

Russian Oil Tracker

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

November 2024*

*November 2024 issue contains the information on only Russian crude exports due to temporary data access limitations.

Summary

- In October 2024, Russian oil export revenues increased by \$1.2 bn to \$15.6 bn on higher prices and stable exports volumes.
- MoM to 13%.
- which were older than 15 years.
- term contract with Lukoil, completed the scheduled maintenance.
- removed from the commercial operations after being designated by coalition authorities.
- and \$12.4/bbl respectively. The discount on ESPO FOB Kozmino to ICE Brent narrowed by \$0.2/bbl to \$4.4/bbl in October.
- respectively.

• Russian exports of seaborne crude increased by 4.0% MoM in October 2024 while reliance on Western maritime services for crude exports increased by 5%

• KSE Institute estimates 111 loaded Russian shadow fleet tankers with crude oil left Russian ports and 1 was involved in STS transfers in October 2024, 84% of

• India changed little its crude imports from Russia and was responsible for 1,865 kb/d or 53% of Russian seaborne crude exports in October 2024. The exports to Turkey, third biggest buyer of Russian crude after China, soared by 2.5 times to 329 kb/d, after the SOCAR's STAR refinery near Izmir, which has a long-

• As of November 18, 2024, the US, the EU and the UK placed sanctions on 103 tankers for lifting Russian oil exports. Russia began testing the effectiveness of tankers' designations as 23 out of these designated tankers have returned into service after staying empty and idle for a long time. Other tankers have been

• In October 2024, Urals FOB Primorsk and Novorossiysk increased by \$1.0/bbl and \$1.3/bbl to around \$63.0/bbl while ESPO FOB Kozmino increased by \$2.7/bbl to \$71.0/bbl. The discounts on Urals FOB Primorsk and Novorossiysk to ICE Brent widened by \$1.5/bbl and \$1.2/bbl and were estimated at \$12.9/bbl.

According to KSE Institute modelling, in the base case with current oil price caps and status quo of sanctions but their stronger enforcement, revenues will reach \$193 bn, \$137 bn and 133 bn in 2024, 2025 and 2026 respectively compared to \$218 bn and \$188 bn in 2022 and 2023, respectively. If the discounts on Urals and ESPO grades are widened to \$40/bbl and \$30/bbl compared to Brent forecast prices, revenues are expected to fall to \$67 bn and \$63 bn in 2025 and 2026 respectively. However, in case of weak sanctions enforcement, Russian oil revenues could reach still robust \$167 bn and \$165 bn in 2025 and 2026

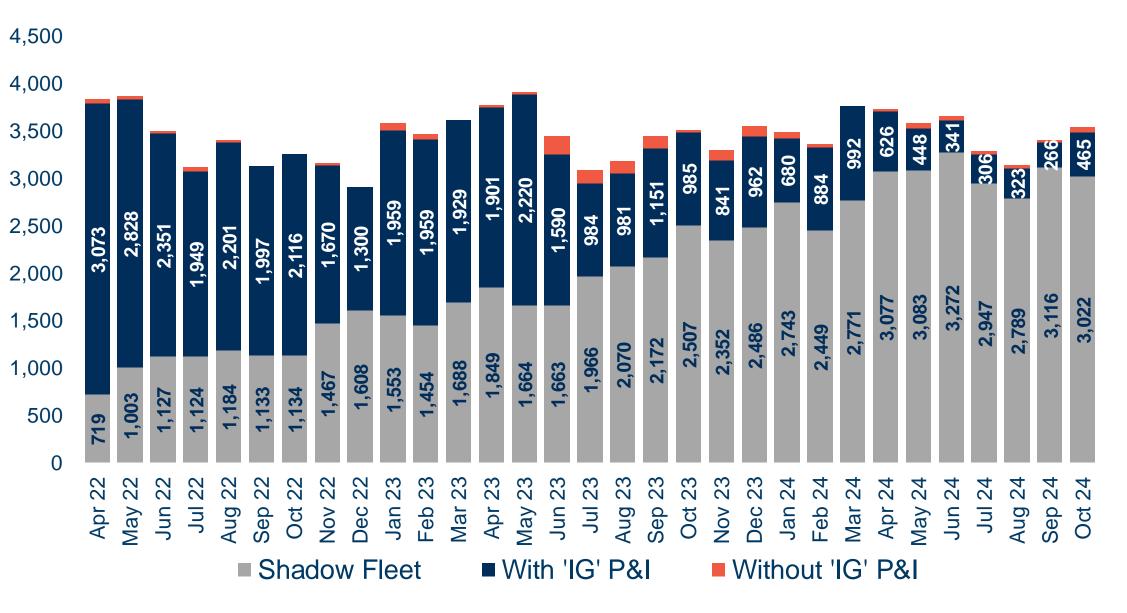






Russian seaborne crude exports volumes increased by 4% in October 2024. Only 13% of Russian oil exports were shipped by IG insured tankers

- additional increase 0.11 kb/d over previous month.



Russian seaborne crude oil exports, kb/d

Shadow fleet: tankers affiliated with jurisdictions outside sanctions coalition and lacking "IG" P&I insurance. With "IG" P&I: tankers affiliated with jurisdictions of sanctions coalition and outside coalition and with "IG" P&I insurance. Without "IG" P&I: tankers affiliated with jurisdictions of sanctions coalition but lacking "IG" P&I insurance. Source: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

In October 2024, Russian seaborne crude exports increased by 4.0% MoM but changed little YoY. Exports' increase resulted in higher Russia's noncompliance with OPEC+ implied target as crude production exceeded it by 0.24 kb/d in October, an

Overall Russian reliance on Western maritime services for crude exports increased by 5% MoM to 13% in October 2024.

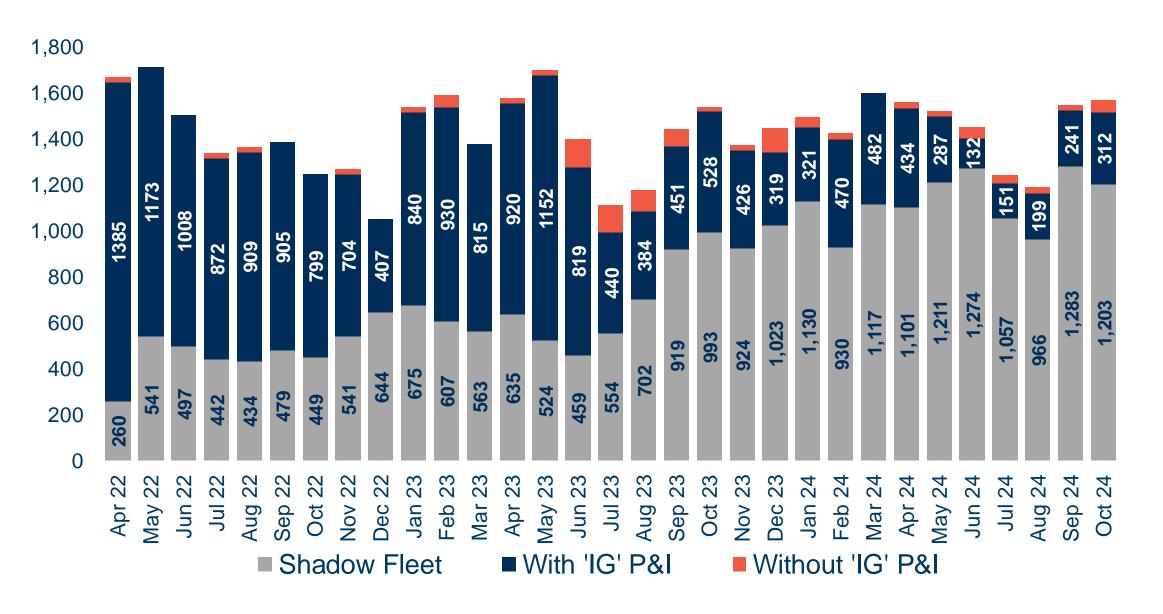






20% of crude exports were shipped by IG insured tankers from Baltic Sea ports in October

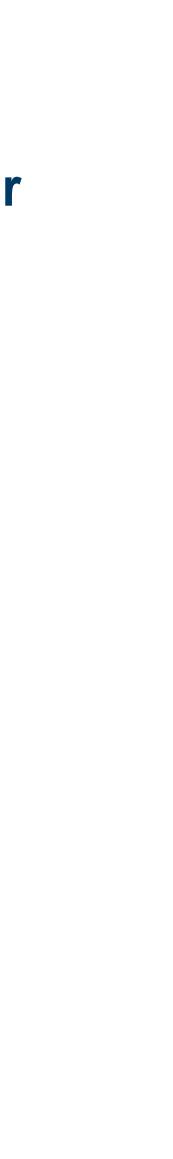
- In October 2024, the exports of crude oil from Baltic ports increased by 1.6% MoM and by 2.2 % YoY.



Shadow fleet: tankers affiliated with jurisdictions outside sanctions coalition and lacking "IG" P&I insurance. With "IG" P&I: tankers affiliated with jurisdictions of sanctions coalition and outside coalition and with "IG" P&I insurance. Without "IG" P&I: tankers affiliated with jurisdictions of sanctions coalition but lacking "IG" P&I insurance. Source: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

• 20% of crude exports were shipped by tankers with IG P&I insurance in October compared to 16% in September 2024.



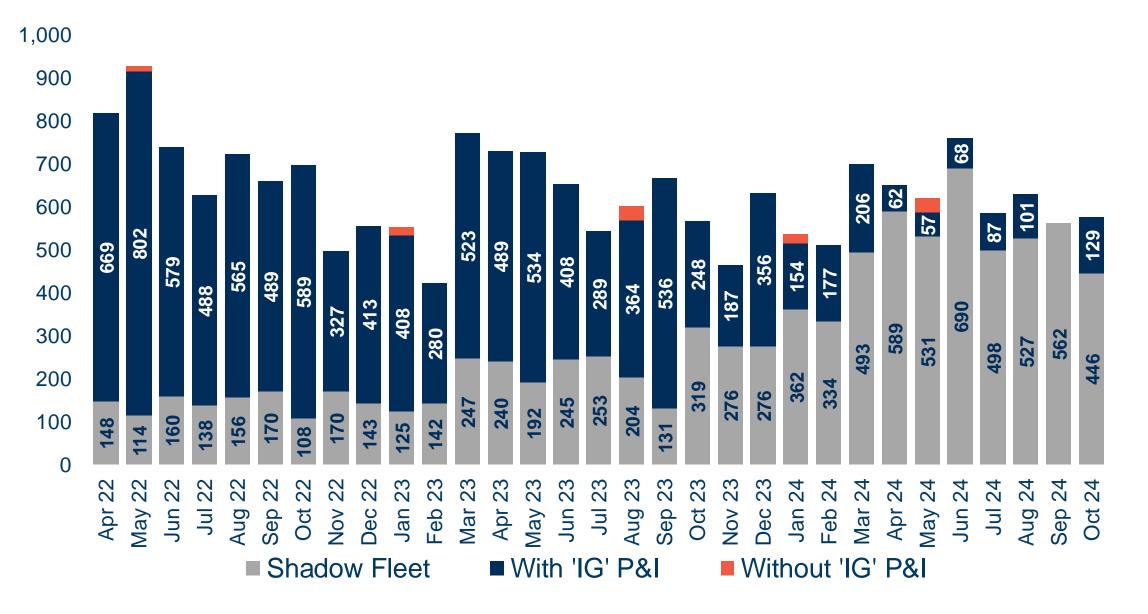


4



22% of crude exports were shipped by IG insured tankers from Black Sea ports in October

- The exports of crude oil from Black Sea ports increased by 2.2% MoM and 1.4% YoY in October 2024.
- volume in September 2024.



Shadow fleet: tankers affiliated with jurisdictions outside sanctions coalition and lacking "IG" P&I insurance. With "IG" P&I: tankers affiliated with jurisdictions of sanctions coalition and outside coalition and with "IG" P&I insurance. Without "IG" P&I: tankers affiliated with jurisdictions of sanctions coalition but lacking "IG" P&I insurance. Source: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

• 22% of crude exports were shipped by tankers with IG P&I insurance from Black Sea ports in October compared to zero

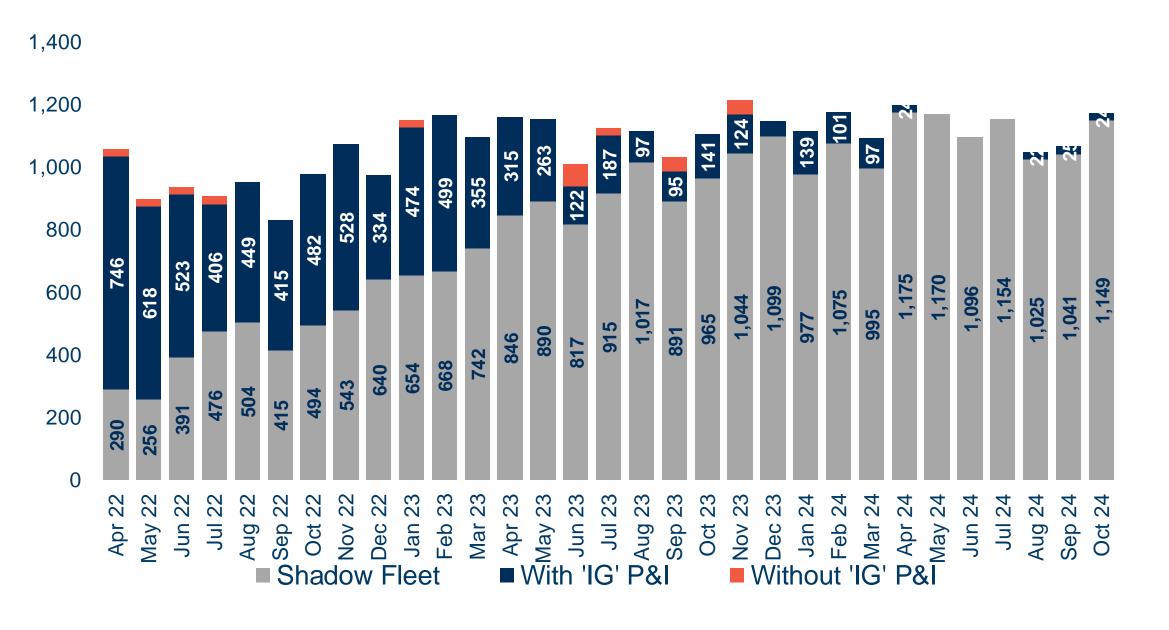






Just around 2% of crude exports were shipped by IG insured tankers from Pacific Ocean ports in October 2024

- 2% of crude oil were shipped by tankers with IG P&I insurance in October as in the previous month.



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

Shadow fleet: tankers affiliated with jurisdictions outside sanctions coalition and lacking "IG" P&I insurance. With "IG" P&I: tankers affiliated with jurisdictions of sanctions coalition and outside coalition and with "IG" P&I insurance. Without "IG" P&I: tankers affiliated with jurisdictions of sanctions coalition but lacking "IG" P&I insurance. Source: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

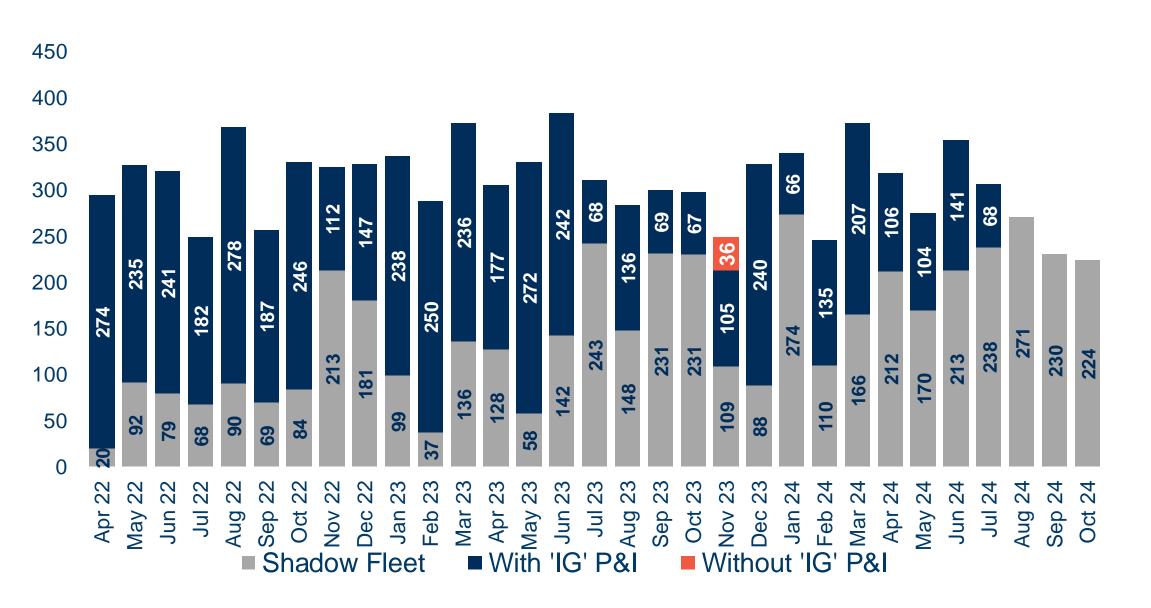
• In October 2024, the exports of crude oil from Pacific Ocean ports increased significantly by 10.0% MoM and by 6.1% YoY.





No crude exports were shipped by IG insured tankers from Arctic Ocean ports in October

- Crude oil exports from Arctic Ocean ports declined by 2.8% MoM and by 24.8% YoY to the lowest level in the KSE Institute monitoring since April 2022.
- No crude exports were shipped by IG insured tankers in October 2024 for the third consecutive month.



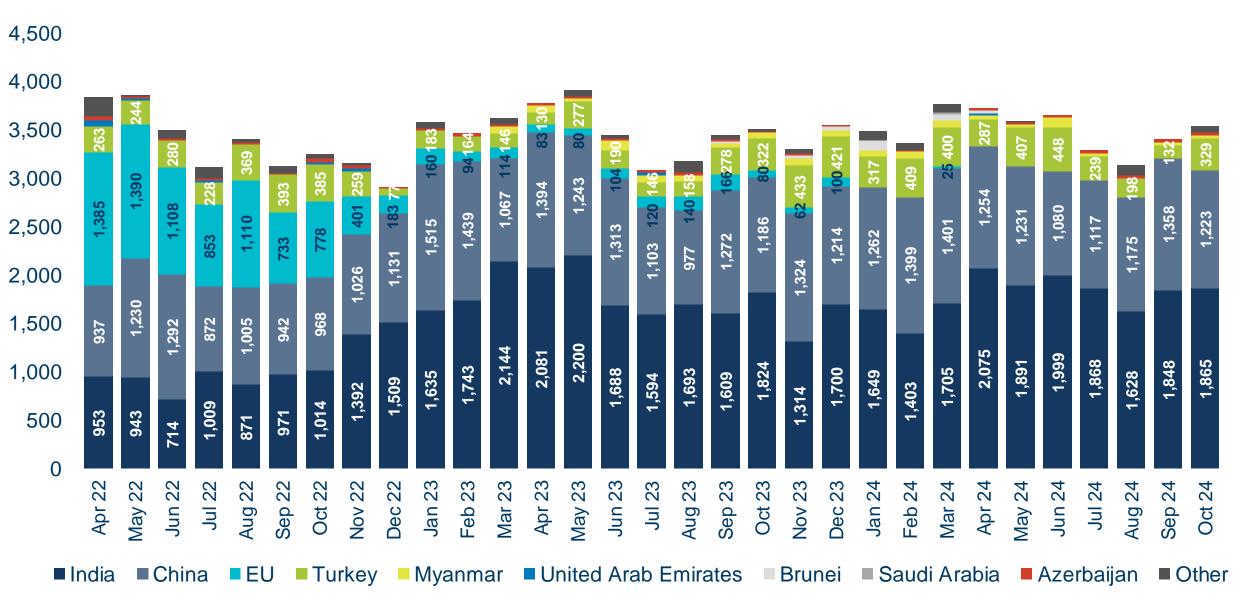
Shadow fleet: tankers affiliated with jurisdictions outside sanctions coalition and lacking "IG" P&I insurance. With "IG" P&I: tankers affiliated with jurisdictions of sanctions coalition and outside coalition and with "IG" P&I insurance. Without "IG" P&I: tankers affiliated with jurisdictions of sanctions coalition but lacking "IG" P&I insurance. Source: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

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



India remains the biggest Russian seaborne crude importer with a share of total imports at 53%

- In October 2024, Russian seaborne crude imports to India changed little amounting to 1,865 kb/d and the country remained the top-1 buyer in the list of Russian seaborne crude importers with a share of 53%.
- Imports to China, the second biggest buyer, decreased by 10.0% MoM to 1,223 kb/d in October.
- The imports to Turkey, the third biggest buyer, soared by 2.5 times to 329 kb/d, after the SOCAR's STAR refinery near Izmir which has a long-term contract with Lukoil, completed the scheduled maintenance.
- Altogether, these tree biggest buyers were responsible for around 96% of Russian seaborne crude exports in October 2024.



Russian seaborne crude oil exports by countries, kb/d





Stream Ship Management Fzco tops the list of the ten largest shippers for the eighth consecutive month after OFAC Oil Tankers Scf Mgmt Fzc transferred part of the tankers (please see the <u>March 2024 issue of Russian Oil Tracker</u> for details). Meanwhile, its share in total Russian seaborne crude exports further decreased by 5% to just 8% in October 2024.

Three Chinese companies out of the top ten list were responsible for 8% of Russian seaborne crude exports.

Kyklades Maritime Corp still remains as the only one Greek company in the top ten list.

Aug 24			Sep 24		Oct 24				
Ship manager	Volume, kb/d	%	Ship manager	Volume, kb/d	%	Ship manager	Volume, kb/d	%	
Other	1893	60%	Other	2167	64%	Other	2325	66%	
UAE.Stream Ship Management Fzco	590	19%	UAE.Stream Ship Management Fzco	458	13%	UAE. Stream Ship Management Fzco	295	8%	
China.Prominent Shipmanagement Ltd	141	4%	China.Prominent Shipmanagement Ltd	180	5%	UAE. Avebury Shipmanagment Llc-Fz	277	8%	
China.Sunne Co Ltd	96	3%	Greece.Kyklades Maritime Corp	95	3%	China. Prominent Shipmanagement Ltd	108	3%	
China.Sino Ship Management Co Ltd	70	2%	UAE.Avebury Shipmanagment Llc-Fz	95	3%	UAE. Starfish Ship Management	99	3%	
Turkey.Bow Maritime Gemi	69	2%	China.Ocean Coral Ship Management	81	2%	China. Sunne Co Ltd	94	3%	
Russia.Invest Fleet Ltd	67	2%	China.Sino Ship Management Co Ltd	75	2%	Greece. Kyklades Maritime Corp	90	3%	
India.Northpole Marine	61	2%	China.Sunne Co Ltd	75	2%	China. Sino Ship Management Co Ltd	70	2%	
China.Shang Shipping Ltd	50	2%	China.Shang Shipping Ltd	60	2%	Turkey. Bow Maritime Gemi	69	2%	
China.Intercon Marine Shanghai Co	50	2%	Greece.Dynacom Tankers Management	60	2%	Vietnam. Hung Phat Maritime Trading	58	2%	
Seychelles.Loengo Shipping & Trader Ltd	48	2%	China.Shanghai Legendary Ship Mgmt	58	2%	India. Atos Remote Solutions	57	2%	
Total	3135	100%	Total	3405	100%	Total	3543	100%	

Russian crude oil exports by ship managers

Source: Kpler, Equasis, KSE Institute estimates



The share of Russian crude oil exports by shadow fleet decreased by 7 p.p. to 85% in October 2024

- Russian crude oil exports by shadow fleet decreased by 95 kb/d MoM in October, while its share in total crude shipments decreased by 7 p.p. to 85%, the first significant recorded decline since February 2024.
- Stream Ship Management Fzco (UAE) was responsible for around 10% of Russian crude shipments by shadow fleet in October. Other companies in the top-10 list are represented by four Chinese companies, two other companies from the UAE, and by one company from Turkey, Vietnam, and India.

Aug 24			Sep 24		Oct 24					
Ship manager	Volume, kb/d	%	Ship manager	Volume, kb/d	%	Ship manager	Volume, kb/d	%		
Other	1548	55%	Other	1931	62%	Other	1844	61%		
UAE.Stream Ship Management Fzco	590	21%	UAE.Stream Ship Management Fzco	458	15%	UAE. Stream Ship Management Fzco	295	10%		
China.Prominent Shipmanagement Ltd	141	5%	China.Prominent Shipmanagement Ltd	180	6%	UAE. Avebury Shipmanagment Llc-Fz	277	9%		
China.Sunne Co Ltd	96	3%	UAE.Avebury Shipmanagment Llc-Fz	95	3%	China. Prominent Shipmanagement Ltd	108	4%		
China.Sino Ship Management Co Ltd	70	2%	China.Ocean Coral Ship Management	81	3%	UAE. Starfish Ship Management	99	3%		
Turkey.Bow Maritime Gemi	69	2%	China.Sino Ship Management Co Ltd	75	2%	China. Sunne Co Ltd	94	3%		
Russia.Invest Fleet Ltd	67	2%	China.Sunne Co Ltd	75	2%	China. Sino Ship Management Co Ltd	70	2%		
India.Northpole Marine	61	2%	China.Shang Shipping Ltd	60	2%	Turkey. Bow Maritime Gemi	69	2%		
China.Shang Shipping Ltd	50	2%	China.Shanghai Legendary Ship Mgmt	58	2%	Vietnam. Hung Phat Maritime Trading	58	2%		
China.Intercon Marine Shanghai Co	50	2%	China.Hong Kong Hanyuan Shipping Co	51	2%	India. Atos Remote Solutions	57	2%		
Seychelles.Loengo Shipping & Trader Ltd	48	2%	China.Intercon Marine Shanghai Co	51	2%	China. Hong Kong Hanyuan Shipping Co	50	2%		
Total	2789	100%	Total	3116	100%	Total	3022	100%		

Russian crude oil exports by shadow fleet, kb/d

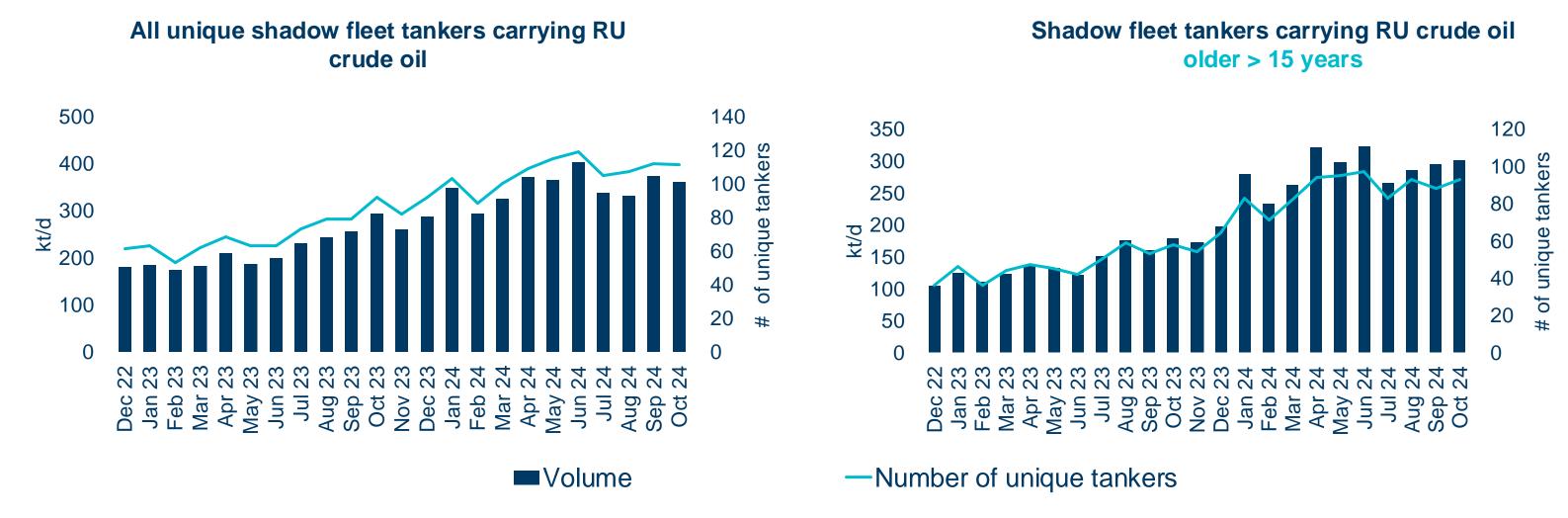






The total number of Russian shadow fleet tankers carrying crude from Russian ports decreased by 1 tanker and is estimated at 111 in October 2024

- 2024, while 84% of them were older than 15 years.
- environment catastrophe for which Russia will refuse to pay.



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

• The number of shadow fleet tankers carrying crude from Russian ports decreased by one tanker to 111 tankers in October

• Having moved into the shadow, the tankers are not likely to be properly maintained and operated increasing the probability of

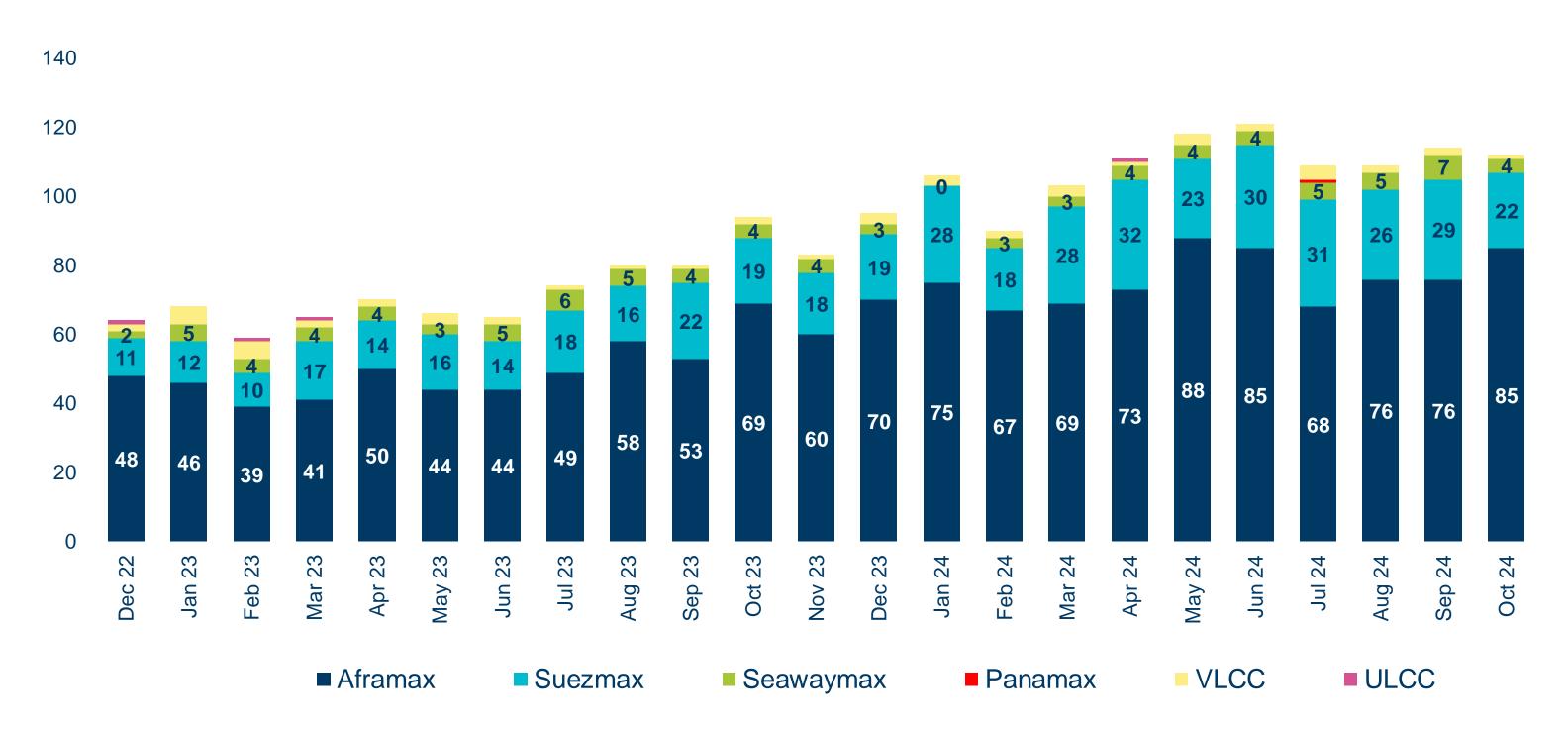
Crude oil



Aframax and Suezmax class tankers are the core of Russian shadow fleet carrying crude.

class tanker was involved in STS transfers¹ in October 2024.





¹ Note: VLCC and ULCC are too large to load at Russian ports and are loaded trough STS transfers in the sea

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

Total Russian shadow fleet carrying crude oil is estimated at 112 tankers – 111 left Russian ports and 1 VLCC-

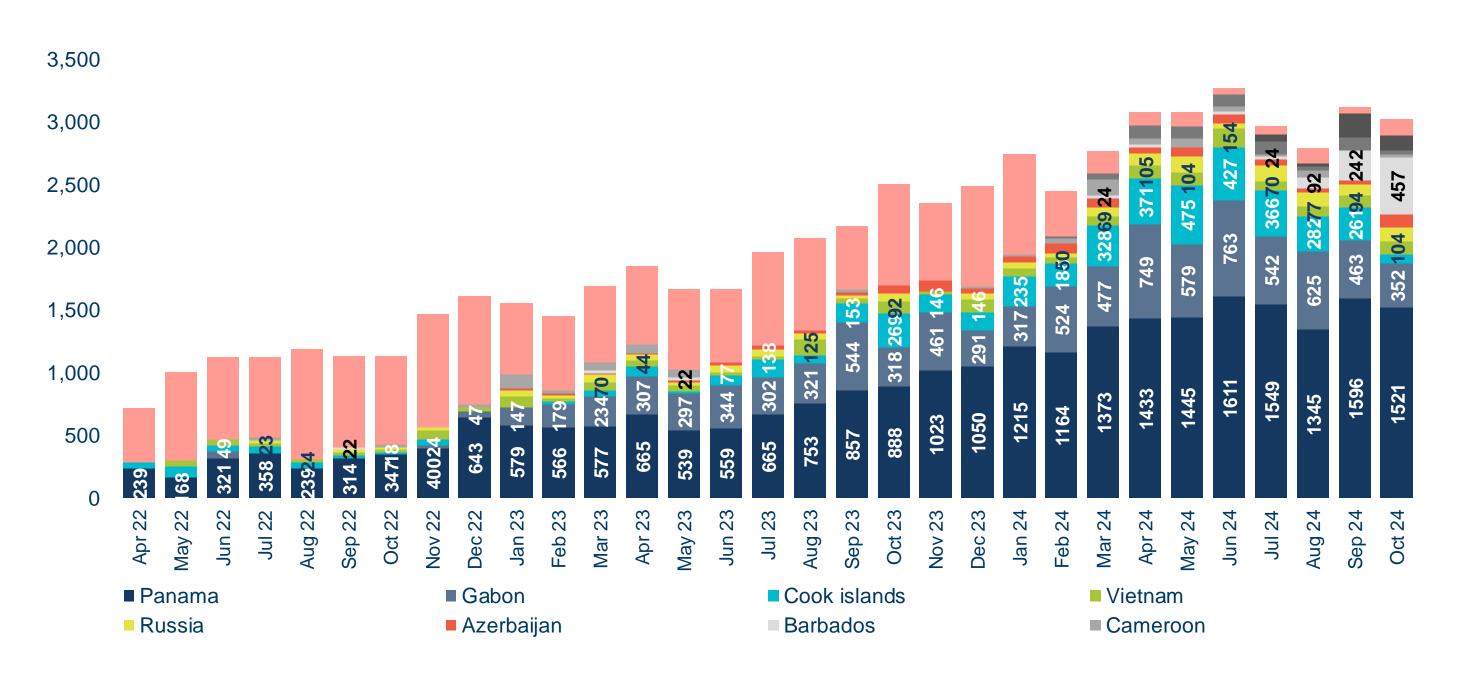
Structure of Russian shadow fleet carrying crude oil, number of unique tankers





The top-3 flags of Russian shadow fleet vessels carrying crude oil are Panama, Barbados and Gabon

- Islands and Azerbaijan continue to be used on a consistent monthly basis.
- Russian crude shipments by 18 times over 3 months.



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

Shadow tankers carrying Russian crude oil under the flags of Antigua and Barbuda, Sierra Leone, Russia, Vietnam, Cook

The shipping by shadow fleet with Cook Islands flag dropped by 81% MoM while the Barbados flag tankers swiftly increased



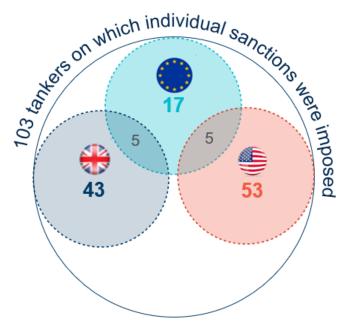


As of November 18, 2024, USA, EU and UK designated 103* tankers for lifting Russian oil exports. Out of these tankers: • 23 have already completed or are completing the voyages after the date of designation;

- 9 are planning voyages after the designation date;
- Other tankers have been removed from the commercial service after being sanctioned by coalition authorities.

IMO	Type of vessel	Vessel name	Build	Flag	Ship manager	Registered owner	ISM Manager	EU	US	UK	Actual position 18.11.2024
9353113	Oil Products	Kavya		Tanzania	Mauritius. Elizario Shipping Inc	Mauritius. Elizario Shipping Inc	-		-		Uploaded on October 21, 2024 in Primorsk, final destination - Brazil
.				<u> </u>							
9339337	Crude Oil	Legacy		Barbados	UAE. Avebury Shipmanagment Llc-Fz		UAE. Avebury Shipmanagment Llc-Fz		-		Uploaded on November 8, 2024 in Ust Luga, final destination - Asia
9394935	Crude Oil	Ozanno	2008	Barbados	India. Atos Remote Solutions	India. Zorren Depth Shipping Ltd	India. Atos Remote Solutions		-		Uploaded on October 13, 2024 in Ust-Luga, final destination - India
9333436	Oil Products	Success	2007	Barbados	UAE. Thunder Shipmanagement Llc-Fz	UAE. Darsi Transports Ltd	UAE. Thunder Shipmanagement Llc-Fz	~	-	~	Uploaded on October 17, 2024 in Cartagena, final destination - Algiers
9286657	Crude Oil	Lokosao	2005	Barbados		India. One Alrabiya Shipping Ltd	India. Atos Remote Solutions	-	-		Uploaded on October 24, 2024 in CPC Terminal, final destination - India
9288899	Crude Oil	Lorena Grand	2005	Barbados	India. Atos Remote Solutions	India. Agya Maritime Ltd	India. Atos Remote Solutions	-	-		Uploaded on November 14, 2024 in Murmansk, final destination - India
9292204	Crude Oil	Andromeda	2005	Barbados	UAE. Avebury Shipmanagment Llc-Fz	UAE. Freya Maritime Inc	UAE. Avebury Shipmanagment Llc-Fz	-	-		Uploaded on November 11, 2024 in Ust-Luga, final destination - unknown
9306794	Crude Oil	Constellation	2006	Barbados	UAE. Avebury Shipmanagment Llc-Fz	UAE. Iris Navigation Inc	UAE. Avebury Shipmanagment Llc-Fz	-	-		Uploaded on October 2, 2024 in Sheshkaris, final destination - India
9511533	Crude Oil	Rigel	2010	Barbados	UAE. Avebury Shipmanagment Llc-Fz	UAE. Yugo Shipping Ltd	UAE. Avebury Shipmanagment Llc-Fz	-	-		Uploaded on November 16, 2024 in Ust-Luga, final destination - unknown
9354313	Crude Oil	Zaliv Amurskiy	2008	Panama	UAE. Stream Ship Management Fzco	UAE. Buxus Seaway Ltd	UAE. Stream Ship Management Fzco	-	-	\checkmark	Uploaded on October 17, 2024 in Kormino, final destination - China
9288722	Crude Oil	Azure Celeste				UAE. Shukria Shipping Ltd	UAE. Alqutb Alshamali Marine Srvs	-	-		Uploaded on November 17, 2024 in Primorsk, final destination - India
9412335	Crude Oil	Ns Bora		Barbados	UAE. Stream Ship Management Fzco	UAE. Ns Bora Shipping Inc	UAE. Stream Ship Management Fzco	-	-		Uploaded on November 12, 2024 in Sheshkaris, final destination - unknown
9339325	Crude Oil	Liberty	2007	Barbados	UAE. Avebury Shipmanagment Llc-Fz	······································	UAE. Avebury Shipmanagment Llc-Fz	-	-	 	Uploaded on November 5, 2024 in Ust Luga, final destination - unknown
9341081	Crude Oil	Cassiopeia	2006	Barbados	UAE. Avebury Shipmanagment Llc-Fz	······································	UAE. Avebury Shipmanagment Llc-Fz	-	-		Uploaded on November 8, 2024 in Ust Luga, final destination - India
9610781	Crude Oil	Zenith	2012	Barbados	UAE. Avebury Shipmanagment Llc-Fz	UAE. Evelit Navigation Ltd	UAE. Avebury Shipmanagment Llc-Fz	-	-	\checkmark	Uploaded on October 25, 2024 in Kozmino, final destination - China
9511387	Crude Oil	Olympus	2010	Barbados	UAE. Avebury Shipmanagment Llc-Fz	UAE. Blansh Transports Inc	UAE. Avebury Shipmanagment Llc-Fz	-	-		Uploaded on November 12, 2024 in Kozmino, final destination - China
9418494	Crude Oil	Zaliv Aniva	2009	Panama	UAE. Stream Ship Management Fzco	UAE. Kandita Shipping Hk Ltd	UAE. Starfish Ship Management	_	_		Uploaded on November 7, 2024 in Sakhalin II, final destination - China
9413561	Crude Oil	Alliance		Barbados	UAE. Avebury Shipmanagment LIc-Fz		-	-	-		Uploaded on November 8, 2024 in Kozmino, final destination - China
9411020	Crude Oil	Bratsk		Russia		UAE. Ns Burgas Shipping Inc	Russia. Invest Fleet Ltd	-		· · · · · · · · · · · · · · · · · · ·	Uploaded on November 7, 2024 in Sheshkaris, final destination - unknown
9412359	Crude Oil	Belgorod		Russia	· · ·	UAE. Ns Bravo Shipping Inc	Russia. Invest Fleet Ltd	-			Uploaded on October 31, 2024 in Sheskharis, final destination - China
	Chemical/Oil					,					
9777670	Products	Sanar 15	2015	Russia	Russia. Rosewood Shipping Llc	Russia. Covart Energy Ltd	Russia. Rosewood Shipping Llc	-		-	Loaded in Sea of Azov
9299719	Crude Oil	Kotlas	2005	Russia		Russia. Invest Fleet Ltd	Russia. Invest Fleet Ltd	-	 	-	Uploaded on November 17, 2024 in Primorsk, final destination - unknown
	Chemical/Oil										
9621601	Products	Vasily Lanovoy		Russia	÷	Russia. Transstroy Llc	Russia. Gazprom Flot Llc	-			Uploaded on November 15, 2024 in Ust Luga, final destination - unknown
9299692	Crude Oil	Callisto	2005	Barbados	UAE. Avebury Shipmanagment Llc-Fz	UAE. Burma Ruby Maritime Inc	UAE. Avebury Shipmanagment Llc-Fz	-	-		Planned voyages from Ust Luga on November 27, 2024
		Moskovsky								_	
9511521	Crude Oil	Prospect	2010	Gabon	UAE. Stream Ship Management Fzco	UAE. Sumerton Shipholding Inc	UAE. Stream Ship Management Fzco	-	-		Planned voyages from Primorsk on December 27, 2024 to India
9413547	Crude Oil	Ns Arctic	2009	Barbados	UAE. Stream Ship Management Fzco	Sevchelles. Celestine Navigation Inc	UAE. Stream Ship Management Fzco	-	-	~	Planned voyages from Nakhodka on November 21, 2024
9422457	Crude Oil	Scf Baikal		Barbados	UAE. Stream Ship Management Fzco	······································	UAE. Stream Ship Management Fzco	-	-		Planned voyages from Murmansk on November 26, 2024 to India
		Suvorovsky									
9522324	Crude Oil	Prospect	2011	Barbados	UAE. Stream Ship Management Fzco	UAE. Raintree Marine Sa	UAE. Stream Ship Management Fzco	-	-	~	Planned voyages from Ust Luga on November 24, 2024 to India
9311622	Crude Oil	Vanguard	2006	Barbados	UAE. Avebury Shipmanagment Llc-Fz	UAE. Libra Shipping Corp	UAE. Avebury Shipmanagment Llc-Fz	-	-		Planned voyages from Primorsk on November 22, 2024 to India
9316127	Crude Oil	Vega	2007	Barbados	UAE. Avebury Shipmanagment Llc-Fz	UAE. Morganite Shipping Corp	UAE. Avebury Shipmanagment Llc-Fz	-	-		Planned voyages from Novorosiysk on November 24, 2024 to India
9412347	Crude Oil	Leo	2011	Barbados	UAE. Avebury Shipmanagment Llc-Fz	UAE. Beryllis Maritime Inc	UAE. Avebury Shipmanagment Llc-Fz	-	-	~	Planned voyages from Murmansk on December 10, 2024 to Myanmar
9341079	Crude Oil	Capella	2006	Barbados	UAE. Avebury Shipmanagment Llc-Fz	UAE. Black Jade Marine Co	UAE. Avebury Shipmanagment Llc-Fz	-	-		Planned voyages from Meadle East on December 9, 2024 to India

Source: Kpler, Equasis, United States Department of the Treasury, EU Council, HM Treasury



*11 tankers were added to the monitoring, which were sanctioned by the US government under the RUSSIA-EO14024 program from February 2022 to April 2023.



Tankers authorized by the US government under the SDGT and IRAN-EO13846 programs are also actively involved in the transportation of Russian oil.

IMO	Vessel	Build	Туре	Flag	Ship Manager	Registered Owner	ISM Manager	US Sanctions program	Volume, mln bbl		horized by the	US govern
9305609	Celine	2006	Crude Oil	Panama	India. Salina Ship Management Pvt Ltd	India. Solidanchor Shipping Sa	India. Salina Ship Management Pvt Ltd	SDGT	10,0	aut	no	producis
9259745	Eternal Peace	2004	Crude Oil	Panama	China. Star Ocean Shipmanage Ltd	China. Hong Kong Zhongtuo Group Co	China. Star Ocean Shipmanage Ltd	SDGT	8,7	Sele	norized	-role
9258870	Lelia	2003	Crude Oil	Barbados	India. Salina Ship Management Pvt Ltd	India. Steadyblue Shipping Sa	India. Salina Ship Management Pvt Ltd	SDGT	8,2	2	Sin	arpetrole
9249324	Izumo	2001	Crude Oil	Gabon	Marshall Islands. Gemini Marine Ltd-Mai	Marshall Islands. Gemini Marine Ltd-Ma	China. Magician Capital Ltd	IFSR; SDGT	7,9	106	car	Sia
9337389	Agni	2007	Crude Oil	-	UAE. Oceanlink Maritime Dmcc	UAE. Irtysh Shipping Inc	UAE. Lazar Shipping Llc	SDGT	4,8		S 90	
9315654	Kapok	2005	Crude Oil	Panama	China. Shang Shipping Ltd	Marshall Islands. Changtai Shipping Ltd	China. Shang Shipping Ltd	SDGT	3,7		tankers 06	Чр
9263643	Frunze	2003	Crude Oil	Cook islands	China. Magic Shipping Ltd	China. Sagittarius Marine Ltd-Mai	China. Magic Shipping Ltd	IFSR; SDGT	3,5		tal	ILLIE
9259185	Daksha	2002	Crude Oil	-	UAE. Oceanlink Maritime Dmcc	UAE. Loire Shipping Inc	-	SDGT	3,3		red	°,
9220938	Marbel	2001	Chemical/Oil Products	Cook islands	UAE. Eco Max Fze	UAE. Pacificdock Ltd	UAE. Eco Max Fze	SDGT	2,8		Futhorized	
9251810	Cross Ocean	2002	Crude Oil	Panama	Malaysia. Delnaz Ship Management Sdn Bhd	Malaysia. Celestial Bliss Investments	Malaysia. Delnaz Ship Management Sdn Bhd	IRAN-EO13846	2,5		and the second	
9236755	Liana	2002	Oil Products	-	UAE. Eco Max Fze	UAE. Oceanfleet Ltd	-	SDGT	1,9	4		
9252400	Onyx	2002	Oil Products	Cook islands	UAE. Eco Max Fze	UAE. Navonex Inc	-	SDGT	1,4			
9198094	Joel	2000	Crude Oil	-	Panama. Bluespectrum Shipping Sa	Panama. Bluespectrum Shipping Sa	-	SDGT	1,4	1		
9354521	Anhona	2008	Oil Products	_	UAE. Harry Victor Ship Mgmt & Op	UAE. Anhona Navigation Sa	UAE. Harry Victor Ship Mgmt & Op	IRAN-EO13846	1,2	4	The US	, government
9260055	Gratia	2003	Chemical/Oil Products	Uruguay	UAE. Eco Max Fze	UAE. Sailway Ltd	UAE. Eco Max Fze	SDGT	1,1	-	orized by the US	products
9260067	Juvenis	2003	Chemical/Oil Products	-	UAE. Eco Max Fze	UAE. Seawind Ltd	-	SDGT	1,0	S/S	orized by	
9242118	Shanaye Queen	2003	Crude Oil	Malaysia	Malaysia. Alya Marine Sdn Bhd	India. Shanaye Shipping Pvt Ltd	Malaysia. Alya Marine Sdn Bhd	IRAN-EO13846	0,8		Irying,	
9232450	Reneez	2002	Crude Oil	-	Marshall Islands. Reneez Shipping Ltd	Marshall Islands. Reneez Shipping Ltd	UAE. Fort Blue Ship Management Llc	SDGT	0,7	58	Ca	Defro
9282522	Kush	2004	Oil Products	-	Marshall Islands. Saanvi Shipping Inc	Marshall Islands. Saanvi Shipping Inc	China. Global Ship Management Ltd	SDGT	0,6		43	a u
9275995	Oceanic li	2003	Oil Products	China	UAE. Barco Ship Management Inc	China. Oceanic Ii Maritime Hk Ltd	UAE. Barco Ship Management Inc	SDGT	0,6		ank	ssia
9171357	Divine Power	2000	Chemical/Oil Products	-	Marshall Islands. Dp Shipping Ltd	Marshall Islands. Dp Shipping Ltd	_	SDGT	0,3		Futhorized t	SINA
9256468	Gagan	2003	Crude Oil	_	UAE. Oceanlink Maritime Dmcc	UAE. Diva Lines Inc	China. Delta Lines Ltd	SDGT	0,2		out	
9281683	Siri	2005	Crude Oil	_	UAE. Oceanlink Maritime Dmcc	UAE. Drini Shipping Inc	China. Ushba Shipping Ltd	SDGT	0,2		12	
9247390	Tyche I	2003	Crude Oil	Panama	Malaysia. Delnaz Ship Management Sdn Bhd	Malaysia. Bta Logistics Ltd	Malaysia. Delnaz Ship Management Sdn Bhd	IRAN-EO13846	0,2		and the second second	
9247388	Kukki	2004	Chemical/Oil Products	Barbados	UAE. Cmaster Shipping Management	UAE. Agarwal Brothers Shipping Inc	UAE. Cmaster Shipping Management	SDGT	0,01	1		

Source: Kpler, Equasis, United States Department of the Treasury

*SDGT = Specially Designated Global Terrorists US program

25 of the 133 tankers sanctioned by the US government under the 2 programs loaded and/or transported Russian oil using STS operations between January 2023 and August 2024. The designation of Iranian tankers limits Russia's ability to use these tonnage for shipping its oil.

**IRAN-EO13846 - Order that reinstates US sanctions on Iran, targeting its energy, banking, and shipping sectors, and imposes secondary sanctions on foreign entities engaging with Iran.





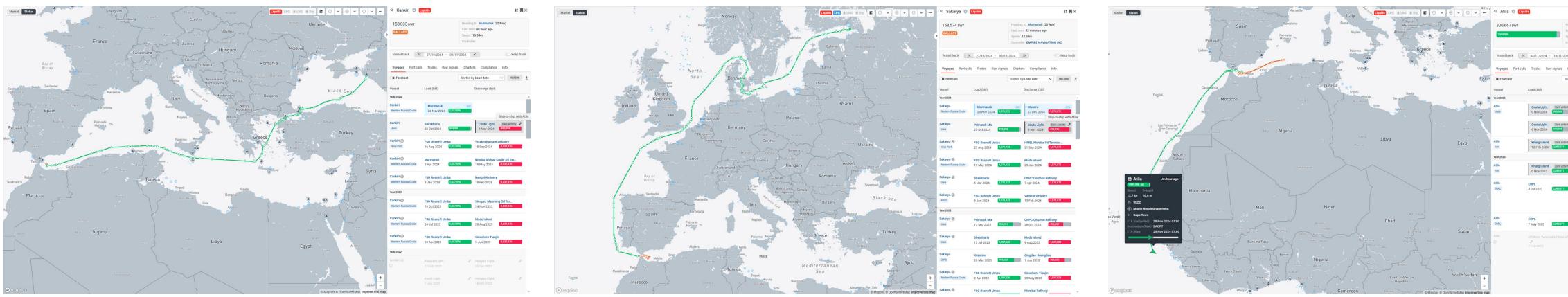




Russian oil is shipped by tankers that also have been used to carry sanctioned Iranian and Venezuelan oil.

The Chinese manager Prominent Shipmanagement Ltd used its own tankers (Cankiri and Sakarya) to transship Russian crude oil onto the tanker Atila, which is also actively involved in carrying Iranian and Venezuelan oil. Atilla is owned and managed by the opaque Grat Shipping Co Ltd registered in Seychelles.

Date (origin)	Zone Origin	IMO	Vessel	Flag	IG P&I insurance	Ship manager/ Commercial manager	Registered owner	ISM Manager	Volume (bbl)	Grade	Seller (origin)	Date STS	Zone STS	IMO	Vessel	Flag	IG P&I insurance	Ship manager/ Commercial manager	Registered owner	ISM Mar
27.10.2024	Novorossiysk	9411331	Cankiri			China. Prominent Shipmanagement Ltd	Diamond Hong	China. Prominent Shipmanagement Ltd	1 · · · · · · · · · · · · · · · · · · ·	Urals	KMG,Lukoil	09.11.2024	Ceuta	0262754	Atilo	Comoroon		Seychelles. Grat Shipping Co Ltd	Seychelles. Grat	
27.10.2024	Primorsk	9524463	3 Sakarya	Panama					999998	Urals	-	06.11.2024	Light.	: y/h//h/	Atiia (Cameroon	-			

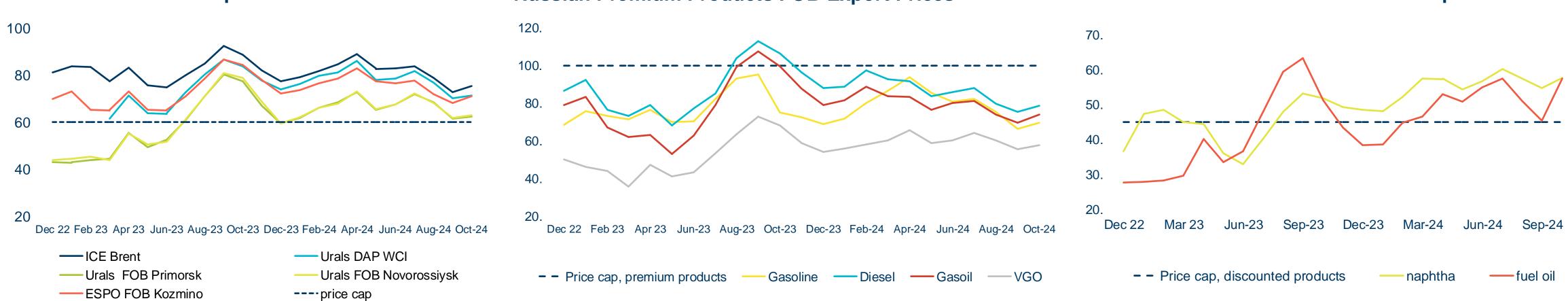






In October 2024, average Urals FOB Primorsk and Novorossiysk increased by ~\$1.0/bbl and 1.3/bbl and traded ~\$2.5-3/bbl above the price cap. The discount of Urals FOB Primorsk to ICE Brent increased by ~\$1.5/bbl level while for ESPO it changed only little over previous month.

- \$12.4/bbl respectively. The discount on Urals DAP West Coast India to Dubai M1 widened by \$0.25/bbl to \$3.3/bbl.
- ESPO FOB Kozmino increased by \$2.7/bbl to \$71.0/bbl while the discount to ICE Brent narrowed by \$0.2/bbl to \$4.4/bbl in October.
- \$2.2/bbl to \$57.7/bbl MoM in October.
- trading significantly above the price cap since March 2024 and August 2023 respectively.



Russian Crude FOB Export Prices

Russian Premium Products FOB Export Prices

Source: IEA (2024), Oil Market Reports 2023-2024, IEA, Paris

In October 2024, Urals FOB Primorsk and Novorossiysk increased by \$1.0/bbl and \$1.3/bbl to around \$62.5/bbl and 63.0/bbl respectively. The discounts on Urals FOB Primorsk and Novorossiysk to ICE Brent widened by \$1.5/bbl and \$1.2/bbl and were estimated at \$12.9/bbl and

Prices for Russian diesel and gasoil increased by \$3.3/bbl and \$4.3/bbl MoM to \$78.4/bbl and \$73.8/bbl respectively. The price of gasoline increased by \$3.2/bbl to \$69.4/bbl. The price of VGO which had to be placed to discounted products instead of the premium ones increased by

Price for fuel oil and naphtha increased by \$2.8/bbl and \$12.1/bbl MoM to \$57.6/bbl and \$57.7/bbl. Thus, both fuel oil and naphtha continued

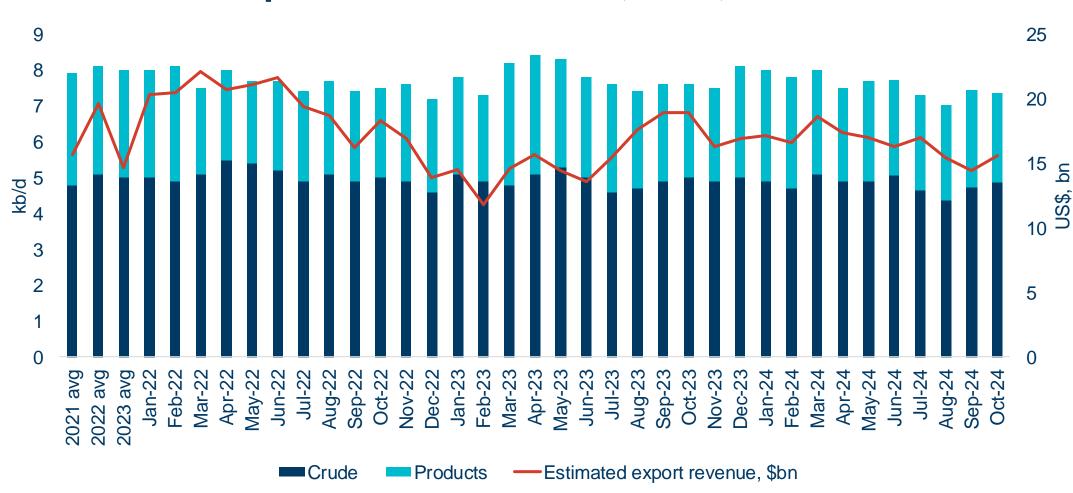
Russian Discounted Products FOB Export Prices



17

In October 2024 Russian oil export revenues increased by to \$15.6bn. Revenues are projected to reach \$193 bn, \$137 bn and 133 bn in base case scenario in 2024, 2025 and 2026 respectively, but the scenario outcomes are sensitive to sanctions enforcement

- month. Total crude and oil products revenues are estimated at \$10.4 bn and 5.3 bn respectively in October.
- exports stays at 7.5 mb/d in 2024 and goes down to 7.1 mb/d in 2025.
- 2025 and 2026 respectively. Total Russian oil exports goes down to 5.8 mb/d in this scenario in 2025.
- bn and \$165 bn in 2025 and 2026 respectively. Total Russian oil exports stays at 7.5 mb/d in 2025 in this scenario.



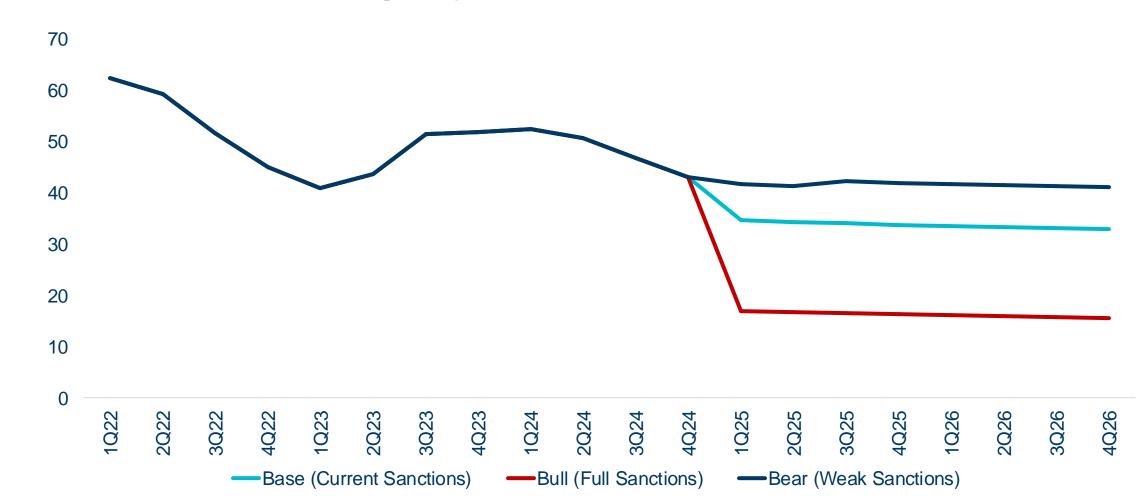
Russian Oil Exports and Revenues, kb/d, US\$ bn

Russian oil export revenues increased by around \$1.2 bn to \$15.6 bn on rising both crude and product prices as exported volumes changed little over previous

• The KSE Institute projects that in the base case with current oil price caps and status quo of sanctions but their stronger enforcement, revenues will reach \$193 bn, \$137 bn and 133 bn in 2024, 2025 and 2026 respectively compared to \$218 bn and \$188 bn in 2022 and 2023, respectively. Total Russian oil

• In the bull sanctions case, with lower price cap equivalent to \$40/bbl discount to forecast Brent prices, revenues are expected to fall to \$67 bn and \$63 bn in

• On the contrary, in the bear case, with US\$ 10/bbl discount to forecast Brent prices, and less decline in oil export volumes, revenues will reach still robust \$167



Russian Oil Earnings by Scenarios, US\$ bn





Source: IEA Oil Market Reports, KSE Institute estimates

In March 2022 – October 2024 Russian oil export losses from invasion are estimated at \$136 bn

- shock for Russian oil export prices.
- premium. We assume that in case of no invasion, these discounts would also prevail in March 2022 and thereafter.
- before the OFAC started sanctioning vessels carrying Russian oil above the EU/G7 price cap.
- In October 2024, monthly oil export losses widened by \$0.3 bn MoM to \$2.3 bn on widening discount on Urals.
- Total Russian oil exports losses are estimated at \$136 bn in March 2022–October 2024.

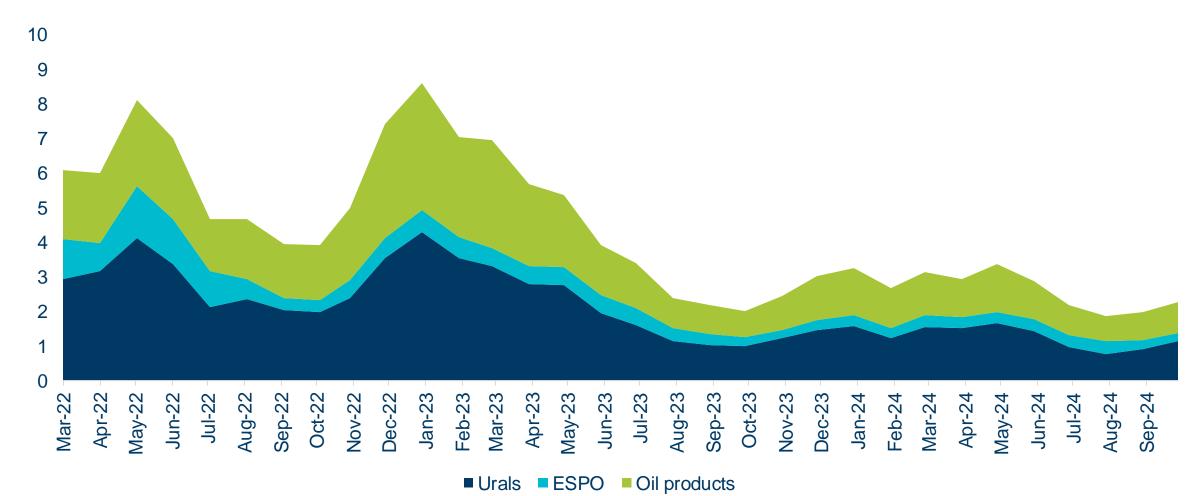


Urals FOB and ESPO FOB vs. ICE Brent, \$/bbl

• To evaluate the oil exports losses, we employed difference-in-difference approach assuming the invasion was an exogenous policy

Urals FOB grade traded consistently with a discount \$1-2/bbl to Dated Brent before the invasion while ESPO FOB traded with a small

• Total monthly losses peaked in January 2023 after the introduction of the EU/G7 oil embargo and steadily declined till October 2023



Russian Oil Exports Losses since March 2022, \$ bn



Source: IEA Oil Market Reports, KSE Institute estimates