

Russian oil tracker

Borys Dodonov, KSE Institute

Benjamin Hilgenstock, KSE Institute

Julia Pavytska, KSE Institute

Anatoliy Kravtsev, KSE Institute

Nataliia Shapoval, KSE Institute

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Summary

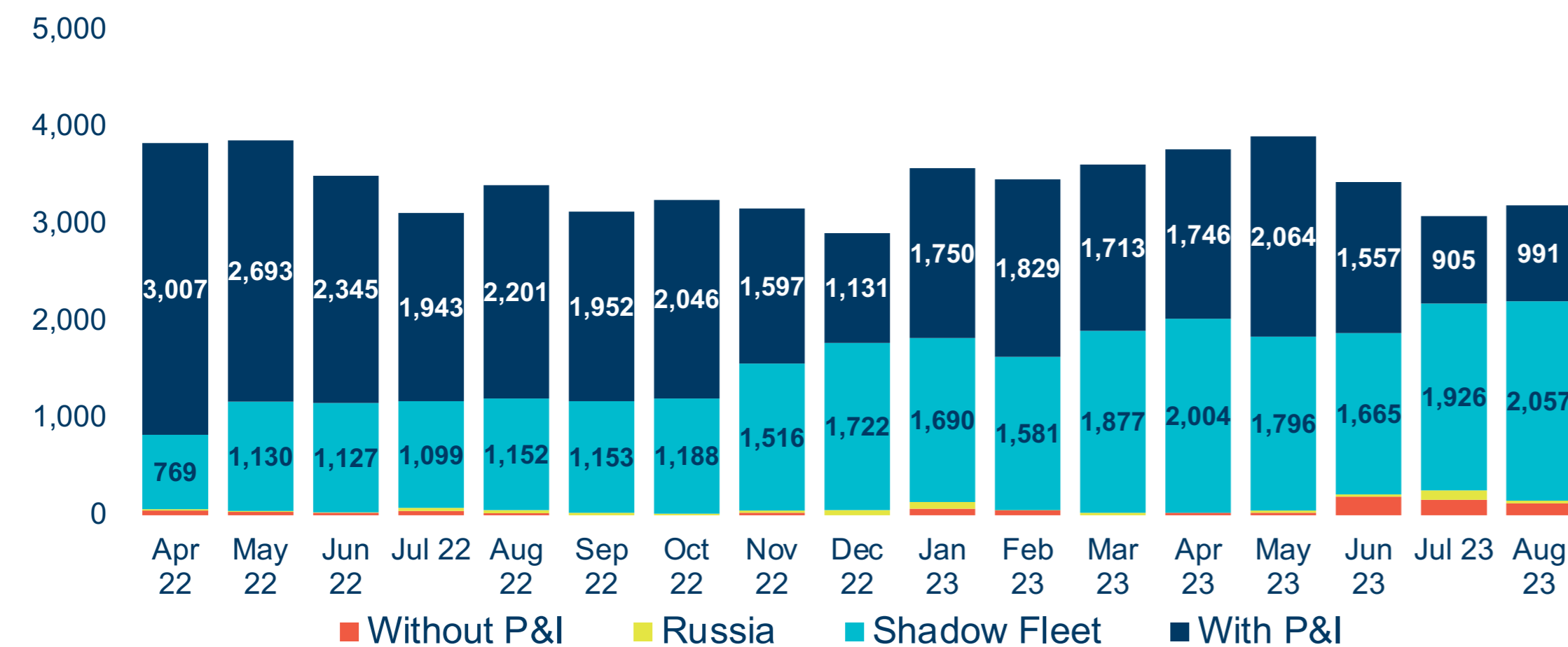
- In July-August 2023, total Russian seaborne oil exports fell to the lowest level since September 2022, but revenues surged as lower volumes were compensated by soaring world market prices and narrowing discounts on Russian crude and oil products.
- Russia managed to significantly decrease its reliance on Western maritime services: in August 2023 only 39% of Russian seaborne oil exports was shipped by tankers with P&I Club insurance compared to 52% and 43% in June and July respectively. In addition, the P&I Club coverage varies by ports: 61% 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 August 2023.
- The KSE Institute estimates Russian shadow fleet at 156 tankers in August 2023, 79% 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 These shippers do not have capital to cover the clean-up costs in case of oil leaks near the EU coastline. In August 2023, the shadow fleet was responsible for exports of around 2.1 mb/d of crude oil and 0.8 mb/d of oil products.
- India and Turkey remained the biggest buyers of Russian seaborne crude and oil products respectively after the coalition of advanced democracies refused to purchase Russian oil.
- Steep price discounts for both Russian crude and oil products continue supporting the strong demand for Russian oil exports. However, in August 2023, Urals FOB Baltic and Black Sea increased by \$10/bbl to \$71/bbl despite being ineligible for shipping with P&I insurance at such price. In December 2022-August 2023 ESPO was shipped with Western maritime services at prices much above the price cap. Diesel, fuel oil and naphtha prices surpassed the price caps in August. 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.
- In August 2023 Russian oil export revenues increased by \$1.8 bn (MoM) to \$17.0 bn and were only 9% lower than a year ago (YoY). 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 \$169 bn and \$177 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 \$144 bn and \$82 bn in 2023 and 2024. However, in case of weak sanctions enforcement, Russian oil revenues could approach a robust \$178 bn and \$212 bn in 2023 and 2024 respectively.

¹See 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

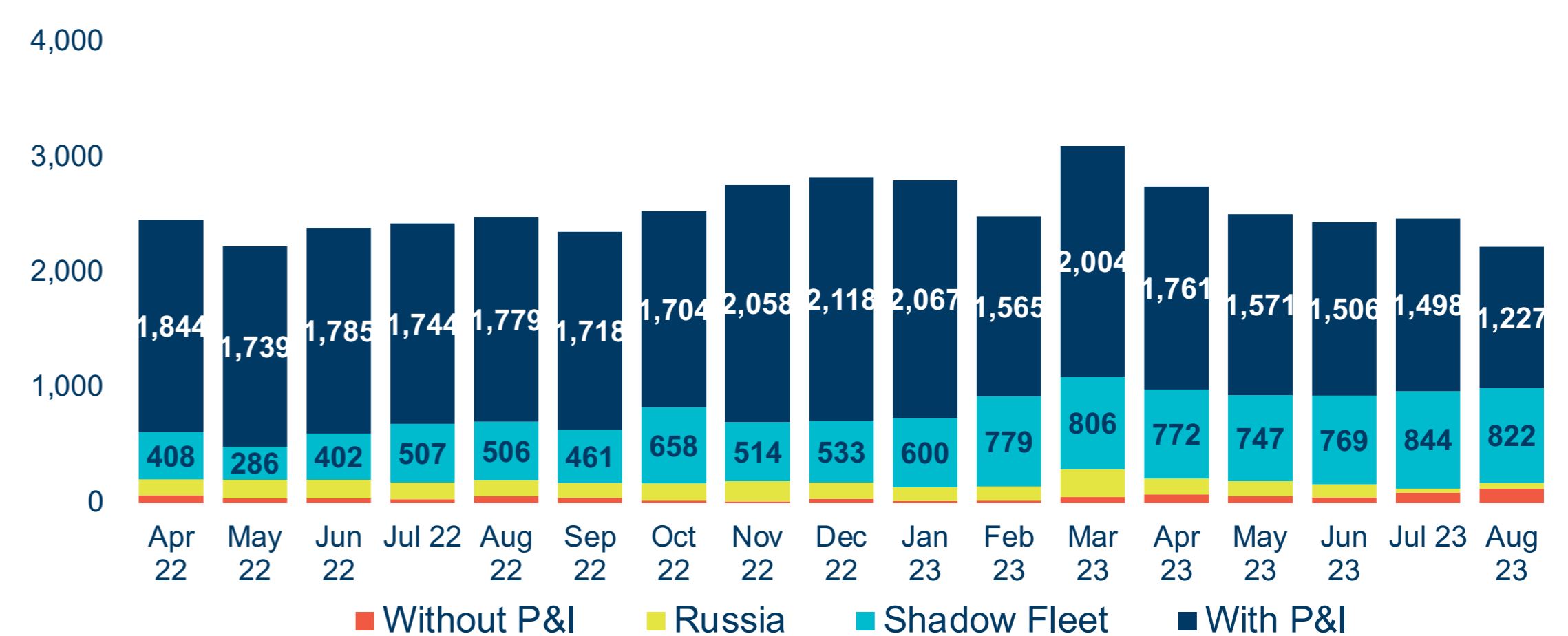
In July-August Russian seaborne oil exports volumes fell to the lowest level since September 2022 although Russia significantly decreased its reliance on Western maritime services

- In July-August 2023 Russian seaborne oil exports fell to the lowest level since September 2022
- In August 2023 exports of crude oil and oil products by sea increased by 111 kb/d (MoM) but decreased by 253 kb/d (YoY)
- In August 2023 the shipment of seaborne crude oil increased by 3.6% (MoM) but decreased by 6.2 (YoY). The exports of oil products decreased by 9.9% (MoM) and by 10.5% (YoY).
- Russia managed to lower its reliance on Western maritime services as 31% of crude oil and 55% of oil products were shipped by tankers with P&I Club insurance in August 2023 compared to 45% and 62% respectively two months earlier

Russian seaborne crude oil exports, kb/d



Exports of Russian oil products, kb/d

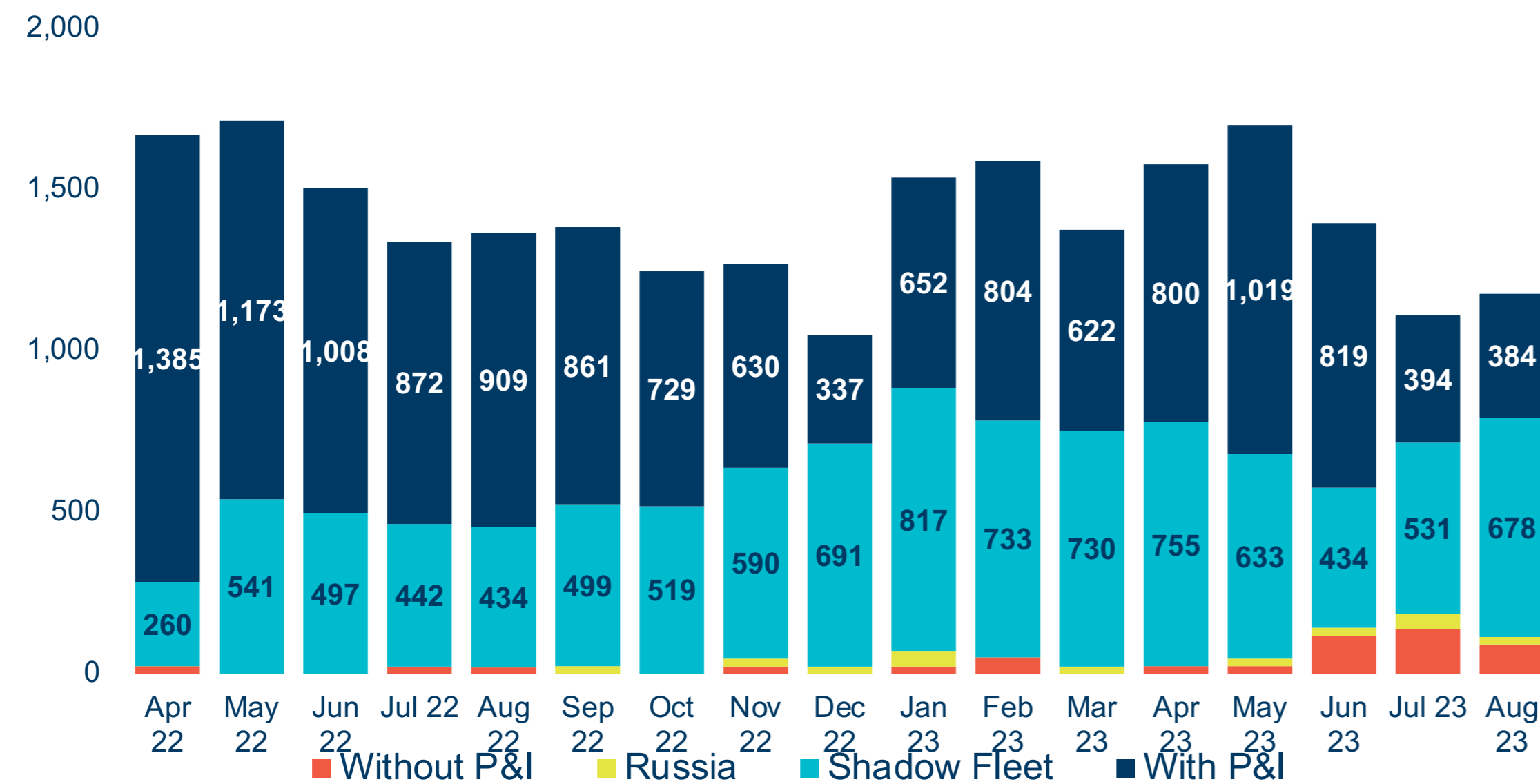


Source: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

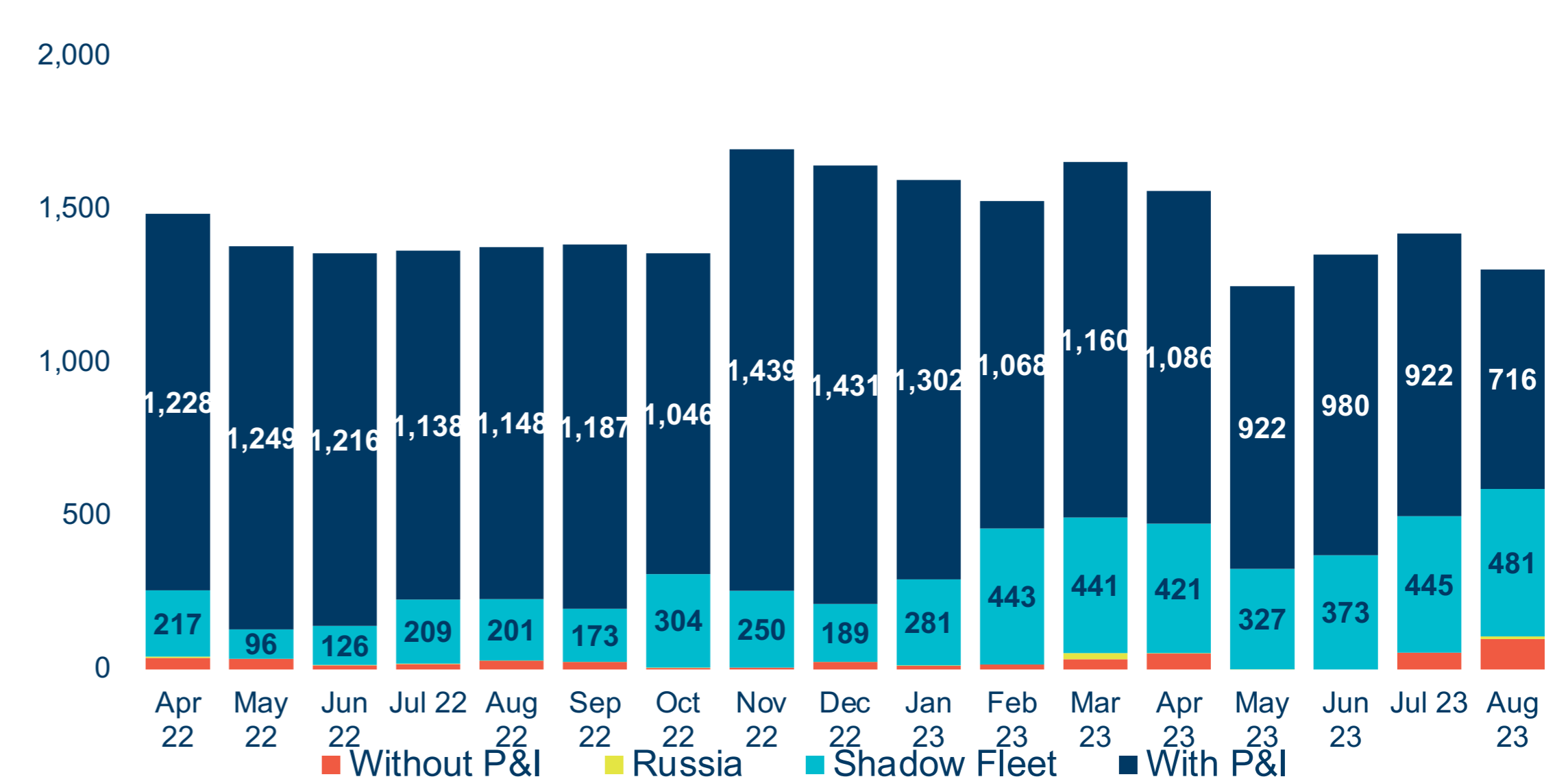
44% of crude oil & oil products were shipped by tankers with P&I Club insurance from Baltic Sea ports in August 2023

- In August 2023 the exports of crude oil from Baltic ports increased by 6.0% (MoM) but decreased by 13.7% (YoY).
- The exports of oil products from Baltic ports decreased by 8.2% (MoM) and by 5.3% (YoY) in August.
- 33% of crude oil and 55% of oil products were shipped by tankers with P&I Club insurance in August compared to 59% and 72% respectively in June

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



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

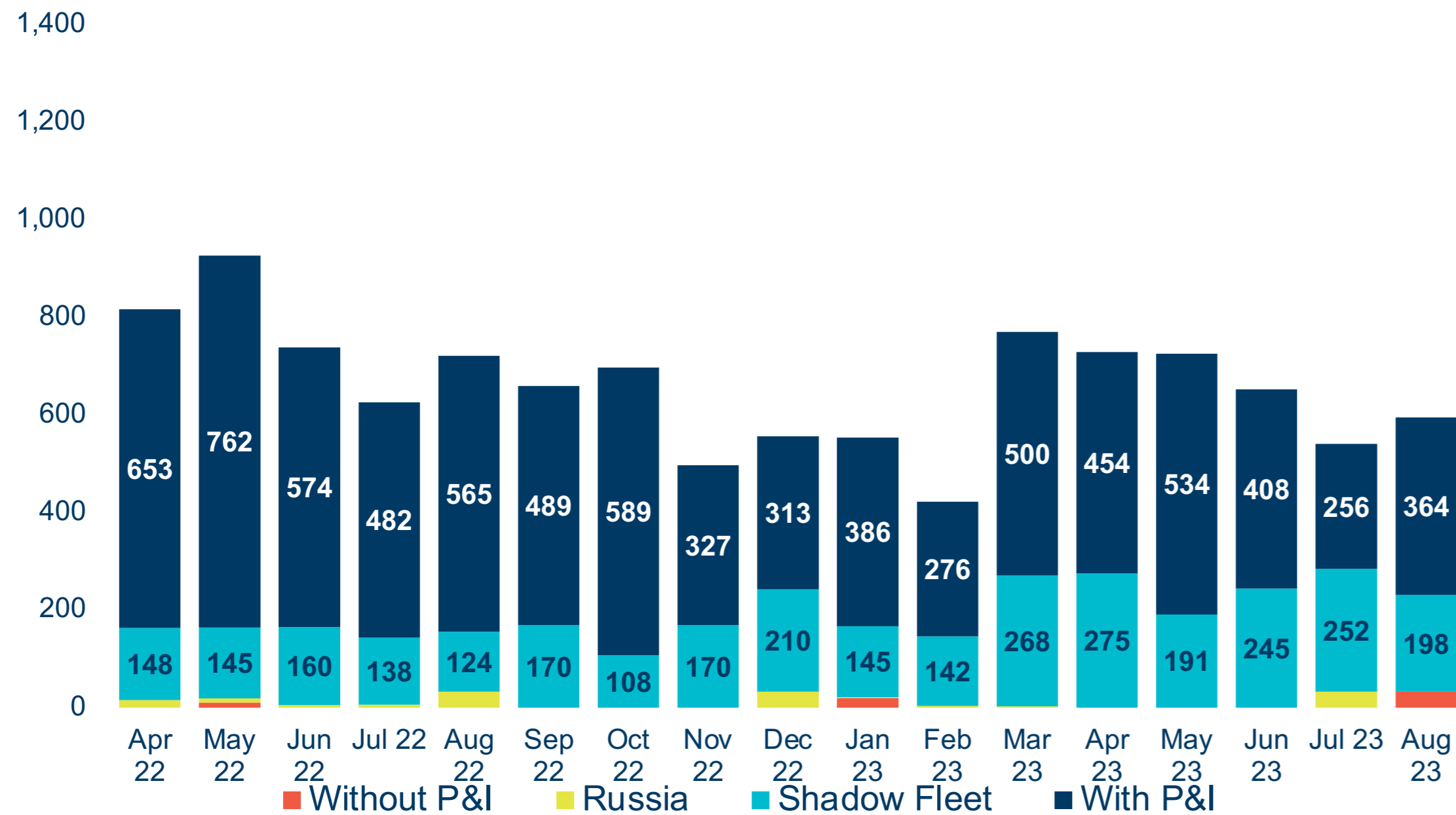


Source: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

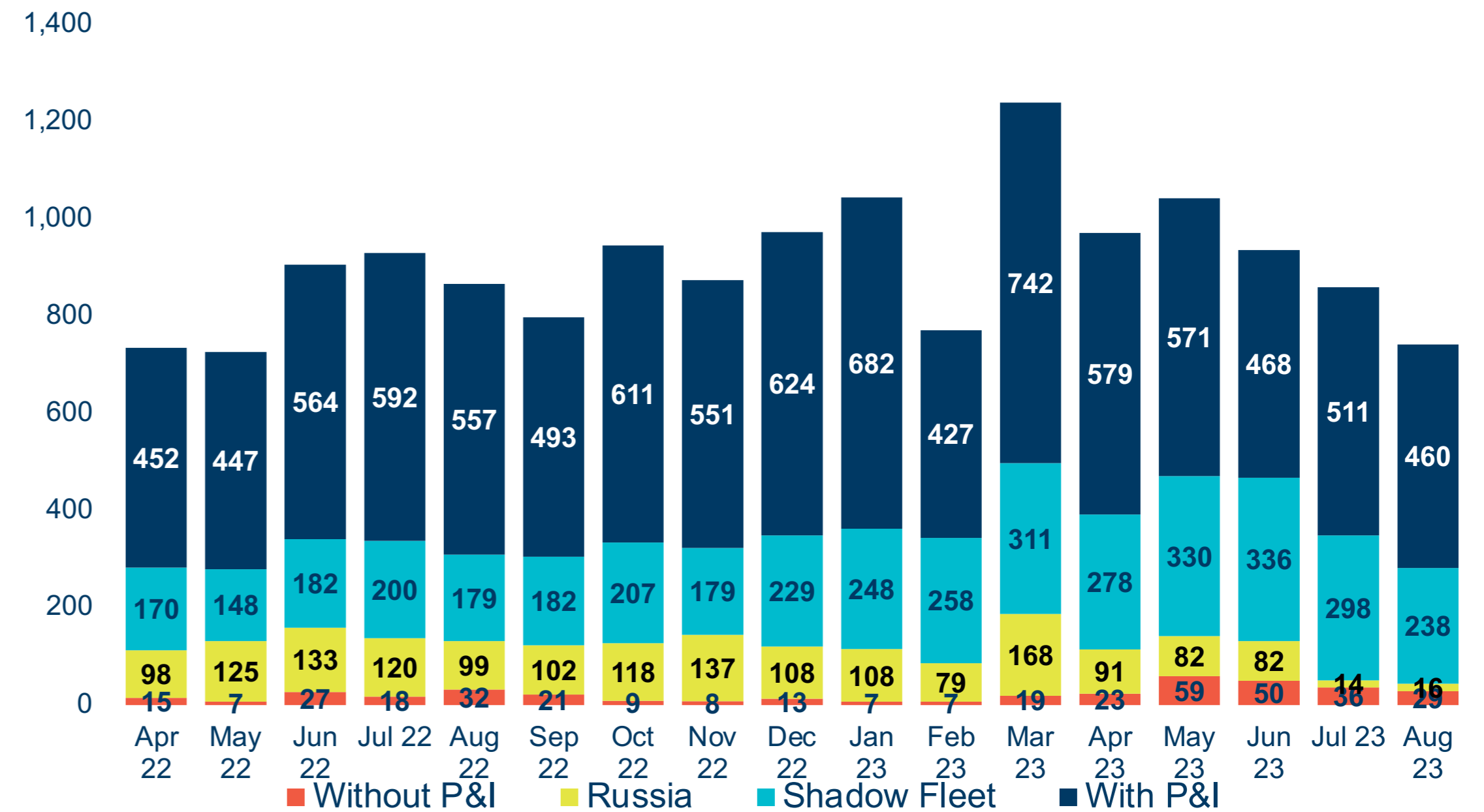
62% of crude oil & oil products were shipped by tankers with P&I Club insurance from Black Sea ports in August 2023

- In August 2023 the exports of crude oil from Black Sea ports increased by 10.1% (MoM) but decreased by 17.5% (YoY).
- The exports of oil products from Black Sea ports decreased by 13.7% (MoM) and by 14.4% (YoY).
- 61% of crude oil and 62% of oil products were shipped by tankers with P&I Club insurance compared to 62% and 50% respectively in June

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



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

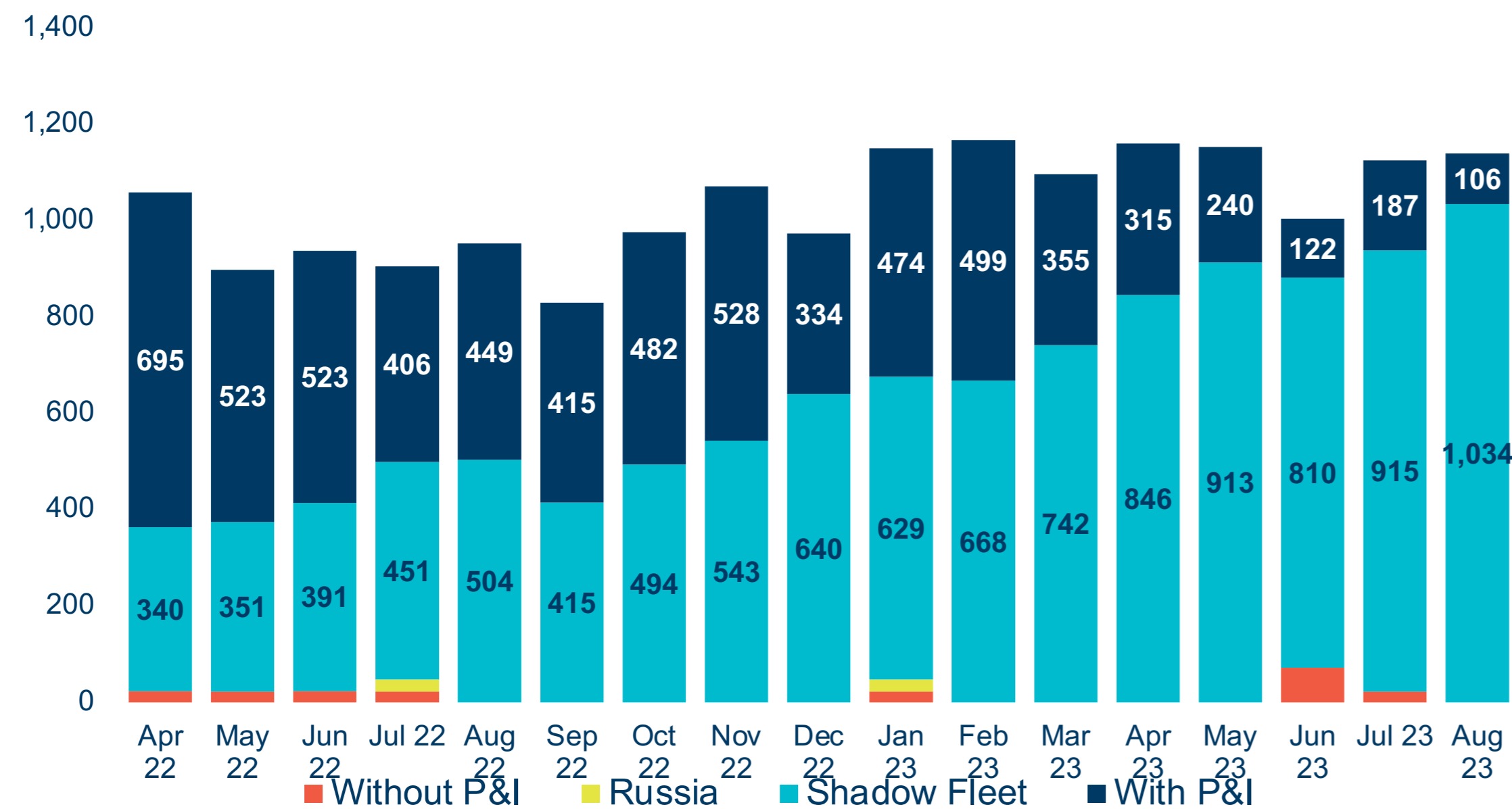


Source: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

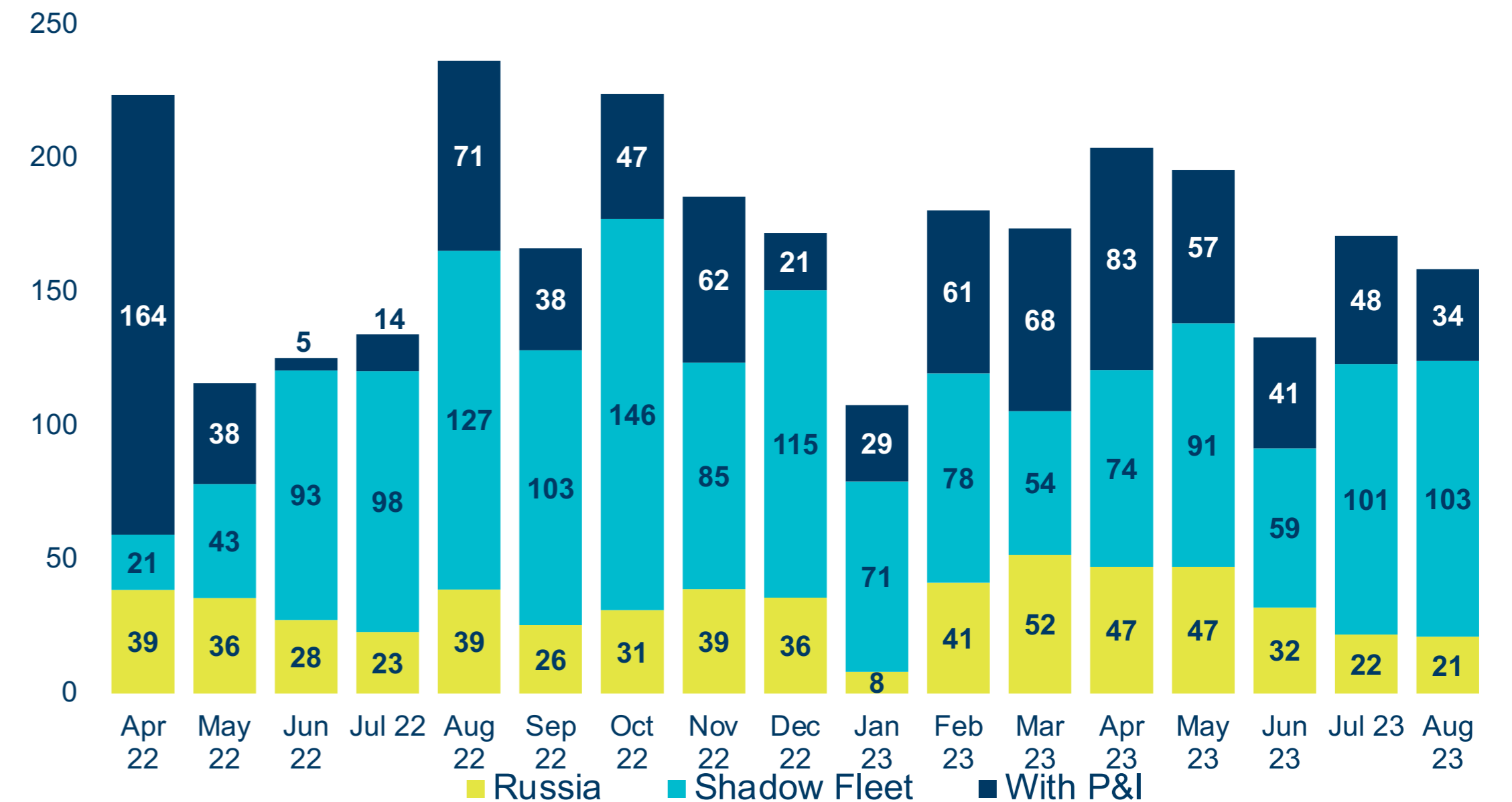
11% of crude oil & oil products were shipped by tankers with P&I Club insurance from Pacific Ocean ports in August 2023

- In August 2023 the exports of crude oil from Pacific Ocean ports increased by 1.3% (MoM) and by 19.7% (YoY)
- The exports of oil products from Pacific Ocean ports decreased by 7.3% (MoM) and by 133.0% (YoY)
- Only 9% of crude oil and 22% of oil products were shipped by tankers with P&I Club insurance in August 2023

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



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

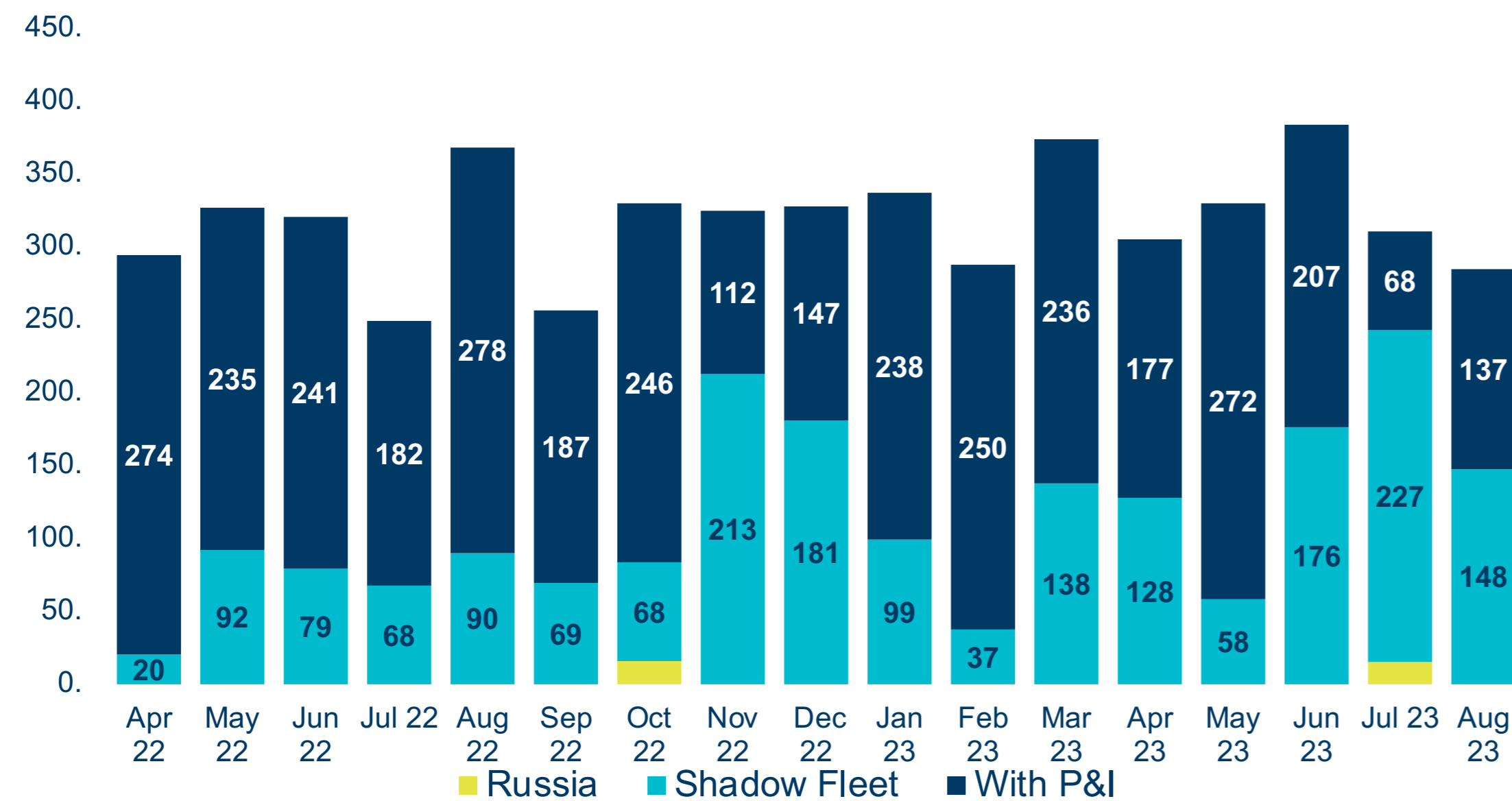


Source: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

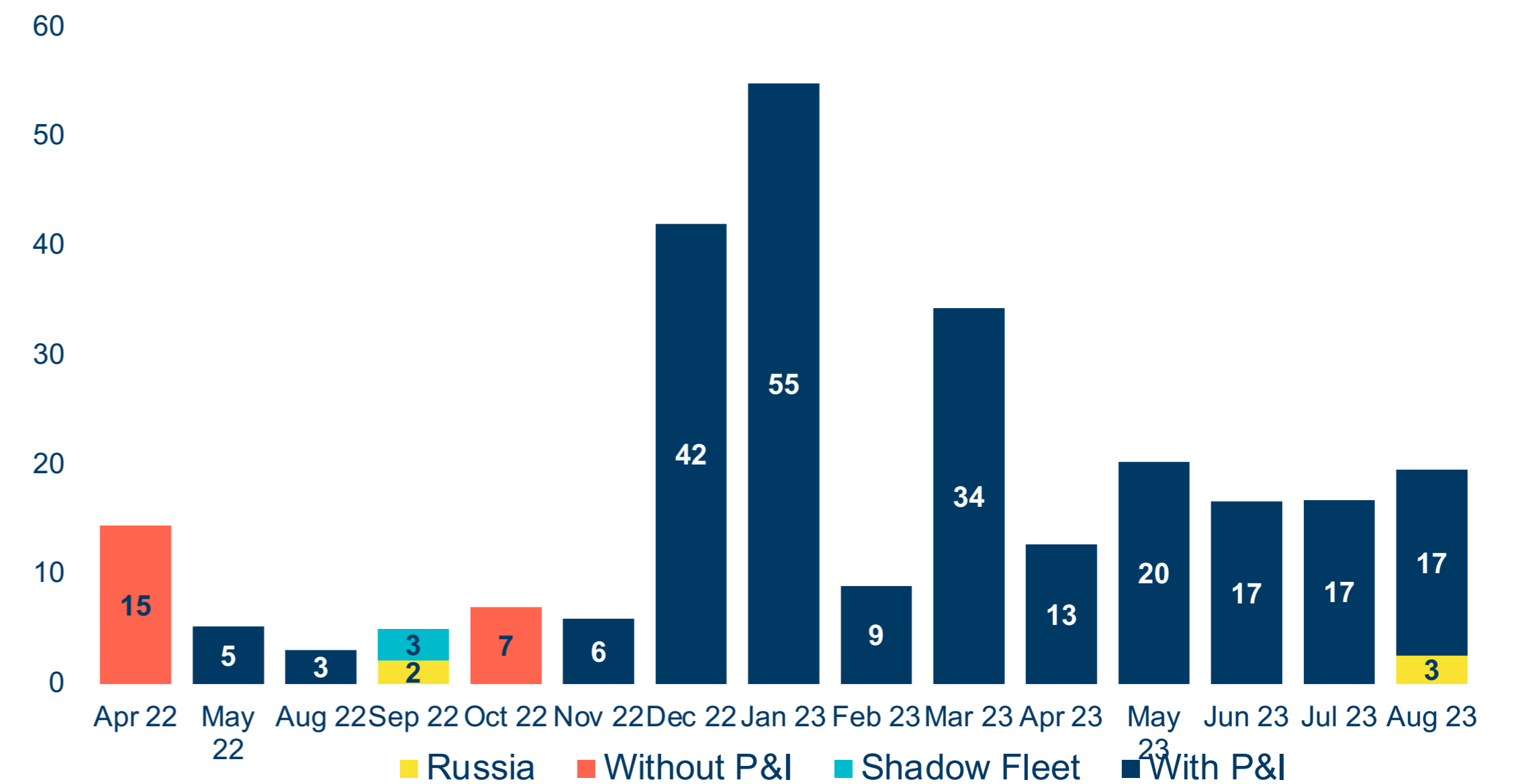
54% of crude oil and oil products were shipped by tankers with P&I Club insurance from Arctic Ocean ports in August 2023

- In August 2023 the exports of crude oil from Arctic Ocean ports decreased by 8.3% (MoM) and by 22.6% (YoY)
- The exports of oil products from Arctic Ocean is insignificant as Russia ships predominantly crude from these ports.
- 48% of crude oil was shipped by tankers with P&I Club insurance in August 2023 compared to 54% in June

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



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

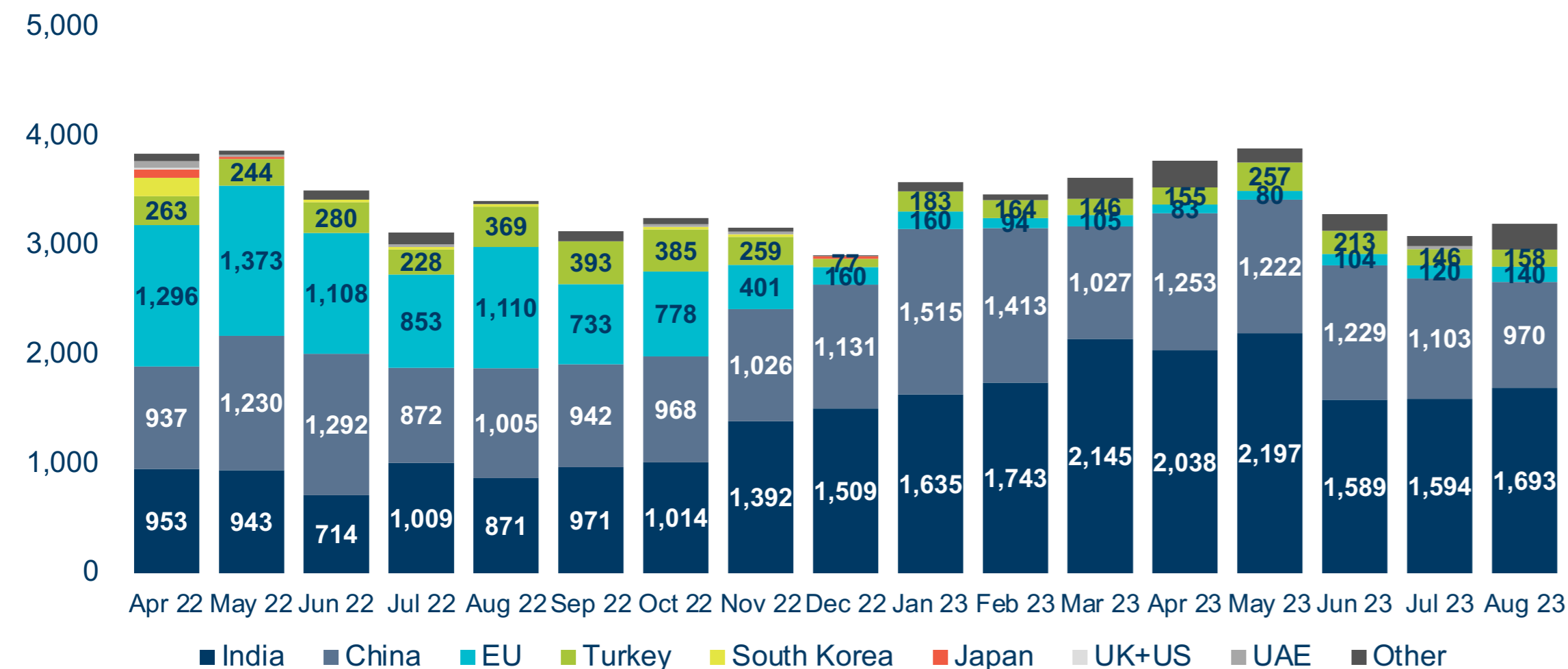


Source: Kpler, Equasis, P&I Club webpage, KSE Institute estimates

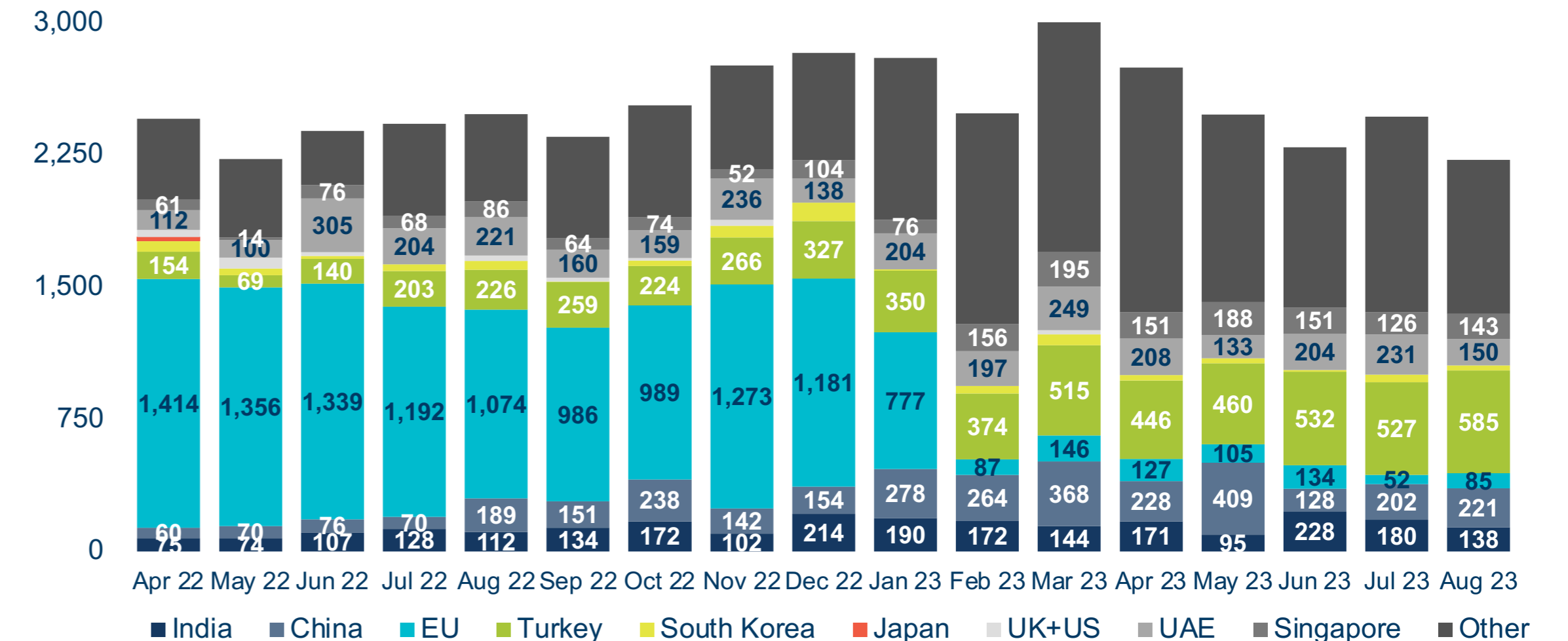
India became the biggest buyer of Russian seaborne crude while Turkey became the biggest importer of oil products after the coalition of advanced democracies refused to purchase Russian oil

- In August 2023 the share of the EU in Russian crude exports decreased to 4% from 33% (YoY) as only Bulgaria is eligible for seaborne oil imports from Russia after EU's embargo came into effect in December 2022
- In August 2023 the share of the EU in Russian oil products exports decreased to 4% but from 43% (YoY) after EU's embargo on oil products came into effect in February 2023
- India remain 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 52% and 53% in July and August* 2023
- Altogether India, China and Turkey were responsible for 92% and 88% of Russian crude oil exports in July and August* respectively
- Although Turkey decreased crude oil imports from Russia since December 2022, it increased oil products imports from Russia to 585 kb/d or by 158% (YoY) in August remaining the biggest importer of Russian origin oil products since embargo's introduction
- Russia also managed to increase oil products exports to UAE, China, India and Singapore to replace the loss of its traditional European market

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



Russian oil products exports by destinations countries, kb/d



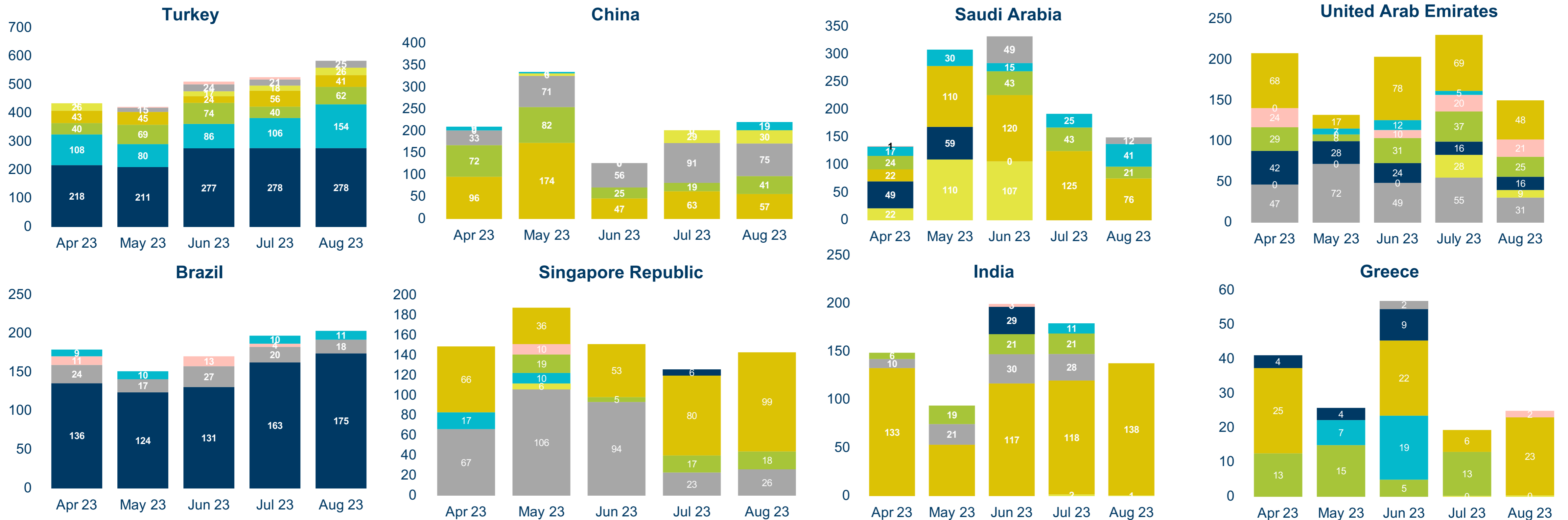
*Note: the destinations for some shipments in June were not yet known as of the middle of September

Source: Kpler, KSE Institute estimates

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

- Turkey's product imports reached an all-time high of 585 kb/d from which diesel accounted for 47% in August 2023
- China and Saudi Arabia sharply cut its Russian oil products imports from over 300 kb/d in June to 221 kb/d and 150 kb/d respectively in August
- Despite having no derogation for Russian oil imports, Greece unloaded 25 kb/d estimated at \$46 m at discounted Russian product prices, which may signal for breach of embargo

Top 10 importers of Russian oil products, kb/d



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

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 August 2023

Russian crude oil exports by ship managers

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

Registered in the UAE Oil Tankers Scf Mgmt Fzco became the the leading shipper of Russian oil by operating vessels obtained from Sun Ship Management. All these tankers navigate without P&I insurance.

Six out of ten biggest shippers of Russian oil products were Greek companies in August 2023

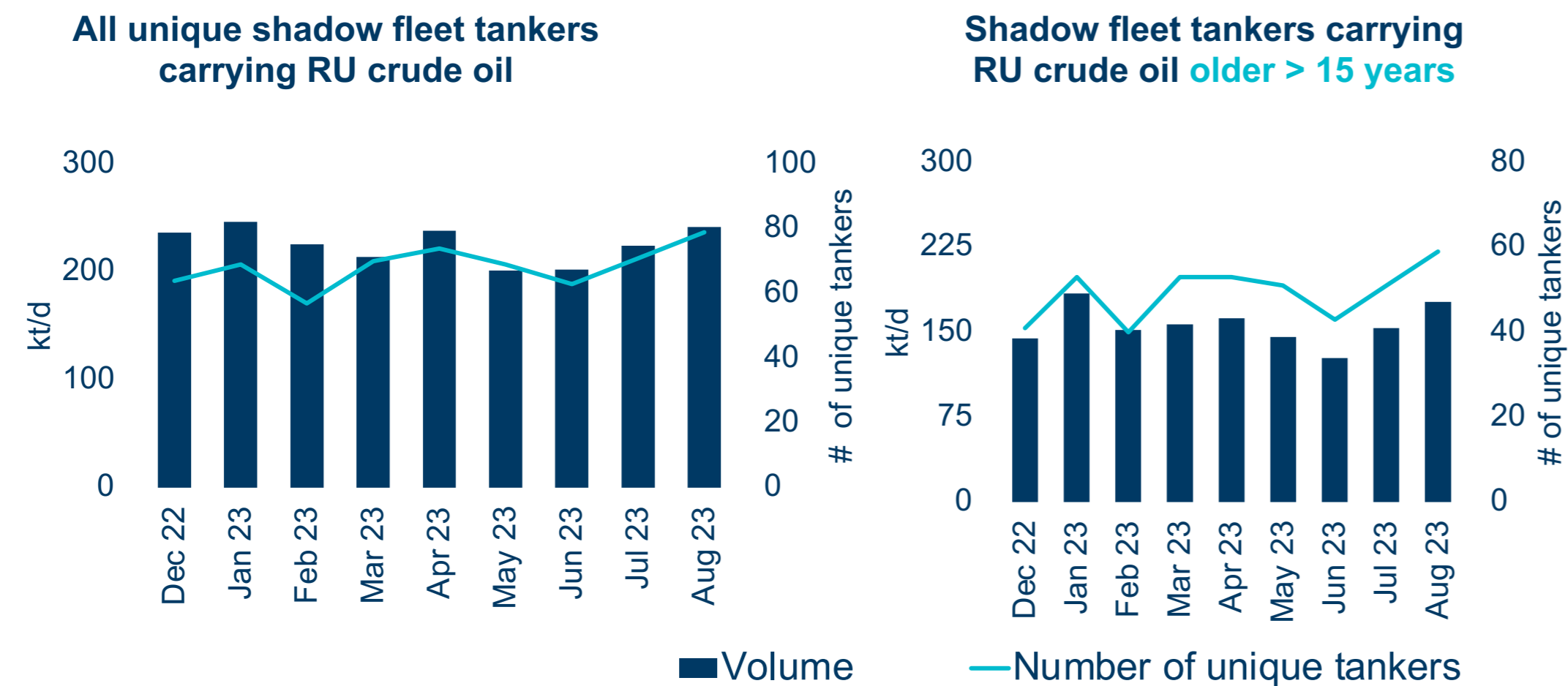
Russian oil products exports by ship managers

Aug 23			Jul 23		
Ship manager	Volume, kb/d	%	Ship manager	Volume, kb/d	%
Other	1608	72%	Other	1808	73%
UAE.Oil Tankers Scf Mgmt Fzco	104	5%	UAE.Oil Tankers Scf Mgmt Fzco	125	5%
Greece.Spring Marine Management Sa	81	4%	Greece.Minerva Marine Inc	114	5%
Greece.Sea Trade Marine Sa	81	4%	Greece.Eastern Mediterranean Maritime Ltd	78	3%
Greece.Tms Tankers Ltd	72	3%	Turkey.Beks Tanker Isletmeciligi As	73	3%
Turkey.Beks Tanker Isletmeciligi As	65	3%	India.Ark Seakonnnect Shipmanagment	55	2%
Greece.Eastern Mediterranean Maritime Ltd	60	3%	Greece.Tms Tankers Ltd	50	2%
Greece.Velos Tankers Ltd	49	2%	Kuwait.Arab Maritime Petroleum Trans	47	2%
Greece.Minerva Marine Inc	39	2%	Greece.Spring Marine Management Sa	42	2%
Kuwait.Arab Maritime Petroleum Trans	34	2%	Greece.Thenamaris Ships Management	39	2%
Greece.Product Shipping & Trading Sa	32	1%	Greece.Stealth Maritime Corp Sa	38	2%
Total	2225	100%	Total	2469	100%

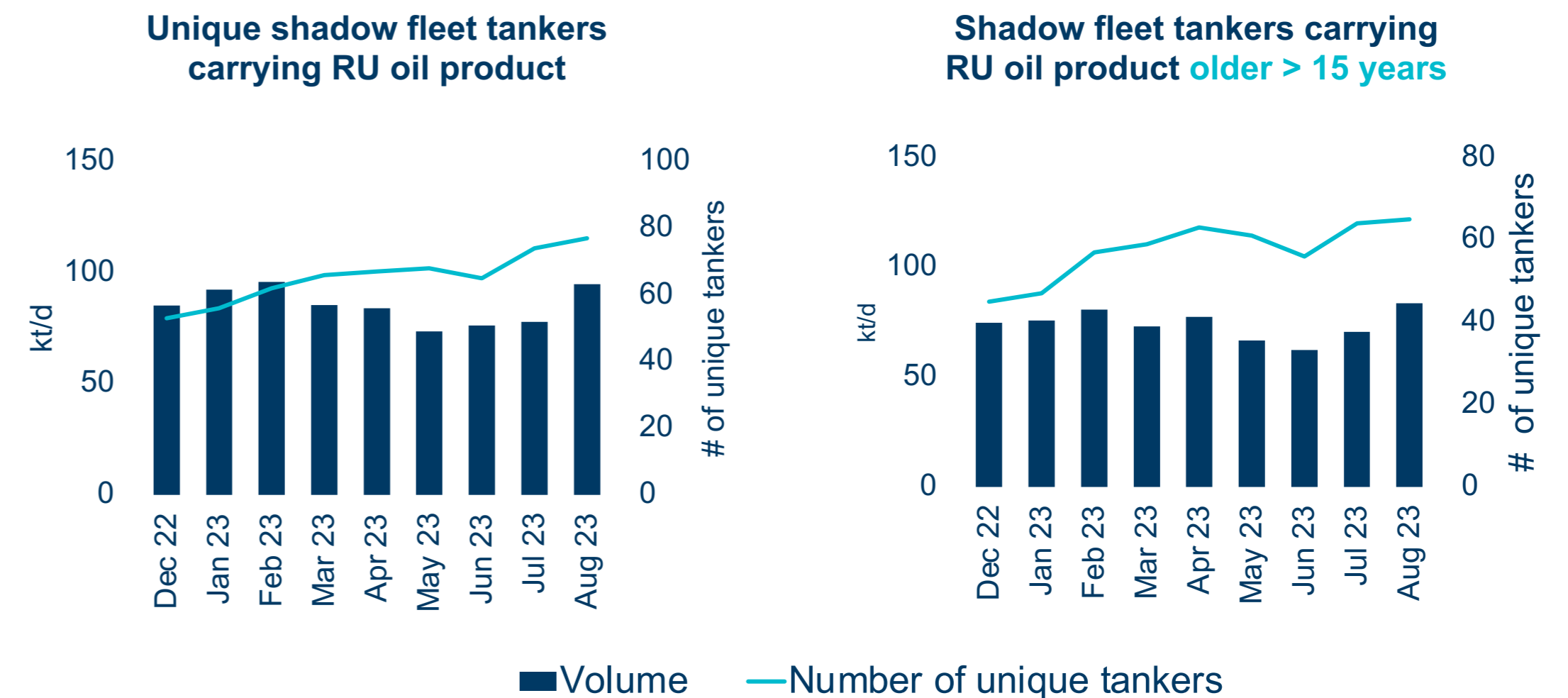
The number of Russian shadow fleet tankers carrying crude and oil products from Russian ports is estimated at 156 vessels in August 2023

- Russian oil exporters increased the number of shadow fleet tankers carrying crude from Russian ports to 79 in August 2023 while 75% of them were older than 15 years
- The number of shadow fleet tankers carrying Russian oil products from Russian ports increased to 77 in August 2023 while 84% 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

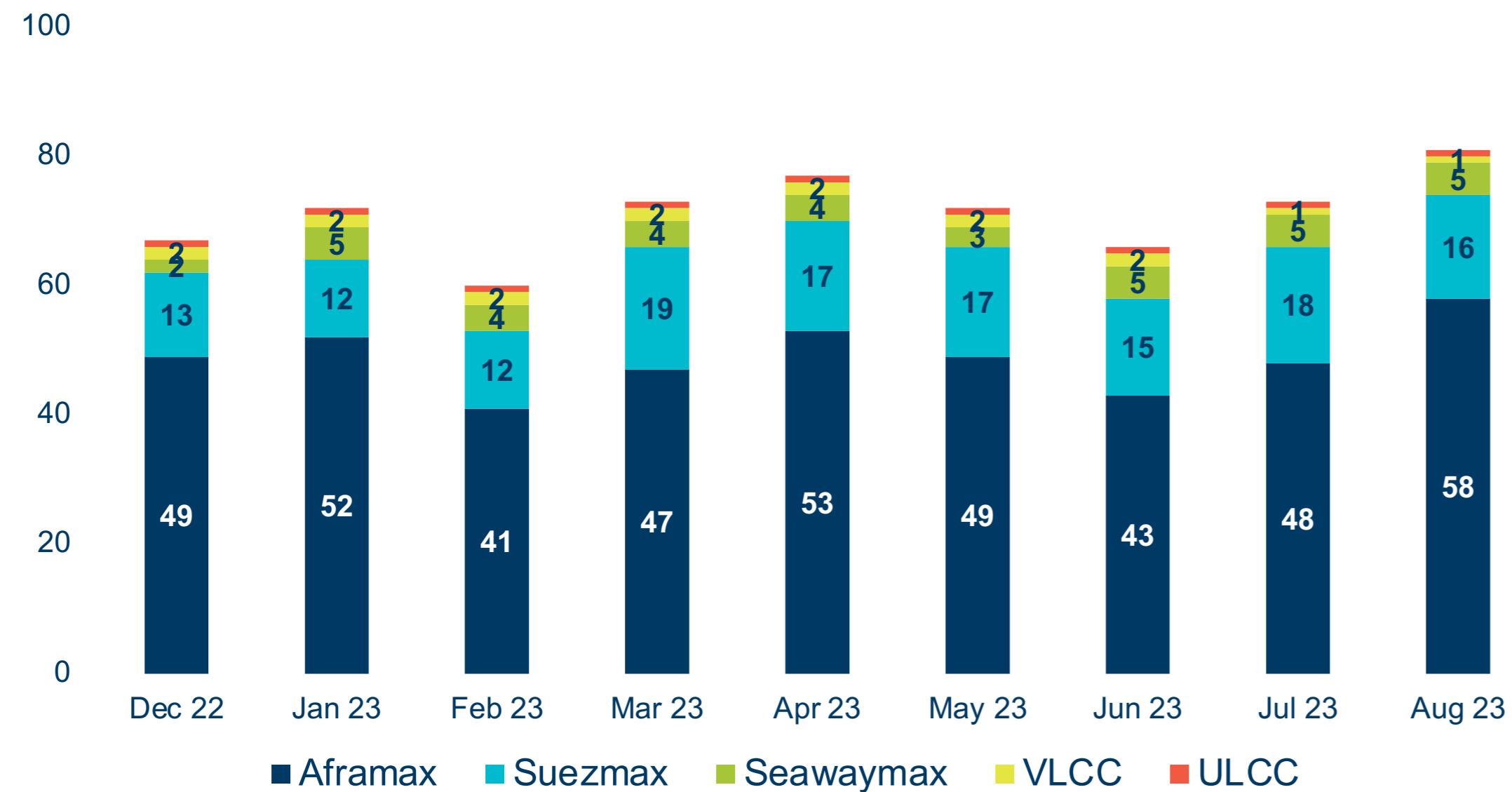


Oil products

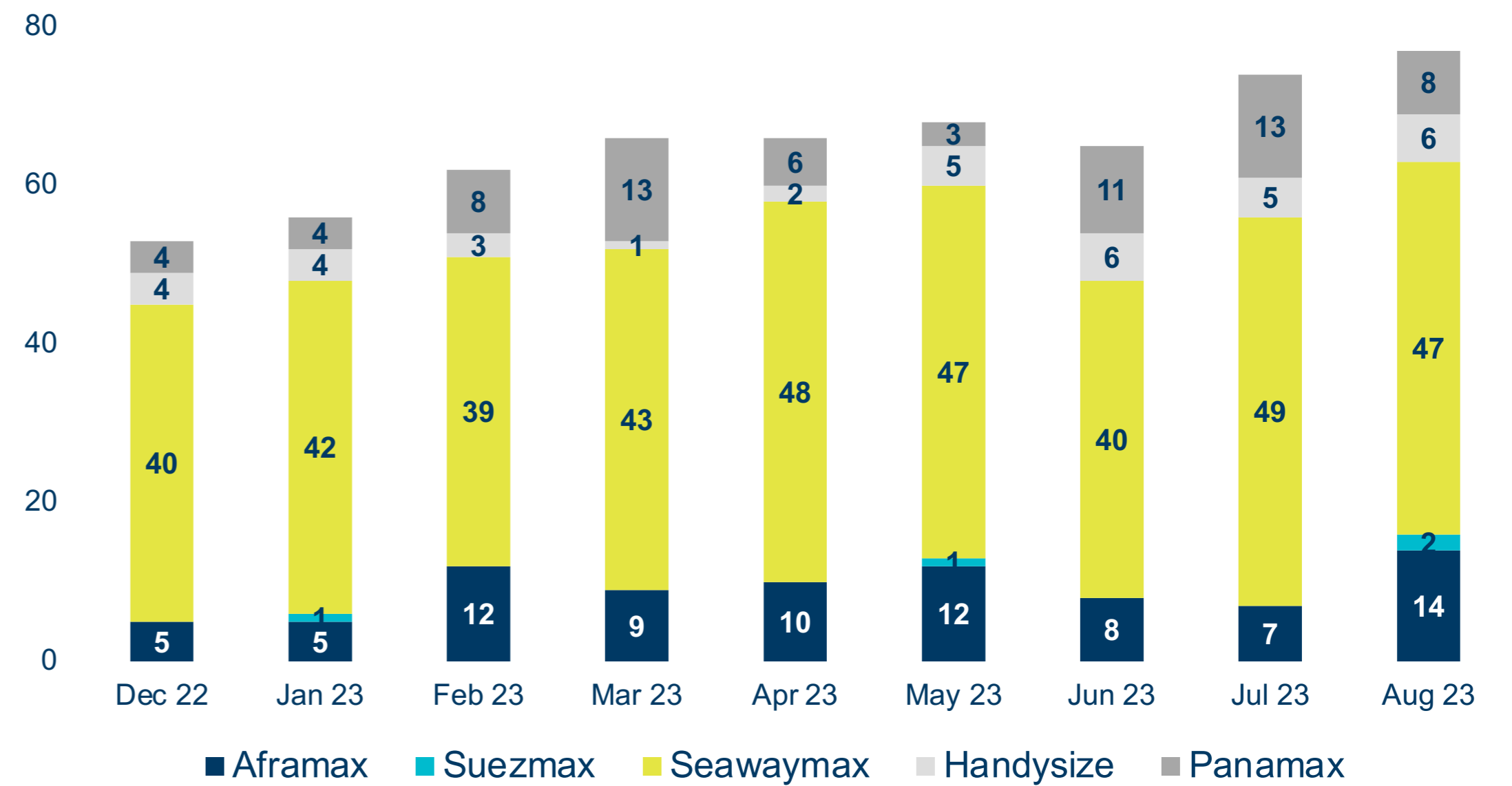


Aframax and Seuzmax are the core of Russian shadow fleet carrying crude while Seawaymax, Panamax and Aframax forms the Russian shadow fleet carrying oil products. Total Russian shadow fleet carrying oil and oil products from Russian ports and involved in STS transfers increased by 27 tankers (over June) to 158 in August 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

The share of Russian crude oil exports by shadow increased by 16% (over June) to 64% in August 2023

- Russian crude oil exports by shadow fleet increased by around 393 kb/d (over June) to record 2057 kb/d and its share in total shipments increased to 64% in August
- Sun Ship Management and connected to it Oil Tankers Scf Mgmt Fzco boosted their shares in crude oil shipments by shadow fleet to 52%

Russian crude oil exports by shadow fleet, kb/d

Aug 23			Jul 23		
Ship manager	Volume, kb/d	%	Ship manager	Volume, kb/d	%
Other	806	39%	Other	599	31%
UAE.Sun Ship Management	553	27%	UAE.Sun Ship Management	618	32%
UAE.Oil Tankers Scf Mgmt Fzco	316	15%	UAE.Oil Tankers Scf Mgmt Fzco	149	8%
China.Intercon Marine Shanghai Co	50	2%	UAE.K&O Shipmanagement Fze	123	6%
Liberia.Hs Esberg Ltd	49	2%	UAE.Star Voyages Shipping	81	4%
China.Supership Management Co Ltd	48	2%	Turkey.Beks Tanker Isletmeciligi As	73	4%
China.Sunne Co Ltd	48	2%	India.Maritas Fleet Pvt Ltd	69	4%
China.Rptd Sold China	48	2%	UAE.Fractal Marine Dmcc	57	3%
Seychelles.Loengo Shipping & Trader Ltd	48	2%	UAE.Radiating World Shipping Servs	57	3%
China.Shanghai Future Ship Mgmt Co	46	2%	India.Pilot Ship Management Opc Pvt	50	3%
Vietnam.Opec Petrol Transportation Co	46	2%	China.Intercon Marine Shanghai Co	50	3%
Total	2057	100%	Total	1926	100%

Russia oil products exports by shadow fleet was flat in June-August but the share of products exports by shadow fleet increased by 5% in August (over June)

- Russia shipped 822 kb/d or around 36% of its oil products exports by shadow fleet in June
- 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 13% in August

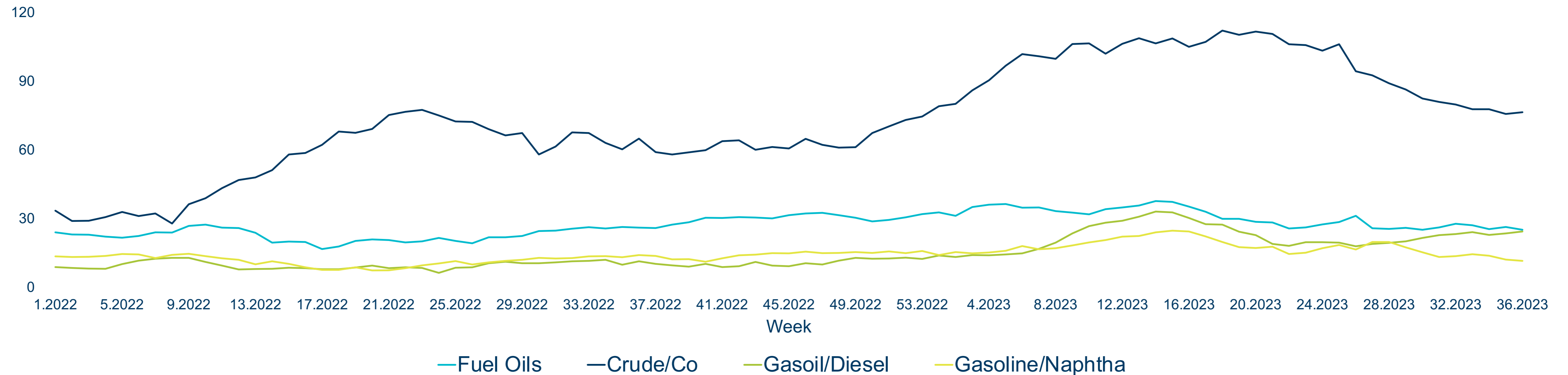
Russian oil products exports by shadow fleet, kb/d

Aug 23			Jul 23		
Ship manager	Volume, kb/d	%	Ship manager	Volume, kb/d	%
Other	455	55%	Other	423	50%
UAE.Oil Tankers Scf Mgmt Fzco	104	13%	UAE.Oil Tankers Scf Mgmt Fzco	125	15%
Turkey.Beks Tanker Isletmeciligi As	65	8%	Turkey.Beks Tanker Isletmeciligi As	73	9%
UAE.Radiating World Shipping Servs	30	4%	India.Ark Seakonnct Shipmanagment	55	7%
UAE.Sun Ship Management	29	4%	UAE.Sun Ship Management	36	4%
UAE.Lta Shipping Fzco	26	3%	Turkey.Beks Gemi Isletmeciligi Ve Tic	26	3%
India.Xfinity Maritime Services Pvt	23	3%	China.Coureage Co Ltd	21	3%
UAE.Indo Gulf Ship Management Llc	23	3%	Marshall Islands.Wisdoms Shipping & Marine Inc	21	3%
India.Maritas Fleet Pvt Ltd	23	3%	China.Shanghai Prosperity Ship Mgmt	21	3%
Singapore.Vr Marine Management Pte Ltd	22	3%	China.Global Ship Management Ltd	20	2%
Liberia.Hs Star Ltd	21	3%	Vietnam.Sao Viet Petrol Transportation	20	2%
Total	822	100%	Total	844	100%

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
- At the end of August, 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 August compared to their peaks after the introduction of oil embargo by the EU, they were around 2.5 times higher compared to January 2022

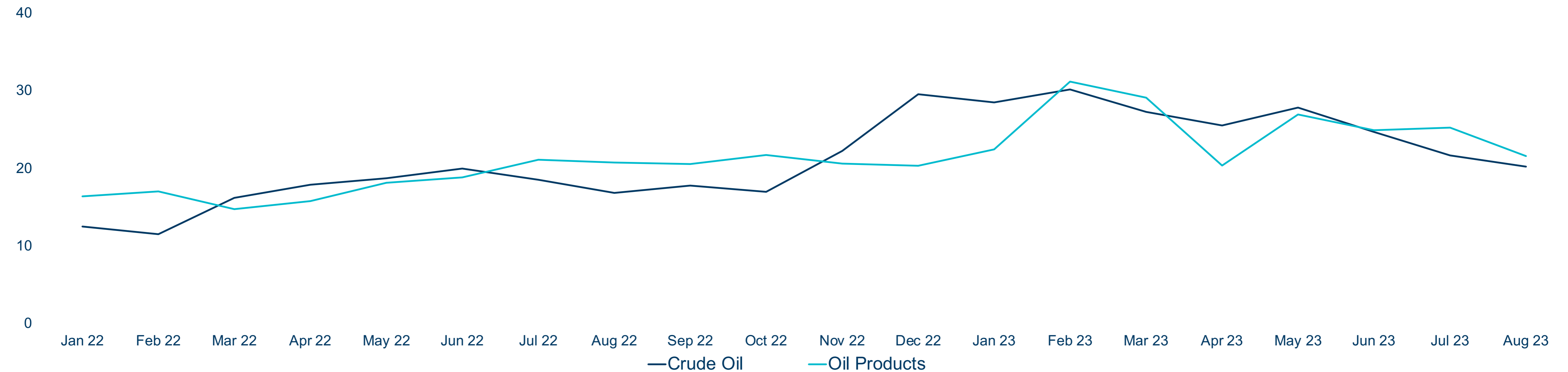
Russian oil on water, mb, average per week



Average transit days of crude and oil products increased by 75% and 27% respectively compared to February 2023

- 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 August, the figure declined to 20 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 22 in June due to increased exports to Turkey and the Middle East and decrease to destinations located at long distance from Russia

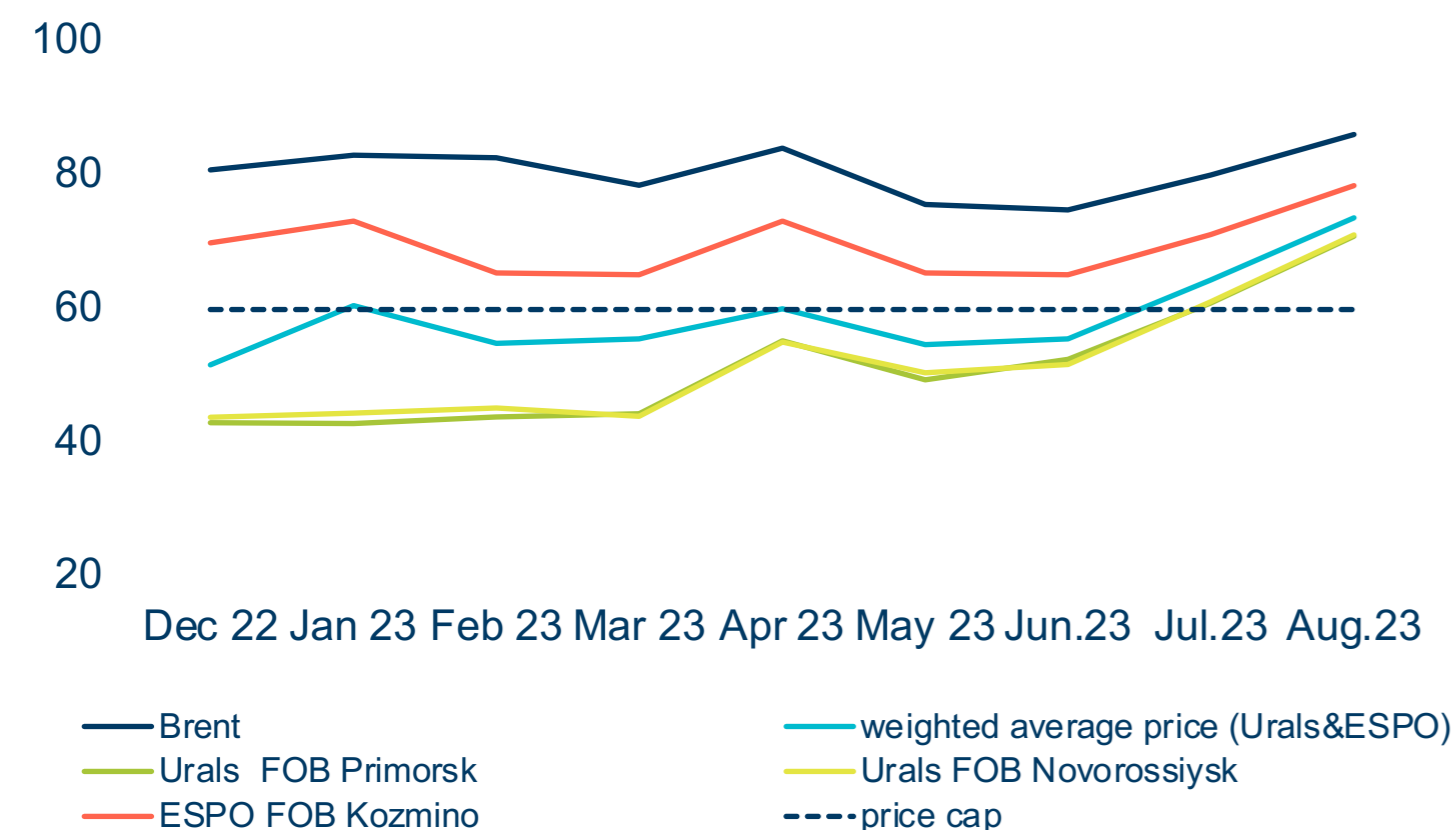
Monthly average transit days of crude oil and oil products from Russia



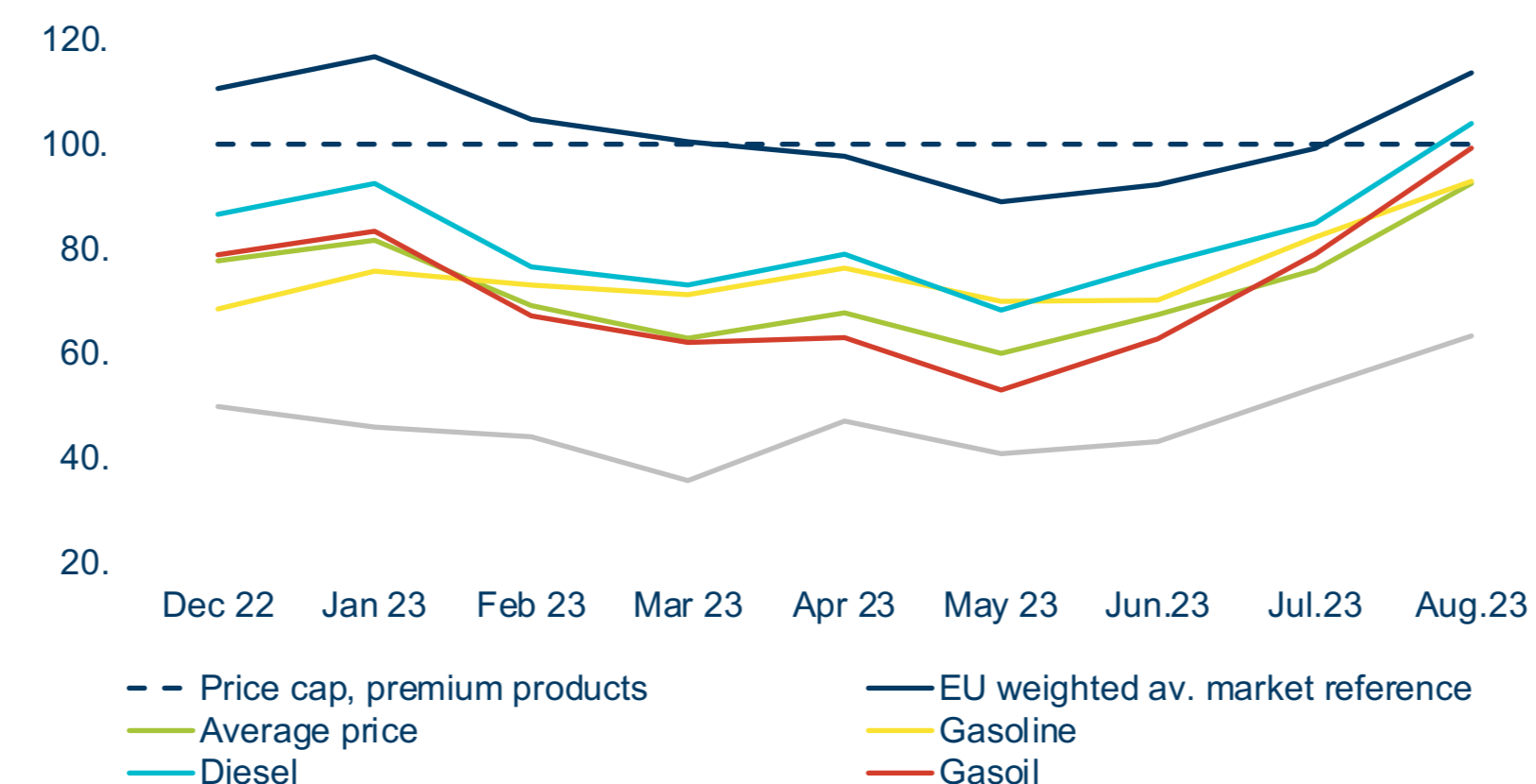
In August 2023, Urals FOB Baltic and Black Sea increased by \$10/bbl to \$71/bbl despite being ineligible for shipping with P&I insurance at such price. In December 2022-August 2023 ESPO was shipped with Western maritime services at prices much above the price cap. Diesel, fuel oil and naphtha prices surpassed the price caps in August

- In August 2023, Urals FOB Baltic and Black Sea increased by around 10.0/bbl to \$71.0/bbl. The trade of Urals at \$70/bbl had marginal effect of its shipments so far, especially from Black Sea ports where 62% of crude was shipped with P&I Club insurance in August.
- ESPO FOB increased by \$7.3/bbl to \$78.5/bbl remaining ineligible for Western maritime service in August. Only 9% of crude shipments were made by tankers with P&I Club insurance in August 2023 from Pacific ports compared to 41% in January 23 when price cap regulation came in full effect.
- Prices for Russian diesel increased to 104.0 \$/bbl to around \$4.0/bbl above price cap. The price of gasoline increased by \$10.7/bb to \$92.9/bbl while gasoil price jumped by \$20.3/bbl to \$99.3/bbl (MoM) The price of VGO which had to be placed to discounted products instead of the premium ones increased by \$9.9/bbl to \$63.4/bbl (MoM) in August.
- Price for fuel oil increased to around \$59.4/bbl while price for naphtha increased to \$47.9/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.
- Despite their narrowing in July-August, large price discounts for both Russian crude and oil products continue supporting the strong demand for Russian oil exports

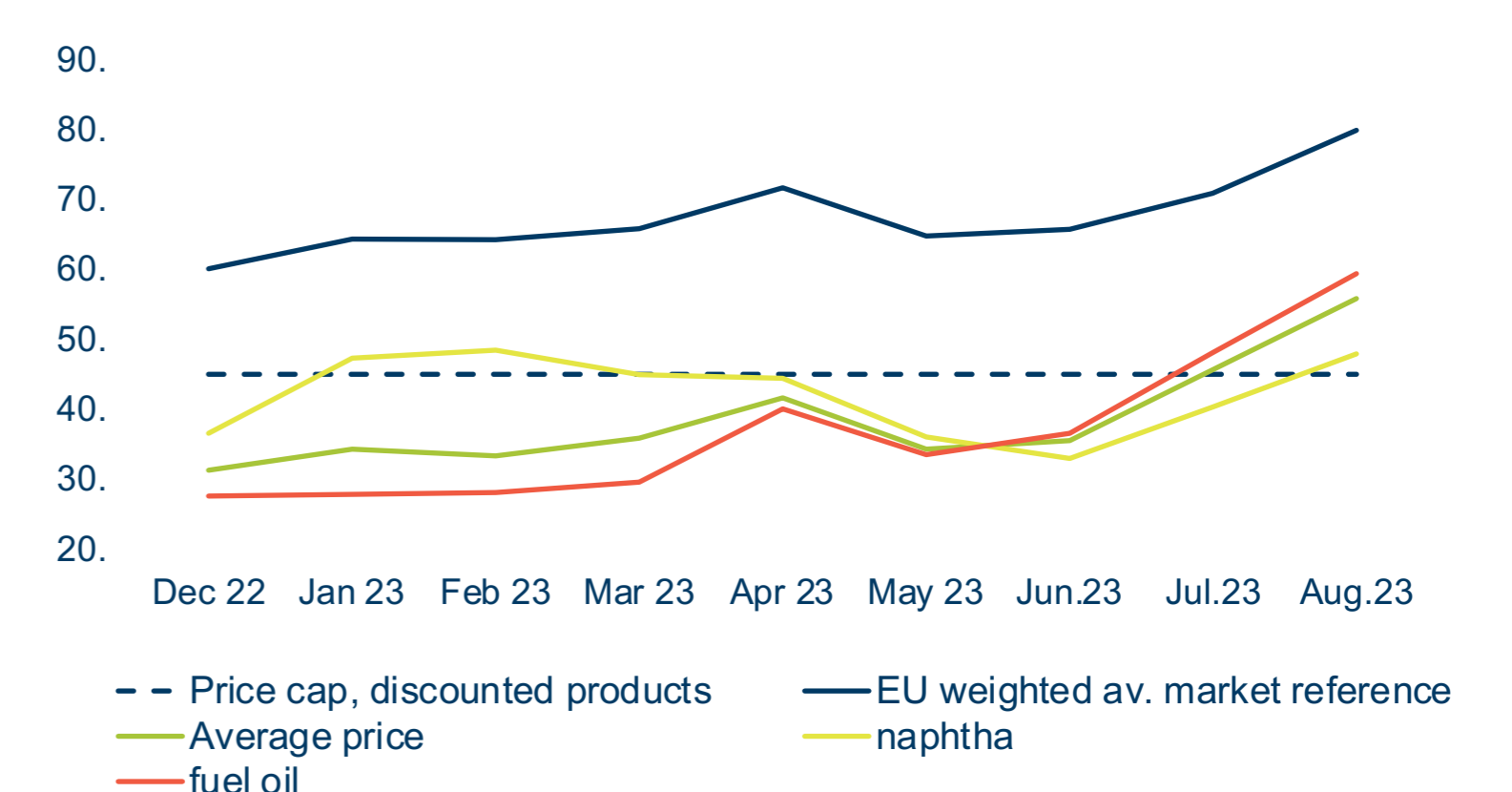
Russian Crude FOB Export Prices



Russian Premium Products FOB Export Prices



Russian Discounted Products FOB Export Prices



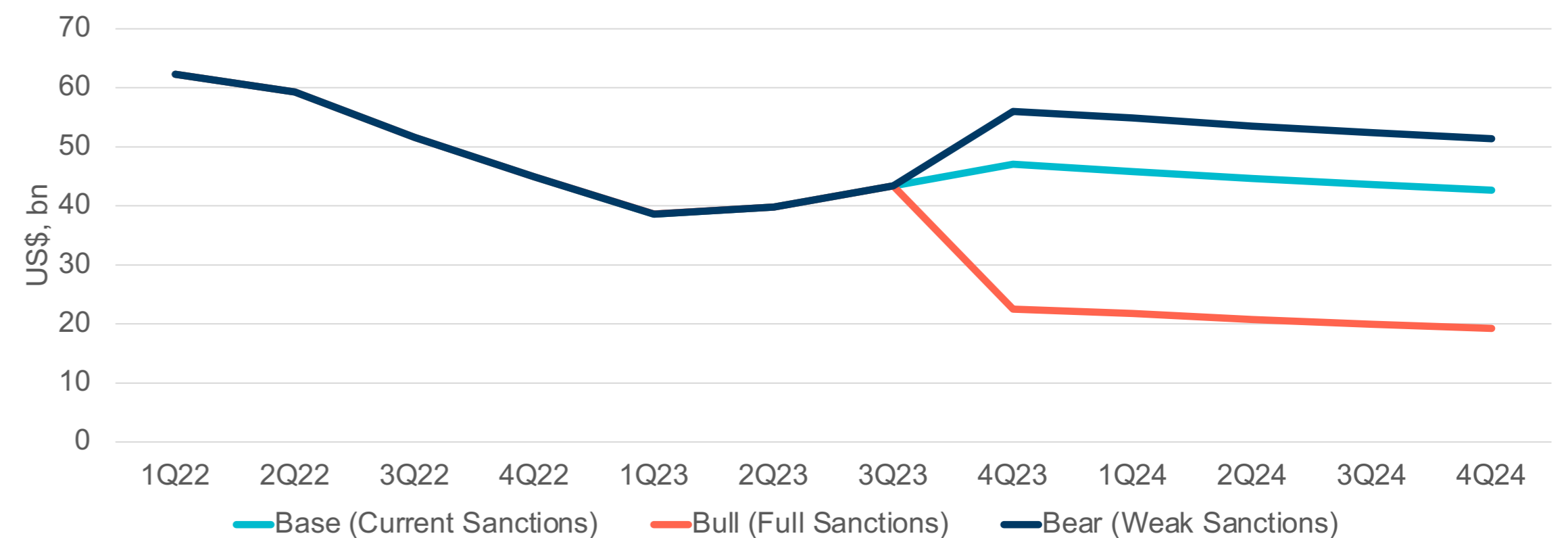
In August 2023 Russian oil export revenues increased by \$1.8 bn (MoM) and were only 9% lower than a year ago. KSE Institute projects that revenues will contract to still robust \$169 bn and \$177 bn in 2023 and 2024 respectively in the base case compared to \$218 bn in 2022 but the scenario outcome is sensitive to sanctions enforcement

- Although volumes of Russian oil exports remained 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-August.
- Russian oil export revenues increased by \$1.8 bn to \$17.0 bn in August (MoM) due to lower crude volumes exports. Total export revenues were 9% lower than a year ago compared with a 41% YoY decline in June. Moreover, Russian oil exports revenues are projected to grow further to \$17.9 bn In September due to increased world oil prices and narrowed discount on Russian main export grade Urals over Brent.
- 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 \$169 bn and \$177 bn in 2023 and 2024 respectively compared to \$218 bn in 2022. Total Russian oil exports goes down to 7.0 mb/d in this scenario.
- In the bull sanctions case, with lower price cap equivalent to \$50/bbl discount to forecast Brent prices, revenues fall to just \$144 bn and \$82 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 \$178 bn and \$212 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, , *KSE Institute forecast

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 in August 2023 its oil revenues exceeded 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 Sanctions¹ 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