

Shedding light on “shadow” tankers

Who transports Russia’s oil 18 months into the invasion?

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CREA is an independent research organisation focused on revealing the trends, causes, and health impacts, as well as the solutions, to air pollution.

Key findings

- "Shadow" tankers transported 36% of all Russian oil exports in volume terms (37% of crude and 30% of oil products and chemicals) since the EU oil embargo and price cap were imposed on 5 December 2022. "Shadow" tankers are not covered by the oil price cap policy as these ships are owned and insured in countries not implementing the policy.
- The volume of Russian oil transported on "shadow" tankers has more than doubled since the full-scale invasion of Ukraine, from 13% to [42% in July 2023](#).
- Yet, only a quarter of the total tanker capacity that shipped Russian crude oil was owned and insured in countries that are not implementing oil sanctions against Russia, showing that the Kremlin still relies heavily on the European shipping industry. "Shadow" tankers mostly operate on shorter routes where the same amount of tanker capacity can move more oil.
- The exaggerated perception of Russia's "shadow" operations has aided Putin in building a false narrative of successfully circumventing oil sanctions.
- The increase in the role of "shadow" tankers has been mainly driven by more voyages from Russia, rather than an increase in the number of "shadow" tankers. Since the imposition of sanctions, the number of voyages undertaken by "shadow" tankers has risen by 82%.
- "Shadow" tankers are carrying predominantly Russian oil rather than transporting oil from other countries. Some 72% of all voyages that crude oil "shadow" tankers undertook were dedicated to transporting Russian crude, while the figure stood at 89% for Russian oil products and chemicals.
- More than two-thirds of all oil transported by "shadow" tankers goes to India and China.
- Nearly half of all "shadow" tankers carrying Russian crude oil are registered in the United Arab Emirates. In the case of smaller "shadow" tankers carrying oil products, 57% are registered in Russia.
- There is little evidence that the "shadow" tankers constitute a "fleet" coordinated from the top. Russian shipping company [Sovcomflot](#) controls 30% of the operating "shadow" tankers but the rest are operated by a heterodox group of opportunistic players.

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- Tankers owned/insured in price cap imposing countries continued to transport Russian oil even when the Ural prices [went above](#) the price cap in April and remain above the USD 60 per barrel price cap level since July 2023, evidencing poor monitoring and enforcement of the cap.
 - Allies of Ukraine must do more to deprive Putin of the ability to fund the war against Ukraine through the sale of Russian oil. The build-up of “shadow” tankers should be prevented by restricting the sale of tankers to operators who don’t comply with the price cap policy. The oil price cap should be strengthened by making penalties for sanction violations significantly stricter, lowering the price cap level to USD 30 per barrel and greater monitoring such as requiring enhanced protection and indemnity (P&I) insurance disclosure.
 - Wider measures should also be imposed on Russia including a ban of LNG, pipeline gas, pipeline oil and [banning the import](#) of refined petroleum products from refineries running on Russian crude.

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Introduction

Following Russia's full-scale invasion on 24 February 2022, Ukraine's allies have implemented an array of sanctions to reduce Putin's ability to fund the war and condemn the Kremlin's actions. The EU and UK implemented an import ban on seaborne Russian crude oil on 5 December 2022, and the prohibition of importing oil products came into force on 5 February 2023. Additionally, a price cap policy was implemented on the same dates as the import bans and prohibits the provision of maritime services associated with the shipment of Russian oil and oil products purchased above the specified price level.

Maritime services include ship insurance and the use of tankers. The [policy aims](#) to reduce Russia's revenue from oil exports while stabilising global fossil fuel prices which have been elevated since the full-scale invasion of Ukraine. Countries imposing the oil price cap policy on Russian oil include the G7, the EU, Norway, Switzerland and Australia, hereafter known as, "countries implementing the price cap". As sanction imposing countries reduce their purchases of Russian fossil fuels, sales to non-sanction imposing countries, including India, China and Turkey, have significantly increased. These fuels are often transported on tankers owned or insured in nations implementing the price cap policy due to their dominance in the shipping industry. For example, Greek-owned ships have transported nearly a third of Russian oil shipments since the implementation of the crude oil price cap on crude oil until the end of July, 2023 showing how sanction imposing countries are facilitating Russia's transport and export of its oil.

Previous CREA [analysis](#) revealed that combined sanctions have helped to reduce Russia's revenues by more than EUR 160 million per day (reducing Russia's crude oil export earnings by an estimated 32% in December 2022 when the ban was implemented). However, an excessively high price cap level and weak enforcement have enabled Russia to [collect](#) substantial export and tax revenue from oil sales, prolonging the war.

Tankers that are insured or owned outside the countries that implement the price cap policy to transport its oil are legally eligible to do so at prices above the currently set level of USD 60 per barrel of crude oil. To circumvent the sanctions, some tankers re-registered while others switched insurers to countries outside of those implementing the price cap policy.

With substantial interest in the effectiveness of the oil price cap policy, the media started reporting on potential sanction breaches. A lot of attention was focused on the so-called "shadow fleet" as a way by which Russia was able to circumvent the oil price cap policy. The concept has grown vague and uncertain, as there has been no clarity on the definition of the term "shadow fleet" or how the process operates. There is no single entity that operates a "fleet", with our analysis finding that "shadow" tankers are operated by individual oil traders or intermediaries — who have struggled to attain more vessels owned and insured outside the price cap implementing countries.

If Russia had a "shadow fleet" to transport all of its oil without having to comply with sanctions, it would mean that the oil price cap could be fully circumvented and therefore totally ineffective. This is not the case.

The lack of data on Russia's "shadow" operations has aided Putin in building a false narrative of successfully circumventing trade sanctions. This report provides transparent analysis to highlight that the role of "shadow" tankers is slowly growing but Putin is still incredibly reliant on sanction imposing countries to transport Russia's oil. It is also a call to action to the members of the price cap coalition to amp up monitoring and penalising illegal activities, enabling the policy to get closer to achieving its goal of drastically limiting Putin's ability to fund the war against Ukraine.

Despite the shortcomings in implementing the sanctions, Russia is unable to transport the majority of its oil using "shadow" tankers that are not subject to the oil price cap policy. Since the sanctions were imposed, "shadow" tankers have transported 36% of all Russian oil exports in volume terms. This report provides evidence that the oil price cap remains a powerful tool to reduce Russia's export earnings if the oil price cap level is lowered and paired with proper monitoring and enforcement. If the oil price cap was lowered to USD 30 per barrel — which is twice Russia's average production cost — as we recommend, along with enhanced monitoring and enforcement of the policy, Russia's oil export revenues could have been [slashed](#) by EUR 30 bn (46%) since the beginning of sanctions until the end of June, 2023.

Defining "shadow" tankers

In this report, we define "shadow" tankers as vessels owned and insured outside the countries implementing the price cap policy and exporting Russian oil worldwide. We are

using the broadest possible definition of suspicious tankers to define "shadow" tankers that Russia can utilise to move its oil while circumventing the oil price cap policy.

The rise of “shadow” tankers

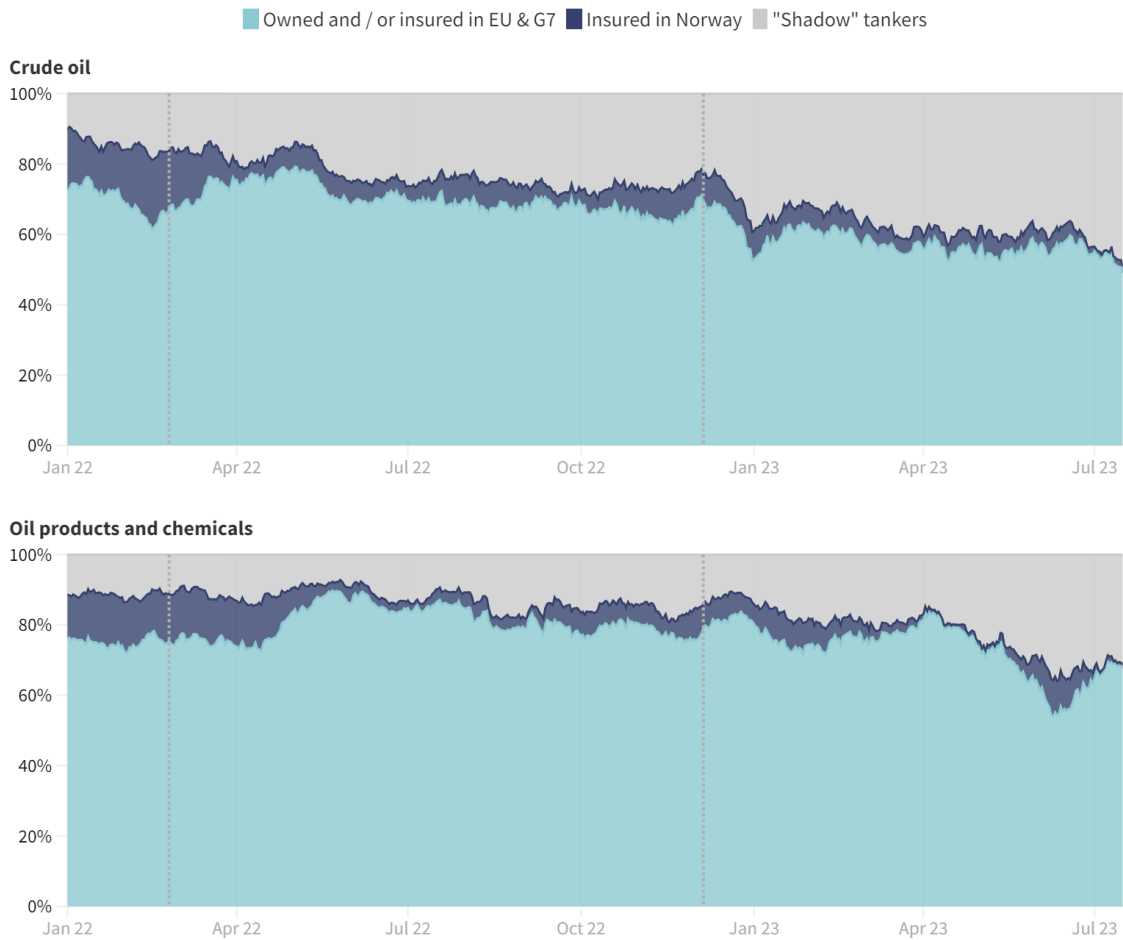
The volume of Russian oil transported by "shadow" tankers has more than doubled since Russia's full-scale invasion of Ukraine, increasing further after sanctions were implemented. Before Russia's invasion of Ukraine, 13% of oil tonnage departing from Russian ports was transported by "shadow" tankers. As of July 2023, this has more than doubled by volume, with 42% of all oil from Russia transported using "shadow" tankers. Since the sanctions came into force, "shadow" tankers undertake more voyages carrying Russian oil compared to those vessels that comply with the price cap policies.

For oil products and chemicals, "shadow" tankers are less dominant in the transportation than for crude oil shipments that depart from Russia. Before Russia's invasion of Ukraine, around 10% of petroleum products and chemicals were exported by vessels insured or owned outside of those countries implementing the price cap policy. The use of "shadow" tankers to transport Russian oil products has fluctuated but risen since the sanctions were imposed. As of July 2023, around 35% of exported petroleum products were transported on tankers that are not subject to the oil price cap policy as they have attained insurance and tankers from countries not implementing the price cap policy.

Fossil fuel shipment departures from Russia covered by price cap implementing countries

By ship ownership / insurer

30-day running average



Source: CREA analysis. • Dotted lines represent the beginning of the war and of EU's oil ban & the wider price cap respectively.



Figure 1

How ship operators circumvent sanctions

For vessels to avoid the oil price cap, they must be insured and registered in countries that are not implementing the price cap policy. Since the EU banned seaborne oil imports from Russia, 32 vessels that shipped Russian crude oil and 4 that transported refined oil products have changed either their insurance or ownership. Our analysis shows that in

2023, more ships transporting Russian oil were registered in countries outside the price cap (70%) than the number of ships insured (48%) in non-sanctioning countries.

Between 2022 and 2023, the percentage of voyages transporting Russian oil on ships insured by non-sanction imposing countries increased from 31% to 48%. In contrast, the percentage of vessel ownership in countries outside of sanction imposing nations increased from 60% to 70% in the same period. This suggests Russia's potential to increase its access to "shadow" tankers further is more constrained by changing the country owner of the tanker rather than switching the maritime insurance.

In 2021, before the full-scale invasion of Ukraine, 44% of Russian oil shipments were transported by vessels owned in price cap implementing countries. In comparison, the proportion of voyages transporting Russian oil that was carried on vessels insured in price cap implementing countries was higher, covering 76% of all shipments. In 2023, a higher proportion of voyages transporting Russian oil were insured in countries implementing the price cap (52%) compared to owned in price cap countries (30%).

Share of voyages transporting Russian oil on tankers owned in countries that are not implementing the price cap¹			
	2021	2022	2023
Oil transported on vessels owned outside of countries implementing the price cap	56%	60%	70%
Vessels owned in countries implementing the price cap	44%	40%	30%
Share of voyages transporting Russian oil using insurance from countries that are not implementing the price cap			
	2021	2022	2023
Oil transported on vessels insured outside of countries implementing the price cap	24%	31%	48%

¹ **Source:** CREA's analysis is based on Equasis data for ships ownership and insurance by country. Shipment volumes of Russian oil transported are measured using [MarineTraffic.com](https://www.marinetraffic.com) data.

Vessels insured in countries implementing the price cap	76%	69%	52%
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Understanding the role of "shadow" tankers

"Shadow" tankers are almost solely carrying Russian oil, limiting their ability to increase shipments further

Since the sanctions were imposed, "shadow" tankers have almost exclusively been used to carry Russian oil products. Out of all oil product tankers that meet the definition of a "shadow" tanker, 89% of their voyages were transporting Russian oil products and only 11% transporting non-Russian oil. Similarly, 72% of voyages on "shadow" crude oil tankers were spent transporting Russian crude oil². With "shadow" tankers already almost fully occupied with carrying Russian oil products and crude oil, Russia has very limited scope to further increase its exports on those current tankers that are not subject to the price cap policy. Furthermore, the capacity to change the country where the ship is registered and/or insured to non-sanctioning countries is severely limited by availability. This highlights the importance of the price cap and its potential effectiveness in limiting Russia's export revenues that directly fund the war.

Sanctions push "shadow" tankers to increase voyages

In 2021, 51 "shadow" tankers were involved in transporting Russian crude oil. This number doubled to 103 by the close of 2022, and another 43 were added in 2023. In total, there are 146 crude oil "shadow" tankers engaged in Russian crude transportation.

In the year prior to Russia's full-scale invasion of Ukraine, "shadow" tankers carried 2.1 million tonnes of crude oil over 19 voyages on average per month. Between February 2022 (when the invasion started) and December 2022 (when the EU's crude oil import ban was imposed), the average number of voyages per month increased by 74% to 33 voyages, while the volume transported by "shadow" tankers increased by 71%, compared with the previous period.

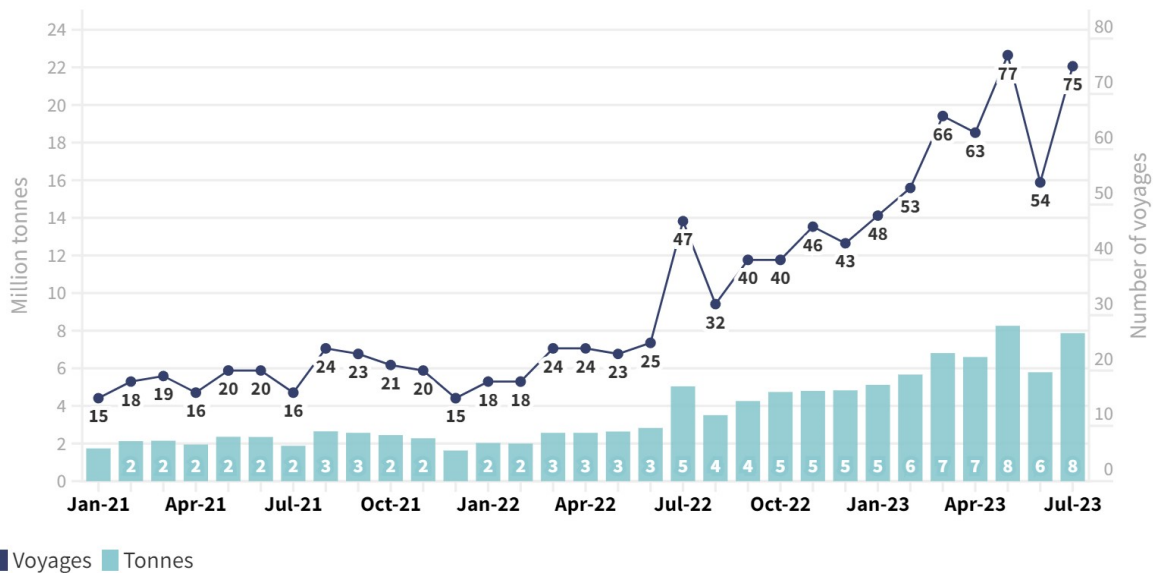
² Kpler dataset used to investigate the percentage of shipments that "shadow" tankers undertook transporting Russian oil compared to shipments of other countries' oil.

Once the sanctions on crude oil were imposed, the number of voyages undertaken by “shadow” tankers increased by 82% to an average of 60 voyages per month, while the volumes increased by 78% to 6.4 million tonnes per month, up until the end of July 2023.

Exported volume of Russian crude oil and number of voyages by "shadow" tankers

January 2021-July 2023

Million tonnes and number of voyages



Source: CREA analysis • The first dotted line represents Russia's invasion of Ukraine on February 24, 2022. The second dotted line represents the EU's sanctions on Russian crude oil implemented on December 5, 2022.



Figure 2

Overall, a total of 154 "shadow" tankers were involved in transporting oil products and chemicals from Russia in 2021. This number grew to 183 tankers in 2022, and since the beginning of 2023 until July, the count has further risen to 223 "shadow" tankers engaged in the global movement of Russian oil products and chemicals.

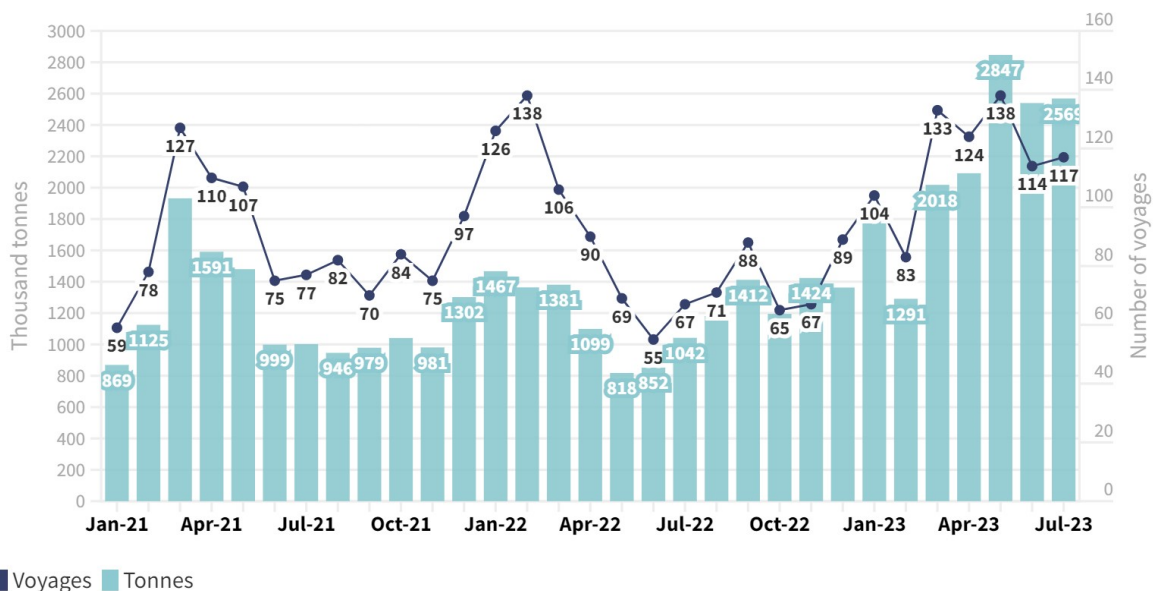
In the year prior to the full-scale invasion, the average number per month of voyages undertaken by "shadow" tankers transporting oil products and chemicals was 96, which fell 17% to 80 voyages per month when the invasion began, up until February 2023, when the sanctions were imposed. In the same period, the average volume transported dropped by 0.5%, from 1.25 to 1.24 million tonnes.

Between February 2023 and July 2023, the average number of voyages by “shadow” tankers transporting oil products and chemicals increased by 58% to 125 voyages per month, while the volumes transported increased by 95%, from 1.24 to 2.41 million tonnes per month.

Exported volume of Russian oil products and chemicals and number of voyages by "shadow" tankers

January 2021-July 2023

Thousand tonnes and number of voyages



Source: CREA analysis • The first dotted line represents Russia's invasion of Ukraine on February 24, 2022. The second dotted line represents the EU's sanctions on Russian crude oil implemented on February 5, 2023.



Figure 3

As per CREA's analysis, despite Russia's efforts to augment the count of "shadow" tankers and their journeys, there's nowhere near enough capacity to transport the majority of the Russian crude oil designated for the global market.

Over half of all ships transporting Russian oil are still insured or owned in countries implementing the price cap policy. Since the sanctions were imposed on Russian oil, 59% of those shipments that carried crude oil from Russian ports have been insured in countries implementing the price cap policy, with 62% of shipments transporting Russian oil products covered using insurance in countries implementing the price cap. [Russia has struggled to hire tankers that have been recruited from the global “shadow” fleet](#) such as

those transporting Iranian oil. Numerous third-party owners of “shadow” tankers seem reluctant to commit their vessels to the Russia trade on a full-time, exclusive basis. Additionally, many are not inclined to offer their vessels for lease under time charter agreements.

11% of all oil shipped globally left from Russian ports in the period from the start of the invasion until July 2023, Russia is the third largest oil producer in the world behind the USA and Saudi Arabia according to [IEA](#). This explains why the sudden demand by Russia for increased “shadow” tanker capacity is unprecedented and highlights their struggle to increase the access to vessels that would not be subject to the oil price cap policy. Transporters of Russian oil have somewhat struggled to replace internationally recognised maritime insurance registered in countries implementing the price cap policy with companies in non-sanctioning countries. There is a huge dominance of maritime insurance registered in sanction imposing countries, with 90% of the International Group providing marine [insurance](#).

In order for Russia to set up and provide maritime insurance to vessels transporting its oil that previously used insurance from countries implementing the price cap policy, a new institution would require huge levels of finance. In terms of managing huge catastrophic risk from oil spills, owners/investors of the oil transported want to be sure that their insurance provides full protection from unlimited liability. There is simply [no comparison](#) to the P&I coverage from a long-established International Group insurer which explains the difficulty Russia faces in switching insurance away from countries that impose the price cap policy.

The ability of the new, alternative insurers to cover the costs of a major oil spill is entirely untested and largely unknown. They would also lack the extensive ship and maritime safety monitoring and inspection capacity of the International Group’s long-established P&I insurers, increasing the risk of accidents.

Russian oil has found new destinations, leading to increased travel times

One year before Russia's full-scale invasion, the shortest travel time for Russian crude oil was from Arctic ports³. On average, it took 11 days to transport crude oil to its destination.

³ The travel time of each voyage spent transporting Russian oil is measured using [MarineTraffic.com](#) data, calculating the number of days between the date of departure and date of arrival at ports.

Since the start of the invasion, average days for transportation have extended to 28 days. And since the sanctions were imposed, it has taken 35 days to transport Russian crude oil from ports in the Arctic.

The full-scale invasion of Ukraine has significantly extended the duration of Russian crude oil shipments from Russia's Baltic Sea ports. In the year preceding the war, the average shipping time for Russian crude oil was 13 days when departing Baltic Sea ports. However, following the start of the invasion, this duration increased significantly to 40 days for shipping Russian crude. Since the imposition of sanctions, the average time required to transport oil from these ports to global destinations has been 38 days.

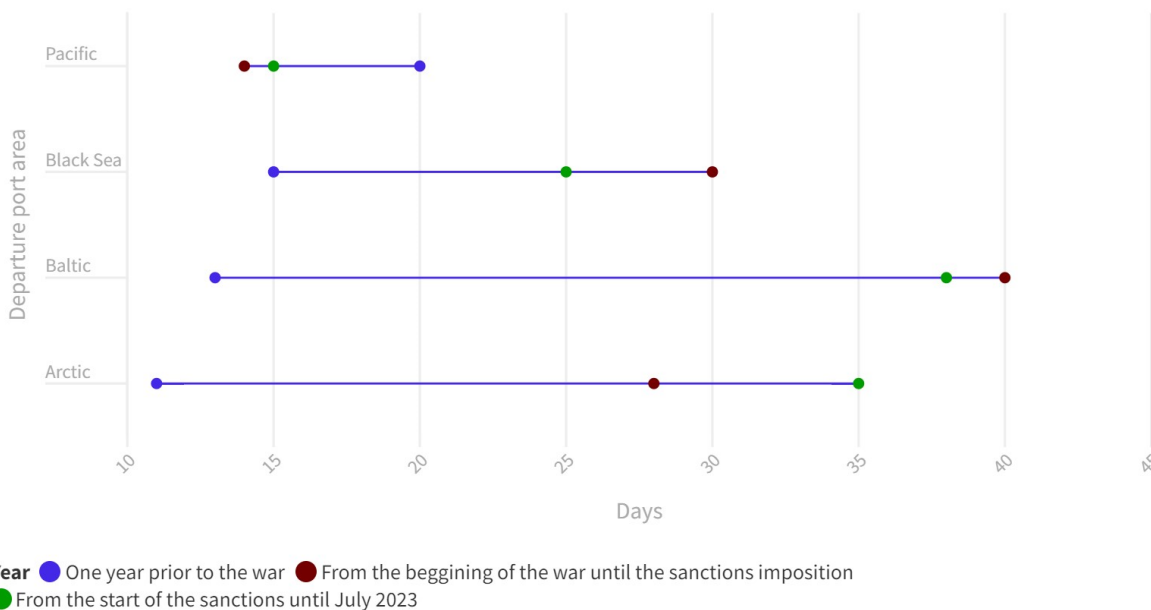
Like other ports, the war extended the time it took to transport cargo from Russian ports in the Black Sea. Before the full-scale invasion, it took an average of 15 days to transport oil departing from Russia's Black sea ports. However, since the invasion, the average transport time for Russian crude oil has been 30 days, and since the sanctions came into force, it has taken 25 days when departing from Black Sea ports.

In the year leading up to Russia's full-scale invasion of Ukraine, the most extended voyages were undertaken by tankers transporting crude oil from Russian Pacific ports. However, following the invasion of Ukraine until the imposition of crude oil sanctions, the average voyage duration decreased from 20 to 14 days. Subsequently, since the commencement of crude oil sanctions until July 2023, the average voyage duration is 15 days when departing from Russia's Pacific ports.

Duration of Russian crude oil shipments by "shadow" tankers

January 2021 - July 2023

Average voyage time in days



Source: CREA analysis



Figure 4

CREA analysis reveals that the average time taken for voyages transporting Russian oil products and chemicals after Russia's full-scale invasion of Ukraine increased. A year prior to the invasion, the shortest travel time for Russian oil products was from Russia's ports in the Black Sea. On average, it took 9 days to transport. Since the start of the invasion, the average number of days taken to transport Russian products from the Black Sea ports has extended to 14 days. Since the sanctions were imposed, it has taken 12 days to transport Russian oil products and chemicals.

The most extended voyages were undertaken by tankers transporting oil products and chemicals from Russian Arctic ports in the year leading up to Russia's full-scale invasion of Ukraine. However, following the full-scale invasion until the imposition of oil product sanctions, the average voyage duration increased to 28 days. Subsequently, since the commencement of oil products and chemical sanctions until July 2023, the average voyage increased by nine days and now averages 35 days.

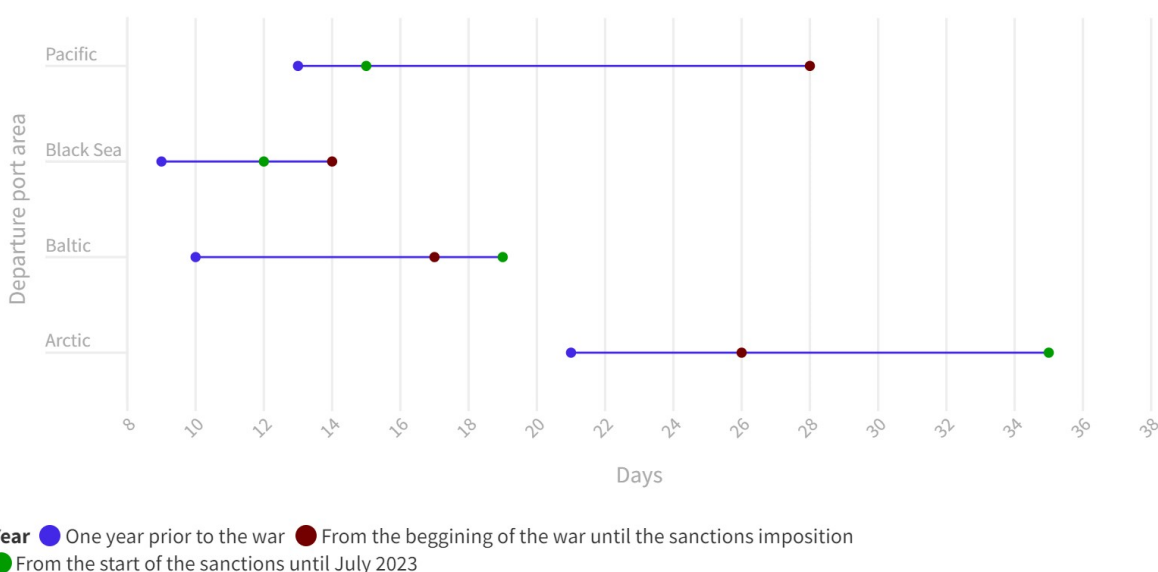
In the year preceding the invasion, the average shipping time for refined oil products and chemicals was 10 days from the Russian ports in the Baltic Sea area. However, following the invasion, this duration increased to 17 days for shipping Russian crude. Since the imposition of sanctions, the average time required to transport oil products and chemicals from these ports to global destinations has been 19 days.

According to traders, the less efficient transportation of oil could be a concern with older “shadow” tankers that transport Russian oil. [Slower speeds of older ships](#) that transport Russian oil and potential delays by local authorities in critical passages like the Bosphorus and Suez Canal for uninsured vessels are some of the issues raised.

Duration of Russian oil products and chemicals shipments by "shadow" tankers

January 2021-July 2023

Average voyage time in days



Source: CREA analysis

Figure 5

The primary factor behind the extended shipping times from Russia is the country's necessity to offset its losses and the decline in European markets. Consequently, Russia

has redirected its crude oil shipments to [Asia](#), shifting from Europe to India/China and other destinations such as Turkey, UAE and Egypt.

In 2021, 80% of total Russian crude oil exported from the Russian ports in the Baltic Sea area by "shadow" tankers was to the EU. For ports in the Arctic region, 70%, and from the Black Sea ports, 55% of their crude oil exports were transported to the EU by "shadow" tankers. However, in 2022, the percentage of crude oil shipped by "shadow" tankers to the EU experienced a decline: 24% from the Baltic, 18% from the Arctic, and 46% from the Black Sea. EU sanctions implemented on 5 December 2022 for crude oil and 5 February 2023 for oil products ban its import into the EU [except](#) for shipments departing from the Caspian Pipeline Consortium (CPC) terminal which transports Kazakh oil to the EU through Russia or the [derogation provided to Bulgaria](#). The number of shipments entering the EU in 2023 therefore fell massively. Of those ships transporting oil in line with the exemption to sanctions, e.g. from the CPC terminal or to Bulgaria, few shipments were transported by "shadow" tankers. In 2023, "shadow" tankers from the Arctic Ocean did not transport any cargo to the EU. Additionally, only 11% of all "shadow" tankers' oil from Baltic Sea ports was directed to the EU, and 9% originated from Black Sea ports.

A similar trend is observed with Russian oil products. The primary destination for "shadow" tankers has previously been the EU. From the Russian Baltic port region, in 2021, 68% of oil products and chemicals moved by "shadow" tankers were exported to the EU. This proportion dropped to 49% in 2022 and 6% in 2023. Meanwhile, from these ports, "shadow" tankers expanded their exports to other destinations. In 2021, only 10% of the oil products and chemicals were moved by "shadow" tankers to non-price cap coalition countries. This percentage surged to 42% in 2022 and reached 91% in 2023.

"Shadow" tankers constituted 29% of all vessels transporting crude oil and 39% of those exporting oil products from Russia

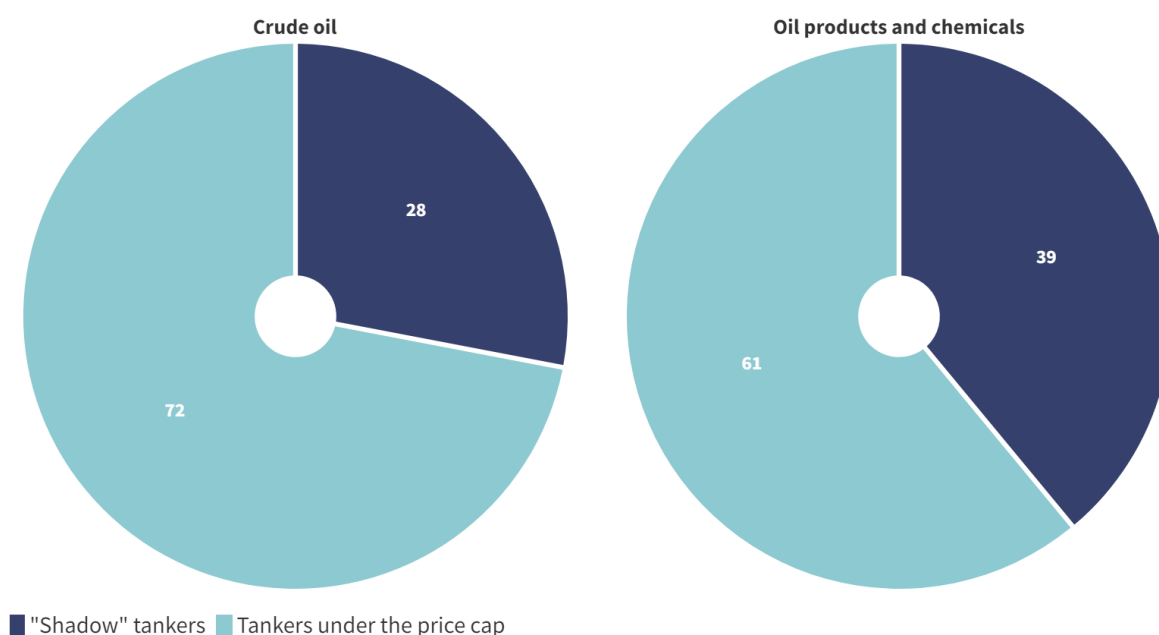
Our data reveals that of the 518 tankers that transported Russian crude oil since the sanctions were implemented, 150 (29%) were operated by countries that are not implementing the price cap policy. Whereas 563 tankers shipped Russian oil products and chemicals, 39% or 217 "shadow" vessels transported oil products and chemicals. Crude oil "shadow" tankers shipped a smaller percentage of Russian oil than the smaller oil product "shadow" tankers.

The majority of tankers that shipped Russian crude (72%), or refined products or chemicals (61%) worldwide are insured or owned by countries implementing the price cap policy.

Share of vessels that transported Russian oil by "shadow" tankers

December 2022-July 2023

Share of vessels that transported Russian oil in %



Source: CREA analysis • *Exports of crude oil and oil products from Russia counted since the introduction of sanctions: crude oil since December 5, 2023, and oil products since February 5, 2023.



Figure 6

“Shadow” tankers make up a quarter of the total deadweight capacity of ships carrying Russian oil

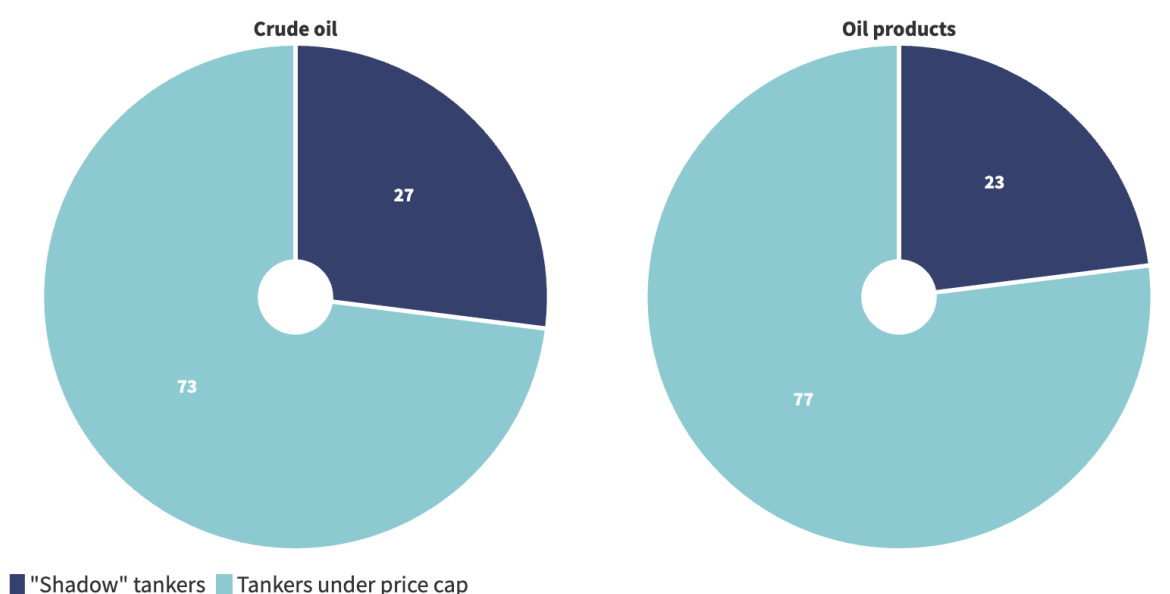
CREA analysis reveals that since the start of the crude oil sanctions, the maximum deadweight capacity of all vessels transporting Russian crude oil was 59 million tonnes. The group of tankers with the highest carrying capacity were those under the price cap (owned or insured in countries implementing sanctions). In total, there are 368 tankers that transported Russian oil that must comply with the price cap, which can carry 43 million tonnes, or about 73%, of the total crude oil cargo tonnage. Conversely, the

maximum capacity of the 150 "shadow" tankers is 16 million tonnes of crude oil or 27% of the total deadweight capacity.

Share of deadweight carrying capacity of "shadow" tankers transporting Russian oil

December 2022-July 2023

Share of total tankers' deadweight capacity in %



Source: CREA analysis • *Exports of crude oil and oil products from Russia counted since the introduction of sanctions: crude oil since December 5, 2023, and oil products since February 5, 2023.



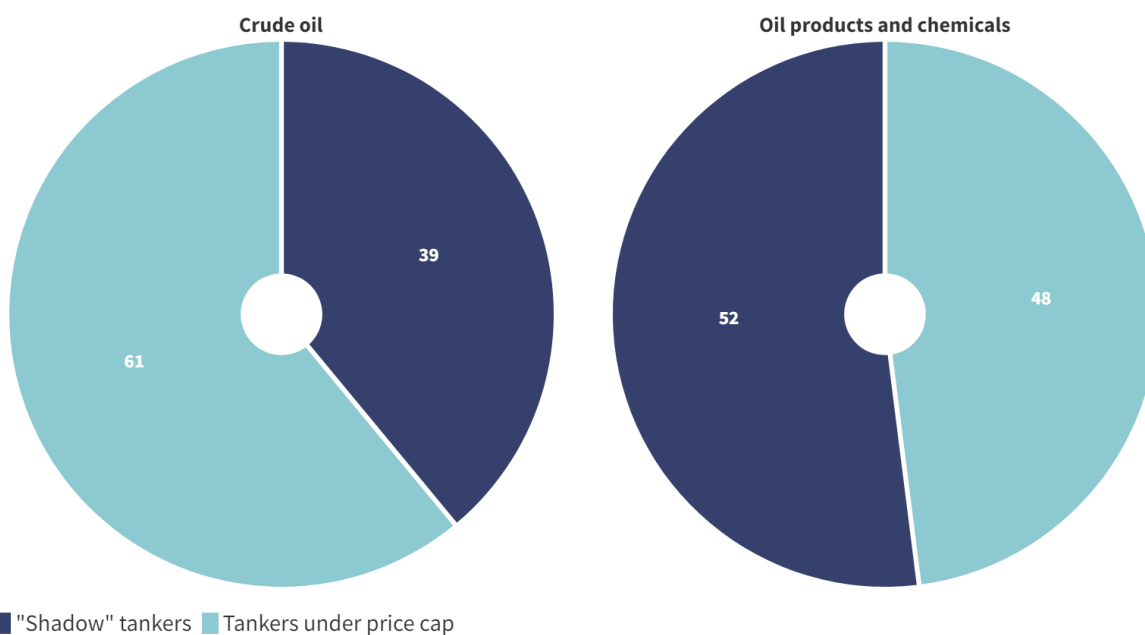
Figure 7

For Russian oil products and chemicals, the total capacity of all vessels transporting Russian products is a maximum of 23 million tonnes. Of these vessels, 346 smaller oil product and chemical tankers that are subject to the price cap policy can transport a maximum deadweight capacity of 18 million tonnes, which is 77% of the total capacity of all ships required to transport Russia's oil products and chemicals. In contrast, 217 "shadow" tankers can carry 5.3 million tonnes per voyage or 23% of the deadweight capacity required to shift all of Russia's oil products. The average deadweight capacity of a tanker under the price cap is 53,000 tonnes whilst a "shadow" tanker has a much smaller average carrying capacity of 25,000 tonnes.

Share of voyages transporting Russian oil by "shadow" tankers

December 2022-July 2023

Share of total voyages in %



Source: CREA analysis • *Exports of crude oil and oil products from Russia counted since the introduction of sanctions: crude oil since December 5, 2023, and oil products since February 5, 2023.



Figure 8

Analysis shows that tankers with smaller deadweight capacity have to increase the number of voyages. Some 39% of all voyages (471 out of 1221) were carried by "shadow" tankers transporting Russian crude oil. The rest — 750 voyages — were made by tankers insured or owned by countries implementing the price cap policy.

"Shadow" tankers transporting oil products and chemicals from Russia made an even higher number of voyages than those carrying crude oil. These vessels made 52% (690 voyages out of 1329) of all trips transporting Russian oil products since the imposition of sanctions until the end of July 2023. 48 % of voyages in this period were made by tankers under the price cap.

"Shadow" tankers export 37% of Russian crude oil since the sanctions

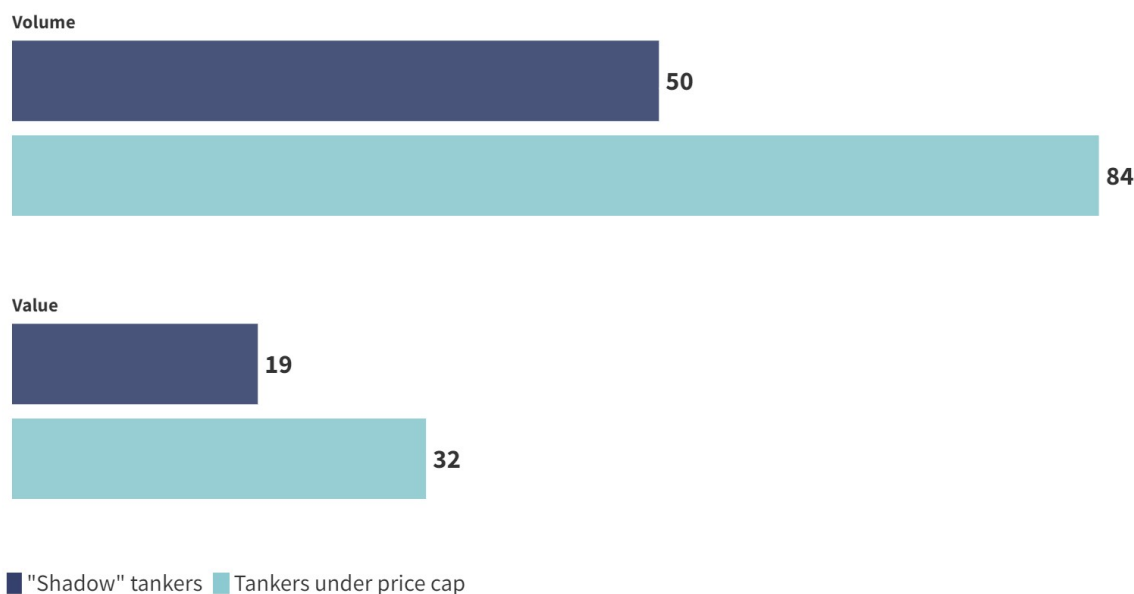
Since the imposition of sanctions on Russian oil, encompassing import bans and oil price caps, until the end of July 2023, a total of 134 million tonnes of crude oil, valued at EUR 51 billion, and 42 million tonnes of oil products and chemicals, with a combined value of EUR 24 billion, have been transported.

“Shadow” tankers exported 50 million tonnes of crude oil (valued at EUR 19 billion), or about 37% of all Russian crude oil exports. The rest, or about 63%, was transported by tankers under the price cap which moved 84 million tonnes of crude oil, valued at EUR 32 billion.

Share of Russian crude oil exports transported by "shadow" tankers

December 2022–July 2023

Value in billions of euros and volumes by millions of tonnes



Source: CREA analysis • Exports of crude oil from Russia counted since the introduction of sanctions on December 5, 2022

Figure 9

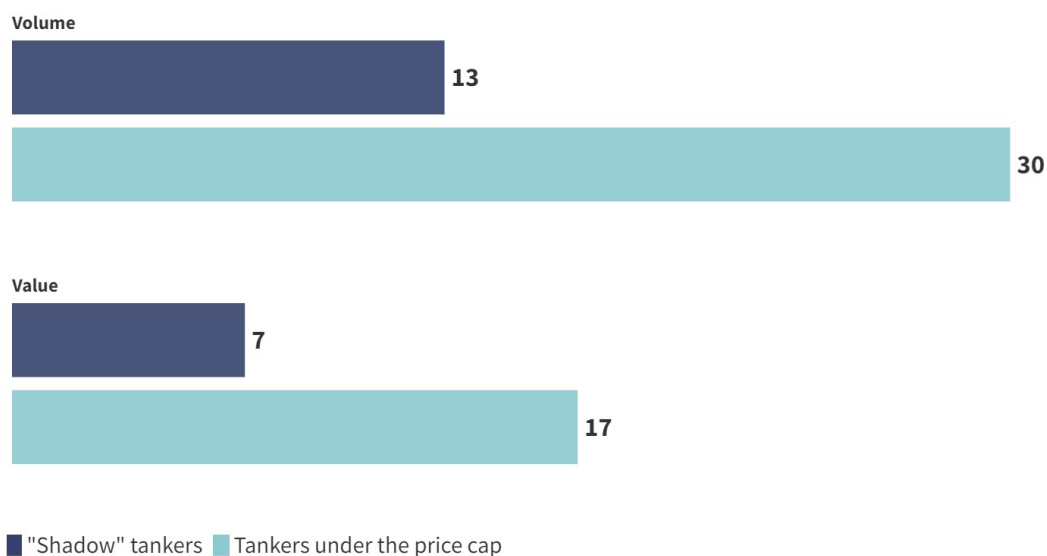
The bulk of Russian oil products and chemicals were exported by ships covered by the price cap. In total, these vessels accounted for 70 % of export volumes, transporting 30

million tonnes of oil products and chemicals worth EUR 17 billion (see Figure 10). In the same period, "shadow" tankers shipped 13 million tonnes of oil products valued at EUR 7 billion.

Share of Russian oil products and chemicals exports transported by "shadow" tankers

February–July, 2023

Value in million tonnes and billion euros



Source: CREA analysis • Exports of oil products from Russia counted since the introduction of sanctions on February 5, 2023

Figure 10

Not enough "shadow" tankers for Russia to circumvent the price cap

While "shadow" tankers are responsible for more than a third of Russia's crude oil and petroleum product exports, Russia is struggling to gain access to more of them as a way of circumventing the oil price cap and is still heavily reliant on vessels that are subject to the oil price cap policy. Two-thirds of all these oil products are still transported worldwide from Russia by ships insured or owned by countries implementing the price cap policy which highlights the strong leverage this policy could have if implemented effectively.

Russia sought ways to transport oil on vessels that were not insured or owned in western countries even before trade sanctions on crude oil and oil products were imposed. Before Russia's invasion of Ukraine, around 10–15% of crude oil was transported on vessels owned or insured outside those that implement sanctions on Russia today, by the time sanctions were imposed, this had increased to around 25%. Russia had increased the volumes of oil transported on "shadow" tankers by measures including acquiring additional tankers, re-registering oil tankers owned by Russia, or changing their registration to countries that did not support the sanctions.

Since the full-scale invasion, the number of "shadow" tankers has increased, transporting a larger volume of Russian oil. However, these tankers have also experienced longer journey times, and to accommodate the higher oil volume, they have had to undertake a more significant number of journeys, yet, these tankers have only been able to transport around a third of crude oil and a third of refined oil products from Russia to destinations across the globe.

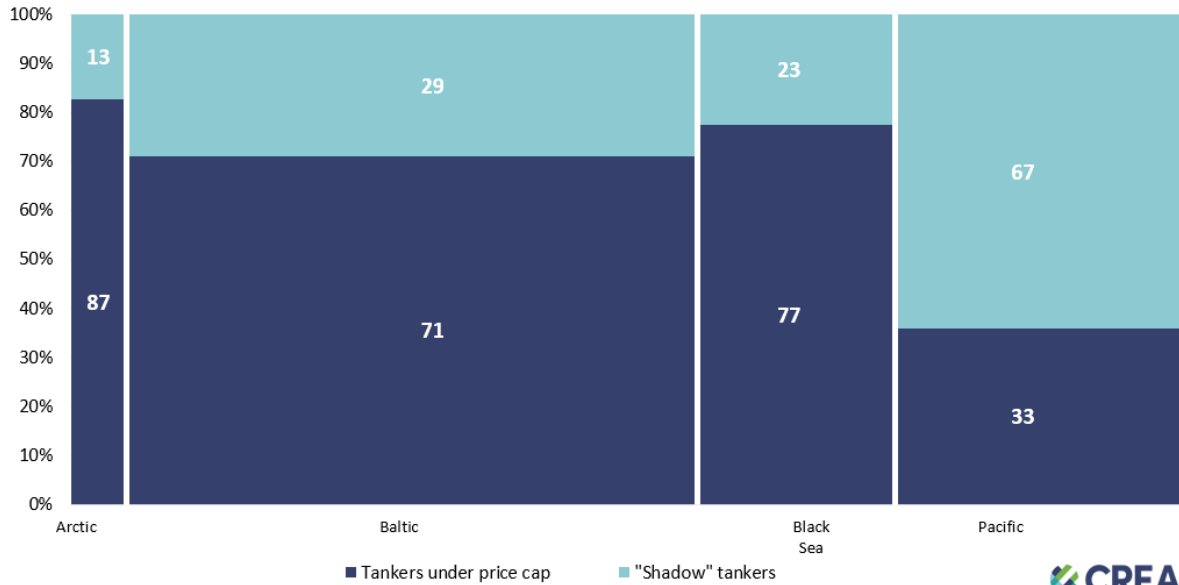
The bulk of Russian crude oil transported by "shadow" tankers came from Baltic and Pacific ports

Since the imposition of crude oil sanctions on Russia until July 2023, the largest volume of crude oil exports (72 million tonnes) originated from Baltic ports. The Pacific region ranked second with 34 million tonnes, followed by the Black Sea with 25 million tonnes, and the Arctic with 2.5 million tonnes as regions by which the largest volumes of Russian crude departed from.

Share of crude oil exports from Russian ports by "shadow" tankers

December 2022-July 2023

Share of total exported volume in %



Source: CREA analysis • Exports of oil products from Russia counted since the introduction of sanctions on December 5, 2022



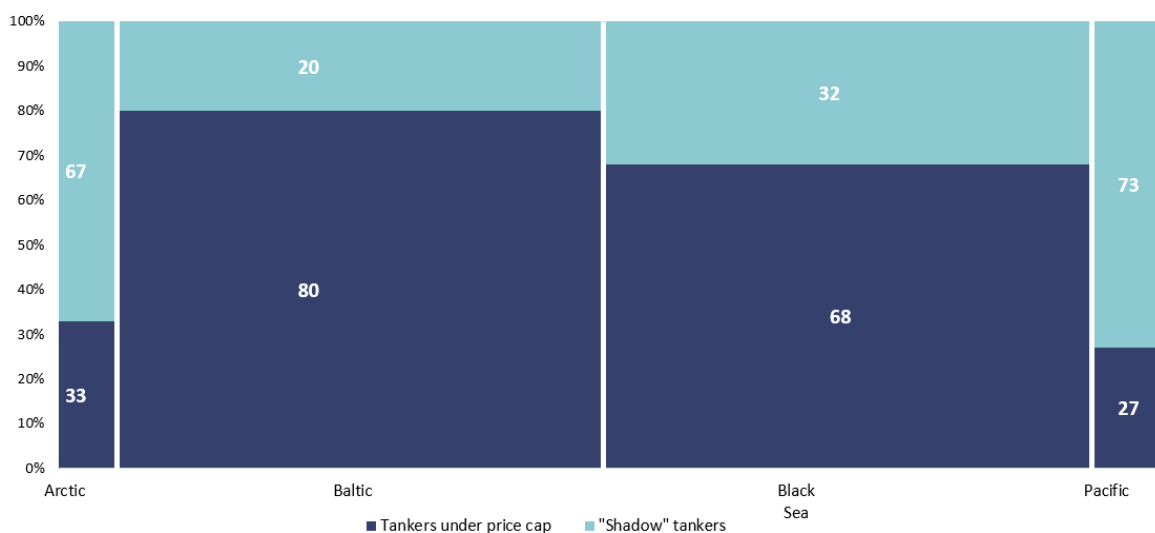
Figure 11

CREA's analysis shows that the Baltic and Pacific port regions hold the largest market share for transporting Russian crude oil using "shadow" tankers. "Shadow" tankers moved about 23 million tonnes of crude oil between December 2022 and July 2023 from Russia's Pacific ports, while Russia's Baltic sea ports handle (21 million tonnes) the second largest volumes amongst all Russian ports.

Share of oil products and chemicals exports from Russian ports by "shadow" tankers

February-July 2023

Share of total exported volume in %



Source: CREA analysis • Exports of oil products from Russia counted since the introduction of sanctions on December 5, 2022



Figure 12

The scenario concerning Russian oil products differs from that of crude oil. "Shadow" tankers export 6 million tonnes of refined products and chemicals from Russian ports in the Black Sea, followed by 4 million tonnes from ports in the Baltic Sea. Additionally, 2.4 million tonnes are transported from the Pacific, while a smaller quantity of 350 thousand tonnes originates from Arctic ports.

At the port of Kozmino, Eastern Siberia-Pacific Ocean (ESPO) oil, which is a slightly lighter grade, is shipped from Russia mostly to China. The price of ESPO oil is often sold at higher prices than other grades of Russian oil. Interestingly, investigations into Russian customs data shows that [oil prices for exports at the Kozmino port surpass the level of the oil price cap](#) with more than 95% of the total export volumes sold at a price above the USD 60 per barrel threshold for Q1 2023. Tankers falling under the price cap category continue to be transporting Russian oil from the port of Kozmino. This provides clear evidence that the price cap policy is ineffective and measures are being violated with little or no repercussions at Russia's ports in the Pacific. Despite clear evidence of violations, there are [no reports](#) in the media of enforcement agencies penalties against shippers, insurers or

vessel owners that have provided maritime services either without the required documentation or on the basis of documentation that is almost certain to be fraudulent.

This latest research on "shadow" tankers reaffirms CREA's earlier [findings](#), which highlight the ongoing significance of Russia's reliance on vessels subject to the oil price cap policy. This reliance of Russia on these vessels persists instead of being able to fully transition to transporting its oil on ships that are exempt from the oil price cap, shedding light on the complexities of Russia's strategy for oil transportation.

India, China emerge as biggest buyers of Russia's crude oil carried on "shadow" tankers

Due to sanctions, Russian oil companies have sought out alternative export markets. An earlier [study](#) conducted by CREA revealed that Russian crude oil has found new outlets, including countries such as China, India, Turkey, Singapore, and the UAE. These countries have increased their imports of Russian oil partially for domestic consumption and partially to increase exports of oil products that are refined from Russian crude oil. This analysis finds that around 69% of the crude oil volume moved by "shadow" tankers, finds its way to China and India.

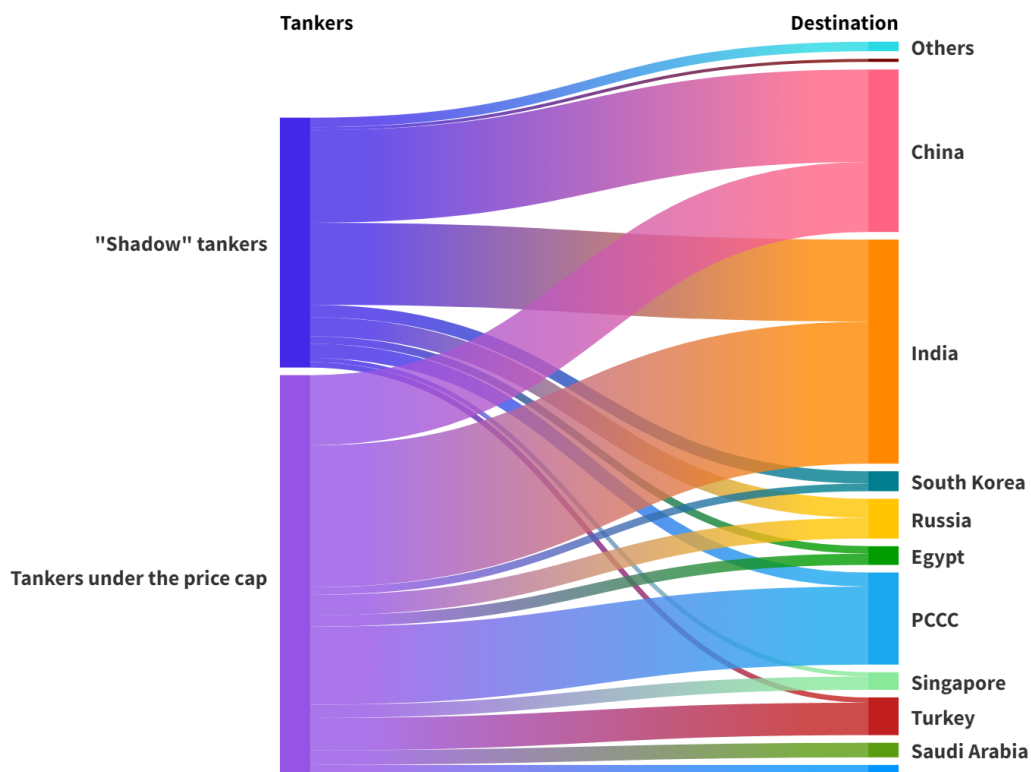
Since the imposition of sanctions on Russian crude oil, China and India have risen as the primary points of delivery for "shadow" tankers. Notably, China accounts for approximately 37% of all crude oil carried by "shadow" tankers from Russia, closely trailed by India at 32%.

Countries such as India that did not implement sanctions against Russia have reaped advantages from the [decline in Russian crude oil prices](#) which dropped after Russia's invasion of Ukraine and fell further after sanctions were imposed. Discounts on Russian crude oil prices compared to benchmark Brent have prompted these countries to significantly increase their imports of oil from Russia as they were forced to offer these discounts in order to find buyers of their oil. These [discounts offered to Indian buyers of Russian crude have been falling](#) in recent months.

Top-10 destinations for Russian crude oil shipped by "shadow" tankers compared to the tankers under price cap

December 2022-July 2023

Value in tonnage



Source: CREA analysis • Exports of crude oil from Russia counted since the introduction of sanctions on December 5, 2022



Figure 13

Following the imposition of Russian oil sanctions, the logistics and trade arrangements for Russian oil have become more intricate. Until the end of July 2023, a notable 14% of total crude oil shipments and a substantial 41% of all oil product shipments, facilitated by "shadow" tankers departing from Russian ports, were involved in ship-to-ship transfers within domestic waters. This approach arose due to the reluctance of many vessels to access Russian ports directly. "Shadow" tankers transporting Russian oil products and chemicals have a smaller average deadweight carrying capacity than non-"shadow" tankers, making them less economical for long distance voyages. Therefore, ship-to-ship

transfers are undertaken for logistical reasons more frequently as Russian oil trade routes have changed significantly since Russia's invasion of Ukraine.

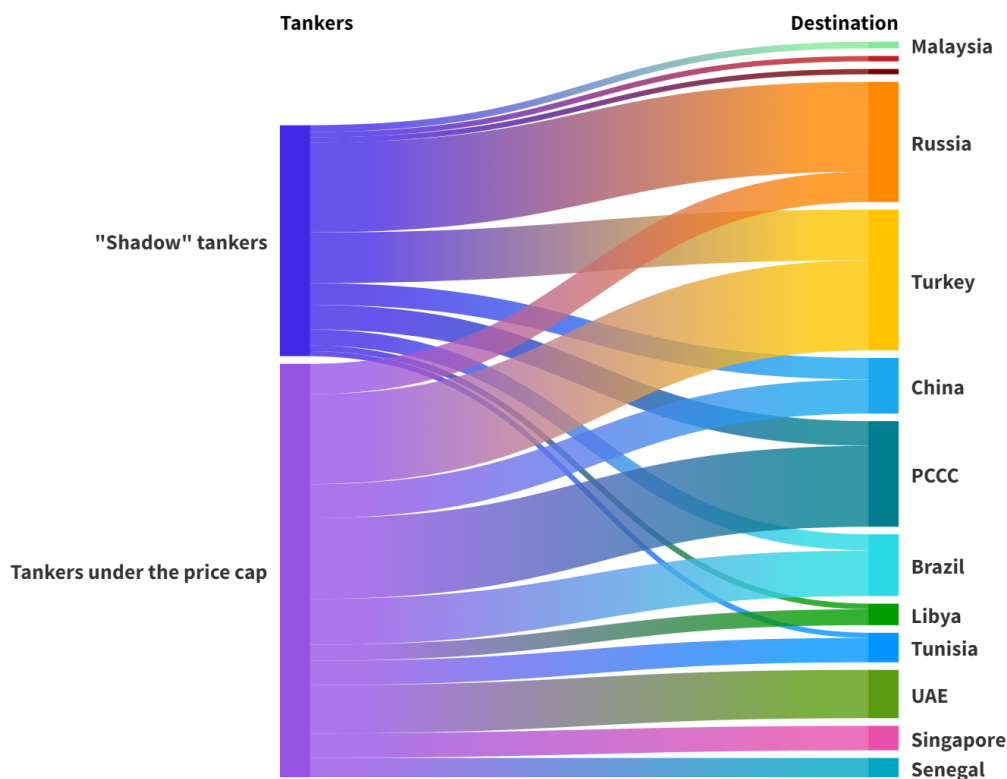
Of the comprehensive volume of oil products and chemicals moved by these "shadow" tankers, 29% were directed to Turkey. Additionally, a further 9% of the total oil product volume was dispatched to the territorial waters of the Price Cap Coalition countries, where these shipments underwent ship-to-ship transfers, typically involving tugboats and other shore services. Notably, these transfers often took place near locations such as Kalamata (Greece), Ceuta (Spain), and Constanta (Romania).

Moreover, 8% of oil products and chemicals departing from Russia found their way to China, while 6% were destined for Brazil. These diverse shipping destinations illustrate the evolving strategies and complexities that have arisen in the trade of Russian oil in response to the sanctions.

Top-10 destinations for Russian oil products and chemicals shipped by "shadow" tankers compared to the tankers under price cap

February 2023-July 2023

Value in tonnage



Source: CREA analysis • Exports of oil products from Russia counted since the introduction of sanctions on February 5, 2023



Figure 14

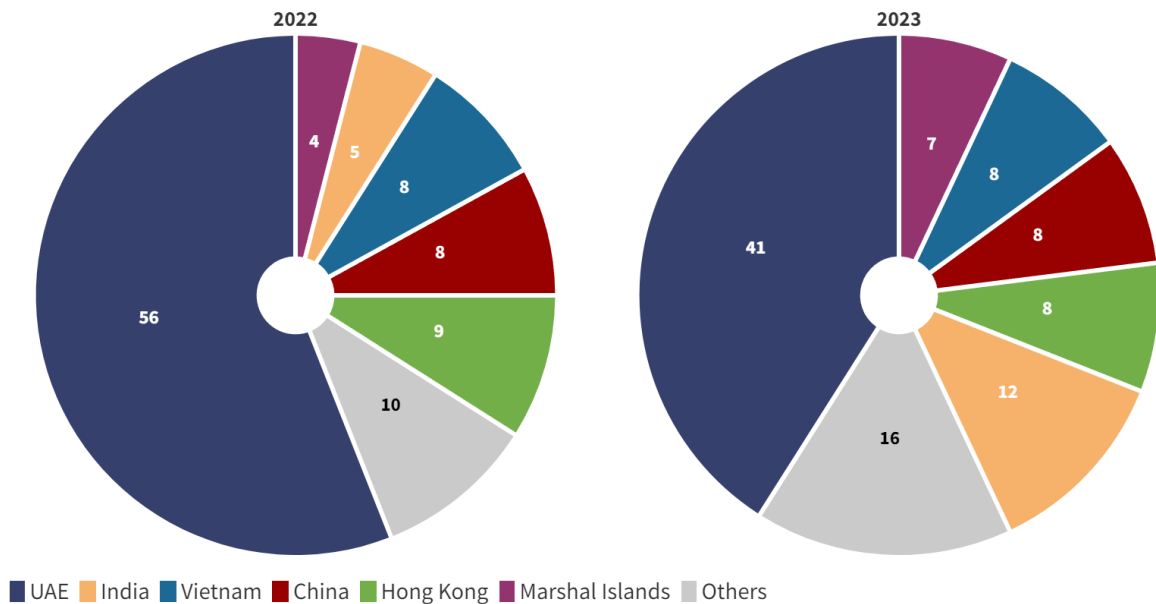
United Arab Emirates and Russia have the highest number of registered owners of "shadow" tankers

Of the 150 "shadow" tankers transporting Russian crude oil operating currently, 41% are registered in the UAE, while India makes up 12%, and Vietnam, Hong Kong and China make up 8% each. 16% of the "shadow" tankers transporting Russian crude oil are registered in other countries.

Share of "shadow" tankers that shipped Russian crude oil by country ownership

2022 vs. 2023

Total share of vessels in %



Source: CREA analysis



Figure 15

"Shadow" tankers carrying crude oil and oil products are registered in different countries, with very little overlap.

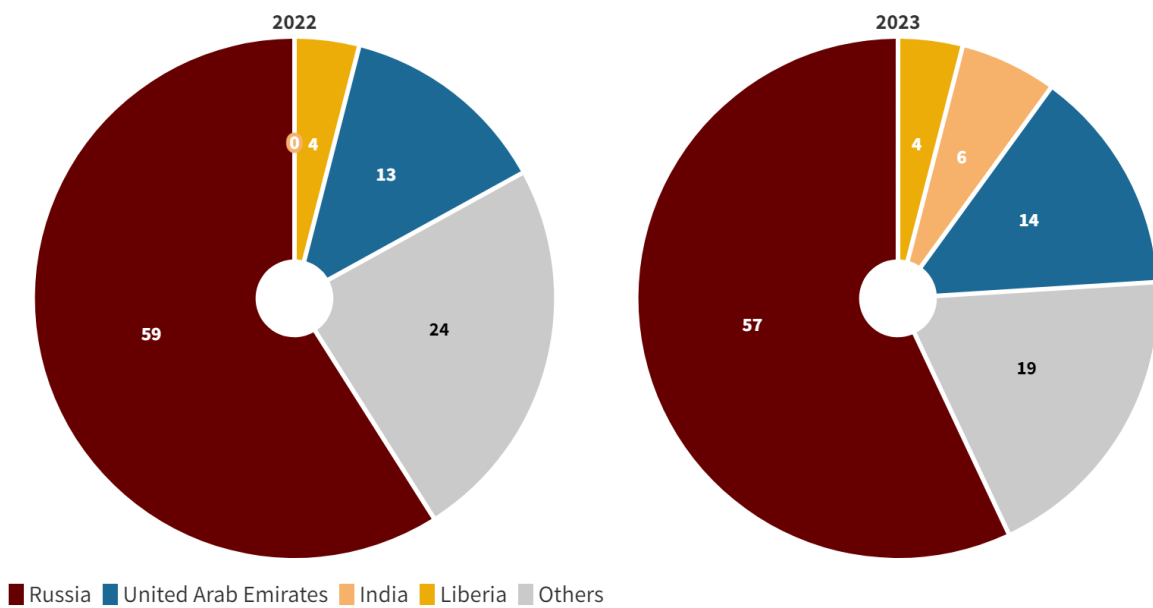
The ownership mix of "shadow" tankers has not changed significantly since sanctions were implemented, with Russia's share of owned oil product and chemical tankers dropping from 59% in 2022 to 57% in 2023. In 2023, 57% of "shadow" tankers were registered in

Russia, while 13% were registered in the UAE.

Share of "shadow" tankers that shipped Russian oil products and chemicals by country ownership

2022 vs. 2023

Total share of vessels in %



Source: CREA analysis



Figure 16

“Shadow” tankers — a coordinated effort?

When Western governments imposed the sanctions in April 2022, Sovcomflot — a prominent Russian shipping company — [transferred](#) 113 of its vessels to its UAE-registered subsidiary, Sun Ship Management (formerly known as SCF Management Service). This is more than 30% of all “shadow” tankers currently operating. Furthermore, the private company’s involvement with the Russian state is unmissable, with several former and current heads of the Board of Directors holding various political positions within Putin’s administration. For example, [Sergey Naryshkin](#), former chair of the board, served as the director of the Foreign Intelligence Service (SVR) and became a member of the Security Council of the Russian Federation.

Subsequently, Putin's former aide, [Igor Shuvalov](#), assumed the position of board chair. The current CEO and chair of the company's board, [Sergey Ottovich Frank](#), held the role of Minister of Transportation in six different compositions of the Cabinet of Ministers.

Despite these connections and a slight increase in the number of “shadow” tankers transporting Russian oil, the complexity and opacity of “shadow” tanker operations make it difficult to ascertain that Russia initiated a centralised, coordinated effort to circumvent the sanctions using “shadow” tankers. Apart from Sovcomflot, there is no other evidence of a centralised and coordinated effort from a single entity to circumvent sanctions. It is possible that several operators simply took advantage of the situation, looking for profit by circumventing Western sanctions.

How to make the policy work?

Risks in lowering the price cap?

Since the implementation of the crude oil price cap, the tonnage of Russian oil transported by “shadow” tankers has increased from 22% to 42% in July 2023, indicating Russia's ability to increase its exports using tankers that are not subject to the price cap policy. Given the trend, it would be reasonable to ask if lowering the oil price cap would incentivize “shadow” tankers to increase their operations.

Furthermore, the top three importers of Russian oil seem to have found loopholes. While [China provides insurance for Russian seaborne oil](#), Turkey — and India to an extent — accept Russian maritime insurance. [According to the Deputy Minister of Transportation of the Russian Federation](#), Alexander Poshivay, China also accepts Russian insurance, albeit with reservations. The increase in the number of ships for which an insurer cannot be identified in our database⁴ since the introduction of the oil sanctions, indicates that these shipments are most likely to be [insured](#) by the Russian National Reinsurance company, a state-owned insurance company and one of the largest in the country backed by the Central Bank of the Russian Federation.

⁴ Our insurance data is taken from Equasis which does not track vessels insured by Ingosstrakh, a Russian company.

However, even these assurances are not enough to reverse Russia's tidings. Around 50% of all Russian crude oil and 65% of oil products are still exported by tankers subject to the price cap. This shows the strong leverage that the Price Cap Coalition members have — even to further reduce the price cap without risking the growth of "shadow" tankers.

As detailed in this report, Russia has struggled to increase its exports and may have reached its maximum potential to do so. If the oil price cap was lowered to USD 30 per barrel along with enhanced monitoring and enforcement of the policy, Russian revenues could have been [slashed](#) by EUR 44 billion (47%) from the introduction of the sanctions until the end of August, 2023. A price cap level of USD 30 is still twice the cost of Russian oil production, which [averages around USD 15](#) per barrel.

Weak enforcement enables “shadow” tanker operations

CREA analysis of [Russian customs data](#) for oil trades departing Russian ports to China show that crude is continuously being bought above the oil price cap level of USD 60 per barrel from ports such as Kozmino. Tankers owned or insured in countries implementing the oil price cap policy continue to lift Russian oil from these ports where customs data verifies it is sold at prices above the cap, providing evidence on sanction evasions. Additionally, the prices for [Urals crude](#), shipped out of ports in western Russia, rose to USD 67 per barrel in April — much higher than the price cap of USD 60. Prices fell back below the price cap level in May but have then climbed and remained above it since July until early September. Yet, tankers owned and/or insured in sanction-imposing countries continued to carry Russian oil, providing further evidence that the price cap policy is being systematically violated. This indicates the poor monitoring and enforcement of the price cap policy, ultimately enabling Russia to continue financing its invasion of Ukraine.

With Russia struggling to find more "shadow" tankers to export oil when its prices are above the price cap, opportunistic traders take advantage. Given there is no effective auditing and verification of the prices reported for purchases of Russian oil, they can buy the oil at the going price and provide fraudulent documentation declaring compliance with the price cap — exposing the lack of enforcement. There is little published evidence of traders, insurers or vessel owners being investigated or made liable to penalties for violating sanctions despite evidence of vessels under the price cap continuing to transport Russian oil in periods when the Urals price is above the cap.

Even if such traders are caught, the penalties are far from punitive. The Office of Financial Sanctions Implementation (OFSI) — the UK's monitoring and enforcement agency — can

impose [fines](#) of around GBP 1 million for breaches of the oil price cap or 50% of the value of the breach. This is a pittance as a full tanker of crude oil is often valued at more than GBP 100 million.

Penalties for policy violations are even lower in the USA — violating parties can face a maximum [penalty](#) of USD 330,947. In one instance, [Gatik](#) was refused insurance by American insurers. However, there is no report of fines and sanctions being imposed on them for violating the policy. The EU can merely [prohibit](#) tankers from insurance, financing and services of vessels for transporting Russian oil or petroleum products for 90 days.

Furthermore, the G7 and EU have not kept their commitment to review the price cap every two months to ensure it stays "[at least](#) 5% below the average market price for Russian oil and petroleum products". The price cap hasn't been reviewed and revised in the last 8 months, since December 2022, when the policy was first implemented.

Lack of enforcement backed by weak penalties enables "shadow" tankers to operate with impunity. As violating traders realise there is only a low risk of being caught, the bargaining power that the price cap policy aims to offer countries willing to buy Russian oil diminishes. This can be seen as the [discount](#) offered on Russian oil to buyers in countries such as India has fallen to between USD 2–10 per barrel.

The members of the Price Cap Coalition need to urgently ramp up its enforcement to ensure those funding Russia's full-scale invasion are brought to book.

Summary table: Changing trends since the start of the full-scale invasion

Region/Countries	Change in imports of seaborne Russian oil, first half of 2023 compared to the first half of 2022	Implementing the oil price cap policy?
China	+50% (2nd largest importer of Russian oil in H1 ⁵ 2023)	No
India	+217% (the largest importer of Russian oil in H1 2023)	No

⁵ H1 stands for the first half of the year or the first 6 months.

Turkey	+71% (3rd largest importer of Russian oil in H1 2023)	No
USA	-86%	Yes (part of the oil price cap coalition)
UK	-97%	Yes (part of the oil price cap coalition)
Australia	-100%	Yes (part of the oil price cap coalition)
EU	-81% (excluding CPC Terminal exports of Kazakh oil from Russian ports that are exempt from sanctions)	Yes (part of the oil price cap coalition)
Switzerland	Cannot import Russian oil by sea	Yes (Switzerland imposes the oil price cap policy)
Norway	-100%	Yes (Norway imposes the oil price cap policy)

Source: Kpler data on seaborne oil export volumes.

Summary table: Share of Russian oil exports by "shadow" tankers since sanctions were imposed

	"shadow" tankers	Key implication
Volume of transported Russian crude oil (% of exports)	37%	29% of all vessels that have transported Russian crude oil were "shadow" tankers; these vessels transported 37% of all Russian crude by tonnage. This means "shadow" tankers transported more crude oil per tanker than non-"shadow" tankers.
Volume of transported Russian oil products (% of exports)	30%	In contrast, 39% of all vessels that have transported Russian oil products were "shadow" tankers; these vessels transported 30% of all Russian oil products by tonnage. This means "shadow" oil product tankers transported less oil products per tanker than

		non-“shadow” tankers. “Shadow” tankers transporting Russian oil products and chemicals were on average smaller than non-“shadow” tankers.
Vessels numbers transporting Russian crude oil (% of total tankers)	29%	29% of all vessels transporting Russian crude oil were insured/owned outside of those implementing the price cap policy. 41% of all "shadow" tankers that transported Russian crude oil since the sanctions were implemented were owned by UAE companies/individuals .
Vessels numbers transporting Russian oil products & chemicals (% of total tankers)	39%	39% of all vessels transporting Russian oil products and chemicals were insured/owned outside of those implementing the price cap policy. 31% of all shipments transporting Russian oil products & chemicals by tonnage was transported by "shadow" tankers. More than half (57%) of all "shadow" tankers that transported Russian oil products & chemicals after the sanctions were owned by Russian companies/owners .
Number of voyages transporting crude oil from Russia	39%	"Shadow" tankers undertook 39% of all voyages of Russian crude oil; these vessels were more active than those that must abide by the oil price cap policy. 72% of “shadow” tankers voyages were spent transporting Russian crude oil rather than other countries' crude oil.
Number of voyages transporting oil products from Russia	52%	"Shadow" tankers undertook 52% of the voyages of oil products and chemicals. “Shadow” tankers transporting Russian oil products and chemicals were much more active than those under the price cap, 89% of “shadow” tankers voyages were spent transporting Russian oil products rather than other countries' refined products.
Deadweight capacity crude oil from Russia	27%	A quarter of the deadweight carrying capacity required to transport all of Russia’s crude oil exports per shipment were made up by the

		<p>"shadow" tankers.</p> <p>Russia is still heavily reliant on tankers owned or insured in countries implementing the price cap to transport its oil, showing the strong leverage the price cap policy has to lower Russia's oil export earnings if the price level is lowered closer to its costs of production and monitoring and enforcement issues are solved.</p>
Deadweight capacity oil products & chemicals from Russia	23%	<p>Around one fifth of the deadweight carrying capacity required to transport all of Russia's oil product exports per shipment are made up by the "shadow" tankers.</p> <p>Despite the fact that these "shadow" tankers transport more oil per vessel, Russia is still heavily reliant on vessels that must abide by the oil price cap policy, showing the leverage this policy has.</p>
Insurance of tankers from outside sanctioning countries	48%	<p>In 2022, 31% of the voyages of Russian oil were transported using insurance from non-sanctioning countries, this rose to 48% in 2023.</p> <p>Insurers of "shadow" tankers that shipped Russian oil are often "unknown". An analysis of the database of "Ingosstrakh", a Russian insurance company, has shown that these ships are often insured in Russia.</p>
Ownership of tankers outside of sanctioning countries transporting oil from Russia	70%	<p>In 2022, 60% of the voyages of Russian oil were transported using tankers owned by non-sanctioning countries, this rose to 70% in 2023.</p> <p>There is less scope for Russia to increase its access to tankers owned in countries outside of those implementing the price cap policy than insured outside those countries.</p>

Policy recommendations

New or stricter sanction measures:

- Restrictions on the sales of tankers, to prevent Russia, its allies and related traders from acquiring old tankers used to circumvent the cap.
- “Black list” vessels (IMO numbers) that are owned or managed by sanctioned companies; individuals/organisations involved in violating sanctions must be denied commercial relations in countries that are allies to Ukraine.
- Prohibit transshipment of Russian oil through territorial waters and exclusive economic zones of price cap coalition countries.
- Ban maritime services in perpetuity for vessels used to transport Russian crude without complying with the price cap. The [current ban of 90 days prohibiting vessels from attaining EU maritime services](#) following a violation of sanctions is far too weak.
- Revise the oil price cap down to USD 25–35 per barrel for crude oil and USD 5 per barrel higher for premium refined products. This substantially reduces Russian tax revenues while keeping Russian oil production economically viable.

Greater monitoring and enforcement:

- Require enhanced protection and indemnity (P&I) insurance disclosure.
- Monitor for any vessels not insured by the International Group when passing through the Danish Straits and other sanction-imposing countries' territorial waters or exclusive economic zones in order to ensure the enforcement of environmental norms for tankers in the Baltic and Black Seas.
- Vessels exporting crude oil or petroleum products that have been detected by automatic identification system (AIS) spoofing must be denied commercial relations with sanction-imposing countries, along with increased vigilance on them. These shipments should be monitored, investigated and strict penalties enforced on insurance companies, owners and traders involved in violating the oil price cap.
- Collaboration of enforcement agencies between sanction-imposing countries investigating and tracking shipments that have attained sanctioning countries insurance or tankers leaving ports such as Kozmino that transport Russian oil at prices above the cap.
- The perceived risk of violating sanctions needs to be higher as a deterrent, with Russian oil continuing to be lifted by sanction-imposing countries' vessels in periods when prices are above the cap.

Wider measures:

- Reduce reliance on fossil oil through energy saving measures, sustainable transport policies, electric vehicles and clean energy investments. Lower oil demand and prices will reduce Russia's pricing power and leverage, as well as reduce reliance on other questionable suppliers of oil.
- Ban the import of oil products into sanction imposing countries from [refineries that run on Russian crude oil](#).
- Advocate through political relationships or trade deals to dissuade ally countries from purchasing Russian oil as it is providing finance to Putin's war chest.
- Ban other fossil fuels from Russia, including LNG, LPG, pipeline oil, and pipeline gas, to lower Russia's export earnings used to fund the war against Ukraine.

Methodology

In this briefing, we have focused on vessels that shipped crude oil and oil products from Russia worldwide. To see if our analysis is missing any amount of exported Russian crude oil, we compared CREA's data with data from Russia's official institutions and public statements made by Russian government representatives.

It should be noted that after Russia's full-scale invasion of Ukraine, the Federal Customs Service stopped publishing statistics. The statistics were last updated on 14 March 2022. The Central Dispatch Department of the Fuel and Energy Complex has stopped disclosing data on Russian oil production and exports in physical terms. Because of the reasons mentioned above, we are utilising data on crude and refined oil products from 2021, [published](#) by the Central Bank of the Russian Federation.

For Russian seaborne crude oil exports, we utilised data from Marine Traffic. We use our own categorisation to define and analyse crude oil flows. We aggregate all liquid fuels covered by the price caps and import bans imposed by the countries implementing the price cap policy. For the exports via pipeline, we use China's customs and EUROSTAT data.

A comparative data analysis between the Marine Traffic data and data from the Central Bank of the Russian Federation revealed that there is a disparity of 7 million tonnes of crude oil out of 231 million tonnes (3%) and 48 million tonnes (35%) of refined oil products out of 144 million tonnes of total exports from Russia in 2021.

In this brief, we separated vessels according to their insurance and ownership. First category is tankers that are insured or owned by **countries implementing the oil price**

cap policy (G7, EU, Australia, Norway and Switzerland). These vessels are named as tankers under the price cap. The second category is tankers that are insured and owned outside the countries mentioned above. We define them as "**shadow**" tankers. We are using the broadest possible definition of suspicious tankers to constrain the issue of defining "shadow" tankers that Russia can utilise to move its oil while circumventing the oil price cap policy.

We use MarineTraffic.com and Equasis datasets to record the insurance and vessel ownership. This data enables us to provide an analysis of the price cap coalition's provision of insurance/vessel ownership required to transport Russian oil shipments. The P&I insurance and ownership data are collected from Equasis regularly (daily to weekly). However, Equasis does not publish a historical record of ship insurers. We, therefore, assume that the first insurer we found on Equasis for every single ship has always been its insurer before that collection or indicated inception date.

Fossil fuels are sold on a variety of contracts, including fixed-price, indexed to average oil prices and indexed to other spot prices. This means that the revenue to the exporter is not directly proportional to the current spot price.

To estimate prices of fossil fuel trades, we first derive historical monthly average prices for imports from Eurostat and UN COMTRADE, since the trade values are indicated both in physical and monetary terms.

We then fit models between these historical prices and average monthly spot prices for the current month and with lags to provide estimates of exported oil values.

About CREA

Centre for Research on Energy and Clean Air (CREA) is an independent research organisation focused on revealing the trends, causes, and health impacts, as well as the solutions to air pollution. CREA uses scientific data, research, and evidence to support the efforts of governments, companies, and campaigning organisations worldwide in their efforts to move towards clean energy and clean air, believing that effective research and communication are the key to successful policies, investment decisions, and advocacy efforts. CREA was founded in December 2019 in Helsinki and has staff in several Asian and European countries. Our work is funded through philanthropic grants and revenue from commissioned research. In our statement of support for Ukraine, CREA absolutely condemns the Russian military's unprovoked and unjustified attack against another

sovereign nation, Ukraine. The assault goes against the fundamental values of human well-being, safety, and dignity that our organisation seeks to advance. We urgently call for an end to the assault and stand in solidarity with the Ukrainian and Russian people calling for just peace.

Our Europe-Russia team publishes weekly and monthly snapshots along with other analysis tracking Russian fossil fuel flows as well as sanctions impact which can be seen on our page of publications [here](#).

Disclaimer

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