

**kpler**

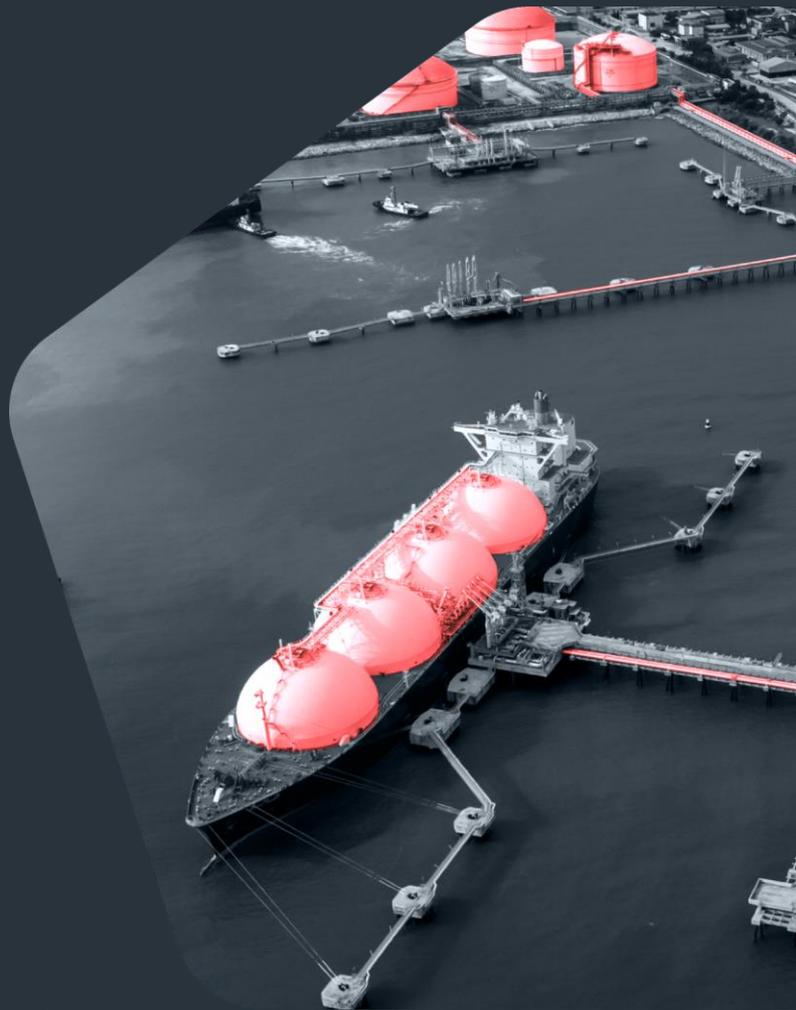
# Impact of Ukrainian drone attacks on Russian energy infrastructure

**Andon Pavlov**

Director of oil and tanker research

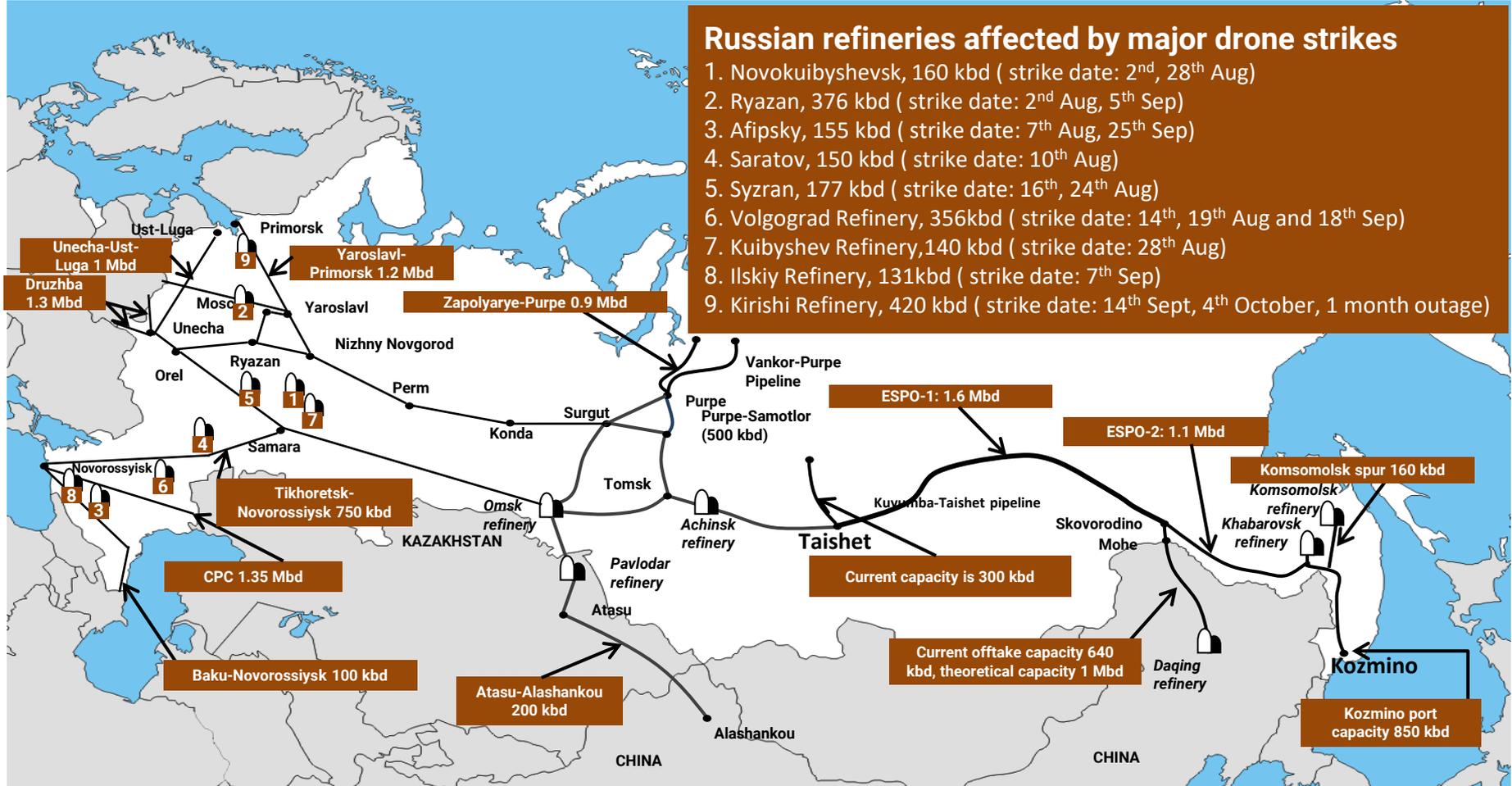
**Homayoun Falakshahi**

Head of crude oil analysis



## Russian refineries affected by major drone strikes

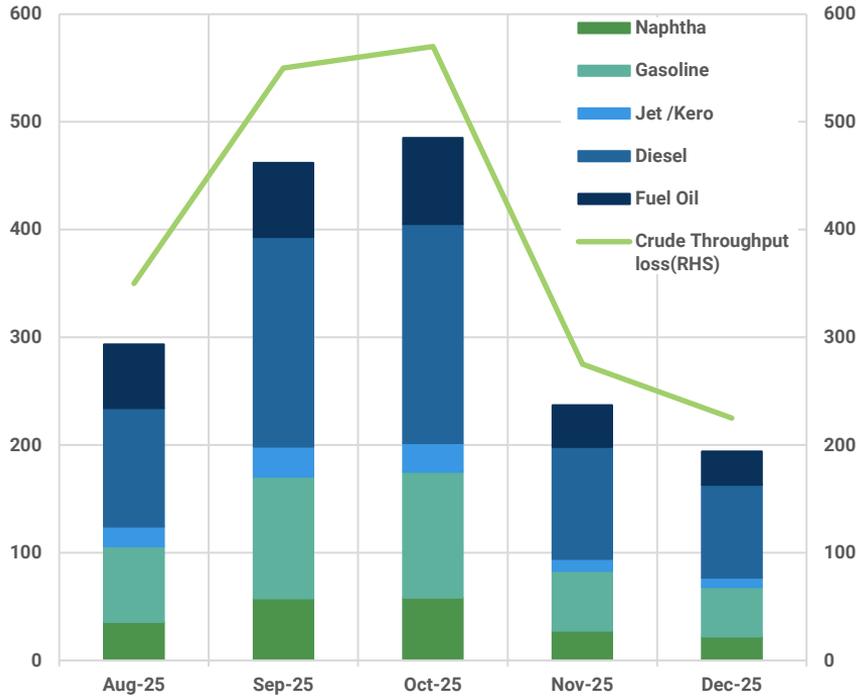
1. Novokuibyshevsk, 160 kbd ( strike date: 2<sup>nd</sup>, 28<sup>th</sup> Aug)
2. Ryazan, 376 kbd ( strike date: 2<sup>nd</sup> Aug, 5<sup>th</sup> Sep)
3. Afipsky, 155 kbd ( strike date: 7<sup>th</sup> Aug, 25<sup>th</sup> Sep)
4. Saratov, 150 kbd ( strike date: 10<sup>th</sup> Aug)
5. Syzran, 177 kbd ( strike date: 16<sup>th</sup>, 24<sup>th</sup> Aug)
6. Volgograd Refinery, 356 kbd ( strike date: 14<sup>th</sup>, 19<sup>th</sup> Aug and 18<sup>th</sup> Sep)
7. Kuibyshev Refinery, 140 kbd ( strike date: 28<sup>th</sup> Aug)
8. Ilikiy Refinery, 131 kbd ( strike date: 7<sup>th</sup> Sep)
9. Kirishi Refinery, 420 kbd ( strike date: 14<sup>th</sup> Sept, 4<sup>th</sup> October, 1 month outage)



# Russian crude throughput has seen an unprecedented drop in processing

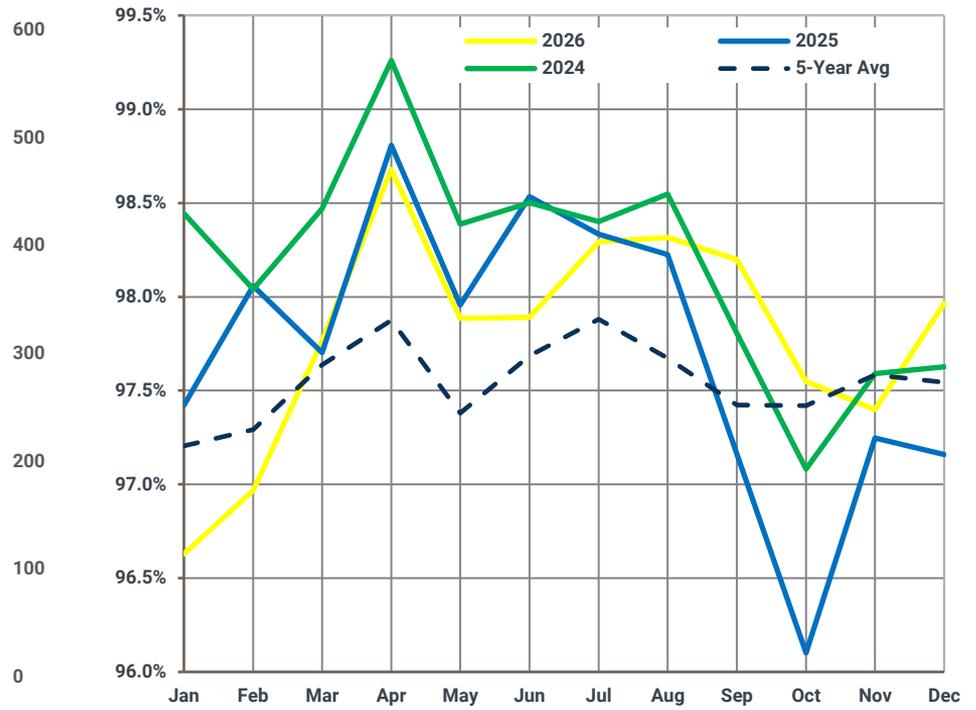
Persistent targetting of secondary units have probably left a mark on current processing operations as well

Russia: lost refinery output due to drone strikes (kbd)



Source: Kpler calculations based on IIR, industry sources

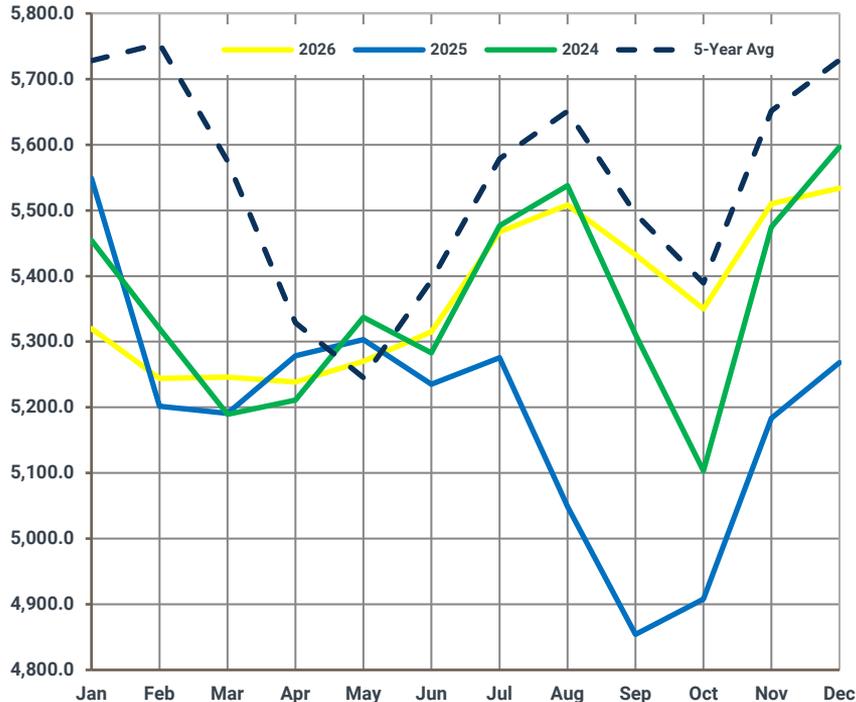
Russia: total refinery yield (%)



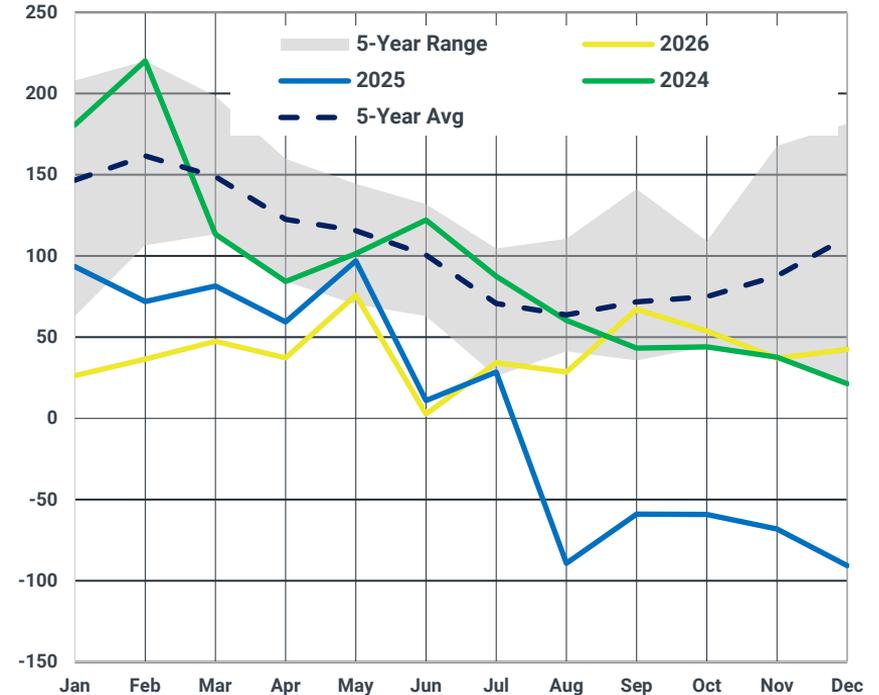
# Gasoline output is bearing the brunt of reduced processing

Belarus could supply up to 40 kbd of gasoline to the Russian domestic market over Q4

## Russian refinery primary throughput (kbd)



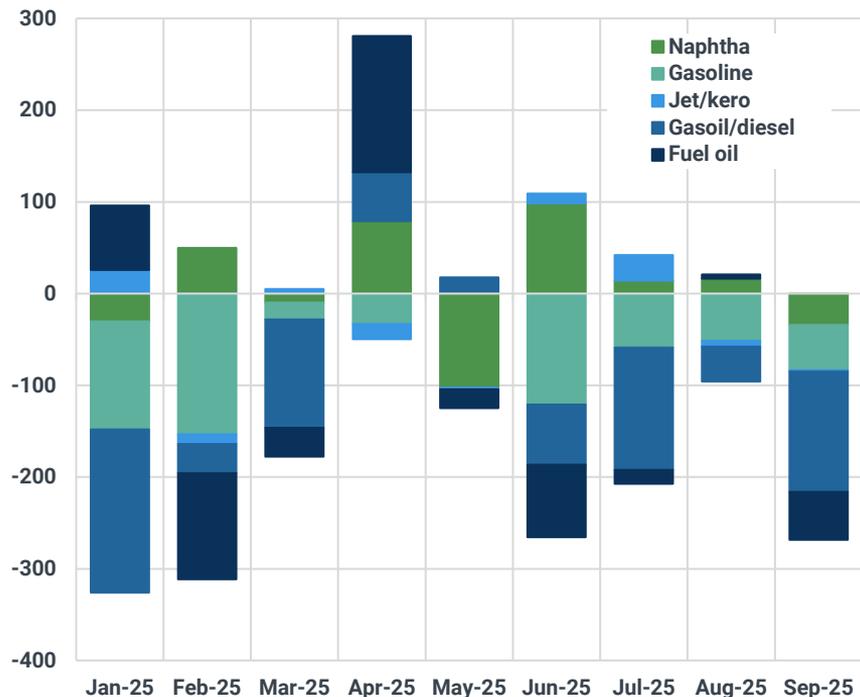
## Russian gasoline balance (kbd)



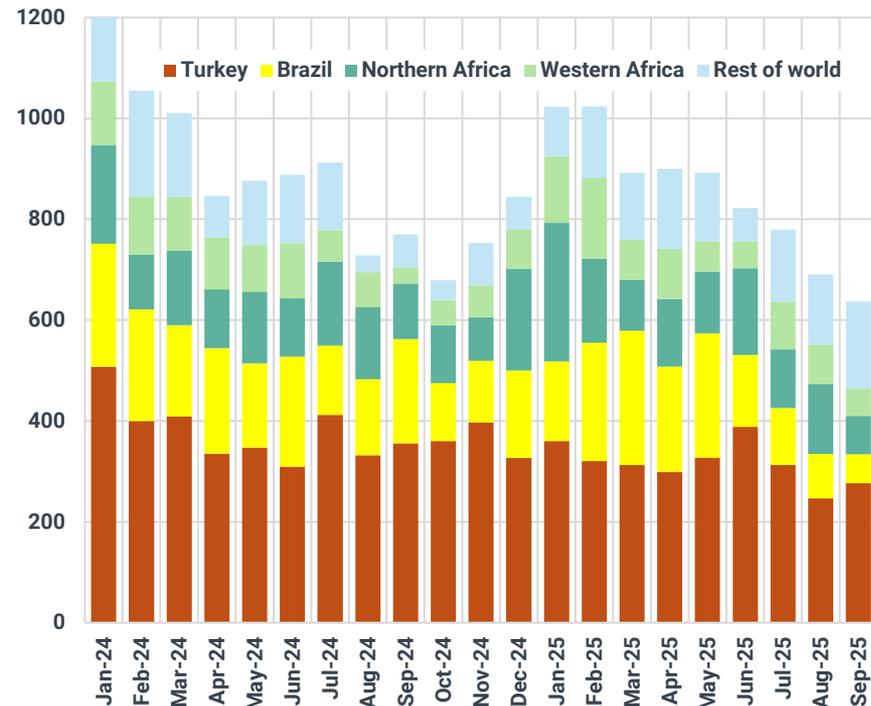
# Ukrainian drone strikes taking a heavy toll on Russian exports

Gasoil exports are falling victim with robust fuel oil outflows indicating healthy simple throughput rates

## Core product exports from Russia y/y change (kbd)



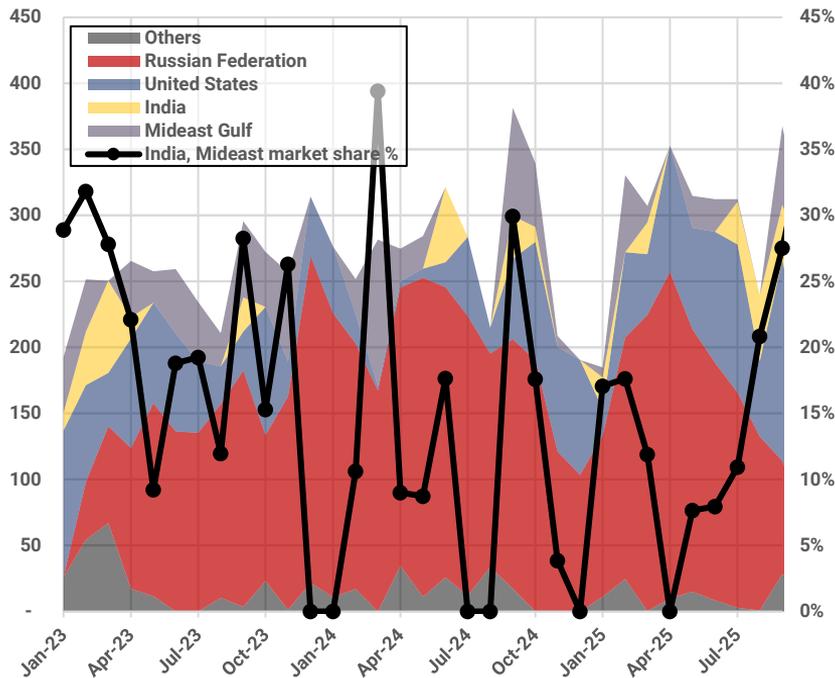
## Gasoil/diesel exports from Russia (kbd)



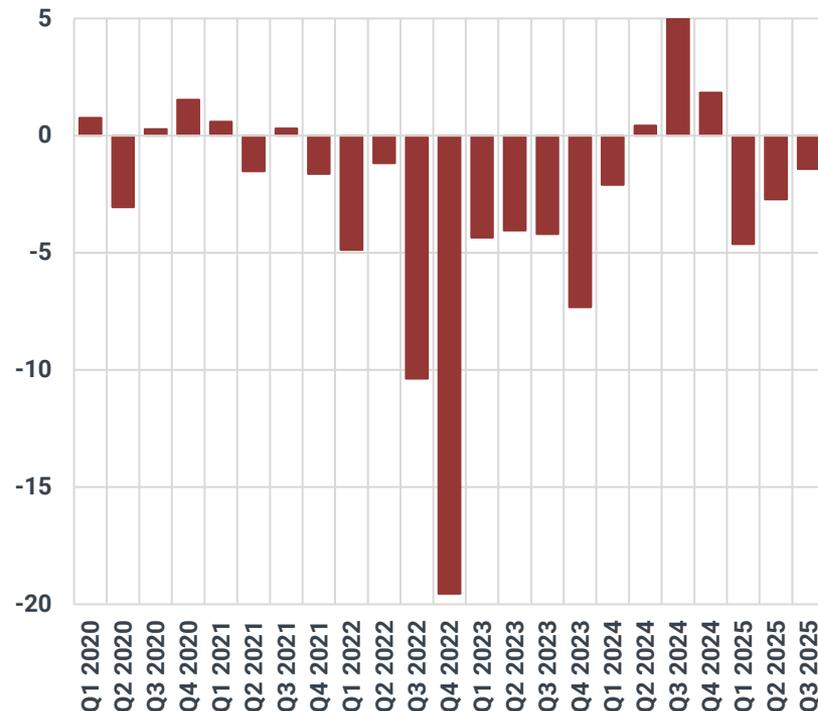
# Russia's main gasoil export markets are looking for alternative suppliers

We also expected Med gasoil to price at a slight premium to NWE over Q4 as Turkey is trimming exports

## Gasoil/diesel exports to Brazil by origin (kbd)



## Average CIF Med premium to NWE (\$/t)

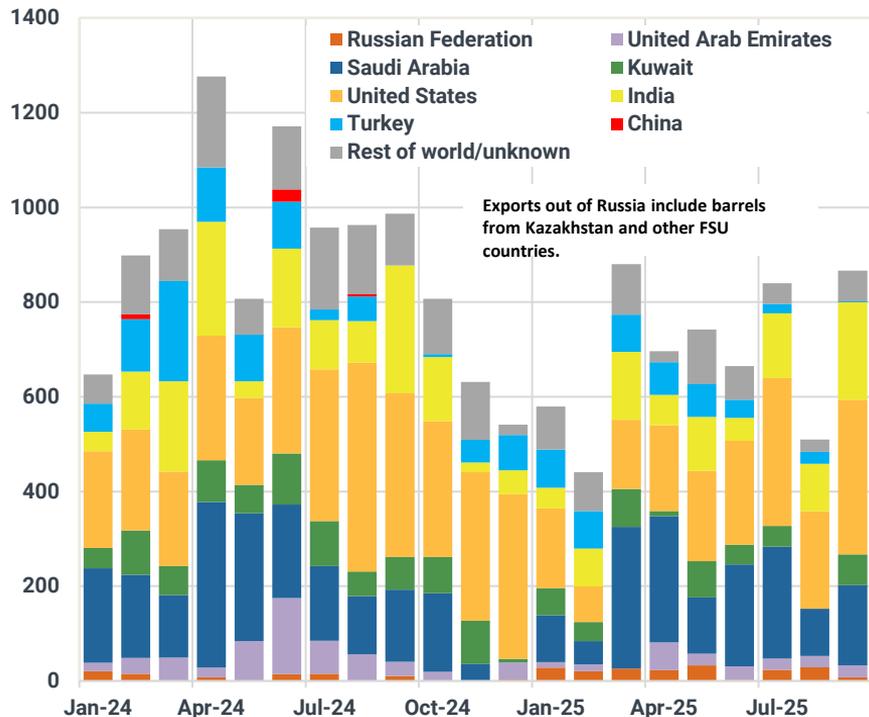


Source: Argus Media pricing data

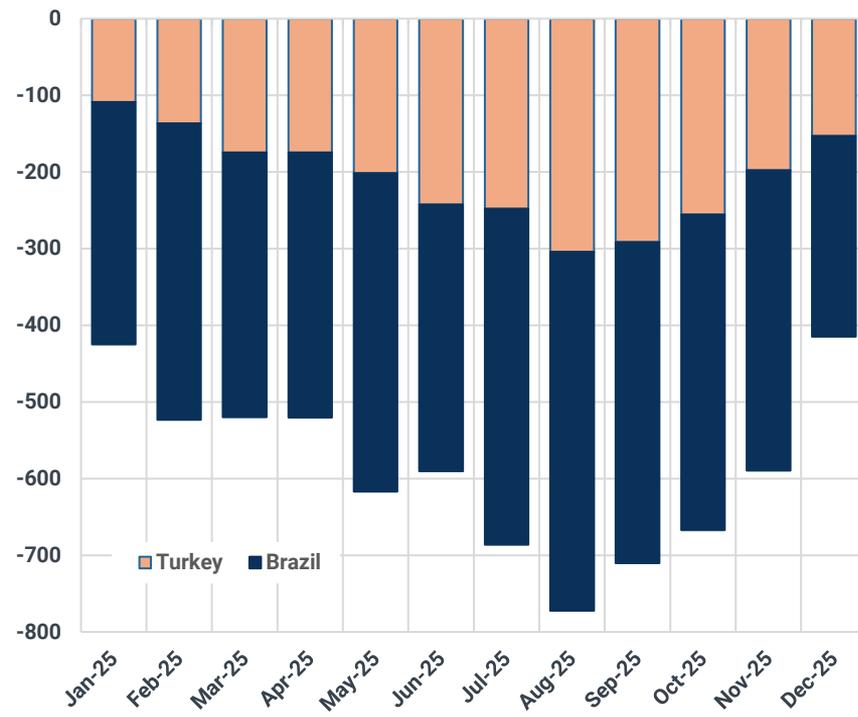
# Europe's ULSD supply question remains unanswered

Subdued ME exports over Q4 and a strong pull from Russia's export markets to keep the bullish momentum

## EU+UK arrivals of ULSD by origin (kbd)



## Brazil and Turkey gasoil balances (kbd)

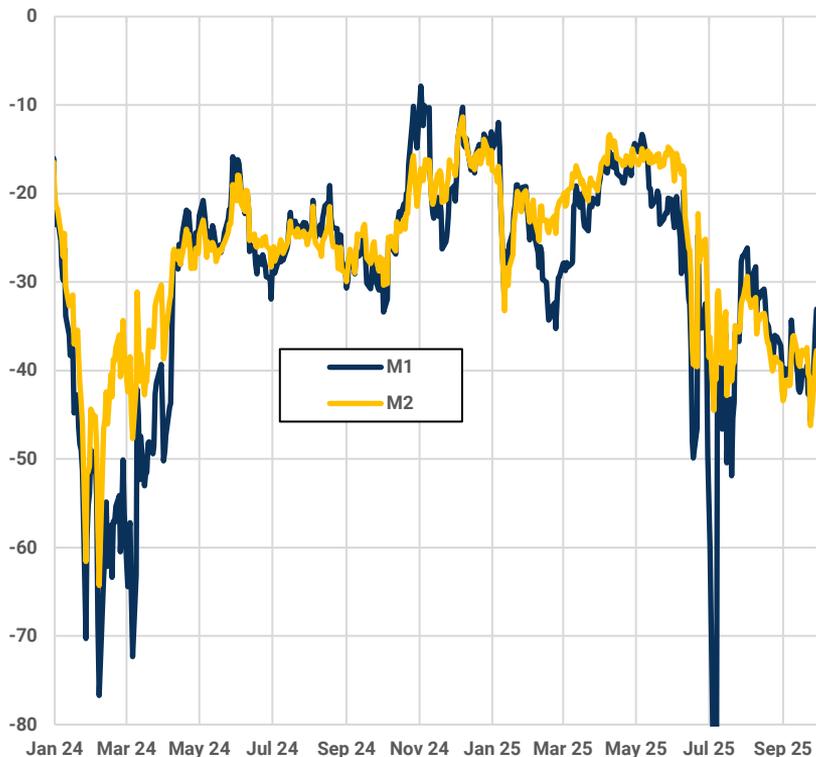


Source: Kpler calculations based on IIR data

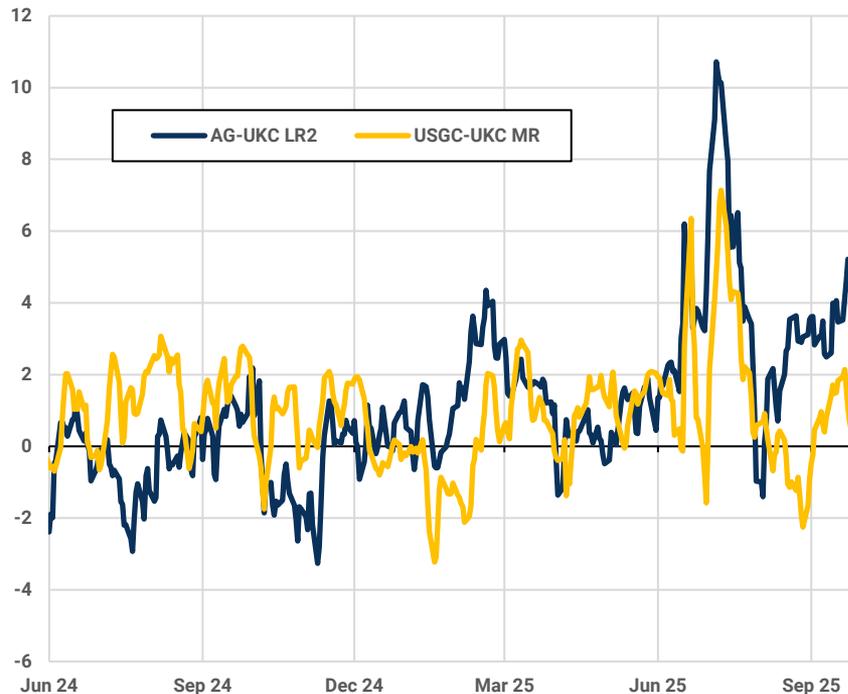
# Europe's structural tightness to keep EW spreads wide over the rest of H2

Locking in the majority of swing barrels in the Atlantic Basin, as Europe's balance tightens further and stocks remain low

## East/West gasoil swap spreads (\$/t)



## Arbitrage to NWE gasoil incentives 3 day moving average (\$/bbl)

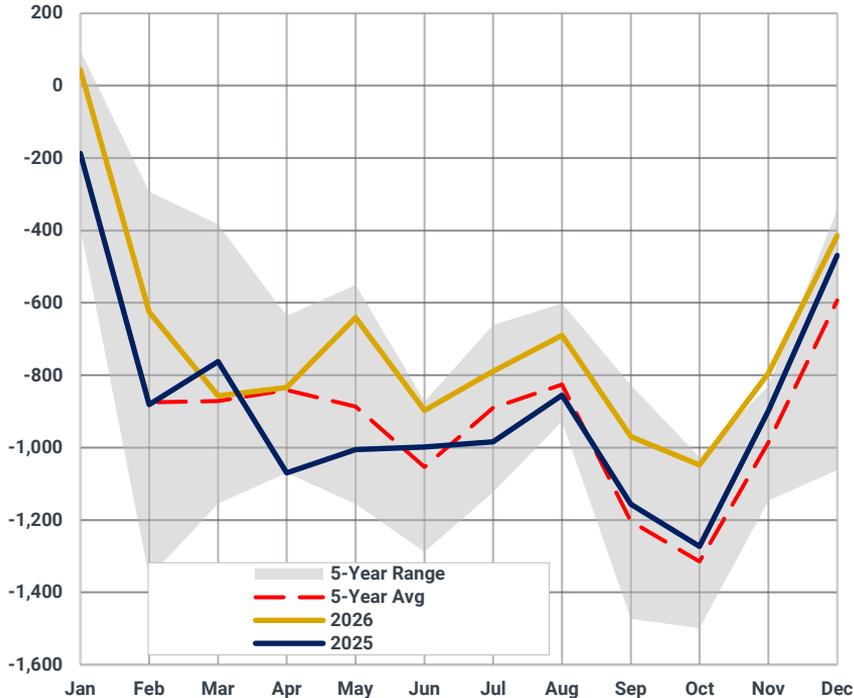


Source: Kpler using Argus Media pricing

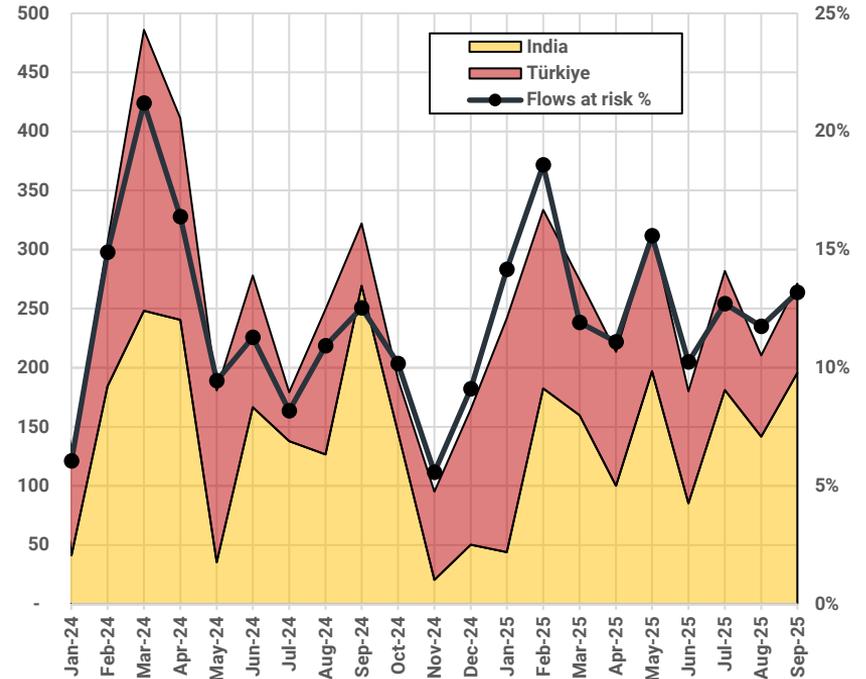
# The 18th EU sanction package looms large

The potential loss of around 15%-20% of European gasoil supply from India and Turkey will leave a mark on AB trade

### European gasoil balance (kbd)



### Gasoil/diesel exports to EU+UK at risk (kbd, %)



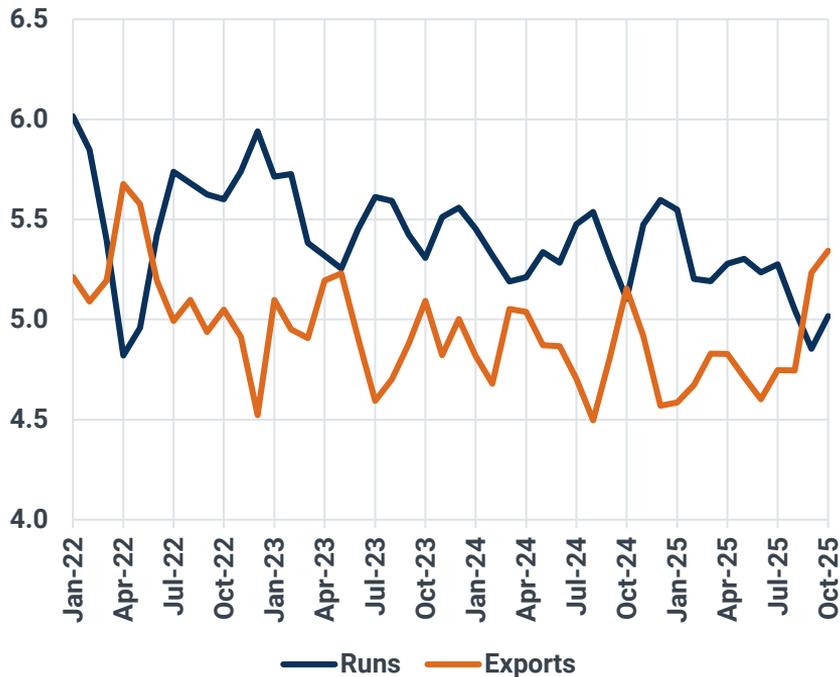
## Key takeaways

- ❖ **A swift return of Russian refining capacity any time soon remains unlikely**
- ❖ **The gasoline shortages on the domestic market are here to stay, raising the risk of further export curbs**
- ❖ **Constrained gasoil supply from the Middle East and turnarounds in Europe and the US promise to keep gasoil supported**
- ❖ **Brazil and Turkey are looking to diversify gasoil suppliers beyond Russia**
- ❖ **The EU's 18th sanction package adds an additional layer of bullishness to European cracks, with neither India nor Turkey likely to curb Russian crude buying. Up to 200-300 kbd of gasoil from both countries could be in search of a new home beyond January**

# Inverse balance: refinery outages free up crude for export

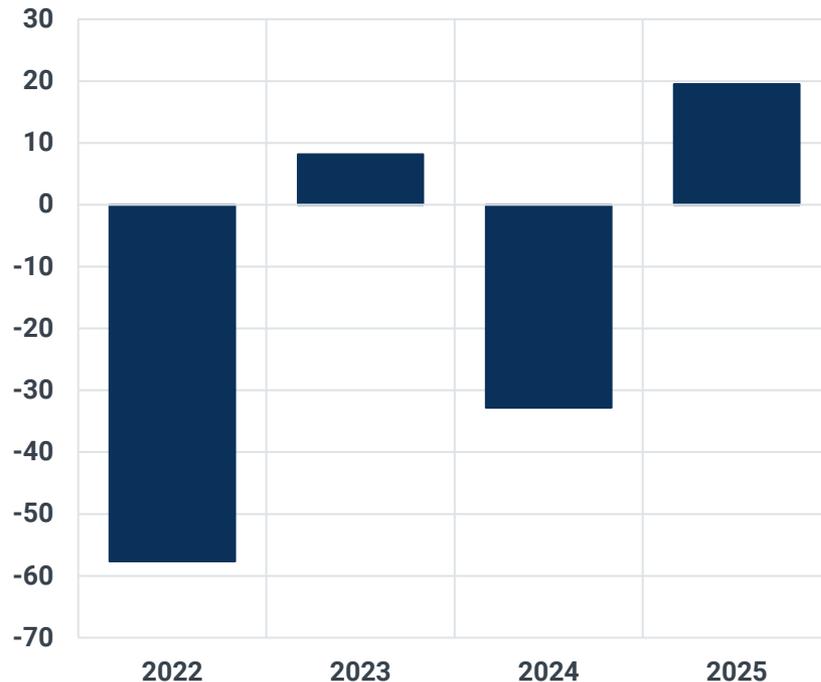
The system adjusts by channeling volumes away from domestic consumption and toward exports

## Russian refinery runs and oil exports, Mbd



Source: Kpler

## Degree of substitution between refining runs and crude exports, kbd

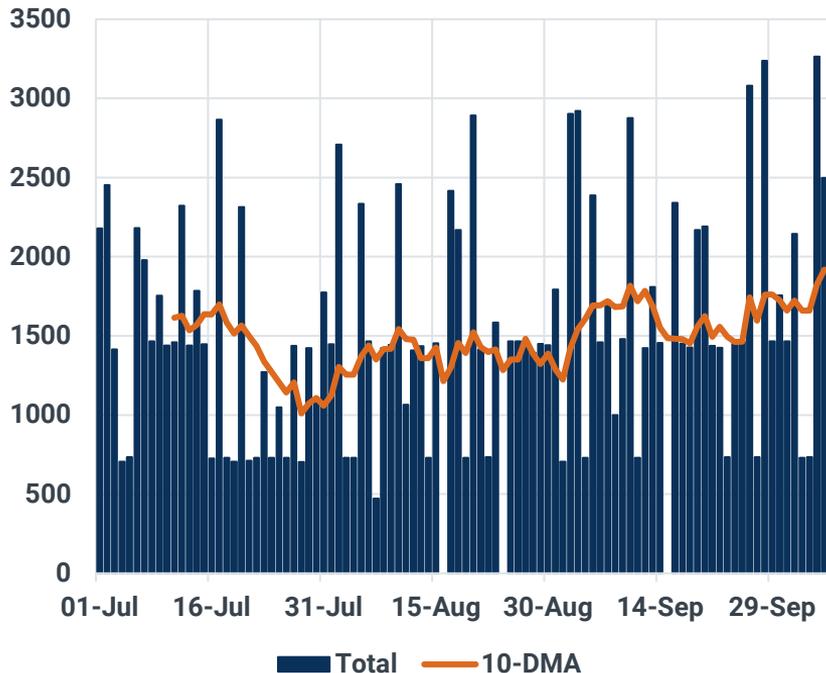


Source: Kpler

# Russian oil exports rebound in September amid curbed refining capacity

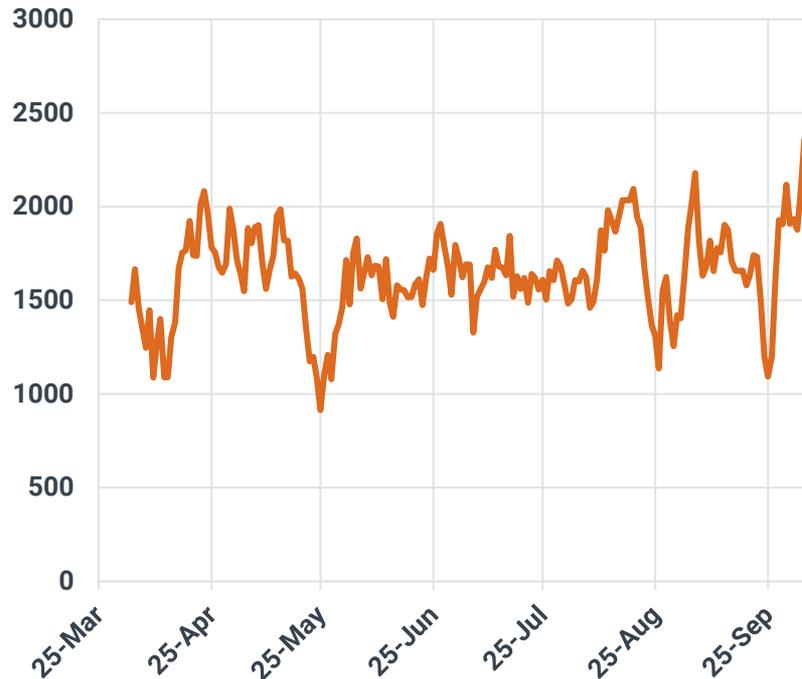
Re-routing crude flows to export terminals include temporary logistical constraints

## Primorsk and Ust-Luga oil exports, kbd



Source: Kpler, IIR

## CPC oil exports 10-DMA, kbd

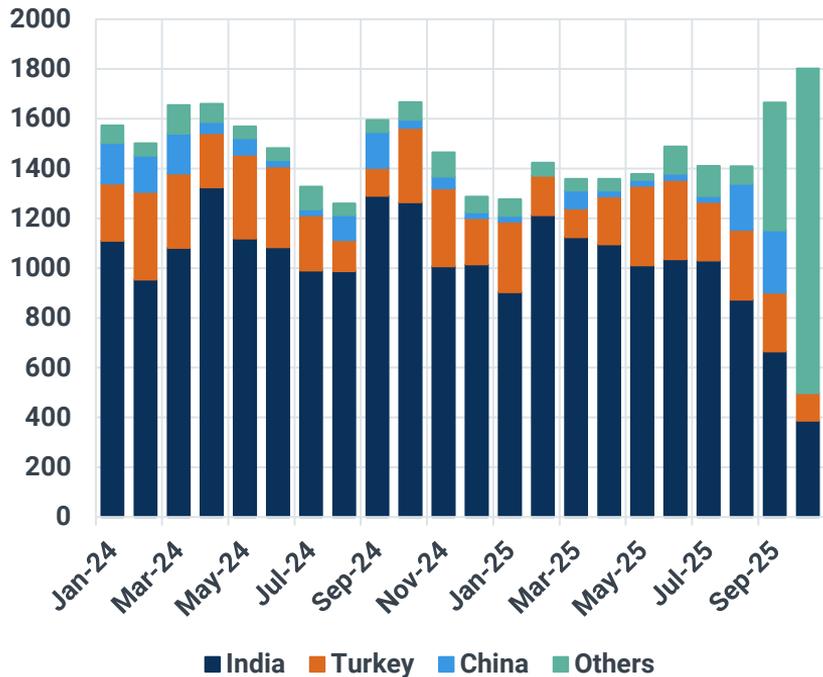


Source: Kpler. Includes Kazakh CPC volumes

# Most of the incremental barrels will consist of Urals via the Baltic Sea

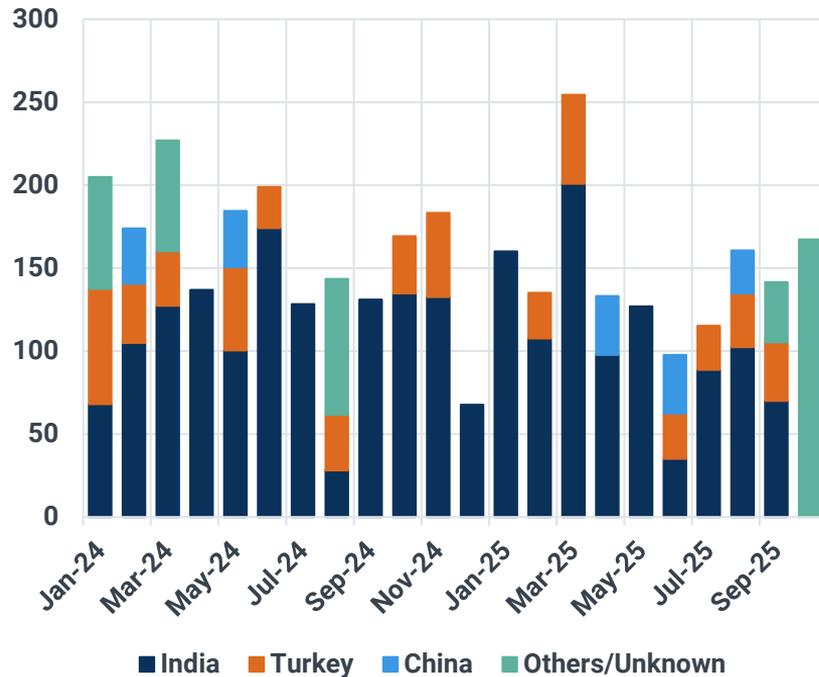
Re-routing crude flows to export terminals include temporary logistical constraints

## Baltic Sea Russian oil exports by destination, Mbd



Source: Kpler

## Black Sea CPC Russia oil exports by destination, Mbd

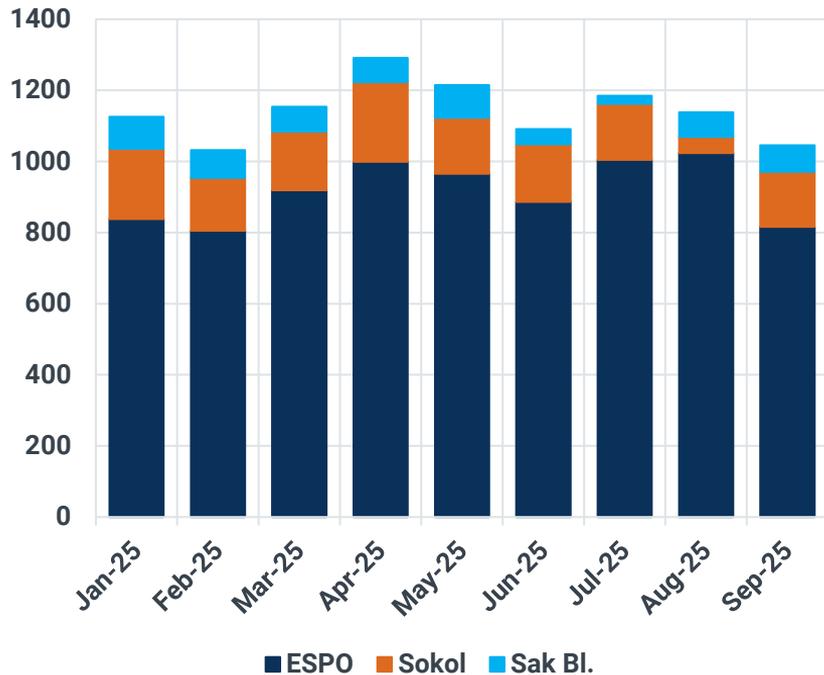


Source: Kpler

# ESPO exports drop on maintenance and lower Chinese demand

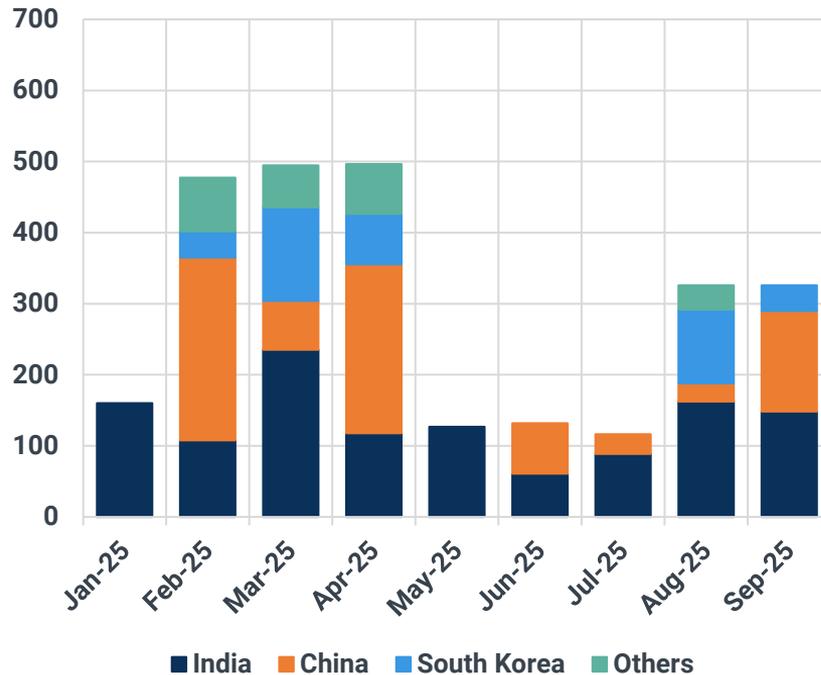
Open arbitrage has incentivised imports of CPC crude while lighter Sokol grade benefits from the jump in naphtha cracks

## Eastern Russian oil exports by grade, kbd



Source: Kpler

## CPC oil exports to Asia by destination, kbd

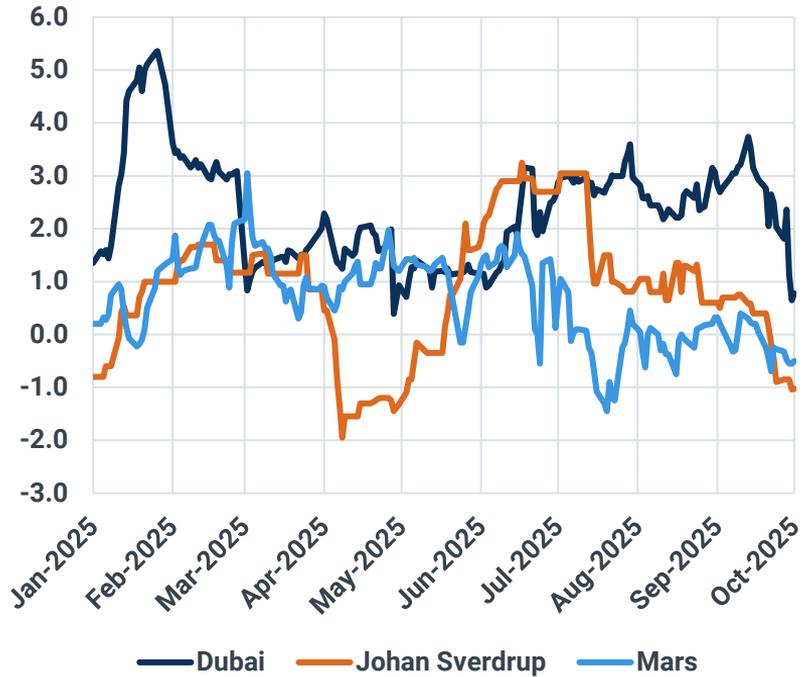


Source: Kpler. Includes Kazakhstan CPC volumes

# Russia's export resilience to keep medium sour differentials under pressure

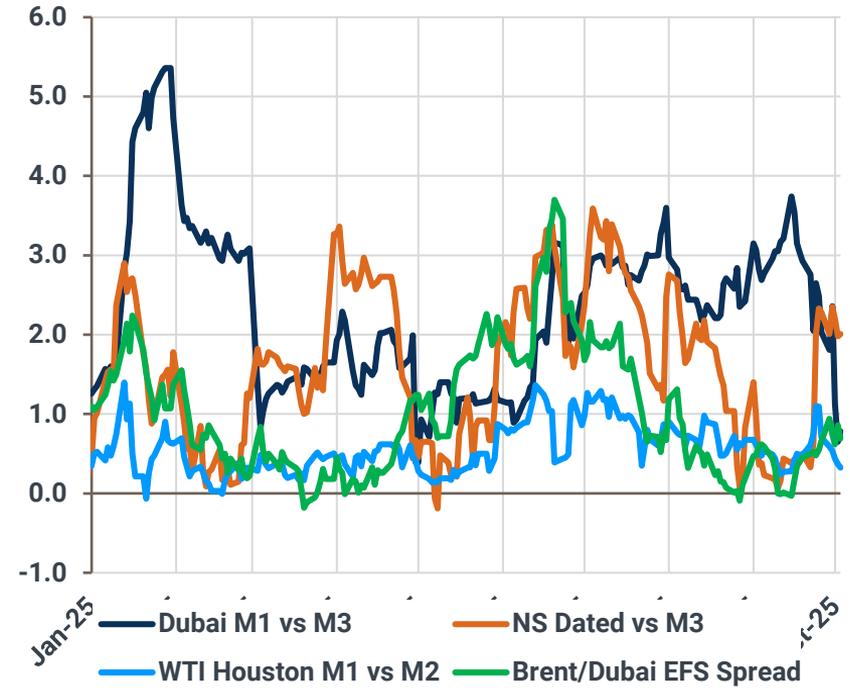
However, the robustness in gasoil cracks steepens North Sea backwardation

### Medium sour benchmarks, \$/bbl



Source: Argus Media. Dubai shows the three-month spread; Johan Sverdrup diffs against NSD; Mars diffs against WTI Houston

### Key market structures, \$/bbl

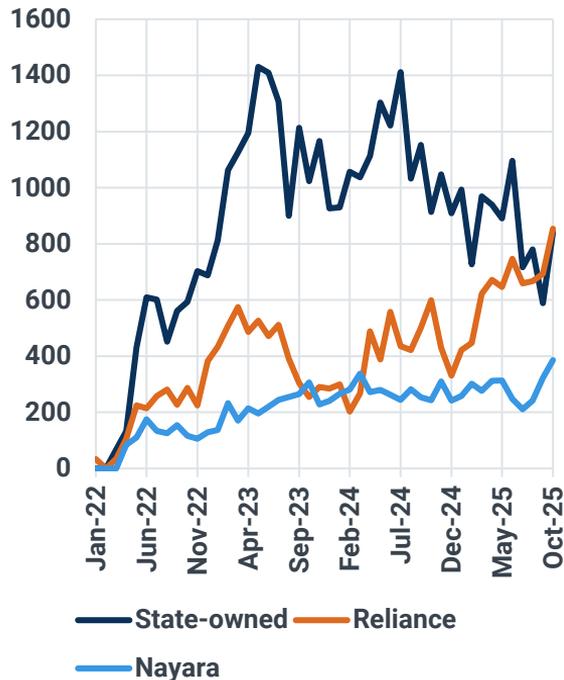


Source: Argus Media

# New Delhi standing firm, relationship with concerned about Russia output

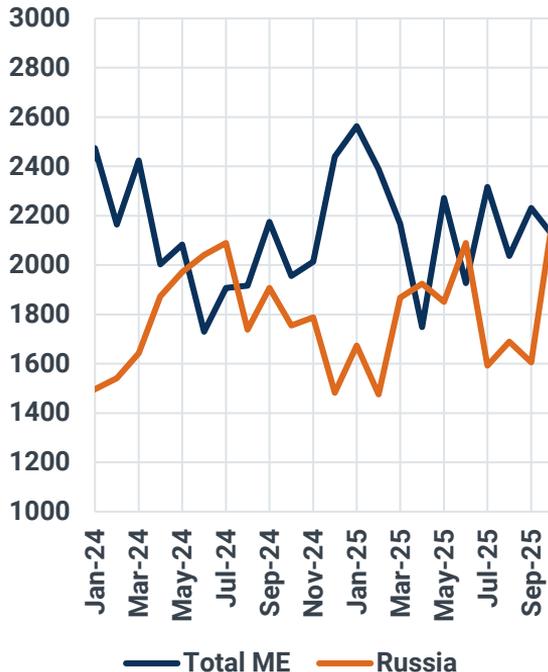
Indian buyers remain price-sensitive, undeterred by tariffs but wary of the effects of Russian production decline

India's oil imports from Russia by buyer, kbd



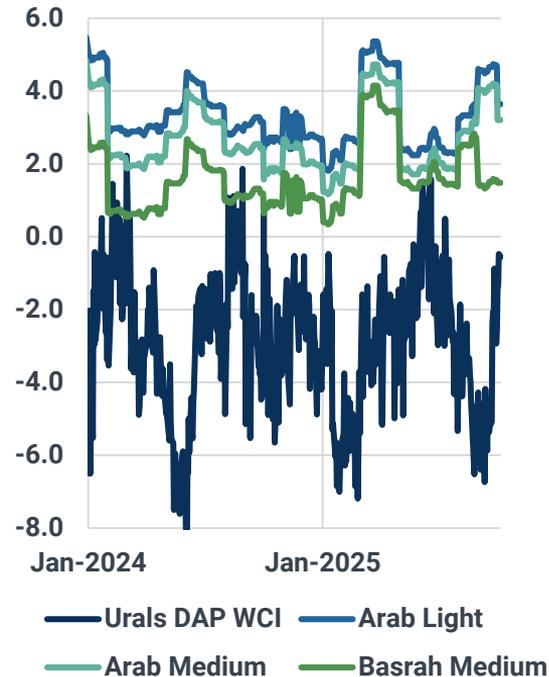
Source: Kpler

India imports from the Middle East and Russia, kbd



Source: Kpler

Urals and Middle Eastern DES India prices against Oman/Dubai, \$/bbl

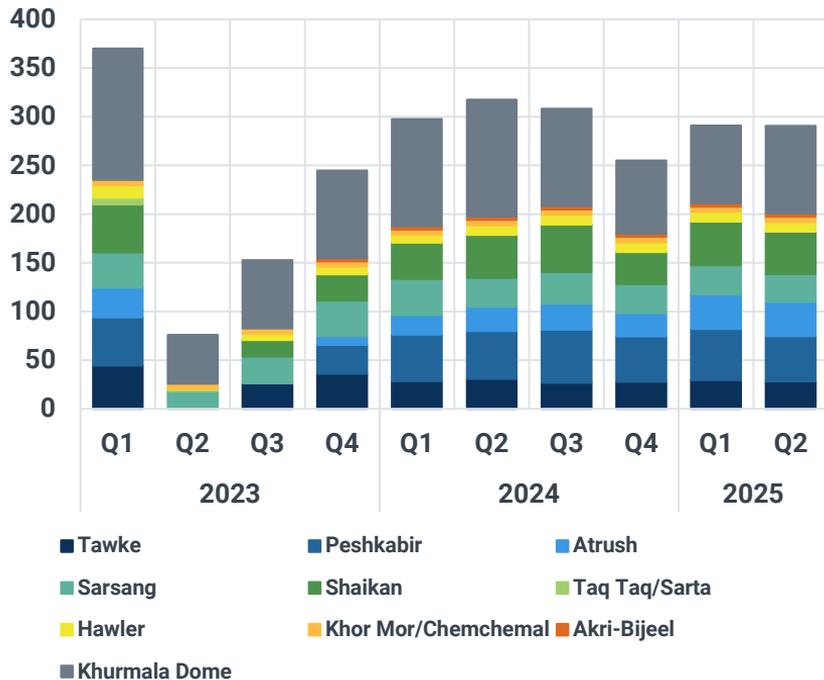


Source: Kpler based on Argus Media

# Northern Iraqi crude exports resume after a 30-month hiatus

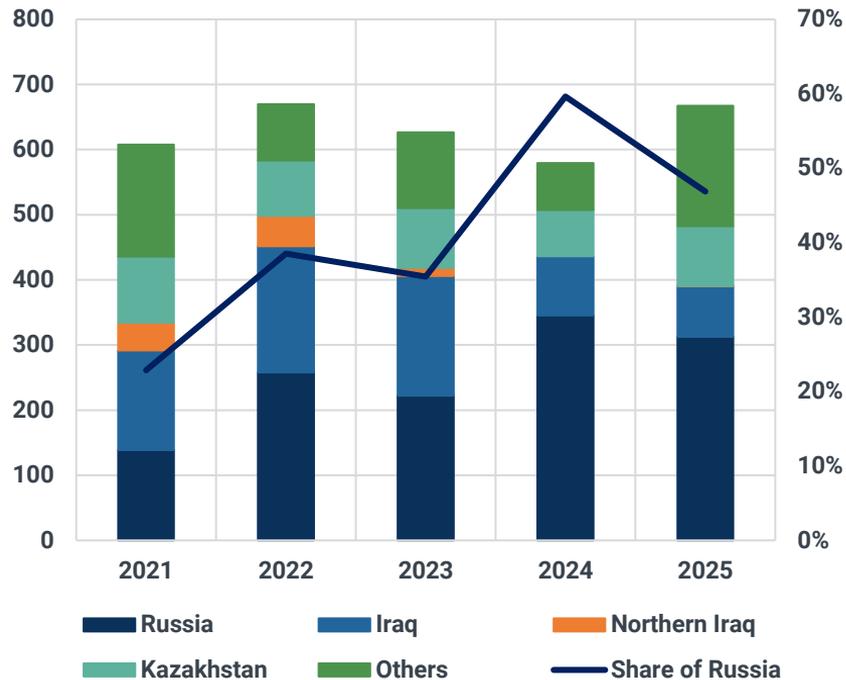
Kirkuk oil is well-suited to displace Urals in Turkey's refining system

## Iraqi Kurdistan oil production, kbd



Source: Kpler, company reports

## Turkey oil imports (kbd, LHS) and Russia share (% , RHS)

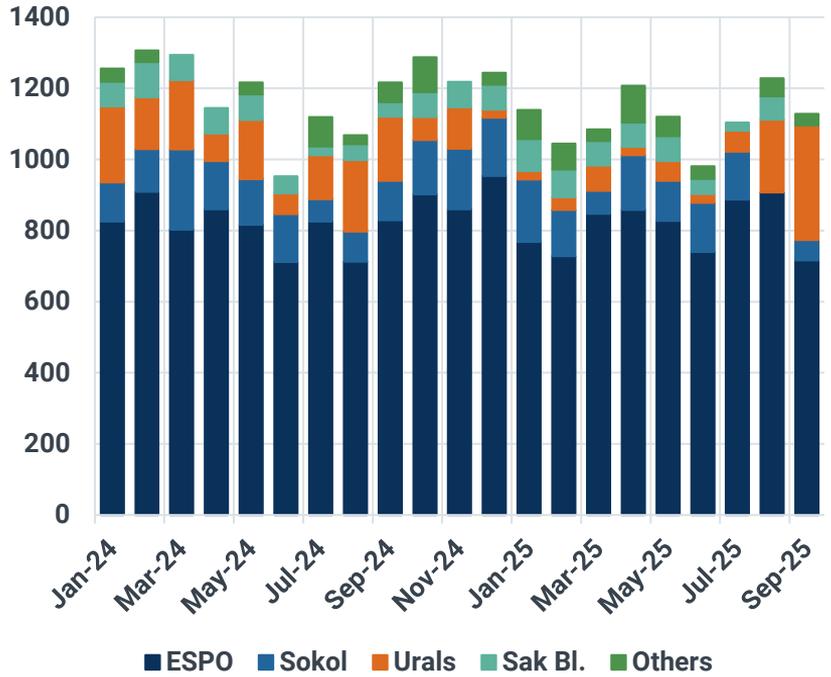


Source: Kpler

# Can China fill the gap?

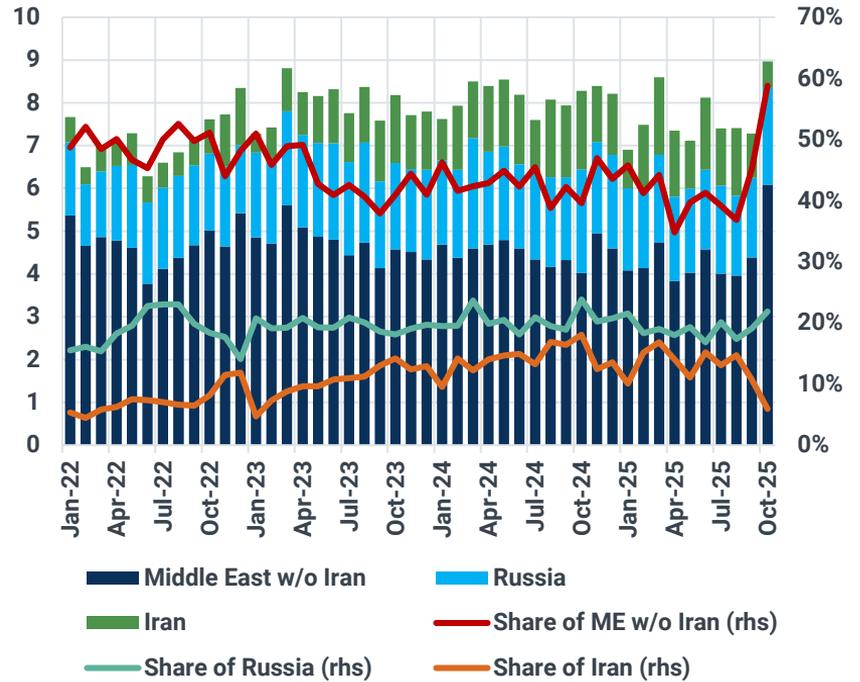
Another ~300-500 kbd of Urals could find its way to China

### Russia oil exports to China by grades, kbd



Source: Kpler

### China oil imports from the Middle East and Russia (kbd, LHS) and share in total impôts (% , RHS)



Source: Kpler



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**Thank you!**