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The Oil Manual | Europe

# Geopolitics vs the Unresolved 2025 Surplus

Heightened geopolitical risks have supported oil prices and appear likely to continue to do so. However, the underlying balance has continued to weaken. Without an actual supply disruption, the expected surplus in 2025 has grown. We increase our near-term Brent forecast but lower our forecasts further out.

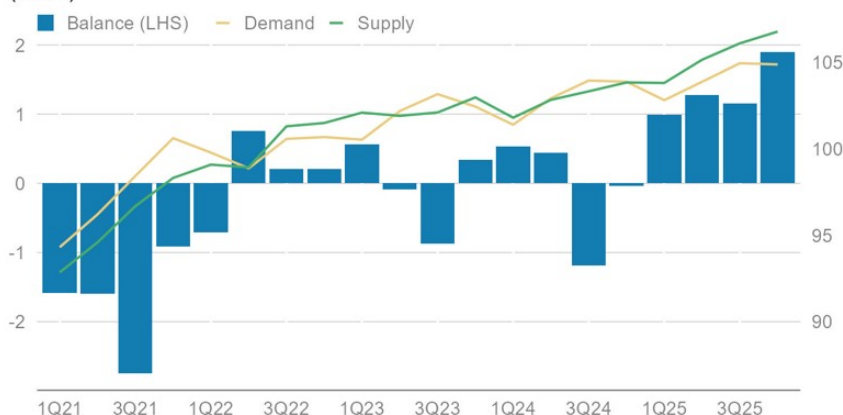
## Key Takeaways

- Concerns over a potential disruption in Middle East supply have driven prices higher. As uncertainty seems likely to persist, we raise near-term Brent forecasts.
- In the meantime, however, the underlying balance has continued to weaken. Demand has come in weaker than expected, and supply has been stronger.
- In our previous update, we saw the oil market 0.7 mb/d oversupplied in 2025; by now, this estimate has increased to a surplus of 1.3 mb/d.
- With such an outlook, prices usually fall to drive a rebalancing. However, as long as supply risks keep price supported, the 2025 surplus remains unresolved.
- With that in mind, we now see slightly lower prices further out and reduce our Brent forecast to \$70/bbl for 2H 2025.

**Exhibit 1:** The events in the Middle East are a serious issue, but without a supply disruption – still our base case – we continue to see a large surplus in 2025

## Supply/demand balance

(mb/d)



Source: IEA, EIA, Platts, Wood Mackenzie, Rystad, Morgan Stanley Research

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**Exhibit 2 :** We increase near-term Brent forecasts due to heightened geopolitical risks but lower our longer-dated estimates to drive the rebalancing and lower the expected surplus

| (\$/bbl)     | 4Q24 | 1Q25 | 2Q25 | 3Q25 | 4Q25 | 2026 |
|--------------|------|------|------|------|------|------|
| <b>Brent</b> |      |      |      |      |      |      |
| New          | 80.0 | 77.5 | 75.0 | 72.5 | 70.0 | 75.0 |
| Previous     | 75.0 | 75.0 | 75.0 | 75.0 | 75.0 | 75.0 |
| Change       | 5.0  | 2.5  | -    | -2.5 | -5.0 | -    |

**Previous research:**

- [The Oil Manual: Are Oil Prices Signalling Recession?](#)
- [The Oil Manual: Continue to Tread Cautiously](#)
- [The Oil Manual: Treading Cautiously](#)
- [The Oil Manual: Looking Beyond Seasonality](#)
- [The Oil Manual: Overshoot, Undershoot](#)
- [The Oil Manual: Incorporating Geopolitical Risk](#)
- [The Oil Manual: How Brent Can Reach \\$90/bbl This Summer](#)
- [The Oil Manual: Cautiously Optimistic](#)

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## Geopolitics vs the Unresolved 2025 Surplus

The range of possible outcomes for the oil market has rarely been as wide as it is at the moment. In one potential scenario, the crisis in the Middle East causes a disruption to the supply of oil, which in turn tightens the oil market and sends prices higher – possibly sharply. In another scenario, OPEC+ puts its considerable spare capacity to work in an effort to regain market share, in which case prices could fall – again possibly sharply. Both of these scenarios have existed before, but rarely – if ever – at the same time.

Needless to say, this backdrop makes price forecasting particularly challenging, which is one of the reasons for our wide bull/bear-case spread – see [Exhibit 19](#). Below we discuss both scenarios, but in the end, we take a cautious stance:

We previously modelled next year's oil market to be 0.7 mb/d oversupplied, but this estimate has grown to 1.3 mb/d in recent weeks. Even in recent weeks, demand has continued to come in weaker and supply stronger than expected. In the absence of a disruption to oil supply in the Middle East – and our expectation is that this is indeed still unlikely – this still leaves a sizeable surplus on the horizon in 2025.

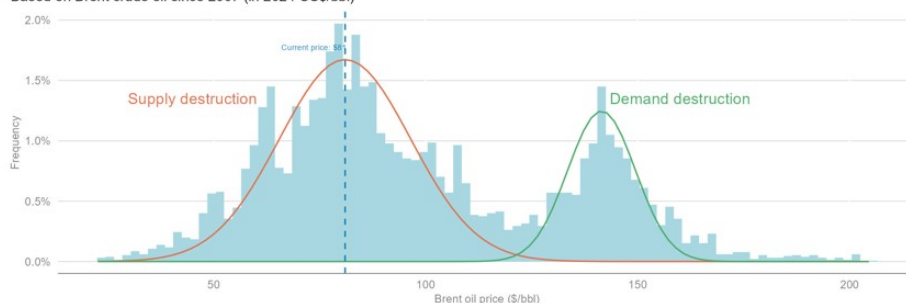
When market participants can see such an imbalance well in advance, the oil market has often responded in such a way that the forecast eventually does not materialise: supply gets eroded, and more demand eventually emerges. In principle, that could well happen again. However, the factors that could rebalance the 2025 oil market arguably won't kick in when Brent is close to \$80/bbl, leaving next year's imbalance unresolved for now.

In the short term, we suspect that concerns over supply disruptions will continue to support oil prices. We have reflected this in our 4Q Brent forecast, which we have increased from \$75 to \$80/bbl, although the uncertainty interval around this is large. That said, the increased surplus we foresee in 2025 is likely to weigh on prices during the course of next year: we now see Brent ending next year at \$70/bbl, down from \$75/bbl before.

**Exhibit 3:** The oil market has historically had two anchor points: a low price that held back supply and a high price that erodes demand. Assuming that 'demand destruction' does not become a necessity, we foresee prices staying in that lower distribution. With a premium for geopolitical risk, Brent is currently at the midpoint of that lower distribution. However, with a surplus in 2025, we ultimately see prices slightly 'to the left'

### Distribution of inflation-adjusted oil prices

Based on Brent crude oil since 2007 (in 2024 US\$/bbl)



Source: Platts, Bloomberg, Morgan Stanley Research

**Exhibit 4:** With weak speculative positioning, prices can rally in the short term

#### Commitment of Traders

Total oil, net positioning (no. of contracts)

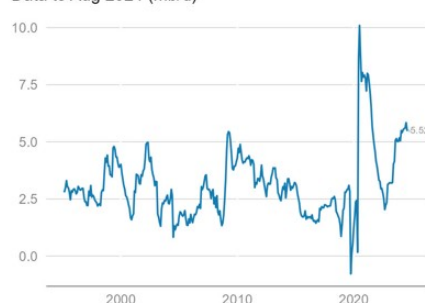


Note: based on Managed Money and Other Reportables in CO, CL, XB, QS and Source: CFTC Commitment of Traders Data, Morgan Stanley Research

**Exhibit 5:** Outside the covid period, OPEC+ spare capacity is currently at a 30-year high

#### OPEC+ spare capacity

Data to Aug 2024 (mb/d)

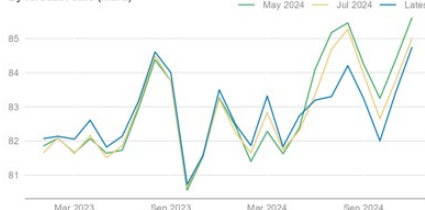


Source: S&P Global Commodities Insights, Morgan Stanley Research

**Exhibit 6:** Consensus estimates for refinery runs have steadily been lowered in recent months

#### Global refinery runs - consensus revisions

By forecast date (mb/d)



Source: S&P Global Platts, Energy Aspects, IEA, Morgan Stanley Research

## In case of a supply disruption

In early 2022, oil market participants widely expected that Russia would lose ~3 mb/d of its production capacity. When the oil market needs to absorb such a sharp decline in supply in a very short period of time, 'demand destruction' may be the only way to balance the market. In turn, history has shown that the price at which considerable demand destruction kicks in is in the order of ~\$130/bbl.

When geopolitical risks come into focus, the oil market often prices in some probability that this scenario happens again. However, we would argue that in the current situation, the likelihood that demand-destruction becomes a necessity is still very low, for two reasons: first, the total amount of supply-at-risk is smaller than it was in 2022. Second, OPEC+ currently has around 5-6 mb/d of spare capacity, which means it can compensate for sizeable supply losses.

Still, the market would be tighter and inventories would be lower if supply is lost. In a previous edition of *The Oil Manual*, we set out a methodology for translating a supply/demand forecast into a price forecast – see [here](#). Based on that approach, we estimate that a 1-2 mb/d supply reduction for 3-6 months could drive Brent to the mid-to-high \$80s. That is a somewhat 'mechanical' calculation – in practice, oil prices typically over- and undershoot. However, if the need for demand-destruction is not there, the very high prices of 2022 are unlikely to be seen again.

Also, it is also worth reiterating that the expectation of a 3 mb/d supply loss in Russia in 2022 did not materialise. In the end, Russia lost very little production capacity in 2022.

## In case of no supply disruption...back to fundamentals

Over the last few months, we have steadily lowered our forecast for **oil demand growth** for this year. Our estimate for growth peaked at 1.5 mb/d back in April, but by August we had already lowered this to 1.1 mb/d.

Yet, even in recent weeks, demand has continued to come in lower than expected. This is mostly driven by China and, to a lesser extent, India, the Middle East, Japan and Korea. As a result, we lower our demand growth forecast again to now 0.95 mb/d for 2024, and reduce our estimate for 2025 demand growth from 1.2 to 1.1 mb/d. In total, this shaves off nearly 0.3 mb/d of our 2025 demand forecast.

This can also be seen in forecasts from others. In [Exhibit 7](#), we summarise the average demand growth forecast from several external oil market consultancies. By now, this 'consensus' forecast has fallen to slightly above 1.0 mb/d ([Exhibit 8](#)).

[Exhibit 8](#) shows the revisions in this consensus estimate since July, capturing both the August and September revisions. Over this period, consensus demand growth has fallen sharply by ~305 kb/d, driven predominantly by weaker-than-expected data in China and, to some extent, the US. In terms of products, the disappointment has been most notable in in gasoil/diesel demand, but demand for jet fuel and fuel oil has also been underwhelming.

**Exhibit 7:** The consensus oil demand growth forecast for 2024 currently stands at ~1.0 mb/d, driven by jet fuel and petrochemical feedstock (i.e. LPG/ethane), mostly in Asia

### Consensus oil demand growth

2024 vs 2023, average across selected forecasters (kb/d)

| Region        | LPG/<br>ethane | Naphtha    | Gasoline   | Jet/<br>kerosene | Gasoil/<br>diesel | Fuel<br>oil | Other<br>oil | Total<br>liquids |
|---------------|----------------|------------|------------|------------------|-------------------|-------------|--------------|------------------|
| North America | 140            | -10        | -30        | 40               | -120              | -5          | 5            | 25               |
| China         | 200            | 105        | 90         | 135              | -105              | -125        | -120         | 185              |
| India         | 40             | 5          | 60         | 15               | 55                | -10         | 45           | 205              |
| Other Asia    | 75             | 15         | 20         | 140              | 25                | 45          | -35          | 285              |
| Europe        | 10             | 20         | 40         | 55               | -115              | -5          | -20          | -20              |
| Middle East   | 10             | 0          | 65         | 40               | 40                | 65          | -70          | 145              |
| FSU           | -20            | -10        | 25         | 5                | 50                | -5          | 20           | 60               |
| Latin America | 10             | 5          | -5         | 10               | 25                | -20         | 55           | 80               |
| Africa        | -5             | 0          | 10         | 10               | 30                | 15          | 5            | 70               |
| <b>World</b>  | <b>460</b>     | <b>125</b> | <b>270</b> | <b>455</b>       | <b>-110</b>       | <b>-45</b>  | <b>-115</b>  | <b>1,035</b>     |

Source: Argus, Energy Aspects, S&P Global Platts, Morgan Stanley Research

**Exhibit 8:** Over the last two monthly revisions cycles, the consensus demand estimate has fallen sharply, down 305 kb/d, driven by weakness in China and gasoil/diesel

### Revisions to 2024 oil demand growth forecasts

Change in forecast since July, average across forecasters (kb/d)

| Region        | LPG/<br>ethane | Naphtha  | Gasoline  | Jet/<br>kerosene | Gasoil/<br>diesel | Fuel<br>oil | Other<br>oil | Total<br>liquids |
|---------------|----------------|----------|-----------|------------------|-------------------|-------------|--------------|------------------|
| North America | -20            | -5       | 10        | 0                | -65               | 0           | 35           | -40              |
| China         | 35             | -5       | -35       | -40              | -85               | -75         | -75          | -275             |
| India         | -5             | -10      | 5         | 0                | -10               | 0           | 15           | 0                |
| Other Asia    | -15            | -15      | -10       | 0                | -5                | -15         | 65           | 10               |
| Europe        | -15            | 30       | 5         | 0                | -10               | 0           | 15           | 25               |
| Middle East   | -5             | 0        | 30        | -5               | 15                | 40          | -85          | -5               |
| FSU           | -25            | 0        | -5        | 0                | 0                 | 0           | 0            | -30              |
| Latin America | 10             | 0        | 0         | 0                | 5                 | 0           | -5           | 10               |
| Africa        | 0              | 0        | 0         | 0                | -5                | 5           | 5            | 5                |
| <b>World</b>  | <b>-35</b>     | <b>0</b> | <b>10</b> | <b>-45</b>       | <b>-160</b>       | <b>-45</b>  | <b>-30</b>   | <b>-305</b>      |

Source: S&P Global Platts, Energy Aspects, Argus, Morgan Stanley Research

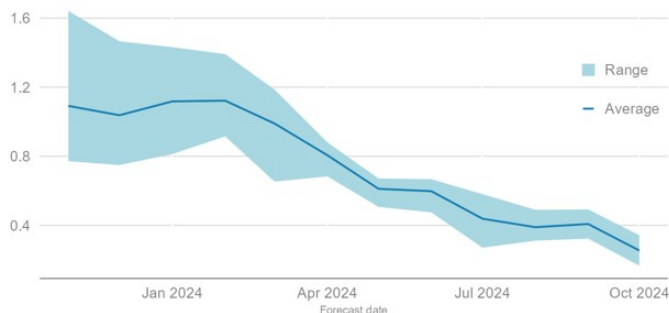
Something similar has happened to **non-OPEC supply**, which has also come in lower than initially expected this year. The consensus forecast for growth in supply of crude and condensate (i.e. ignoring natural gas liquids, certain unconventional and biofuels for the moment), stood at ~1.1 mb/d at the start of the year.

By now, however, most forecasters see this at just ~0.3 mb/d, with the decline driven by lower-than-expected production in the US, Brazil and Russia (still considered as non-OPEC for this analysis) – see [Exhibit 9](#).

**Exhibit 9:** Forecasts for non-OPEC production growth in 2024 have fallen steadily...

**Consensus non-OPEC production growth - 2024**

For crude and condensate supply only, averaged across sources (mb/d)

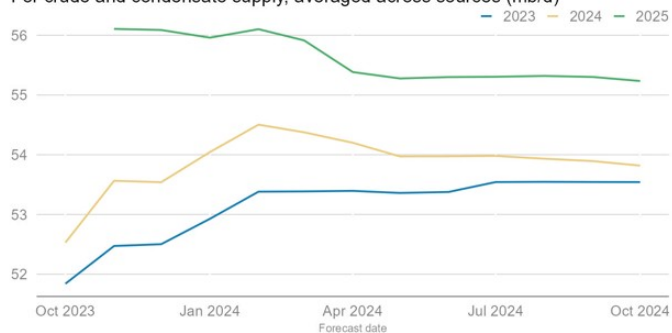


Source: IEA, S&P Global Commodities Insights, Energy Aspects, Morgan Stanley Research

**Exhibit 10:** ...but this is to an important extent driven by upward revisions to 2023 data, with only modest downgrades to 2024 in recent months

**Consensus non-OPEC production**

For crude and condensate supply, averaged across sources (mb/d)



Source: IEA, S&P Global Commodities Insights, Energy Aspects, Morgan Stanley Research

**Exhibit 11:** ...and neither is this common. Usually, non-OPEC supply growth surprises to the upside

**Evolution of IEA non-OPEC production growth forecasts, for different years**

For crude oil, condensate and NGLs (mb/d)

| Year | Month of year when forecast was made |       | Latest report | Revision from Jan figure | Revision from June figure |
|------|--------------------------------------|-------|---------------|--------------------------|---------------------------|
|      | January                              | June  |               |                          |                           |
| 2010 | 0.18                                 | 0.81  | 1.19          | 1.01                     | 0.38                      |
| 2011 | 0.66                                 | 0.56  | 0.14          | -0.52                    | -0.42                     |
| 2012 | 1.02                                 | 0.65  | 0.65          | -0.37                    | 0.00                      |
| 2013 | 0.98                                 | 1.06  | 1.44          | 0.46                     | 0.38                      |
| 2014 | 1.70                                 | 1.45  | 2.42          | 0.72                     | 0.97                      |
| 2015 | 0.93                                 | 0.97  | 1.44          | 0.51                     | 0.47                      |
| 2016 | -0.58                                | -0.90 | -1.63         | -1.05                    | -0.73                     |
| 2017 | 0.28                                 | 0.66  | 1.57          | 1.29                     | 0.91                      |
| 2018 | 1.68                                 | 2.05  | 2.66          | 0.98                     | 0.61                      |
| 2019 | 1.64                                 | 1.87  | 3.89          | 2.25                     | 2.02                      |
| 2020 | 2.13                                 | -3.09 | -2.02         | -4.15                    | 1.07                      |
| 2021 | 0.58                                 | 0.87  | 0.73          | 0.15                     | -0.14                     |
| 2022 | 2.79                                 | 1.62  | 1.88          | -0.91                    | 0.26                      |
| 2023 | 0.72                                 | 1.70  | 2.44          | 1.72                     | 0.74                      |

Source: IEA, Morgan Stanley Research

At the moment, forecasts for non-OPEC supply growth for 2025 are once again high too: we forecast crude + condensate supply to grow by 1.3 mb/d next year and total liquids supply to rise by 1.6 mb/d. This is an important part of why we expect next year's supply/demand balance to be in surplus.

It is possible that – again – this turns out to be an overestimate. If that is the case, perhaps we might be overstating the 2025 surplus.

Although possible, there are three comments to make that puts this into context:

**First, the downwards revision to non-OPEC supply growth in 2024 has to a large extent been driven by upwards revisions to 2023 estimates.** As mentioned, the consensus forecast for non-OPEC C+C growth has dropped from 1.1 to 0.3 mb/d since the start of this year, a downwards revision of 0.8 mb/d. However, this is due to a 0.6 mb/d upwards revision of 2023 supply and downwards revisions of only 0.2 mb/d to 2024 supply. The growth forecast may have fallen sharply, but estimates for the level of supply are down only very modestly.

**Second, it is not common for non-OPEC supply to undershoot forecasts. In fact, the opposite has historically been true.** To analyse this, we have collected historical forecasts from the IEA back to 2010. In Exhibit 11, we summarised the IEA's forecast for non-OPEC total liquids supply growth for the current year from its January report and its June report, and compare that to what actually happened.

Excluding 2020, which was a very unusual year, the IEA has underestimated non-OPEC supply growth by on average 700 kb/d in its January report. Of this, only half was due to stronger-than-expected growth in US shale.

Against this backdrop, the underperformance of non-OPEC growth in 2024 is somewhat unusual. It may happen again in 2025, but considering the full history of non-OPEC supply forecasts, we would argue that it is too early to assume this will happen again

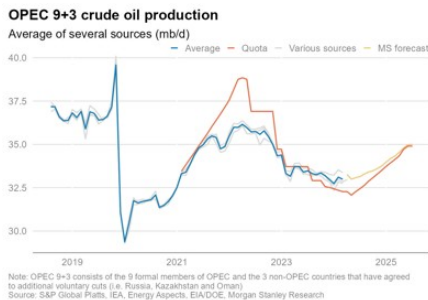
(Note: it is not our intention to isolate the forecast from the IEA here; forecasts from others do not appear more accurate than the IEA's, although we do not have as much historical data for others, making the exercise harder.)

**Exhibit 12:** Several 'field-by-field' forecasts for the oil market point towards 2 mb/d of total liquids growth in non-OPEC in 2025

| Growth/(decline) in 2025 (kb/d) |              |              |              |              |
|---------------------------------|--------------|--------------|--------------|--------------|
| Country                         | Woodmac      | Platts       | Rystad       | Average      |
| United States                   | 1,220        | 456          | 379          | 685          |
| Brazil                          | 473          | 167          | 404          | 348          |
| Canada                          | 78           | 316          | 229          | 208          |
| Kazakhstan                      | 156          | 159          | 204          | 173          |
| Norway                          | 75           | 87           | 139          | 100          |
| Other                           | 399          | 459          | 332          | 396          |
| Vietnam                         | -17          | -20          | -17          | -18          |
| Ecuador                         | -81          | 19           | -1           | -21          |
| Colombia                        | -33          | 3            | -37          | -22          |
| Egypt                           | -22          | -40          | -18          | -27          |
| Malaysia                        | -17          | -77          | -40          | -45          |
| Mexico                          | -216         | -8           | -95          | -106         |
| <b>Crude/condensate</b>         | <b>2,014</b> | <b>1,520</b> | <b>1,479</b> | <b>1,671</b> |
| NGL                             | 363          | 383          | 155          | 300          |
| Other                           | NA           | 104          | 36           | 70           |
| <b>Total liquids</b>            | <b>2,377</b> | <b>2,007</b> | <b>1,671</b> | <b>2,018</b> |

Source: Wood Mackenzie, S&P Global Platts, Rystad, Morgan Stanley Research

**Exhibit 13:** Following the OPEC+ agreement, we forecast OPEC production to increase 0.8 mb/d in 2025



**Third, we already assume some 'haircut' in non-OPEC supply compared to bottom-up forecasts.** In Exhibit 12, we summarise estimates for non-OPEC supply growth from a number of external consultancies that provide data on the oil market on a field-by-field basis. Aggregating their data suggests total non-OPEC liquids supply growth in 2025 of ~2.0 mb/d.

This looks too high to us. In particular, Woodmac's estimate for US supply growth looks surprisingly high. In addition to that, operational issues, weather effects and other factors typically cause some slippage. For that reason, we assume growth of 1.5 mb/d in our forecasts. With that in mind, we would argue that we already build in some 'margin of safety' in our estimates.

(A technicality perhaps, but neither the data in Exhibit 12 nor the 1.5 mb/d mentioned above include refinery processing gains, which likely increases by 0.1 mb/d next year. Therefore, the final estimate for non-OPEC supply growth in our model in Exhibit 19 is shown as 1.6 mb/d.)

The final component of our supply/demand outlook is, of course, **production from OPEC+ countries.** A useful subset of this are the 9 OPEC countries that take part in the quota regime, plus the 3 non-OPEC countries that have committed to voluntary cuts (i.e. Russia, Kazakhstan and Oman). Exhibit 13 brings together data on their recent production and their aggregate quota, as well as our forecast for production for this group.

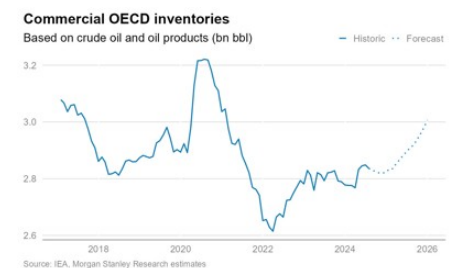
As shown, we assume improving adherence to the production quota over the coming year. As a result, our forecast for production growth is lower than OPEC+'s announced quota increase. Based on the profile shown in Exhibit 13, aggregate crude oil production from OPEC countries increases by ~0.8 mb/d, on our forecast.

Based on these estimates, the market's balance for 2025 is broadly as follows: we suspect that the oil market 2024 will be in a small 0.1 mb/d deficit. In 2025, we expect demand growth of 1.1 mb/d, non-OPEC supply growth of 1.6 mb/d, OPEC NGL growth of 0.1 mb/d and OPEC crude oil growth of 0.8 mb/d. All together, this points to a surplus of 1.3 mb/d, as mentioned earlier.

**Exhibit 14:** After a deficit in 3Q and a balanced market in 4Q, we foresee a surplus in 2025



**Exhibit 15:** With that, we expect commercial OECD inventories to build towards 3 bn barrels in 2025



A surplus of 1.3 mb/d is substantial, which raises the question: how often has this actually happened? We can model this supply/demand imbalance, but is this actually a realistic forecast?

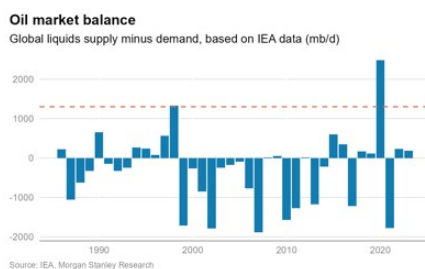
To be clear, history is not on the side of this outcome. Exhibit 16 shows the supply/

demand imbalance in the oil market over the last 40 years, based on IEA data. The red-dotted line marks a surplus of 1.3 mb/d. As shown, this outcome is very rare.

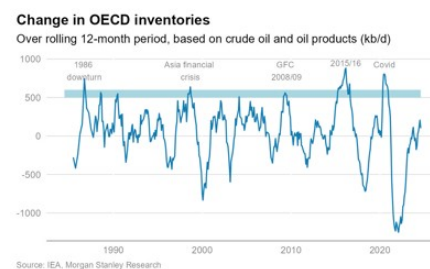
**Exhibit 17** shows a similar analysis. In recent years, it has been common for 40-50% of the supply/demand imbalance to show up in OECD inventories. Therefore, we would expect that if the oil market were to be 1.3 mb/d oversupplied next year, OECD inventories would rise at a rate of 500-600 kb/d (highlighted by the light-blue ribbon).

As shown, this has happened before, but usually only during severe oil market crises, such as during Covid, the GFC, the Asian financial crisis, etc. We see a surplus in 2025, but equally, it would be hard to argue that the oil market outlook is as weak as that.

**Exhibit 16:** We forecast a surplus of 1.3 mb/d, but history suggests this is actually quite unlikely



**Exhibit 17:** With such a surplus, OECD inventories will likely rise 500-600 kb/d – again, highly unusual



In those previous crises, oil market conditions deteriorated quite suddenly, leaving little time for supply and demand to adjust, resulting in these large inventory draws. At the moment, this does not seem to be the case. In fact, the 2025 surplus has been flagged well in advance – we are not the only ones to highlight it.

When such an imbalance is well understood, sufficiently in advance, the oil market has a habit of responding in a way that the imbalance does not materialise - usually, the forecast corrects itself.

In turn, this suggests our forecast for a 1.3 mb/d surplus is, in many ways, not the end of the analysis – rather, it's the start. Given that history suggests surpluses like this typically do not happen, it raises the question of what could change to prevent this outcome?

There are several possible factors that could bring this about, but they would all require lower prices – perhaps not for long, but at least for a period. Lower energy prices would be deflationary and would possibly boost the global economic recovery, which in turn could feed back into oil demand growth. Also, most forecasters still model US production growth of 350-550 kb/d next year (our forecast is 350 kb/d). A period of lower prices could slow drilling activity and reduce this growth outlook. Then, at lower prices, OPEC may be inclined to tweak its production agreement by a few hundred kb/d next year.

Combined, these factors could go a long way towards absorbing the 2025 surplus. However, as long as heightened geopolitical risks keep Brent supported at \$80/bbl, they are unlikely to gain momentum. Geopolitics appear likely to continue to support prices in coming weeks/months. However, if they do not result in an actual supply disruption, at some point we would expect that a temporary period of lower prices might be needed to resolve the issue of the 2025 surplus.

Exhibit 18:

**Crude oil production from key OPEC+ countries**

Average of several sources (mb/d)



Note: OPEC 9+3 consists of the 9 formal members of OPEC and the 3 non-OPEC countries that have agreed to additional voluntary cuts (i.e. Russia, Kazakhstan and Oman)  
 Source: S&P Global Platts, IEA, Energy Aspects, EIA/DOE, Morgan Stanley Research



# Summary balances and price forecasts

## Exhibit 19:

### Liquids balance

|                           |              |              |              |              |              |              |              |              |              |              |              |              | y/y change |            |            |
|---------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|------------|------------|
|                           | 2022         | 2023         | 1Q24         | 2Q24         | 3Q24         | 4Q24         | 2024         | 1Q25         | 2Q25         | 3Q25         | 4Q25         | 2025         | 2023       | 2024       | 2025       |
| <b>Demand</b>             | <b>100.0</b> | <b>102.1</b> | <b>101.4</b> | <b>102.9</b> | <b>103.9</b> | <b>103.9</b> | <b>103.0</b> | <b>102.8</b> | <b>103.9</b> | <b>104.9</b> | <b>104.9</b> | <b>104.1</b> | <b>2.1</b> | <b>1.0</b> | <b>1.1</b> |
| OECD                      | 45.6         | 45.6         | 44.8         | 45.5         | 46.2         | 46.3         | 45.7         | 45.3         | 45.7         | 46.2         | 46.2         | 45.8         | 0.1        | 0.1        | 0.1        |
| Non-OECD                  | 54.4         | 56.4         | 56.6         | 57.4         | 57.7         | 57.6         | 57.3         | 57.5         | 58.2         | 58.7         | 58.7         | 58.3         | 2.0        | 0.9        | 1.0        |
| <b>Non-OPEC supply</b>    | <b>67.0</b>  | <b>69.4</b>  | <b>69.5</b>  | <b>70.3</b>  | <b>70.6</b>  | <b>71.0</b>  | <b>70.3</b>  | <b>70.9</b>  | <b>71.9</b>  | <b>72.4</b>  | <b>72.7</b>  | <b>72.0</b>  | <b>2.4</b> | <b>0.9</b> | <b>1.6</b> |
| USA                       | 17.9         | 19.4         | 19.4         | 20.2         | 20.4         | 20.5         | 20.1         | 20.3         | 20.7         | 20.7         | 20.8         | 20.7         | 1.5        | 0.7        | 0.5        |
| Russia                    | 11.1         | 11.0         | 10.8         | 10.7         | 10.5         | 10.4         | 10.6         | 10.5         | 10.6         | 10.7         | 10.8         | 10.6         | 0.1        | 0.3        | 0.0        |
| OPEC NGLs/condensate      | 5.4          | 5.4          | 5.4          | 5.5          | 5.5          | 5.6          | 5.5          | 5.5          | 5.5          | 5.6          | 5.7          | 5.6          | 0.1        | 0.1        | 0.1        |
| <b>Call on OPEC crude</b> | <b>27.6</b>  | <b>27.2</b>  | <b>26.5</b>  | <b>27.2</b>  | <b>27.8</b>  | <b>27.3</b>  | <b>27.2</b>  | <b>26.4</b>  | <b>26.4</b>  | <b>26.9</b>  | <b>26.6</b>  | <b>26.6</b>  | <b>0.4</b> | <b>0.0</b> | <b>0.6</b> |
| OPEC crude                | 27.9         | 27.4         | 26.9         | 27.1         | 27.2         | 27.2         | 27.1         | 27.4         | 27.7         | 28.0         | 28.5         | 27.9         | 0.4        | 0.3        | 0.8        |
| <b>Implied balance</b>    | <b>0.2</b>   | <b>0.2</b>   | <b>0.4</b>   | <b>0.1</b>   | <b>0.6</b>   | <b>0.0</b>   | <b>0.1</b>   | <b>1.0</b>   | <b>1.3</b>   | <b>1.2</b>   | <b>1.9</b>   | <b>1.3</b>   | <b>0.0</b> | <b>0.3</b> | <b>1.4</b> |
| Misc to balance           | - 0.1        | - 0.2        | 0.1          | 0.5          | 0.6          | -            | 0.0          | -            | -            | -            | -            | -            | 0.1        | 0.2        | 0.0        |
| <b>Stock change</b>       | <b>0.1</b>   | <b>0.0</b>   | <b>0.5</b>   | <b>0.4</b>   | <b>1.2</b>   | <b>0.0</b>   | <b>0.1</b>   | <b>1.0</b>   | <b>1.3</b>   | <b>1.2</b>   | <b>1.9</b>   | <b>1.3</b>   | <b>0.1</b> | <b>0.0</b> | <b>1.4</b> |

### Price forecast - Brent (\$/bbl)

| Period | Bear | Base | Bull |
|--------|------|------|------|
| 4Q24   | 60.0 | 80.0 | 95.0 |
| 1Q25   | 60.0 | 77.5 | 95.0 |
| 2Q25   | 60.0 | 75.0 | 95.0 |
| 3Q25   | 60.0 | 72.5 | 95.0 |
| 4Q25   | 60.0 | 70.0 | 95.0 |
| 2026   | 60.0 | 75.0 | 95.0 |

### Price forecast - WTI (\$/bbl)

| Period | Bear | Base | Bull |
|--------|------|------|------|
| 4Q24   | 55.0 | 75.0 | 90.0 |
| 1Q25   | 55.0 | 72.5 | 90.0 |
| 2Q25   | 55.0 | 70.0 | 90.0 |
| 3Q25   | 55.0 | 67.5 | 90.0 |
| 4Q25   | 55.0 | 65.0 | 90.0 |
| 2026   | 55.0 | 70.0 | 90.0 |

### Crude and condensate balance

|                        |             |             |             |             |             |             |             |             |             |             |             |             | y/y change |            |            |
|------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|------------|
|                        | 2022        | 2023        | 1Q24        | 2Q24        | 3Q24        | 4Q24        | 2024        | 1Q25        | 2Q25        | 3Q25        | 4Q25        | 2025        | 2023       | 2024       | 2025       |
| <b>Demand</b>          | <b>81.6</b> | <b>83.4</b> | <b>83.2</b> | <b>83.4</b> | <b>84.5</b> | <b>84.0</b> | <b>83.8</b> | <b>84.0</b> | <b>83.8</b> | <b>85.5</b> | <b>84.5</b> | <b>84.4</b> | <b>1.8</b> | <b>0.4</b> | <b>0.7</b> |
| Refinery runs          | 80.8        | 82.6        | 82.6        | 82.7        | 83.6        | 83.4        | 83.1        | 83.4        | 83.0        | 84.5        | 83.9        | 83.7        | 1.7        | 0.5        | 0.6        |
| Direct burn            | 0.7         | 0.8         | 0.6         | 0.6         | 0.9         | 0.6         | 0.7         | 0.6         | 0.7         | 1.0         | 0.7         | 0.7         | 0.0        | 0.1        | 0.0        |
| <b>Non-OPEC supply</b> | <b>52.2</b> | <b>53.8</b> | <b>54.2</b> | <b>53.9</b> | <b>53.9</b> | <b>54.8</b> | <b>54.2</b> | <b>55.3</b> | <b>55.3</b> | <b>55.5</b> | <b>56.1</b> | <b>55.5</b> | <b>1.6</b> | <b>0.4</b> | <b>1.3</b> |
| USA                    | 12.0        | 12.9        | 12.9        | 13.2        | 13.4        | 13.5        | 13.3        | 13.6        | 13.6        | 13.6        | 13.7        | 13.6        | 0.9        | 0.3        | 0.3        |
| Russia                 | 10.7        | 10.6        | 10.5        | 10.4        | 10.1        | 10.1        | 10.3        | 10.2        | 10.2        | 10.3        | 10.4        | 10.3        | 0.1        | 0.3        | 0.0        |
| <b>OPEC supply</b>     | <b>29.7</b> | <b>29.3</b> | <b>28.8</b> | <b>29.1</b> | <b>29.2</b> | <b>29.2</b> | <b>29.1</b> | <b>29.4</b> | <b>29.8</b> | <b>30.2</b> | <b>30.6</b> | <b>30.0</b> | <b>0.4</b> | <b>0.3</b> | <b>0.9</b> |
| Crude                  | 27.9        | 27.4        | 26.9        | 27.1        | 27.2        | 27.2        | 27.1        | 27.4        | 27.7        | 28.0        | 28.5        | 27.9        | 0.4        | 0.3        | 0.8        |
| Condensate             | 1.9         | 1.9         | 2.0         | 2.0         | 2.0         | 2.0         | 2.0         | 2.1         | 2.1         | 2.1         | 2.1         | 2.1         | 0.0        | 0.0        | 0.1        |
| <b>Implied balance</b> | <b>0.3</b>  | <b>0.2</b>  | <b>0.2</b>  | <b>0.4</b>  | <b>1.4</b>  | <b>0.0</b>  | <b>0.5</b>  | <b>0.8</b>  | <b>1.3</b>  | <b>0.2</b>  | <b>2.1</b>  | <b>1.1</b>  | <b>0.5</b> | <b>0.3</b> | <b>1.6</b> |
| Misc to balance        | - 0.5       | 0.1         | 0.1         | 0.7         | 0.0         | 0.1         | 0.2         | 0.2         | 0.1         | 0.2         | 0.1         | 0.0         | 0.7        | 0.1        | 0.3        |
| <b>Stock change</b>    | <b>0.2</b>  | <b>0.1</b>  | <b>0.1</b>  | <b>0.3</b>  | <b>1.4</b>  | <b>0.1</b>  | <b>0.3</b>  | <b>0.5</b>  | <b>1.4</b>  | <b>0.0</b>  | <b>2.2</b>  | <b>1.0</b>  | <b>0.1</b> | <b>0.2</b> | <b>1.3</b> |

Note: A more detailed supply/demand balance is available on request.

Source: IEA, Platts, Morgan Stanley Research estimates

# Prices and differentials

Exhibit 20:

## Prices and differentials

Last 12 months (\$/bbl)

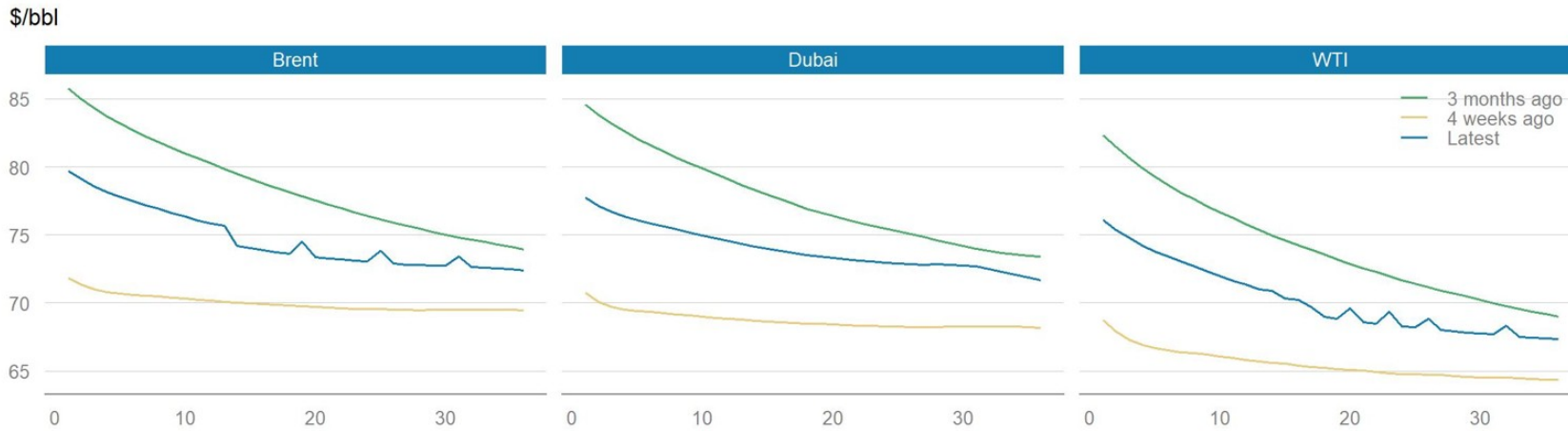


Source: Platts, Bloomberg, Morgan Stanley Research

# Forward curves and time spreads

Exhibit 21:

## Forward curves



## Time spreads



Note: Horizontal axis in top charts show contract month  
 Source: Bloomberg, Platts

# Crude quality

Exhibit 22:

## Crude oil pricing

Depending on quality and location (\$/bbl)



Note: analysis based on weekly regression across 95 seaborne crudes  
 Source: Platts, Morgan Stanley Research

# North Sea indicators

Exhibit 23:

## North Sea indicators

Loadings in mb/d; others in \$/bbl



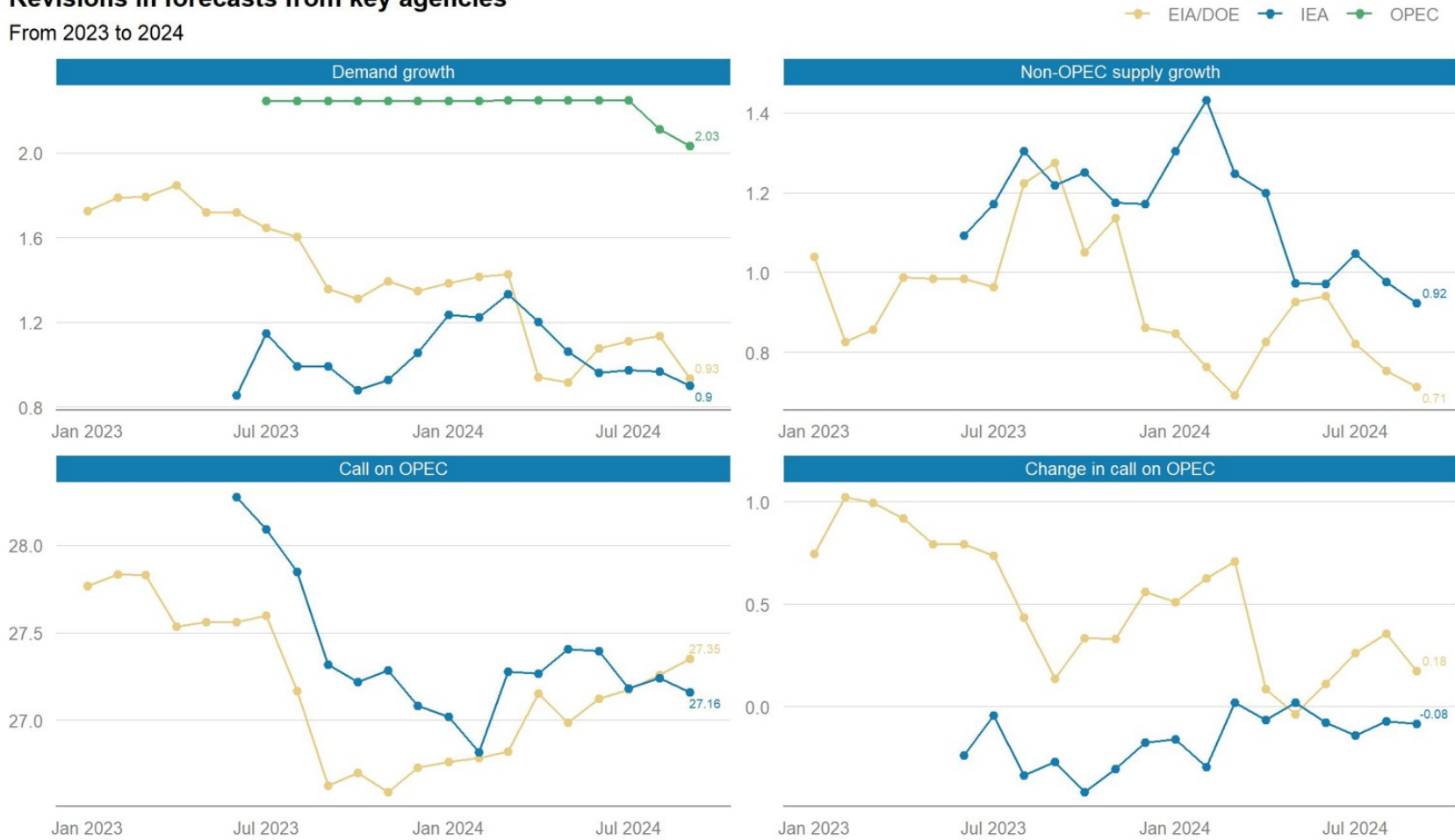
Source: Platts, Bloomberg, Morgan Stanley Research

# Key agency revisions

Exhibit 24:

## Revisions in forecasts from key agencies

From 2023 to 2024



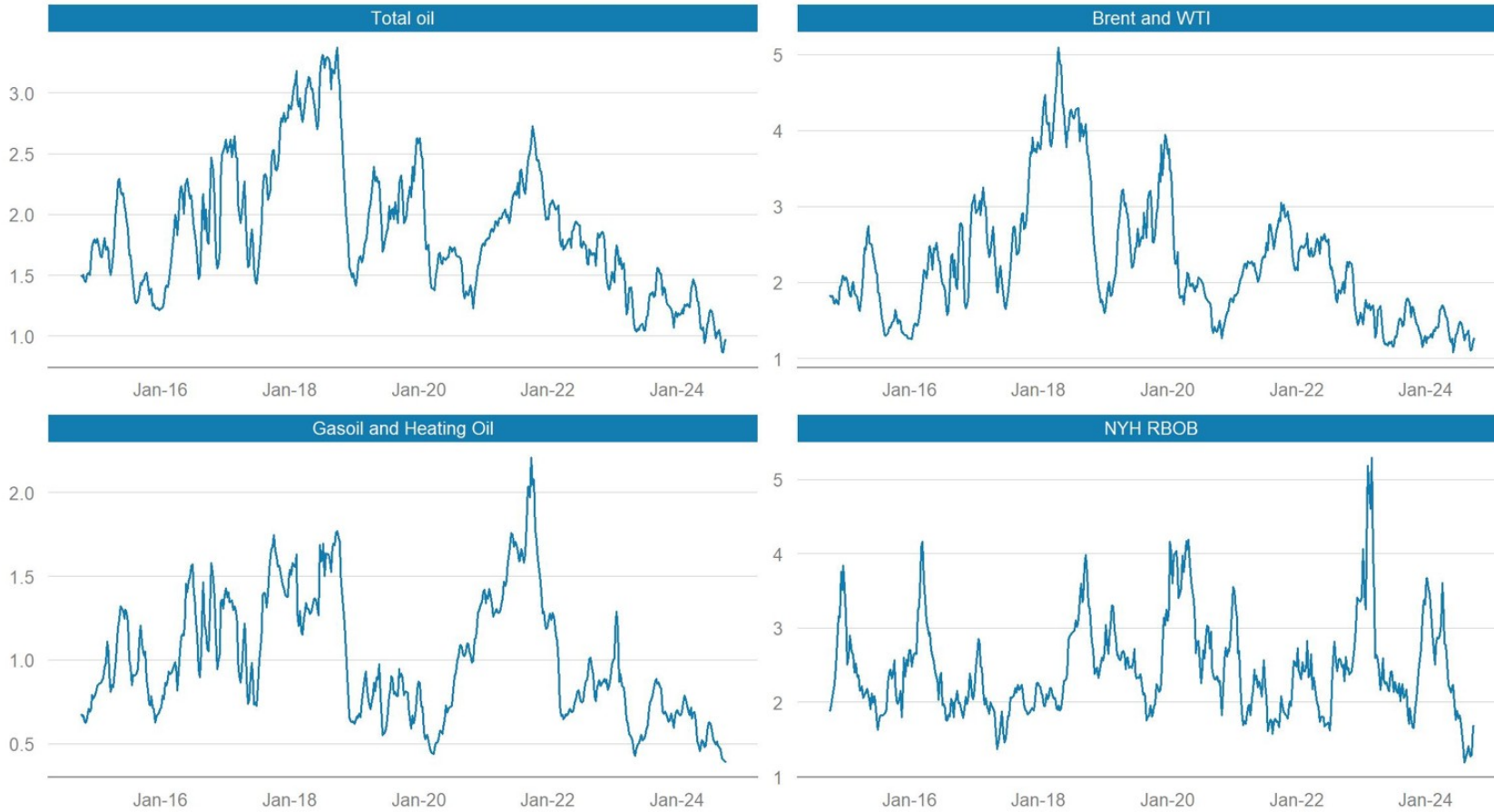
Source: IEA, EIA/DOE, OPEC, Morgan Stanley Research

# Positioning

Exhibit 25:

## CFTC Commitment of Traders Data

Managed money and Other reportables (ratio of number of long vs short contracts)



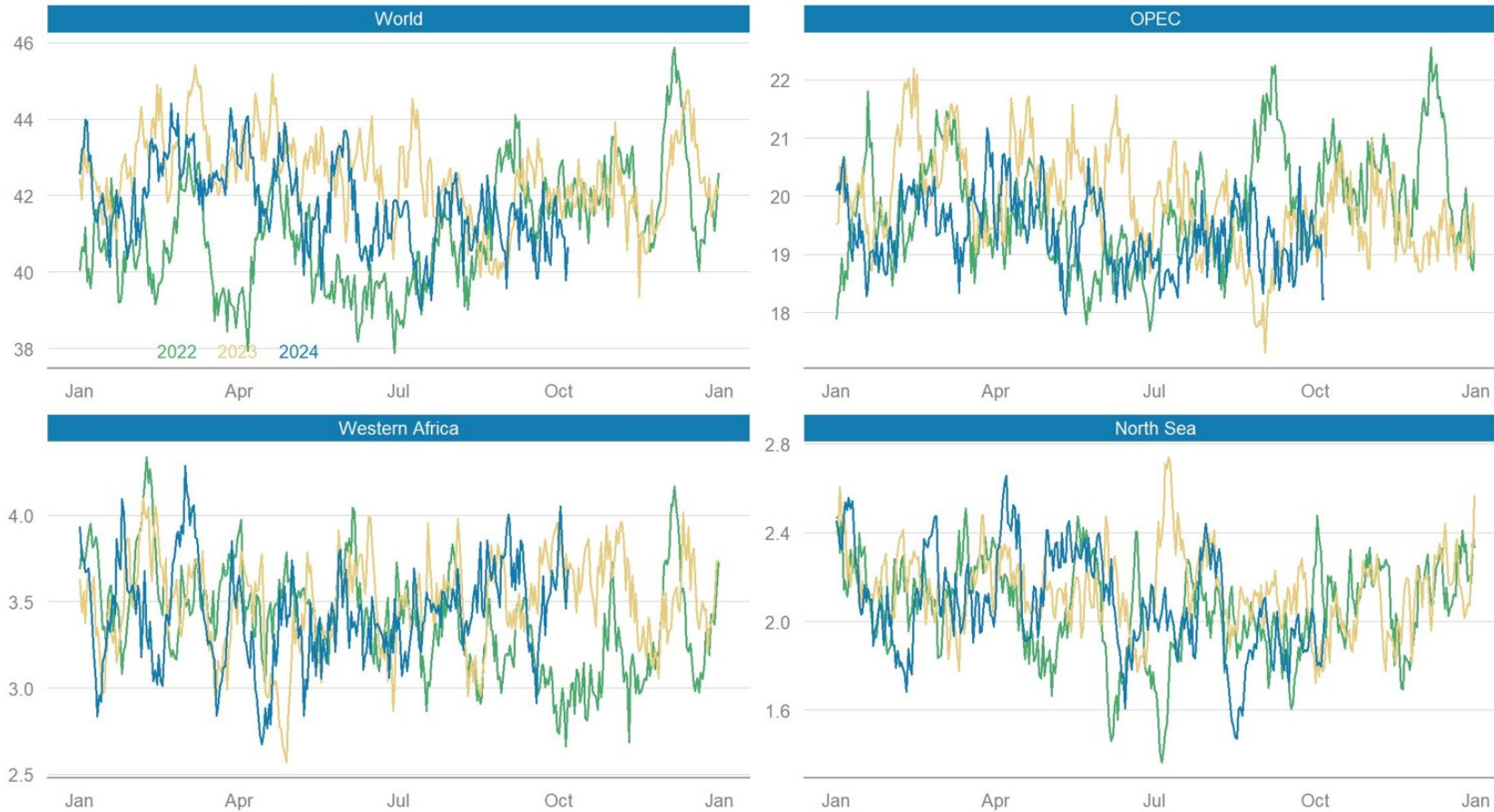
Source: CFTC, Morgan Stanley Research

# Seaborne exports – key countries

Exhibit 26:

## Seaborne crude oil loadings

14-day moving average (mb/d)



Source: Kpler, Morgan Stanley Research

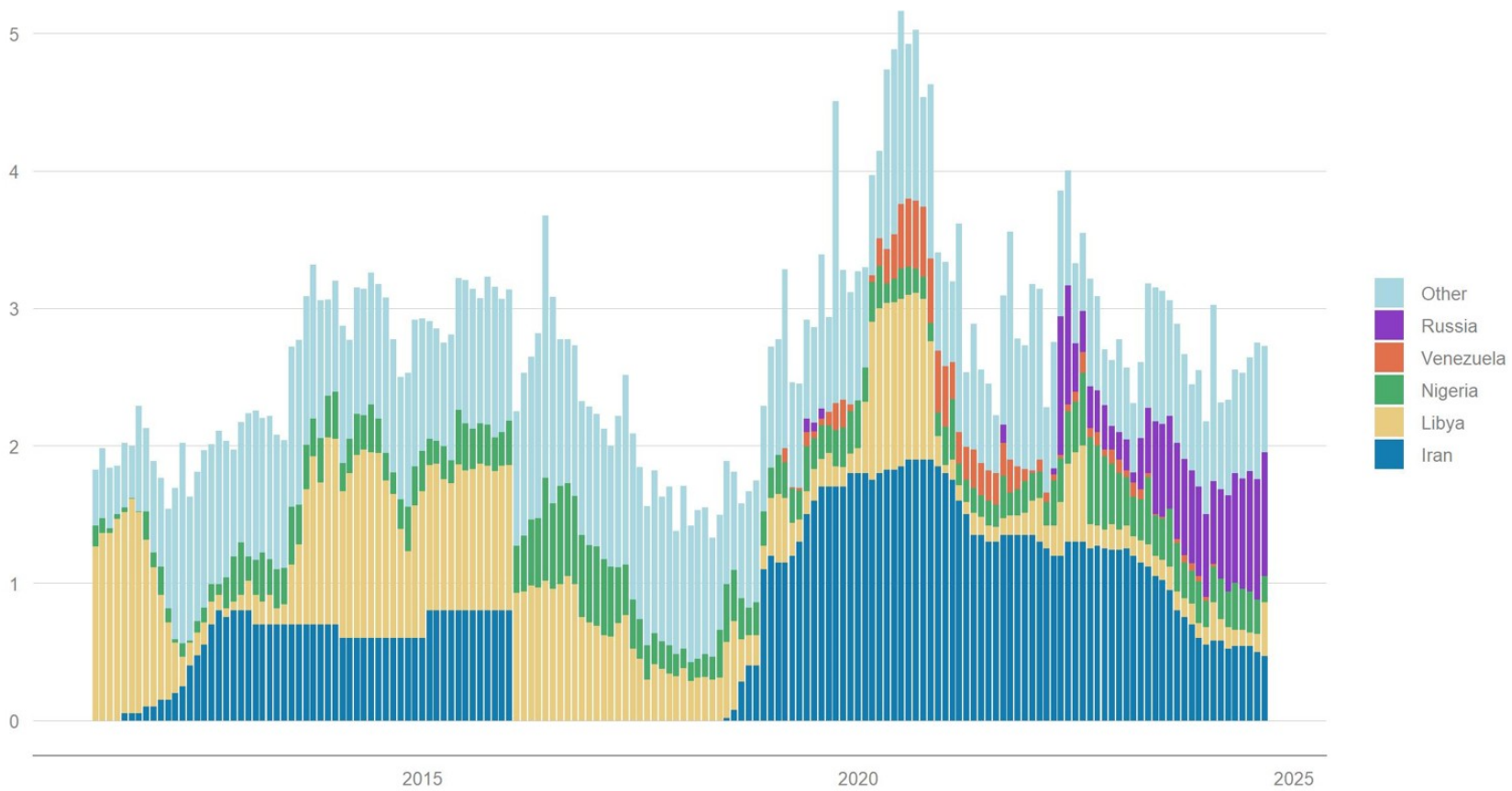


# Unplanned outages

Exhibit 27:

## Unplanned oil production disruptions

Data to August 2024 in (mb/d)



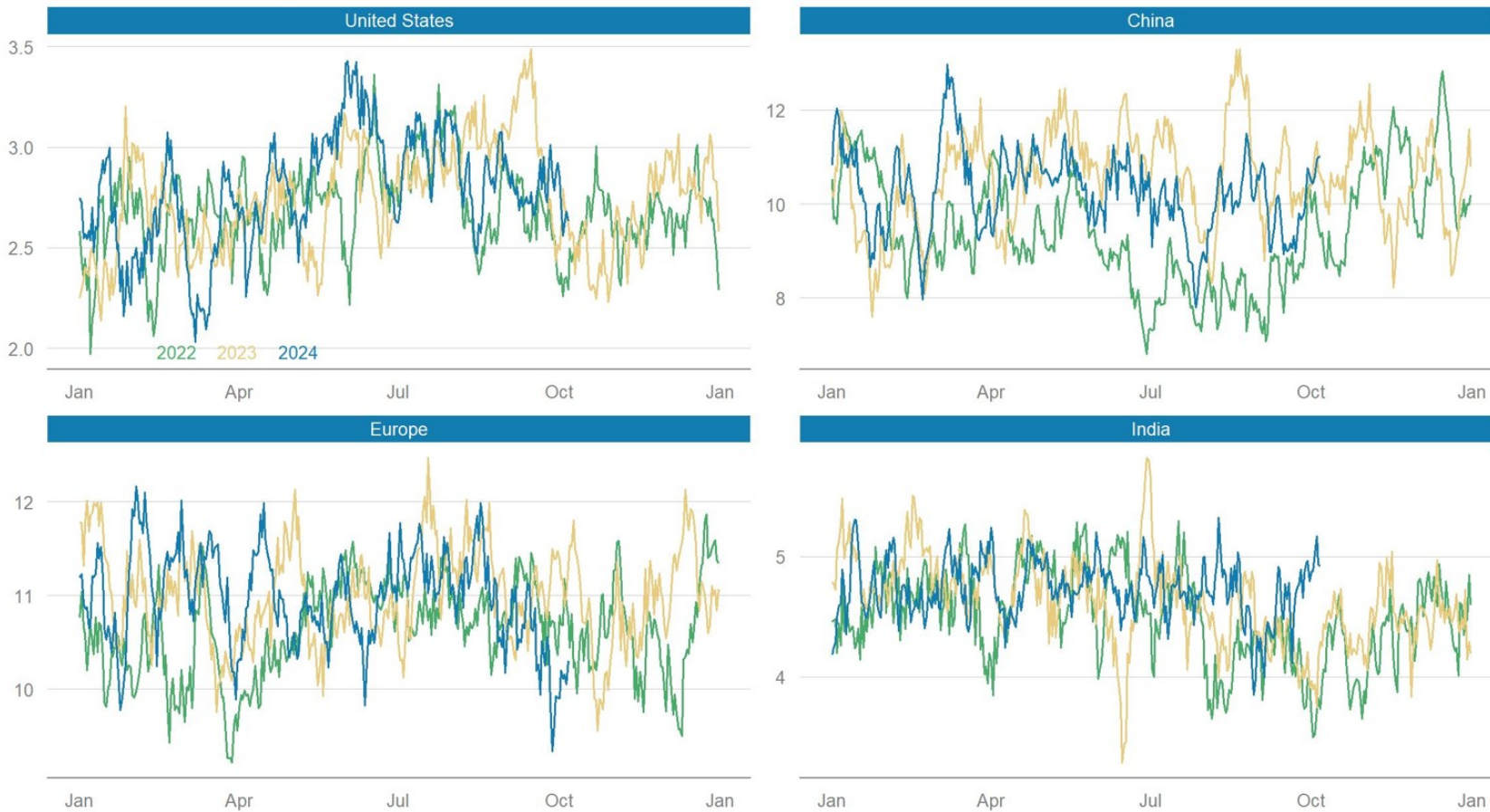
Source: EIA/DOE, Morgan Stanley Research

# Seaborne crude imports – key countries

Exhibit 28:

## Seaborne crude oil imports

14-day moving average (mb/d)



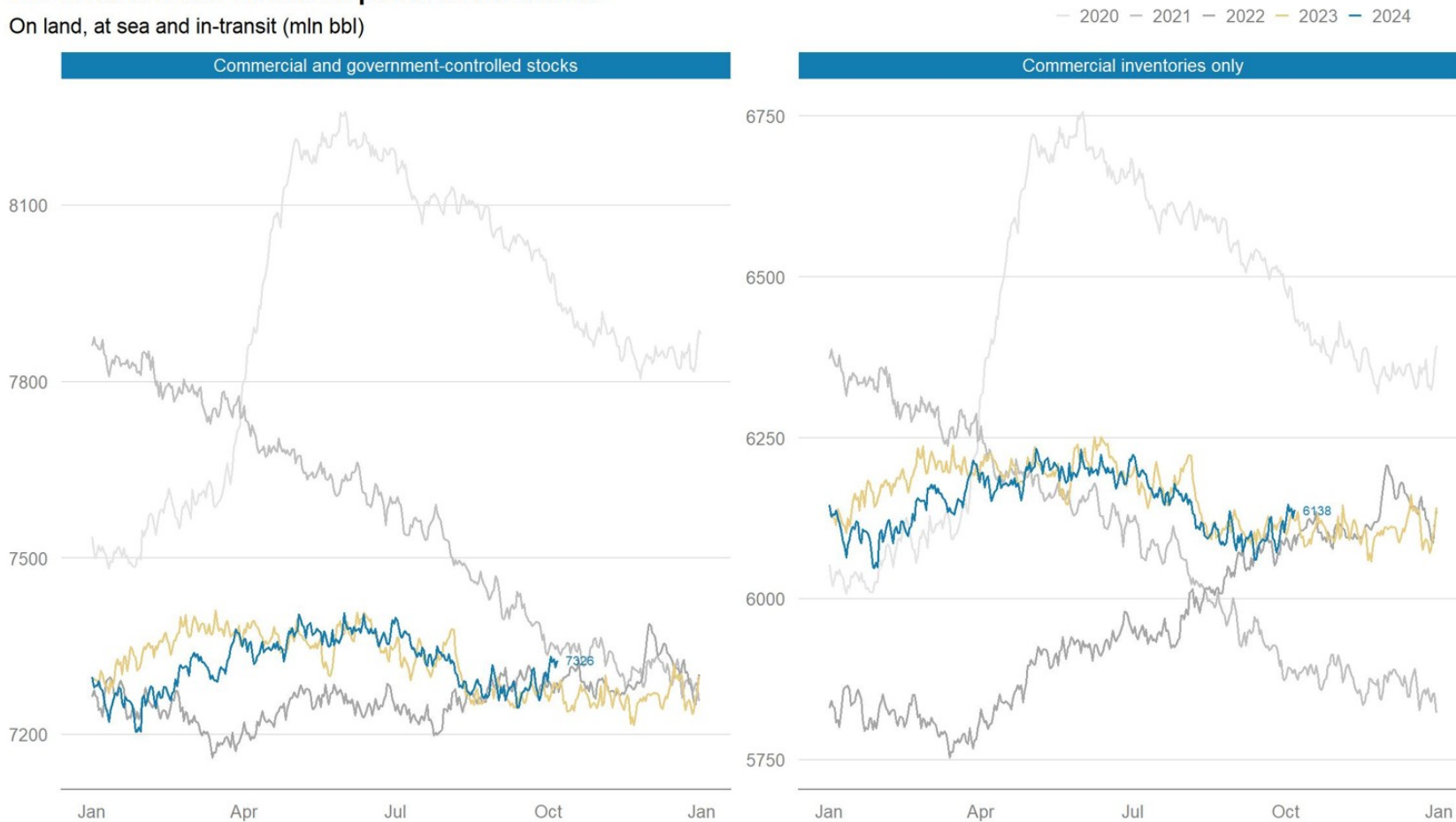
Source: Kpler, Morgan Stanley Research

# Global inventories

Exhibit 29:

## Observable crude oil and oil products inventories

On land, at sea and in-transit (mln bbl)



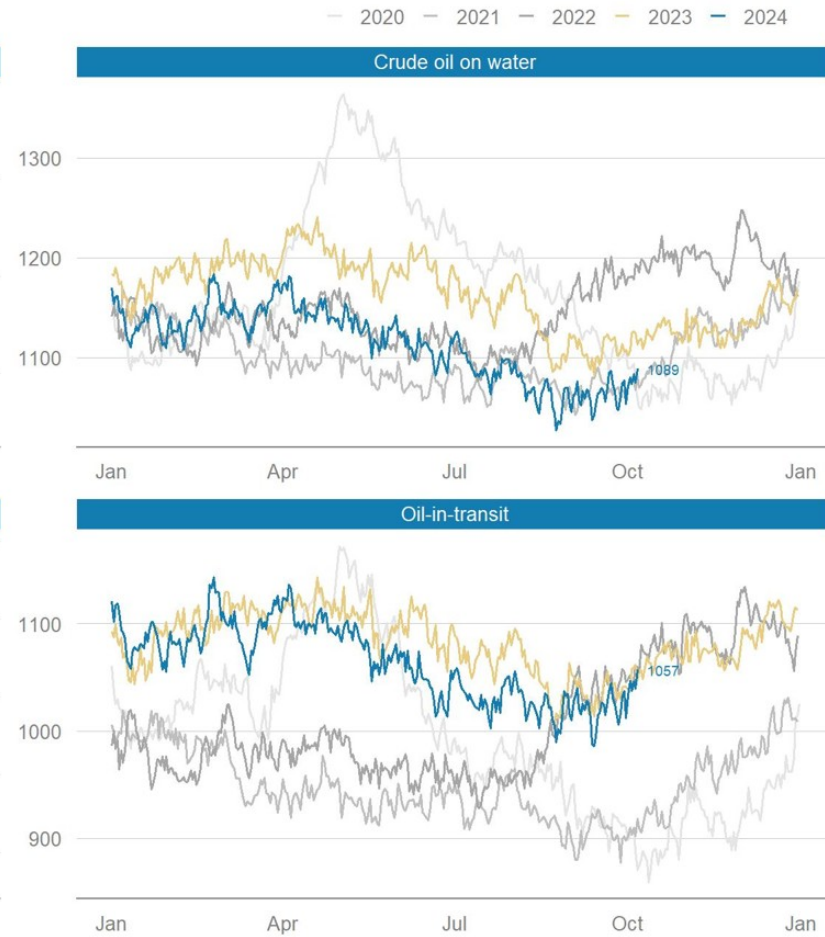
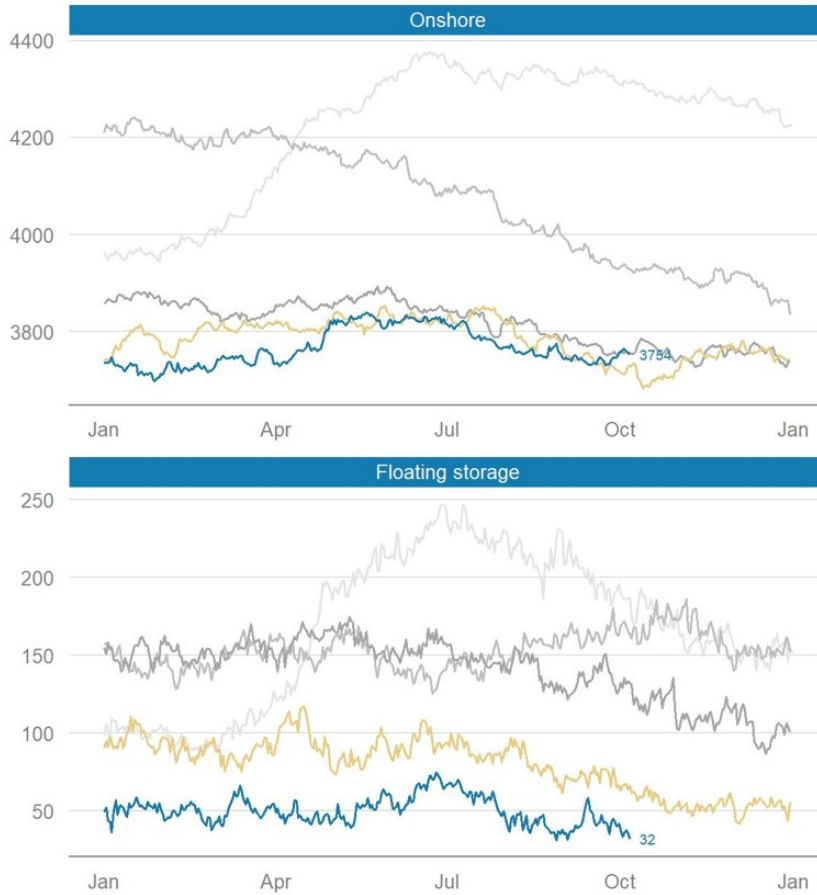
Note: inventories on land, at sea and in-transit, not including SPR in OECD countries  
 Source: IEA, EIA/DOE, PJK, IE, Genscape, PAJ, Platts, Kpler, Morgan Stanley Research analysis

# Inventories by location

Exhibit 30:

## Observable crude oil inventories

(mln bbl)



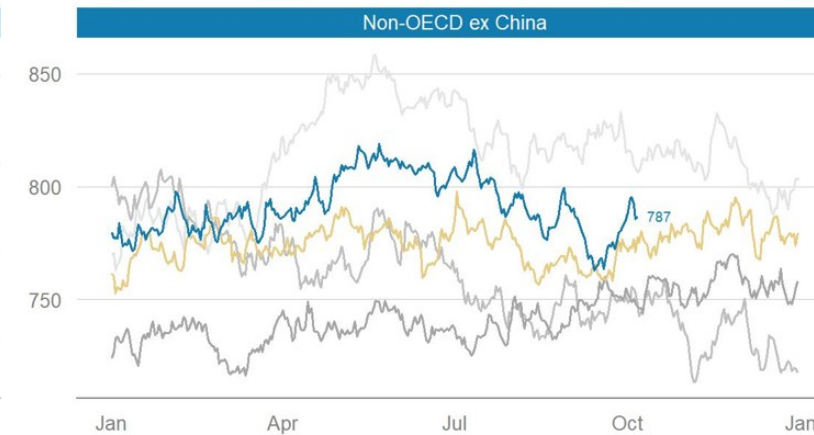
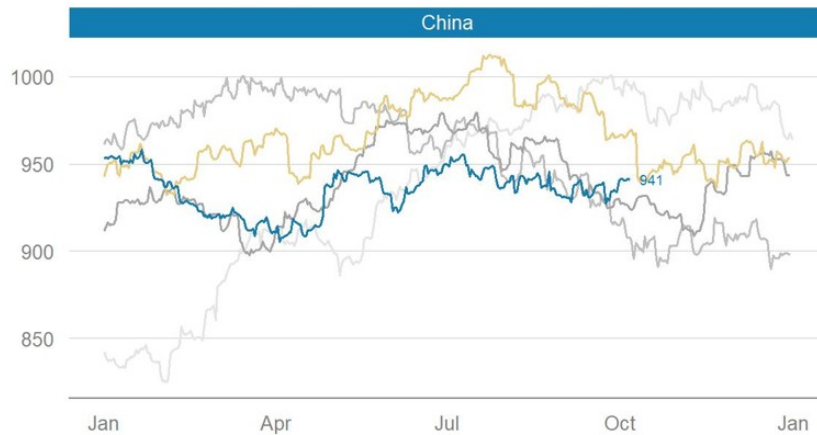
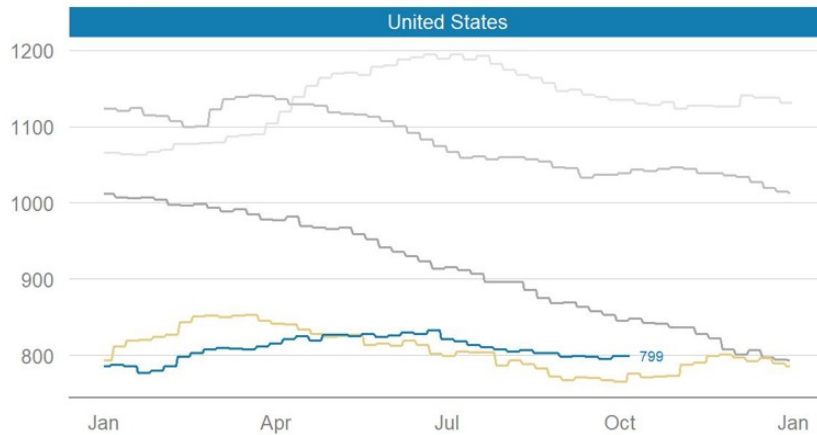
Source: IEA, EIA/DOE, PJK, IE, Genscape, PAJ, Platts, Kpler, Morgan Stanley Research analysis

# Inventories by region

Exhibit 31:

## Observable crude oil inventories

On land only (mln bbl)



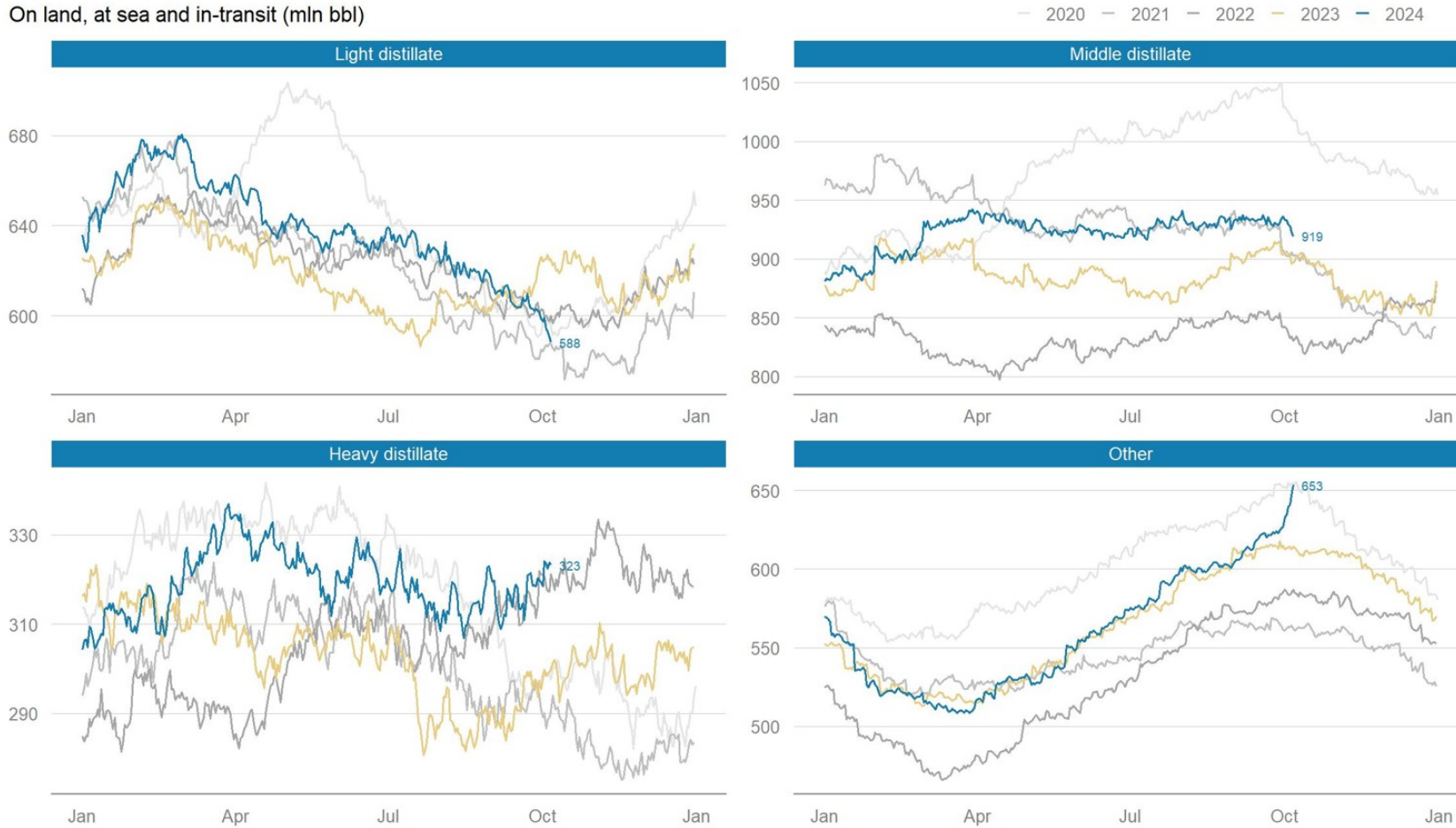
Note: Also includes condensate, NGL and other refinery feedstock; inventories include SPR  
 Source: IEA, EIA/DOE, PJK, IE, Genscape, PAJ, Platts, Kpler, Morgan Stanley Research analysis

# Oil product inventories by type

Exhibit 32:

## Observable oil products inventories

On land, at sea and in-transit (mln bbl)



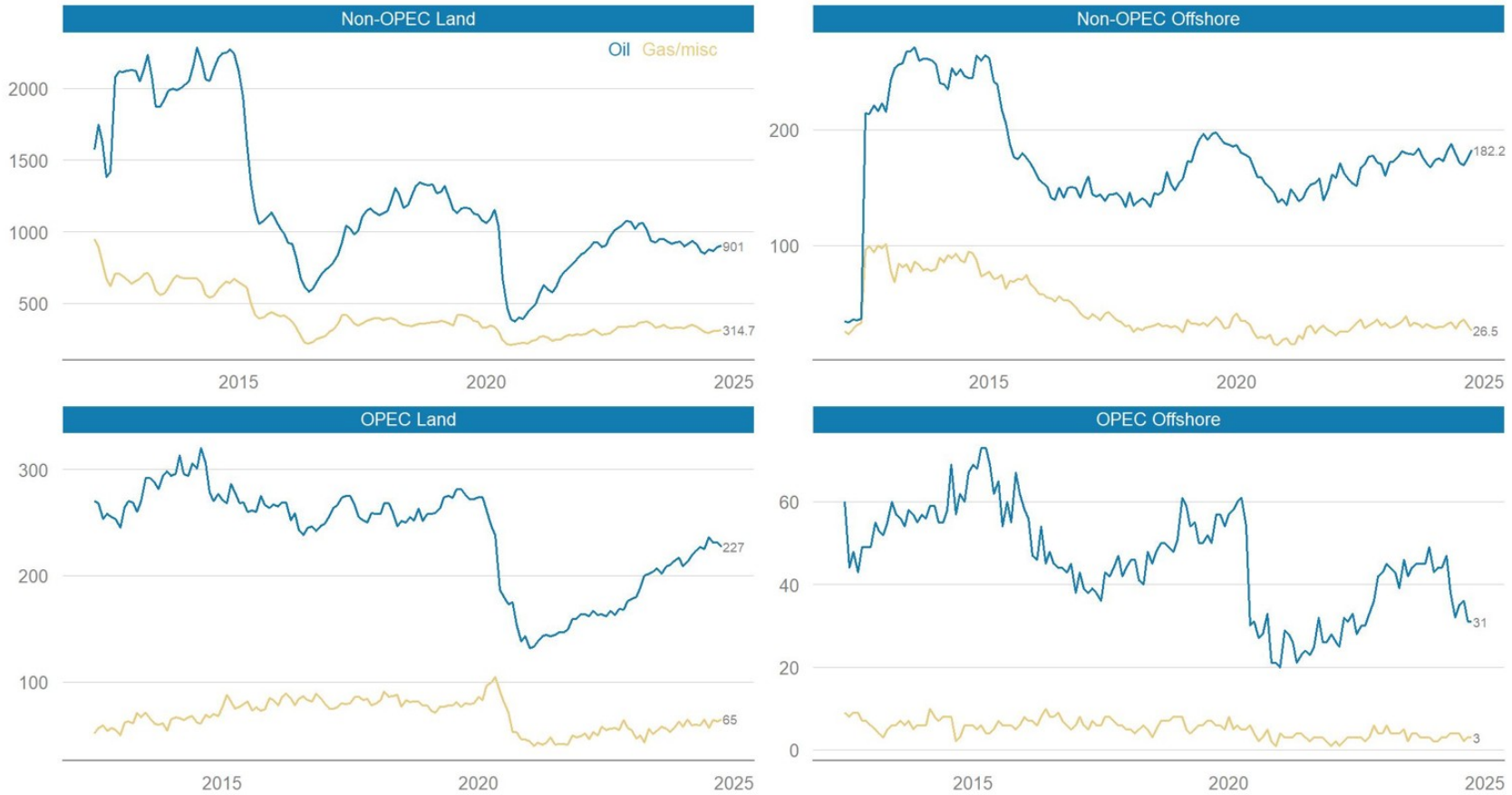
Source: IEA, EIA/DOE, PJK, IE, PAJ, Platts, Kpler, Morgan Stanley Research analysis

# International rig count

Exhibit 33:

## Rig count outside the United States

OPEC vs non-OPEC; land vs offshore



Note: rigs drilling in inland waters included in 'offshore'  
 Source: Baker Hughes, Morgan Stanley Research

# US rig count

Exhibit 34:

## Rig count by shale play

Drilling horizontal wells, targeting oil



Source: Baker Hughes, Enervus, Morgan Stanley Research

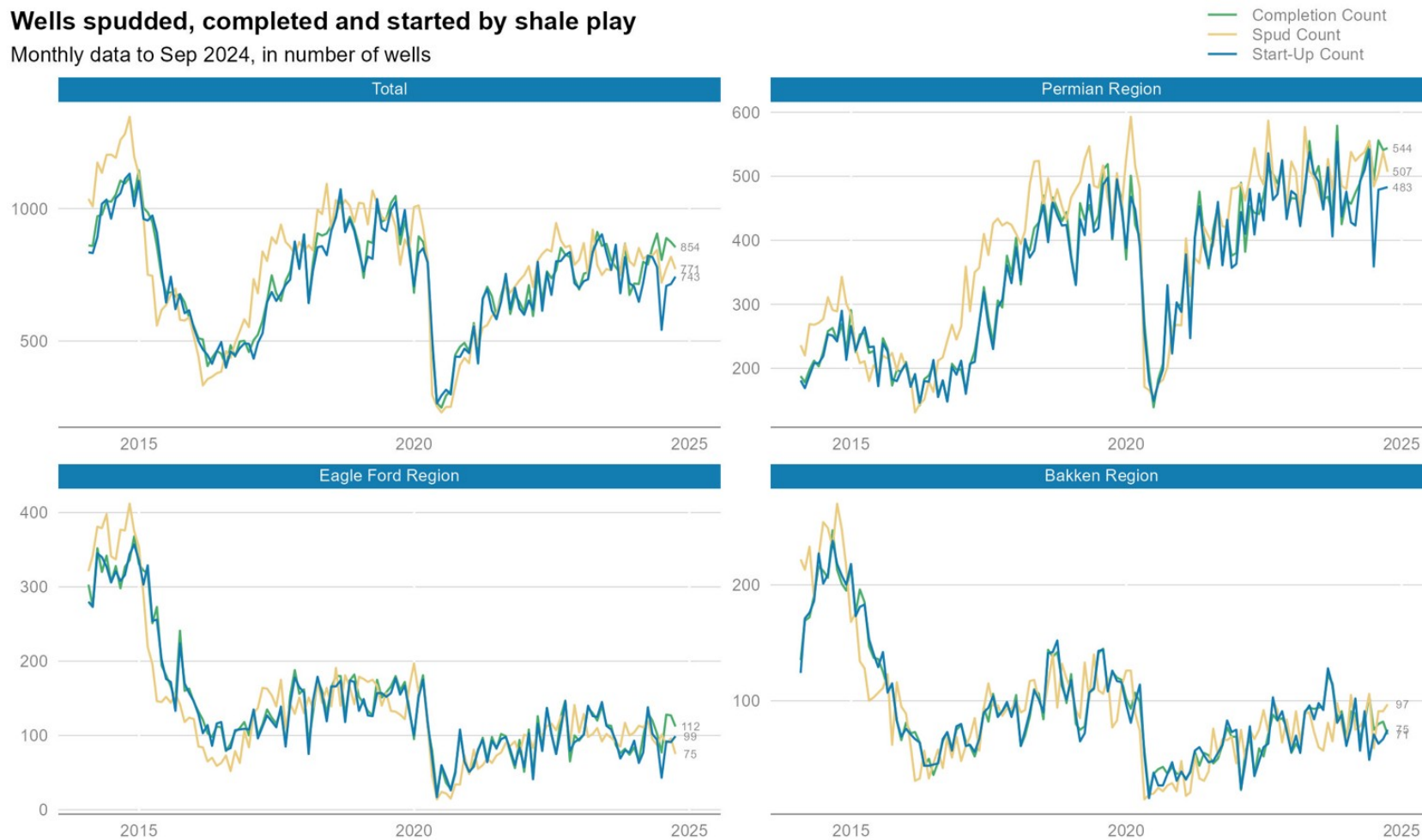


# US Shale – Wells spudded, completed and started

Exhibit 35:

## Wells spudded, completed and started by shale play

Monthly data to Sep 2024, in number of wells



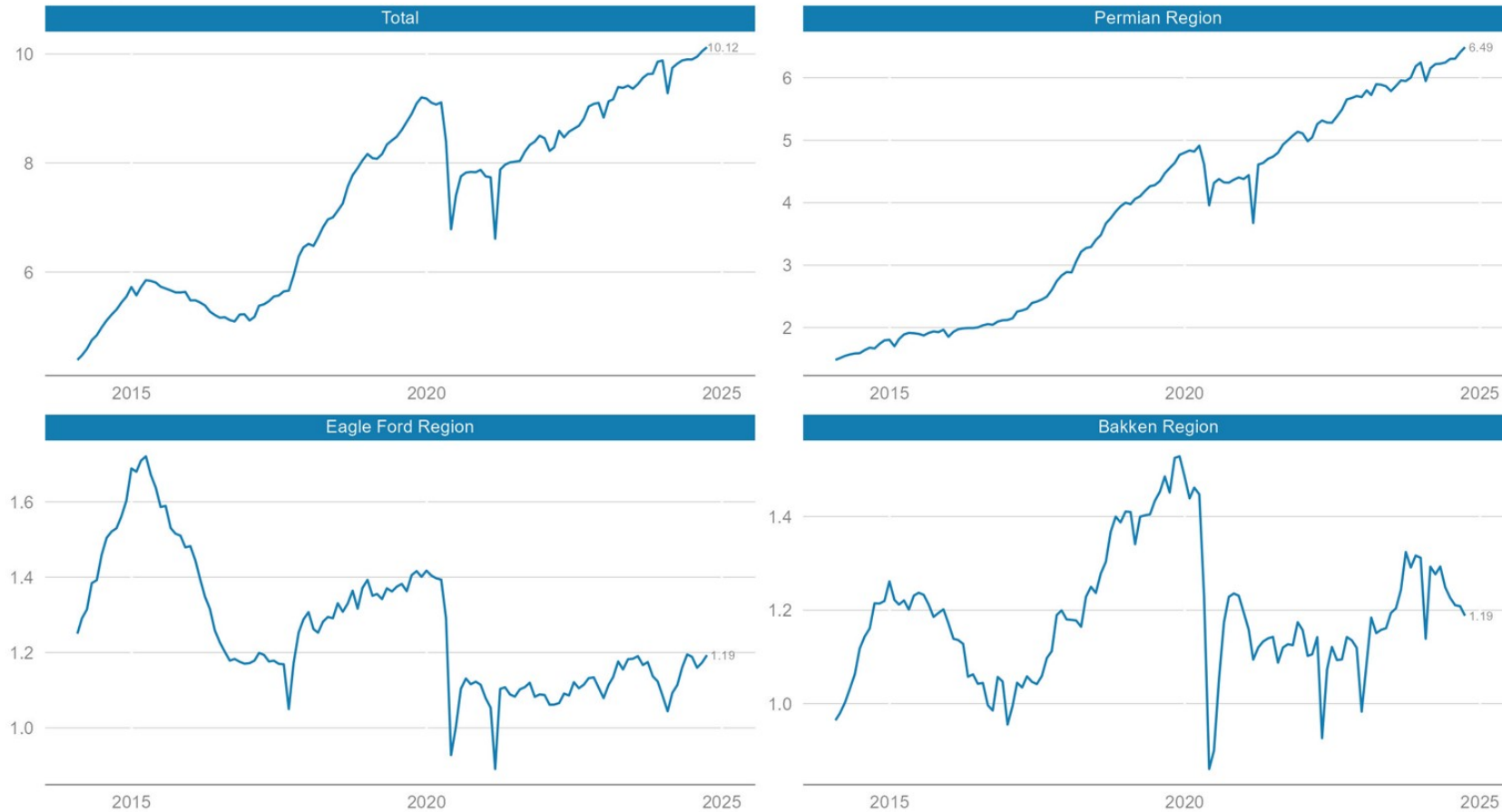
Note: Total is sum of Permian, Eagle Ford, Bakken, Niobrara, Haynesville, Utica, Anadarko and Marcellus regions  
 Source: Rystad Energy, Morgan Stanley Research

# US Shale – Production

Exhibit 36:

## Oil production by shale play

Data to Sep 2024, in mb/d



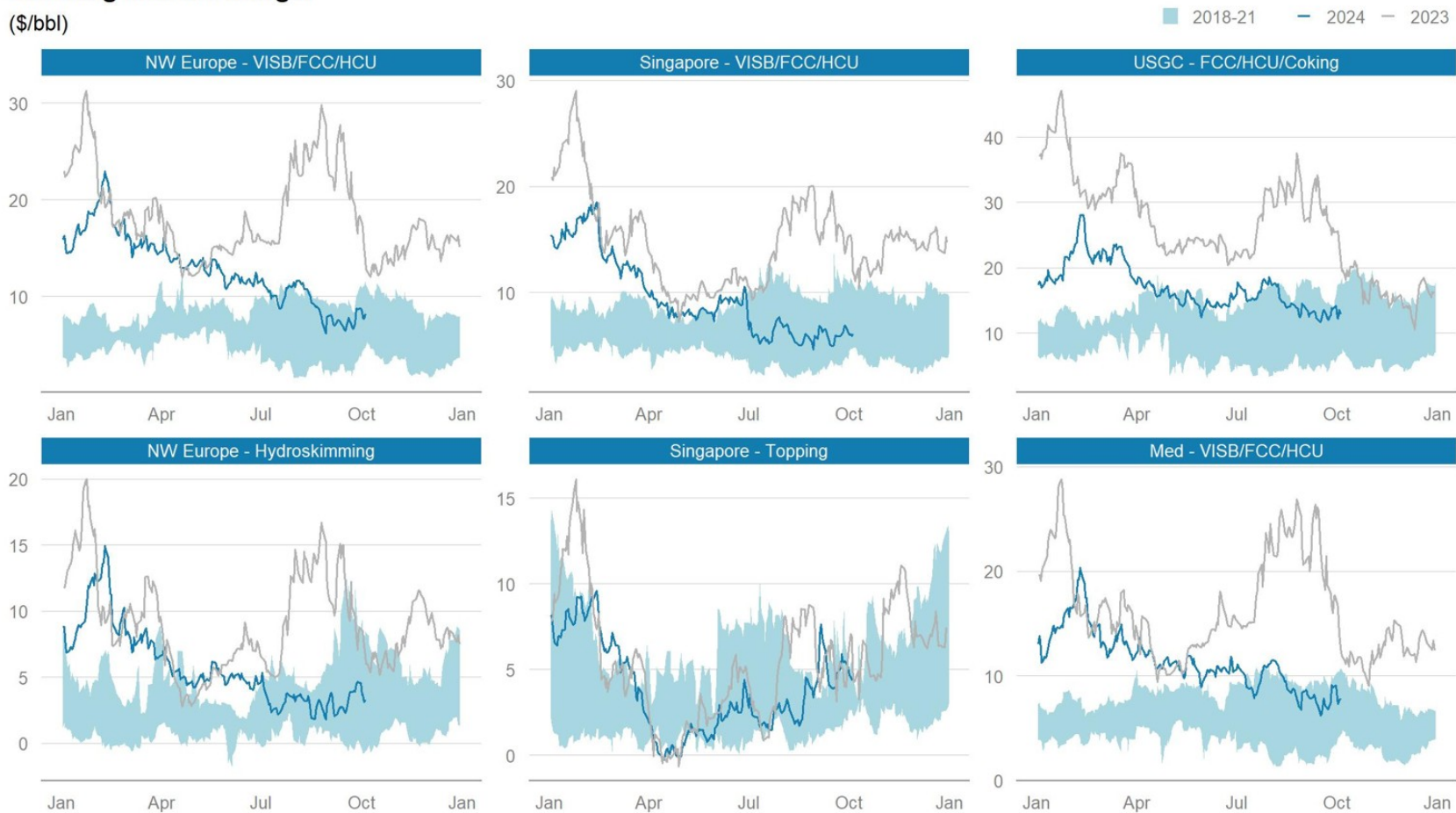
Note: Total is sum of Permian, Eagle Ford, Bakken, Niobrara, Haynesville, Utica, Anadarko and Marcellus regions  
 Source: Rystad Energy, Morgan Stanley Research

# Refining margins

Exhibit 37:

## Cracking netback margin

(\$/bbl)



Note: chart shows average margin that can be realised from the 5 most profitable crudes at any time in each particular location/configuration combination  
 Source: S&P Global Platts, Morgan Stanley Research

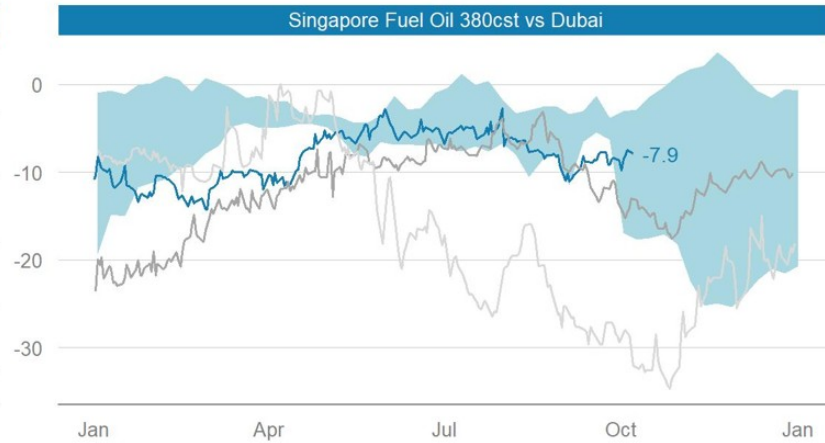
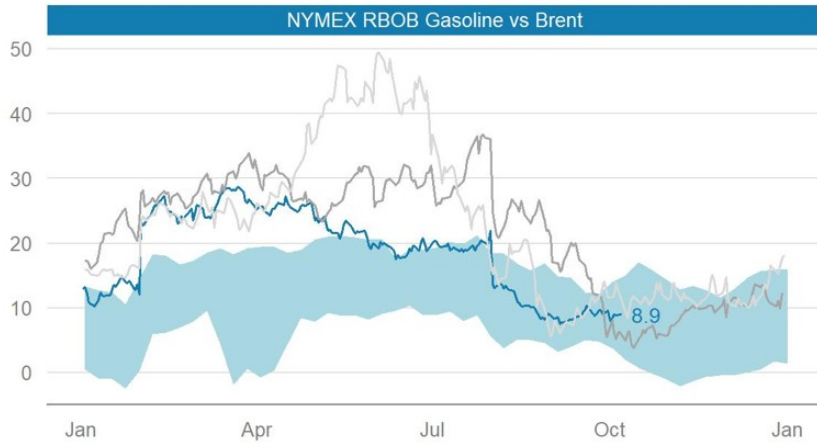
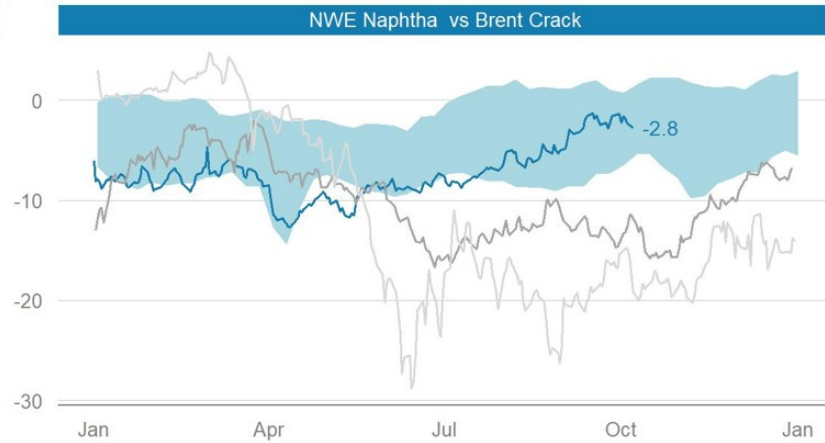
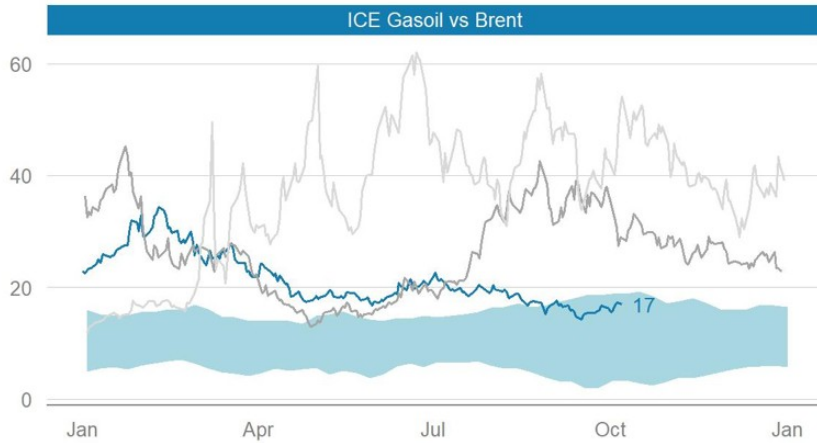
# Product crack spreads

Exhibit 38:

## Product crack spreads

(\$/bbl)

— Current year — Previous year — Year before prev. ■ Prev. 5-year range



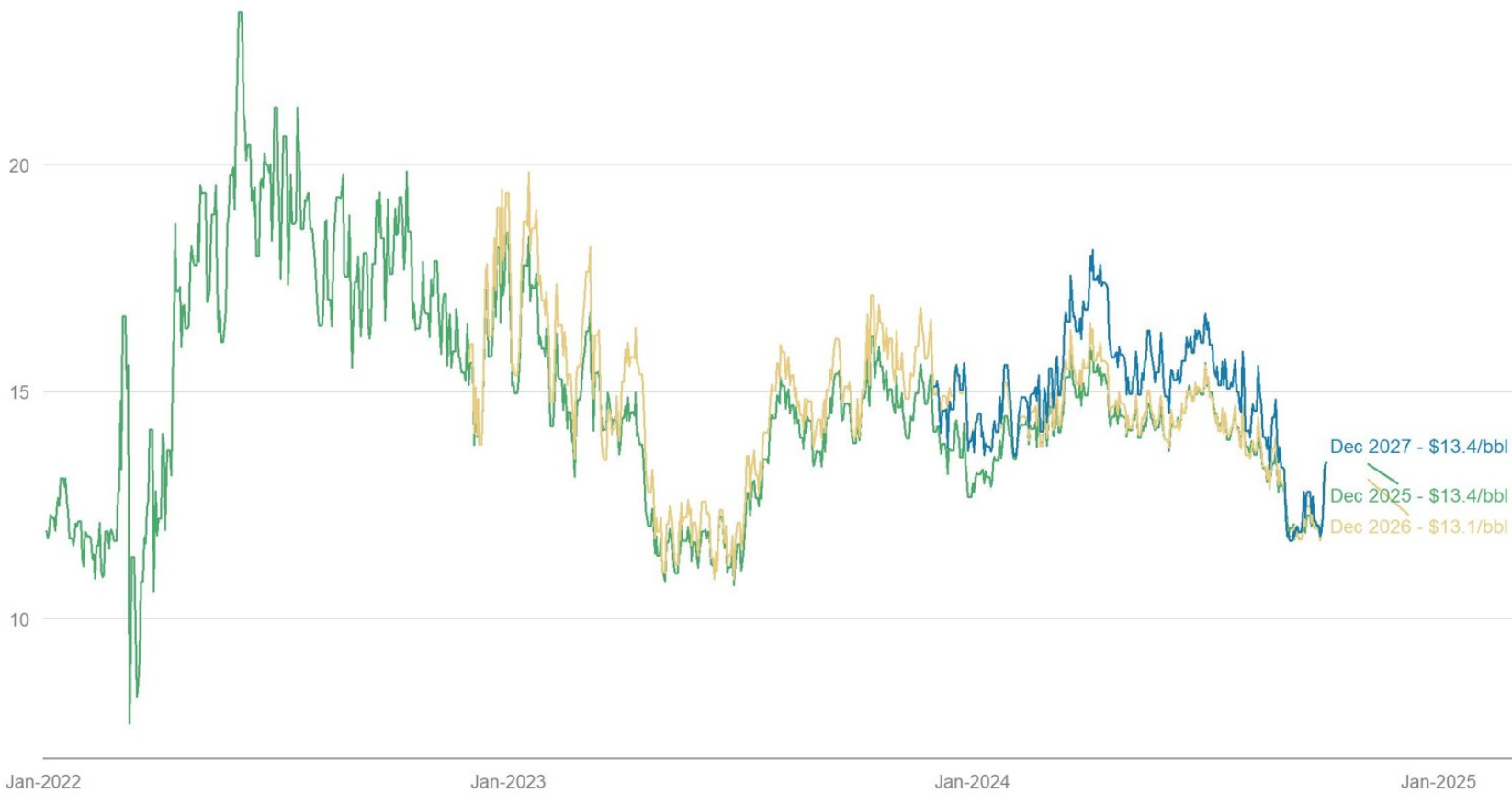
Source: Platts, Bloomberg, Morgan Stanley Research

# Forward refining margins

Exhibit 39:

## Forward refining margins

Based on typical European configuration yielding 30% gasoline, 60% middle distillate, 5% naphtha and 5% HSFO (\$/bbl)

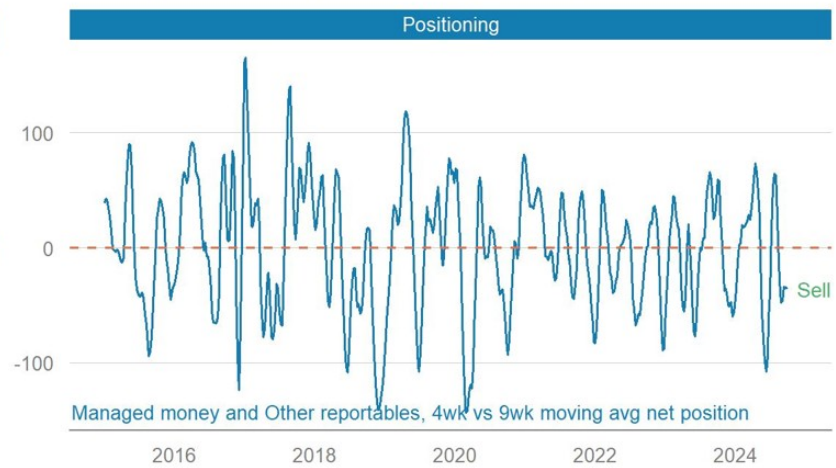
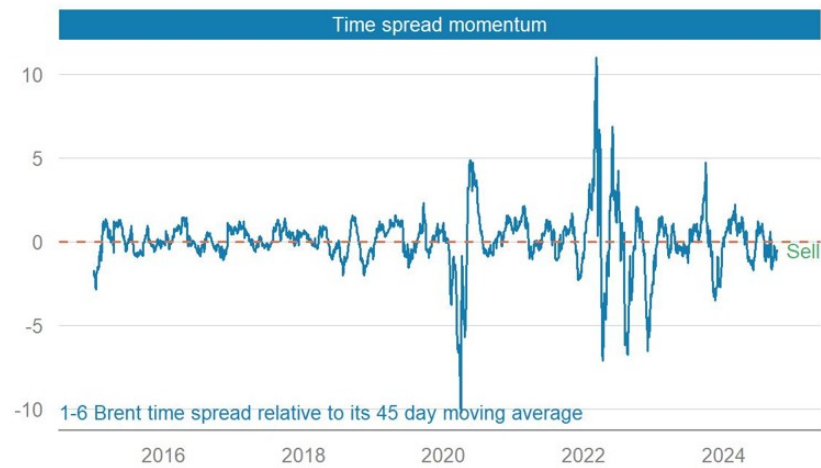
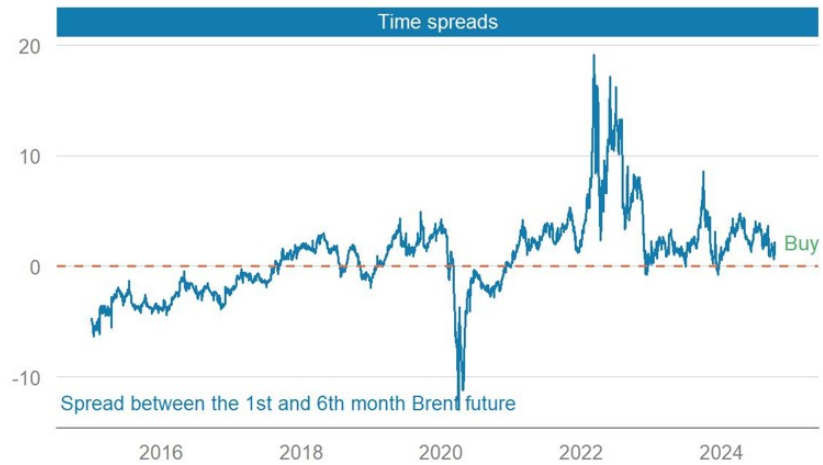
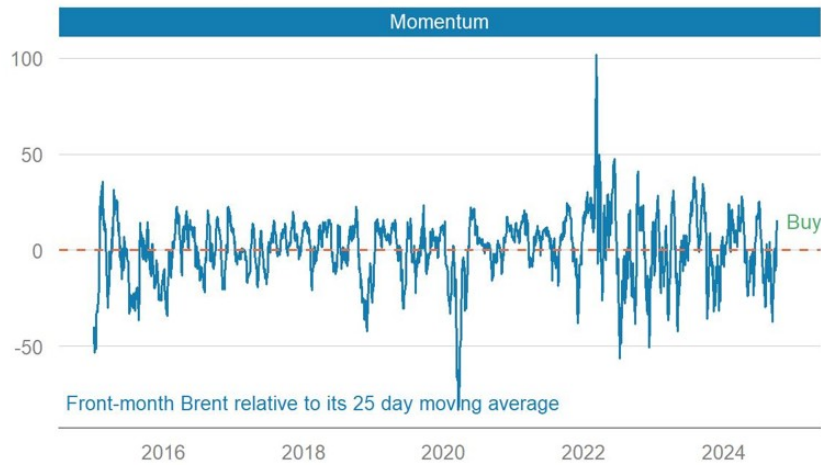


Source: Bloomberg, Morgan Stanley Research

# Short-term timing indicators

Exhibit 40:

## Short-term timing indicators

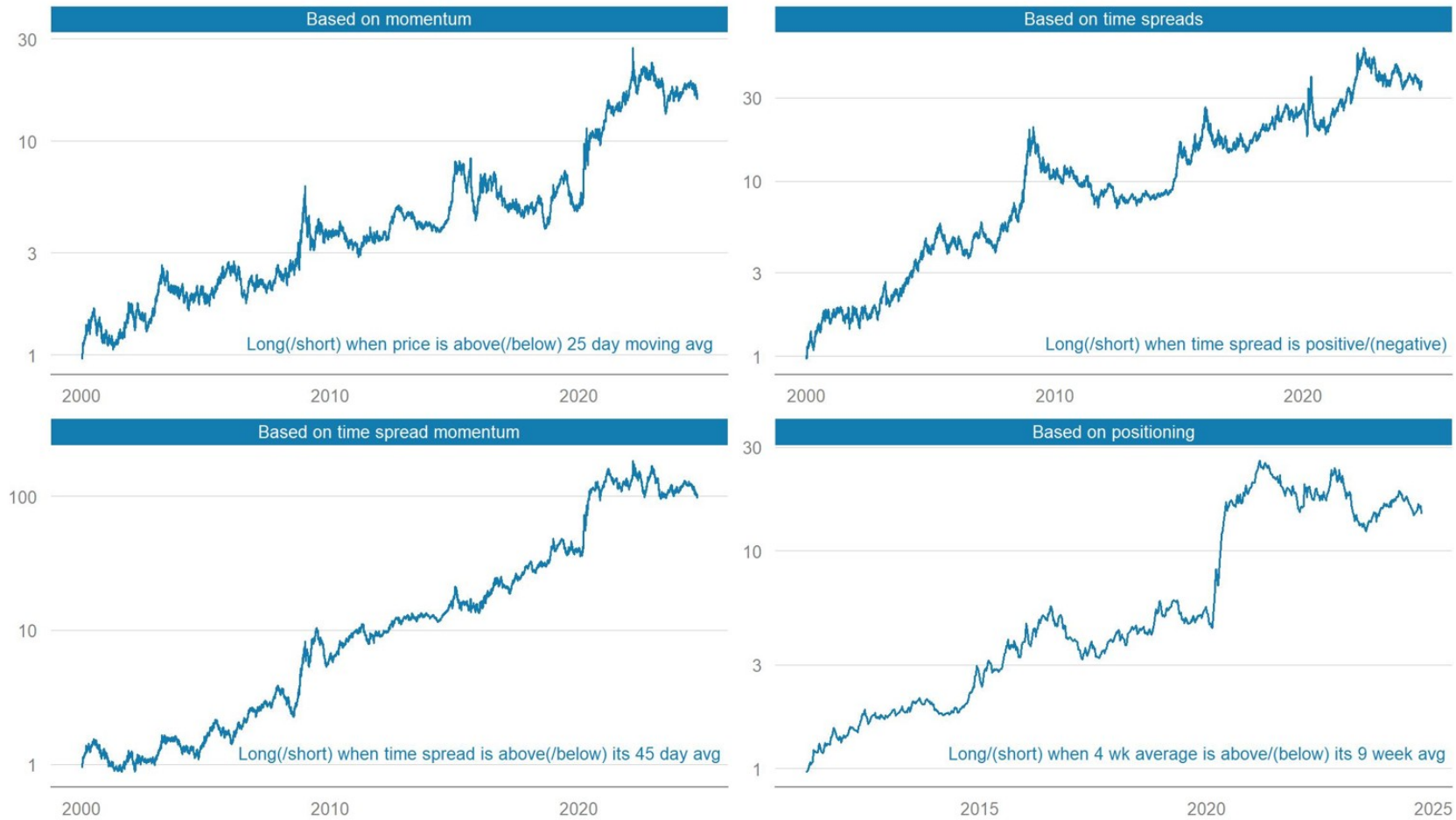


Source: Bloomberg, Morgan Stanley Research

# Performance of short-term timing indicators

Exhibit 41:

## Return from strategies based on short-term timing indicators



Source: Bloomberg, Morgan Stanley Research

The performance data provided is a hypothetical illustration of mathematical principles; it does not predict or project the performance of an investment or investment strategy. Past performance is no guarantee of future results.

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### Global Stock Ratings Distribution

(as of September 30, 2024)

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| Stock Rating Category | Coverage Universe |            | Investment Banking Clients (IBC) |                |                      | Other Material Investment Services Clients (MISC) |                       |
|-----------------------|-------------------|------------|----------------------------------|----------------|----------------------|---|-----------------------|
|                       | Count             | % of Total | Count                            | % of Total IBC | % of Rating Category | Count   | % of Total Other MISC |
| Overweight/Buy        | 1425              | 38%        | 332                              | 43%            | 23%                  | 656   | 39%                   |
| Equal-weight/Hold     | 1724              | 46%        | 358                              | 46%            | 21%                  | 792   | 47%                   |
| Not-Rated/Hold        | 3                 | 0%         | 0                                | 0%             | 0%                   | 1   | 0%                    |
| Underweight/Sell      | 588               | 16%        | 81                               | 11%            | 14%                  | 238   | 14%                   |
| Total                 | 3,740             |            | 771                              |                |                      | 1687  |                       |

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months. Due to rounding off of decimals, the percentages provided in the "% of total" column may not add up to exactly 100 percent.

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Overweight (O). The stock's total return is expected to exceed the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Equal-weight (E). The stock's total return is expected to be in line with the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Not-Rated (NR). Currently the analyst does not have adequate conviction about the stock's total return relative to the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Underweight (U). The stock's total return is expected to be below the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Unless otherwise specified, the time frame for price targets included in Morgan Stanley Research is 12 to 18 months.

## Analyst Industry Views

Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.

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Cautious (C): The analyst views the performance of his or her industry coverage universe over the next 12-18 months with caution vs. the relevant broad market benchmark, as indicated below.

Benchmarks for each region are as follows: North America - S&P 500; Latin America - relevant MSCI country index or MSCI Latin America Index; Europe - MSCI Europe; Japan - TOPIX; Asia - relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

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