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Russian oil tracker

Borys Dodonov, KSE Institute
Benjamin Hilgenstock, KSE Institute
Anatoliy Kravtsev, KSE Institute
Julia Pavytska, KSE Institute
Nataliia Shapoval, KSE Institute

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Summary

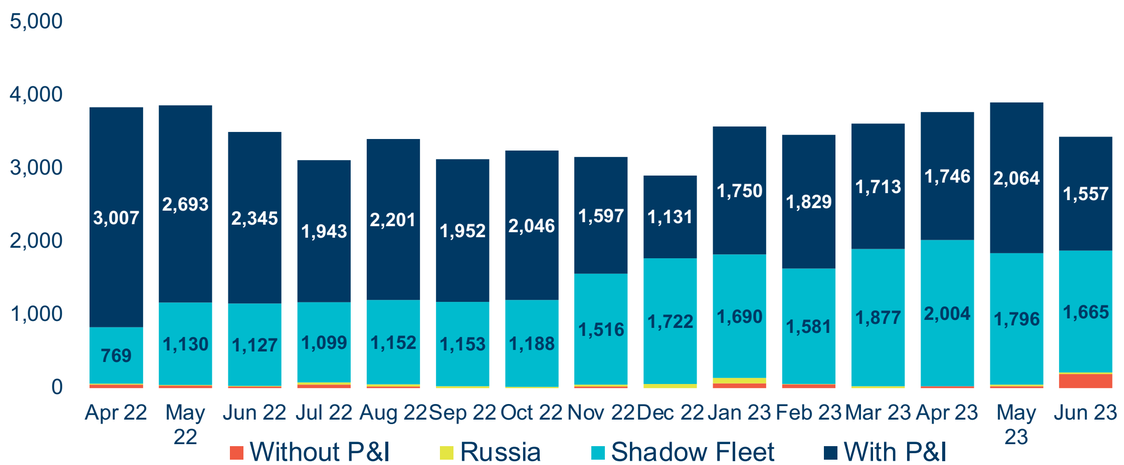
- In June 2023. total Russian oil exports decreased by around 600 kb/d (MoM) or by 300 kb/d (YoY). Despite all its efforts to boost its shadow fleet, Russian still heavily relies on Western maritime services as 45% of crude oil and 62% of oil products were shipped by tankers with P&I Club insurance in June 2023. The P&I Club insurance coverage varies by ports of shipment as 62% of crude oil exports from Black Sea ports were shipped by tankers with P&I Club insurance while only 12% of crude oil shipments from Pacific Ocean ports had P&I Club insurance in June 2023.
- The KSE Institute estimates Russian shadow fleet at 131 tankers in June 2023. 99 of these tankers were built more than 15 years ago. Operation of Russian shadow fleet poses huge environmental risks for the EU as decrepit tankers older than 15 years without P&I insurance navigate several European countries coastlines including Danish Straits. These shippers do not have capital to cover the clean-up costs in case of oil leaks near the EU coastline. In June 2023, the shadow fleet was responsible for exports of around 1.7 mb/d of crude oil and 0.8 mb/d of oil products.
- India and Turkey became the biggest buyer of Russian seaborne crude and oil products respectively after the coalition of advanced democracies refused to purchase Russian oil.
- Steep price discounts for both Russian crude and oil products continue supporting the strong demand for Russian oil exports. In June 2023, Urals and Arctic grades stayed at around $52-53/bbl and remained eligible for shipping with P&I insurance. In December 2022-June 2023 ESPO was shipped with Western maritime services at prices much above the price cap indicating weak policy enforcement. Although the involvement of Western companies in crude oil shipments from Pacific ports further declined in June. Both premium and discounted oil product prices remained below the price caps in June.
- Russian oil export revenues decreased by $1.5 bn to $11.8 bn in June due to lower volumes exports. According to the KSE Institute estimates, in the base case with current oil price caps and status quo of sanctions but their stronger enforcement, revenues will contract to $153 bn and $144 bn in 2023 and 2024 respectively compared to $218 bn in 2022. If the price cap is lowered to US$ 50/bbl discount to forecast Brent prices, revenues fall to just $114 bn and $64 bn in 2023 and 2024. However, in case of weak sanctions enforcement, Russian oil revenues could approach a robust $175 bn and $188 bn in 2023 and 2024 respectively.

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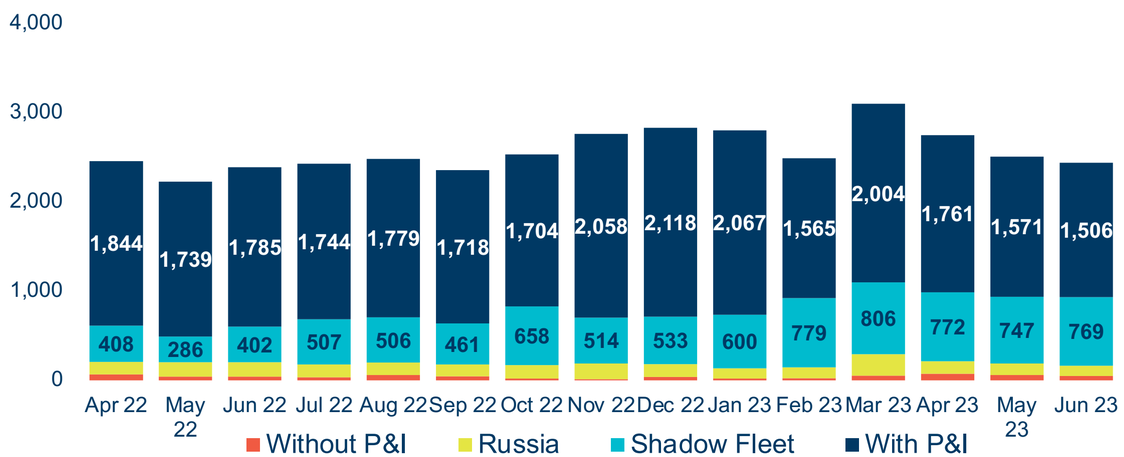
Russian seaborne oil exports volumes appeared to be resilient to sanctions although Russia continues relying on Western maritime services

- Russian seaborne oil exports volumes appeared to be resilient to sanctions since the invasion
- In June 2023 exports of crude oil and oil products by sea decreased by 542 kb/d (MoM) but still exceeded the pre-invasion level
- In June 2023 the shipment of seaborne crude oil decreased by 12.1% (MoM) and by 1.9 (YoY). The exports of oil products decreased by 2.8% (MoM) but increased by 2.1% (YoY).
- Despite all its efforts of boosting shadow fleet, Russian still heavily relies on Western maritime services as 45% of crude oil and 62% of oil products were shipped by tankers with P&I Club insurance

Russian seaborne crude oil exports, kb/d



Exports of Russian oil products, kb/d



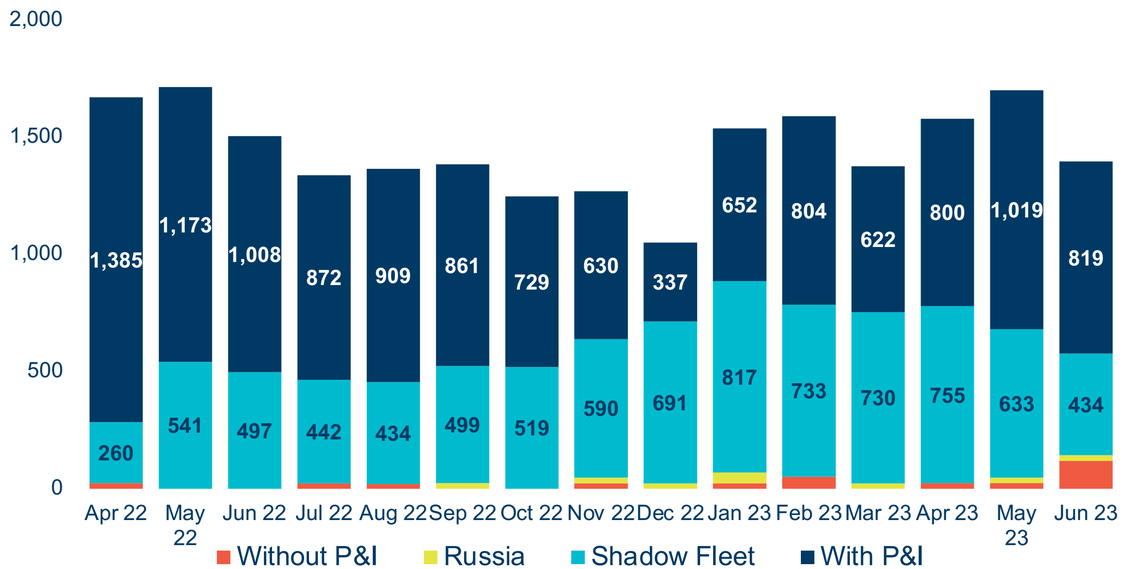
Source: Equasis, P&I Club webpage, KSE Institute estimates

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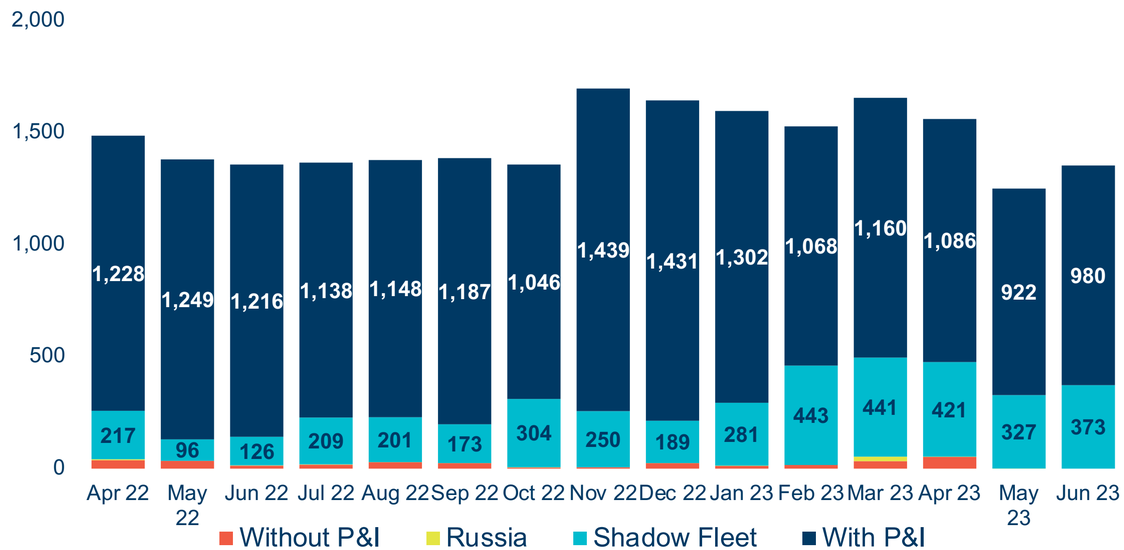
65% of crude oil & oil products were shipped by tankers with P&I Club insurance from Baltic Sea ports in June 2023

- In June 2023 the exports of crude oil from Baltic ports decreased by 17.8% (MoM) and by 7.2% (YoY).
- The exports of oil products from Baltic ports increased by 8.3% (MoM) but increased by 0.4% (YoY).
- 59% of crude oil and 72% of oil products were shipped by tankers with P&I Club insurance

Russian crude oil exports from Baltic Sea ports, kb/d



Exports of Russian oil products from Baltic Sea ports, kb/d



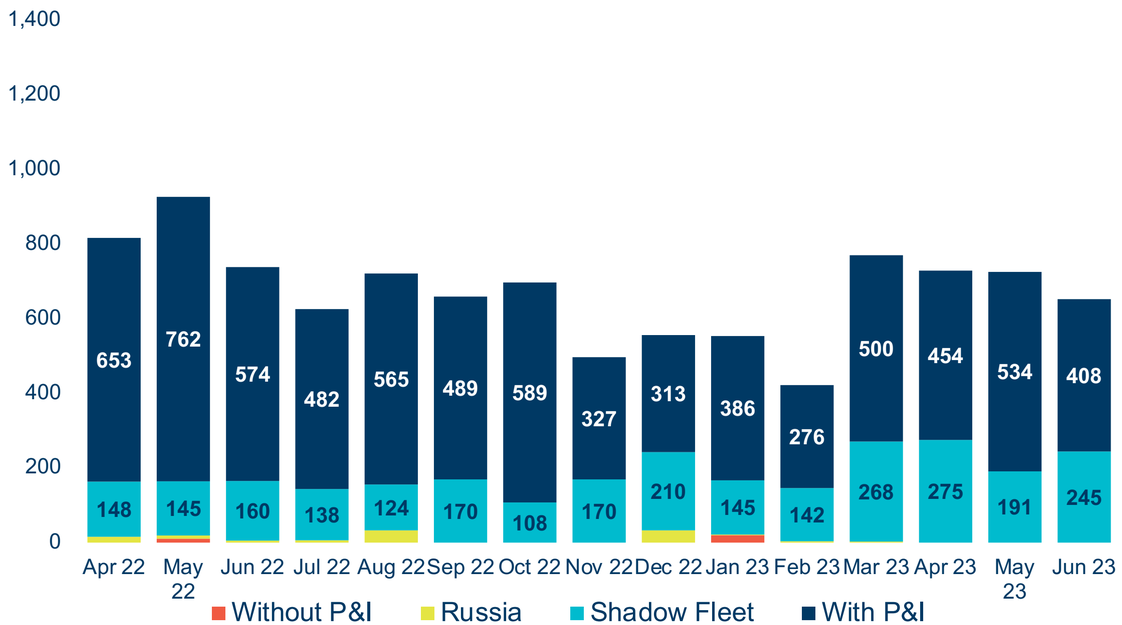
Source: Equasis, P&I Club webpage, KSE Institute estimates

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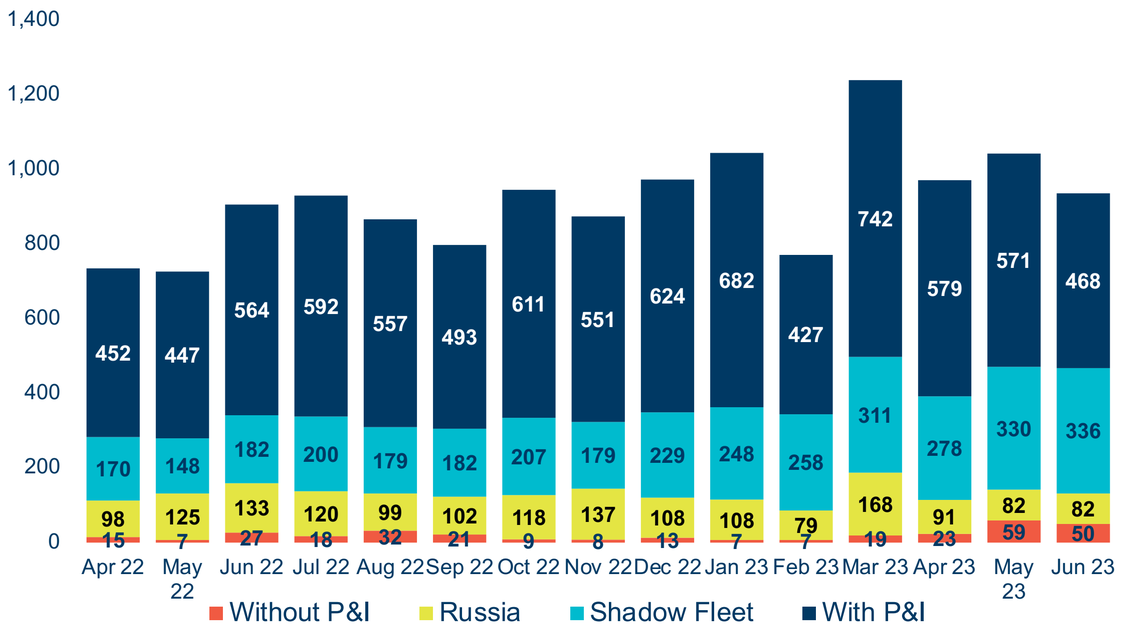
55% of crude oil & oil products were shipped by tankers with P&I Club insurance from Black Sea ports in June 2023

- In June 2023 the exports of crude oil from Black Sea ports decreased by 10.0% (MoM) and by 11.7% (YoY).
- The exports of oil products from Black Sea ports decreased by 10.2% (MoM) but increased by 3.3% (YoY).
- 62% of crude oil and 50% of oil products were shipped by tankers with P&I Club insurance

Russian crude oil exports from Black Sea ports, kb/d



Exports of Russian oil products from Black Sea ports, kb/d



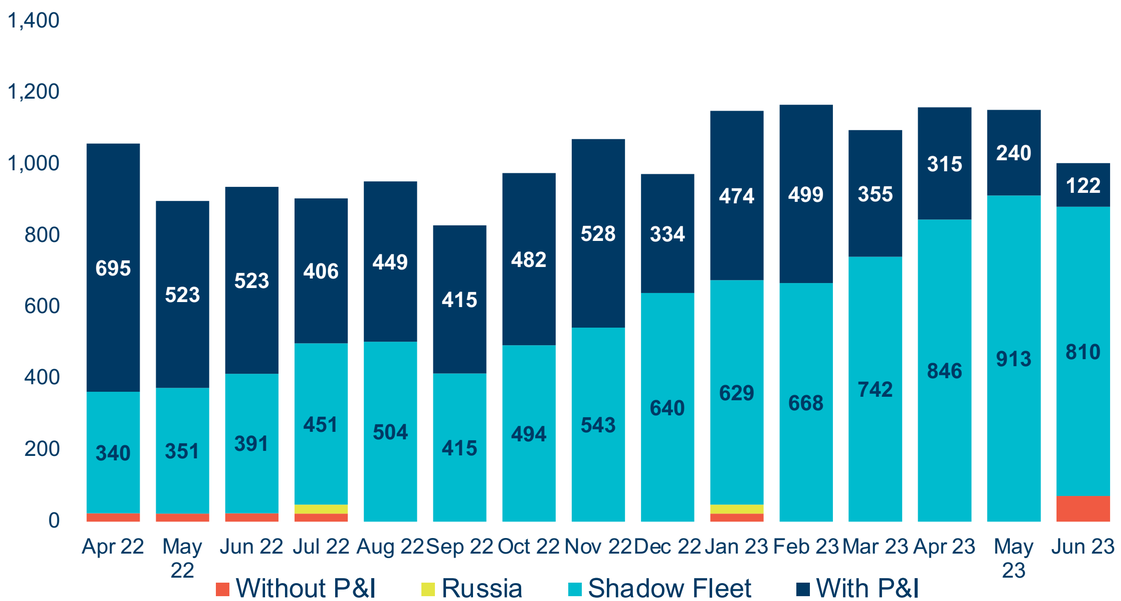
Source: Equasis, P&I Club webpage, KSE Institute estimates

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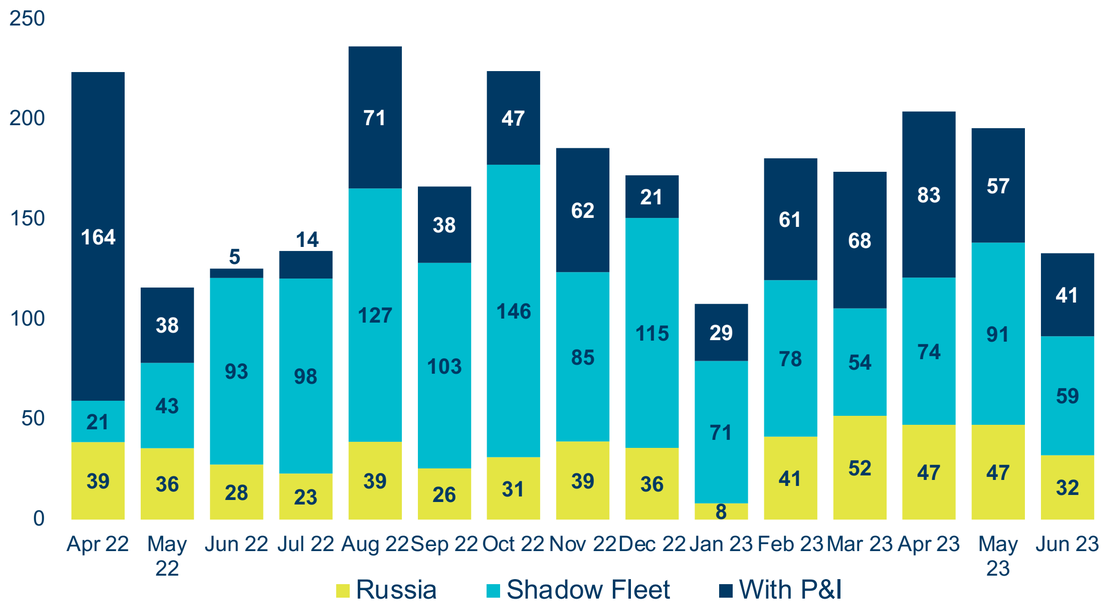
14% of crude oil & oil products were shipped by tankers with P&I Club insurance from Pacific Ocean ports in June 2023

- In June 2023 the exports of crude oil from Pacific Ocean ports decreased by 13.0% (MoM) but increased by 7.1% (YoY)
- The exports of oil products from Pacific Ocean ports decreased by 31.9% (MoM) but increased by 6.1% (YoY)
- Only 12% of crude oil and 31% of oil products were shipped by tankers with P&I Club insurance in June 2023

Russian crude oil exports from Pacific Ocean ports, kb/d



Exports of Russian oil products from Pacific Ocean ports, kb/d



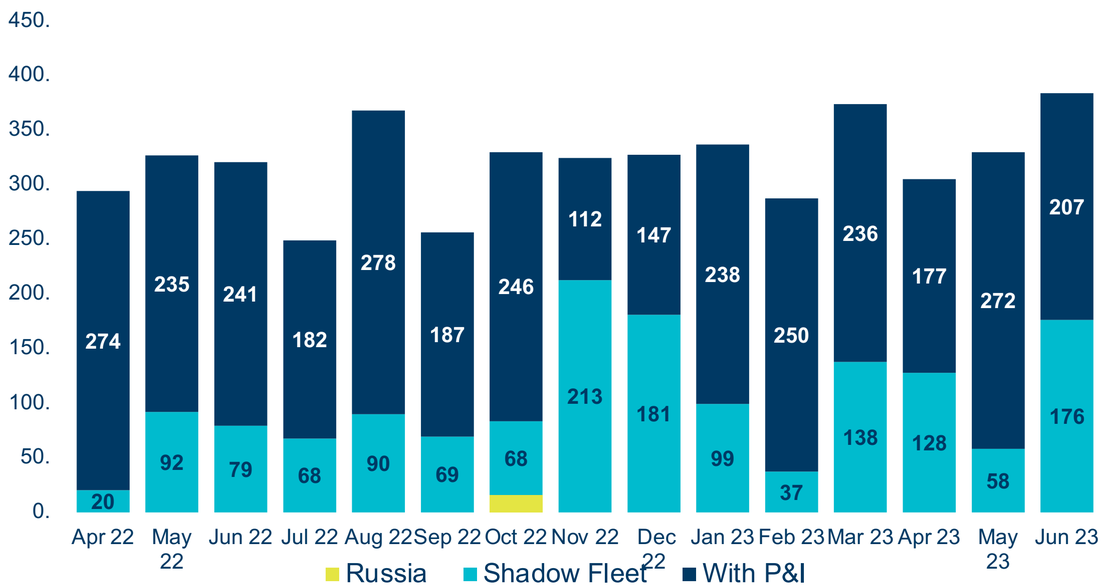
Source: Equasis, P&I Club webpage, KSE Institute estimates

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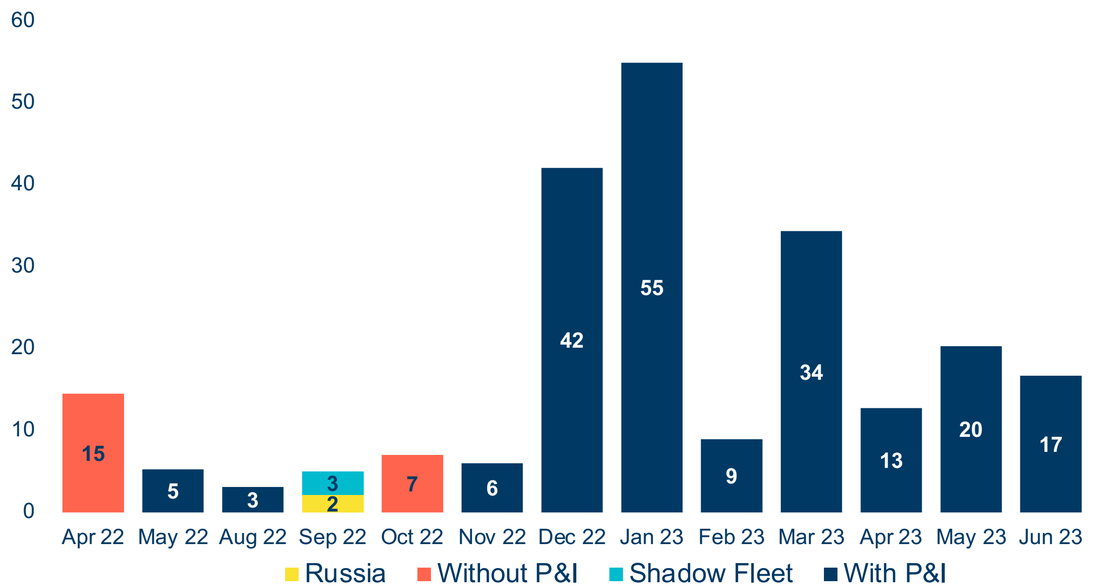
58% of crude oil and oil products were shipped by tankers with P&I Club insurance from Arctic Ocean ports in June 2023

- In June 2023 the exports of crude oil from Arctic Ocean ports increased by 16.3% (MoM) and by 19.7% (YoY)
- The exports of oil products from Arctic Ocean is insignificant as Russia ships predominantly crude from these ports.
- 54% of crude oil was shipped by tankers with P&I Club insurance in June 2023

Russian crude oil exports from Arctic Ocean ports, kb/d



Exports of Russian oil products from Arctic Ocean ports, kb/d



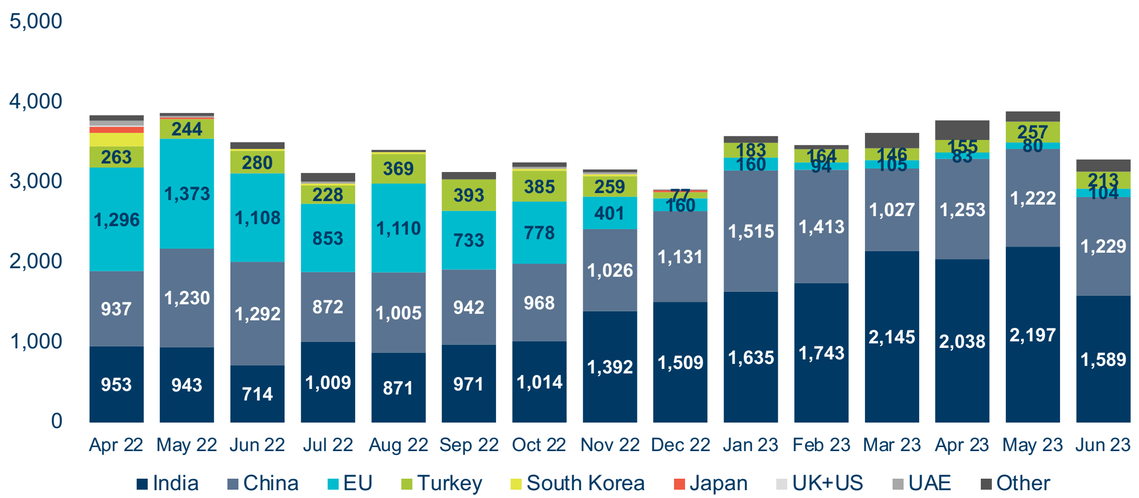
Source: Equasis, P&I Club webpage, KSE Institute estimates

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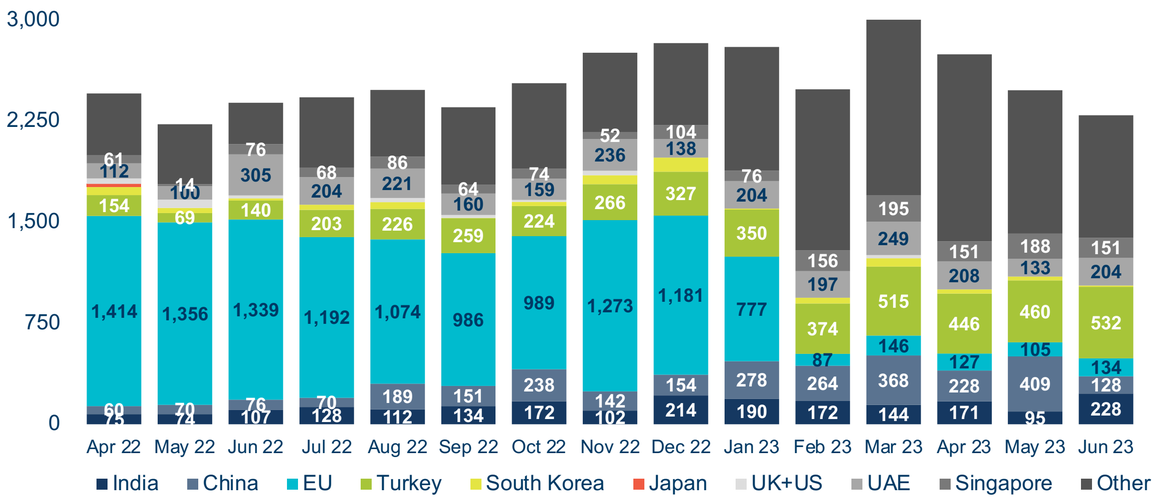
India became the biggest buyer of Russian seaborne crude while Turkey became the biggest importer of oil products after the coalition of advanced democracies refused to purchase Russian oil

- In June 2023 the share of the EU in Russian crude exports decreased to just 3% from 34% (YoY) as only Bulgaria is eligible for seaborne oil imports from Russia after EU's embargo came into effect in December 2022
- In June 2023 the share of the EU in Russian oil products exports increased by 6% (MoM) but decreased from 58% to 10% (YoY) after EU's embargo on oil products came into effect in February 2023
- India became the biggest buyer of Russian seaborne crude after Ukrainian allies refused from its purchases. Its share in Russian crude oil exports increased from around 2% before Russia's invasion to 57% and 48% in May and June* 2023
- Altogether India, China and Turkey were responsible for 95% and 92% of Russian crude oil exports in May and June* respectively
- Although Turkey decreases crude oil imports from Russia since December 2022, it increased oil products imports from Russia to 532 kb/d or by 281% (YoY) in June becoming the biggest importer of Russian origin oil products
- Russia also managed to increase oil products exports to UAE, China, India and Singapore to replace the loss of its traditional European market

Russian seaborne crude oil exports by country, kb/d



Russian oil products exports by country, kb/d



**Note: the distanations for some shipments in June were not yet known as of the end of July*

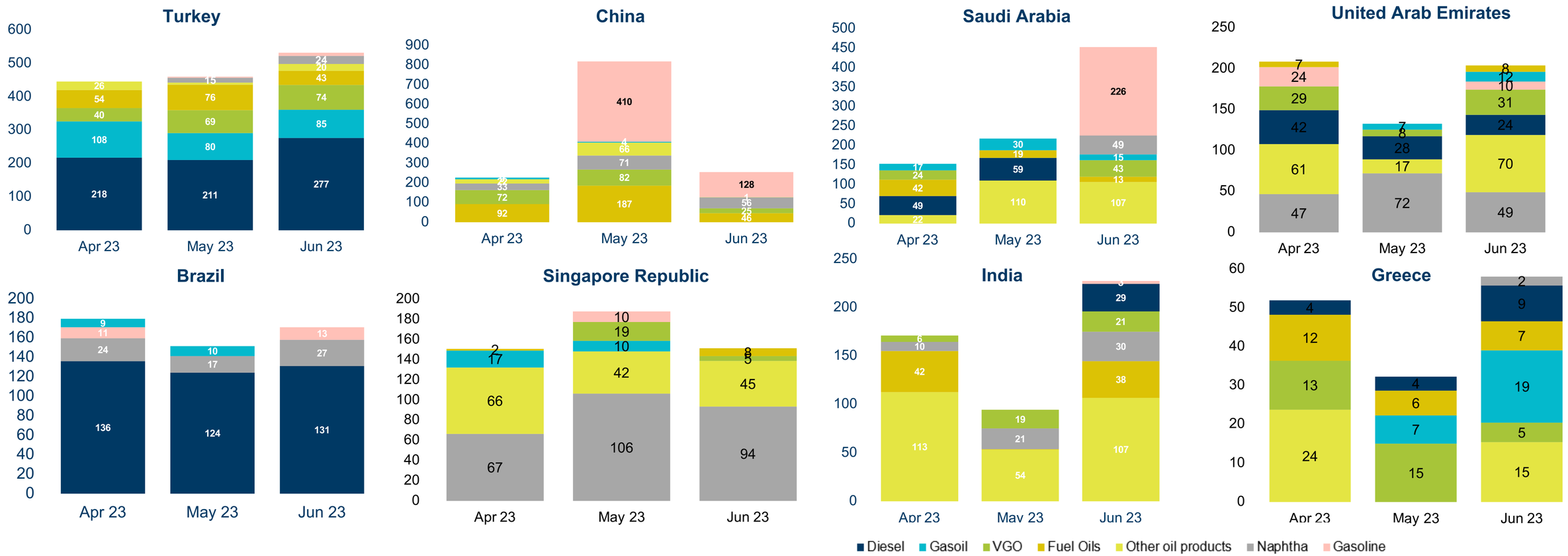
Source: KSE Institute estimates

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Leading producers are maximizing refining profits by importing record volumes of cheap Russian oil products and shipping products to other desinations

- Turkey's product imports reached an all-time high of 532 kb/d from which diesel accounted for 52% in June 2023
- Saudi Arabia, UAE, India imported over 200 kb/d while China sharply cut its Russian oil products imports from 410 kb/d to 128 kb/d
- Despite having no derogation for Russian oil imports, Greece unloaded 58 kb/d estimated at $104 m at discounted Russian product prices, which may may signal for breach of embargo

Top 10 importers of Russian oil products, kb/d



**Note: the distanations for some shipments in June were not yet known as of the end of July*

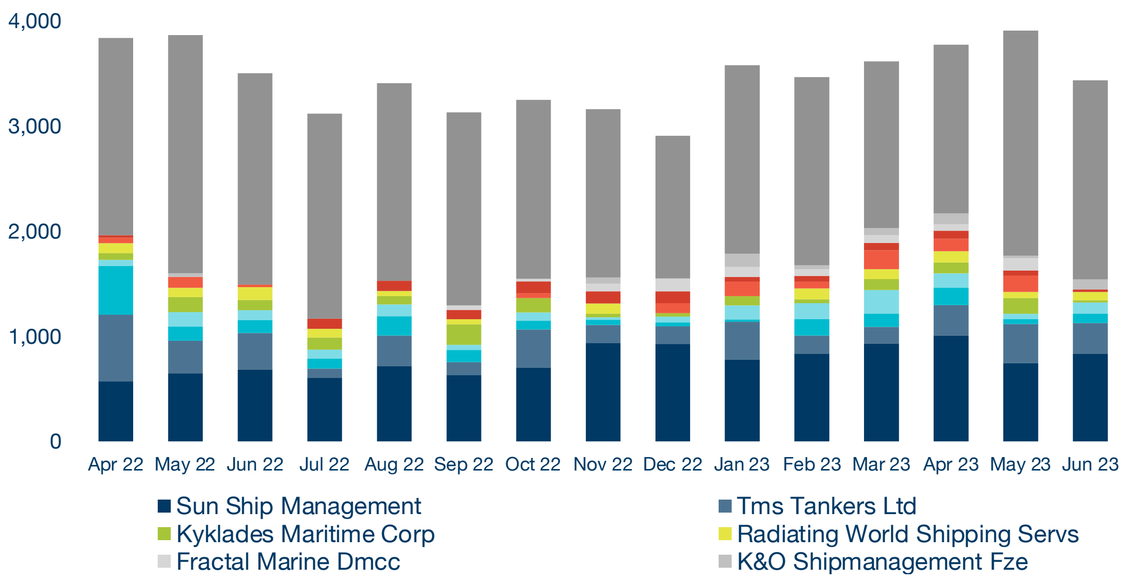
Source: KSE Institute estimates

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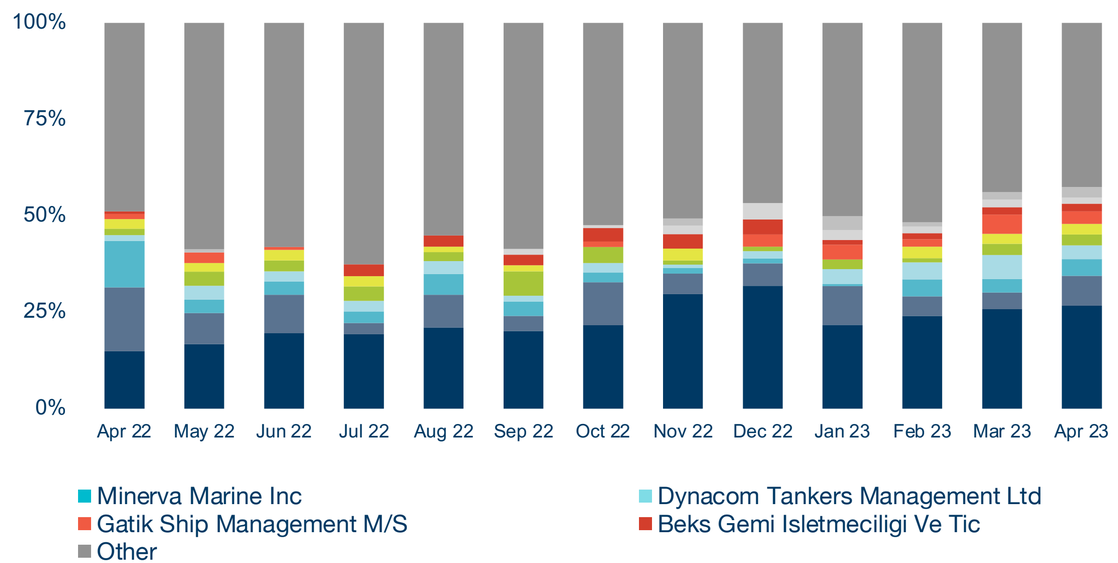
Sun Ship Management retains the leader position in Russian crude shipments while the four consecutive providers of freight services to Russia are Greek-owned companies

- Affiliated with sanctioned Sovkomflot Sun Ship Management retains the leader position in Russian crude shipments as it share increased by 5% to 24% (MoM) or 4% (YoY0 in June
- From nine other top Russian crude shippers six are registered in Greece, two other are in the UAE, and ranked #9 Güngen Denizcilik is registered in Turkey
- The emerged from nowhere company with non-transparent owners' structure Gatik Ship Management and Fractal Marine registered in OEA and India respectively were responsible for 7% of Russian crude shipments in May but halted all shipments after the sanctions for price cap violation by Gatik came into effect

Russian crude oil exports by shipowners, kb/d



Russian crude oil exports by shipowners, %



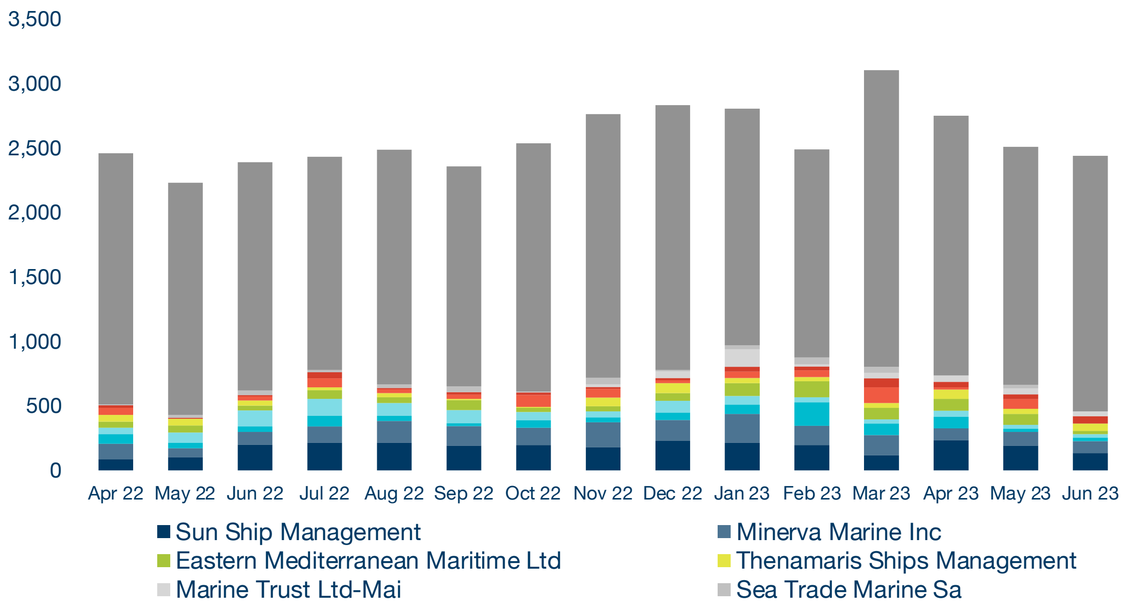
Source: KSE Institute estimates

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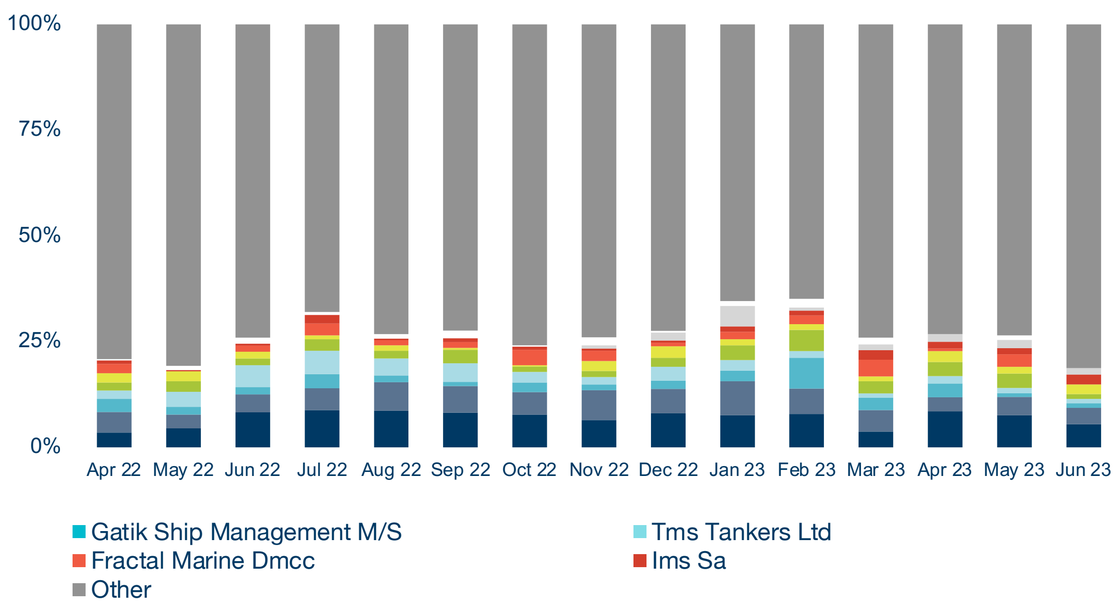
Sun Ship Management is the leader in Russian oil products shipments while Gatik Ship Management moved out from the market

- Sun Ship Management was the leader in Russian oil products shipments though it share decreased by 3% to 7% (MoM) in June
- Turkish Beks moved to a third place of biggest Russian oil products shippers while Greek-owned companies held the second and fourth to seventh positions
- Another two companies from Russian shadow fleet Gatik Ship Management and Fractal Marine ranked third and fifth in oil products shipping in April decreased their shipments more than four times over April. The latter did not make any shipments at all in June

Russian oil products exports by shipowners, kb/d



Russian oil products exports by shipowners, %



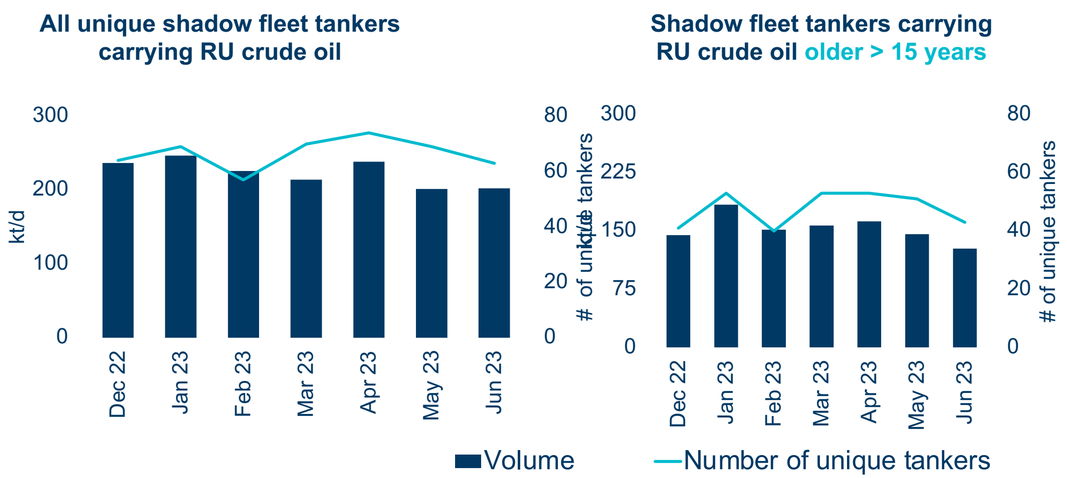
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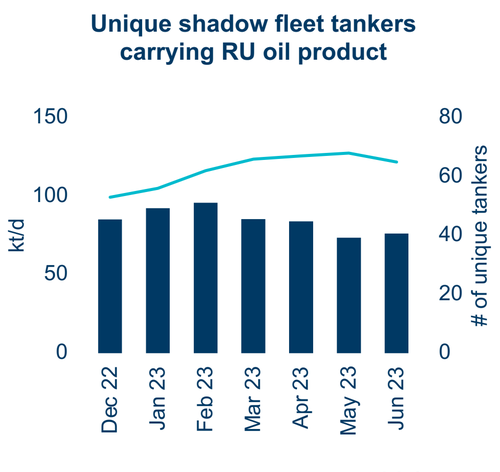
The number of Russian shadow fleet tankers carrying crude and oil products from Russian ports is estimated at 128 vessels in June 2023

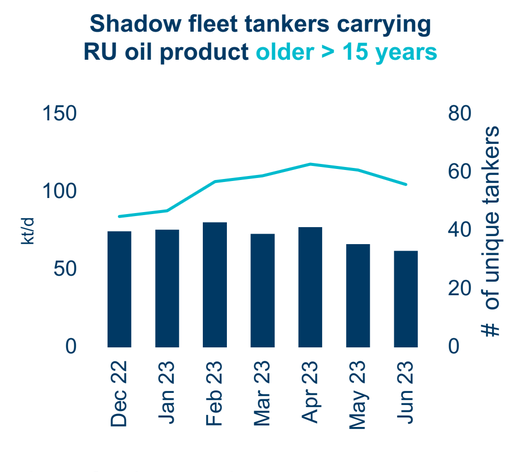
- Russian oil exporters decreased the number of shadow fleet tankers carrying crude from Russian ports to 63 in June 2023 while 68% of them were older than 15 years
- The number of shadow fleet tankers carrying Russian oil products from Russian ports decreased to 65 in April 2023 while 86% of them were older than 15 years
- Having moved into the shadow, the tankers are not likely to be properly maintained and operated increasing the probability of environment catastrophe for which Russia will refuse to pay

Crude oil



Oil products



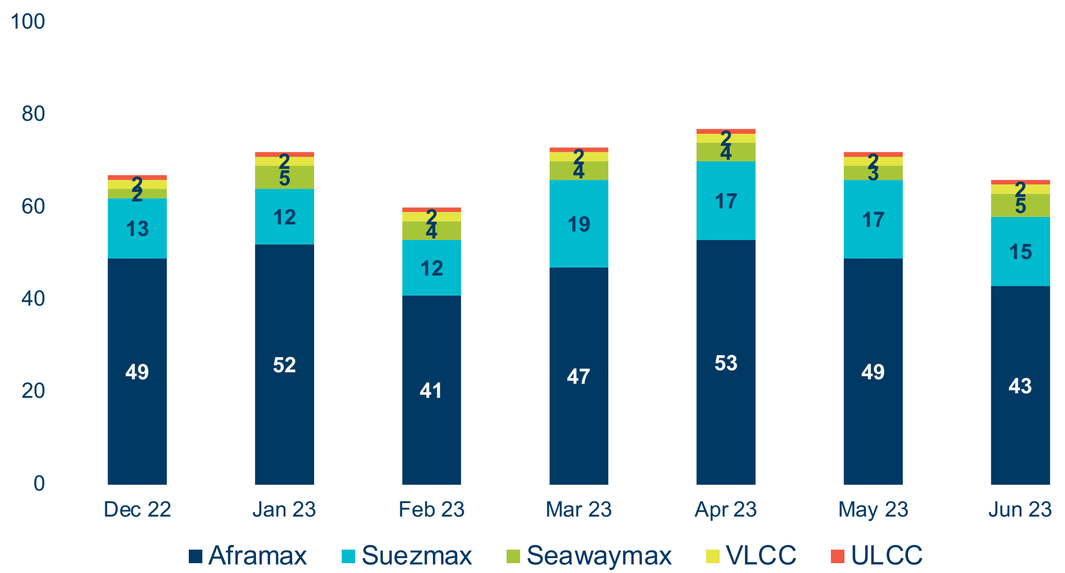


Source: Equasis, P&I Club webpage, KSE Institute estimates

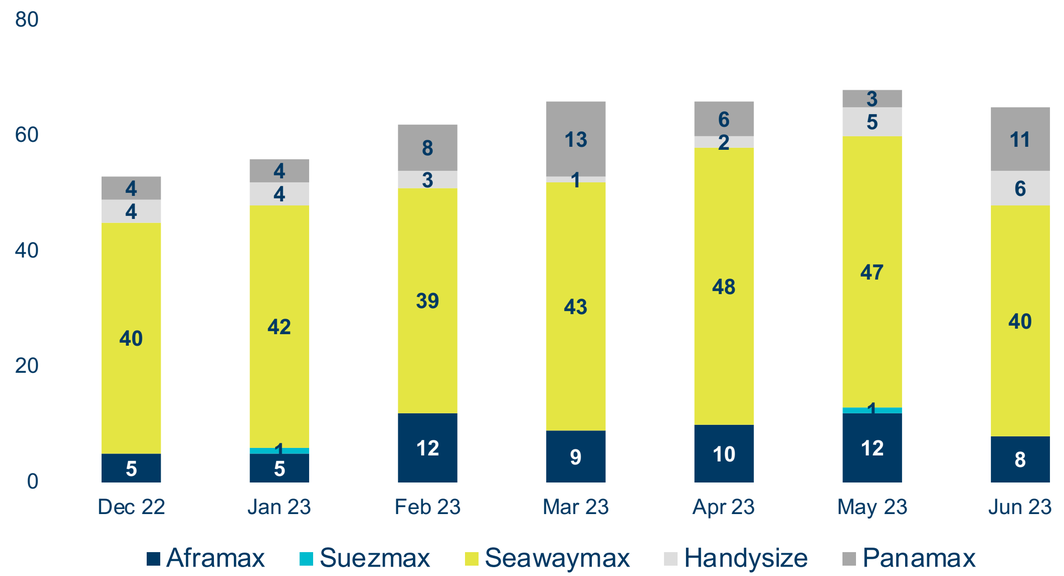
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Aframax and Suezmax are the core of Russian shadow fleet carrying crude while Seawaymax, Panamax and Aframax forms the Russian shadow fleet carrying oil products. Total Russian shadow fleet carrying oil and oil products from Russian ports and involved in STS transfers decreased by 9 tankers to 131 (MoM) in June 2023

Structure of Russian shadow fleet carrying crude oil, number of unique tankers



Structure of Russian shadow fleet tankers carrying oil products, number of unique tankers



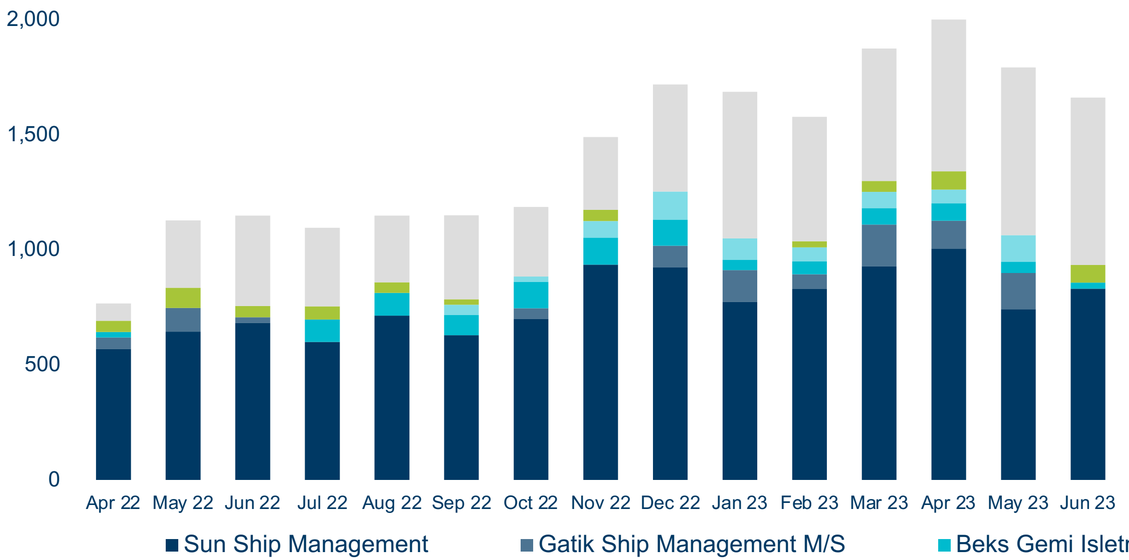
Source: Equasis, P&I Club webpage, KSE Institute estimates

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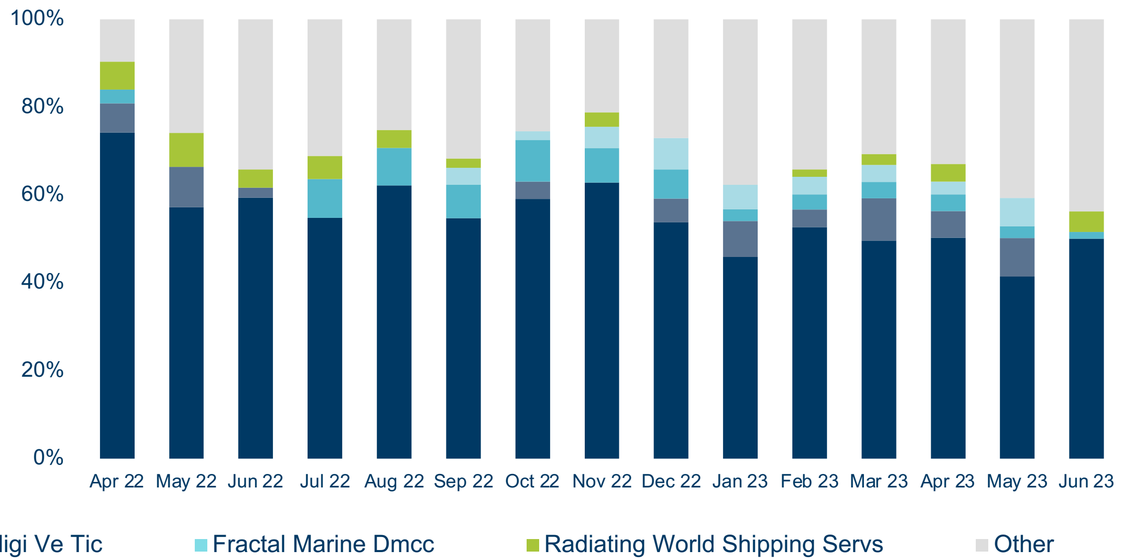
The decline of Russia crude oil exports by shadow fleet was flatter than overall crude exports one

- Russian crude oil exports by shadow fleet decreased by around 131 kb/d to 1665 kb/d but its share in total shipments increased by 2% to 48% (MoM)
- Sun Ship Management share in crude oil shipments by shadow fleet declined from 59% to 50% (YoY)
- Gatik Ship Management and Fractal Marine did not make any crude shipments in June while Radiating World Shipping Servs boosted its Russian crude oil shipments from zero to 77 kb/d (MoM)

Russian crude oil exports by shadow fleet, kb/d



Structure of Russian crude oil exports by shadow fleet, %



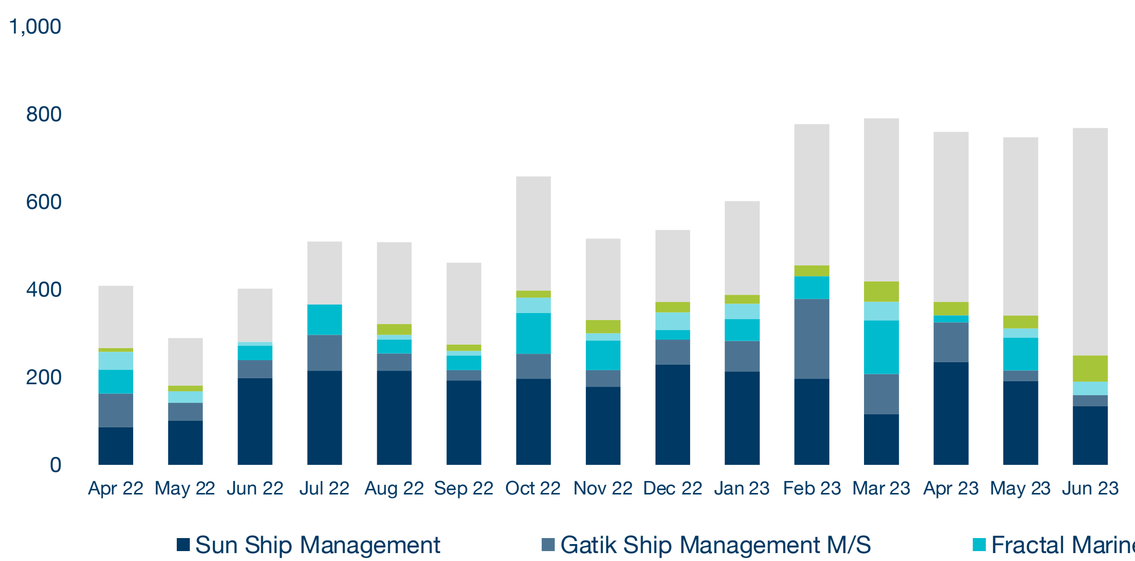
Source: KSE Institute estimates

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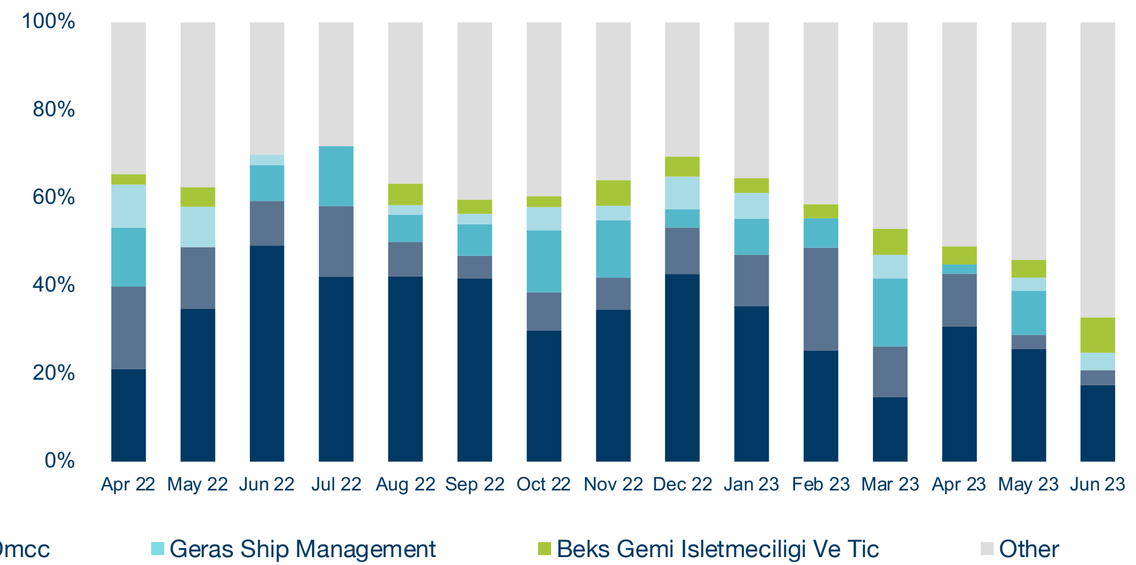
Russia oil products exports by shadow fleet was flat in June (MoM)

- Russia shipped 768 kb/d or around 31% of its oil products exports by shadow fleet in June
- Both total oil products shipments and share of shipments by shadow fleet were stable in June (MoM)
- In June 2023, Sun Ship Management share in oil products shipments by by shadow fleet declined by 9% to 17% (MoM)

Russian oil products exports by shadow fleet, kb/d



Structure of Russian oil products exports by shadow fleet, %



Sun Ship Management | Gatik Ship Management M/S | Fractal Marine Dmcc | Geras Ship Management | Beks Gemi Isletmeciligi Ve Tic | Other

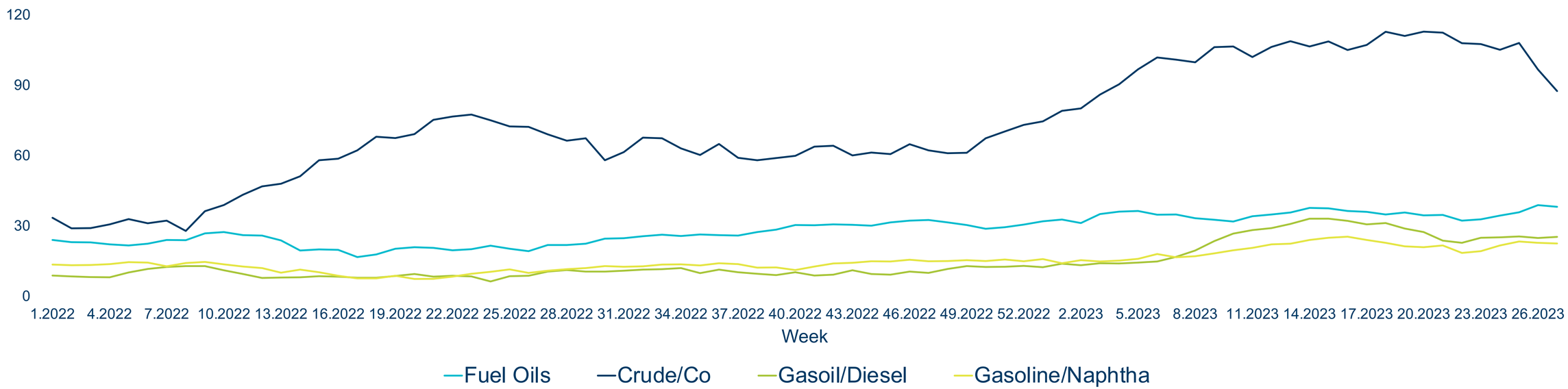
Source: KSE Institute estimates

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Rerouting of Russian crude and oil products to new destinations increased Russian oil on water by around 110 mb compared to the pre-invasion average

- Rerouting of Russian crude and oil products to new destinations have significantly increased Russian oil on water
- At the end of June, the amount of Russian oil on water was around 110 mb higher the pre-invasion average
- Although the amounts of Russian crude and diesel on water decreased in June compared to their peaks after the introduction of oil embargo by the EU, their amounts were more than threefold higher compared to January 2022
- The amount of fuel oils on water increased by around a quarter while the amount of gasoline and naphtha by around a half compared to pre-invasion level

Russian oil on water, mb, average per week



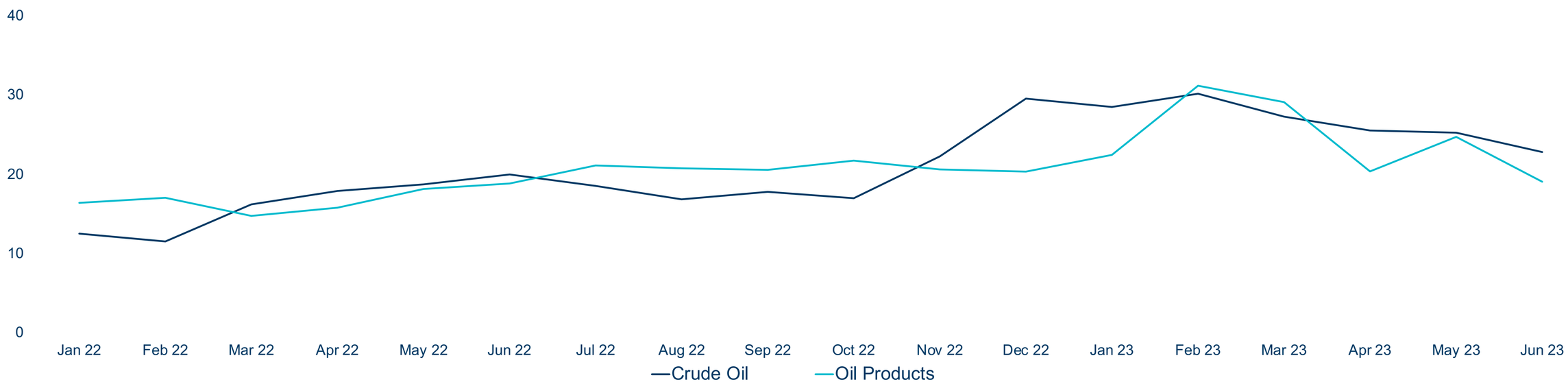
Source: KSE Institute estimates

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Average transit days of crude and oil products increased by 97% and 12% respectively compared to the pre-invasion average

- Rerouting crude oil from Europe to mostly India and China increased the average transit days for crude oil from 12 in February 2022 to 30 in February 2023. In June 2023 the figure declined 23 due to lower crude imports by India
- The average transit days for oil products increased from 17 in February 2022 to 31 in February 2023 but declined to 19 in June due to increased exports to Turkey and the Middle East and decrease to destinations located at long distance from Russia

Monthly average transit days of crude oil and oil products from Russia



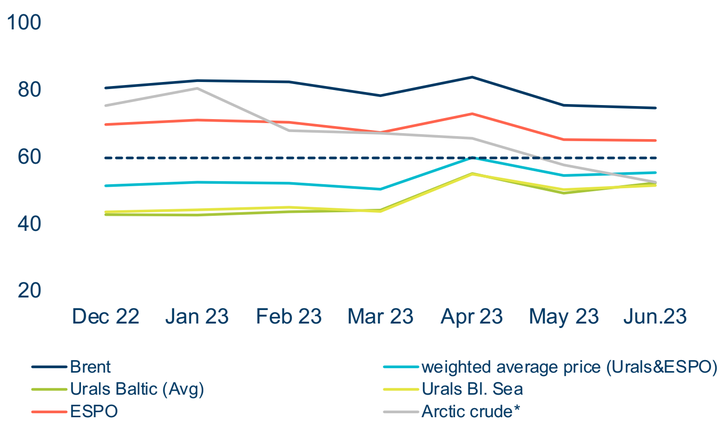
Source: KSE Institute estimates

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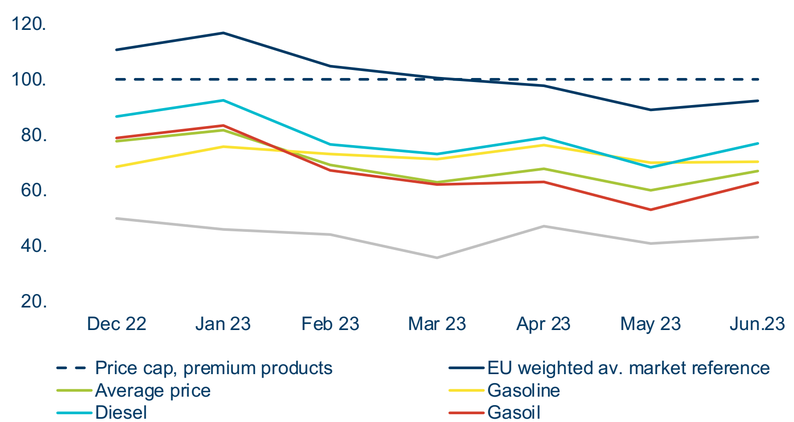
In June 2023, Urals increased by around $1-3/bbl to around $51-53/bbl and remained eligible for shipping with P&I insurance. In December-June 2023 ESPO shipped with Western maritime services at prices much above the price cap. In December 2022-June 2023, both premium and discounted oil product prices remained below the price caps

- In June 2023, Urals FOB Baltic and Black Sea increased by around 3/bbl and $1/bbl respectively to $52.6 /bbl and $51.8/bbl respectively. On the contrary, the average price for Arctic grades declined by around $5/bbl to $52.8/bbl. However, all three grades remained eligible for EU maritime services
- ESPO decreased by $0.2/bbl to $65.2/bbl remaining ineligible for Western maritime service in June. Only 12% of crude shipments were made by tankers with P&I Club insurance in June 2023 compared to 41% in January 23 when price cap regulation came in full effect.
- Prices for Russian diesel increased by around $8.6/bbl to around $23/bbl below price cap. The price of gasoline remains basically intact while gasoil price increased by around $10/bbl to $62.8/bbl (MoM) The price of VGO was almost 2.3 times lower than approved price cap of $100/bbl
- Price for fuel oil increased to around $36.4/bbl while price for naphtha decreased to $33.0/bbl remaining far below than the approved price cap for discounted products at $45/bbl
- Steep price discounts for both Russian crude and oil products continue supporting the strong demand for Russian oil exports

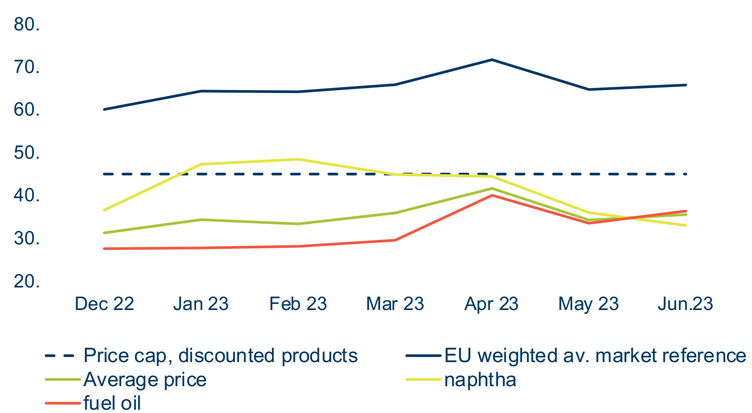
Russian Crude FOB Export Prices



Russian Premium Products FOB Export Prices



Russian Discounted Products FOB Export Prices



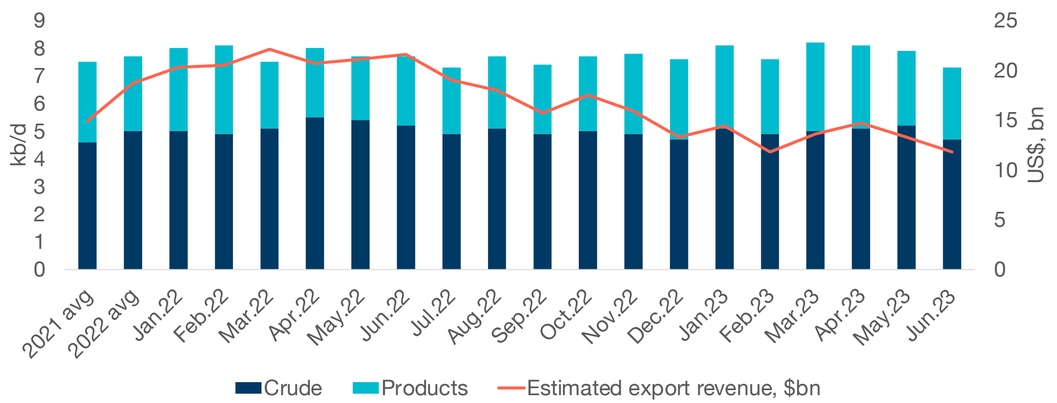
Source: IEA, *KSE Institute estimates

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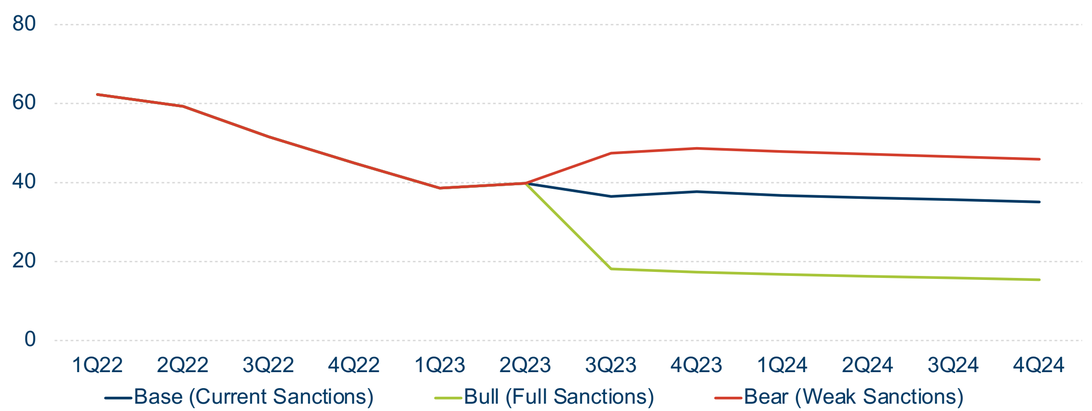
In June 2023 Russian oil export revenues were 45% lower than a year ago (YoY). KSE Institute projects that revenues will contract to $153 bn and $144 bn in 2023 and 2024 respectively in the base case compared to $218 bn in 2022 but the scenario outcome is sensitive to sanctions enforcement

- Although volumes of Russian oil exports remained stable since the invasion as it was able to redirect exports to other markets proposing steep discounts, the decline in the world oil prices and steep discount on Russian oil resulted in a sharp fall in Russian oil revenues in 2023. According to the KSE estimates, as of June 2023 widening the discounts on Russian crude and products cost Russia $96 bn in foregone export revenues since the invasion.
- Russian oil export revenues decreased by $1.5 bn to $11.8 bn in June (MoM) due to lower crude volumes exports. Total export revenues were 45% lower than a year ago compared with a 37% YoY decline in May. However, Russian oil exports revenues are projected to recover by around $2.0 bn In July due to increased world oil prices and narrowing discount on Russian main export grade Urals over Brent.
- According to the KSE Institute estimation, in the base case with current oil price caps and status quo of sanctions but their stronger enforcement, revenues will contract to $153 bn and $144 bn in 2023 and 2024 respectively compared to $218 bn in 2022. Total Russian oil exports goes down to 7.0 mb/d in this scenario.
- In the bull sanctions case, with lower price cap equivalent to $50/bbl discount to forecast Brent prices, revenues fall to just $114 bn and $64 bn in 2023 and 2024 respectively. Total Russian oil exports goes down to 5.2 mb/d in this scenario.
- In the bear case, with US$ 10/bbl discount to forecast Brent prices, and less decline in oil export volumes, revenues fall but remain a robust $175 bn and $188 bn in 2023 and 2024 respectively. Total Russian oil exports goes down to only to 7.4 mb/d in this scenario.

Russian Oil Exports and Revenues, kb/d, US$ bn



Russian Oil Earnings by Scenarios, US$ bn



Source: IEA, KSE Institute estimates

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In June 2023 total number of recorded STS transfers of Russian oil without P&I Club insurance decreased to 29 or by 60%. The 58% of STS transfers in the Black Sea and 100% in Pacific Ocean were made without P&I insurance

Recorded Ship-to-Ship Transfers (STS) in March-June 2023

STS Area	March				April				May				June			
	Voyages		DWT (kt)		Voyages		DWT (kt)		Voyages		DWT (kt)		Voyages		DWT (kt)	
	Total	Without P&I	Total	Without P&I	Total	Without P&I	Total	Without P&I	Total	Without P&I	Total	Without P&I	Total	Without P&I	Total	Without P&I
Aegean Sea	27	6	2,177	507	22	11	2,449	1,213	17	5	1,330	402	24	6	1,994	427
Alboran Sea	3	2	327	213	-	-	-	-	-	-	-	-	-	-	-	-
Red Sea	1	-	50	-	4	1	400	115	-	-	-	-	-	-	-	-
UK Coast & Atlantic	6	-	590	-	3	2	286	211	2	1	220	105	4	1	130	27
Barents Sea	1	-	157	-	-	-	-	-	2	2	40	40	2	1	179	20
Black Sea	8	6	348	83	12	11	292	140	32	27	975	516	19	11	573	165
CIS Pacific	4	4	128	128	5	3	478	214	6	6	120	120	5	5	99	99
East China Sea	1	1	102	102	-	-	-	-	7	6	770	620	4	4	414	414
Gulf of Guinea	-	-	-	-	1	-	115	-	1	-	46	-	-	-	-	-
Mediterranean Sea													2	-	100	-
Singapore Area	3	-	300	-	5	2	597	220	2	1	93	47	1	1	47	47
Total	**54**	**19**	**4,179**	**1,032**	**52**	**30**	**4,616**	**2,113**	**69**	**48**	**3,593**	**1,850**	**61**	**29**	**3,535**	**1,198**

- In June 2023 total number of recorded STS transfers of Russian oil decreased by 12% to 61 while the number of STS transfers of oil shipped from Russian ports without P&I Club insurance declined to 29 or by 40%
- The number of STS transfers in the Black Sea decreased by 41% to 19 in June (MoM) and the region ceded the leadership by this indicator back to the Aegean Sea. The 58% of transfers in the former region were made without P&I insurance compared to just a quarter in latter one
- All nine transfers in the Pacific Ocean were made without P&I insurance

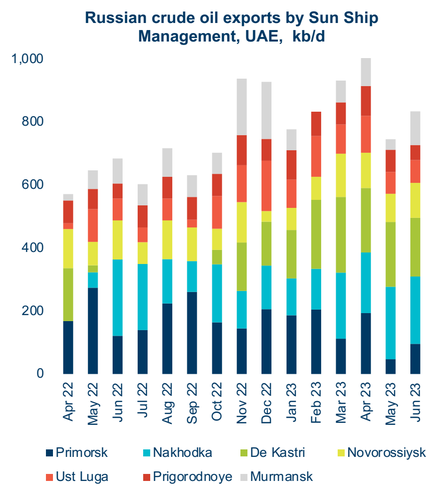
Source: Maritime Traffic, KSE Institute estimates

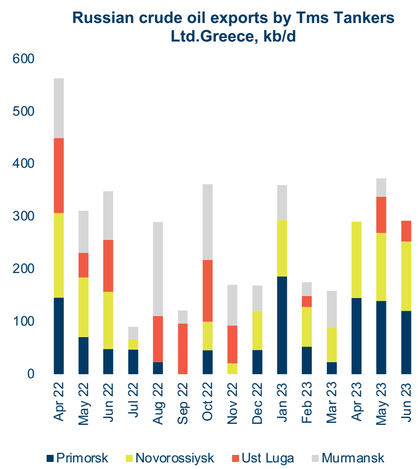
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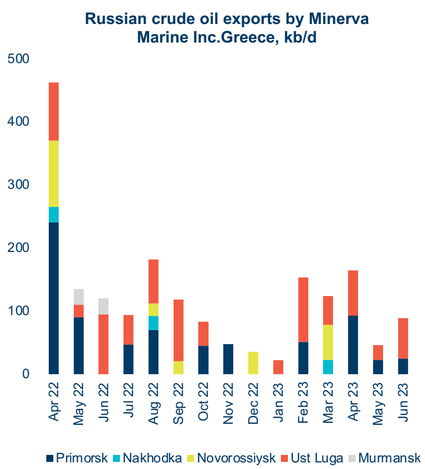
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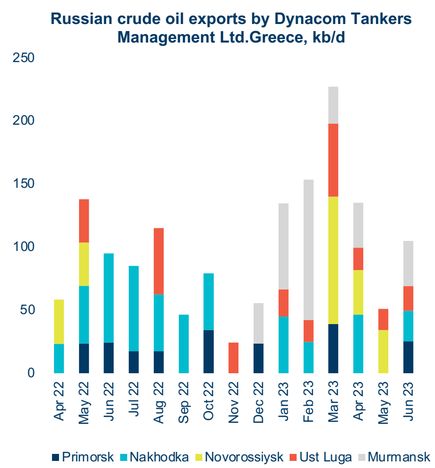
Top shipping services providers for Russian crude oil and oil products

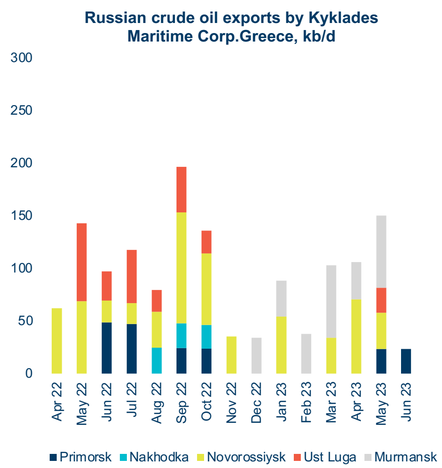
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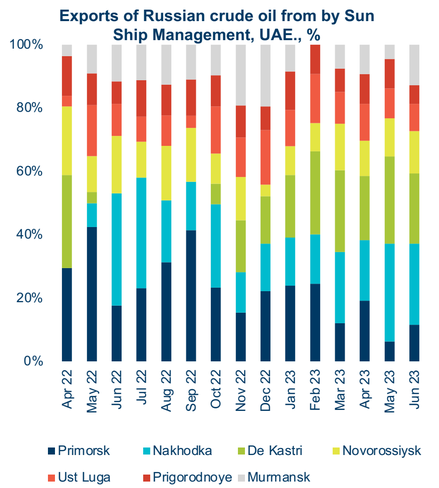


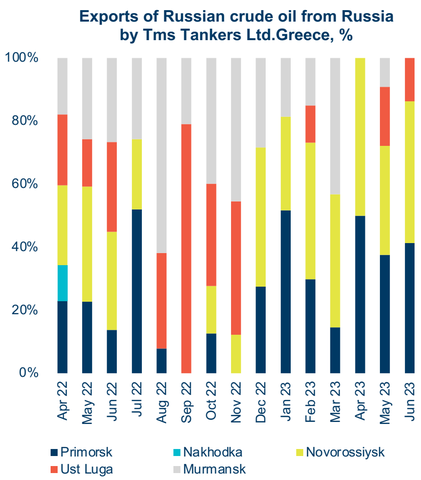


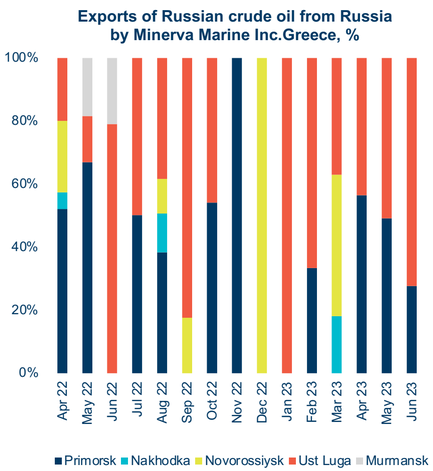


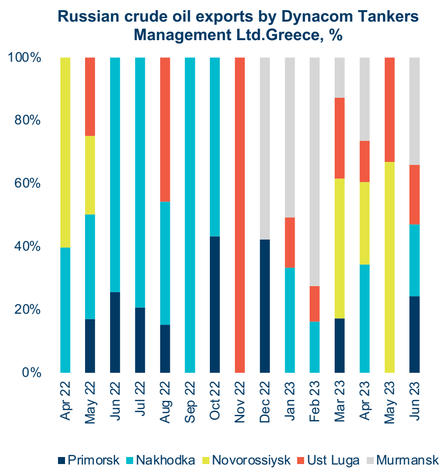


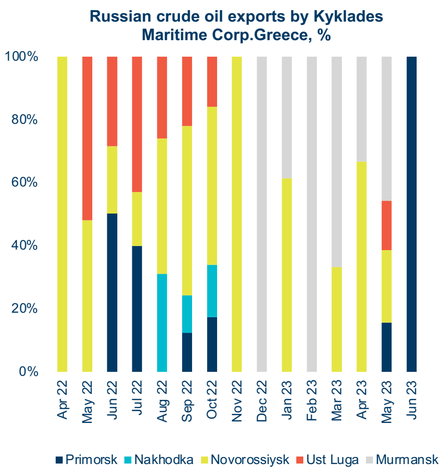






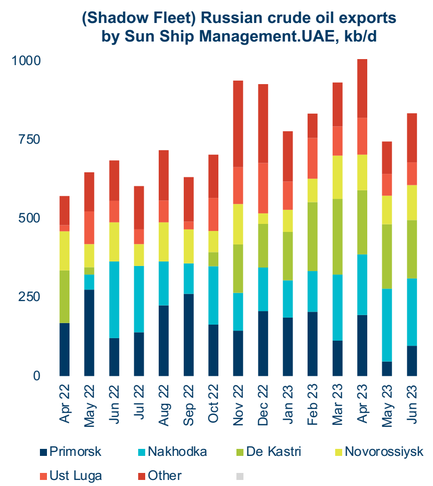


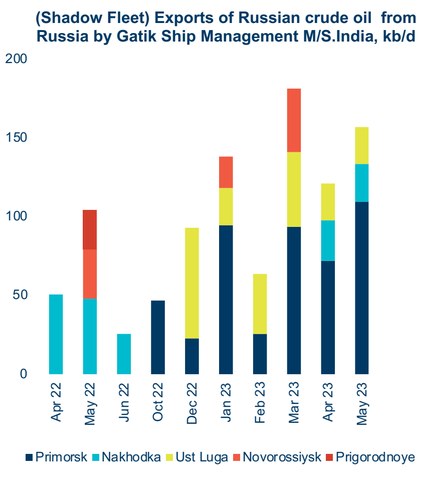


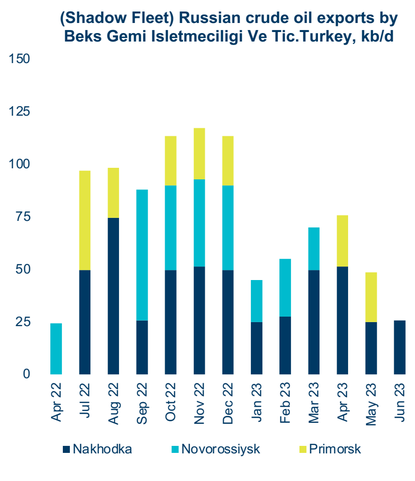


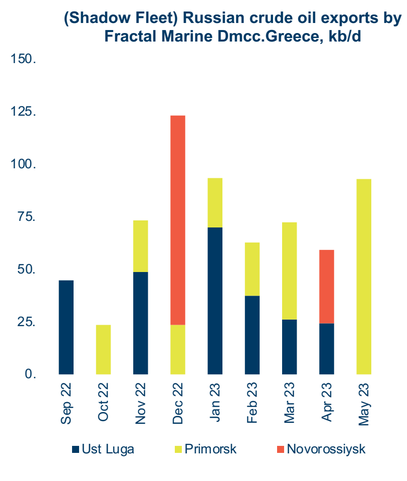
Source: KSE Institute estimates

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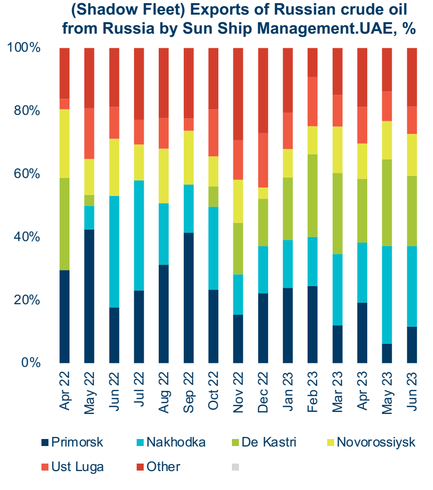


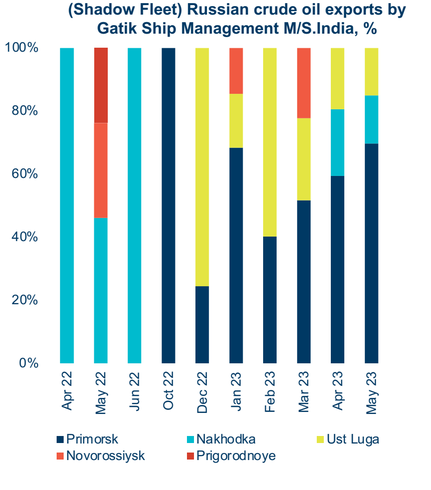


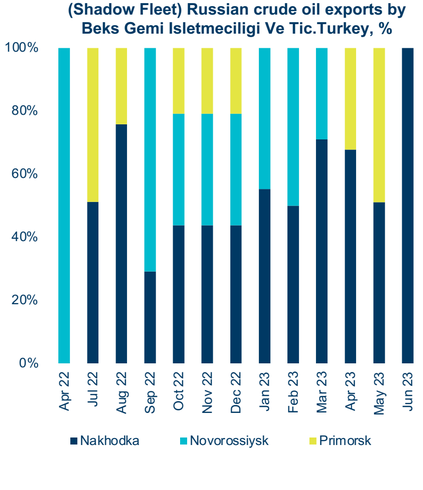


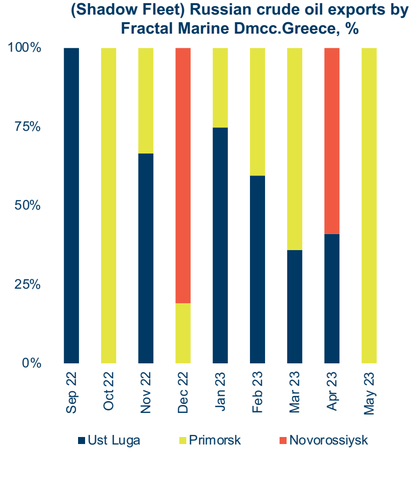


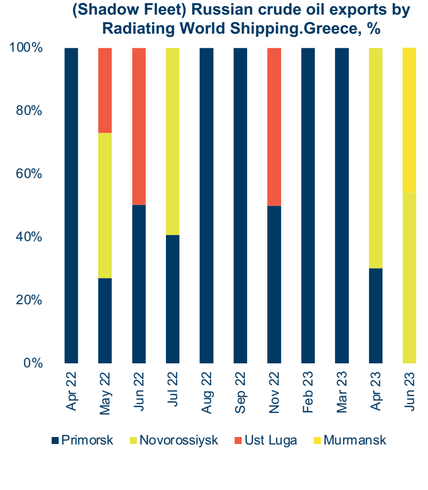








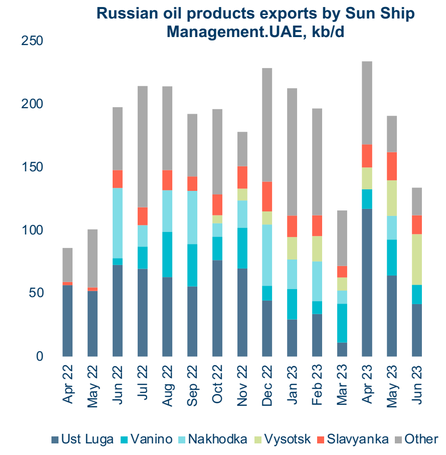


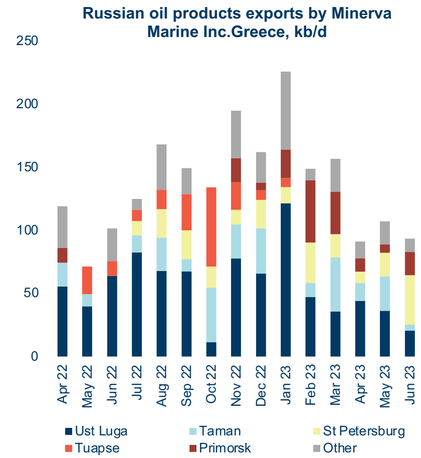


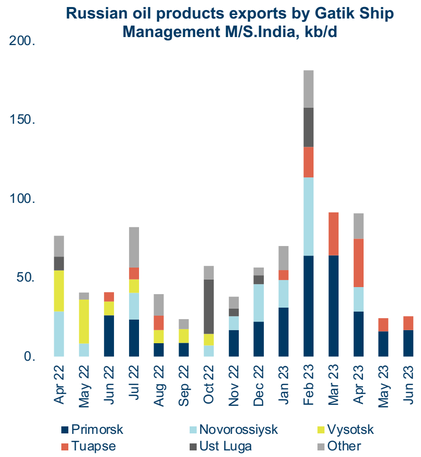
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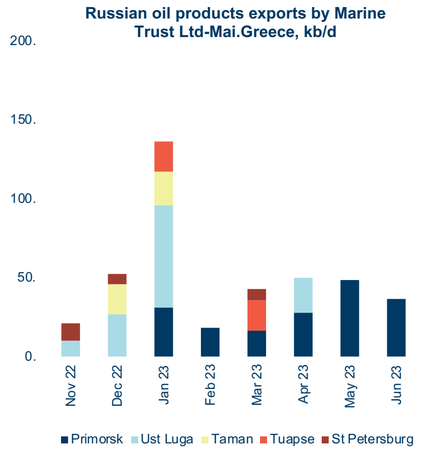
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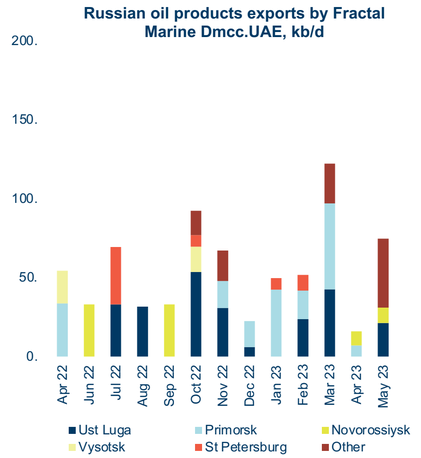
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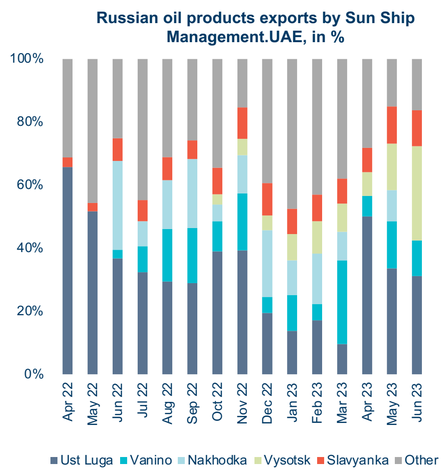


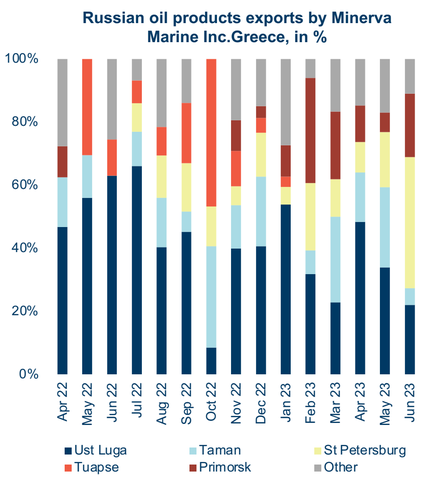


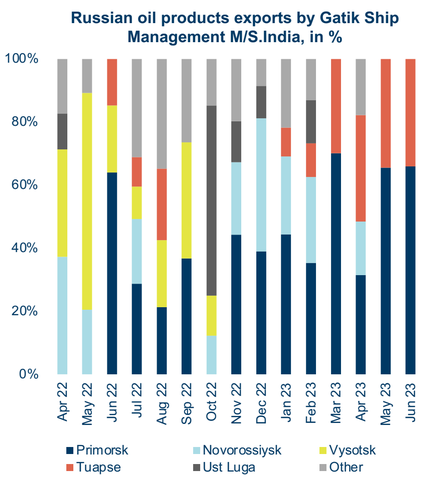


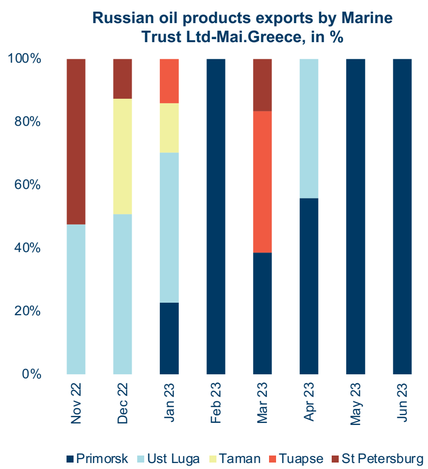


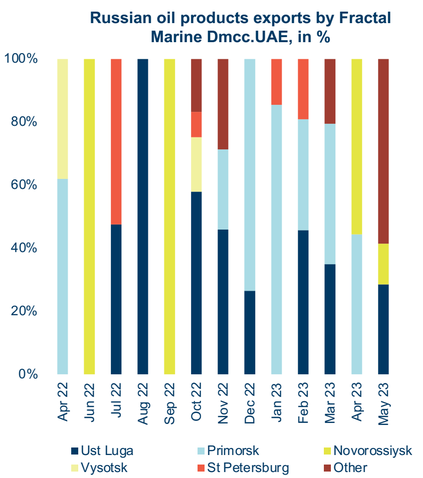








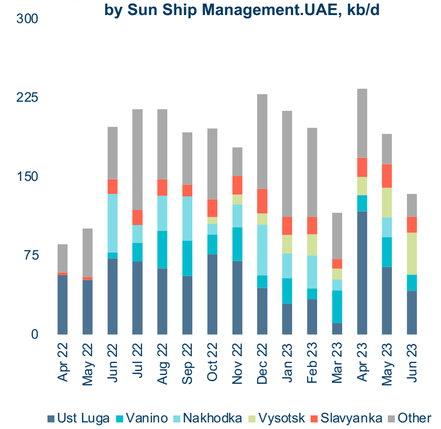


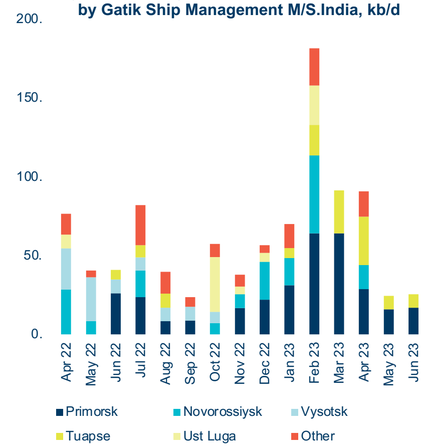


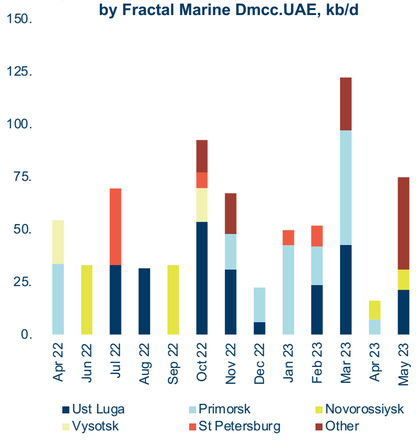
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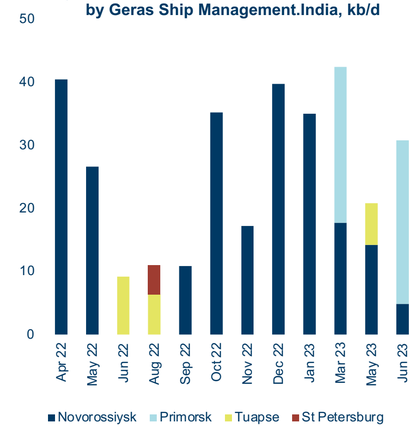
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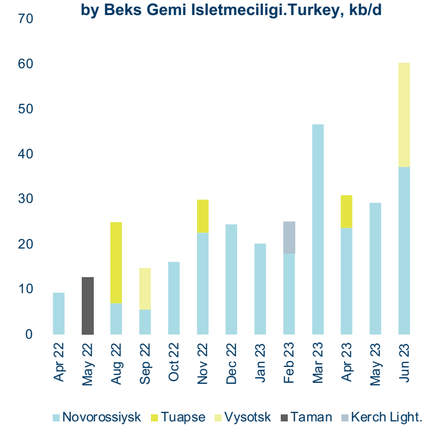
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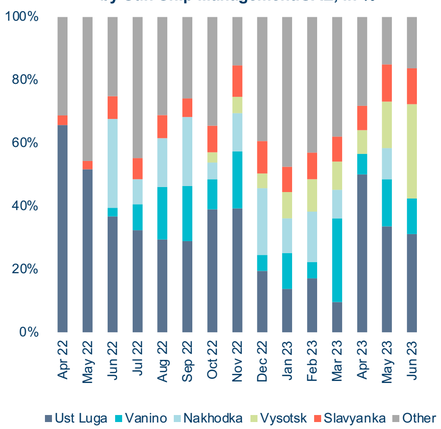


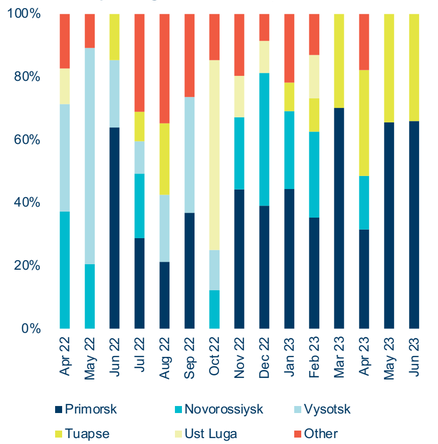


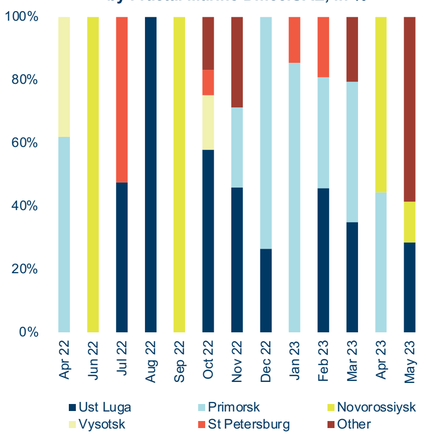


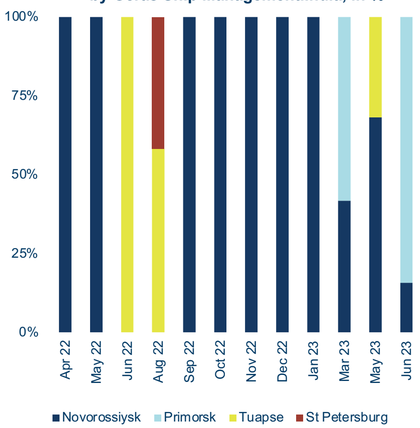


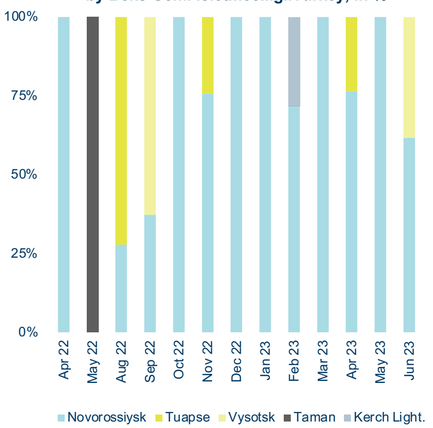












Source: KSE Institute estimates