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KREMLIN PITSTOP

EU imported EUR 3 bn of oil products from Turkish ports handling Russian oil

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A Kremlin pit stop: The EU imported EUR 3 bn of oil products from Turkish ports handling Russian oil

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Authors
Vaibhav Raghunandan, EU Russia Analyst & Research Writer, Centre for Research on Energy and Clean Air (CREA); Martin Vladimirov, Director Energy and Climate Program, Center for the Study of Democracy (CSD); Isaac Levi, Europe-Russia Policy & Energy Analysis Team Lead, Centre for Research on Energy and Clean Air (CREA)

Data lead
Panda Rushwood, Data Scientist, Centre for Research on Energy and Clean Air (CREA)

Editor
Hannah Ekberg, Communications Specialist, Centre for Research on Energy and Clean Air (CREA)

Contributors
Ruslan Stefanov, Director, Economic Program at Center for the Study of Democracy (CSD);
Meri Pukarinen, Research Programs Manager, Centre for Research on Energy and Clean Air (CREA)

About CREA

The Centre for Research on Energy and Clean Air (CREA) is an independent research organisation focused on revealing the trends, causes, health impacts, and solutions to air pollution. CREA uses scientific data, research, and evidence to support the efforts of governments, companies, and campaigning organisations worldwide to move towards clean energy and clean air, believing that effective research and communication are the keys to successful policies, investment decisions, and advocacy efforts. CREA was founded in Helsinki and has staff in several Asian and European countries.

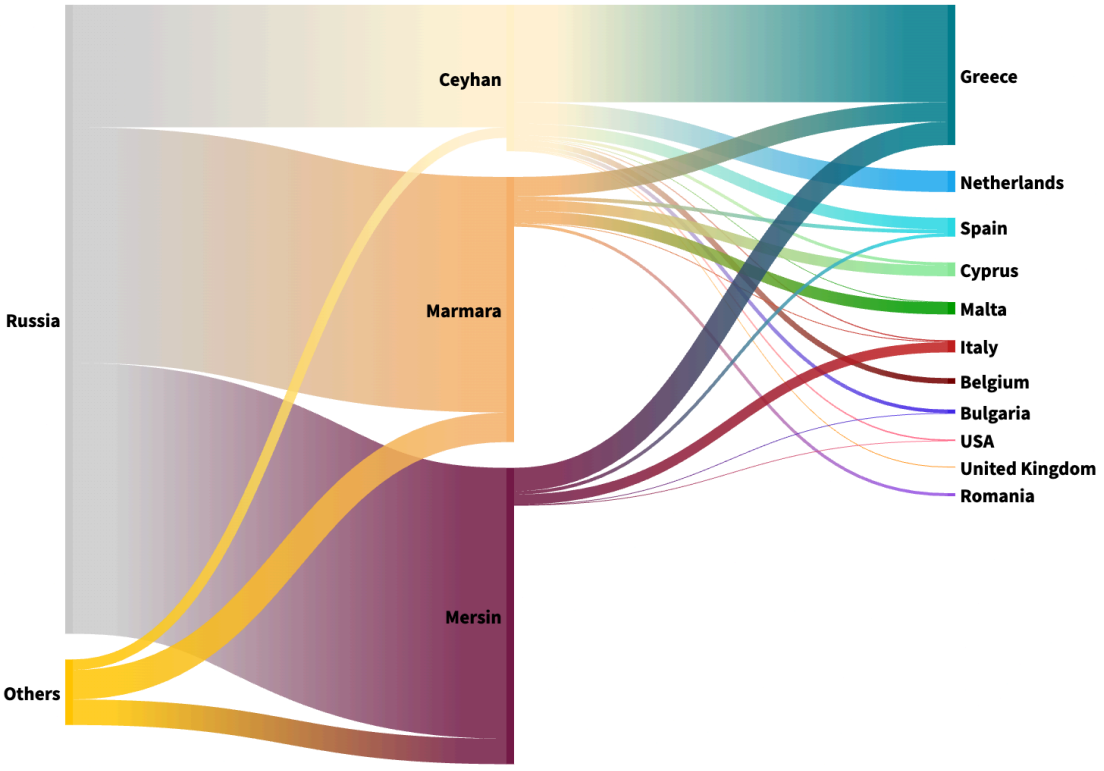
About CSD

Founded in late 1989, the Center for the Study of Democracy (CSD) is a European public policy institute fostering the reform process in Europe through impact on policy and civil society. CSD's mission is "building bridges between scholars and policy-makers". Since 2014 CSD has pioneered the assessment of the Russian economic influence in Europe via the Kremlin Playbook series of reports, focusing in particular on Russia's weaponization of energy and state capture to achieve an outsized influence over decision-making in strategic economic and political areas.

A Kremlin pit stop: The EU imported EUR 3 bn of oil products from Turkish ports handling Russian oil

Seaborne oil products flowing to Turkish ports also exporting to price cap coalition countries

Mn tonnes | February 2023 to February 2024



Source: CREA Analysis •

Price cap coalition countries (PCC) consist of the EU, G7 and Australia. Norway and Switzerland also implement the oil price cap policy.

Key findings

- The **EU has imported 5.16 mn tonnes of oil products valued at EUR 3.1 bn from three Turkish ports with no refining hubs, Ceyhan, Marmara Ereğlisi, and Mersin** since the EU/G7 petroleum products ban took effect on 5 February 2023 until the end of February 2024. In this same period, **86% of the ports' imports of oil products, in value terms, was from Russia.**
- Investigations of specific shipments carried out by CREA and the Center for the Study of Democracy (CSD) suggest that **European entities may have imported Russian oil products** mixed or re-exported from oil storage terminals in Turkey.
- In May 2023, the Toros Ceyhan oil terminal at the port of Ceyhan received 26,923 tonnes of gasoil from Novorossiysk — the terminal's first import of the commodity in three months. Ten days after the import the terminal shipped a similar volume of gasoil to the MOH Corinth refinery in Greece. This trade seems to have **exploited a legal loophole that allows blended Russian oil products to enter the EU.**
- Since the start of the EU/G7 ban on 5 February 2023 until the end of February 2024, **Turkey has imported EUR 17.6 bn of Russian oil products, a 105% increase compared to the same period the prior year.** Since the introduction of the ban, 81% of Turkey's imports of oil products have been from Russia, showing an increased reliance that could threaten their energy security.
- **Turkey's domestic consumption of oil products grew by 8% in 2023**. In contrast, **the country's seaborne imports of oil products grew by 56%** suggesting that Turkey is becoming a re-export hub for oil products, not just satisfying a growth in domestic demand.
- Russia's exports of oil products to Turkey **generated EUR 5.4 billion in tax revenues for the Kremlin war chest,** prolonging and enabling Moscow's full-scale invasion of Ukraine.

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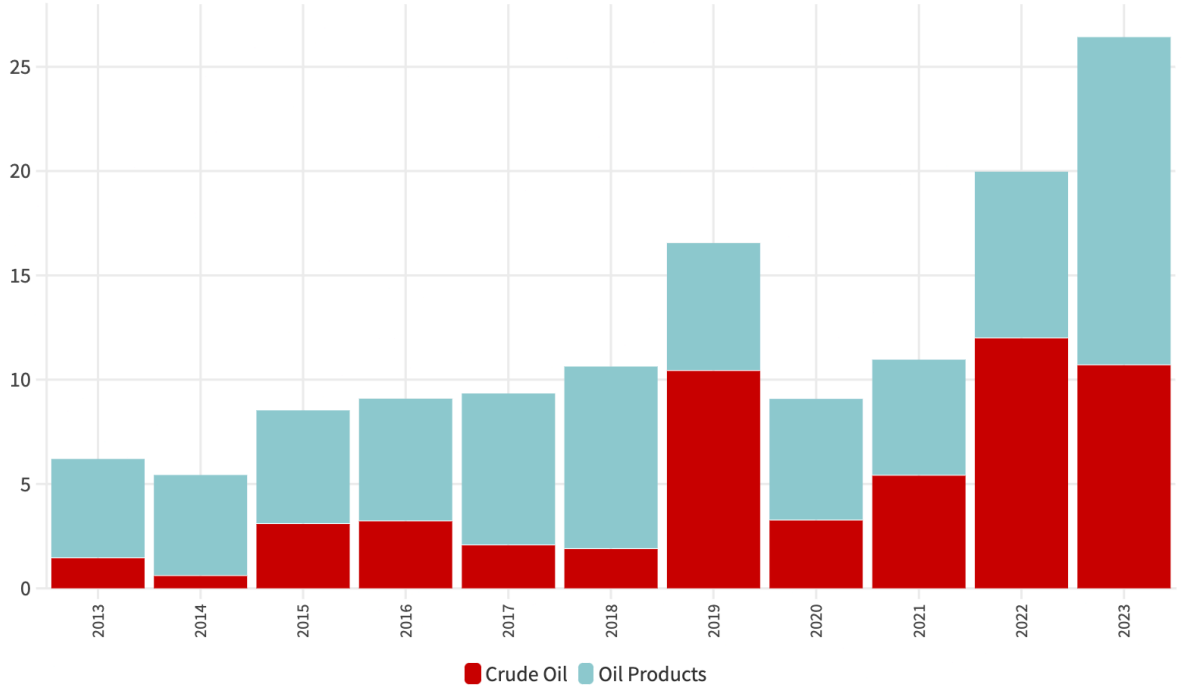
Russia exploiting a long-standing relationship with Turkey to boost export revenues from oil

Turkey's long term relationship with the Russian oil industry
Volume of imports | Mn tonnes



Source: CSD Analysis of COMTRADE data

After Putin's full-scale invasion of Ukraine, Russia has exploited a complex web of economic influence globally to circumvent sanctions and maintain its position in international markets. Turkey has become one of the key enablers of the Kremlin Playbook (a CSD analysis of the tools and methods that Russia uses to translate its economic footprint into political influence in Europe and beyond) and has modelled itself into a major trading hub for Russian oil and gas. Russia has become Turkey's second-largest trading partner, exporting goods into Turkey — mostly oil, gas, and coal — worth EUR 42.2 bn in 2023.

In 2023, Turkey became the world's biggest buyer of Russian oil products and imported 18% of Russia's total exports of oil products. Turkey's imports of Russian oil have grown almost fivefold over the last decade. In 2023 specifically, Turkey has increased its reliance on Russia for the supply of seaborne refined oil products (mainly diesel, gasoil, and jet

fuel). This reliance has risen from 52% in 2022 to 72% in 2023. As Europe has recently learned the hard way, high dependence on Russia for the supply of energy poses severe geopolitical risks to the security of supply.

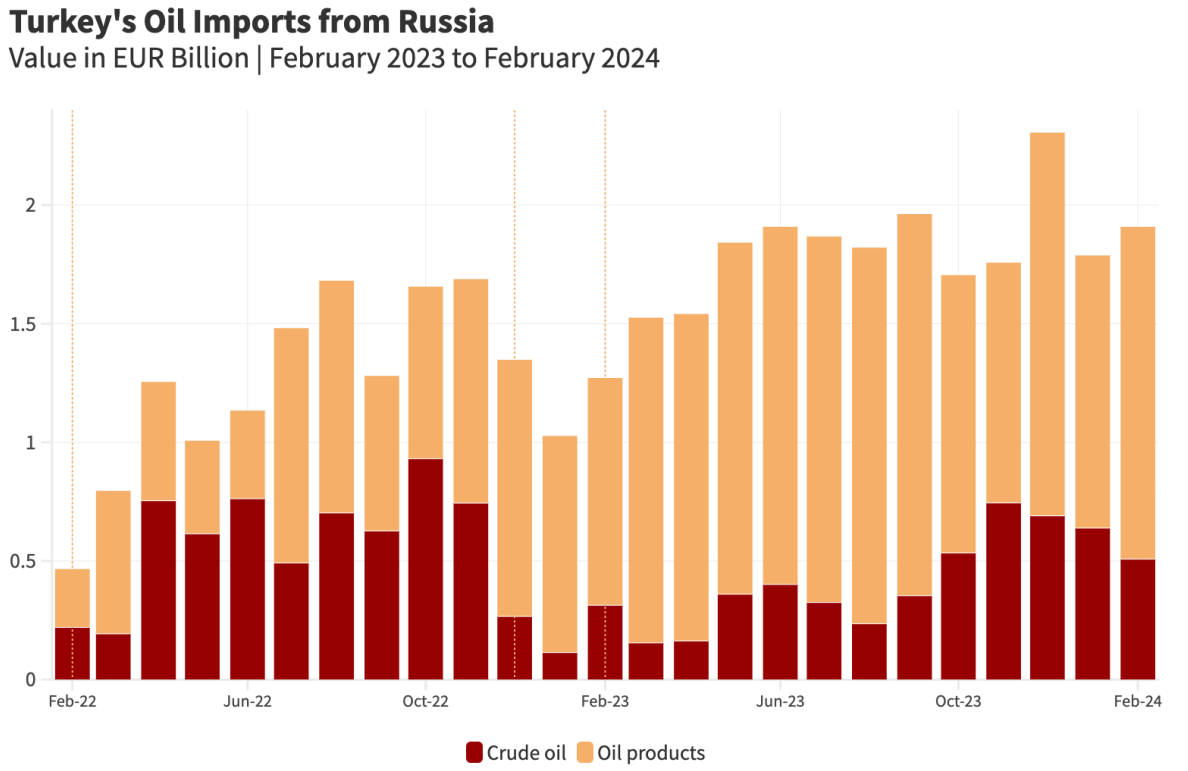
The boom in Turkey's imports of Russian oil in 2023 followed an emergent global trend in non-sanctioning countries like India and China increasing their imports — capitalising on the availability of cheaper Russian oil, forced in part due to sanctions. In Turkey, a crucial difference was the increase in the type of commodity — refined oil products rather than Russian crude.

In contrast to India and China, who together imported 85% of all Russian crude in 2023, Turkey's imports of Russian crude dropped in volume after the EU/G7 sanctions took effect. Between February 2023 and February 2024, while Turkey's imports of Russian oil products gradually grew, their imports of Russian crude oil dropped by 11% (EUR 735 mn).

A key reason for this trend lies in the country's oil refining capacity, which pales in comparison with China or India. According to Kpler data, Turkey has seven operating oil refineries whilst China and India have 119 and 22, respectively. Turkey therefore has a practical inability to process larger quantities of crude oil. Although Turkey receives a regular contracted supply of crude oil from Azerbaijan, some Turkish refineries have continued to rely heavily on Russian crude and export products refined from it to European markets. Yet, the country's imports of Russian crude have, in reality, dropped in volume after the sanctions took effect.

Turkey's strategic location on the Black Sea allows oil traders to find greater dividends in importing oil products and facilitating storage for them in terminals across different ports in the country. These Turkish storage facilities have subsequently become a pivotal stopping point for Russian oil products to trade globally, including to sanctioning regions such as the UK, US, and EU, and specifically to key buyers in Greece, Italy, Spain, Romania, and the Netherlands. This analysis focuses specifically on refined oil products that Turkey imports from Russia and sanctioning countries' imports of oil products from Turkey.

How have Turkey's imports of Russian oil changed since the EU/G7 sanctions?



Source: CREA Analysis •
Dotted lines represent: Russia's invasion of Ukraine, crude oil ban and price cap, ban on oil products.

The EU/G7 ban on Russian oil products that took effect in February 2023 was introduced to cut Russian revenues from exports to EU countries and allies of Ukraine. While sanctioning countries have replaced Russian imports and diversified to other sources, the lack of specificity in the EU legislation currently allows for Russian oil products to be re-exported by non-sanctioning countries if obfuscated and mixed with non-Russian oil products.

The EU legislation states that, "*as oil is a fungible material that cannot be physically segregated once mixed, a quantity corresponding to the volume not originating in Russia can be allowed into the Union…*", if it is evidenced by the provision of certification of origin documentation. The loose legislation, combined with a lack of stringent enforcement means that EU/G7 countries' imports may still contain significant volumes of oil products of Russian origin — especially for their imports coming from Turkey that has not implemented sanctions.

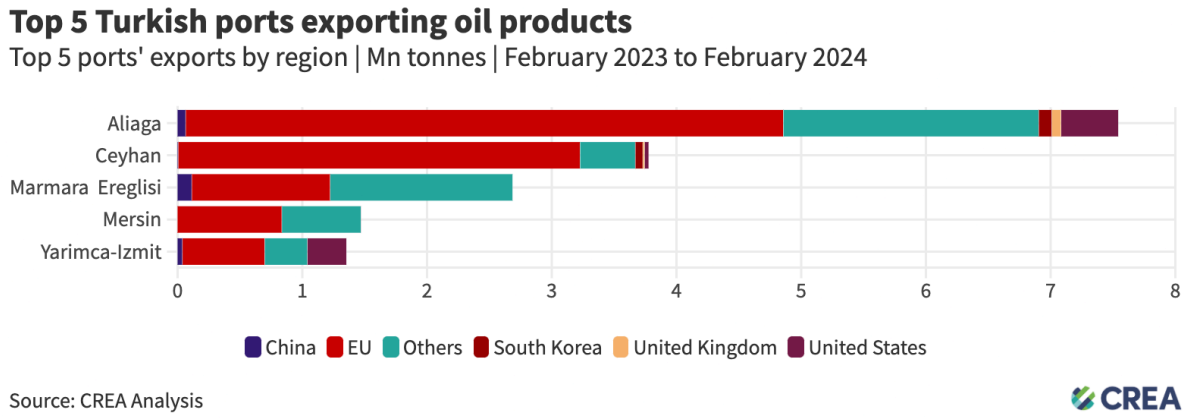
On 4 March 2023, barely a month after the EU/G7 ban on Russian oil products came into effect (5 February 2023), Turkey's first shipment of Russian petroleum products arrived at the port of Dilovasi. Turkey went on to receive 39 further shipments of Russian oil products in the same month.

Whilst the EU and G7 countries — previously reliant on Russian oil products, such as diesel — rapidly stopped their imports, Turkey's imports of Russian oil products continued to rise steadily throughout 2023 — reaching a record high in July (2.3 mn tonnes, valued at EUR 1.5 bn). The share of Russian oil products in Turkey's imports has grown at a similar pace. Since the EU/G7 ban on Russian oil products until the end of February 2024, 81% of Turkey's seaborne imports of oil products have been from Russia.

Turkey has imported 24.4 mn tonnes of Russian oil products, worth EUR 17.6 bn, since the EU/G7 ban on Russian oil products until the end of February 2024, a 105% increase compared to the same period, the prior year. Turkey's global exports of oil products rose in this same period by 75% (7.6 mn tonnes). Turkey's imports of Russian oil products sent an estimated EUR 5.4 bn in tax revenues to the Kremlin war chest, enabling and prolonging Russia's full-scale invasion of Ukraine.

In this same period, 11% (13 mn tonnes) of the EU's total imports of oil products came from Turkey. This is a 107% increase in volume terms year-on-year, showing the EU's growing reliance on oil products from Turkey. CREA and CSD's investigation suggests that Turkey wasn't just importing Russian oil for domestic consumption, but was serving as a pit stop for Russian oil products on their way to EU/G7 countries.

Sanctioning countries' imports come from a Turkish port 95% reliant on Russian oil



The port of Ceyhan has been Turkey's second-highest exporter of oil products to the EU since the start of sanctions on oil products. While the port of Aliaga has exported the largest quantities of oil products in volume, it also exports products refined in Turkey's STAR refinery; there is no such refinery in the port of Ceyhan.

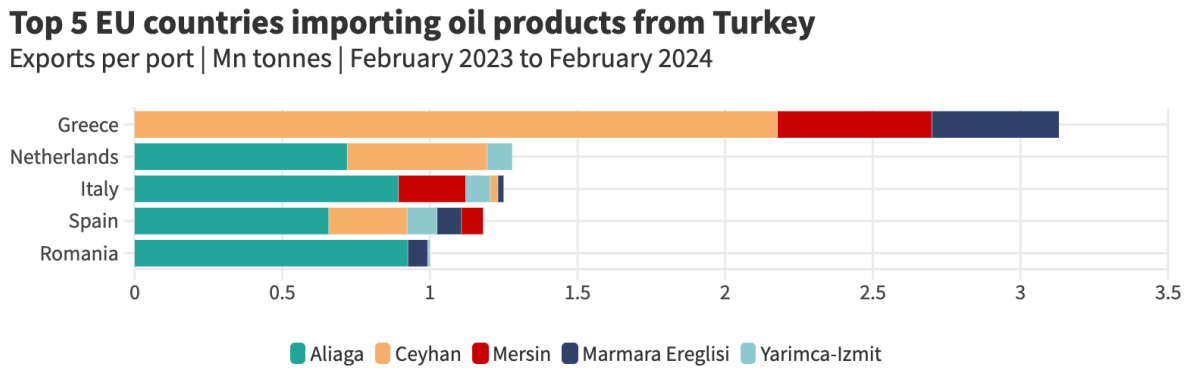
Ceyhan has imported a total of 3.02 mn tonnes of oil products of which 92% (2.7 mn tonnes worth EUR 1.9 bn) have been from Russia since the EU import ban came into force until the end of February 2024. In the same period, the port's total exports have been over 3.6 mn tonnes valued at EUR 2.1 bn. A majority of these exports (3.2 mn tonnes valued at EUR 1.9 bn) of oil products have been to the EU.

The discrepancy between Ceyhan's seaborne imports and exports can partially be explained by the presence of a small refinery inland, which also supplies small quantities of oil products to the port. Ceyhan is connected to three pipelines for crude oil — the Baku-Tbilisi-Ceyhan (BTC) pipeline, Kirkuk-Ceyhan pipeline, and Kırıkkale pipeline. The terminals are also connected and served by road and rail transport services.

The Kırıkkale pipeline serves the Kırıkkale refinery inland which has a total capacity of 1,000 barrels per day. If the refinery is operating at full capacity (market experts suggest it is unlikely to be doing so) its products would constitute a mere 1% of Ceyhan's total exports. Even accounting for some volumes of oil products arriving at the port via this refinery, or via road and rail, there is sufficient evidence pointing to the conclusion that

Russian oil products constitute a significant proportion of the outbound shipments from the port of Ceyhan.

Russian oil products continue to enter the EU via shipments from Turkey



Source: CREA Analysis •
The ports of Aliaga & Yarimca-Izmit have two refineries (both of which run on Russian crude) and may be producing refined products for exports. They have therefore been excluded from this analysis.

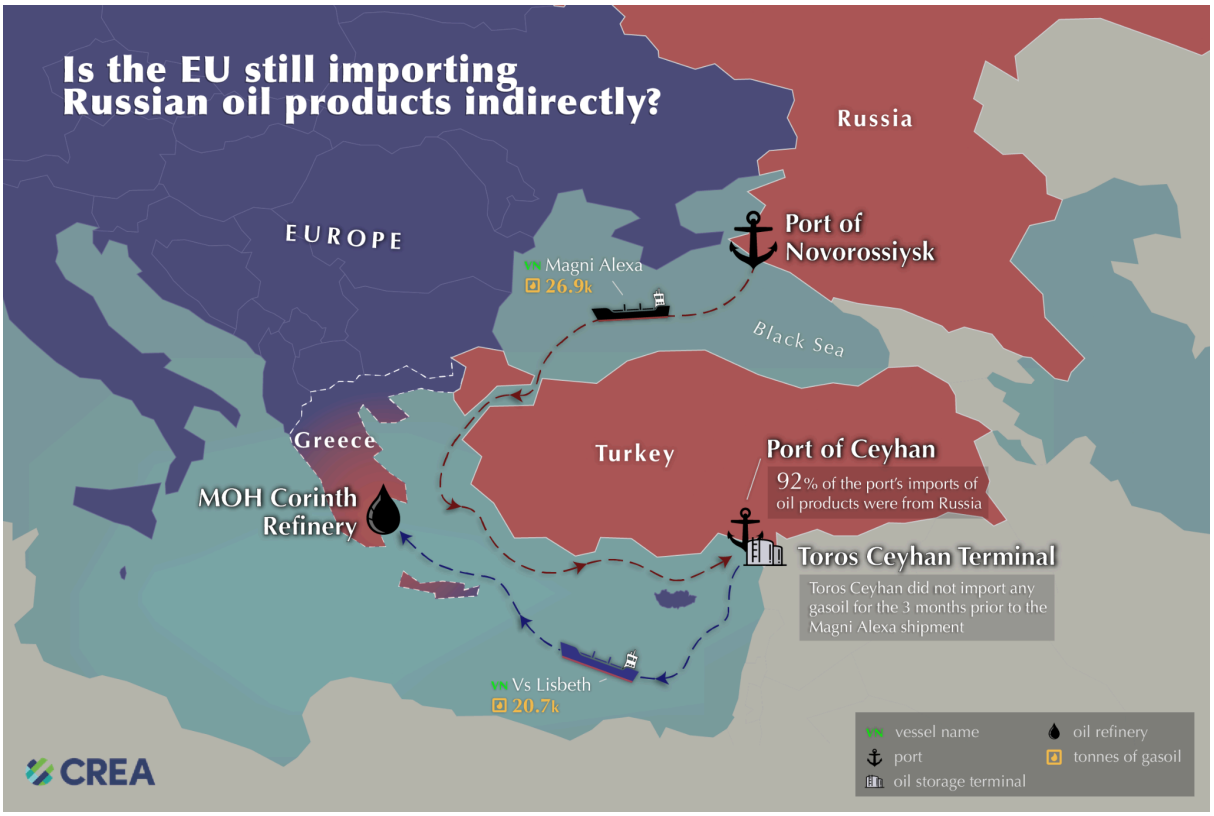
While five major storage terminals (none listed as having refining capabilities) are responsible for the majority of Turkey's imports of oil products from Russia, only two of them — the GTS Terminal and Toros Ceyhan have exported petroleum products in the same period. The analysis also investigated specific shipments from these two terminals for sanction violations and their role in facilitating the trade of Russian oil to the EU.

Since the EU/G7 ban on Russian petroleum products, Toros Ceyhan has imported 209,000 tonnes of oil products of which around 90% have come from Russia. In the same period, its exports to the EU (216,000 tonnes) are a little higher than its total imports suggesting that the facility is being used to transship Russian oil. The small difference in export and import volumes could be due to the storage facility exporting previously stored oil via road and rail.

On 17 April 2023, the oil tanker Magni Alexa, operating under the Panama flag, moored at the Russian port of Novorossiysk and loaded 26,934 tonnes of gasoil worth EUR 20.8 mn. Tracking data shows that the tanker unloaded this gasoil on 2 May 2023 at the Toros Ceyhan storage facility at the port of Ceyhan in Turkey. Toros Ceyhan had not imported any gasoil for the three months prior to this shipment. Ten days later, on 12 May, a second oil tanker, Vs Lisbeth, carried 20,748 tonnes of gasoil estimated to be valued at EUR 13.6 mn

from Toros Ceyhan to the MOH Corinth Refinery in Greece — an installation previously investigated to have supplied oil to the US military.

Toros Ceyhan, owned by the company Toros Agri, is a storage terminal with no refining capabilities that is used to store and transit oil products, chemicals and fertilisers. It is connected by road and has a cargo handling capacity limited to 45,000 tonnes per day. Magni Alexa's unloaded cargo would have filled 60% of Toros Ceyhan's storage capacity. Experts consulted by CREA conceded that transporting large volumes of oil via road is financially unviable and impractical. The facility did not receive any other shipments before its export to the MOH Corinth refinery in Greece in May 2023.



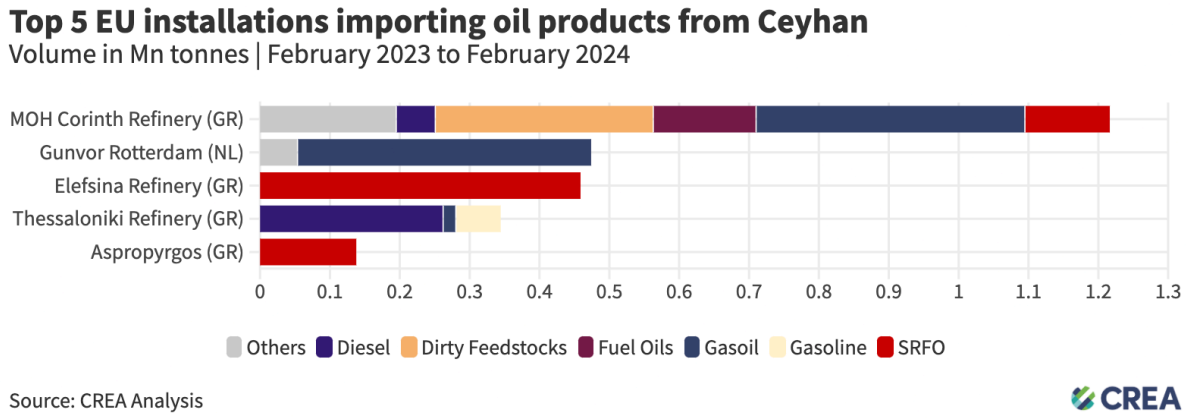
CREA's investigation of shipping data and the facility's capacity suggests that a certain percentage of the gasoil exported to Greece, which was offloaded on 15 May 2023, was of Russian origin. Enforcement agencies in Greece and the EU should conduct a thorough investigation that looks into the traders involved with this shipment, check certificates of origin documentation, and enforce penalties if traders have violated sanctions.

Similar suspicious shipments of diesel have gone out of the GTS Terminal to the Thessaloniki refinery in Greece. In addition to Greece, two installations in Spain, Repsol Cartagena & Euronegro, have received large shipments of diesel as recently as January

2024 from the GTS Terminal that seem to have originated in Russia. The GTS Terminal has exclusively imported diesel from Russia since the introduction of the EU/G7 ban. On 11 January 2024, the terminal received 94,569 tonnes of diesel from the Russian Rosneft refinery in Primorsk. On 23 January, 22,133 tonnes of diesel valued at EUR 16 mn was shipped from GTS to the Repsol Cartagena Refinery in Spain. A week later, 26,314 tonnes of diesel valued at EUR 19 mn was shipped by GTS to the Euronergo refinery, also in Spain.

Shipping data going back two years revealed no imports of diesel by the GTS Terminal before April 2023 — at which time it came from the Russian Rosneft refinery in Tuapse. The terminal has no refining capabilities and serves as a storage and transit point for oil at the port.

Threat of sanctions has reduced Ceyhan's imports from Russia



Ceyhan's activities were the subject of intense scrutiny by various media and advocacy groups in the United States last year. The investigations led to the threat of a United States Office of Foreign Assets Control (OFAC) sanctions designation and a reactionary declaration by Global Terminal Services (GTS), the operators of the GTS terminal, that imports from Russia would be suspended. The terminal instructed all clients to stop importing Russian oil, despite, in their opinion, there being, 'no breach of any laws, regulations or sanctions'.

While the terminal's operators may not have breached sanctions when importing the oil, the investigation into shipping data out of the port suggests that traders in the EU may have violated sanctions when importing oil products from the port that were mixed with or majorly consisted of oil products from Russian oil. EU enforcement authorities should undertake due diligence checks to determine the origin of oil products when imported from terminals also importing oil from Russia.

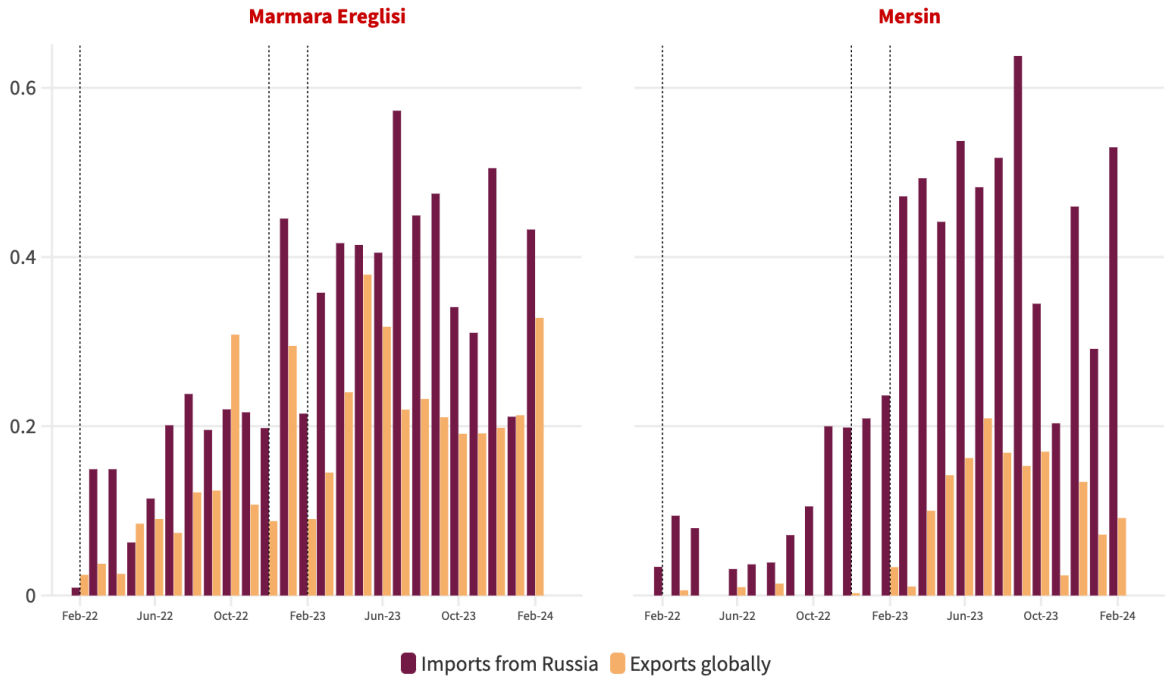
Products exported out of Ceyhan fall under the trade code HS2710 - Petroleum oils and oils obtained from bituminous minerals. EU legislation explicitly states that *'petroleum products falling under HS 2710 obtained in a third country mixing Russian oil falling under HS 2710 and locally produced oil exported from that third country could be subject to the sanction depending on the proportion of the Russian component'*.

According to EU legislation, blending refined products of Russian origin with those of non-Russian origin could still be subject to sanctions since it does not change the code of the product itself. While the legislation accounts for the fact that some mixing of oil may occur, it also clearly states that *'such mixing should not increase or facilitate the production and or marketing of Russian-origin oil, nor generate any avoidable financial flows or indirect benefits'.*

Despite GTS's announcement, imports of Russian oil into the port of Ceyhan have not ceased. While GTS has stopped importing oil from Russia, other terminals in the port of Ceyhan have continued to do so. In March and April 2024, the port of Ceyhan imported 223,000 tonnes of Russian oil products worth EUR 168 mn. In these two months, the port exported 525,790 tonnes of oil products to countries in the EU.

Multiple Turkish ports handling Russian oil export oil to EU countries, undermining the efficacy of sanctions

Growth of oil trade in Marmara Ereglisi & Mersin ports
Russian Imports & Global Exports | Volume of oil in mn tonnes | February 2023 to February 2024



Source: CREA Analysis •
Dotted lines represent: Russia's invasion of Ukraine, crude oil ban and price cap, ban on oil products.

Ceyhan is far from the only port in Turkey currently boosting the Russian oil trade. Similar trade operations are being applied in two other ports in Turkey, neither of which have refineries, but have also massively increased their imports and exports of Russian oil products since the EU/G7 ban.

Since the EU/G7 ban on 5 February 2023, until the end of February 2024, 78% of the port of Marmara Ereğlisi's seaborne imports of petroleum products valued at EUR 3.5 bn, have been from Russia. Their volume of seaborne imports of Russian petroleum products has risen by 114% since the introduction of the ban, compared to the same period the prior year. In this same period, the port has exported 3 mn tonnes of oil products valued at EUR 1.46 bn — over one-third of which have been imported by the European Union.

Marmara Ereğlisi's seaborne imports of non-Russian oil products (1.4 mn tonnes) are less than their global exports, leading CREA and CSD to believe that they consisted of at least some Russian-origin oil. All of Marmara's trade is conducted through the OPET Marmara Oil Terminal, the only oil facility at the port, which is also connected by road and rail and might receive oil products via those means too. Authorities in importing countries that impose sanctions on Russia must determine the origin of oil products that they buy from oil terminals in countries that import from Russia by undertaking chemical tests and requiring certificate of origin documents to prove that the imports do not contain Russian oil products.

A third port, Mersin, has also significantly increased its trade of oil since the EU ban on refined oil products. Since the EU/G7 ban on Russian oil products until the end of February 2024, the port has imported 7.3 mn tonnes of oil products, of which 84% (6.2 mn tonnes) have been from Russia. Their seaborne imports of oil products from Russia have risen three-fold, year-on-year. In this same period, the port's global exports have also risen forty-fold (rising from 33,000 tonnes to 1.5 mn tonnes) over half of which (836,000 tonnes) have been directed to the European Union.

While there are no major refineries in the port's immediate vicinity (the closest are the aforementioned Kırıkkale refinery and a smaller refinery in Batman), it has road and rail connectivity, and may receive oil products via those routes too. The port's relatively lower volume of exports suggests that it is mostly catering to the domestic market. The sudden and huge increase in its exports after the EU/G7 ban provides cause to believe that it may be re-exporting some Russian oil. European enforcement authorities must investigate trades being conducted via this port to the European Union for potential violations and ensure Russian oil products are not being blended into their exports by conducting chemical tests and requiring certification of origin documents.

Lack of cost benefits for Turkish buyers of Russian oil

According to the Turkish energy regulator, Turkey's domestic consumption of oil products (estimated to a total of 31.8 mn tonnes) saw a year-on-year growth of 8% in 2023. In contrast, the country's total seaborne imports of oil products grew by 56% (18.6 mn tonnes to 29 mn tonnes) in 2023 — and seaborne imports from Russia specifically grew 137% (9.6 mn tonnes to 23 mn tonnes). This data shows Turkey's increasing reliance on oil products from its biggest supplier in 2023, Russia. Imports from Russia comprised 79% of Turkey's total seaborne imports of oil products. Turkey also receives oil via road and rail. This huge increase in seaborne oil product imports alone suggests Turkey's imports are not intended

to merely tackle growing demand but also become an oil trading hub and diversify its economy.

In reality, though, Turkish traders appear to be paying higher prices for Russian oil products than for products from other countries. Shifting their imports from Russian oil products to lower-priced products from other countries may prove to be more profitable by cutting their costs and giving them a bigger margin of profit. According to CSD's analysis of COMEXT data, the average price of oil products imported by Turkey in 2023 was EUR 613 per tonne. In 2023, the average price of oil products from Russia was higher, estimated at EUR 661 per tonne. Russian refined oil products have, on average, cost 8% more than the average price of Turkey's overall imports in 2023, suggesting that alternative imports are likely to have been significantly cheaper than those from Russia. Turkish traders seem to be gaining no profit from buying more Russian oil products, and they could actually be making sizable savings by diversifying their sources.

In addition, in 2023, the imports of oil products from Turkey cost an average of EUR 870 per tonne in EU countries, specifically in Greece, Spain, Italy, and the Netherlands. This price is 42% higher than Turkey's global import prices and 24% higher than Turkey's imports of oil products from Russia.

Despite making profits from exports to the EU, Turkish traders are taking a financial hit by continuing to import oil products from Russia compared to if they had bought non-Russian oil products. At the same time, Russian oil companies are continuing to derive huge benefits from the trade having exported EUR 17.6 bn of oil products to Turkey, since the EU/G7 ban until the end of February 2024. One explanation for this potentially illogical market strategy is that the fuel products trade with Russia is part of a vertically-integrated supply chain where the same Russian company or a related entity controls the revenues from both the imports from Russia and from the exports to the EU *(see box)*. Hence, Russian firms sell the refined products at higher than market prices to linked companies in Turkey creating an accounting loss that would spare them from paying taxes both in Russia and in Turkey.

The final sale on the EU market where prices are much higher due to supply deficits translates to a considerable profit margin on every extra barrel Russia sells. Turkish exports to the EU are priced 24% higher than their imports from Russia. Most of that profit is realised by trading intermediaries of major Russian oil companies operating on the EU market. These traders are usually registered in tax havens such as Switzerland, the Netherlands, and the UAE.

Russian companies operating in the Turkish domestic market

The two largest Russian oil companies, operating on the Turkish domestic downstream market, are Lukoil — via its subsidiary Akpet — and Tatneft, which bought the Turkish wholesale and retail refined products trader, Aytemiz, in April 2023. In the same month, Tatneft also bought a 50% stake in Akpet for USD 160 mn.

Aytemiz is the 50th biggest company in Turkey, according to Forbes, generating revenues of USD 1.5 bn in 2022. The firm is one of the biggest retailers in Turkey operating 590 gas stations and serving 6 mn customers every month. It also owns 10 supply terminals, storage and filling terminals with a capacity of 250 thousand cubic metres in Mersin, Izmit, Kırıkkale, Trabzon, and Alanya. These are also some of the biggest ports exporting oil products to the EU.

Meanwhile, Akpet owns eight oil product terminals with sea access at the Samsun, Mersin, and Hatay ports (including facilities in the Dortyol terminal). When Lukoil acquired Akpet for USD 500 mn in 2008, the Russian company also received direct access to the Tupras refinery (processing large volumes of Russian crude), which is linked to the company's export facilities. This allowed Akpet to export large volumes of refined products to the Mediterranean European market. For years, Akpet was actually using the terminals to import refined products from Lukoil's refineries in Italy and Bulgaria. Lukoil has since had to rearrange its refined products supply chain strategy as its operations wind down due to negotiations for the sale of its facilities in Bulgaria and Italy.

Lukoil, via its trading arm, Litasco, has also been delivering roughly 100,000 barrels of Russian crude oil per day to the STAR refinery in Aliaga, owned by the State Oil Company of the Republic of Azerbaijan (SOCAR). The deal, which covers half of the refinery's production capacity, was backed by a USD 1.5 bn loan from the Russian company.

Policy recommendations: Tighter enforcement can cut Kremlin revenues

Tighten the existing legislation: The EU should strengthen their sanctions regulations to define precisely that EU Member States cannot import re-exported Russian refined oil products. EU legislation remains vague on the proportion of Russian-origin oil that will constitute sanctions evasion, thereby encouraging the continuing trade and transshipment of products without the threat of repercussions. Stricter rules on enforcement must be implemented to prevent higher oil export volumes and earnings for Russia that are then subsequently used to fuel the Kremlin's war effort in Ukraine.

Some Member States have sought to tighten regulations by exploring a means to require importers to provide documentation of the origin of the oil via a chemical analysis in addition to certification. This can cut the flow of Russian oil completely within those Member States. It also disincentivizes non-sanctioning countries to continue to import Russian oil if they are unable to sell it to key buyers. Similar Union-wide legislation would aid in tighter enforcement and adoption of these processes.

European Union-wide national enforcement agencies must also scrutinise and request certification of origin documents when receiving imports of oil products from ports that have also imported Russian oil products to ensure the origin of the oil is not being purposefully obfuscated or blended. The European Union and its Member States should speed up the criminalisation of sanctions evasion, and the inauguration of functioning common institutions for sanctions enforcement, such as the European Public Prosecutor's Office (EPPO), and the European Anti-Money Laundering Authority (AMLA). The joint Franco-German proposal to empower the EPPO to deal with the enforcement of EU-wide sanctions should be prioritised in the new legislative season in Brussels and made operational by the end of 2024. At the same time, AMLA, which is due to start its work, should focus on tracking the alleged large amounts of illicit funds involved in the trade and transshipment of Russian oil.

Sanctioning countries must ban imports of oil from any storage facility that has imported Russian oil products over the last six months. This ban will deter traders from buying Russian oil products and blending them for re-exports. Penalties such as fines and freezing of assets by the US enforcement agency OFAC, must be imposed on shipping companies and entities in violation of current sanctions. Making these penalties public by publishing them on the EU sanctions tracker would also deter others from engaging in trade that could be a violation. This will significantly tighten the effect of existing policies.

Better enforcement: Sanctioning countries must require strict 'Rules of Origin' documentation when importing oil products from countries that have imported oil products from Russia. To enhance transparency and compliance, the EU should amend the Commission Implementing Regulation (EU) 2015/2447, ensuring that the customs declaration includes the true origin of oil products exported to an EU port, confirming they were not produced with Russian oil.

Liability must be put on customs authorities in importing countries to investigate and require that importing firms undertake due diligence evidencing the origin of the purchased oil products. If, for example, the European buyer of oil products cannot provide evidence that the imported products were not from Russia or a storage tank or refinery

that had imported Russian oil products in the previous six months, they should be prohibited from importing the product.

This would prevent oil products that are partially or wholly of Russian origin from entering sanctioning countries. It would also prevent traders from obfuscating the origin of the oil which would improve sanctions effectiveness and lower Russian oil export earnings used to finance the war on Ukraine.

Investigate and implement strict penalties on violators: EU/G7 countries must investigate shipments from Turkish ports to deduce any violations on the transshipment of Russian oil products. In case of violations, entities must be sanctioned and served with bans and penalties. Enforcement agencies should have the power to board vessels, check certification documents that show evidence of the oil's origin and chemically test it to determine whether the commodity contains oil originating from Russia. Tankers with falsified statements of the fuels' origin should be treated as smuggling with all the related legal consequences. This includes the arrest of ships at sea and their confiscation.

The current measures to prevent European shipping companies from servicing non-compliant crude and fuel products are ineffective. Vessels that have handled non-sanction compliant oil currently regain access to EU insurance services just 90 days after unloading their last noncompliant cargo. Ships handling non-sanction compliant oil should be banned in perpetuity. This would be a critical deterrence measure. Violators must be added to the OFAC sanctions list as well as OSFI (The UK enforcement agency) and EU sanctions lists too.

Lower the price cap on products: The coalition must also lower the price cap of oil products which are currently above the market price. Lowering the price cap would be deflationary and force Russia to produce and export more volumes of refined products to make up for the loss in revenue. Lowering the price cap to USD 35 per barrel for premium products and USD 25 per barrel for low-value products would cut the Kremlin's revenues from seaborne oil products by 68% (EUR 3.3 bn per month).

Remove transfer pricing loopholes: Regulatory authorities such as customs and tax agencies must also ensure that Russian companies do not use transfer pricing schemes to increase profits made from oil sold in different markets, and especially ensure that the proceeds from such transfer pricing cannot reach the Russian government. Creative transfer pricing schemes allow vertically integrated Russian oil companies to sell crude oil or refined products at artificially low prices so that they can extract a profit from selling on the wholesale market at much higher prices abroad (in countries such as Turkey). The

profit out of the price difference is then moved to an offshore-registered subsidiary to avoid paying taxes in Russia.

Methodology and data sources

CREA analysis is based on various data sources, including Kpler, Eurostat, Comtrade, Equasis, protection and indemnity (P&I) providers, Global Energy Monitor, and oilprice.com.

This analysis also uses data from COMEXT to derive the value of oil products imported and exported by Turkey. The analysis used monthly statistics of the import value and volume of Russian oil products and total oil products — including the aggregate numbers for all the relevant trading codes 2710, 2711, and 2712. The statistics are obtained from customs data for EU enlargement countries' trade since 2002, by HS2-4-6 and CN8 codes. The average annual price of the refined products in 2023 is estimated with the following formula:

Average annual price of refined products = average annual value of the imports / average annual volume of the imports

Using the same dataset and formula, the analysis estimates the average annual price of fuel products exported from Turkey to the EU. An additional country-wise breakdown was employed to quantify the price of exports to the main markets (by country) of the ports analysed above.

To estimate the Russian companies' average annual profit margin by selling fuel products via Turkish ports, the analysis uses the aggregated weekly data for the wholesale prices (without taxes) of diesel, gasoline A-95 and fuel oil in the EU (on average) and in each of the markets, by fuel exports.

Calculating Russian tax revenues

To estimate the value of the Russian tax revenues generated by the sale of fuel products to Turkey, the assessment has used data from the Russian Ministry of Finance for the different types of taxes levied directly or indirectly on Russian companies exporting fuel products. These include the following:

- Mineral extraction tax for crude oil in rubles per tonne used to produce the exported oil products (converted in USD per tonne based on the average RUB to USD exchange rate for 2023).

- Export duty on refined products (USD per tonne) for 2023 (Note: Export duty was removed in 2024).
- Corporate tax rate (%).
- Cost of crude oil extraction (USD per tonne).
- Cost of refining (USD per tonne).

Tax revenues have three main components:

1. Revenues from the mineral extraction tax on the volume of crude oil necessary for the refining of the equivalent amount of fuel products exported to Turkey;
2. Revenues from the export duty levied on the volume of exported refined products;
3. Corporate tax revenue, based on the general corporate income tax of 20% and calculated using the following formula:

Corporate Tax Revenue (USD Million) = 20% x Wellhead netback profit (USD per tonne) x the volume of refined products exported (tonnes)

and

Wellhead netback profit (USD per tonne) = Average price of the Urals crude blend (USD per tonne) - (Average cost of production + Average cost of transportation in Russia + Average cost of refining)

The data on the average cost of production, refining, and transportation has been taken from Lukoil's 2021 annual financial and operations reporting statistics, as this could be interpreted as an approximation for the Turkish/Mediterranean market due to Lukoil's major share there.

Based on this conservative assessment of the tax revenue structure from the export of refined products from Russia, the Kremlin budget received roughly 50% of the value of the average Urals spot price in USD per tonne in 2023 for their export of refined oil products to Turkey.

Data sources

We use Kpler to track the seaborne fossil fuel exports from Russia. Kpler uses a variety of sources and metrics, including historic and live automatic identification system (AIS) data, customs data, and implements their own models to estimate volumes and commodities

exported on each shipment. More details on our data methodology for Russia's fossil fuel exports can be found here.

To estimate prices of oil trades from Turkey, we used the average monthly prices for exports from Turkey to the EU from Eurostat based on the commodity type, since the trade values are indicated both in volume and monetary terms. Where the price per unit volume was anomalously high for a commodity, we replaced it with estimated values based on the preceding and following months.

Estimated value = average monthly price x volume of cargo (by oil type)