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Russian oil tracker

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Summary

- In September 2023 Russian oil export revenues increased by $1.8 bn (MoM) to the highest level since July 2022 on both higher prices and higher exports volumes of crude and oil products.
- Russia managed to significantly decrease its reliance on Western maritime services: in Q3 2023 only 42% of Russian seaborne oil exports was shipped by tankers with P&I Club insurance compared to 54% in Q2 2023. In addition, the P&I Club coverage varies by ports: 80% of crude oil exports from Black Sea ports were shipped with P&I Club insurance while only 9% of crude oil shipments from Pacific Ocean ports had P&I Club insurance in September 2023.
- The KSE Institute estimates 178 loaded Russian shadow fleet tankers left Russian in August 2023, 72% of which 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.[1]. In September 2023, the shadow fleet was responsible for exports of around 2.2 mb/d of crude oil and 0.8 mb/d of oil products.
- The number of unique shadow fleet tankers carrying crude and oil products from Russian ports in July - September 2023 is estimated at 336. However, the KSE Institute believes the actual shadow fleet tankers operated by Russia is much lower as only 208 shadow tankers returned to Russia ports for a second loading during 100 days since March while the need in tankers for stable exports was around 3-4 times higher during last several months.
- Russian oil companies hide their connections to shadow fleet operations by dispersing ship managers as KSE Institute found twelve of them operate just one tanker but have the same registration address in Liberia and are managed by the same information security manager (ISM) registered in India
- Narrowing but still significant price discounts for both Russian crude and oil products continue supporting the strong demand for Russian oil exports. In September 2023, average Urals FOB Baltic and Black Sea increased to $80/bbl and $81/bbl despite being ineligible for shipping with P&I insurance at such price. In December 2022-September 2023 ESPO was shipped with Western maritime services at prices much above the price cap. Diesel, gasoil, fuel oil and naphtha were traded above the price cap as well. Crossing the approved price cap by most important items of Russian oil exports as crude, diesel and fuel oil indicates weak policy enforcement by the EU/G7 governments.
- Russian oil export revenues increased by $1.8 bn to $18.8 bn in September (MoM) due to both higher crude and products volumes exports and higher prices and were the highest since July 2022. 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 $177 bn and $157 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 $160 bn and $74 bn in 2023 and 2024. However, in case of weak sanctions enforcement, Russian oil revenues could approach a robust $184 bn and $202 bn in 2023 and 2024 respectively.

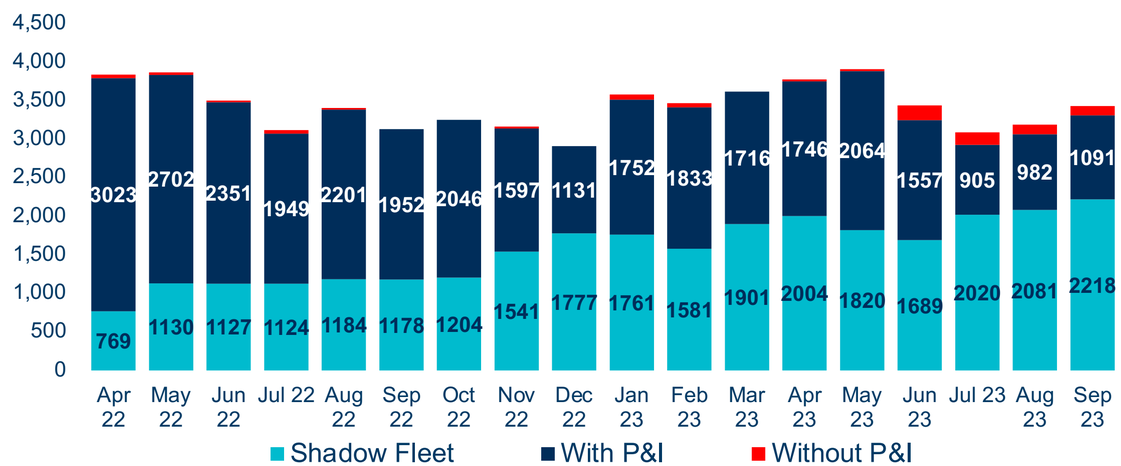
[1]See Craig Kennedy, August 23, 2023, Measuring the Shadows. Moscow's Strategies for Evading Oil Sanctions and How to Stop them from Succeeding, https://navigatingrussia.substack.com/p/measuring-the-shadows?utm_source=substack&utm_medium=email for details and examples

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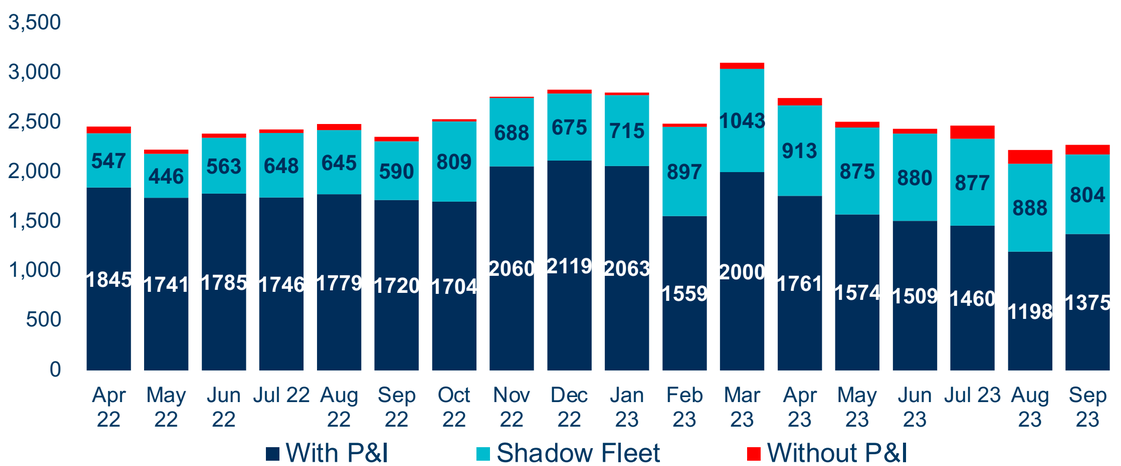
Russian seaborne oil exports volumes increased by 5% in September 2023. Russia continued boosting crude shipments by shadow fleet

- In September 2023 Russian seaborne oil exports increased by 291 kb/d or by 5.1% (month-over-month MoM) and was also 4.0% higher than a year ago (YoY)
- In September 2023 the shipment of seaborne crude oil increased by around 7.0% (MoM) while products exports were 2.2% higher than in the previous month
- Russia managed to lower its reliance on Western maritime services mainly for crude shipments as 32% of crude oil (31% in August) and 60% (54% in August) of oil products were shipped by tankers with P&I Club insurance in September 2023

Russian seaborne crude oil exports, kb/d



Exports of Russian oil products, kb/d



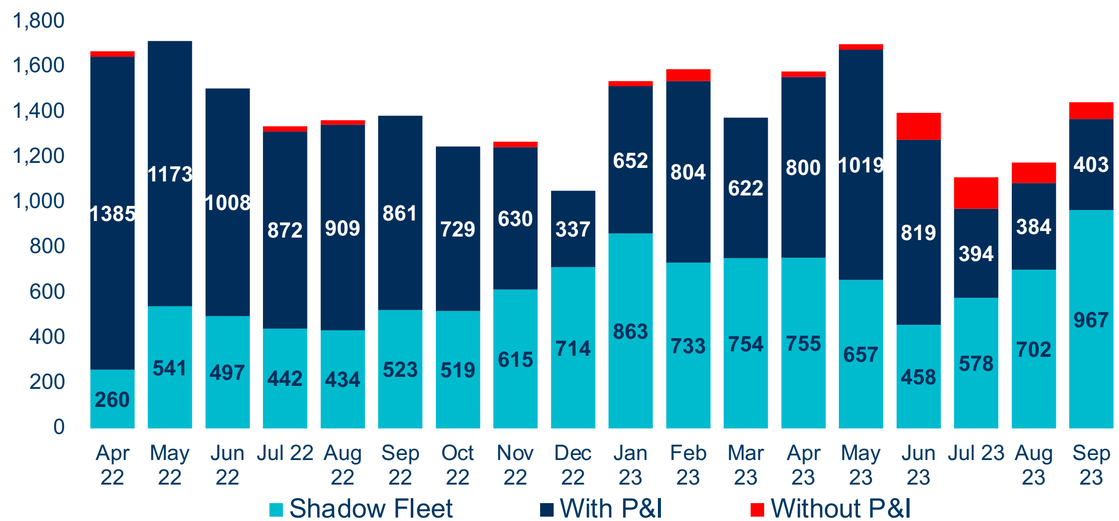
Source: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

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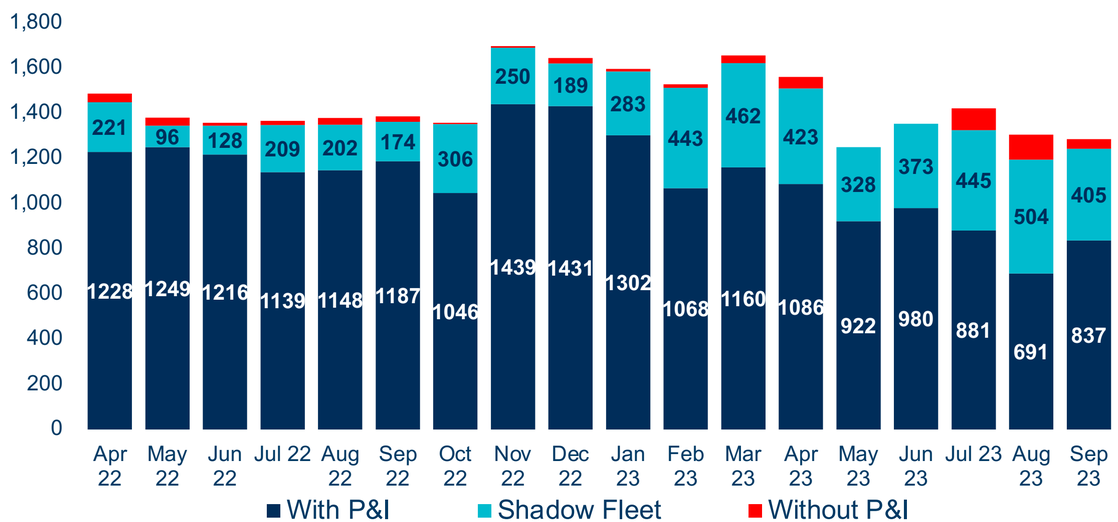
45% of crude oil & oil products were shipped by tankers with P&I Club insurance from Baltic Sea ports in September 2023

- In September 2023 the exports of crude oil from Baltic ports increased by 18.4% (MoM) and by 4.3% (YoY).
- The exports of oil products from Baltic ports decreased by 1.5% (MoM) and by 7.3% (YoY) in September.
- 28% of crude oil and 67% of oil products were shipped by tankers with P&I Club insurance in September compared to 33% and 64% respectively in August

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



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



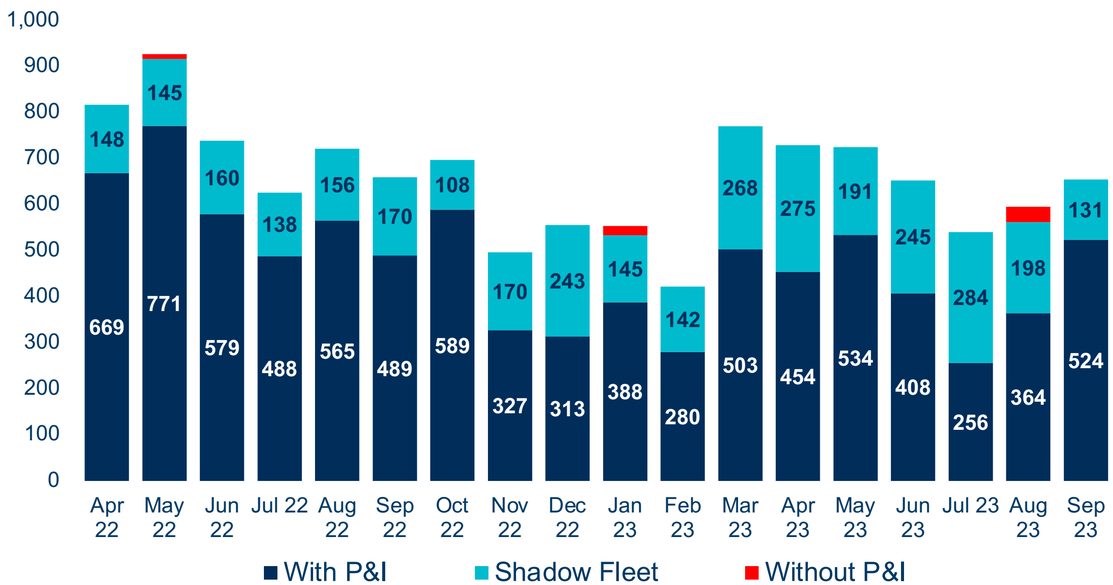
Source: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

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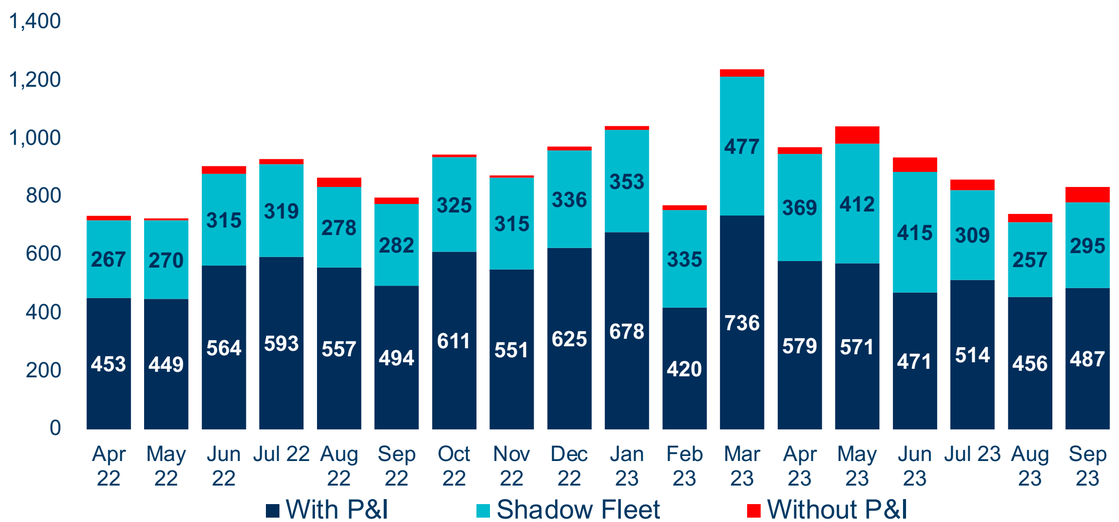
68% of crude oil & oil products were shipped by tankers with P&I Club insurance from Black Sea ports in August 2023

- In September 2023 the exports of crude oil from Black Sea ports increased by 10.0% (MoM) but decreased by 0.7% (YoY).
- The exports of oil products from Black Sea ports increased by 12.4% (MoM) and by 4.6% (YoY).
- 80% of crude oil and 58% of oil products were shipped by tankers with P&I Club insurance in September compared to 61% and 62% respectively in August

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



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



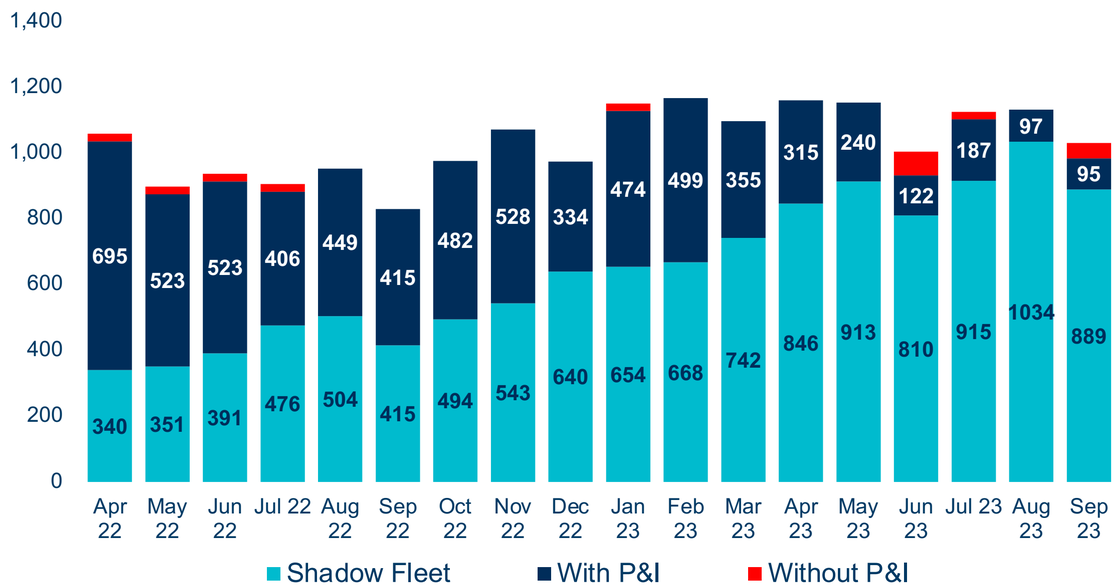
Source: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

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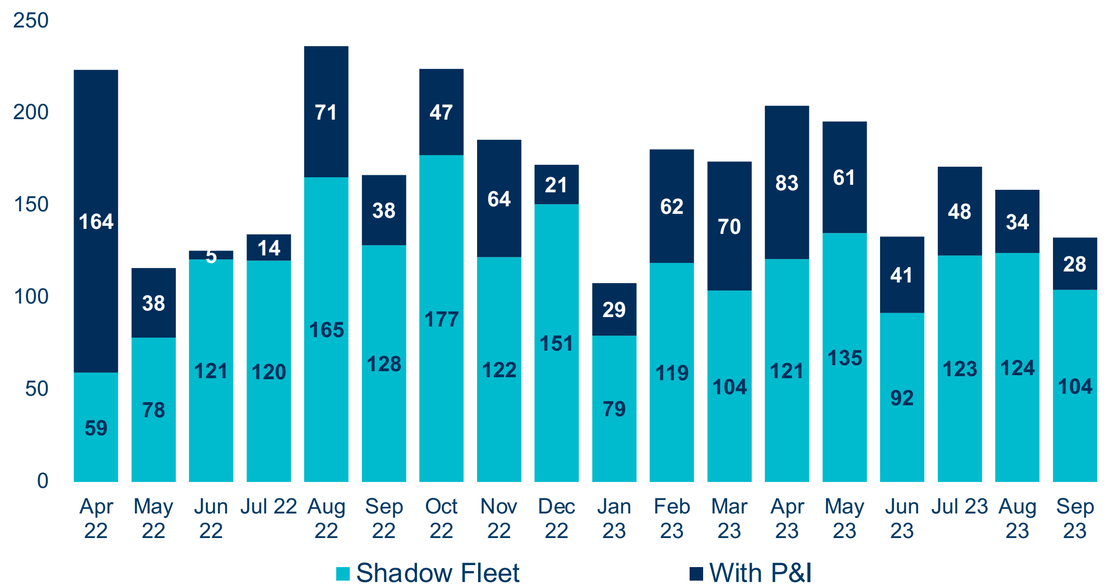
11% of crude oil & oil products were shipped by tankers with P&I Club insurance from Pacific Ocean ports in September 2023

- In September 2023 the exports of crude oil from Pacific Ocean ports increased by 8.9% (MoM) and by 24.2% (YoY)
- The exports of oil products from Pacific Ocean ports decreased by 16.4% (MoM) and by 20.3% (YoY)
- Only 9% of crude oil and 21% of oil products were shipped by tankers with P&I Club insurance in September 2023

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



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



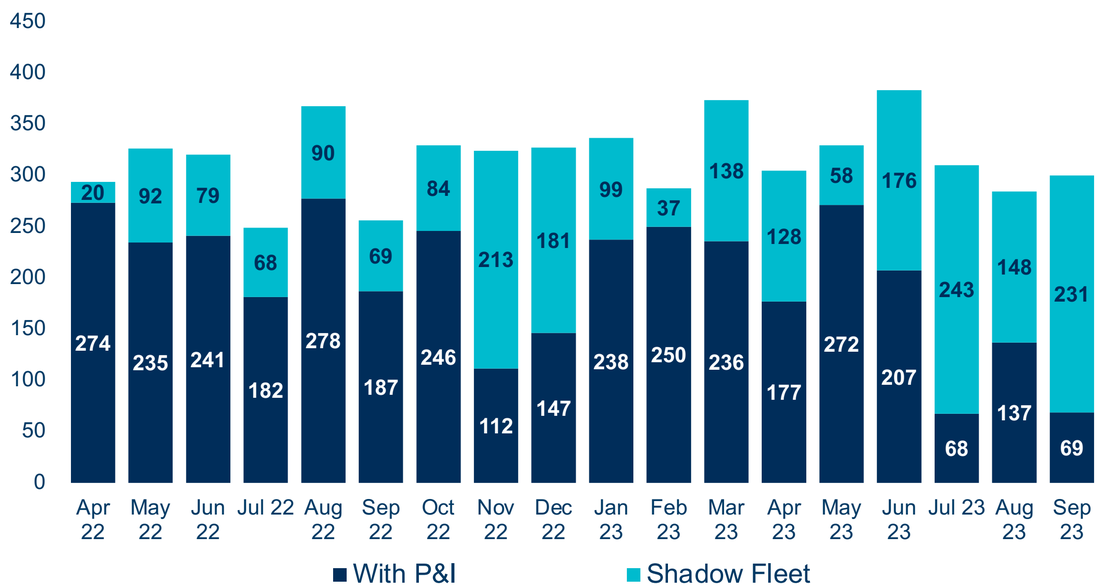
Source: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

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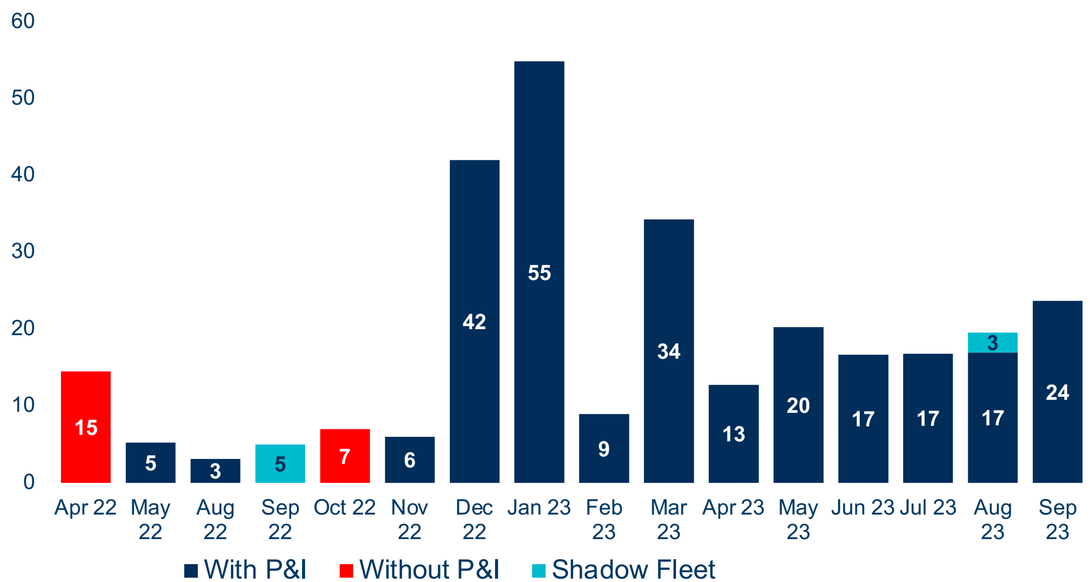
29% of crude oil and oil products were shipped by tankers with P&I Club insurance from Arctic Ocean ports in September 2023

- In September 2023 the exports of crude oil from Arctic Ocean ports increased by 5.4% (MoM) and by 17.1% (YoY)
- The exports of oil products from Arctic Ocean is insignificant as Russia ships predominantly crude from these ports.
- 23% of crude oil was shipped by tankers with P&I Club insurance in September 2023 compared to 48% in August

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



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



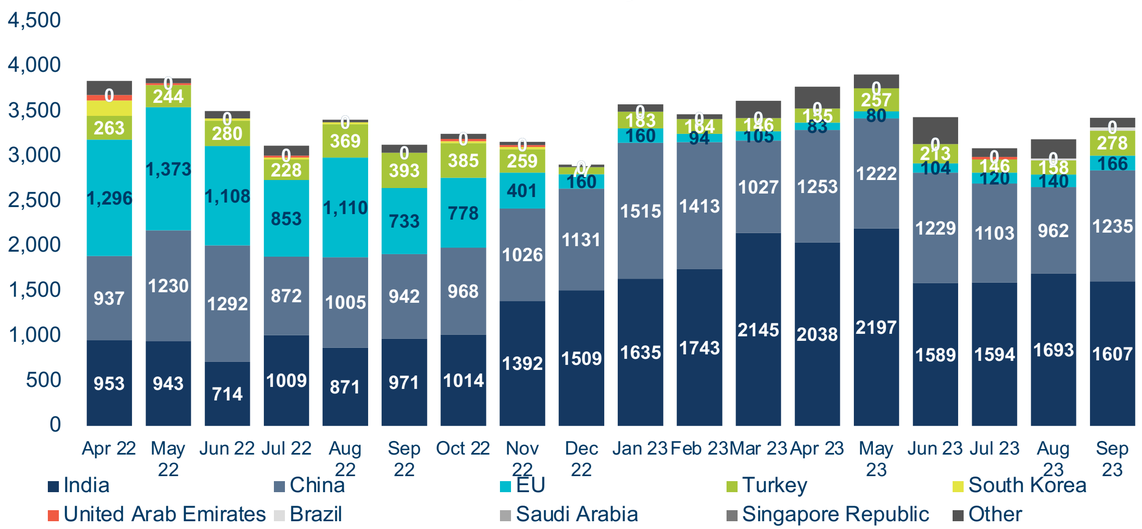
Source: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

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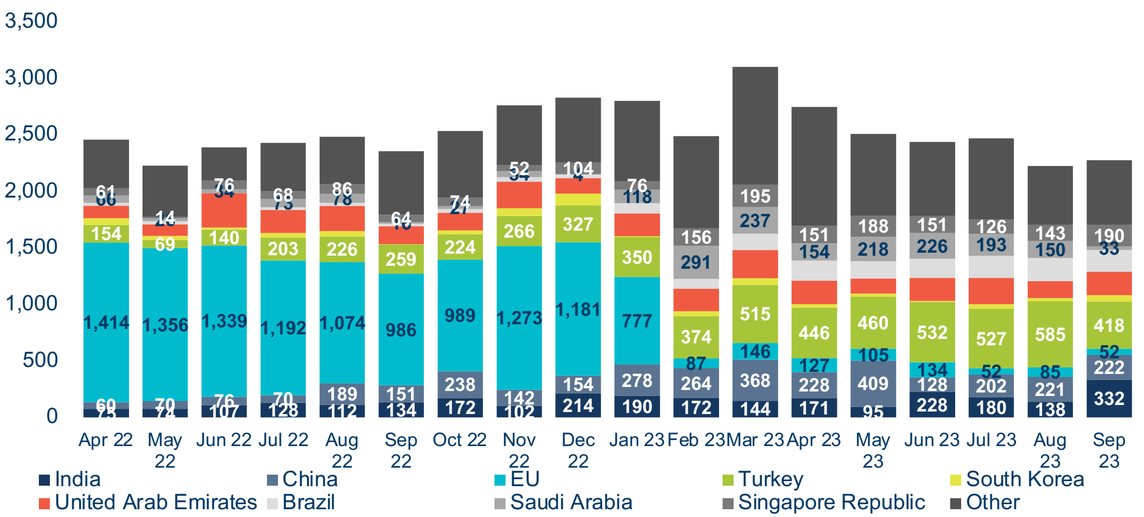
India remained the biggest buyer of Russian seaborne crude while Turkey remained the biggest importer of oil products after the coalition of advanced democracies refused to purchase Russian oil

- In September 2023 the share of the EU in Russian crude exports decreased to 5% from 23% (YoY) as only Bulgaria is eligible for seaborne oil imports from Russia after EU's embargo came into effect in December 2022
- In September 2023 the share of the EU in Russian oil products exports decreased to 2% but from 42% (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 47% in September* 2023
- Altogether India, China and Turkey were responsible for 91% of Russian crude oil exports in September * respectively
- Although Turkey decreased oil products imports from Russia from record high 585 kb/d in August to 418 kb/d in September it remained the biggest importer of Russian origin oil products
- Russia also managed to increase oil products exports to UAE, China, India, Brazil and Singapore to replace the loss of its traditional European market

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



Russian oil products exports by destinations countries, kb/d



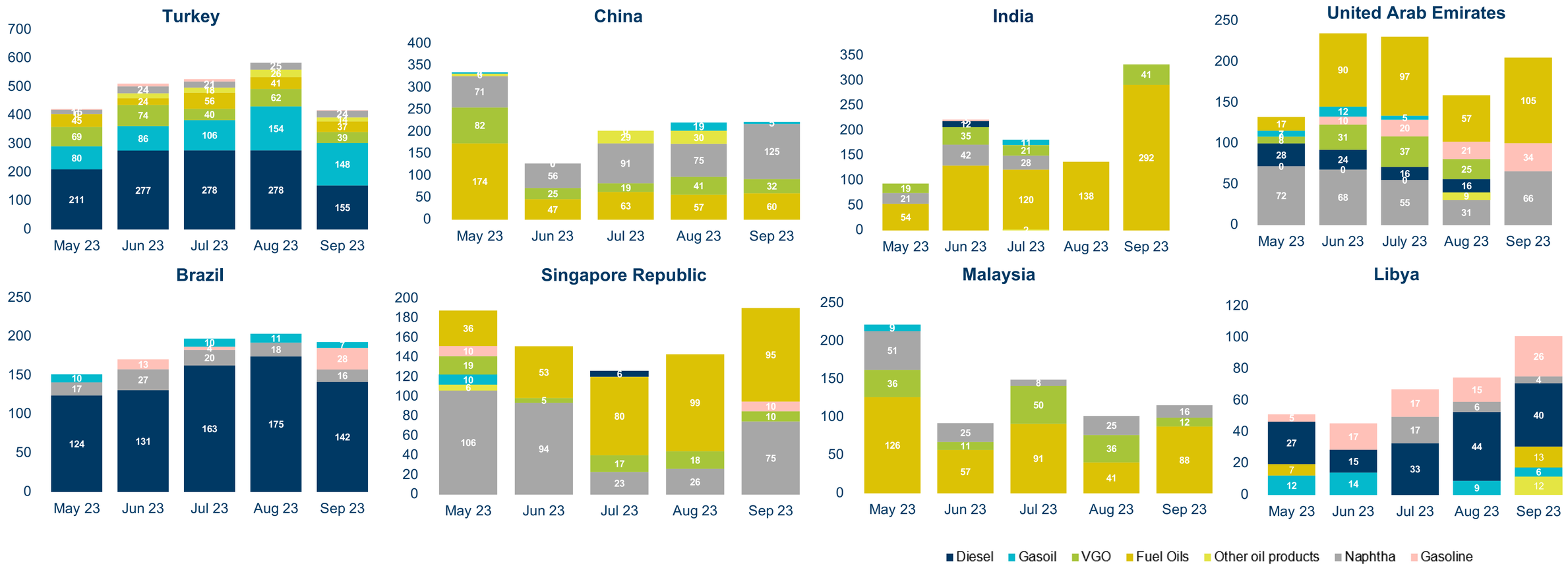
Source: Kpler, KSE Institute estimates

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

- Turkey's decreased Russian oil products imports from all-time high of 585 kb/d in August to 418 kb/d in September but remained the biggest importer of Russian oil products
- Saudi Arabia sharply cut its Russian oil products imports over previous months and is no longer in top eight importers of Russian oil products
- The imports by China and Brazil little changed over several months while India and UAE increased their imports of Russian oil products by 142% and 71% respectively

Top 10 importers of Russian oil products, kb/d



Source: Kpler, KSE Institute estimates

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Registered in the OAE Sun Ship Management (former SovComFlot (SCF) operated a shadow fleet of 83 tankers. In summer 2023, 33 vessels from this fleet changed a manager for Oil Tankers Scf Mgmt Fzc, but registered also in the UAE. All of these tankers navigate without P&I insurance.
Four out of ten biggest shippers of Russian crude were Greek companies in September 2023

Russian crude oil exports by ship managers

Jul 23			Aug 23			Sep 23		
Ship manager	**Volume, kb/d**	**%**	**Ship manager**	**Volume, kb/d**	**%**	**Ship manager**	**Volume, kb/d**	**%**
Other	1606	52%	Other	1614	51%	Other	1770	52%
UAE.Sun Ship Management	618	20%	UAE.Sun Ship Management	553	17%	UAE.Sun Ship Management	535	16%
Greece.Tms Tankers Ltd	154	5%	UAE.Oil Tankers Scf Mgmt Fzco	316	10%	UAE.Oil Tankers Scf Mgmt Fzco	299	9%
UAE.Oil Tankers Scf Mgmt Fzco	149	5%	Greece.Tms Tankers Ltd	258	8%	China.Sunne Co Ltd	149	4%
UAE.K&O Shipmanagement Fze	123	4%	Greece.Kyklades Maritime Corp	144	4%	Greece.Tms Tankers Ltd	133	4%
Greece.Minerva Marine Inc	82	3%	Greece.New Shipping Ltd-Lib	60	2%	UAE.Radiating World Shipping Servs	106	3%
UAE.Star Voyages Shipping	81	3%	Greece.Marine Trust Ltd-Mai	56	2%	Greece.New Shipping Ltd-Lib	97	3%
Turkey.Beks Tanker Isletmeciligi As	73	2%	China.Intercon Marine Shanghai Co	50	2%	UAE.K&O Shipmanagement Fze	93	3%
Greece.Thenamaris Ships Management	69	2%	Liberia.Hs Esberg Ltd	49	2%	Turkey.Gungen Denizcilik Ve Ticaret	90	3%
India.Maritas Fleet Pvt Ltd	69	2%	China.Supership Management Co Ltd	48	2%	Greece.Minerva Marine Inc	88	3%
Greece.New Shipping Ltd-Lib	60	2%	China.Sunne Co Ltd	48	1%	Greece.Marine Trust Ltd-Mai	69	2%
Total	**3087**	**100%**	**Total**	**3196**	**100%**	**Total**	**3428**	**100%**

Source: Kpler, KSE Institute estimates

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Registered in the UAE Oil Tankers Scf Mgmt Fzco became the the leading shipper of Russian oil products by operating vessels obtained from Sun Ship Management. All these tankers navigate without P&I insurance. Seven out of ten biggest shippers of Russian oil products were Greek companies in September 2023

Russian oil products exports by ship managers

Jul 23			Aug 23			Sep 23		
Ship manager	**Volume, kb/d**	**%**	**Ship manager**	**Volume, kb/d**	**%**	**Ship manager**	**Volume, kb/d**	**%**
Other	1808	73%	Other	1608	72%	Other	1548	68%
UAE.Oil Tankers Scf Mgmt	125	5%	UAE.Oil Tankers Scf Mgmt	104	5%	United Arab Emirates.Oil Tankers Scf Mgmt	124	5%
Greece.Minerva Marine Inc	114	5%	Greece.Spring Marine Management Sa	81	4%	Greece.Ims Sa	103	5%
Greece.Eastern Mediterranean Maritime Ltd	78	3%	Greece.Sea Trade Marine Sa	81	4%	Greece.Eastern Mediterranean Maritime Ltd	85	4%
Turkey.Beks Tanker Isletmeciligi As	73	3%	Greece.Tms Tankers Ltd	72	3%	Greece.Stealth Maritime Corp Sa	79	3%
India.Ark Seakonnect Shipmanagment	55	2%	Turkey.Beks Tanker Isletmeciligi As	65	3%	Greece.Minerva Marine Inc	77	3%
Greece.Tms Tankers Ltd	50	2%	Greece.Eastern Mediterranean Maritime Ltd	60	3%	Greece.Sea Trade Marine Sa	61	3%
Kuwait.Arab Maritime Petroleum Trans	47	2%	Greece.Velos Tankers Ltd	49	2%	Greece.Tms Tankers Ltd	60	3%
Greece.Spring Marine Management Sa	42	2%	Greece.Minerva Marine Inc	39	2%	United Arab Emirates.Radiating World Shipping	49	2%
Greece.Thenamaris Ships Management	39	2%	Kuwait.Arab Maritime Petroleum Trans	34	2%	Kuwait.Arab Maritime Petroleum Trans	49	2%
Greece.Stealth Maritime Corp Sa	38	2%	Greece.Product Shipping & Trading Sa	32	1%	Greece.Alberta Shipmanagement Ltd	41	2%
Total	**2469**	**100%**	**Total**	**2225**	**100%**	**Total**	**2276**	**100%**

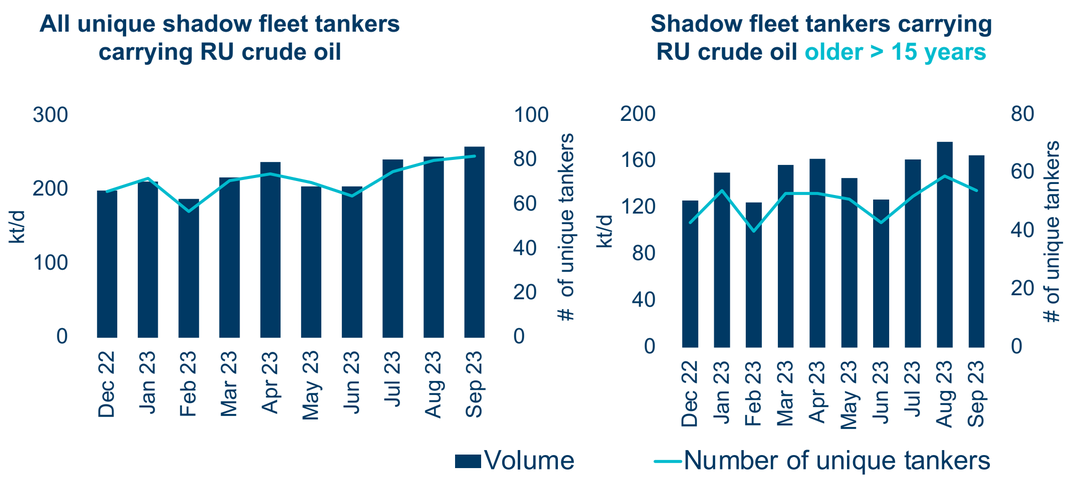
Source: Kpler, KSE Institute estimates

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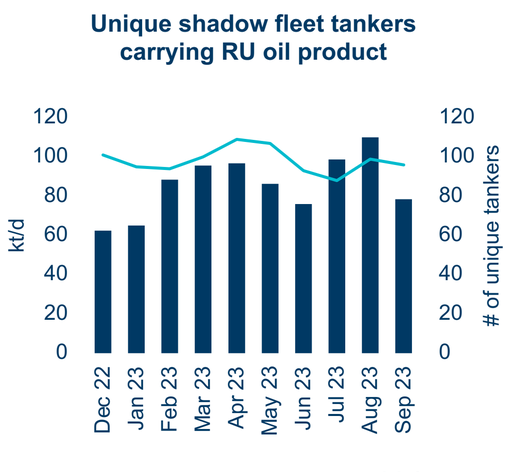
The number of Russian shadow fleet tankers carrying crude and oil products from Russian ports vessels in September 2023 is estimated at 178

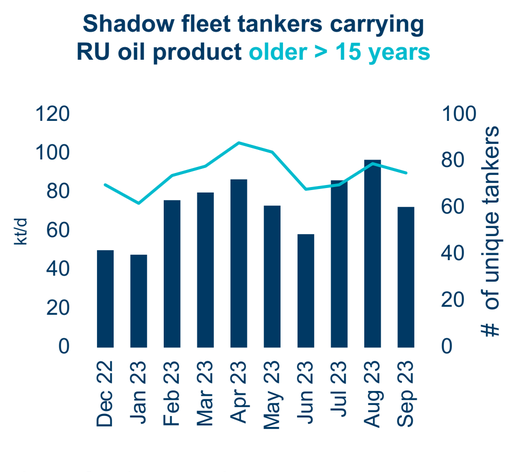
- Russian oil exporters increased the number of shadow fleet tankers carrying crude from Russian ports to 82 in September 2023 while 66% of them were older than 15 years
- The number of shadow fleet tankers carrying Russian oil products from Russian ports decreased to 96 in September 2023 while 78% of 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



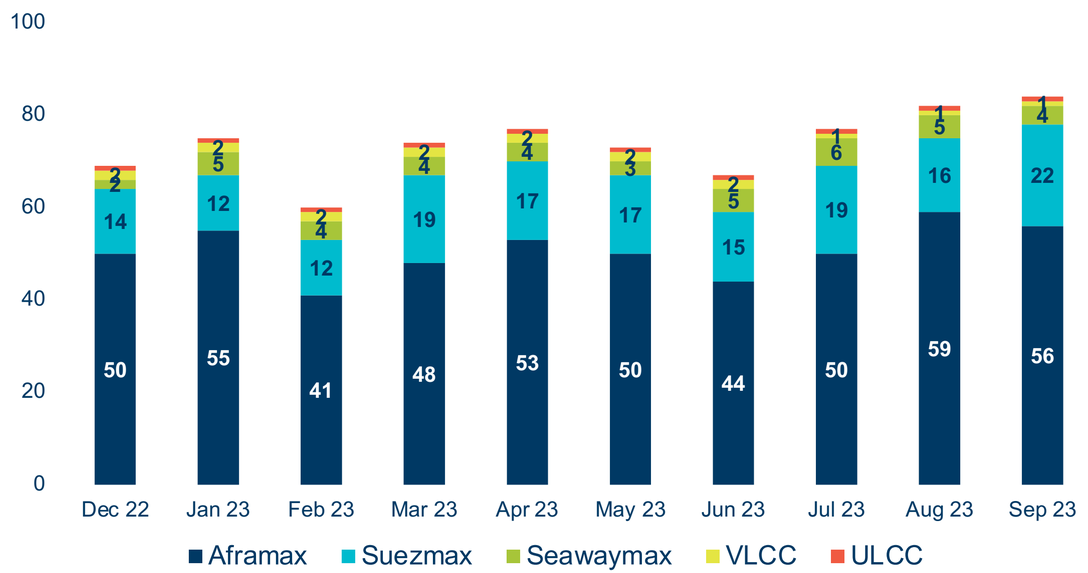


Source: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

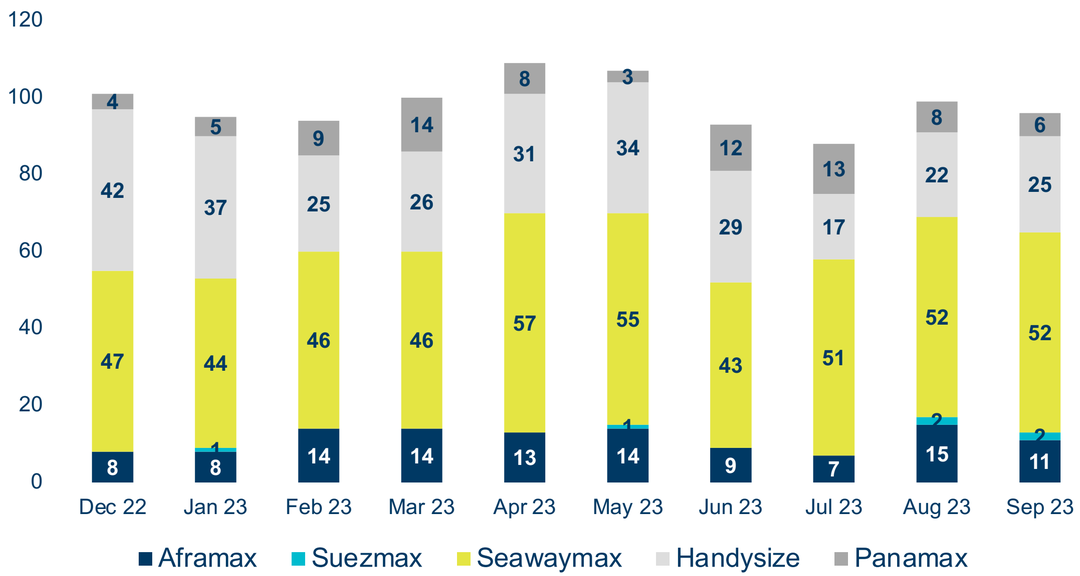
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Aframax and Seuzmax are the core of Russian shadow fleet carrying crude while Seawaymax, Panamax and Aframax forms the Russian shadow fleet carrying oil products. Total Russian shadow fleet carrying oil and oil products from Russian ports and involved in STS transfers is estimated at 180 tankers in September 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 remained at 65% in September 2023

- Russian crude oil exports by shadow fleet increased by around 137 kb/d (MoM) to record 2218 kb/d in September but its share in total crude shipments stayed at 65% as in the previous month
- Sun Ship Management and connected to it Oil Tankers Scf Mgmt Fzco decreased their shares in crude oil shipments by shadow fleet by 5% (MoM) to 37% in September 2023

Russian crude oil exports by shadow fleet, kb/d

Jul 23			Aug 23			Sep 23		
Ship manager	Volume, kb/d	%	Ship manager	Volume, kb/d	%	Ship manager	Volume, kb/d	%
Other	693	34%	Other	829	40%	Other	788	36%
UAE.Sun Ship Management	618	31%	UAE.Sun Ship Management	553	27%	UAE.Sun Ship Management	535	24%
UAE.Oil Tankers Scf Mgmt Fzco	149	7%	UAE.Oil Tankers Scf Mgmt Fzco	316	15%	UAE.Oil Tankers Scf Mgmt Fzco	299	13%
UAE.K&O Shipmanagement Fze	123	6%	China.Intercon Marine Shanghai Co	50	2%	China.Sunne Co Ltd	149	7%
UAE.Star Voyages Shipping	81	4%	Liberia.Hs Esberg Ltd	49	2%	UAE.Radiating World Shipping Servs	106	5%
Turkey.Beks Tanker Isletmeciligi As	73	4%	China.Supership Management Co Ltd	48	2%	UAE.K&O Shipmanagement Fze	93	4%
India.Maritas Fleet Pvt Ltd	69	3%	China.Sunne Co Ltd	48	2%	China.Intercon Marine Shanghai Co	51	2%
UAE.Fractal Marine Dmcc	57	3%	China.Rptd Sold China	48	2%	China.Supership Management Co Ltd	50	2%
UAE.Radiating World Shipping Servs	57	3%	Seychelles.Loengo Shipping & Trader Ltd	48	2%	China.Rptd Sold China	49	2%
India.Pilot Ship Management Opc Pvt	50	2%	China.Shanghai Future Ship Mgmt Co	46	2%	Marshall Islands.Protogeno Shipping & Marine	49	2%
China.Intercon Marine Shanghai Co	50	2%	Vietnam.Opec Petrol Transportation Co	46	2%	China.Prominent Shipmanagement Ltd	49	2%
Total	**2020**	**100%**	**Total**	**2081**	**100%**	**Total**	**2218**	**100%**

Source: Kpler, KSE Institute estimates

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Russia oil products exports by shadow fleet decreased by 84 kb/d and the share of products exports by shadow fleet decreased by 5% in September (MoM)

- Russia shipped 804 kb/d or around 35% of its oil products exports by shadow fleet in September
- 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 15% in September

Russian oil products exports by shadow fleet, kb/d

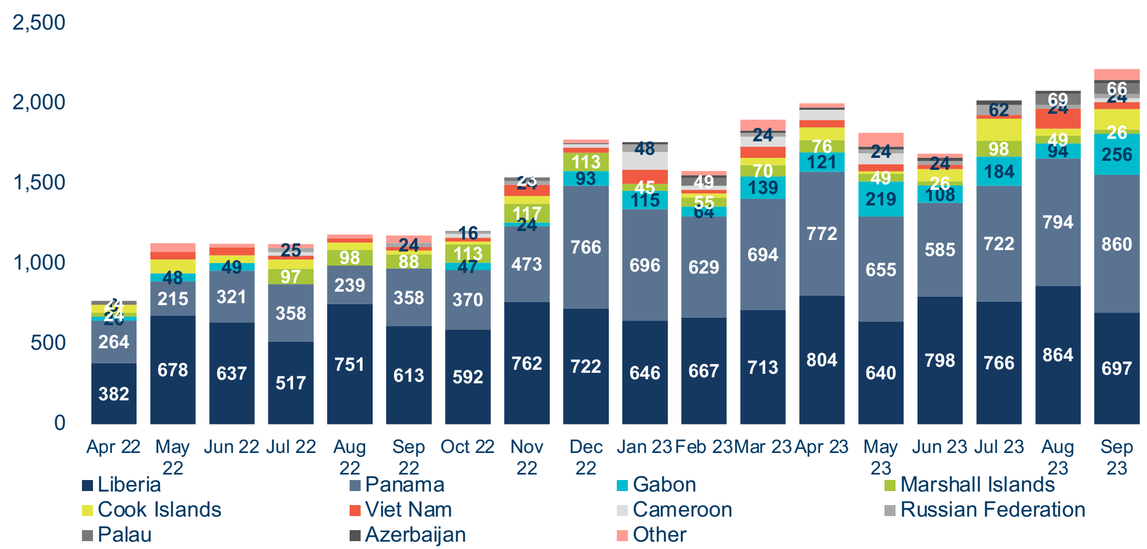
Jul 23			Aug 23			Sep 23		
Ship manager	Volume, kb/d	%	Ship manager	Volume, kb/d	%	Ship manager	Volume, kb/d	%
Other	459	52%	Other	522	59%	Other	420	52%
UAE.Oil Tankers Scf Mgmt Fzco	125	14%	UAE.Oil Tankers Scf Mgmt Fzco	104	12%	UAE.Oil Tankers Scf Mgmt Fzco	124	15%
Turkey.Beks Tanker Isletmeciligi As	73	8%	Turkey.Beks Tanker Isletmeciligi As	65	7%	UAE.Radiating World Shipping Servs	41	5%
India.Ark Seakonnect Shipmanagment	55	6%	UAE.Radiating World Shipping Servs	30	3%	UAE.Fractal Marine Dmcc	39	5%
UAE.Sun Ship Management	36	4%	UAE.Sun Ship Management	29	3%	India.Maritas Fleet Pvt Ltd	31	4%
Turkey.Beks Gemi Isletmeciligi Ve Tic	26	3%	UAE.Lta Shipping Fzco	26	3%	UAE.Fmtc Ship Charter Llc	30	4%
China.Coureage Co Ltd	21	2%	India.Xfinity Maritime Services Pvt	23	3%	India.Ark Seakonnect Shipmanagment	29	4%
Marshall Islands.Wisdoms Shipping & Marine Inc	21	2%	UAE.Indo Gulf Ship Management Llc	23	3%	Liberia.Hs Legend Ltd	24	3%
China.Shanghai Prosperity Ship Mgmt	21	2%	India.Maritas Fleet Pvt Ltd	23	3%	India.Eastern Euro Ship Management	22	3%
China.Global Ship Management Ltd	20	2%	Singapore.Vr Marine Management Pte Ltd	22	2%	Marshall Islands.Hippocampus Shipping & Marine	22	3%
Vietnam.Sao Viet Petrol Transportation	20	2%	Liberia.Hs Star Ltd	21	2%	UAE.Sun Ship Management	22	3%
Total	**877**	**100%**	**Total**	**888**	**100%**	**Total**	**804**	**100%**

Source: Kpler, KSE Institute estimates

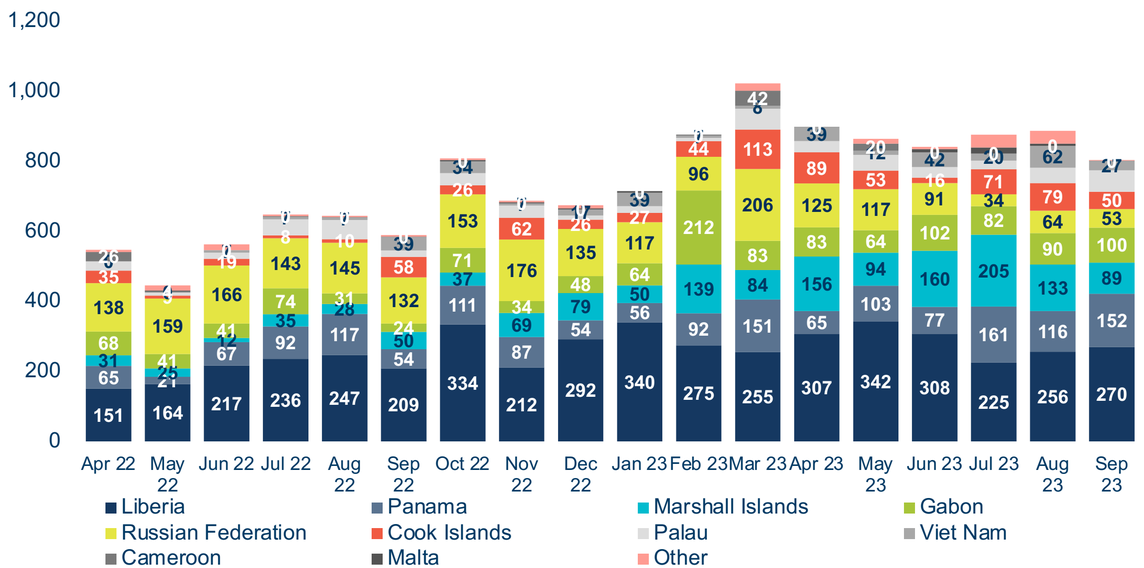
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The top five flags of Russian shadow fleet vessels are Panama, Liberia, Gabon, Cook and Marshall Islands

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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The top ten ship managers of the top three flags of Russian shadow fleet vessels shipping crude oil

Russian crude oil exports by shadow fleet by tankers flag during Aug-Sep 23, kb

Flag: Panama			Flag: Liberia			Flag: Gabon		
Ship manager	**Volume, kb**	**%**	**Ship manager**	**Volume, kb**	**%**	**Ship manager**	**Volume, kb**	**%**
UAE.Sun Ship Management	13259	26%	China.Sino Susceed Shipping Ltd	19914	42%	Marshall Islands.Protogeno Shipping & Marine	1464	14%
China.Sunne Co Ltd	5948	12%	Marshall Islands.Morea Shipping & Marine Inc	16683	35%	Marshall Islands.Glory Shipping & Marine Inc	1066	10%
UAE.K&O Ship Management Fze	3854	8%	Liberia.Hs Buraq Ltd	2273	5%	Marshall Islands.High Seas Inc	791	7%
China.Intercon Marine Shanghai Co	3076	6%	China.Prominent Shipmanagement Ltd	770	2%	Marshall Islands.Oriental Dynasty Inc	770	7%
China.Supership Management Co Ltd	3005	6%	Liberia.Hs Glory Ltd	769	2%	India.Ark Seakonnect Shipmanagment	734	7%
China.Rptd Sold China	2949	6%	Liberia.Hs Star Ltd	754	2%	China.Delta Ships Management Ltd	730	7%
Seychelles.Loengo Shipping & Trader Ltd	2212	4%	UAE.Oil Tankers Scf Mgmt Fzco	734	2%	Marshall Islands.Like Minds Shipping & Marine	730	7%
UAE.Oil Tankers Scf Mgmt Fzco	2097	4%	Liberia.Hs Atlantica Ltd	730	2%	Marshall Islands.White Stone Shipping Inc	730	7%
China.Munne Co Ltd	1445	3%	Marshall Islands.Bear Mizar Navigation Ltd	730	2%	Seychelles.Zenith Shipping Inc-Sey	730	7%
India.Mariam Ship Management Service	1427	3%	Liberia.Hs Osperous Ltd	730	2%	Marshall Islands.Steadfast Shipping & Marine	729	7%
Other	11127	22%	Other	3606	8%	Other	2131	20%
Total	**50399**	**100%**	**Total**	**47693**	**100%**	**Total**	**10606**	**100%**

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

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The top ten ship managers of the top three flags of Russian shadow fleet vessels shipping oil products

Russian oil products exports by shadow fleet by tankers flag during Aug-Sep 23, kb

Flag: Liberia			Flag: Panama			Flag: Marshall Islands		
Ship manager	Volume, kb	%	Ship manager	Volume, kb	%	Ship manager	Volume, kb	%
UAE.Tankers Scf Mgmt Fzco	6947	43%	UAE.Fractal Marine Dmcc	1695	21%	Turkey.Beks Tanker Isletmeciligi As	2603	38%
India.Maritas Fleet Pvt Ltd	1650	10%	India.Eastern Euro Ship Management	661	8%	Singapore.Vr Marine Management Pte Ltd	1028	15%
UAE.Sun Ship Management	1555	10%	Marshall Islands.Hippocampus Shipping & Marine	661	8%	Singapore.Executive Ship Management	1017	15%
UAE.Fmtc Ship Charter Llc	891	6%	China.Onboard Ship Management Ltd	628	8%	Turkey.Beks Gemi Isletmeciligi Ve Tic	792	12%
India.Xfinity Maritime Services Pvt	711	4%	Marshall Islands.Jiang Shipping & Marine Inc	525	6%	Marshall Islands.Blue Maritime & Trading Inc	558	8%
Liberia.Hs Legend Ltd	706	4%	Marshall Islands.Skadi Ltd	430	5%	Marshall Islands.World Maritime & Trading Inc	447	7%
Liberia.Hs Star Ltd	661	4%	UAE.Nuovotic Fzco	419	5%	Turkey.Beks Denizcilik Ve Ticaret	313	5%
Liberia.Sharkfin Tankers Ltd	512	3%	China.Camellia Jackson Ltd	372	5%	Russia.Middle Volga Shipping Co	16	0%
India.Geras Ship Management	508	3%	India.Crownwell Ship Services Opc	319	4%			
Marshall Islands.Hs Swan Ltd-Mai	421	3%	Panama.Monte Nero Maritime Sa	317	4%			
Other	1488	9%	Other	2145	26%			
Total	**16050**	**100%**	**Total**	**8173**	**100%**	**Total**	**6775**	**100%**

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

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Russian oil companies hide their connections to shadow fleet operations by dispersing ship managers as KSE Institute found twelve of them operate just one tanker but have the same registration address in Liberia but are managed by the same information security manager (ISM) registered in India

Ship manager/Commercial manager Country	Ship manager/Commercial manager Company	Ship manager/Commercial manager Address	Insurer P&I	Count of vessels	vessel_name	vessel_imo	Flag	ISM Manager	ISM Manager Address
Liberia	Hs Ane Ltd	80, Broad Street, Monrovia, Liberia.	Without P&I	1	Ane	9323314	Liberia	MARITAS FLEET PVT LTD	Office 704, Kesar Solitaire, Plot 5, Sector 19, Sanpada, Navi Mumbai, Maharashtra, 400705, India.
	Hs Glory Ltd			1	Hs Glory	9249087			
	Hs Star Ltd			1	Hs Star	9274446			
	Hs La Pride Ltd			1	La Pride	9274616			
	Hs Atlantica Ltd			1	Hs Atlantica	9322839			
	Hs Uze Ltd			1	Uze	9323338			
	Hs Northsea I Ltd			1	Northsea 1	9334296			
	Hs Buraq Ltd			1	Hs Buraq	9381732			
	Hs Legend Ltd			1	Hs Legend	9381744			
	Hs Esberg Ltd			1	Hs Esberg	9410894			
	Hs Osperous Ltd			1	Osperous	9412995			
	Hs Ride Ltd			1	Ride	9418482			

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

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The number of unique shadow fleet tankers carrying crude and oil products from Russian ports in July - September 2023 is estimated at 336. However, the KSE Institute believes the actual shadow fleet tankers operated by Russia is much lower as only 208 shadow tankers returned to Russia ports for a second loading during 100 days since March while the need in tankers for stable exports was around 3-4 times higher during last several months.

The number of unique shadow fleet tankers that transported Russian crude oil and oil products in July - September 2023

Crude oil			Oil product			Total		
Ship manager	# of unique tankers	%	Ship manager	# of unique tankers	%	Ship manager	# of unique tankers	%
UAE.Sun Ship Management	34	21%	UAE.Oil Tankers Scf Mgmt Fzco	19	10%	UAE.Sun Ship Management	39	12%
UAE.Oil Tankers Scf Mgmt Fzco	18	11%	Turkey.Beks Tanker Isletmeciligi As	8	4%	UAE.Oil Tankers Scf Mgmt Fzco	37	11%
UAE.Radiating World Shipping Servs	7	4%	UAE.Sun Ship Management	7	4%	UAE.Radiating World Shipping Servs	11	3%
UAE.K&O Shipmanagement Fze	5	3%	Russia.Eneya Llc	5	3%	Turkey.Beks Tanker Isletmeciligi As	9	3%
UAE.Star Voyages Shipping	5	3%	UAE.Fractal Marine Dmcc	5	3%	UAE.Fractal Marine Dmcc	9	3%
UAE.Fractal Marine Dmcc	4	2%	India.Ark Seakonnect Shipmanagment	4	2%	India.Ark Seakonnect Shipmanagment	5	1%
Azerbaijan.Meridian Shipping & Management	3	2%	Russia.Prime Shipping Llc-Rus	4	2%	Russia.Eneya Llc	5	1%
Vietnam.Ovtrans Petrol Transport	3	2%	UAE.Radiating World Shipping Servs	4	2%	UAE.K&O Shipmanagement Fze	5	1%
China.Sunne Co Ltd	3	2%	Singapore.Vr Marine Management Pte Ltd	4	2%	UAE.Star Voyages Shipping	5	1%
Azerbaijan.Azerbaijan Caspian Shipping	2	1%	Turkey.Beks Gemi Isletmeciligi Ve Tic	3	2%	Turkey.Beks Gemi Isletmeciligi Ve Tic	4	1%
Other	78	48%	Other	119	65%	Other	207	62%
Total	**162**	**100%**	**Total**	**182**	**100%**	**Total**	**336***	**100%**

**8 tankers transported both crude oil and petroleum products.*

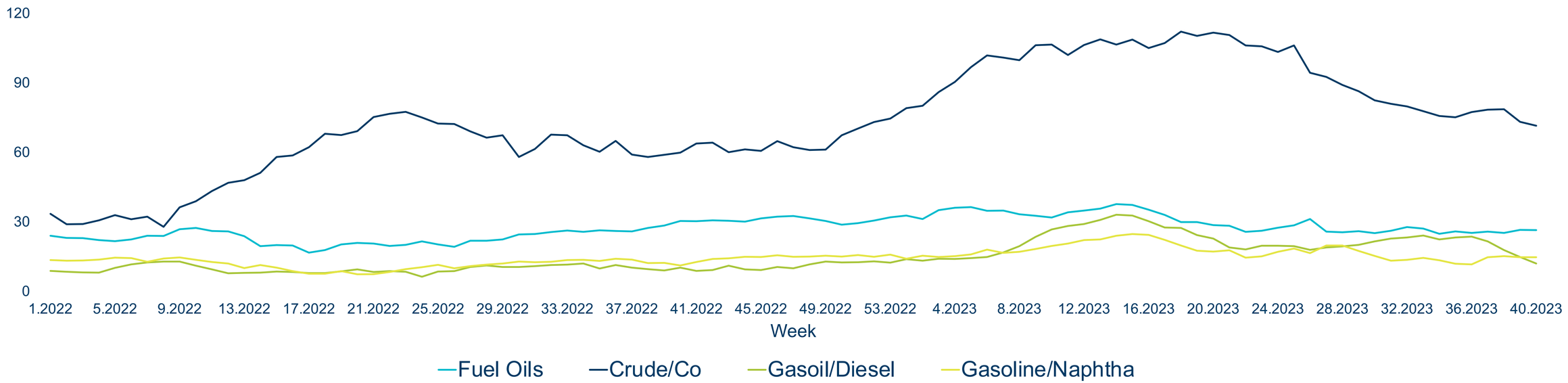
Source: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

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Rerouting of Russian crude and oil products to new destinations increased Russian oil on water by around 57 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 September 2023, the volume of Russian oil on water was around 57 mb higher than the pre-invasion average
- Although the volumes of Russian crude and diesel on water decreased in September compared to their peaks after the introduction of oil embargo by the EU, they were around 2.5 and 2 times higher respectively compared to January 2022

Russian oil on water, mb, average per week



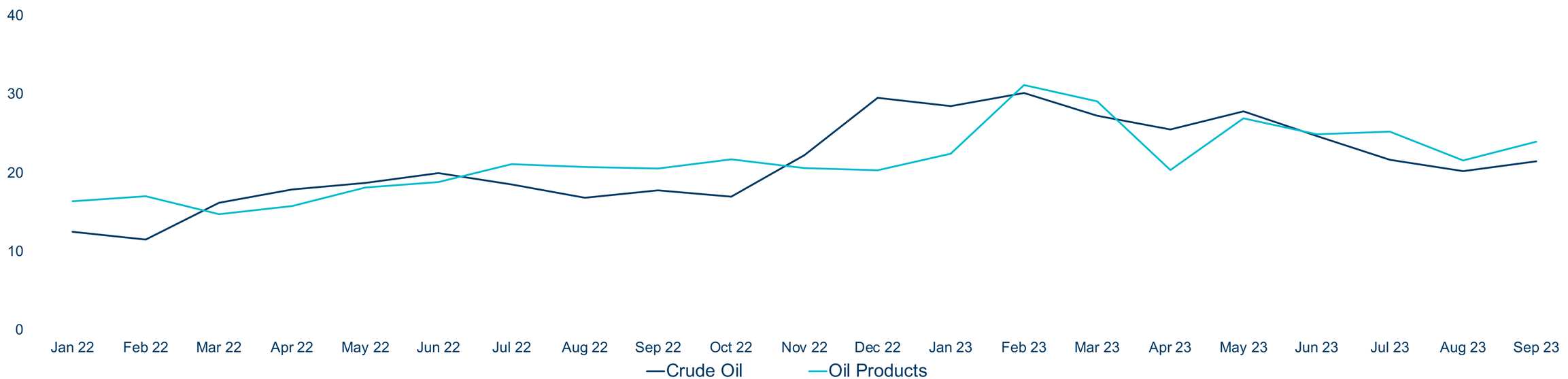
Source: Kpler, KSE Institute estimates

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Average transit days of crude and oil products increased by 86% and 41% 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. In September, the figure declined to 22 due to lower crude imports by China
- The average transit days for oil products increased from 17 in February 2022 to 31 in February 2023 but declined to 24 in September 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



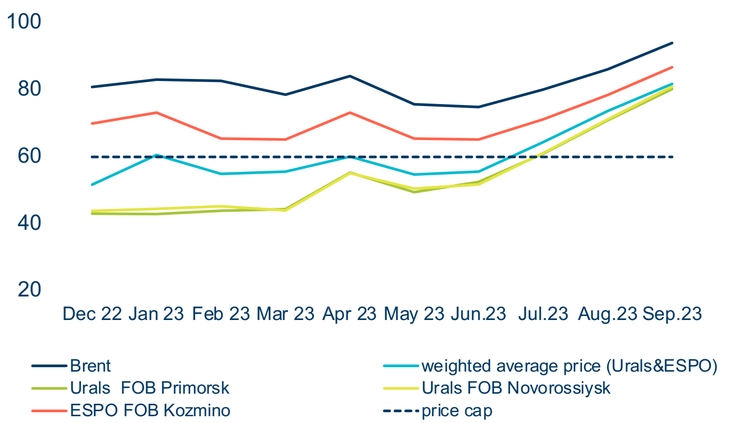
Source: Kpler, KSE Institute estimates

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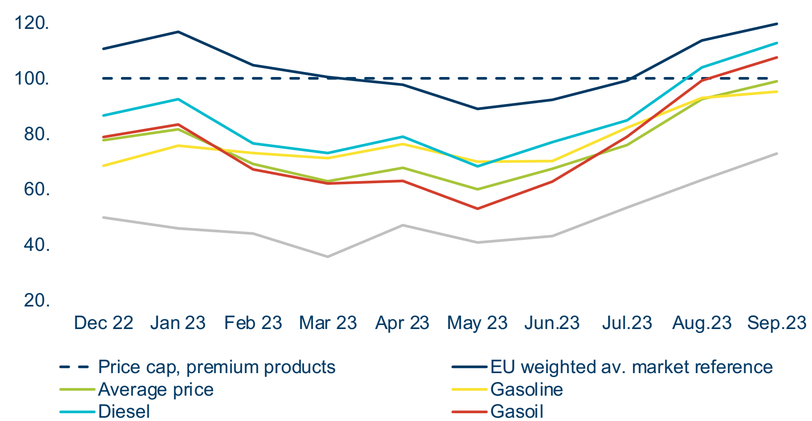
In September 2023, Urals FOB Baltic and Black Sea increased by $10/bbl to $80/bbl and $81/bbl respectively. In December 2022-August 2023 ESPO was shipped with Western maritime services at prices much above the price cap. Diesel, gasoil, fuel oil and naphtha prices were traded above the price caps in September

- In September 2023, Urals FOB Baltic and Black Sea increased by 9.3/bbl and 9.8/bbl to $80/bbl and $81/bbl respectively. The trade of Urals at $70/bbl in August and at $80/bbl in September had marginal effect of its shipments so far, especially from Black Sea ports where 80% of crude was shipped with P&I Club insurance in September.
- ESPO FOB increased by $8.2/bbl to $86.8/bbl remaining ineligible for Western maritime service in September. Only 9% of crude shipments were made by tankers with P&I Club insurance in August and September 2023 from Pacific ports
- Prices for Russian diesel increased to 112.7$/bbl to around $12.7/bbl above price cap. The price of gasoline increased by $2.3/bb to $95.2/bbl while gasoil increased by $8.3/bbl to $107.5/bbl (MoM) The price of VGO which had to be placed to discounted products instead of the premium ones increased by $9.5/bbl to $72.9/bbl (MoM) in September.
- Price for fuel oil increased to around $3.8/bbl to $63.2 while price for naphtha increased to $53.1/bbl exceeding the approved price cap for discounted products at $45/bbl but as for the Urals it had a marginal impact on their shipments so far.

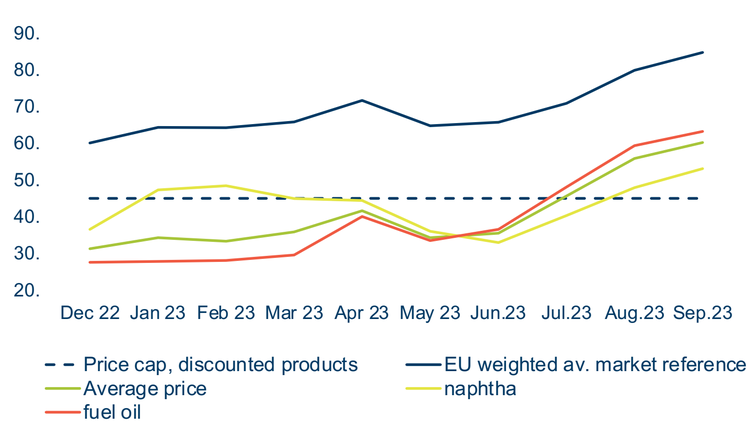
Russian Crude FOB Export Prices



Russian Premium Products FOB Export Prices



Russian Discounted Products FOB Export Prices



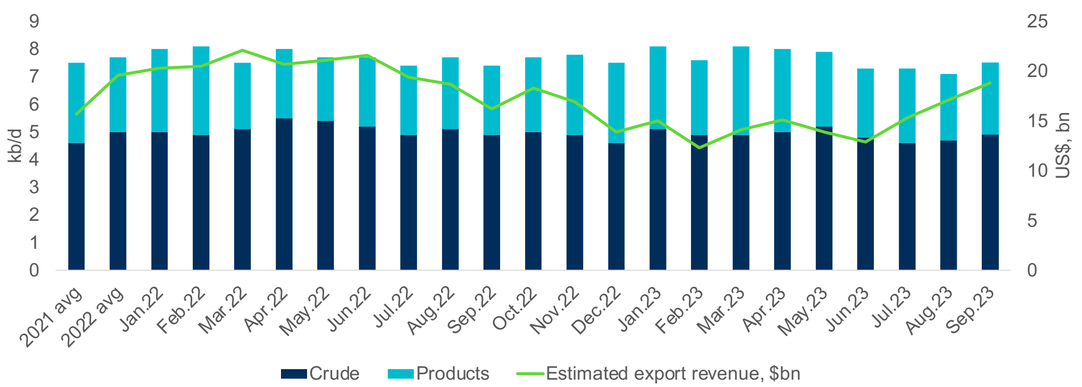
Source: IEA (2023), Oil Market Report - October 2023, IEA, Paris https://www.iea.org/reports/oil-market-report-october-2023,, WB Commodity Prices (Brent)

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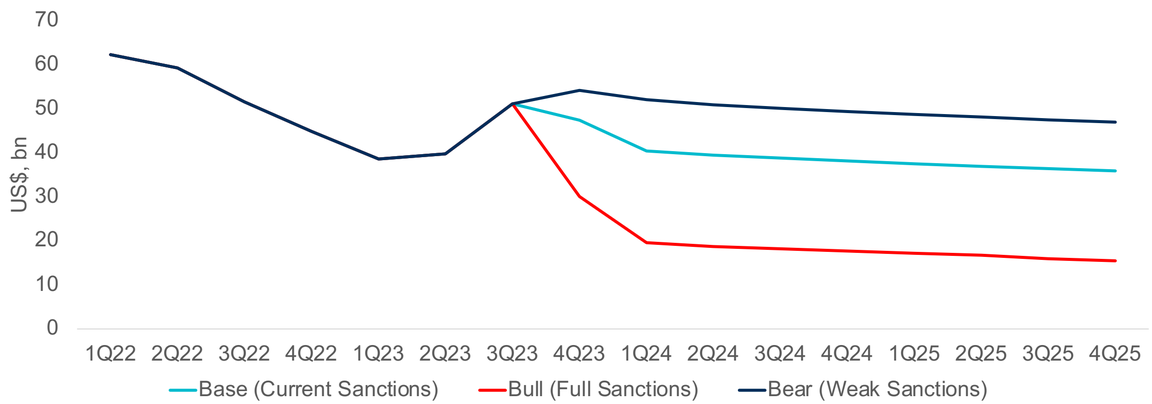
In September 2023 Russian oil export revenues increased by $1.8 bn (MoM) to the highest level since July 2022. KSE Institute projects that revenues will contract to still robust $177 bn and $157 bn in 2023 and 2024 respectively in the base case from to $218 bn in 2022 but the scenario outcome is sensitive to sanctions enforcement

- Although volumes of Russian oil exports remained relatively 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 1H2023. Narrowing the discount on Russian oil and soaring world market prices led to a surge of Russian oil revenues in July-September.
- Russian oil export revenues increased by $1.8 bn to $18.8 bn in September (MoM) due to both higher crude and products volumes exports and higher prices. Total export revenues were the highest since July 2022.
- 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 $177 bn and $157 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 $160 bn and just $74 bn in 2023 and 2024 respectively. Total Russian oil exports goes down to 5.2 mb/d in this scenario.
- In the bear case, with US$ 10/bbl discount to forecast Brent prices, and less decline in oil export volumes, revenues fall but remain at robust $184 bn and $202 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 Oil Market Reports, KSE Institute estimates

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Policy Recommendations

Russia is heavily dependent on oil earnings, which finance Russia's imports and budget, and thereby Russia's war on Ukraine. Unfortunately, just as energy sanctions start to bite, Russia is having some success in circumventing them as since August 2023 its oil revenues have been exceeding the 2021 average. In order to deprive Russia from windfall revenues and help to bring the war to an end, KSE Institute and International Group of Working Sanctions [1] recommend that the EU/G7 governments should:

- **Undertake regular risk-based audits of attestations**. Investigations should start with traders that have only recently begun to participate in the Russian oil trade and may have links to Russian oil companies.
- **Strengthen documentation requirements**. Authorities should require all participants in the trade with Russian oil to provide additional evidence regarding the terms of the transaction, including original contracts and related customs declarations that indicate the price of the sale
- **Set up whitelist of brokers/traders authorized to provide information**. Coalition governments should create a list of well-established commodity trading groups based in G7/EU countries and subject to G7/EU law enforcement, which are permitted to provide information with regard to transactions under the price cap (e.g., attestations).
- **Enforce oil price cap violations on strict liability basis for civil monetary penalties**. Penalties should be increased considerably; civil fines could be set at a level of 10% of worldwide turnover (similar to those for antitrust violations).
- **Impose sanctions on third-country entities that facilitate price cap violations.**
- **Require tankers transiting G7/EU territorial waters to verify adequacy of mandatory spill insurance** to ensure that Russia remains heavily reliant on G7/EU-insured vessels and maintain the price cap's key lever.
- **Ban participation of G7/EU players in sale of vessels or its financing. to Russia – or to any buyers whose ultimate beneficial ownership is not fully disclosed** to constrain Russia's ability to build up a sanctions-proof fleet – and significantly increase the cost for doing so.

[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