THE OFFICIALS

The Officials Quarterly Volumes Review

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Abstract

The Officials publish the first Quarterly Volumes Report, which will be published at the end of each quarter alongside an annual review. Within, we recognise the continued and robust growth in the financial oil markets, growing liquidity, persistent volatility and dive into the drivers of open interest changes. We earlier assessed total traded volumes in oil derivatives of 952.7 billion barrels in 2024. We dissect the heterogeneity within instruments and drivers, leading us to ultimately produce a forecast covering up to the end of 2027.

Given our assumptions detailed in section 4, we project that total volumes traded in oil derivatives will yield an 11.9% increase in 2026 to reach a total of 1.18 trillion barrels. So far, the story for the market and exchanges is one of continuing volume growth. 2027 is expected to see growth accelerate further to 16.4% with the global total exceeding 1.4 trillion barrels. Open interest is projected to grow 7.2% year-on-year in 2026 and 6.7% year-on-year in 2027. Quarterly and monthly forecast tables can be found on pages 17 and 18.

The forecast, as estimated and subject to change should the prevailing market conditions change, would suggest that exchanges should be better able to attract growing liquidity and could see their profitability increase accordingly. This inherent profit per trade then has the potential to translate into a higher stock market value for those exchanges.

As with everything The Officials produce, we welcome your comments and feedback.

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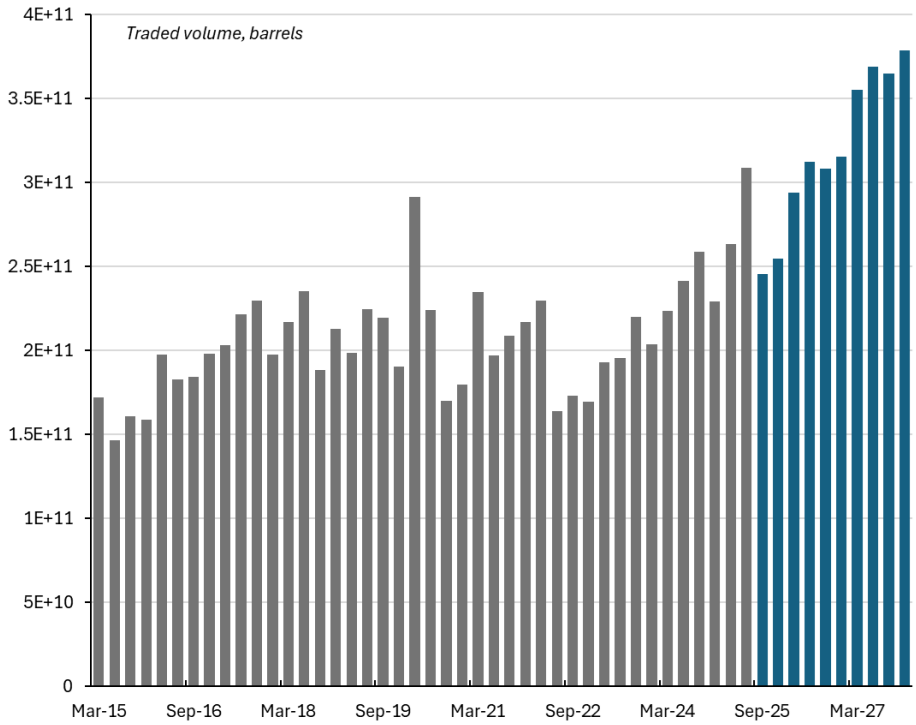

Figure 1: Total oil derivatives traded volumes as assessed and forecast by The Officials

1 Introduction

In recent years, the volumes of energy derivatives recorded on exchanges have grown considerably. Across geographies and contract types, the popularity of derivatives as a tool for hedging or investment purposes is only increasing.

Periods of stress, whether military conflicts or exogenous events such as the COVID-19 pandemic, typically result in higher traded volumes. These events result in the opening and closing of positions that are in excess of the trend average. The possibility of further conflict, whether through military or trade channels, remains at the forefront of market participants' minds. In our view, tail risks to global norms are heightened under a Trump presidency, which will likely elevate uncertainty and market stress.

We have determined that the primary driver of volume, therefore, is stress and the desire to hedge facing uncertain outcomes. Since the onset of the Ukraine-Russia conflict, there has been almost a linear growth in volumes traded across exchanges, culminating in repeated near historical highs through H1 2025. For the purposes of our forecast, we have identified both a historical trend line, and a more aggressive post-Ukraine war trend line. Peace, were it to happen, is likely to impact volume growth adversely because the uncertainty in market supply would be reduced.

Uncertain events that bring price volatility result in a net growth of market participants learning to hedge. This was evidenced very clearly during the Russia war. We expect this hedging practice to persist, thus setting the level for the forecast profile higher. Therefore, in our view, a conservative scenario would still likely see year-on-year volume growth maintained at 7.8%, with usual seasonal fluctuation, and in line with previous trends, as shown in Figure 1.

During Q2 2025, stress and uncertainty underscored all financial markets. The quarter was book-ended by two distinct events, both of which resulted in elevated volatility and consequently traded volumes. The first was the imposition of wide-reaching tariff policy by the Trump administration. Tariffs of varying degree were brought into effect on US imports from jurisdictions ranging, from the European Union, to China, or even McDonald Island (a small sanctuary entirely populated by penguins). The mechanisms, randomness in the tariff levels and apparent lack of care on choosing the impacted actors created a fly by the seat of the pants perception in the marketplace. The Brent flat price reaction was violent. Many of the tariffs were even larger than many analysts had expected,

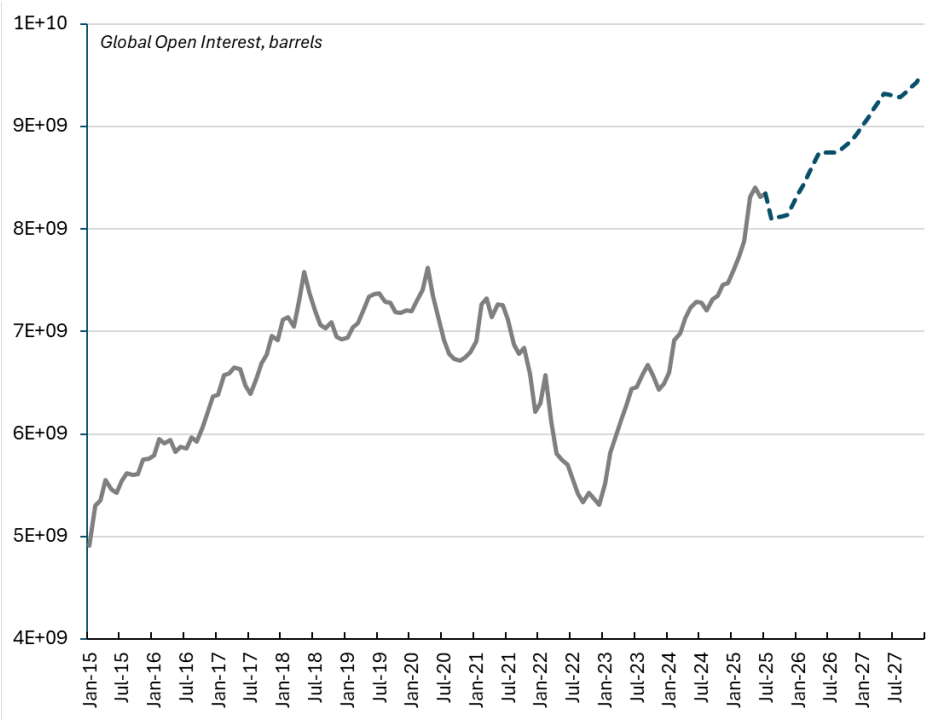

Figure 2: Total oil derivatives Open Interest as assessed by The Officials

and hence so were the associated macroeconomic implications and market reaction. Tariffs drag on economic efficiency. They drive a deadweight loss for the consumer and deprive the economy of investment. They are undeniably bearish for oil demand, and consequently, flat price corrected considerably. But conversely, uncertainty grew and traded volumes rose in sympathy.

Then, the end of the second quarter brought with it a rapid escalation in the conflict between Iran and Israel, involving the US. The US scrambled a bomber squadron consisting of seven B2 bombers, which proceeded to deploy bunker buster munitions against Iranian nuclear facilities. This prompted widespread speculation as to what Iran's response would be. Many suggested that a closure of the Strait of Hormuz was a possibility. The Officials heavily contested that a closure was physically possible on the basis of Iran's need for an export conduit to China, and the physical width of the waterway, even if narrow. China is by a long way Iran's biggest customer, and many of these flows are loaded on Kharg Island, inside the Strait of Hormuz. Any attempt to block other Gulf exporters would have led to heightened risks to their own export infrastructure. It was not a realistic risk, but it became clear that the market was starting to price this scenario as a realistic possibility. In the words of a trader, "wingy vol popped"; the premium on out-of-the-money call options rallied aggressively. Flat price Brent, which had started June testing below $60/bbl briefly broke $80/bbl. Traded volumes in oil derivatives surged.

This report aims not only to break down the drivers of recent increases in oil derivative volumes but also to provide an impartial forward-looking view of our expectations for the evolution of derivative volumes in the coming years.

2 Volumes over time

Q2 2025 saw record high exchange traded volumes, with a global total of 308.782 billion barrels, exceeding the previous quarterly high of Q1 2020 at 291.219 billion barrels. While Q1 2020 included the highest monthly exchange traded volumes in March, at 117.660 billion barrels, April and June 2025 were the third and second highest individual months by exchange traded volumes, seeing 110.815 billion and 110.292 billion barrels traded, respectively. On a quarter-on-quarter basis, Q2 2025 displayed rapid growth too, with over 17% greater exchange traded volumes than were assessed in Q1. To illustrate the rise in traded volumes over the time horizon we examine, take the percentage increase from H1

2015 to H1 2025, in which volumes rose almost 80%.

When comparing H1 2025 to H1 2024, the increase in traded volumes this year becomes even more pronounced, with growth in excess of 23% year-on-year. This increase in volumes has been driven in great part by geopolitical events: the three months exhibiting the largest volumes in H1 2025 were January, April and June. Each of these was characterised by major international developments and spikes in volatility: in January, US sanctions on Russian shipping sparked a flurry of activity, especially from concerned Asian buyers; Donald Trump's 'Liberation Day' tariffs provoked a monumental market meltdown in April; the 12-Day War between Israel and Iran in June and consequential anxieties about disruption or closure of the Strait of Hormuz pushed trading activity to astonishing levels.

While such exogenous events are becoming more commonplace as geopolitical fragmentation accelerates, increasing access to and interest in oil markets is seeing the impact of these events on traded volumes exacerbated. Hedging flow was key in both the April and June spikes, as refiners made the most of falling crude prices in April to lock in low costs, while producers (especially US shale producers) used June's jump in crude prices to lock in margins. These are examples of how the derivatives market allows flexible and effective hedging opportunities for market participants. Faster and larger price moves also open the door to increased speculative interest.

According to The Officials forecast, 2025 would see a year-on-year increase of 13.7% to reach total traded volumes of nearly 1.1 trllion barrels. ICE, the exchange with the most volumentric traded derivatives, and host of the international benchmark Brent, is favoured as the premier winner in the volumes growth battles among exchanges.

3 Drivers

3.1 The Role of Geopolitical Risk

Recent market stress, largely attributable to heightened geopolitical risk, has undeniably led to increased exchange traded volumes in oil derivatives, driven by both hedging activities and speculation. Elevated geopolitical uncertainty typically increases demand for risk management tools, prompting commercial participants to hedge price exposures through futures and options (Kilian, 2009; Ready, 2018).

However, this environment has also facilitated greater speculative trading. Periods of market turmoil often see increased participation from non-commercial traders, including hedge funds and other speculators, who seek to capitalise on heightened price volatility and changing risk premia (Bessembinder, 1992; Singleton, 2014). Hedge funds, in particular, are known to engage in dynamic hedging strategies such as delta hedging of options, wherein they adjust their positions in the underlying asset to maintain a neutral exposure to price movements while capturing gains from volatility movements (Carr and Madan, 2010). This process effectively isolates the implied volatility component embedded in option prices.

As a result, elevated geopolitical risk is expected to lead to a repricing of anticipated volatility in the options market, reflected in higher implied volatilities. This is consistent with the broader literature that links geopolitical shocks to increases in both realised and implied volatility across commodity and financial markets (Du et al., 2011). The feedback between geopolitical tensions, volatility repricing, and trading volumes underscores the multifaceted role of derivatives markets during episodes of global uncertainty.

To quantify geopolitical risk, we employ the index developed by Caldara and Iacoviello (2022), which applies text-based sentiment analysis across a broad and reputable set of international publications. The resulting geopolitical risk index (GPR) is depicted in Figure 3.

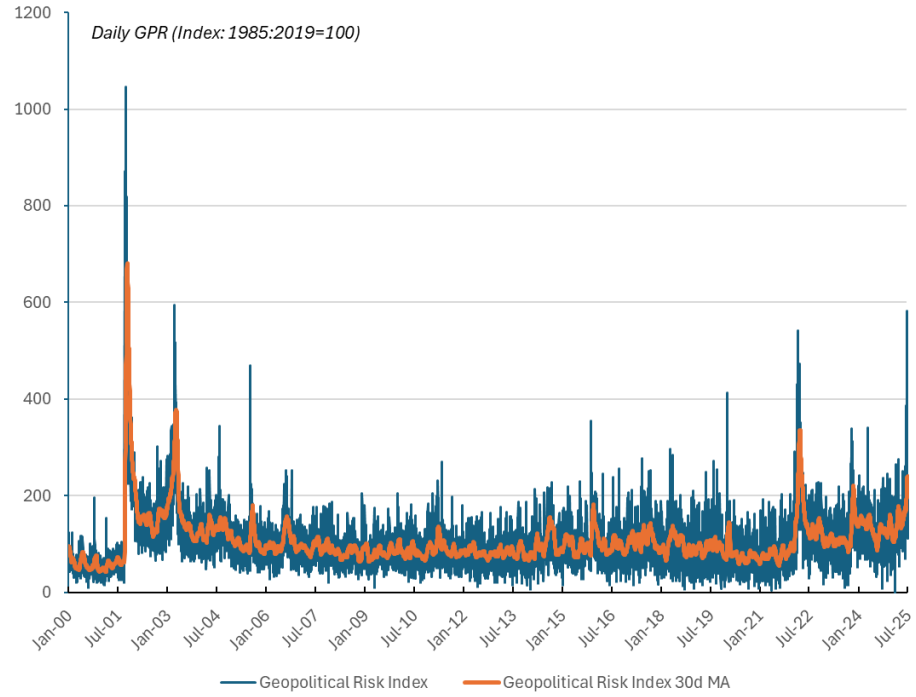

Figure 3: Daily Geopolitical Risk Index (Caldara and Iacoviello, 2022)

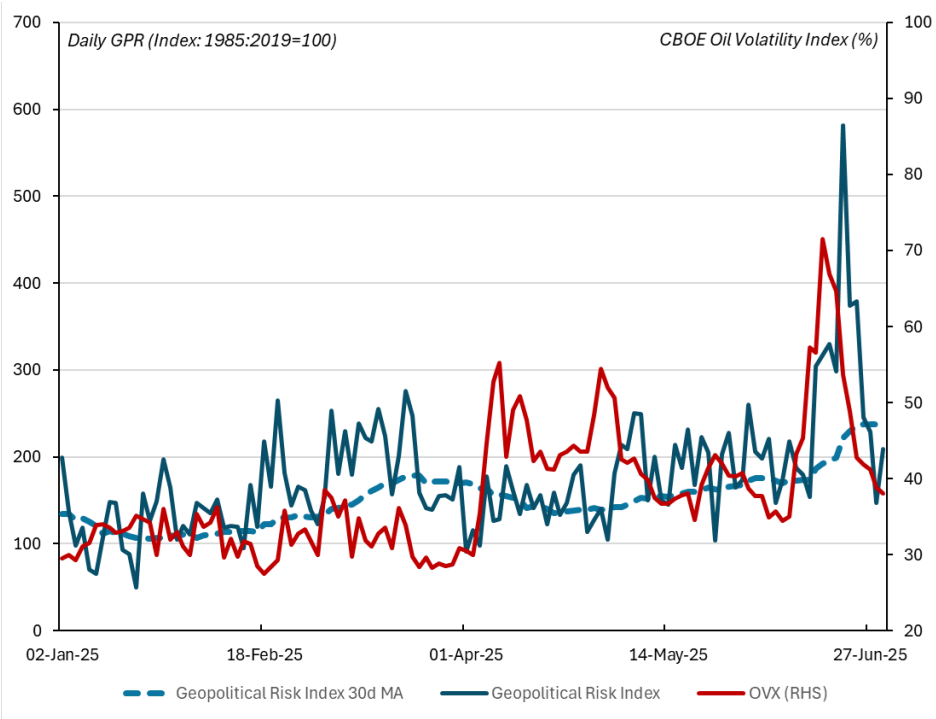

Figure 4: Daily Geopolitical Risk Index and CBOE Oil Volatility Index

Since the start of 2025, the 30-day moving average of the Geopolitical Risk (GPR) index has exhibited an upward trajectory, reflecting intensifying tensions in the Middle East that culminated in a peak on June 23rd (Caldara and Iacoviello, 2016). As shown in Figure 4, this pronounced escalation in geopolitical risk coincides with a contemporaneous repricing of anticipated market volatility, proxied by the CBOE Oil Volatility Index (OVX).

This repricing of volatility represents a key metric of interest. Although analysts often associate heightened geopolitical risk with a premium on oil prices above intrinsic value, this relationship is not always linear or predictable. For instance, during the 2003 U.S. invasion of Iraq, oil prices declined as markets interpreted the event as conducive to stabilising supply conditions. Therefore, increments in geopolitical risk can generate either a premium or a discount on spot prices, contingent on prevailing market perceptions. Equally important is the consideration of implied volatility - the market's pricing of anticipated future volatility - which not only drives speculative positioning via delta hedging and related strategies (Carr and Madan, 1998), but also motivates hedging activity in physical markets.

Financial markets, operating under the efficient market hypothesis, price assets based on a contemporaneous information set that encapsulates probability-weighted expectations of future outcomes (Fama, 1970). As expectations adjust in light of new information, prices respond accordingly, driving realised volatility and, in turn, influencing hedging demand and speculative participation (Bessembinder, 1992). Thus, a critical analytical focus lies not merely on spot prices, but on the market's pricing of expected future volatility - information that is most directly observable through options markets (Black, 1976). In other words, frequent exogenous events impact varying perceptions of fair value, necessitating further or changing hedging needs, driving the growth in volumes.

3.1.1 Conditionality in geopolitical risk and implied volatility

To formally investigate the sensitivity of WTI options' implied volatility to changes in geopolitical risk, we employ a *quantile regression* framework (Koenker and Bassett Jr, 1978; Koenker and Hallock, 2001). Specifically, we estimate the relationship between the percentage change in implied volatility (Y) and the percentage change in the geopolitical risk index (X) across various quantiles of the conditional distribution of implied volatility. The quantile regression model is defined as:

$$Q_Y(\tau \mid X) = \beta_0(\tau) + \beta_1(\tau)x \tag{1}$$

where $Q_Y(\tau \mid X)$ denotes the conditional quantile function of Y given X, and $\beta_1(\tau)$ captures the sensitivity of implied volatility to changes in geopolitical risk at the τ-th quantile of the conditional distribution of Y.

Quantile regression is particularly well suited to this analysis as the impact of geopolitical risk is unlikely to be homogeneous across the volatility distribution. In high-volatility regimes, incremental geopolitical shocks are more likely to amplify market uncertainty, driven by heightened risk aversion and speculative repositioning. By contrast, during tranquil periods, the same shocks may have muted or negligible effects. Traditional mean regression techniques, such as ordinary least squares (OLS), would obscure these differential effects by focusing solely on average relationships. Quantile regression, by contrast, provides a richer characterisation of how geopolitical risk influences implied volatility under varying market states, offering deeper insights into the state-dependent nature of volatility pricing (Koenker and Hallock, 2001; Machado and Santos Silva, 2005).

This framework enables us to examine whether the impact of geopolitical risk on implied volatility varies across the volatility distribution itself. Figure 5 presents the estimated coefficients $\beta_1(\tau)$.

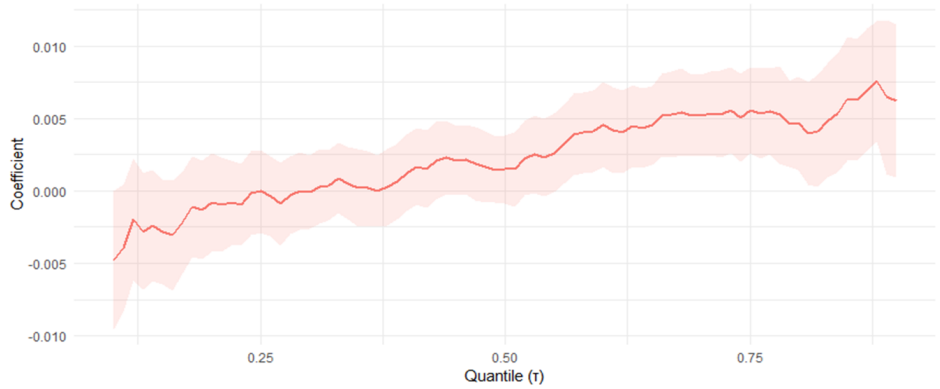

Figure 5: Quantile Regression Estimates of Geopolitical Risk Effects on OVX Implied Volatility

The results reveal pronounced heterogeneity. For lower quantiles ($\tau < 0.25$), the coefficient is negative, suggesting that when implied volatility is subdued, increases in geopolitical risk are associated with marginal reductions in implied volatility. Around the median ($\tau \approx 0.5$), the effect is near zero, indicating little sensitivity. However, for higher quantiles ($\tau > 0.75$), the coefficient becomes positive and statistically significant, indicating that in high-volatility regimes, additional geopolitical risk systematically raises implied volatility.

These findings underscore the importance of quantile regression in this context. Unlike OLS, which captures only the mean effect, quantile regression exposes the conditional distributional dynamics between geopolitical risk and implied volatility. These insights are particularly valuable to market participants involved in hedging and speculative strategies where tail risks are most impactful.

Having unpacked the heterogeneity in the effects of elevated geopolitical risk across the implied volatility distribution, we now pose the converse question: how does a marginal increase in geopolitical risk influence implied volatility across the geopolitical risk distribution itself?

$$Y_i = \beta_0^{(q)} + \beta_1^{(q)} X_i + \varepsilon_i, \tag{2}$$
$$\text{for all } i \text{ such that } X_i \in q, \quad q = 1, \ldots, 5.$$

Here, Y_i represents the dependent variable (daily percentage change in implied volatility), and X_i denotes the independent variable (daily percentage change in the GPR index). The sample is partitioned into quantile bins q based on the distribution of X_i. A separate linear regression is then estimated within each bin. The coefficient $\beta_1^{(q)}$ captures the sensitivity of Y_i to X_i within each quantile, while ε_i is the error term.

Building on the quantile regression findings, the binned regression results presented in Table 1 offer complementary insights. At low levels of geopolitical risk, the impact on implied volatility is negligible and statistically insignificant. However, from the fifth quantile of GPR onwards, the effect becomes positive and significant, suggesting that markets begin to price geopolitical shocks more strongly once a risk threshold is surpassed.

These results reveal a duality in conditional effects: the response of implied volatility is contingent on the severity of the geopolitical shock, while the effect of a geopolitical shock is also conditional on the prevailing volatility regime. Both findings point to the same overarching conclusion: the influence of geopolitical tensions on the pricing of anticipated volatility - and by extension, on market perceptions of future price dynamics - is substantial and intensifies at higher levels of both volatility and geopolitical risk.

Table 1: Regression Results by GPR Quantile

Quantile	Coefficient	Std. Error	P-value
1	0.0620	0.0768	0.4200
2	-0.0123	0.1872	0.9480
3	-0.0466	0.1768	0.7920
4	0.0048	0.1392	0.9720
5	0.1112	0.0459	0.0157

3.2 Impulse Response Analysis of Trading Volumes to Implied Volatility Shocks

Figure 6 presents the impulse response function (IRF) of trading volumes to a one-standard-deviation positive shock in implied volatility in WTI options (impvol), measured as the percentage change in the OVX. The solid black line depicts the estimated response of trading volume over time following the volatility shock, while the red dashed lines indicate the 95% confidence interval.

The IRF is obtained from a Vector Autoregression (VAR) model estimated on the joint dynamics of implied volatility (`impvol`) and trading volume. We estimate a VAR with four lags and a constant term.

Impulse responses simulate the effect of a one-standard-deviation shock to implied volatility on volume over a 40-period horizon. Confidence intervals are derived through bootstrapping.

The impulse response function (IRF) indicates that an unexpected increase in implied volatility leads to an immediate and statistically significant rise in trading volume. This response is reflected in the sharp positive peak at horizon 1, with confidence intervals lying entirely above zero. Economically, this implies that market participants react swiftly to heightened uncertainty or perceived risk by adjusting their positions, resulting in a temporary burst of trading activity.

This behaviour aligns with the Mixture of Distributions Hypothesis (MDH), originally proposed by Clark (1973) and later formalised by Tauchen and Pitts (1991). The MDH posits that trading volume and volatility are positively related because both are jointly driven by the arrival of new information to the market. In other words, when market participants perceive increased uncertainty, they engage in more transactions, generating both higher volume and greater price variability.

Following this initial spike, the IRF of trading volume gradually decays toward zero, reaching negligible levels by approximately horizon 30. This pattern suggests that the influence of the volatility shock is *transitory*, lasting roughly 30 trading days, as the market absorbs the new information and trading activity returns to its baseline. This temporal adjustment is consistent with the Sequential Information Arrival Hypothesis (SIAH) proposed by Copeland (1976), which asserts that information reaches market participants in waves rather than instantaneously. Each wave prompts a temporary increase in trading activity and volatility until the market fully incorporates the information.

Finally, the magnitude of the volume response - approximately 10^8 units on the IRF's y-axis - highlights the *economic significance* of volatility shocks in shaping market liquidity dynamics. Together, the evidence supports the view that volatility shocks act as catalysts for short-lived surges in trading volume, consistent with both MDH (contemporaneous volume -volatility comovement) and SIAH (volume spikes as information is sequentially processed).

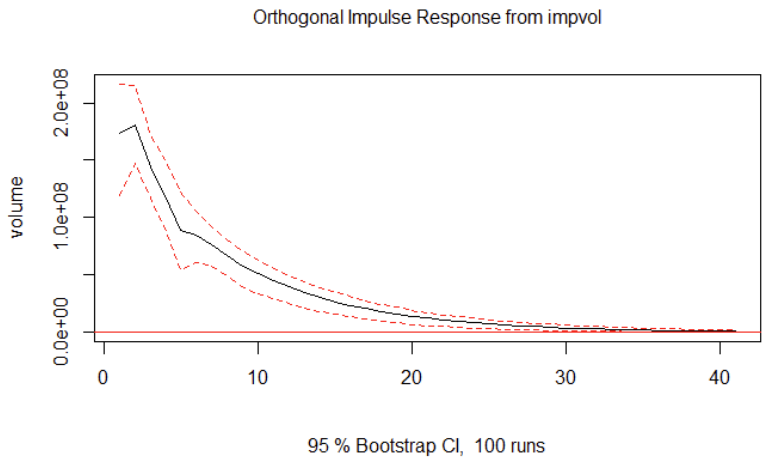

Figure 6: Impulse Response Function of Trading Volume to a One-Standard-Deviation Shock in Implied Volatility. The solid black line shows the estimated response of volume, while the red dashed lines indicate 95% confidence intervals.

We have established that geopolitical risks increase volatility, and higher levels of geopolitical risk imply higher volatility. At the same time, markets become more sensitive to a geopolitical impulse at these higher levels of volatility. The last quarter has been characterised by a distinct increase in geopolitical tension, renewed volatility in Brent futures, record open interest, and record volumes traded. Volumes traded can be derived from speculative flows or hedging flows. We now unpack the transmission of each below.

3.3 Hedging interest

Hedging is an elementary by-product of the physical market. It is nothing new. Refiners wish to lock in opportune margins, traders want to offset their flat price risk, and producers do as well. It enables

forward planning and minimises operational risk. But the ability of a physical player to hedge depends on the granularity of the contract. For example, Brent futures might capture some of the variation in pricing in Dubai, but not all. After all, this imperfect hedge is how a lot of trade houses make their money; so-called basis trades.

But the product offering has grown and so has contract liquidity. Even a hedge may have to be unwound. Over-the-counter (OTC) swaps, in particular, have become more widely traded for hedging purposes. With the advent of screen trading, now commonplace among Dubai swaps, market access is improving markedly. It is easier to hedge, including through obscure instruments, than ever before.

Hedging has rarely been so important. The evolution of flat price throughout June 2025 has been violent, as traders began pricing a risk of Middle Eastern oil supply disruption. Of course, the major disruption that many were worried about - the closure of the Strait of Hormuz - never actually materialised. But this point exactly emphasises the importance of hedging. If you were a refiner looking to buy Dubai spot, you could have been paying up to $59.55/bbl on 5 May, compared to $76.95/bbl on 20 June, at the peak of the escalations. However, such rapid retracements from elevated levels are not the only scenario. During the Russia-Ukraine war, for example, the flat price remained elevated for quite some time. The war did lead to the re-routing of barrels and vast disruptions to trade flows. Ex-post, it's clear to see why these geopolitical shocks either did or did not materially affect oil prices, but ex-ante that is much more difficult. Volatility creates a need to hedge, increasing demand for derivatives.

The elevated volatility also created an optimal environment for commercial hedging beyond the motivational aspects discussed above. As flat price Brent traded in a wide inter-month range, higher flat price sessions facilitated producer hedging, and particularly strong refinery margins facilitated refiner hedging.

On the producer side, shale producers were among the market participants hedging this quarter. The supply and demand landscape has deteriorated somewhat over the quarter, with the consensus on global balances drifting further into surplus. Shale producers operate on far thinner margins than more conventional operations, especially following the increased tariffs on critical materials such as steel and aluminium. After WTI traded down to near $50/bbl, Middle-Eastern tensions provided the impulse needed to see flat price rally in June, opening the door to shale producer hedging.

The hedging opportunity created by volatility was not limited to crude either. Distillate balances have been incredibly tight through the second quarter. Inventories are well below their historical range on a seasonal basis. US distillate stocks (excluding jet) are more than 21% down on the 5-year average. Arbitrage economics, extended refinery maintenance in Europe and the geopolitical tensions aided a broad-based rally in product cracks, which facilitated margin hedging. In June, the highly elevated crack levels across both kerosene and 10ppm led to refiner hedging flow down the curve. Similar flow was seen in EBOB cracks.

In fact, across regions, the Onyx indicative refining margin strengthened significantly throughout the second quarter as displayed in Figure 7. The average month one indicative margin in Europe through the first quarter was $5.85/bbl, while in the second quarter the margin averaged $7.33/bbl. The material increase in profitability drove many refiners to hedge, locking in the forward margin, and elevating hedging volumes more broadly.

Volatility, from a risk management perspective, motivates elevated hedging practices. It can also give commercial entities an opportunity to hedge. Naturally, throughout the second quarter, the combination of perceived demand destruction resulting from the proliferation of trade protectionism, alongside the rapid escalation of geopolitical tensions in the Middle East, drove wide trading ranges and provided a potent catalyst for elevated hedging flow. Critically, we continue to see strong refinery margins, which remain conducive to refiner hedging. Once hedging practices become entrenched, they tend to remain in place.

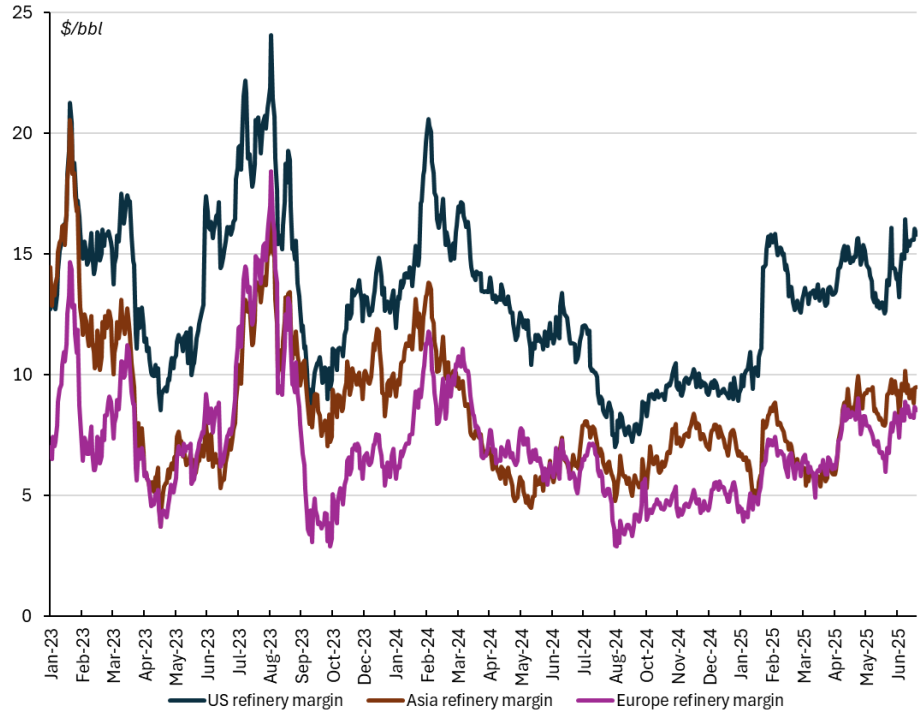

Figure 7: Flux Insights indicative refining margins for one month forward

3.4 Speculative interest

H1 2025 began with unexpected volatility, marked by significant geopolitical developments. Since the first day of Trump's inauguration, executive orders encouraging deregulation were introduced, particularly aimed at facilitating increased drilling activity in the US shale sector. By the end of January, money manager net futures position had surged 393,000 lots as the Biden administration's sanctions on Russian oil saw Brent crude trading in the low $80s/bbl level. However, positioning started to reverse, as markets realised Trump's emphasis was placed on lower crude prices and by March 11, the net futures position held by money managers decreased to 248,000 lots.

The second quarter started with moderate market optimism and growing uncertainty over trade policy which materialised during liberation day on April 2, putting net long positioning to the highest levels of the year of 396,000 lots. However, this enthusiasm quickly reversed as the announcements signalled global economic concerns and Brent crude oil prices collapsed below the $60/bbl mark.

Barclays Research estimated that the US weighted average tariff rate rose over 16%, against the backdrop of the reciprocal tariff war with China. Meanwhile the World Bank warned that this policy stance would see the US GDP growth rate to decline by 0.7% to just 1.4%, while global economic growth would slow by 0.4% to 2.3% for 2025.

For the majority of the second quarter, net long positioning averaged around the 145,000 lots mark. However, in the wake of the Iran-Israel 12-day conflict, crude prices reached $81.40/bbl and traded comfortably in the high $70/bbl range for most of the period, with the net long positioning by money managers rising to 325,000 on June 17. Notably, the net long positioning was particularly driven by elevated hedge fund length as they were increasing their positions amidst fears of supply disruptions and the closure of the Strait of Hormuz.

Among others, call options with strike price of $90/bbl for the front month Brent contracts were especially in demand, with open interest surging over 12% within a day at the start of the war. The premium on those call options climbed over 280% to $1.38 on June 13. Put options experienced relatively lower open interest and the change to their premium was not as sizable as that on call options. On June 20, as markets realised that the war had almost ended without physical supply disruptions, we experienced a significant selloff in August Brent call options open interest, down over 19% compared to June 13, with the premium collapsing over 98% to just 2c.

Although these options were never exercised, many money managers benefited by selling those options after their premium had risen and profited from the increased implied volatility. Interestingly, on June 20, open interest for August Brent put options with strike price $70/bbl jumped 112% week-on-week, while the premium rose 144% to $2.15. But this was the only contract experiencing significant surge in options open interest, while futures net long positions fell to 191,000 lots. During this period, several hedge funds reportedly incurred double-digit losses, with some even facing more than 50% drawdowns according to media reports, as the risk of a closure in the Strait was still priced.

3.5 Case Study: Murban

The volume growth in exchange activity extended to newer exchanges with notable expansion in IFAD. The introduction of the Murban futures contract to ICE Futures Abu Dhabi in Q2 2021 intended to boost liquidity and trading in Abu Dhabi's flagship grade. The contract specifies settlement by physical delivery. ADNOC quickly adopted a new methodology for setting its Official Selling Prices (OSP), setting the Murban OSP according to the average IFAD settlement of the month, making Murban futures an integral part of the ADNOC ecosystem. It brought in exposure to the contractual buyers as they were priced in on the IFAD settlements. This exposure normally triggers a need to hedge, and the buyers and sellers did.

In the first quarter of the contract's trading (Q2 2021), exchange-traded volumes exceeded 312 million barrels. In Q2 2025, exchange-traded volumes in Murban futures reached firmly into the billions, totalling 2,187,678,000 barrels. *This constituted a sevenfold increase in volumes, showing significant market adoption of the contract in just four years.*

However, this growth in exchange-traded volumes has not been smooth. There also emerges an asymmetric relationship between Murban volumes and global volumes in 2025. While trading in other contracts was booming in April (up 35% month-on-month) amid Trump's tariff revelations and extremely elevated volatility, exchange traded Murban volumes dropped. In March 2025, Murban volumes totalled 1.06 billion barrels but in April 2025 fell 44.6% to just 587.77 million barrels.

The Dubai window saw 32 convergences in April trading, so it is inaccurate to conclude that this drop in volumes was the result of reduced hedging by spot traders. Indeed, the convergence count remained fairly steady in the low- to mid-30s in March, April and May. It dropped significantly in June to just three, while Murban volumes picked up to 883 million barrels, their third highest month on record. Clearly, then, there is little to no correlation between spot Dubai trading and Murban futures volumes. Recent controversy around ADNOC's decision to allocate 20% fewer barrels than nominated to lifters for July loadings (subsequently reversed) and the proposed change to the Platts Murban methodology S&P Global Commodity Insights (2025), that will be implemented from 2 January 2026, have had a severe impact on market confidence in the Murban ecosystem.

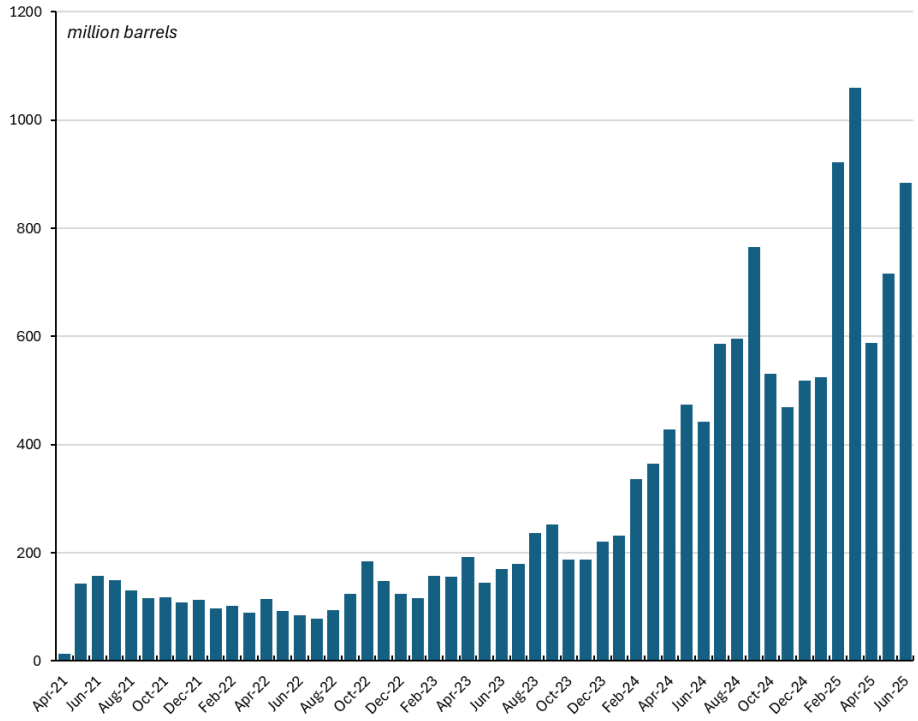

Figure 8: Total traded volumes in IFAD Murban futures as assessed by The Officials

Diversification of available contracts is a potential driver for extensive growth in the derivative market as traders gain access to more granular instruments. Even so, the dominant contracts such as Brent and WTI futures still account for the vast majority of exchange traded volumes and it is challenging for new, smaller contracts to gain market share. In Q2 2021, on its launch, Murban futures constituted 0.1% of global exchange traded volumes. In Q2 2025, that percentage had fallen to 0.07%.

Increasing variation in available instruments can benefit market participants by providing greater optionality; a broader offering of contracts also increases accessibility to the market, which should bolster participation and, consequently, likely support traded volumes. It will also allow more precise hedging and speculation.

However, these new contracts should not be expected to upset the apple cart dominated by the existing huge instruments, as shown by Murban futures' struggle to gain significant market share. It is clear that, in the near future, exchange traded volumes will continue to be dominated by these few key contracts, while smaller contracts remain relatively in the background.

4 Forecast

4.1 Methodology

We now present our view of the future evolution of exchange-traded volumes in oil derivatives, both exchange-traded futures and over-the-counter swaps. We collate volume data across an exhaustive set of exchanges, products, and tenors. From this, we derive an estimate for total globally traded volumes.

We then take an empirical approach, which captures both speculative and hedging components. Hedging open interest is fairly straightforward to capture, being a function of physically traded barrels and, therefore, a function of aggregate economic activity. Speculative interest is slightly more difficult. We turn to a measure of broad financial market liquidity, namely the 2s10s. The 2s10s captures the steepness of the Treasury curve in the US. There are other metrics, but for our purposes, we found this to be most performant.

The inclusion of the *2s10s yield curve slope* in a model forecasting traded volumes of oil derivatives is justified by its ability to capture market expectations of macroeconomic conditions and financial cy-

cles. The slope of the yield curve, particularly the spread between the 2-year and 10-year U.S. Treasury yields, encapsulates market expectations of future economic growth, inflation, and monetary policy adjustments. These macroeconomic expectations are critically linked to the risk-taking behaviour of financial market participants, including commodity speculators. Periods of curve steepening, often associated with anticipated monetary easing or improved growth prospects, tend to coincide with enhanced risk appetite and increased speculative trading in higher-beta assets such as oil derivatives. Conversely, yield curve inversions have been shown to precede economic slowdowns and are typically accompanied by tighter financial conditions and reduced speculative activity. Furthermore, the yield curve indirectly reflects shifts in liquidity conditions and credit availability, both of which are foundational to leveraged speculative positioning in derivatives markets. Incorporating the 2s10s measure thus provides a macro-financial dimension to the model, capturing forward-looking signals that are not readily observable through spot liquidity indicators alone. This is consistent with the broader literature linking term structure metrics to financial conditions and asset market dynamics (Estrella and Trubin, 2006).

We employ a time-series framework, specifically an autoregressive distributed lag model, to capture time-varying dynamics. We also employ dummy variables to capture seasonality.

4.2 Forecast Assumptions

We present our forecast below. The upward trend of recent months extends throughout the forecast horizon. We anticipate that while tariffs will weigh on aggregate economic activity in the short term, there are limitations to their extended implementation.

For political reasons, Trump will have a very limited appetite for equity devaluation and sovereign debt sell-off. Equity devaluation destroys the wealth of the electorate. Following the advent of retail investing, its adoption has grown rapidly. Many households' savings are heavily allocated to equity markets; therefore, any depreciation there will result in a rapid loss of political favour. But probably more concerning is the treasury market. Tariffs are unlikely to increase tax revenue. While they are, of course, directly revenue-generating, there is also a significant demand destruction effect. We are already beginning to see signs of the labour market softening since Trump's second entry to the White House. Job losses directly counteract any gains made towards a balanced fiscal position. Not to mention the "Big Beautiful Bill", which introduced a whole host of tax cuts. This has led to significant capital outflow from the US and consistent treasury selling. Yields have been pushed higher, which makes the cost of rolling debt more expensive. For these reasons, we anticipate a lot of noise as tariff policy undergoes rapid and volatile swings in potency, but ultimately will settle lower toward the middle of next year.

The US is not the sole constructive contributor to our aggregate global growth projection. China has shown material progress in recent months. In Q2, China's GDP grew at 5.2%, outstripping market expectations. The CCP targets 5% annual GDP growth, and they will rarely compromise on achieving that target. If indicators of aggregate activity were to slip, they would quickly be met with stimulus, as has been the case. We expect the PBoC to remain accommodative, but dial back its rate of monetary easing over the horizon. We do not anticipate a pause on stimulus from the PBoC. Yields on Chinese government debt are highly accommodative, and we perceive them to remain as such over the horizon, supporting the deployment of further stimulus.

We therefore see a material uptick in aggregate economic output next year which is constructive to the forecast. This growth accelerates further in 2026. As we have discussed, higher oil demand necessitates greater hedging flow and, therefore, contributes to our projected growth in volumes traded.

We also must take a view on how geopolitics will evolve, and while the true answer is nobody knows, we do not think the recent progress made toward geopolitical resolution will continue to bear fruit. Unfortunately, the ceasefire between Israel and Iran remains tenuous, and a breaking of the ceasefire by the end of the year is entirely possible, if not probable. All the while, the Houthis are escalating their aggression in the Red Sea. While we do not consider a China-led invasion of Taiwan in our base case, recent dramatic escalations remind us all that nobody knows.

Russia's conflict with Ukraine continues to rage, and in July 2025 Trump agreed to send more arms to Ukraine. Our baseline scenario features no resolution in Ukraine, all signs point to the conflict there extending further.

We also expect financial conditions to remain accommodative. While we see the easing cycle in the US being somewhat deferred relative to recent market pricing, we anticipate a continued steepener in

the Treasury curve.

These factors all contribute to our view that traded volumes will continue to trend higher over the next two years. Of course, this evolution will be subject to the usual seasonal factors as certain months report lower traded volumes around the calendar.

4.3 Conclusion and volumes in the years ahead

Growth in traded volumes has been rapid, especially since the outbreak of the Russia-Ukraine war. Increasing frequency of near record highs in monthly traded volumes, typically sparked by destabilising geopolitical and market events, compounded by greater market access, have seen volumes increase in recent months and quarters. We do not foresee a tempering of this impact. As a consequence, our forecast for 2026 projects a 13.7% year-on-year growth in traded volumes, seeing the annual global total reach 1.18 trillion barrels. This growth will accelerate into 2027, when we forecast an annual growth rate of 16.4%. This will equate to total traded volumes of 1.43 trillion barrels in 2027. This rate of growth over the next two years will result in a total growth of 33.4% from our assessment of total volumes in 2025. Throughout the forecast period, the typical fall in monthly volumes traded in December will continue. Open interest is another key indicator of market participation and trading activity. Our forecast projects a 7.2% year-on-year rise in open interest from 2025 into 2026, while this growth will slow slightly to 6.7% year-on-year from 2026 into 2027.

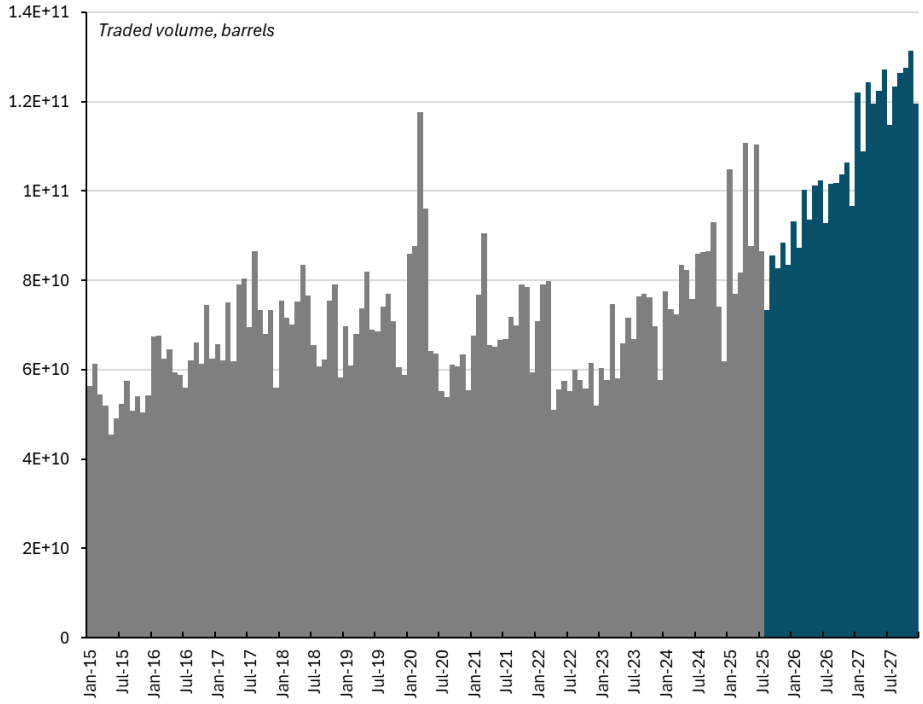

Figure 9: The Officials monthly global traded volumes in oil derivatives forecast

Technical Appendix: Quantile Regression Estimation

Quantile regression, first introduced by Koenker and Bassett Jr (1978), extends the classical linear regression framework by estimating conditional quantiles of the response variable rather than the conditional mean. This allows for a more comprehensive characterisation of the relationship between the dependent variable and its covariates, particularly in settings where the effects of covariates may differ across the distribution of the outcome.

Formally, the τ-th conditional quantile function of the response variable Y given a vector of covariates X is specified as:

$$Q_Y(\tau \mid X) = X'\beta(\tau) \tag{3}$$

where $\beta(\tau)$ denotes the vector of parameters associated with quantile $\tau \in (0, 1)$. Each quantile τ corresponds to a distinct set of coefficients, allowing the marginal effect of the covariates to vary across the distribution of Y.

Estimation proceeds by minimising a loss function based on the *check function* (also known as the quantile loss function), defined as:

$$\rho_\tau(u) = u \cdot (\tau - \mathbb{I}\{u < 0\}) \tag{4}$$

where $u = y_i - X_i'\beta$ is the residual, and $\mathbb{I}\{\cdot\}$ is the indicator function that equals one when its argument is true and zero otherwise. The check function assigns asymmetric weights to over-predictions and under-predictions, with the weight determined by τ.

The quantile regression estimator is obtained by solving the following optimisation problem:

$$\hat{\beta}(\tau) = \arg\min_{\beta} \sum_{i=1}^{n} \rho_\tau \left(y_i - X_i'\beta\right) \tag{5}$$

For $\tau = 0.5$, the objective function simplifies to minimising the sum of absolute deviations, equivalent to median regression. For other quantiles, the objective function differentially penalises residuals above and below the estimated quantile.

This estimation approach, implemented in practice via linear programming methods, is particularly robust to outliers in the dependent variable and can effectively capture heterogeneity in the conditional distribution of Y. Unlike ordinary least squares (OLS), which provides a single estimate of the conditional mean, quantile regression provides a full profile of the conditional distribution, revealing differential impacts of covariates across quantiles.

For a comprehensive treatment of quantile regression methods and their properties, see Koenker (2005) and the foundational work of Koenker and Bassett Jr (1978).

Quarterly Table

The Officials global volumes and open interest historical assessments and forecast (millions of barrels)

	Sum of Volumes	Average of Open Interest
2021		
Qtr1	235,010	7,160
Qtr2	197,080	7,220
Qtr3	208,680	6,920
Qtr4	216,980	6,540
2022		
Qtr1	229,790	6,330
Qtr2	163,960	5,750
Qtr3	173,030	5,440
Qtr4	169,350	5,370
2023		
Qtr1	192,890	5,770
Qtr2	195,470	6,290
Qtr3	220,030	6,570
Qtr4	203,640	6,500
2024		
Qtr1	223,520	6,830
Qtr2	241,440	7,220
Qtr3	258,650	7,270
Qtr4	229,100	7,420
2025		
Qtr1	263,470	7,740
Qtr2	308,780	8,350
Qtr3	***245,280***	***8,190***
Qtr4	***254,560***	***8,160***
2026		
Qtr1	***293,810***	***8,440***
Qtr2	***312,330***	***8,710***
Qtr3	***308,300***	***8,760***
Qtr4	***315,260***	***8,870***
2027		
Qtr1	***355,180***	***9,080***
Qtr2	***369,050***	***9,290***
Qtr3	***364,670***	***9,300***
Qtr4	***378,520***	***9,440***

Note: Forecast figures shown in bold italics.

Monthly Table

The Officials global volumes and open interest historical assessments and forecast (millions of barrels)

	Sum of Volumes	Average of Open Interest
2025		
Jan	104,840	7,610
Feb	76,950	7,730
Mar	81,690	7,880
Apr	110,820	8,310
May	87,680	8,410
Jun	110,290	8,320
Jul	86,420	8,350
Aug	***73,250***	***8,100***
Sep	***85,610***	***8,110***
Oct	***82,670***	***8,120***
Nov	***88,420***	***8,130***
Dec	***83,470***	***8,240***
2026		
Jan	***98,470***	***8,340***
Feb	***91,070***	***8,440***
Mar	***104,270***	***8,540***
Apr	***99,020***	***8,650***
May	***105,520***	***8,750***
Jun	***107,780***	***8,750***
Jul	***97,070***	***8,750***
Aug	***105,210***	***8,750***
Sep	***106,030***	***8,780***
Oct	***107,770***	***8,820***
Nov	***110,790***	***8,860***
Dec	***96,700***	***8,930***
2027		
Jan	***121,970***	***9,010***
Feb	***108,820***	***9,080***
Mar	***124,380***	***9,160***
Apr	***119,490***	***9,240***
May	***122,330***	***9,320***
Jun	***127,230***	***9,310***
Jul	***114,820***	***9,300***
Aug	***123,390***	***9,280***
Sep	***126,460***	***9,330***
Oct	***127,650***	***9,380***
Nov	***131,390***	***9,430***
Dec	***119,480***	***9,510***

Note: Forecast figures shown in bold italics.

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