East of Suez Oil Perspectives

Renaissance Energy Advisors

30 March 2022 **Issue 01**

Key Market Highlights

- Ongoing uncertainty around Russian oil supplies has triggered considerable volatility in crude derivative markets. ICE Brent started the month of March at US$104.97 (versus Platts Dated Brent at US$112.92) and rallied to $127.97 on 8 March. Barely a week later on 16 March, ICE Brent fell to US$98.02 (versus Platts Dated at US$106.48). Attention has been drawn to the drop in Open Interest (OI) in prompt ICE Brent driven by the rising cost of trade transactions. Volatility is expected to continue into April, especially after ICE raised margin requirements for May futures by 19% (effective 25 March).

Fig.1: ICE Brent futures and Open Interest (OI)

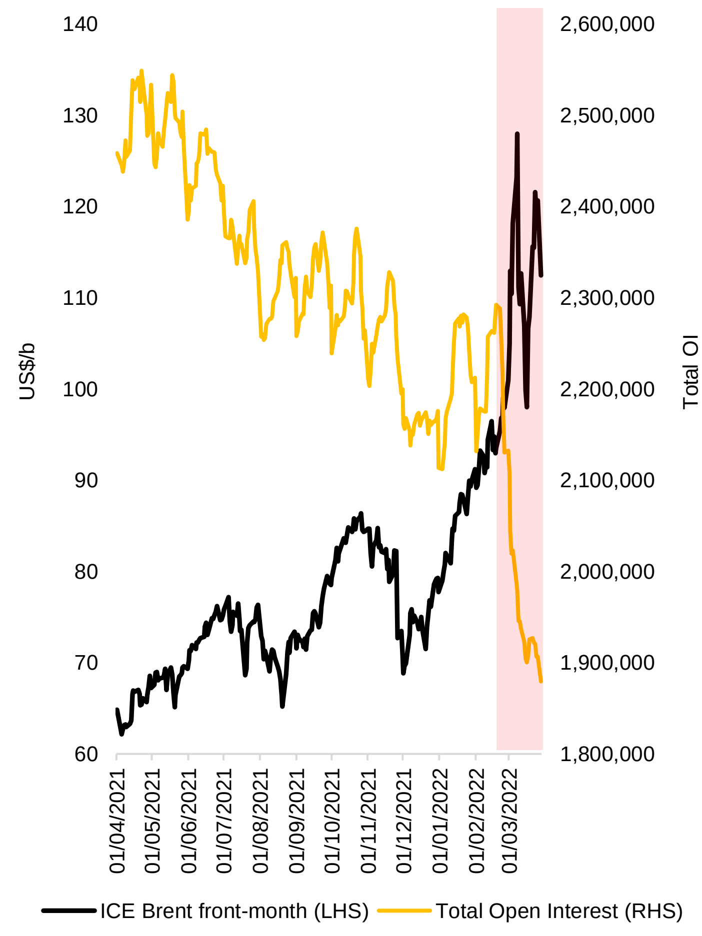
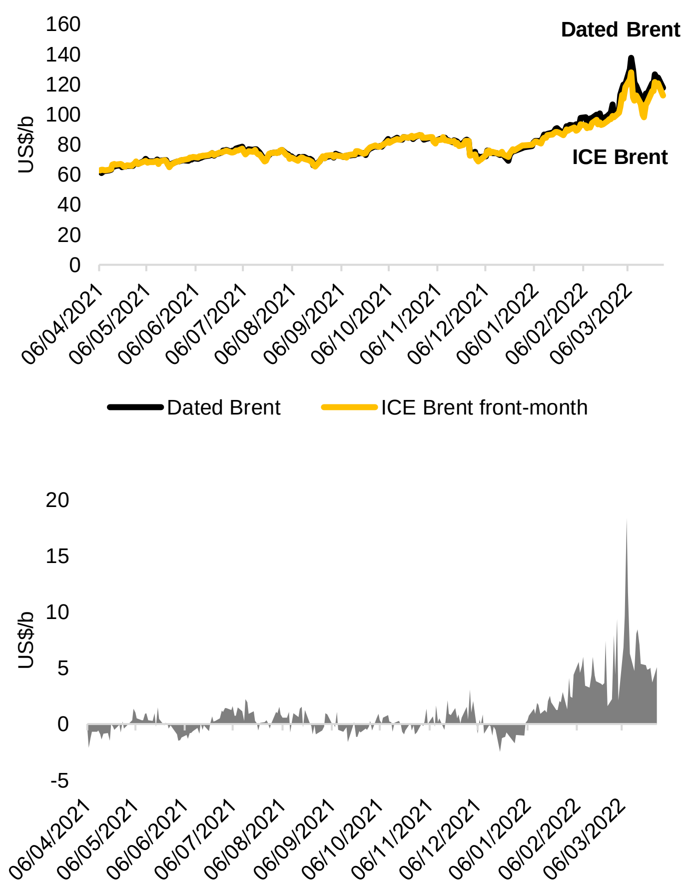


Fig.2: Platts Dated Brent v ICE Brent outright and spread (US$/b)



Source: REA, ICE, S&P Global Commodity Insights

- Volatility has also been apparent in IFAD Murban futures. In late March, IFAD Murban was almost US$4/b below Brent Singapore marker. The last time IFAD disconnected in a similar fashion was in November 2021. As IFAD celebrate their one-year anniversary, participants have pointed to the decline in monthly traded volumes in the exchange (likely driven by the exit of block trades).

Fig.3: IFAD Murban v front-month Brent (Sing)

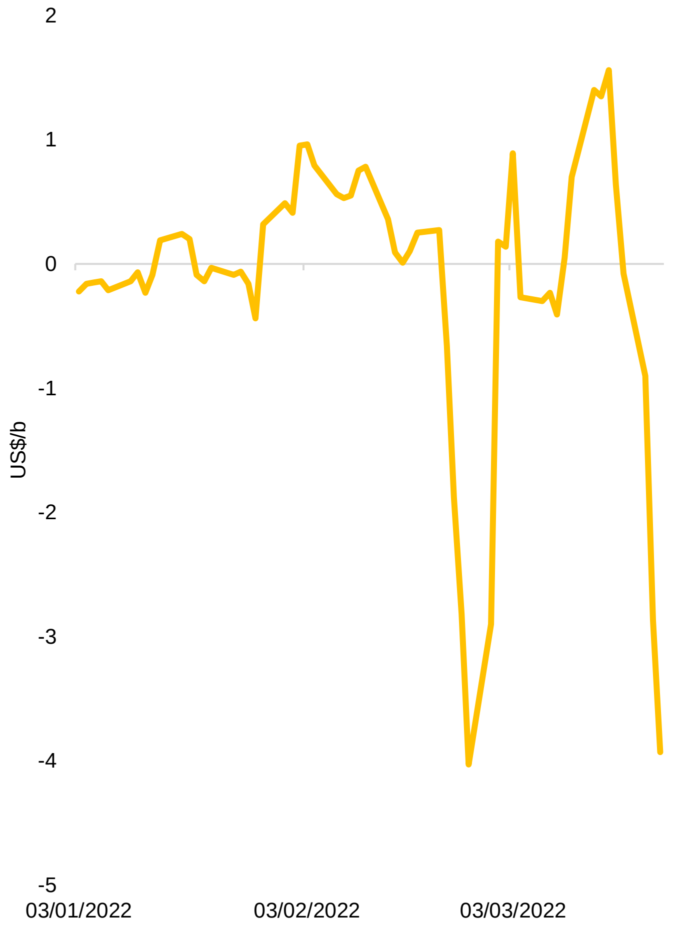
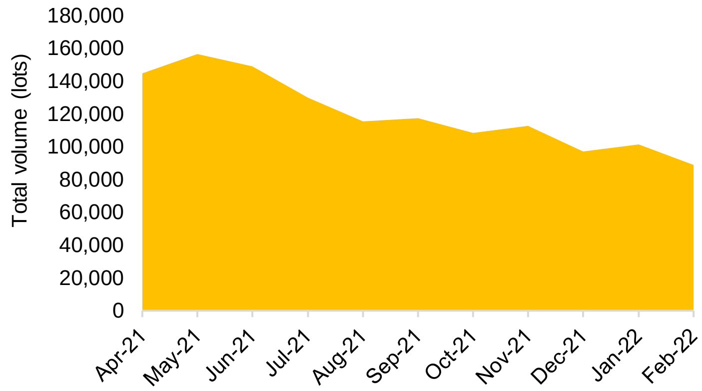
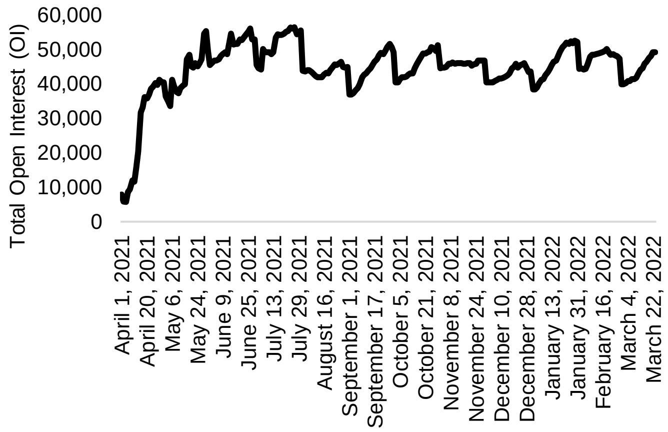


Fig 4: IFAD total volume by month and daily OI





Source: REA, ICE

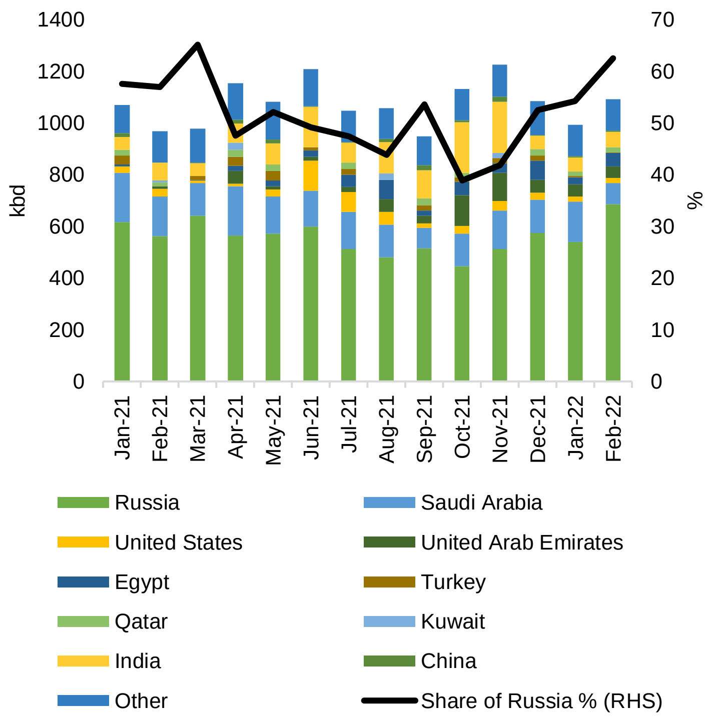
- OECD crude stocks remain at historical lows, with inventories approximately 260 million barrels (mb) below their five-year average. Globally, crude inventories have drawn at a rate of 1.7m b/d throughout last year, having only moderated since November 2021 (at rate of 1.2m b/d). Even prior to Russia's invasion to Ukraine, there was already small prospect for a recovery in crude and product stocks. Throughout Q421, high natural gas prices increased oil product demand by 310kb/d in Europe and 120kb/d in Asia. With ongoing uncertainty surrounding Russian gas flows to Europe, European front-month TTF prices will continue to be volatile and likely to remain a driver for low-sulphur crude demand.

- A key feature set to shape the market remains middle distillate tightness. Stocks in key diesel storage hubs – ARA region, Fujairah and Singapore – have reached historic lows as refinery supplies struggle to keep pace with demand. Higher gas prices have impacted refinery runs (especially in Europe) and hydrocracker utilisation rates. Self-sanctioning remains a key factor shaping Europe's diesel markets.

- North Sea equity and term holders have been reluctant to offer barrels on the North Sea Platts window, driven by diesel supply fears. While European refiners are raising CDU processing, hydrotreating capacity utilisation remains impacted by high gas prices and shortages of light-sweet crudes. The key issue to watch in April will be how European refiners manage their refinery yields. The light sweet shortage coupled with some Urals moving to India (displacing some Middle East crude) will continue to weight on light-heavy differentials and support Brent versus Dubai.

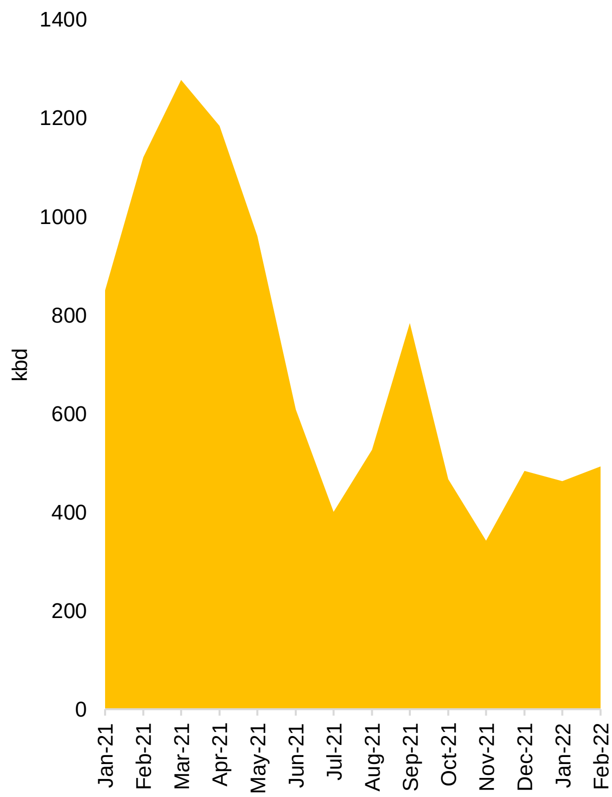
- Diesel cracks in Asia remained strong in March and despite covid-related demand concerns in China, cracks are expected to remain elevated in April. In particular, China has ordered a halt to gasoline and gasoil exports in April. Pressure on Chinese refinery margins (due to higher feedstock prices) have impacted independent utilisation rates. Meanwhile, India – which has increased CDU rates – will increase diesel exports, particularly to Europe. Both tighter supply and increased flows from Asia to Europe will keep Asian diesel cracks elevated, supporting valuations for some distillate-rich Middle East grades.

Fig. 5: Ex-European diesel suppliers to Europe and Russia share (RHS)



Source: REA, KPLER

Fig. 6: China clean product exports (kbd)



- OPEC+ will meet tomorrow to provide guidance to the market on its output policy. Despite US pressure on Saudi Arabia and UAE (which together hold an estimated 3m b/d of spare capacity), OPEC+ are unlikely to deviate from their planned supply roadmap. Nevertheless, the gap between OPEC+ targets and output will continue to widen as other members (e.g., Iraq) struggle with export bottlenecks or suffer from supply constraints (e.g., WAF producers). An Iran deal remains a wildcard for markets, but we note that Iranian exports have already increased up to 750kb/d and the path to adding 1m b/d over 2022 will not be immediate. While the US is expected to add around 1.1m b/d in growth this year, balances are expected to remain tight over the next quarter as the majority of US shale growth will come in H222.

Russia crisis: flows, pricing and barrels at risk - an assessment

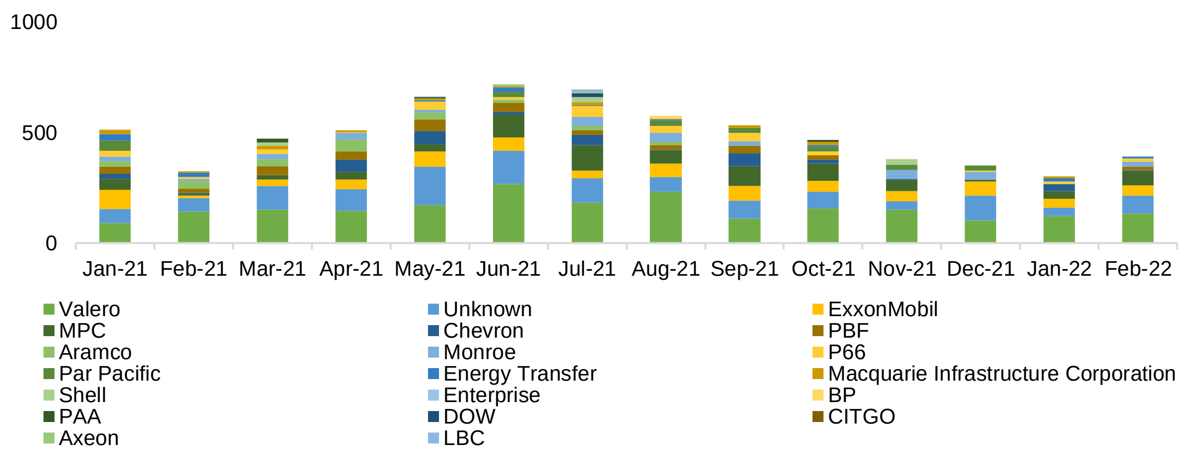
Key issues to watch

- A two-tier market is emerging for the pricing of Russian seaborne grades. Private OTC spot deals for Urals and ESPO suggest that differentials are not as wide as reported.
- A complex picture emerges for Middle East pricing in April: Dubai pricing has the potential to be weakened by lower Chinese runs, yield shifts and a greater influx of Urals into Asia (backing out some PG grades). Brent-Dubai EFS is expected to remain above US$6/b.
- A key trade flow to watch will be greater flows of Russian HSFO heading to Asia (re-directed from the US). Asian refiners are likely to process straight-run fuel oil, impacting pricing for HSFO-rich grades (e.g., Basrah Heavy).
- Middle distillate tightness will continue to command attention in April, impacting light-heavy differentials as refiners continue scrambling for light-sweet crudes.
- Saudi Aramco OSP calculations will be impacted not only by Urals softening Dubai structure but also European refiners seeking to replace Urals for PG substitutes. Aramco expected to increase Asia OSP for Arab Light by US$6/b (largely in line with average Platts Dubai/DME Oman timespreads in March.

It has been just over a month since Russia's invasion of Ukraine. So far, some of the key known knowns and their impact on crude and product markets include (but are not limited to) the following:

- **US ban on Russian crude and products:** the net effect of the move was largely limited as US refiners only purchased around 100kb/d of Russian crude on average in 2021. The bigger impact will be on replacing Russian dirty product imports (~450-500kb/d of VGO, fuel oil), typically used by US refiners for secondary units such as coker units (where much work upgrading work was done ahead of IMO 2020).

Fig.7: US imports of Russian crude and products by buyer (kb/d)



Source: REA, KPLER

- **Greater volume of Middle East fuel oil to be re-directed to US:** A key trade to flow to watch going forward will be US refiners replacing Russian fuel oil with increased imports from the Middle East (particularly Iraq). The Middle East – in a bid to prepare for summer power generation – is likely to import the displaced Russian fuel oil (especially given high natural gas prices). Indian refiners who rely on Middle East straight-run fuel oil could also take up greater volume of Russian dirty products, allowing more Middle East cargoes to head to US. The economics of importing greater Russian fuel oil volumes in Asia will also be supported by the relative weakness of HSFO cracks versus Dubai.

- **Widening of physical differentials likely to continue into April:** notwithstanding 'self-sanctioning' in the market, the potential loss of exports from Kazakh CPC stream will continue to drive up North Sea crude prices. This will likely push the WTI/Brent differential wider (especially as European buyers seek alternatives). Likewise, Europe will continue to be short light-sweet crude and April will see some Middle East crude being backed out of Asia (as China increases Urals buying). In particular, we note Russia's April Urals loading program is longer than March (see: Fig. 14) and this could start putting pressure on Dubai pricing. Beyond some opportunistic buying opportunities, the widening of Brent-Dubai EFS will continue into April (see: Fig. 8), with Asian refiners preferring Dubai-linked crudes.

- **Middle distillates to remain tight into April with some Asian players taking advantage of the tightness:** Russia is the largest single supplier of diesel/gasoil to Europe (where flows averaged 550kb/d last year), around 40% of Northwest Europe's imports. While the NWE regrade price difference between jet and diesel is sending signals for European refiners to convert more jet into the diesel pool, hydrotreating capacity remains a constraint. As a result, the scramble for non-Russian diesel will be a key issue to watch next month. Europe will find no respite from the US (where diesel inventories are at multi-year lows and import demand from LatAm remains strong); the Middle East has the potential to send more diesel to Europe (as refiners exit maintenance). Arguably the biggest jump is set to come from India and South Korea (where runs have increased to take advantage of the huge increase in diesel cracks (see: Fig.9).

Fig. 8: Brent/Dubai EFS (US$/b)

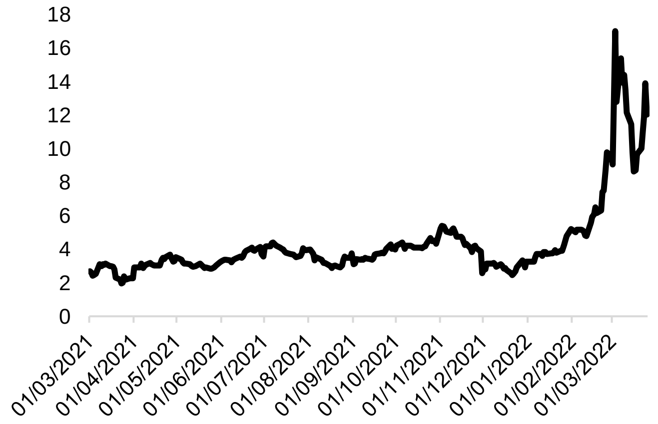
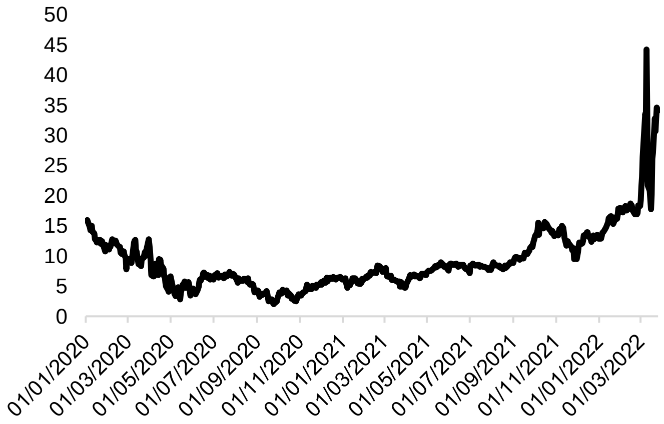


Fig.9: 10ppm Gasoil FOB Sing crack versus Dubai



Source: REA, S&P Global Commodity Insights

Digging deeper, we ask several questions in this month's insight:

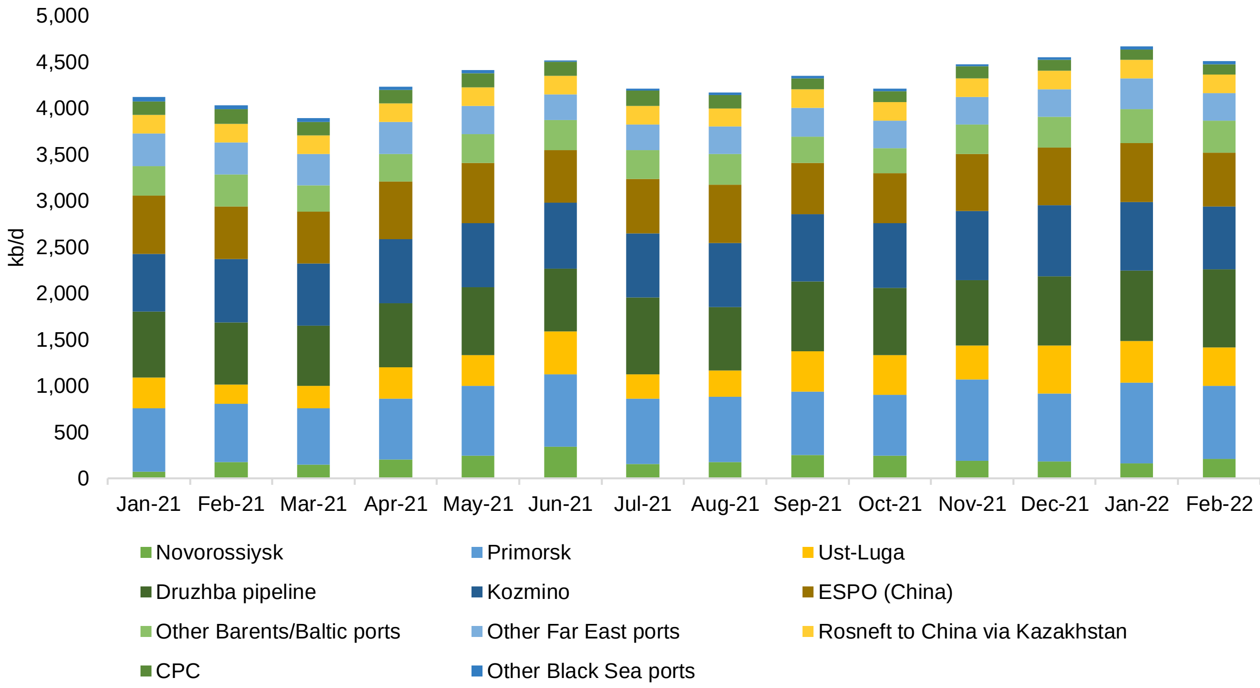
1) How has the crisis impacted physical differentials and trade flows?

2) What has been the impact on Asian refinery purchases and Middle East pricing?

Not all Russian barrels at risk

A complex picture is building up around the movement and trade of Russian crude in global oil markets. Pre-invasion, Russia exported approximately 4.6m b/d of crude and 2m b/d of products (particularly diesel to European markets).

Fig.10: Export of Russian-origin crude by sea, pipe and rail (kbd)



Source: REA, Transneft

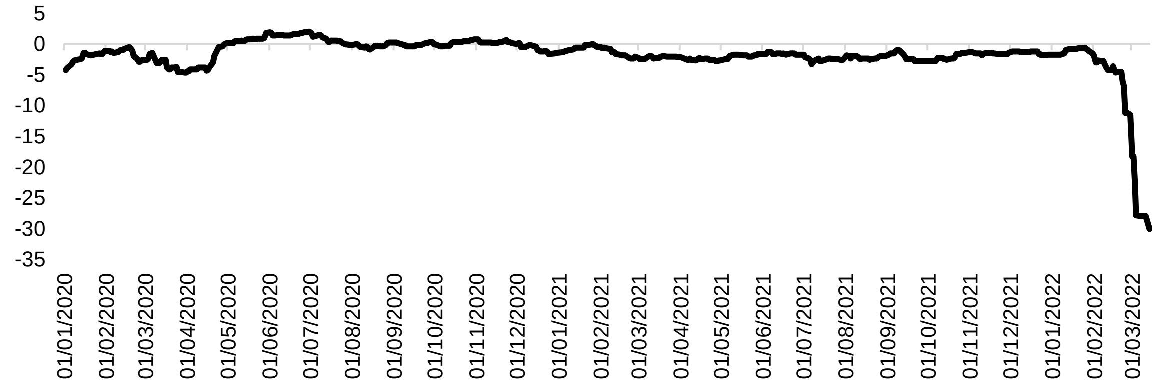
Russia has a number of mechanisms in which it sells its crude on international markets. These include:

- **Term contract deliveries to Europe via the Druzhba pipeline:** Flows via Druzhba as of March currently amount to approximately 750,000 b/d, with around 400,000 b/d to Germany and the balance to a number of Central European countries. It will be very difficult for refiners who rely on Druzhba flows to cut off reliance on Russia. Some of the largest refining customers who rely on Druzhba include refineries with stakes owned by Russian companies themselves (e.g., Schwedt refinery in Germany is Rosneft-owned). Likewise, Lukoil also has a downstream footprint in Europe. Overall, unless Europe executes a blanket embargo on Russian crude, we see Druzhba deliveries as being relatively unscathed from the current sanctions package.

- **Spot seaborne deliveries (Urals):** Alongside contractual pipeline deliveries, Russia's largest seaborne export grade is Urals (exported from a number of Mediterranean and Black Sea ports). The total seaborne export volume of Urals amounts to close to 1.7m b/d, mostly delivered to refiners in Europe.

  Since the beginning of March, refiners and traders have accelerated attempts to 'self-sanction' Urals, with a number of refiners such as Neste, PKN Orlen and others making public their bid to wean themselves off Russian crude. As a result, Urals cargoes openly traded on the spot market have been trading at heavy discounts to Platts Dated Brent (reaching – US$30/b as of mid-March). In reality, these physically assessed prices bely the number of deals conducted privately and highlights the emergence of a two-tiered market (as trades on MOC dry up, more deals are being done on a private bilateral basis, with some traders telling us that differentials to Platts Dated Brent are not as low as reported).

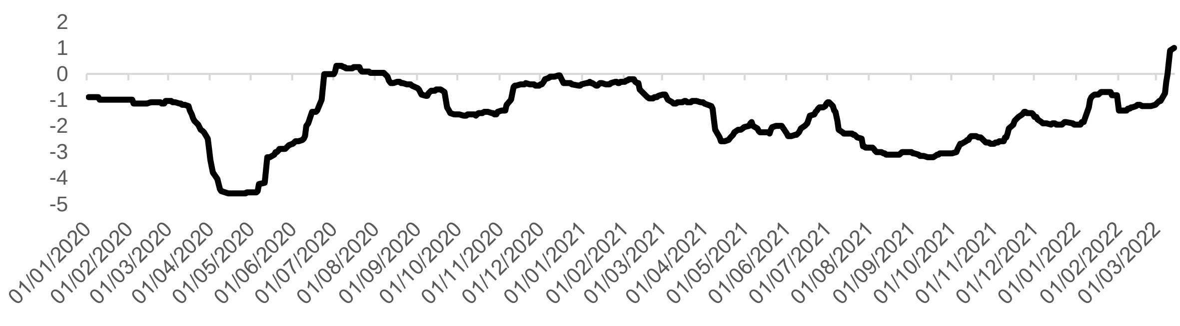
Fig.11: Urals NWE versus Platts Dated Brent (US$)



Source: REA, S&P Global Commodity Insights

Nevertheless, 'self-sanctioning' of Urals is a reality and the effect is already having an impact on the pricing of other grades, with Norway's Johann Sverdrup (a suitable Urals replacement) being bid upward in March.

Fig.12: Johann Sverdrup v Platts Dated Brent (US$/b)



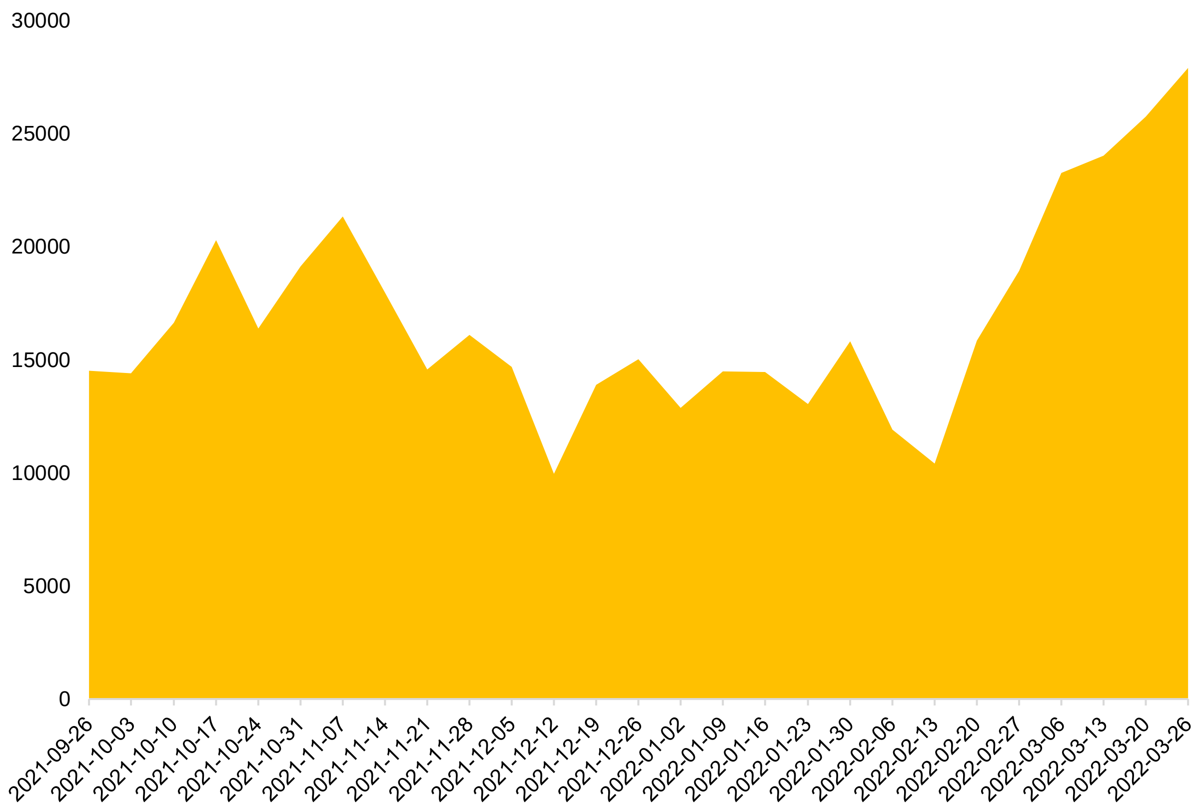
Source: REA, S&P Global Commodity Insights

Middle East OSPs for April-loading were also increased in early March. Aramco set its Arab Light OSP to NWE at +$US1.60/b versus ICE Brent (increase of US$1.70 m-o-m); meanwhile, Iraqi Basrah Medium – a suitable replacement to Urals – was set at a discount of US$3.05/b versus Dated (an increase of US$1.6/b m-o-m). While European term buyers sought to increase BM nominations, the wild swings in ICE Brent v Dated will make pricing Iraqi and Saudi barrels to Europe more complicated in the next round of OSPs (to be issued in early April).

So far, the most visible buyers of spot Urals cargoes have been the Indian refiners. IOC – India's largest refiner – which typically purchases West African, Murban, Oman and Russian Urals on the spot market in monthly tenders started the month refusing Urals on FOB basis. However, with discounts so aggressive, the Indians have started accepting CFR shipments (lowering insurance and shipping costs). Throughout March, Indian refiners bought around 14mmbl of Urals via tender, largely from Vitol and Trafigura. Indian refiners have also been active buyers of Sokol from Indian equity partner in Sakhalin-1, ONGC. This buying activity contributed to softening spot premiums for Middle East crude during the March cycle – and will continue to impact April's spot trading cycle (particularly as maintenance has been deferred).

For Chinese players, CFR China Urals remains at a record discount and has tempted purchases from a number of players, including Sinopec. However, the volume of Urals still currently struggling to find a home remains large (shown by Urals on water).

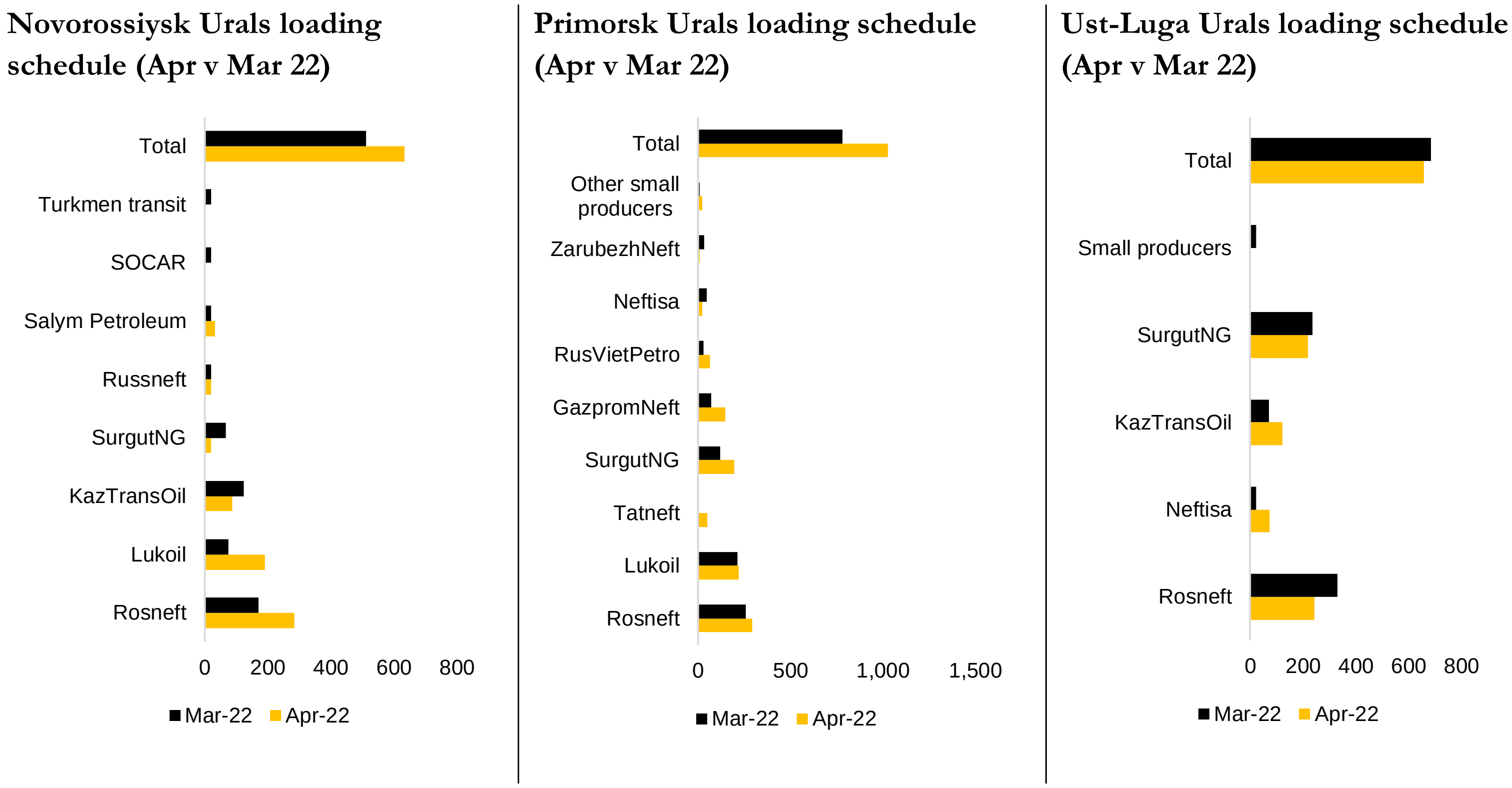
Fig. 13: Urals on water (kb)



Source: REA, KPLER

Making matters worse remains the length of the April Urals loading program (significantly higher than March as shown see Fig. 14 and likely driven by April refinery maintenance in Russia).

Fig 14: Urals loading program for April v March by port (kbd)



Source: REA

Despite increased Indian and Chinese buying, we estimate around 0.9-1m b/d of Urals will struggle to clear, especially in April as Urals length increases.

What other barrels are at risk?

- **Russia's eastern deliveries present a mixed picture:** Russia delivers crude to Asian markets via the East Siberian Pacific Ocean Pipeline (ESPO), which runs from Taishet to Skovorodino (1.6m b/d capacity). A branch of the pipe runs from Skovordino to Daqing (delivers approx. 600kb/d) directly to China. Another 200kb/d of Russian crude is delivered to China via Kazakhstan. The spur from Skovorodino to Daqing is operating at full capacity. Remaining volume is shipped via the ESPO-2 pipeline from Skovorodino to the port of Kozmino.

Looking at Russia's deliveries to Asia as a whole, the following picture emerges:

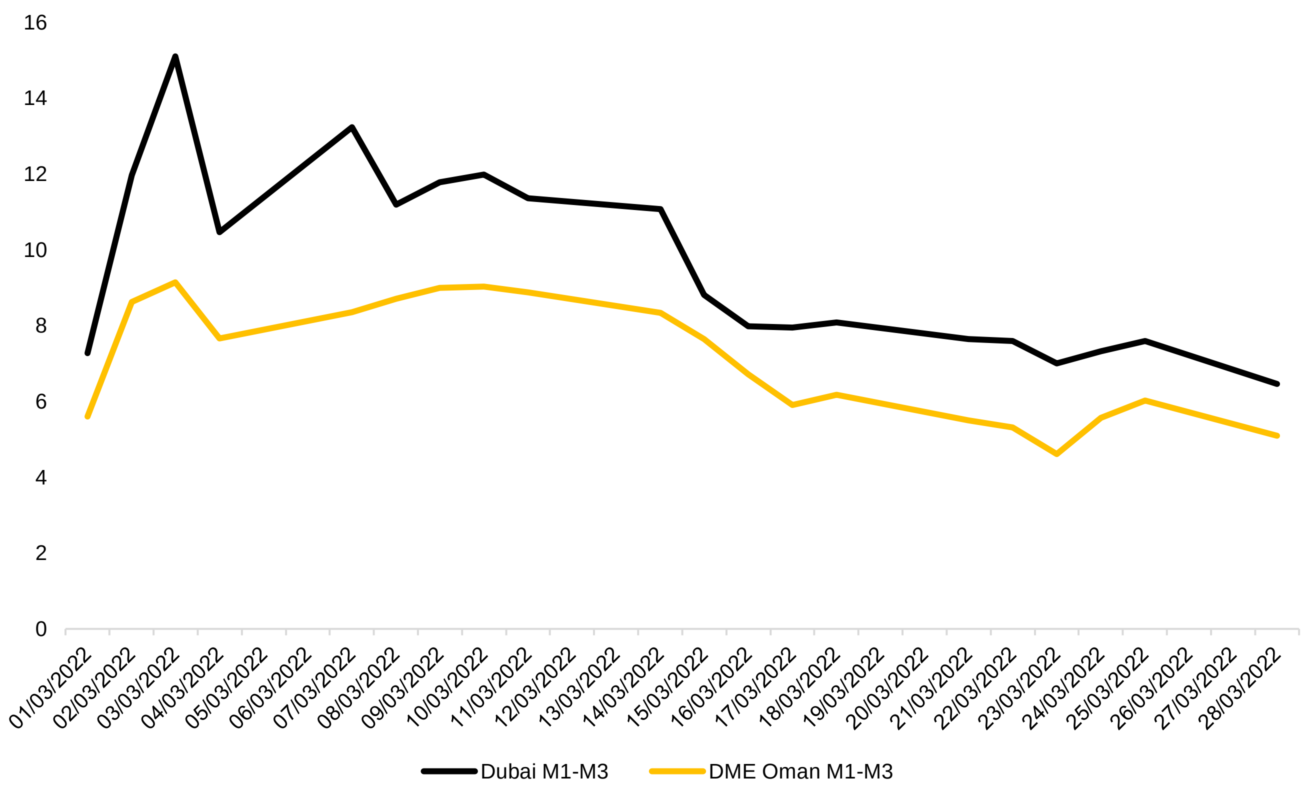
- ESPO pipeline deliveries from Russia to China remain unaffected. For seaborne ESPO, SNG have allowed buyers to receive crude without providing LCs in order to bypass sanctions risk. Throughout the March trading cycle, SNG avoided public tenders (impacting accurate valuations of spot grade assessments). There have been reports of ESPO continuing to clear in China, albeit at a slower pace, driven by lower teapot processing rates and tightening margins. Interestingly, China's difficult macroeconomic picture is also being reflected in spot trades for WAF crude where WAF differentials have not been as strong as expected.

Overall, we assess the net impact on Russia's eastern exports to be approximately 0.3m b/d, with the biggest impact to ex-equity Sokol cargoes and a small volume of seaborne ESPO. In total, REA expects around 1.4m b/d of Russian crude exports to be impacted. However, this may not translate into immediate production cuts given spare storage capacity in Russia (estimated to be between 120-160mb).

In terms of pricing, this has already had a number of important knock-on effects for Middle East pricing:

- Dubai inter-month spreads started the month at record highs (with Dubai M1-M3 reaching near US$16/b), later narrowing on the back of reduced spot demand (driven largely by demand concerns in China). A number of record OTC trades for Oman took place during early March, including Taiwan's Formosa picking up 500kb of Oman crude for May-loading at US$8/b premium to Dubai. This followed a deal by India's HPCL who purchased a May-loading cargo for US$12/b versus Dubai. Given that Indian buyers are large spot buyers of Oman, increased Urals buying has started putting pressure on Oman pricing. This is expected to accelerate into April.

Fig. 15: Dubai and DME Oman inter-month spreads (US$/b)



Source: REA, S&P Global Commodity Insights, DME

- Complexities surrounding diesel-rich ESPO have supported Murban premiums in the market, with Japanese refiners in late Feb/early Mar bidding up Murban cargoes in OTC market at premiums of US$5-6/b. With gasoil cracks in Asia expected to remain firm in April, Murban premium to Dubai is expected to continue.

- **Basrah Medium:** the higher flat price has given SOMO the ability to allocate lower volumes to equity lifters and increase the volume length to term buyers and for spot tenders. European demand for BM is proving more attractive than Asia, with refiners seeking to swap out Urals for BM (with trades heard of BM being sold at slight premium to Dated Brent). During the March cycle, SOMO also managed to sell 2mmbl to PetroChina at US$0.70/b premium to OSP.

Overall, we expect pressure to build on Dubai pricing in April and Aramco's OSP will have to weigh not only changes in Dubai/Oman spot activity in March but also the net impact of increased Urals heading to Asia, widening light-heavy differentials, the re-direction of fuel oil flows from the US to Asia and tightness in middle distillate balances (particularly in Asia).

To receive the full version of this monthly report and further insights, please contact:

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