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Russian oil tracker

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Summary

- In November 2023 Russian seaborne oil exports volumes decreased by ~4% driven by 8% crude exports decline (MoM). The total Russian oil export revenues declined by $3.2 bn to $15.2 bn.
- In November 2023 Russian reliance on Western maritime services barely changed over previous month as 26% of crude and 57% of oil produces were shipped with P&I Club insurance coverage
- The KSE Institute estimates 179 loaded Russian shadow fleet tankers left Russian ports in November 2023, 70% of which were built more than 15 years ago. Russian shadow fleet poses huge environmental risks for the EU as decrepit tankers without P&I insurance navigate several European countries coastlines including Danish Straits.[1]. In October 2023, the shadow fleet was responsible for exports of around 2.3 mb/d of crude oil and 0.8 mb/d of oil products.
- India remains the biggest buyer of Russian seaborne crude despite a decrease of imports by 22% or by 384 kb/d (MoM). On the contrary, Turkey increased its imports of Russian crude by 34% or by 110 kb/d MoM and total imports increased 2.7 times to 433 kb/d over three months. 71% of crude was shipped to Turkey without P&I insurance in November compared to 0% in February-May 2023. Turkey also remains the biggest buyer of Russian oil products imports with total imports of 437 kb/d in November.
- Significant price discounts for both Russian crude and oil products continue to support the strong demand for Russian oil exports. Average Urals FOB Baltic and Black Sea decreased by over 10/bbl to $67/bbl and $69/bbl respectively, but ESPO FOB decreased by only $6/bbl to $78/bbl. However, the discount on Urals has widened by $2/bbl (MoM) after OFAC imposed its first blocking sanctions and owners for using US-based services while carrying Russian crude sold above the price cap and the US Treasury sent letters to shipping companies for potentially breaching G7/EU price cap in November. On the contrary, the discount on ESPO narrowed by almost $2/bbl (MoM).
- In November 2023 Russian oil export revenues declined by $3.2 bn to $15.2 bn. KSE Institute now projects Russian oil revenues of $182 billion in 2023, while in July they had been expected to reach only $153 billion. According to the KSE Institute modelling, in the base case with current oil price caps and status quo of sanctions but their stronger enforcement, revenues will contract to $145 bn and $139 bn in 2024 and 2025 respectively compared to $218 bn and projected $182 bn in 2022 and 2023 respectively. If the price cap is lowered to US$ 50/bbl discount to forecast Brent prices, revenues will fall to $69 bn and $59 bn in 2024 and 2025 respectively. However, in case of weak sanctions enforcement, Russian oil revenues could increase to the robust $189 bn and $183 bn in 2024 and 2025 respectively.

[1]See Craig Kennedy, August 23, 2023, Measuring the Shadows. Moscow's Strategies for Evading Oil Sanctions and How to Stop them from Succeeding, https://navigatingrussia.substack.com/p/measuring-the-shadows?utm_source=substack&utm_medium=email for details and examples

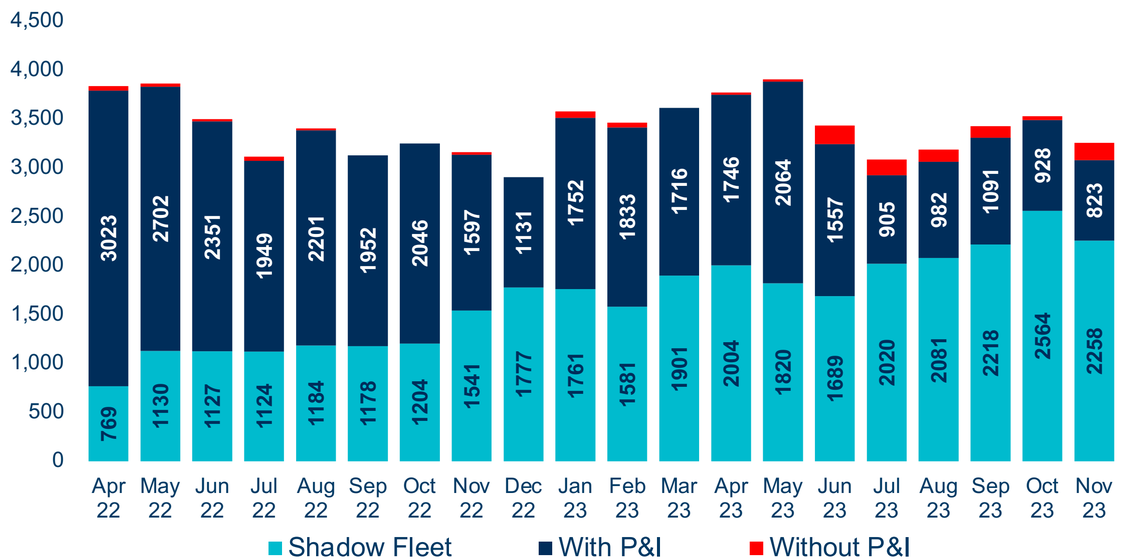
[2] Please see the KSE October issue of Russia Oil Tracker https://kse.ua/about-the-school/news/russian-oil-tracker-october-2023/

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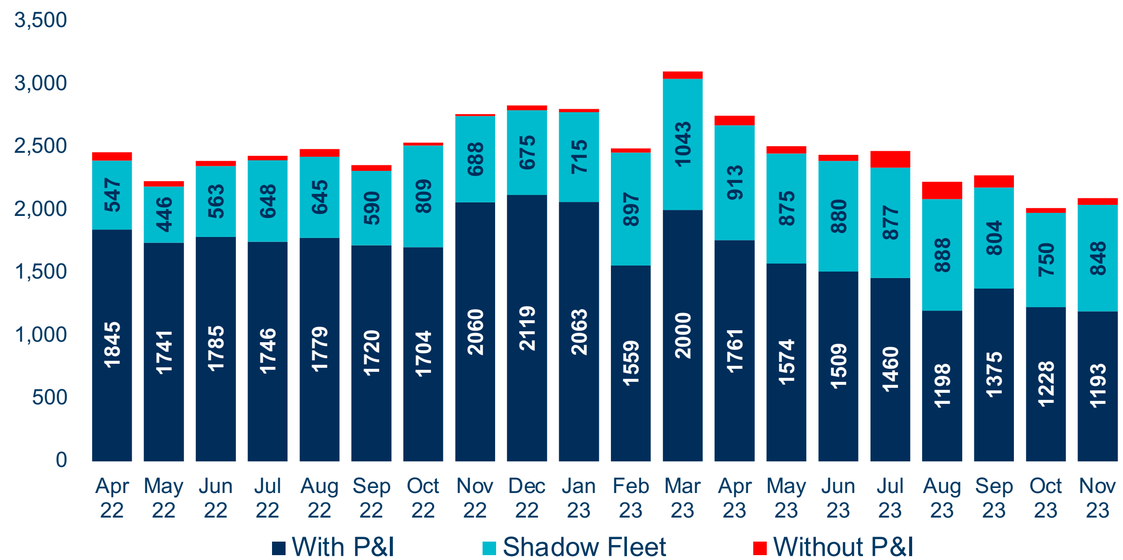
Russian seaborne oil exports volumes decreased by 4% in November 2023 driven by 8% crude oil exports decline. Only 38% of Russian oil exports were shipped with P&I Club insurance

- In November 2023 Russian seaborne oil exports decreased by 195 kb/d or by 3.5% MoM and were also 9.7% lower YoY
- Shipments of seaborne crude oil decreased by 7.8% MoM while products exports were just 3.9% higher MoM after temporary ban on exports of diesel and gasoline has been lifted
- Russia managed to lower its reliance on Western maritime services mainly for crude shipments as 25% of crude oil and 57% of oil products were shipped by tankers with P&I Club insurance in November 2023

Russian seaborne crude oil exports, kb/d



Exports of Russian oil products, kb/d



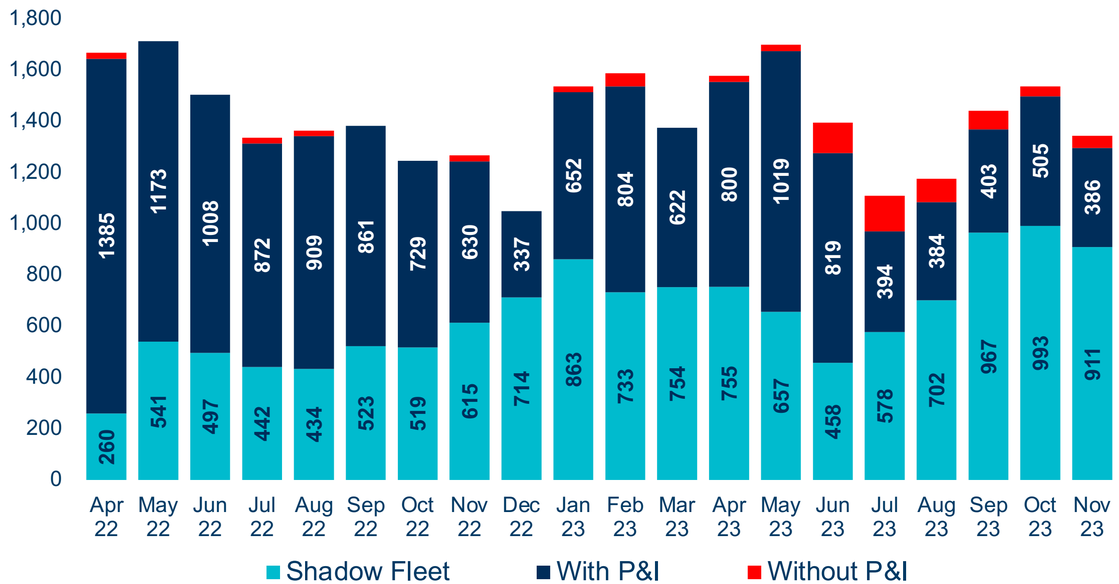
Source: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

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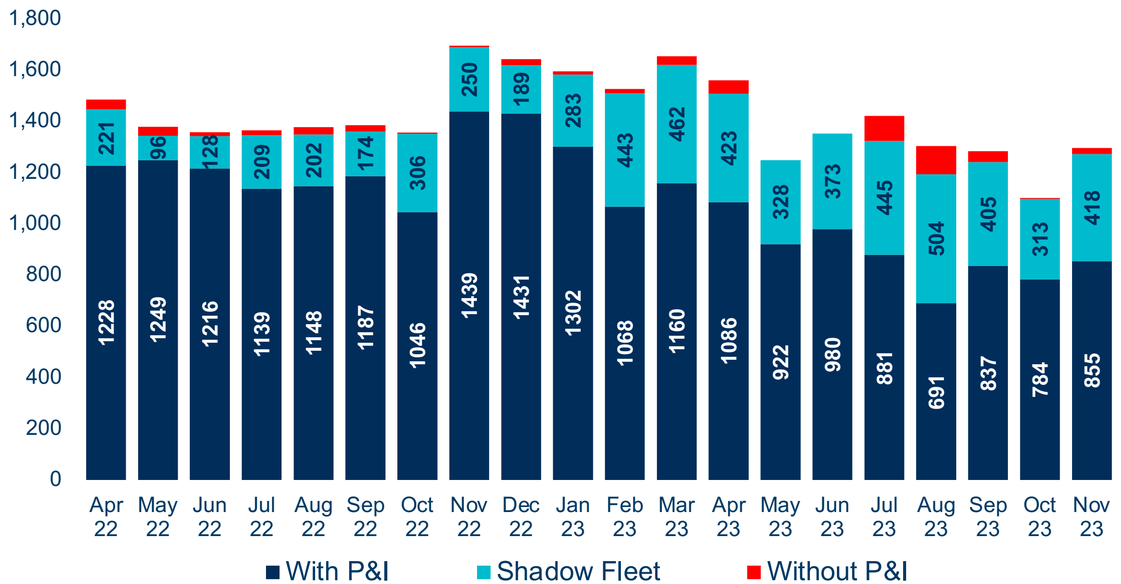
47% of crude & oil products were shipped by tankers with P&I Club insurance from Baltic Sea ports in November 2023

- In November 2023 the exports of crude oil from Baltic ports decreased by 12.5% MoM but were 6.0 % higher YoY
- The exports of oil products from Baltic ports increased by 17.7% MoM but were by 18.8% lower YoY
- 29% of crude oil and 66% of oil products were shipped by tankers with P&I Club insurance in November compared to 33% and 71% respectively in October

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



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



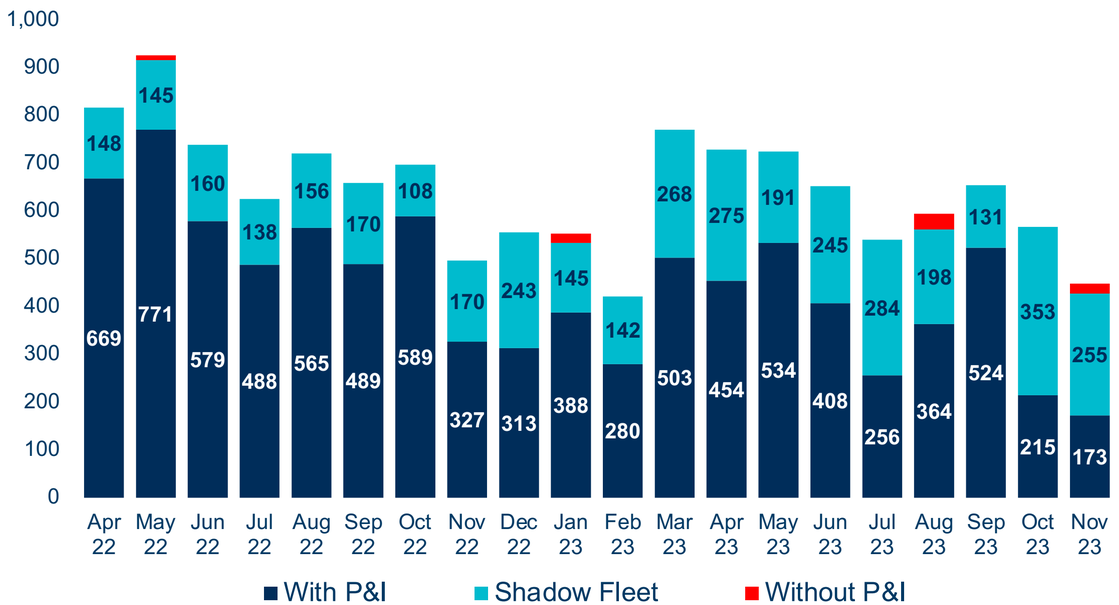
Source: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

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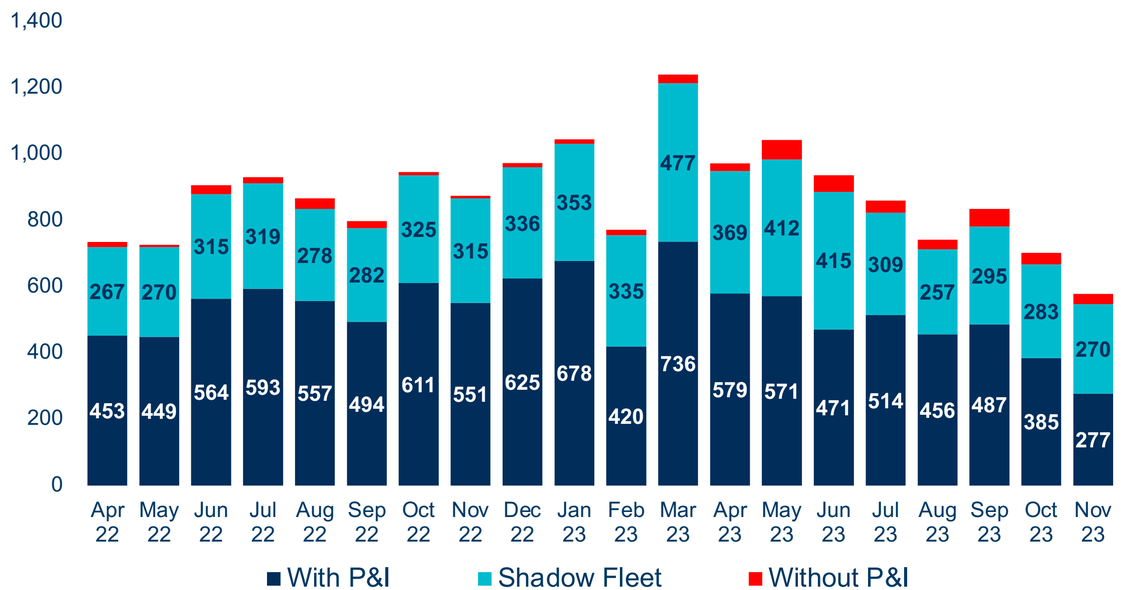
44% of crude & oil products were shipped by tankers with P&I Club insurance from Black Sea ports in November 2023

- In November 2023 the exports of crude oil from Black Sea ports collapsed by 21.0% MoM and by 9.7% YoY due to both difficult weather conditions and problems with shipments to India
- The exports of oil products from Black Sea ports decreased by 17.6% MoM and by 33.9% YoY
- 38% of crude oil and 48% of oil products were shipped by tankers with P&I insurance

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



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



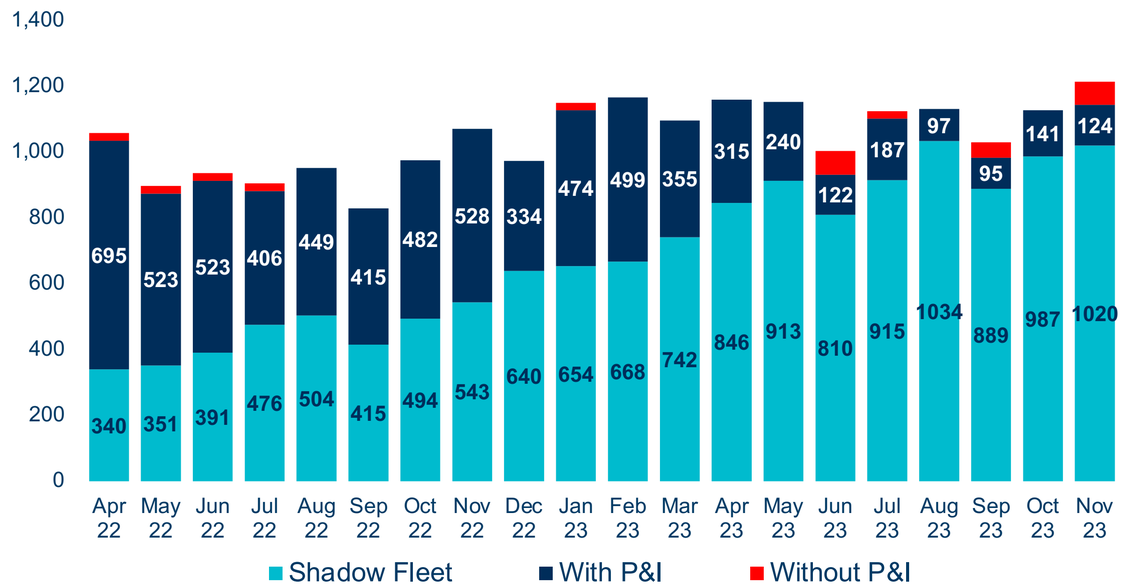
Source: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

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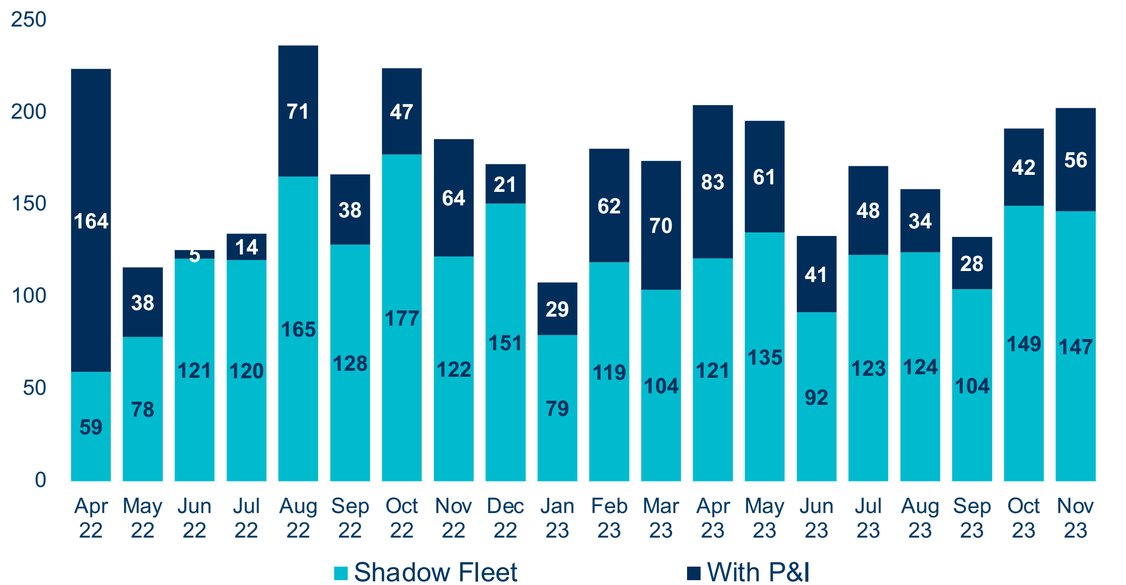
13% of crude oil & oil products were shipped by tankers with P&I Club insurance from Pacific Ocean ports in November 2023

- In November 2023 the exports of crude oil from Pacific Ocean ports increased by 7.7% MoM and by 13.3% YoY
- The exports of oil products from Pacific Ocean ports increased by 5.8.4% MoM and by 9.2% YoY
- Only 10% of crude oil and 28% of oil products were shipped by tankers with P&I Club insurance in November 2023

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



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



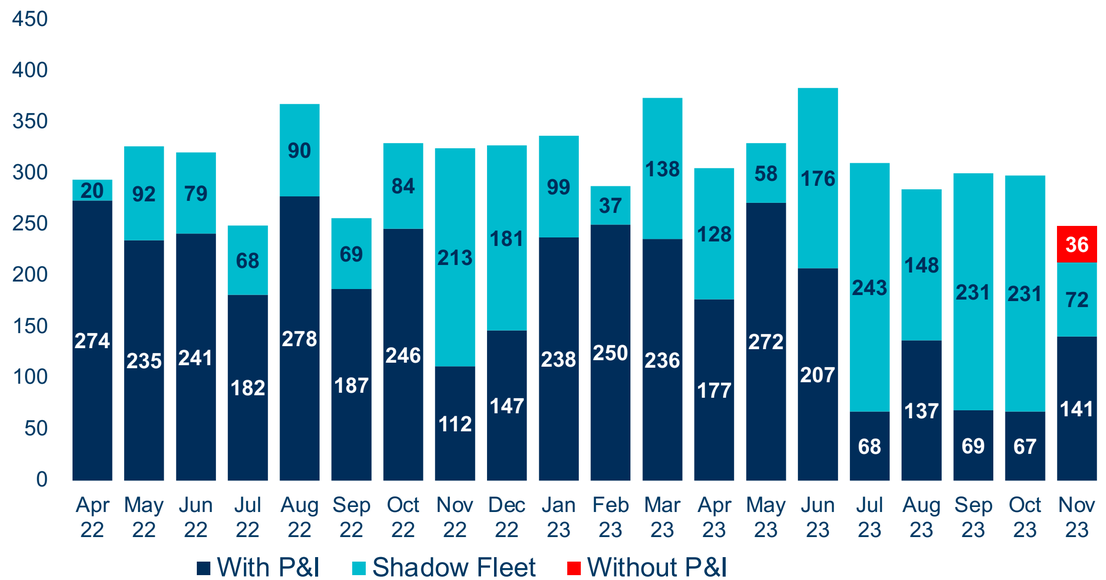
Source: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

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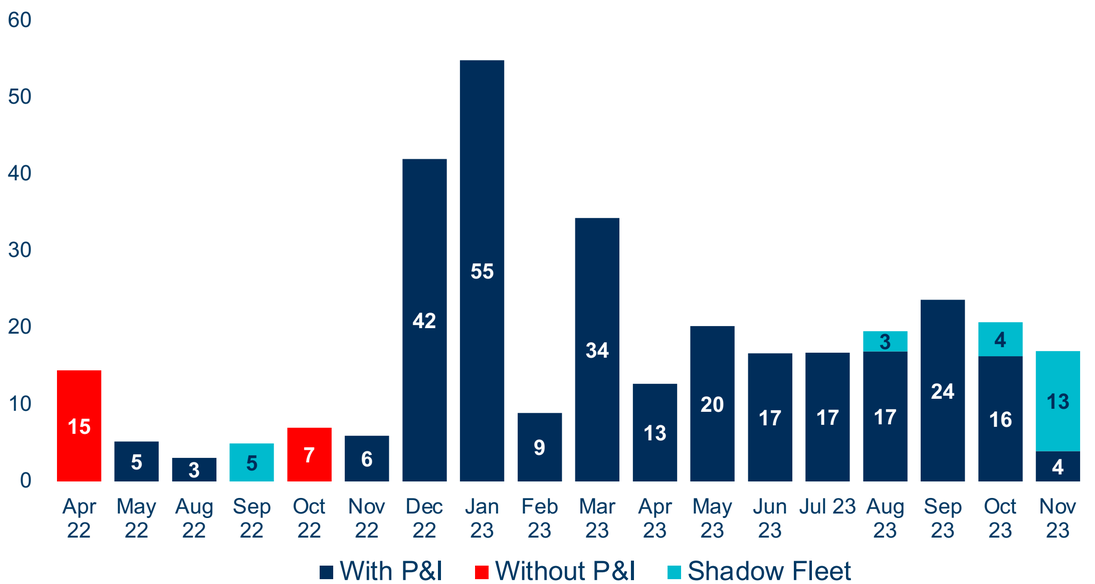
55% of crude oil and oil products were shipped by tankers with P&I Club insurance from Arctic Ocean ports in November 2023

- The exports of crude oil from Arctic Ocean ports decreased by 16.5% MoM and by 23.3% YoY
- The exports of oil products from Arctic Ocean is insignificant as Russia ships predominantly crude from these ports
- 57% of crude oil was shipped by tankers with P&I Club insurance in November 2023 compared to 23% in the previous month

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



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



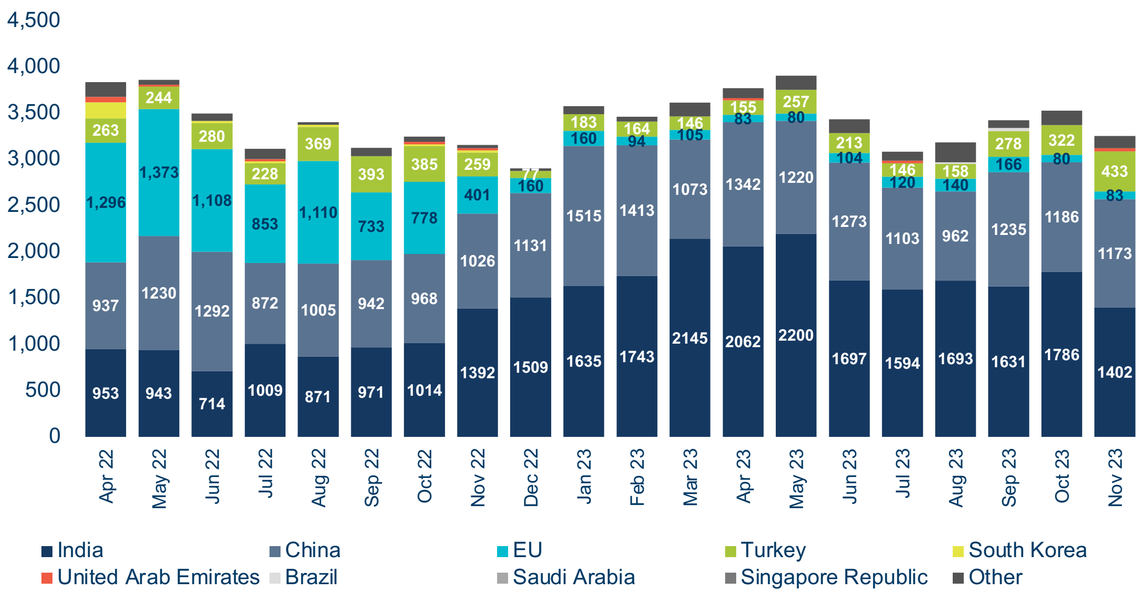
Source: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

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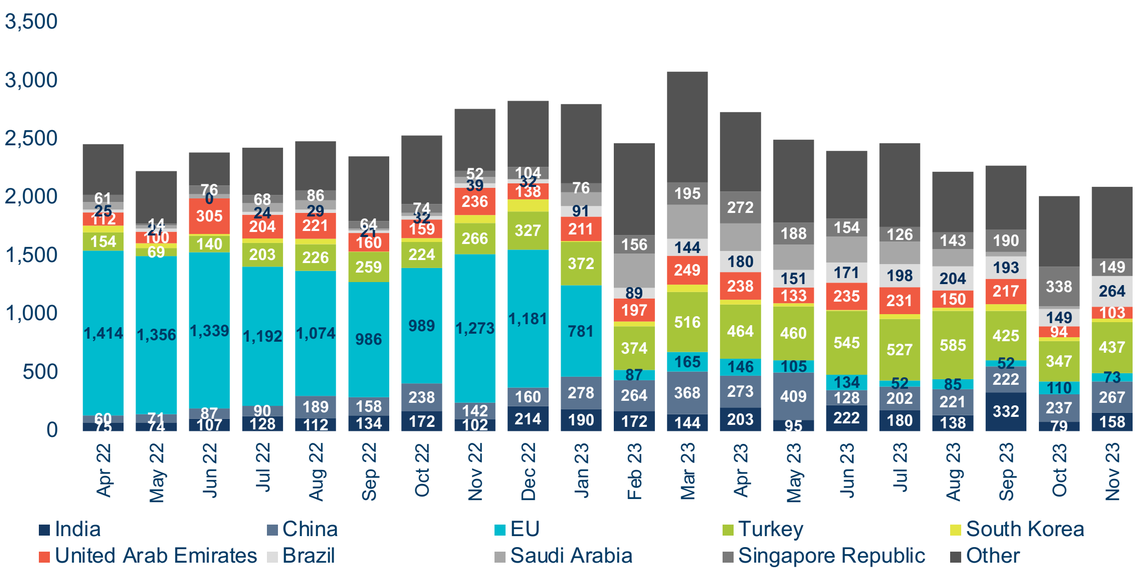
India decreased the imports of Russian seaborne crude by 22% while Turkey increased it by 34%. The seaborne crude exports to China little changed over previous month

- EU's share in Russian crude exports decreased to 3% from 13% YoY (only Bulgaria remains eligible to import seaborne oil from Russia since December 2022)
- EU's share in Russian oil products exports decreased also to 3% from from 46% YoY
- Altogether India, China and Turkey were responsible for 92% of Russian crude oil exports in October
- India remains the biggest buyer of Russian seaborne crude despite a decrease of import by 22% or by 384 kb/d MoM. On the contrary, Turkey increased its imports of Russian crude by 34% or by 110 kb/d MoM
- Turkey remains the biggest buyer of Russian oil products imports with total imports of 437 kb/d in November since the EU imposed embargo on Russian oil products imports

Russian seaborne crude oil exports by destinations countries, kb/d



Russian oil products exports by destinations countries, kb/d



Source: Kpler, KSE Institute estimates

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Russian crude exports to Turkey swiftly increased over three months

- Russian crude exports to Turkey increased from 158 kb/d in August to 433 kb/d in November 2023
- 71% of crude was shipped to Turkey without P&I insurance in November compared to 0% in February-May 2023
- Five Turkish companies carried crude without P&I insurance in January-November 2023

Russian crude oil exports to Turkey, kb/d

Sep 23			Oct 23			Nov 23		
Ship manager	**Volume, kb/d**	**%**	**Ship manager**	**Volume, kb/d**	**%**	**Ship manager**	**Volume, kb/d**	**%**
China.Prominent Shipmanagement Ltd	49	18%	UAE.Star Voyages Shipping	47	15%	Greece.Kyklades Maritime Corp	60	14%
UAE.Radiating World Shipping Servs	49	18%	China.Hayley Kim Ltd	24	7%	UAE.Alqutb Alshamali Marine Srvs	49	11%
Greece.New Shipping Ltd-Lib	35	13%	UAE.Radiating World Shipping Servs	24	7%	China.Prominent Shipmanagement Ltd	45	10%
Turkey.Aviora Maritime Co	24	9%	Azerbaijan.Asco Shipmanagement Afezco	24	7%	Norway.Energifonden Maritime As	24	6%
Greece.Thenamaris Ships Management	24	9%	UAE.Almuhit Alhadi Marine Services	24	7%	Azerbaijan.Asco Shipmanagement Afezco	24	6%
Norway.Energifonden Maritime As	24	9%	Azerbaijan.Azerbaijan Caspian Shipping	24	7%	Azerbaijan.Azerbaijan Caspian Shipping	24	6%
Singapore.Executive Ship Management	24	9%	China.Prominent Shipmanagement Ltd	24	7%	Turkey.Beks Tanker Isletmeciligi As	24	6%
Greece.Chartworld Maritime Mngmt	24	9%	Turkey.Beks Tanker Isletmeciligi As	24	7%	Liberia.Hs Atlantica Ltd	24	6%
Marshall Islands.Water Springs Inc	23	8%	Greece.Signal Projects Ltd	24	7%	Azerbaijan.Sa Maritime Afezco	24	6%
			Greece.Capital Ship Management Corp	24	7%	Greece.Polembros Shipping Ltd	24	6%
			Greece.Eastern Mediterranean Maritime Ltd	24	7%	UAE.Symphony Marine For Ship Mgmt	24	5%
			Singapore.Executive Ship Management	24	7%	China.Seawin Marine Co Ltd	23	5%
			Greece.Olympic Shipping & Management	16	5%	Greece.Dynacom Tankers Management Ltd	21	5%
						Greece.Chartworld Maritime Mngmt	21	5%
						Greece.Tanker Ventures Ltd	20	5%
Total	**277**	**100%**	**Total**	**322**	**100%**	**Total**	**433**	**100%**

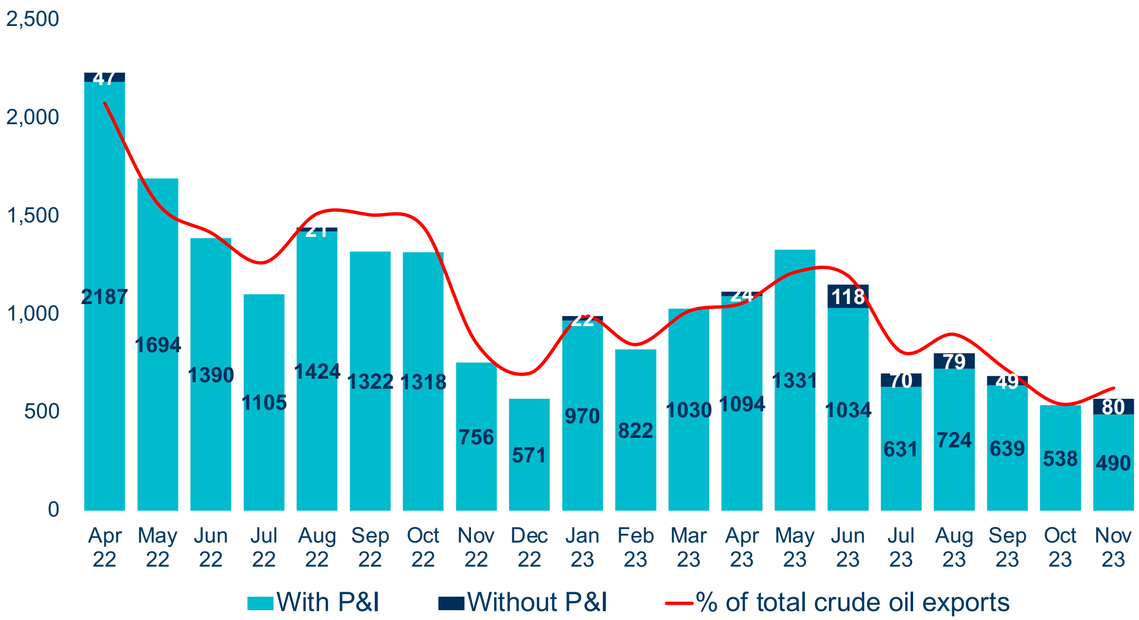
Source: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

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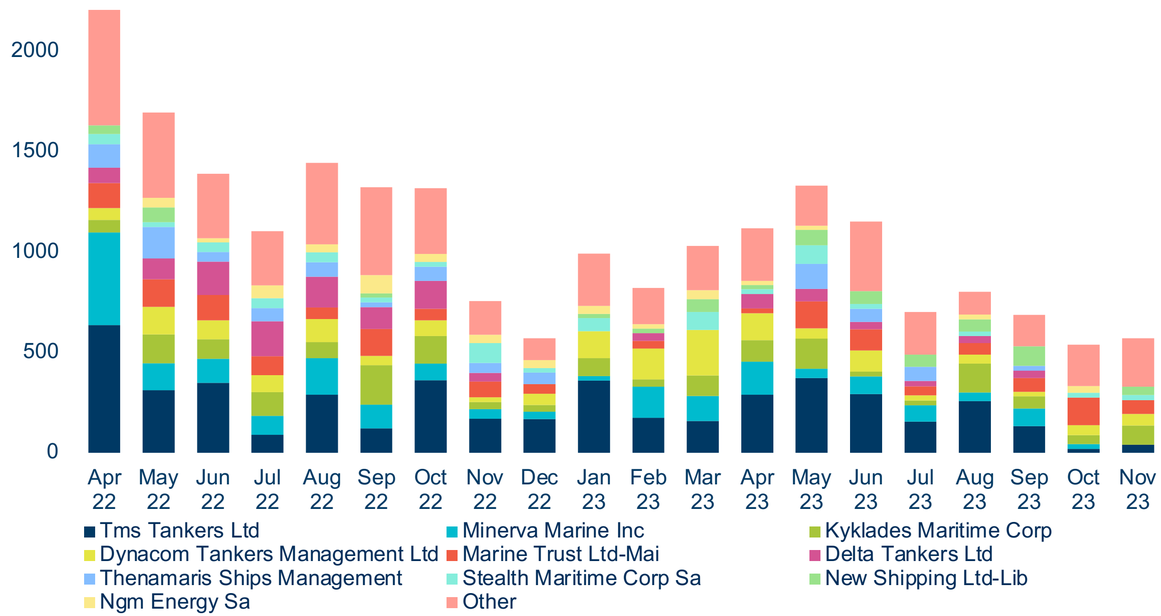
Greek companies scaled back transporting Russian crude oil to avoid sanctions

- In April 2022 - November 2023, the largest volumes of Russian crude shipped by Greek companies were recorded in April 2022 (2,234 kb/d), which accounted for around 58% of the Russian seaborne crude exports
- Since May 2023, volumes and share of Greek companies in Russian seaborne crude exports have steadily declined - from 1,331 kb/d (34% of total crude exports) to 490 kb/d (18%) in November 2023
- Shipments without P&I insurance were irregular, and the share didn't exceed 14% of total shipments by Greek companies
- Top two shippers, TMS Tankers and Minerva Marine, almost stopped transporting Russian crude in November to avoid sanctions for carrying Russian oil sold above the price cap

Russian seaborne crude exports shipped by Greek companies, kb/d



Top-10 Greek companies in shipping Russian crude, kb/d



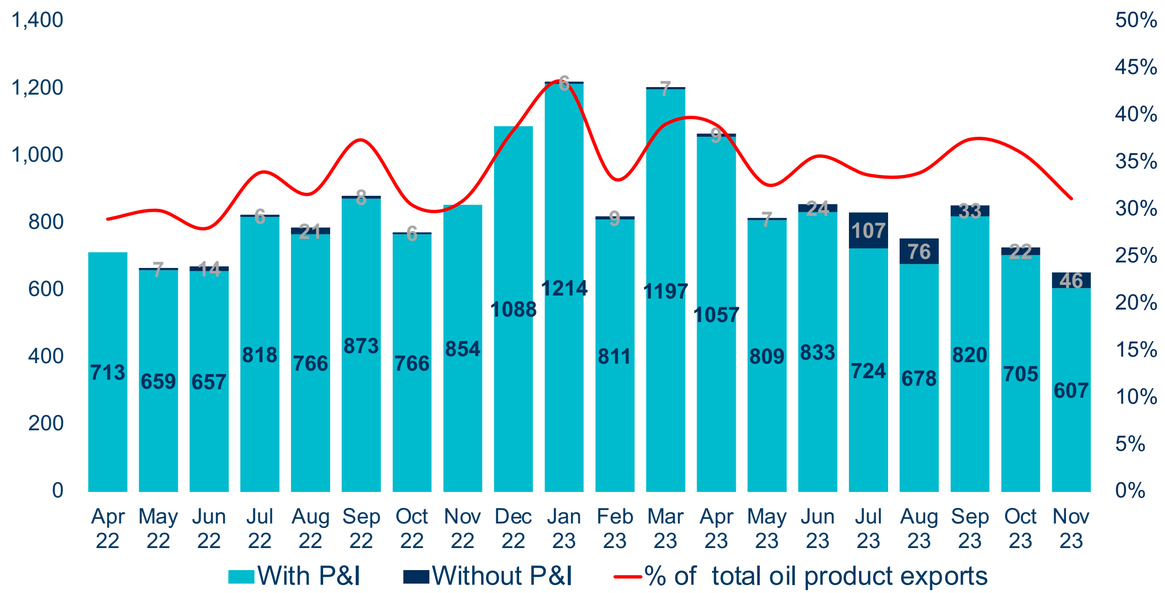
Source: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

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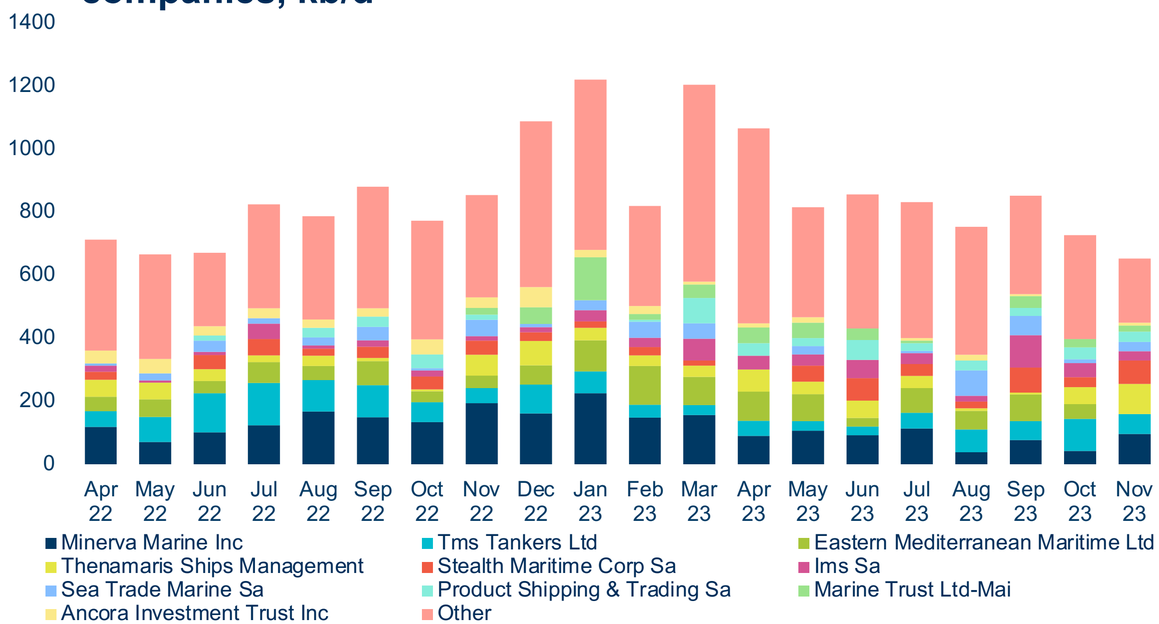
Russia still heavily relies on Greek companies in shipping oil products

- On the contrary to Russian crude oil exports, the share of total oil products exports transported by Greek companies little changed in 2022-2023
- In November 2023, Greek companies carried 31% of Russian oil products exports
- Minerva Marine Inc, Tms Tankers and Thenamaris Ships Management remain the leaders in terms of oil products exports volumes both in 2022 and 2023

Russian seaborne oil product exports carried by Greek companies, kb/d



Seaborne exports of Russian oil products by top-10 Greek companies, kb/d



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

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Sun Ship Management and Oil Tankers Scf Mgmt Fzc topped the list of ten biggest shippers by shipping around a quarter of Russian crude during last three months.

Russian crude oil exports by ship managers

Sep 23			Oct 23			Nov 23		
Ship manager	**Volume, kb/d**	**%**	**Ship manager**	**Volume, kb/d**	**%**	**Ship manager**	**Volume, kb/d**	**%**
Other	1770	52%	Other	1781	50%	Other	1854	57%
UAE.Sun Ship Management	535	16%	UAE.Oil Tankers Scf Mgmt Fzco	499	14%	UAE.Sun Ship Management	380	12%
UAE.Oil Tankers Scf Mgmt Fzco	299	9%	UAE.Sun Ship Management	433	12%	UAE.Oil Tankers Scf Mgmt Fzco	344	11%
China.Sunne Co Ltd	149	4%	China.Sunne Co Ltd	144	4%	China.Prominent Shipmanagement Ltd	137	4%
Greece.Tms Tankers Ltd	133	4%	Greece.Marine Trust Ltd-Mai	138	4%	China.Sunne Co Ltd	125	4%
UAE.Radiating World Shipping Servs	106	3%	UAE.Radiating World Shipping Servs	125	4%	Greece.Kyklades Maritime Corp	95	3%
Greece.New Shipping Ltd-Lib	97	3%	UAE.Star Voyages Shipping	122	3%	UAE.Fractal Marine Dmcc	73	2%
UAE.K&O Shipmanagement Fze	93	3%	China.Prominent Shipmanagement Ltd	81	2%	Cyprus.Lagosmarine Ltd	70	2%
Turkey.Gungen Denizcilik Ve Ticaret	90	3%	Russia.Rosnefteflot Jsc	71	2%	Greece.Marine Trust Ltd-Mai	70	2%
Greece.Minerva Marine Inc	88	3%	China.Shanghai Future Ship Mgmt Co	70	2%	Greece.Dynacom Tankers Management Ltd	57	2%
Greece.Marine Trust Ltd-Mai	69	2%	Turkey.Gungen Denizcilik Ve Ticaret	67	2%	Turkey.Beks Gemi Isletmeciligi Ve Tic	51	2%
Total	**3428**	**100%**	**Total**	**3530**	**100%**	**Total**	**3256**	**100%**

Source: Kpler, KSE Institute estimates

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Registered in the UAE Oil Tankers Scf Mgmt Fzco remained the leading shipper of Russian oil products by operating vessels obtained from Sun Ship Management. Five out of ten biggest shippers of Russian oil products were Greek companies in November 2023 compared to seven in the previous month

Russian oil products exports by ship managers

Sep 23			Oct 23			Nov 23		
Ship manager	Volume, kb/d	%	Ship manager	Volume, kb/d	%	Ship manager	Volume, kb/d	%
Other	1548	68%	Other	1350	67%	Other	1380	66%
UAE.Oil Tankers Scf Mgmt	124	5%	UAE.Oil Tankers Scf Mgmt	159	8%	UAE.Oil Tankers Scf Mgmt Fzco	148	7%
Greece.Ims Sa	103	5%	Greece.Tms Tankers Ltd	101	5%	Greece.Minerva Marine Inc	97	5%
Greece.Eastern Mediterranean Maritime Ltd	85	4%	Greece.Velos Tankers Ltd	69	3%	Greece.Thenamaris Ships Management	95	5%
Greece.Stealth Maritime Corp Sa	79	3%	Turkey.Active Denizcilik Ve Gemi	63	3%	Greece.Stealth Maritime Corp Sa	74	4%
Greece.Minerva Marine Inc	77	3%	Greece.Thenamaris Ships Management	54	3%	Greece.Tms Tankers Ltd	63	3%
Greece.Sea Trade Marine Sa	61	3%	Greece.Eastern Mediterranean Maritime Ltd	46	2%	Kuwait.Arab Maritime Petroleum Trans	63	3%
Greece.Tms Tankers Ltd	60	3%	Greece.Chemnav Shipmanagement Ltd	46	2%	Turkey.Active Denizcilik Ve Gemi	52	2%
UAE.Radiating World Shipping	49	2%	Greece.Ims Sa	45	2%	Turkey.Beks Gemi Isletmeciligi Ve Tic	48	2%
Kuwait.Arab Maritime Petroleum Trans	49	2%	Greece.Minerva Marine Inc	43	2%	Greece.Spring Marine Management Sa	39	2%
Greece.Alberta Shipmanagement Ltd	41	2%	Vietnam.Sao Viet Petrol Transportation	41	2%	India.Eastern Euro Ship Management	36	2%
Total	**2276**	**100%**	**Total**	**2016**	**100%**	**Total**	**2095**	**100%**

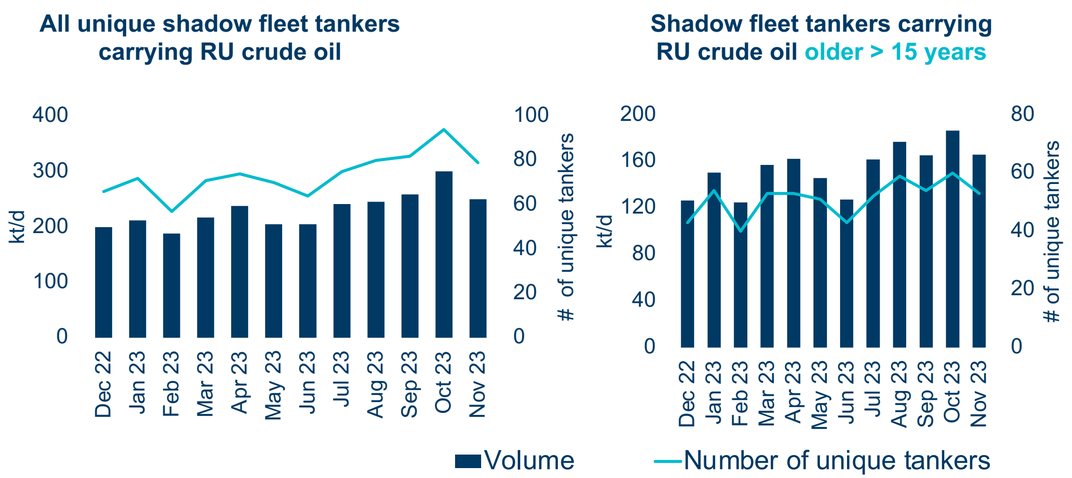
Source: Kpler, KSE Institute estimates

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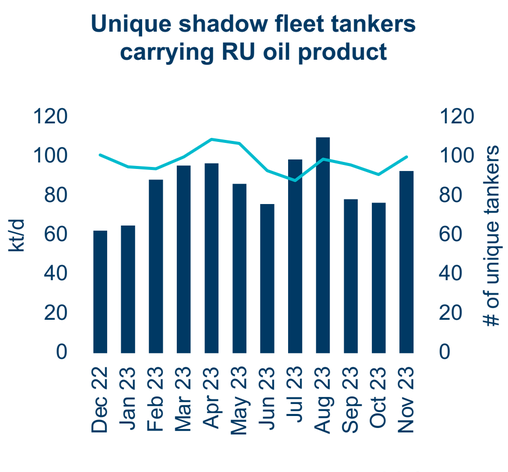
The number of Russian shadow fleet tankers carrying crude and oil products from Russian ports vessels in November 2023 is estimated at 179

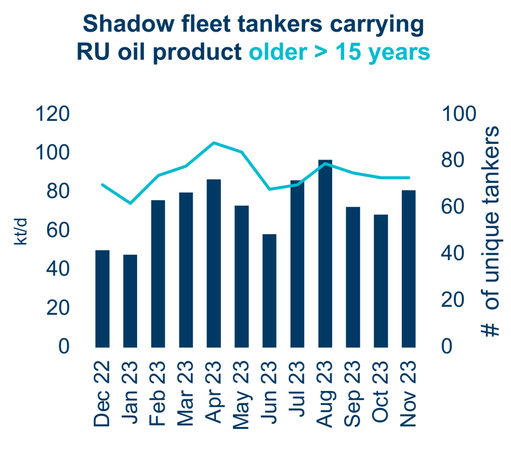
- Russian oil exporters decreased the number of shadow fleet tankers carrying crude from Russian ports to 79 in November 2023 while 67% of them were older than 15 years
- The number of shadow fleet tankers carrying Russian oil products from Russian ports increased to 100 in November 2023 while 73% of 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



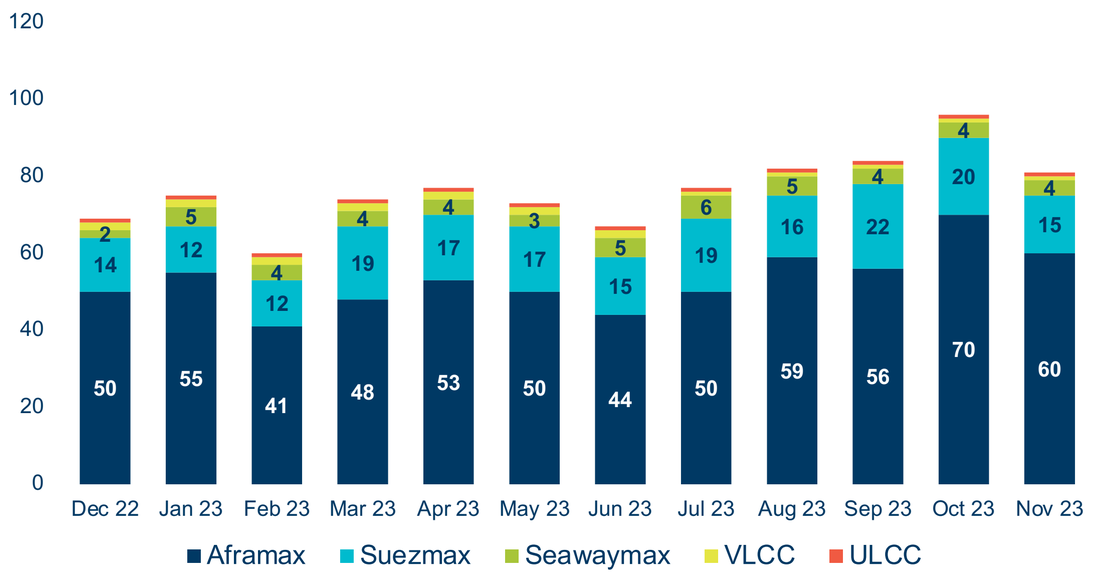


Source: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

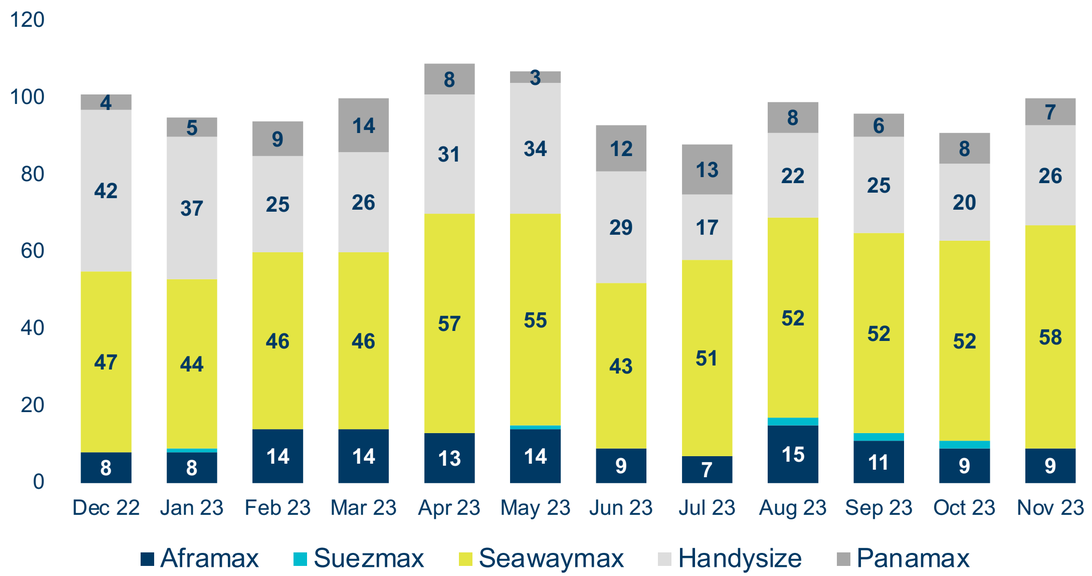
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Aframax and Seuzmax are the core of Russian shadow fleet carrying crude while Seawaymax and Handysize form the Russian shadow fleet carrying oil products. Total Russian shadow fleet carrying oil and oil products from Russian ports and involved in STS transfers is estimated at 181 tankers in November 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: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

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The share of Russian crude oil exports by shadow fleet decreased by around 4% MoM to 69% in November 2023

- Russian crude oil exports by shadow fleet decreased by around 306 kb/d MoM to a 2258 kb/d in November and its share in total crude shipments dropped to 69%
- The share of leaders Sun Ship Management and connected to it Scf Mgmt Fzco decreased by 4% MoM in November 2023

Russian crude oil exports by shadow fleet, kb/d

Sep 23			Oct 23			Nov 23		
Ship manager	**Volume, kb/d**	**%**	**Ship manager**	**Volume, kb/d**	**%**	**Ship manager**	**Volume, kb/d**	**%**
Other	788	36%	Other	920	36%	Other	950	42%
UAE.Sun Ship Management	535	24%	UAE.Oil Tankers Scf Mgmt Fzco	499	19%	UAE.Sun Ship Management	380	17%
UAE.Oil Tankers Scf Mgmt Fzco	299	13%	UAE.Sun Ship Management	433	17%	UAE.Oil Tankers Scf Mgmt Fzco	344	15%
China.Sunne Co Ltd	149	7%	China.Sunne Co Ltd	144	6%	China.Prominent Shipmanagement Ltd	137	6%
UAE.Radiating World Shipping Servs	106	5%	UAE.Radiating World Shipping Servs	125	5%	China.Sunne Co Ltd	125	6%
UAE.K&O Shipmanagement Fze	93	4%	UAE.Star Voyages Shipping	122	5%	UAE.Fractal Marine Dmcc	73	3%
China.Intercon Marine Shanghai Co	51	2%	China.Prominent Shipmanagement Ltd	81	3%	Turkey.Beks Gemi Isletmeciligi Ve Tic	51	2%
China.Supership Management Co Ltd	50	2%	Russia.Rosnefteflot Jsc	71	3%	China.Hong Kong Hanyuan Shipping Co	51	2%
China.Rptd Sold China	49	2%	China.Shanghai Future Ship Mgmt Co	70	3%	China.Santiago Ships Management Co	49	2%
Marshall Islands.Protogeno Shipping & Marine	49	2%	Turkey.Beks Gemi Isletmeciligi Ve Tic	50	2%	Seychelles.Cheng Shipping & Trader Ltd	49	2%
China.Prominent Shipmanagement Ltd	49	2%	China.Intercon Marine Shanghai Co	50	2%	UAE.Alqutb Alshamali Marine Srvs	49	2%
Total	**2218**	**100%**	**Total**	**2564**	**100%**	**Total**	**2258**	**100%**

Source: Kpler, KSE Institute estimates

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Russia oil products exports by shadow fleet as well as its share in total oil products shipping increased by 98 kb/d by 3% MoM respectively in November

- Russia shipped 848 kb/d or around 40% of its oil products exports by shadow fleet in November
- Oil Tankers Scf Mgmt Fzco retained the leader position as top ship manager with a share in total oil product shipments by shadow fleet of 17% in November

Russian oil products exports by shadow fleet, kb/d

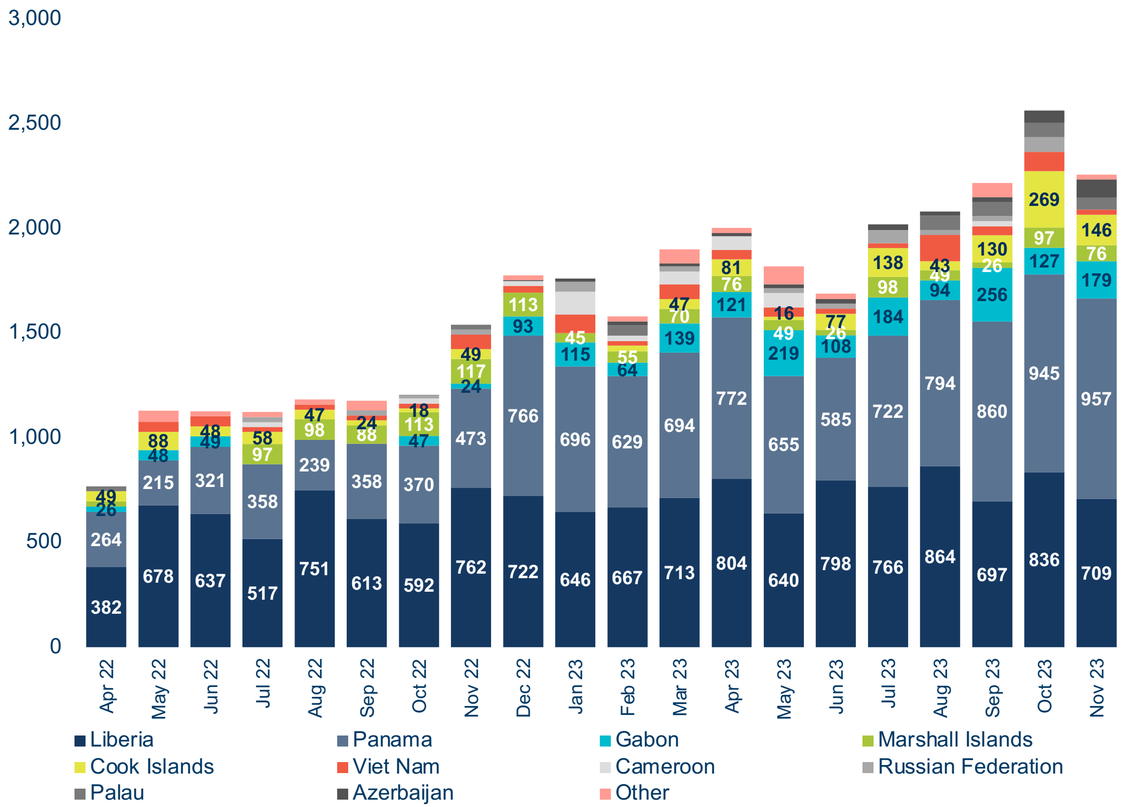
Sep 23			Oct 23			Nov 23		
Ship manager	**Volume, kb/d**	**%**	**Ship manager**	**Volume, kb/d**	**%**	**Ship manager**	**Volume, kb/d**	**%**
Other	420	52%	Other	357	48%	Other	437	52%
UAE.Oil Tankers Scf Mgmt Fzco	124	15%	UAE.Oil Tankers Scf Mgmt Fzco	159	21%	UAE.Oil Tankers Scf Mgmt Fzco	148	17%
UAE.Radiating World Shipping Servs	41	5%	Vietnam.Sao Viet Petrol Transportation	41	5%	Turkey.Beks Gemi Isletmeciligi Ve Tic	48	6%
UAE.Fractal Marine Dmcc	39	5%	Turkey.Active Denizcilik Ve Gemi	38	5%	Turkey.Active Denizcilik Ve Gemi	42	5%
India.Maritas Fleet Pvt Ltd	31	4%	Seychelles.Lorni Marine Ltd	30	4%	India.Eastern Euro Ship Management	36	4%
UAE.Fmtc Ship Charter Llc	30	4%	Liberia.Hs La Pride Ltd	24	3%	Vietnam.Hung Phat Maritime Trading	33	4%
India.Ark Seakonnect	29	4%	Marshall Islands.Oriental Dynasty Inc	21	3%	Liberia.Hs Legend Ltd	24	3%
Liberia.Hs Legend Ltd	24	3%	Marshall Islands.Otto Shipping & Marine Inc	20	3%	China.Coureage Co Ltd	23	3%
India.Eastern Euro Ship Management	22	3%	Vietnam.Hung Phat Maritime Trading	20	3%	China.Star Ocean Shipmanage Ltd	22	3%
Marshall Islands.Hippocampus Shipping & Marine	22	3%	UAE.Fractal Marine Dmcc	20	3%	Marshall Islands.Apollo Shipping & Marine Inc	22	3%
UAE.Sun Ship Management	22	3%	UAE.Sun Ship Management	20	3%	Kyrgyzstan.Munai Invest Llc	13	2%
Total	**804**	**100%**	**Total**	**750**	**100%**	**Total**	**848**	**100%**

Source: Kpler, KSE Institute estimates

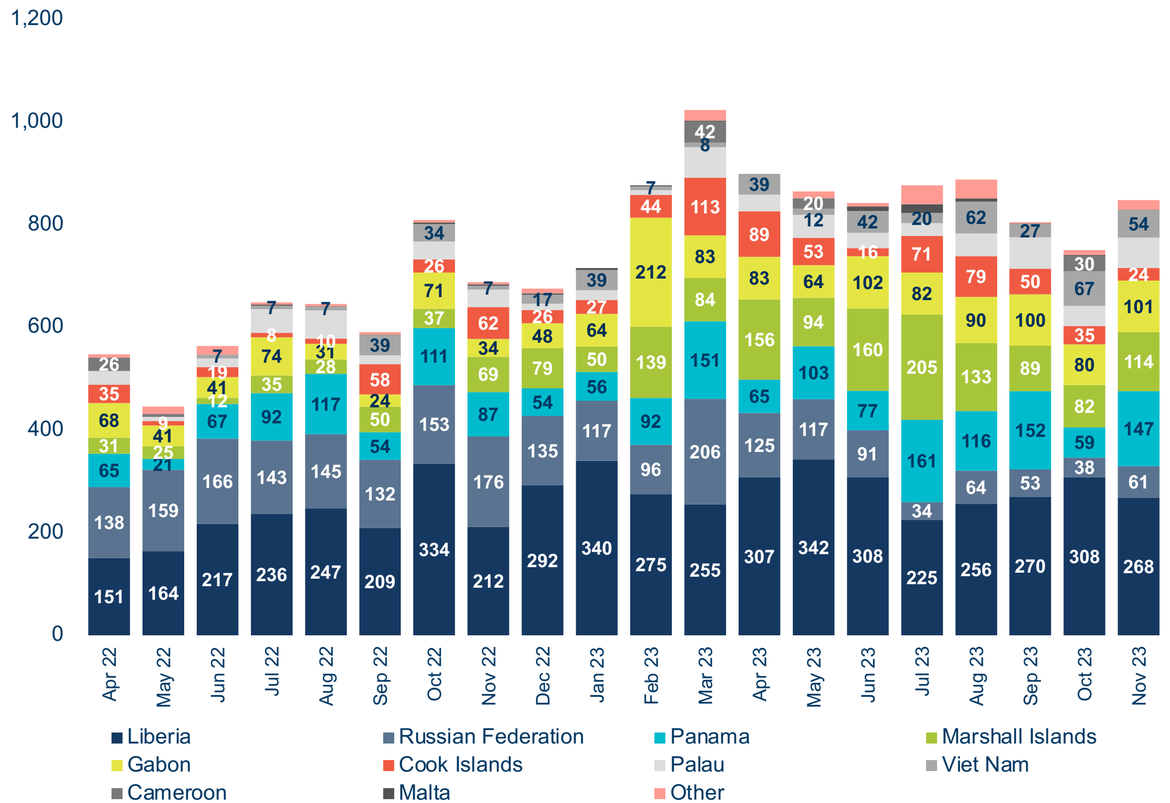
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The top three flags of Russian shadow fleet vessels are Panama, Liberia, Gabon, Cook Islands and Azerbaijan

Russian crude oil exports by shadow fleet by flag, kb/d



Russian oil products exports by shadow fleet by flag, kb/d



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

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Fourteen companies responsible for shipment of 21% Russian crude by shadow fleet in November 2023 have very similar pattern:

- They started carrying Russian crude only in September-November 2023
- Nine companies from these group have only 1 tanker in their management
- Five out of fourteen companies registered their first tanker in fall 2023
- All tankers of these companies carried Russian crude oil 2023 without P&I insurance in November, and 28 out of 31 tankers of the entire fleet of this group also have no P&I insurance

Ship manager	Ship manager country	Adress	November's volume, kb/d	% of total	Number of tankers under management	Date of registration of the first tanker in the current fleet
Seawin Marine Co Ltd	China	Room 705, 7th Floor, Fa Yuen Commercial Building, 75-77, Fa Yuen Street, Mong Kok, Kowloon, Hong Kong, China.	23	1%	1	July 2023
East Ocean Shipping Ltd-Mai		Room 522, 129, Xishan Lu, Pudong Xinqu, Shanghai, China.	47	2%	1	May 2023
Delta Ships Management Ltd		Room 1706B, 17th Floor, Building A, World Trade Tower, 6, Xianggang Zhonglu, Shinan Qu, Qingdao, Shandong, China.	24	1%	4	April 2023
Hong Kong Hanyuan Shipping Co		Room 7022, Block D, 7th Floor, Tak Wing Industrial Building, 3, Tsun Wen Road, Tuen Mun, New Territories, Hong Kong, China.	51	2%	1	September 2022
Santiago Ships Management Co		Room 1727A, 17th Floor, Building A, World Trade Center, 6, Xianggang Zhonglu, Shinan Qu, Qingdao, Shandong, China.	49	2%	3	July 2023
Zenith Shipping Inc-Sey	Mahe Island Seychelles	Mahe Island Seychelles (Not identified)	24	1%	1	July 2023
Double Harmony Marine Corp		Suite 10, 3rd Floor, La Ciotat, Mont Fleuri, Mahe Island Seychelles.	24	1%	1	April 2023
Cheng Shipping & Trader Ltd		Suite 212, 2nd Floor, Block A, La Ciotat, Mont Fleuri, Mahe Island Seychelles.	49	2%	1	November 2023
Trident Beauty Ltd		F2-2A, Oceanic House, Providence Highway, Mahe Island Seychelles.	35	2%	1	October 2023
Protogeno Shipping & Marine	Marshall Islands	Trust Company Complex, Ajeltake Road, Ajeltake, Majuro MH 96960, Marshall Islands.	24	1%	1	March 2023
Symphony Marine For Ship Mgmt	United Arab Emirates	Office 405, Fifty One Tower, Business Bay, Dubai, United Arab Emirates.	24	1%	1	June 2023
Alqutb Alshamali Marine Srvs		MF-77, Nooraniyah Building, 152-0, Hor al-Anz, Deira, Dubai, United Arab Emirates.	49	2%	2	November 2023
Oceanlink Maritime Dmcc		Unit 2808, Plot JLT-PH1-F2A, HDS Tower, Jumeirah Lakes Towers, Dubai, United Arab Emirates.	24	1%	9	October 2023
Almuhit Alhadi Marine Services		Unit 0304, Blue Tower, 46-0, Trade Centre 1, Dubai, United Arab Emirates.	24	1%	4	August 2023

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

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Fourteen companies responsible for shipment of 22% Russian oil products by shadow fleet in November 2023 have a suspicious pattern:

- They started carrying Russian crude only in September-November 2023
- Eight companies from these group have only 1 tanker in their management
- One company with two tankers in a fleet is registered in landlocked Kyrgyzstan and one in Moldova
- All tankers of these companies carried Russian oil products in November 2023 without P&I insurance in November

Ship manager	Ship manager country	Adress	November's volume, kb/d	% of total	Number of tankers under management	Date of registration of the first tanker in the current fleet
Star Ocean Shipmanage Ltd	China	Room 1706A, 17th Floor, Building A, World Trade Tower, 6, Xianggang Zhonglu, Shinan Qu, Qingdao, Shandong, China.	22	3%	4	July 2023
Rhine Marine Services Pvt Ltd	India	Office 31, Sai Chambers, Plot 44, Sector 11, CBD Belapur, Navi Mumbai, Maharashtra, 400614, India.	7	1%	7	January 2023
Munai Invest Llc	Kyrgyzstan	Ofis 3, prospekt Chuy 147/4, 720011 Bishkek, Kyrgyzstan	13	2%	2	January 2023
Kastrol Tankers Ltd	Liberia	80, Broad Street, Monrovia, Liberia.	12	1%	1	October 2023
Great Wind Ltd	Mahe Island Seychelles	Suite 10, 3rd Floor, La Ciotat, Mont Fleuri, Mahe Island Seychelles.	18	2%	1	March 2023
New Star Marine Ltd			7	1%	1	March 2023
Apollo Shipping & Marine Inc	Marshall Islands	Trust Company Complex, Ajeltake Road, Ajeltake, Majuro MH 96960, Marshall Islands.	22	3%	1	April 2023
Glyfada Shipping & Marine Inc			8	1%	1	February 2023
Bpc Shipmanagement Srl	Moldova	Apartment 153, Strada Alba-Iulia 204, Chisinau, Moldova.	7	1%	1	May 2023
Andor Marine Ltd	New Zealand	Avatiu, Cook Islands, New Zealand Island Territories.	6	1%	1	July 2023
Rb Shipmanagement Pte Ltd	Singapore	09-02A, The Adelphi, 1, Coleman Street, Singapore 179803	18	2%	21	April 2022
Unic Tanker Gemi Isletmeciligi	Turkey	Yafaci Sokak, Limanreis Mah, 8, Narlidere, Izmir, Turkey.	7	1%	9	June 2023
White Tankers Gemi Islet		Apartmani 57, Denizciler Ticaret Merkez, Sahil Yolu Bulvari 126, Aydintepe Mah, Tuzla, 34947 Istanbul, Turkey.	15	2%	4	January 2023
Sealink Transport Service Co	Vietnam	5th Floor, VIT Tower, 519, Kim Ma, Ngoc Khanh Ward, Ba Dinh District, Hanoi City, 100000, Vietnam.	20	2%	1	June 2023

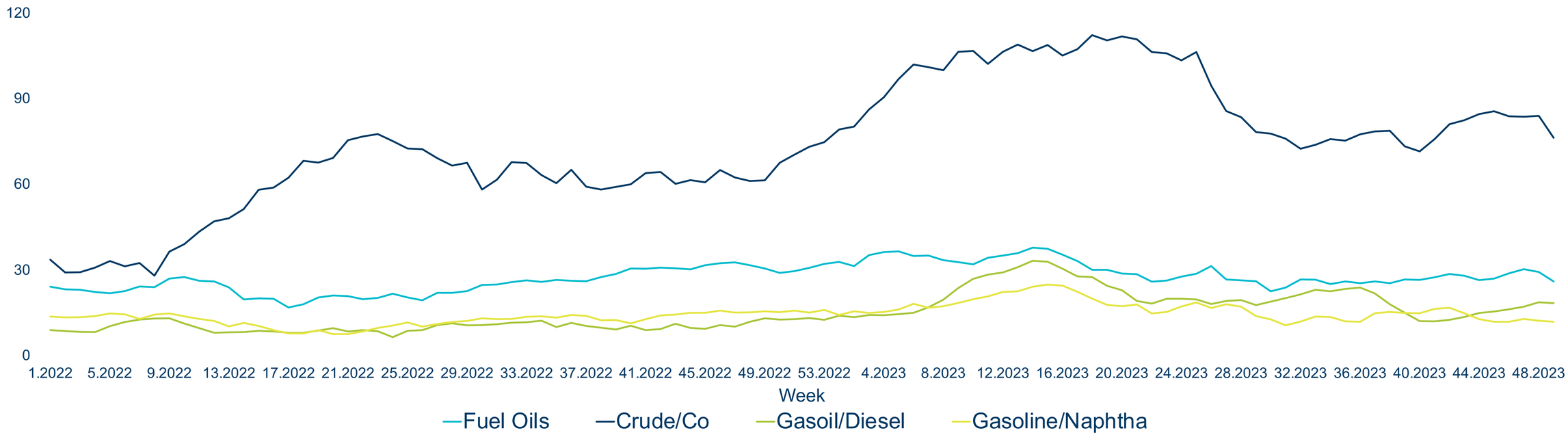
Source: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

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Rerouting of Russian crude and oil products to new destinations increased Russian oil on water by around 64 mb compared to the pre-invasion average

- Rerouting of Russian crude and oil products to new destinations have significantly increased Russian oil on water
- In November 2023, the volume of Russian oil on water was around 64 mb higher than the pre-invasion average
- Although the volumes of Russian crude and diesel on water decreased in November compared to their peaks after the introduction of oil embargo by the EU, they were around 2.7 and 2.0 times higher respectively compared to January 2022

Russian oil on water, mb, average per week



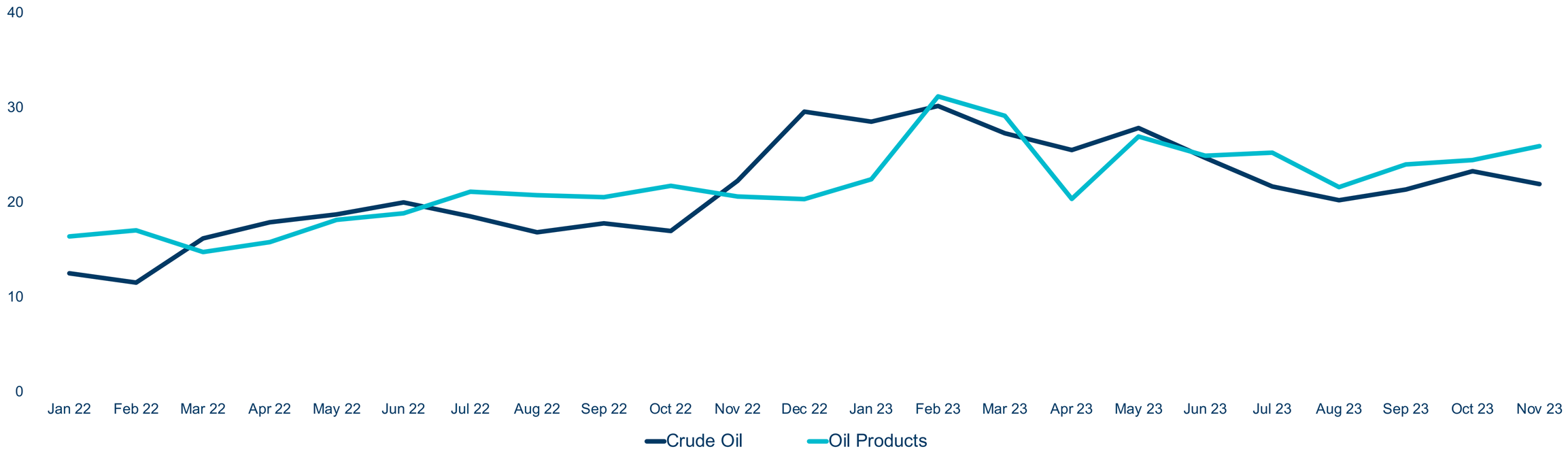
Source: Kpler, KSE Institute estimates

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Average transit days of crude and oil products increased by 90% and 52% respectively compared to February 2022

- 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 but decreased to 22 in November 2023
- The average transit days for oil products increased from 17 in February 2022 to 31 in February 2023 but declined to 26 in November 2023

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



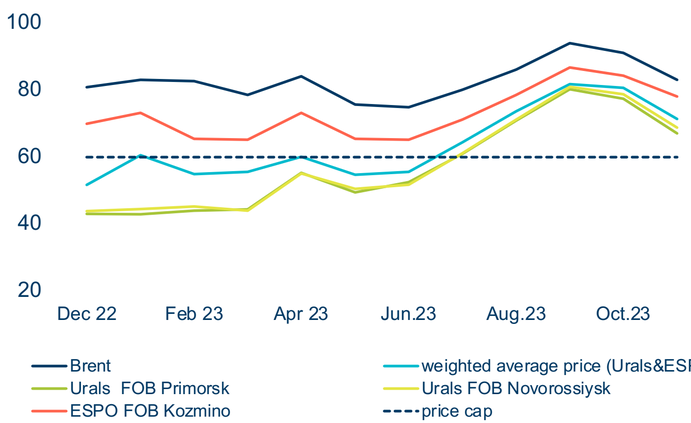
Source: Kpler, KSE Institute estimates

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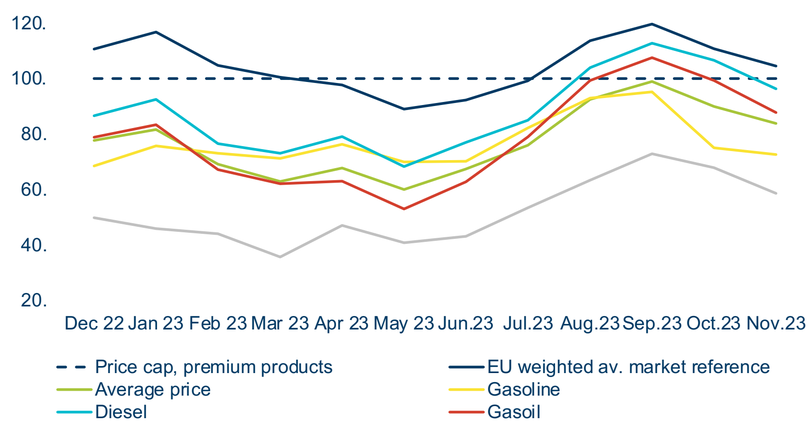
In November 2023, Urals FOB Baltic and Black Sea went down by around $10/bbl, ESPO FOB decreased by around $6/bbl but all grades still traded above the price cap

- In November 2023, Urals FOB Baltic and Black Sea decreased by 10.3/bbl and 10.0/bbl to $67/bbl and $69/bbl respectively. The trade of Urals above the price cap in August-November had marginal effect of its shipments so far from Baltic and Black Sea ports.
- The discount on Urals has widened by $2/bbl in November MoM after OFAC imposed its first blocking sanctions on two vessels and owners for using US-based services while carrying Russian crude sold above the price cap and the US Treasury sent letters to shipping companies for potentially breaching G7/EU price cap in November
- ESPO FOB decreased by $6.2/bbl to $78.1/bbl remaining ineligible for Western maritime service as since the embargo introduction but the discount to Dated Brent narrowed by $1.8/bbl
- Prices for Russian diesel decreased to $96.3/bbl to around $3.7/bbl below price cap. The price of gasoline declined by $2.4/bb to $72.6/bbl while gasoil decreased by $12.6/bbl to $87.8/bbl MoM. The price of VGO which had to be placed to discounted products instead of the premium ones decreased by $9.3/bbl to $58.6/bbl MoM in November
- Price for fuel oil decreased by $7.8/bbl to around $43.4/bbl while price for naphtha decreased by $2.5/bbl to $49.4/bbl exceeding the approved price cap for discounted products at $45/bbl

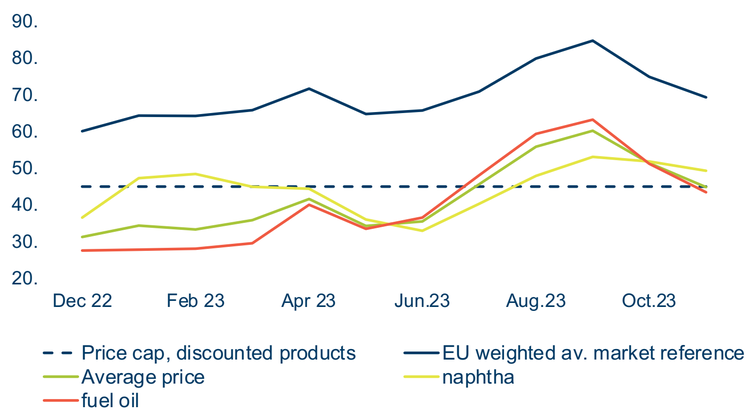
Russian Crude FOB Export Prices



Russian Premium Products FOB Export Prices



Russian Discounted Products FOB Export Prices



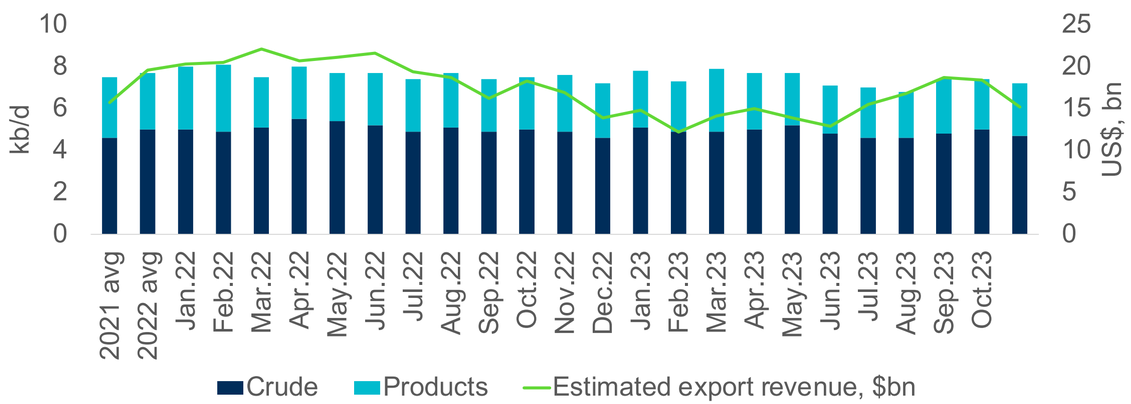
Source: IEA (2023), Oil Market Report - December 2023, IEA, Paris, WB Commodity Prices (Brent)

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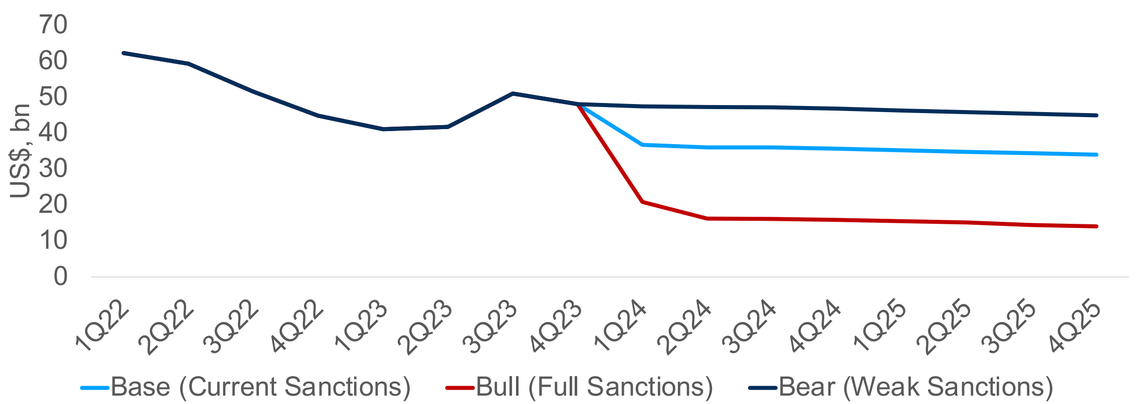
In November 2023 Russian oil export revenues declined by $3.2 bn to $15.2 bn. KSE Institute projects that revenues will contract to still robust $145 bn and $139 bn in 2024 and 2025 respectively in the base case scenario from $218 bn in 2022 and projected $182 bn in 2023, but the scenario outcome is sensitive to sanctions enforcement

- Although volumes of Russian oil exports marginally changed 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 1H2023. Narrowing the discount on Russian oil and soaring world market prices led to a surge of Russian oil revenues until November.
- Russian oil export revenues decreased by $3.2 bn to $15.2 bn in November (MoM) due to lower crude shipments, lower world prices and wider discount on Urals
- According to the KSE Institute modelling, in the base case with current oil price caps and status quo of sanctions but their stronger enforcement, revenues will contract to $145 bn and $139 bn in 2024 and 2025 respectively compared to $218 bn and projected $182 bn in 2023 respectively. Total Russian oil exports goes down to 7.0 mb/d.
- In the bull sanctions case, with lower price cap equivalent to $50/bbl discount to forecast Brent prices, revenues fall to $69 bn and $59 bn in 2024 and 2025 respectively. Total Russian oil exports goes down to 5.2 mb/d in this scenario.
- In the bear case, with US$ 10/bbl discount to forecast Brent prices, and less decline in oil export volumes, revenues will increase to robust $189 bn and $183 bn in 2024 and 2025 respectively. Total Russian oil exports only goes down to 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 Oil Market Reports, KSE Institute estimates

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Policy Recommendations

Bold measures are needed as Russia's oil is slipping beyond G7 reach.

The October-November data suggest that problems with price cap implementation and enforcement are much bigger than previously expected. To ensure that sanctions continue to constrain Russia's ability to wage its war of aggression on Ukraine—and that their credibility is maintained—additional steps urgently need to be taken. Below, we outline three critical measures that can quickly and effectively address Russian effort to evade sanctions on its oil exports.

1. **G7/EU countries should ensure that their authorities have sufficient proof of compliance with the price cap, including by: a) leveraging the involvement of G7/EU financial institutions in the Russian oil trade and their knowledge of key transaction details such as prices; b) requiring attestations to be provided by reputable entities defined via transparent criteria and subject to sanctions in the case of violations or their facilitation; and/or c) stepping-up of documentary evidence requirements for G7/EU service providers under the current system (including original sales contracts, etc.).**
2. **EU coastal states should leverage geographical "choke points" to limit Russia's use of a "shadow fleet" of tankers by requiring proper spill insurance for vessels' passage through their territorial waters, including in the Baltic Sea and Mediterranean. This would force Russia to rely once again on G7/EU services for a substantial share of its exports and also help address environmental risks that have emerged due to the increasing use of old and under-insured tankers. For this purpose, a system to allow for timely and efficient verification of insurance information should be established.**
3. **Price cap coalition countries should step up penalties on entities that violate the price cap. For G7/EU companies, this should include tougher monetary penalties and expanded lockout periods. For third-country actors, price cap coalition countries should impose "direct" sanctions (e.g., SDN listing in the United States or use of the European Union's anti-circumvention tool established in the 11th package) and consider the application of extraterritorial ("secondary") sanctions, leveraging the continued critical importance of its financial system for internationally operating businesses.**

[1] Please see for analysis and detailed recommendation: The International Group of Working Sanctions, September 4, 2023, Using Energy Sanctions to Shorten the War, Working Paper #14, https://fsi9-prod.s3.us-west-1.amazonaws.com/s3fs-public/2023-09/working_paper_14_-_using-energy-sanctions_09-04-23.pdf