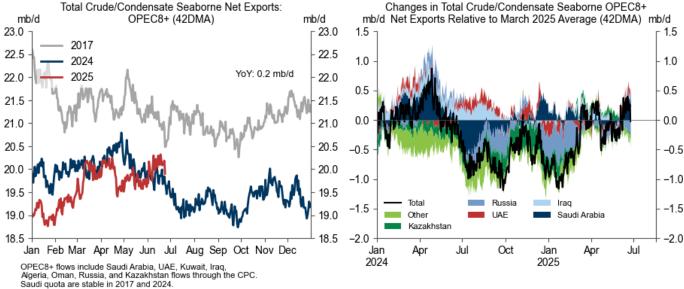
#### Exhibit 10: OPEC8+ Compliance Remains in Focus Ahead of the July OPEC Meeting Estimated Crude Production Minus Required Production kb/d (Including Voluntary Cuts) kb/d 1000 1000 Total Iraq 800 800 Russia Kazakhstan 600 600 400 400 200 200 0 -200 200 -400-400 May May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr Jun' 24 25 24 24 24 24 24 24 24 25 25 25 25 25

\*Includes data through June 23rd

Realized crude production for Kazakhstan through May is from OPEC secondary sources and for Russia from the average of our nowcast and secondary sources. We nowcast Russia June month-over-month production growth using our Russia production nowcast. We nowcast monthly changes in Kazakhstan crude production from OPEC secondary sources in May using a regression model with monthly changes in total Kazakhstan oil exports from Kpler. We use our Iraq production nowcast for all months. Required production through March 2025 corresponds to required production levels from the OPEC Sep 5, 2024 statement and does not include revised compensation pledged adjusted for overproduction from Iraq and Kazakhstan. Required production in April 2025 corresponds to required production levels from the OPEC Mar 3rd , 2025 statement.

Source: OPEC, S&P Global, Kpler, Goldman Sachs Global Investment Research



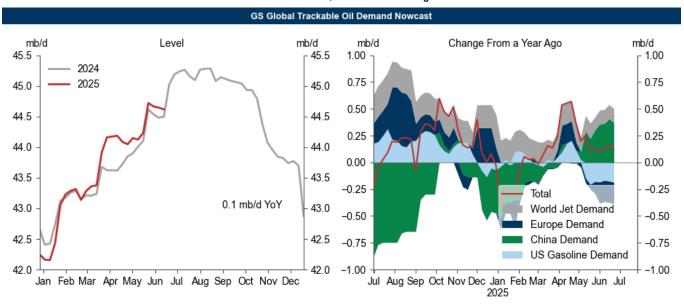


Given the frequent and sizable revisions to the early vintages of high frequency data, we wait 7 days before publishing nowcasts using high frequency exports Kpler data.

Source: Kpler, Goldman Sachs Global Investment Research

#### **Demand**

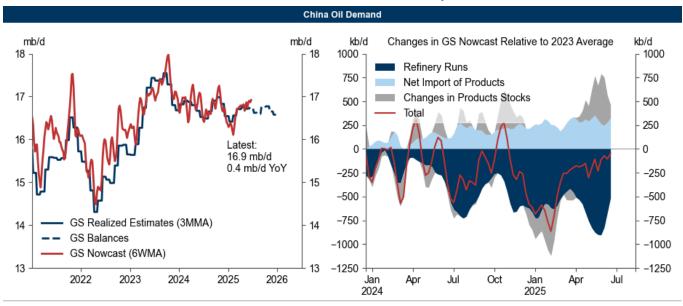
Exhibit 12: Our Global Trackable Oil Demand Nowcast Stands 0.1mb/d Above Its Year-Ago Level



Our global trackable oil demand nowcast shows the sum of our OECD Europe oil, China oil, US gasoline, and World ex. China and Europe jet demand nowcasts.

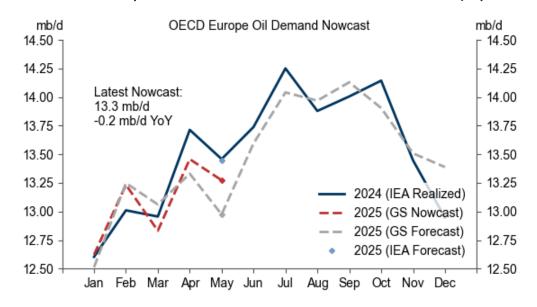
Source: OAG, IEA, JODI, DOE, S&P, Kpler, GTT, Oilchem, MySteel, Bloomberg, Goldman Sachs Global Investment Research

Exhibit 13: Our China Oil Demand Nowcast Stands at 16.9mb/d (0.2mb/d Above Our June Expectation)



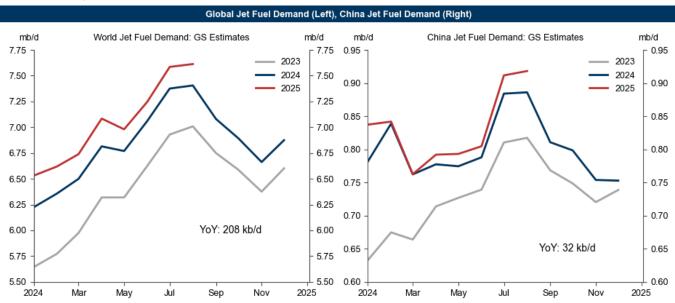
Source: IEA, S&P, Kpler, GTT, Oilchem, MySteel, Bloomberg, Goldman Sachs Global Investment Research

Exhibit 14: Our OECD Europe Oil Demand Nowcast Stands at 13.3mb/d (0.3mb/d Above Our May Expectation)



Source: IEA, Goldman Sachs Global Investment Research

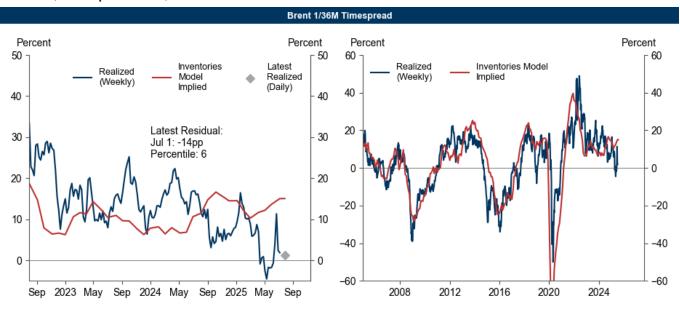
Exhibit 15: We Expect Global Jet Fuel Demand to Increase by 0.2mb/d in August Year-Over-Year



Source: OAG, IEA, JODI, Goldman Sachs Global Investment Research

#### **Prices**

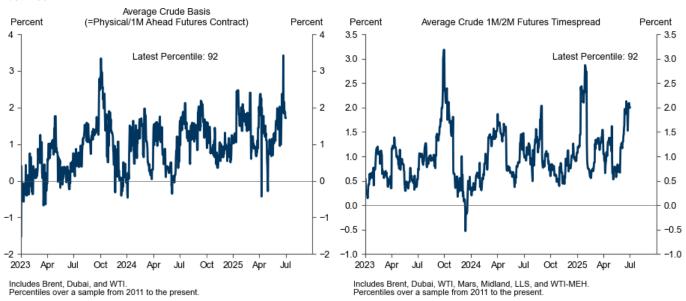
Exhibit 16: The Gap Between the Brent 1/36M Timespread and Its Inventory-Implied Fair Value Widened to 14pp and Now Stands at the 6th Percentile (in a Sample From 2005)



We report the percentile of the timespread's residual in a sample from January 1st, 2005 till the most recent observation.

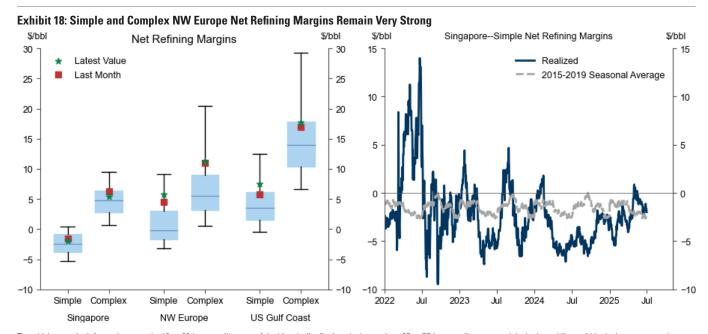
Source: IEA, CME, Goldman Sachs Global Investment Research

Exhibit 17: The Average Crude Basis Remains Elevated But Edged Down by 0.2pp; The Average Crude Prompt Timespread Edged Up by 0.5pp Last Week



Basis represents the difference (in % of 1M ahead futures) between spot physical crude futures and 1M ahead financial futures. We include Brent, Dubai, and WTI in crude basis on the left panel and Brent, Dubai, WTI, Mars, Midland, LLS, and WTI-MEH in 1M/2M timespreads on the right panel. We construct average crude spreads by first taking an unweighted average of crude types within a region and then taking a production-weighted average across regions.

Source: Platts, CME, Goldman Sachs Global Investment Research

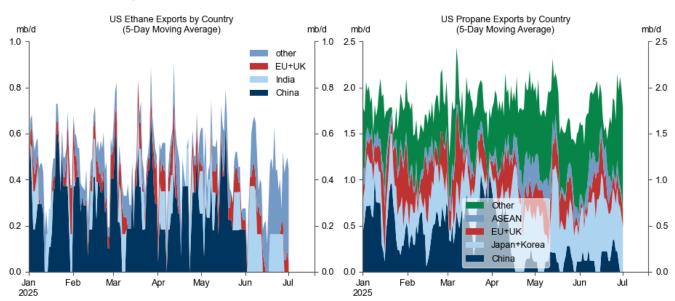


The whiskers on the left panel capture the 10-to-90th percentile range of the historic distribution, the boxes show 25-to-75th percentile range, and the horizontal lines within the boxes capture the median. Month-specific percentiles are estimated on data in a sample from January 1st 2014 to the most recent observation.

Source: Refinitiv Eikon, Platts, Goldman Sachs Global Investment Research

### **Volatility and Geopolitical Risks**



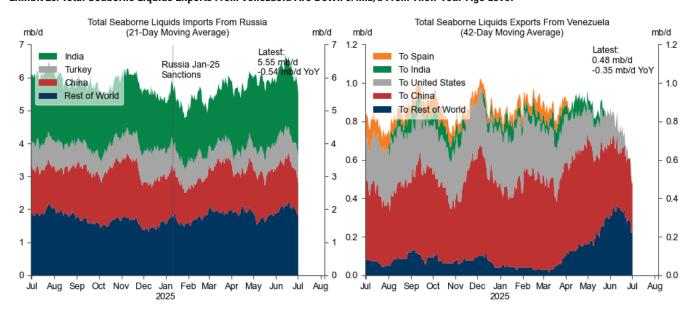


The preliminary Kpler exports are subject to revisions.

Source: Kpler, Goldman Sachs Global Investment Research

### **Tracking Sanctioned Supply**

Exhibit 20: Total Seaborne Liquids Exports From Venezuela Are Down 0.4mb/d From Their Year-Ago Level

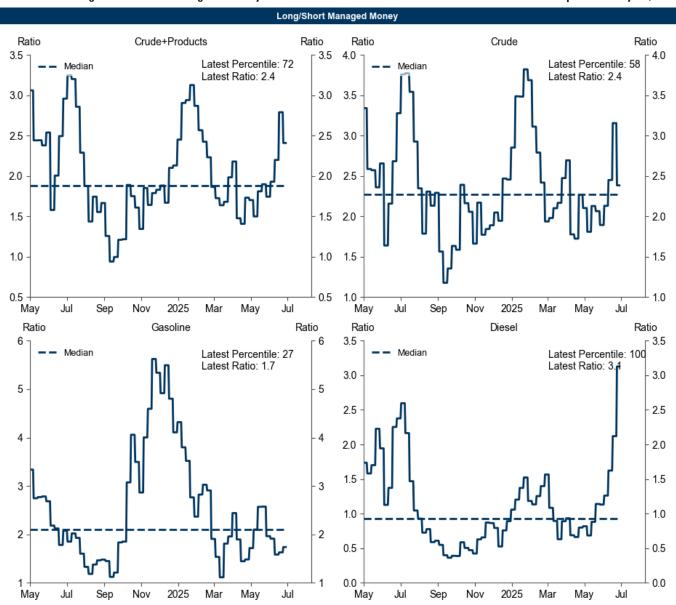


We assume liquids claiming Malaysia and EOPL as destinations are imported by China. Given the frequent and sizable revisions to the early vintages of high frequency data, we wait 7 days before publishing nowcasts using high frequency exports Kpler data.

Source: Kpler, Goldman Sachs Global Investment Research

#### **Positioning**

Exhibit 21: The Long-to-Short Oil Ratio Edged Down by 0.4 Last Week and Now Stands at the 72nd Percentile in a Sample From May 1st, 2024



We report the long-to-short ratio of managed money, not including other reportables, for Brent, WTI, Nymex HO, Nymex RBOB, and ICE Gasoil in a sample from May 1st, 2024 till the most recent observation. We switched to this proxy of oil positioning and truncated the relevant historical sample to adjust for volatility in corporate flows and to an exit of large pension funds from oil markets after 2020 (on ESG and long-run profitability concerns).

Source: CFTC, Refinitiv Eikon, Goldman Sachs Global Investment Research

# Methodology Notes for GS High Frequency Oil Indicators

- Russia total liquids production nowcast: Our Russia supply nowcast estimates
  total liquids production as the sum of refinery runs, crude stock changes at ports
  and refineries, and crude seaborne and pipeline exports (latest methodology <u>here</u>).
- 2. US Lower 48 crude production nowcast: Our Lower 48 crude production nowcast includes all crude production from the US excluding Alaska and the Gulf. We estimate crude production using daily pipeline-implied flows from Genscape,

- equipment needed to fracture oil wells (frac spreads), and the gap between official EIA and pipeline-based production estimates (latest methodology <u>here.</u>)
- **3. Iran crude production nowcast:** Our Iran supply nowcast estimates crude production as the sum of tracked crude exports, untracked crude exports, refinery intake of crude, and changes in crude inventories (latest methodology <a href="here">here</a>).
- **4. Libya crude production nowcast:** Our Libya supply nowcast estimates crude production as the sum of tracked crude exports, refinery intake of crude, and changes in crude inventories.
- **5. Iraq crude production nowcast:** Our Iraq supply nowcast estimates crude production as the sum of tracked crude exports, refinery intake of crude, direct burns of crude for electricity and the energy industry, and changes in crude inventories. We also subtract other products commingled into the crude stream (latest methodology here).
- 6. Canada total liquids production nowcast: Our Canada supply nowcast estimates total liquids production using changes in Alberta production and changes in implied production defined as the sum of exports, refinery runs, and changes in crude inventories (latest methodology <a href="here">here</a>)
- 7. **OPEC model implied probability:** Our estimated probability of OPEC production decision is based on an unweighted average of five ordered multinomial logit models that regress OPEC decisions to decrease, hold, or increase production on OECD commercial stocks, cyclical oil price moves, Saudi's market share, and speculative positioning (latest methodology <a href="here">here</a>).
- 8. China demand: We perform a bottom-up nowcast of China oil products demand as the sum of refinery runs, net products imports, and product stock draws. We model monthly changes in S&P refinery runs as a function of monthly changes in refinery utilization rates from Mysteel, and monthly changes in capacity utilization from IIR. We then estimate model-implied 4-week changes in weekly refinery runs from 4-week changes in the 4-week moving average of refinery utilization rates and slow-moving changes in capacity. We initialize our refinery runs nowcast to match the level of "realized" refinery runs over the last 2 years. Similarly, we model changes in GTT net imports of products as a function of monthly changes in Kpler net imports of the corresponding products. We smooth the final nowcast using a 2-week moving average (latest methodology <a href="here">here</a>.
- 9. OECD Europe demand: We estimate OECD Europe demand based on demand in the EU4 (Germany, France, Spain and Italy), and incorporate jet demand using our jet fuel demand model. Our nowcast uses timely inputs on oil markets (e.g. refinery runs), macro activity (e.g. PMIs), fuel retail sales, preliminary national oil demand releases, and flight schedules (latest methodology here).
- **10. Jet demand:** Our methodology for measuring jet fuel demand uses global commercial flight schedule data combined with our aircraft efficiency database. We further calibrate this model on monthly IEA/JODI/Woodmac jet-type kerosene demand data for the OECD and a handful of other countries to estimate non-commercial flight demand (latest methodology <a href="hete">here</a>).

- 11. Global total oil commercial visible stocks: We add up all visible oil stocks for both crude and products without any rescaling. Our data includes onshore crude stocks, crude oil on water, products on water, and measures of products stocks at various locations. The locations are the US, 16 European Majors, ARA (Antwerp-Rotterdam-Amsterdam) in Europe, Japan, Fujairah in the Middle East, and Singapore and the locations covered by Longzhong in China. The China Longzhong stocks cover all stocks except for those at SOE refineries, gas stations, and the national strategic reserves.
- 12. OECD commercial stocks: Our OECD commercial stocks nowcast consists of several region- and product-specific models, which regress IEA monthly historical data on high frequency stocks measures. We model monthly changes in OECD commercial stocks components using relevant high-frequency stocks and trade data, seasonality, Covid effects, and lagged stock changes for products (latest methodology <a href="https://example.com/here/">here</a>).
- 13. Brent timespreads: We estimate timespreads using our OECD commercial stocks nowcast and our OECD demand forecast. We estimate Brent 1/36M timespreads based on the historical relationship with 1-4M ahead OECD commercial stocks as days of demand covered (DoDC) vs their 5-yr average after accounting for the impact of 3-Year US Treasury yields. We keep stocks as DoDC vs their 5-yr average constant over the next 1-4 months at the most recent observation based on our nowcast (latest methodology <a href="here">here</a>. Finally, we remove March 2020-February 2023 observations from our sample to calculate the 5-year average for OECD commercial stocks DoDC.
- 14. Net refining margins: We calculate regional refining margins for the three main refining hubs: US Gulf Coast, NW Europe, and Singapore. In each hub, we leverage local refined product prices and yields, take account of the regional refining crude input slate, adjust appropriately for crude transportation costs, and lastly, adjust for variable processing costs as a function of regional power, oil, natural gas, and carbon costs.
- 15. Brent implied volatility: We estimate two linear regression models for the fair value of Brent implied volatility. The fundamental model uses the GS Current Activity Indicator for the US (excluding Mar 2020-Aug 2020 outliers), deviations in OECD inventories, global spare capacity, oil balances volatility, and the geopolitical risk index for major oil producers. We nowcast the latter using predicted monthly changes based on global daily geopolitical risk index. Our cross-asset model extends the fundamental model by incorporating high frequency perceptions of macroeconomic volatility via S&P 500 implied volatility (latest methodology here).
- **16. Oil flows through Bab-El-Mandeb Strait:** We take the 14-day moving average of all north and sound bound liquids flows through the Suez Canal. We use the historic relationship between these flows and the capacity of vessels transiting the Suez Canal as recorded in Kpler port-level data.
- **17. Release lags for nowcasts using Kpler exports and inventories data:** Given the frequent and sizable revisions to the early vintages of high frequency data, we wait 3 and 7 days before publishing nowcasts using high frequency inventories and

exports Kpler data, respectively.

## Disclosure Appendix

#### Reg AC

We, Yulia Zhestkova Grigsby, Ephraim Sutherland and Daan Struyven, hereby certify that all of the views expressed in this report accurately reflect our personal views, which have not been influenced by considerations of the firm's business or client relationships.

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