

Working Group Paper #21

The Path Forward on Energy Sanctions

A Toolkit to Step Up Pressure on Russia in 2025

The International Working Group on Russian Sanctions

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<https://fsi.stanford.edu/working-group-sanctions>

The International Working Group on Russian Sanctions aims to provide expertise and experience to governments and companies around the world by assisting with the formulation of sanctions proposals that will increase the cost to Russia of invading Ukraine and that will support democratic Ukraine in defense of its territorial integrity and national sovereignty. Our working group is comprised of independent experts from many countries. We coordinate and consult with the Government of Ukraine and those governments imposing sanctions. This consultation process helps to inform our views, but our members express independently held opinions and do not take direction from or act at the behest of the government of Ukraine or any other government, person, or entity. All members of this working group participate in their individual capacity.

Executive Summary

Before discussing recommendations to improve and tighten energy sanctions on Russia in 2025, it is worthwhile to take stock of what sanctions have already achieved and what they can be expected to achieve. More broadly, there is ample analytical literature on the history and efficacy of sanctions. After all, they have been a tool of international diplomacy since at least the Peloponnesian War, and they have been wielded with increasing focus and severity during both world wars and thereafter. The sanctions regime against Russia departs from historical precedent neither in its fundamental conception nor in the expectations we should have regarding its objectives. However, sanctions on Russia have been very complex and comprehensive in their scope, targeting energy exports, imports of war-critical goods, financial links, and more.¹

When sanctions were imposed on Russia in the aftermath of its invasion of Ukraine—initially in 2014 but with much greater severity since February 2022—the rhetoric has often outpaced the reality of what might be achieved. Over two years into the sanctions regime, it is important to ground our sanctions policy on a sincere assessment of what has worked, what has not, and why, and not on unrealistic aspirations. The latter carries the danger of exhaustion and disappointment. At the same time, the former can lead to better policies and a broad understanding that defeating Russia’s war aims will require coordinating all tools at the disposal of Ukraine and its allies.

Stated plainly, sanctions alone—both historically and in this instance—are unlikely to deny Russia the ability to wage war, to convince Putin to retreat from Ukraine or to lead to the collapse of the Russian economy. Thus, the fact that none of these outcomes have materialized should not lead us to conclude that sanctions have been unsuccessful. Instead, sanctions should be seen as an integral part of a broader military and diplomatic strategy designed to weaken Putin’s ability to continue his invasion of Ukraine and thereby help Ukraine regain its sovereignty and maintain its democracy.

Energy sanctions are most significant due to the critical importance of oil and natural gas revenues for Russia’s budget and macroeconomic stability and thus Russia’s capacity to finance the war. Energy regularly accounts for half of Russia’s goods exports and one-third of its federal budget revenues. Ukraine’s allies have imposed a significant range of measures on Russia’s energy sector, including the G7+ oil price cap that has helped to reduce the money that Russia earns while ensuring global oil price stability, as well as partial or complete bans on imports of Russian oil, gas, and coal by several coalition countries, including the European Union.²

Although energy sanctions have had a noticeable impact, they face serious design and enforcement challenges, undermining the sanctions regime’s effectiveness and credibility. As energy market conditions have become looser, there is now a window of opportunity in which more significant sanctions pressure can be imposed on Russia without risking significant adverse effects on the countries enforcing them. With the war now entering its third winter, the situation on the frontline is extremely challenging, and further military support from Ukraine’s allies is not at all certain. Now is the time to push the envelope on economic sanctions.

¹ For our recommendations on sanctions more broadly, see the International Working Group on Russian Sanctions’ *Action Plan on Strengthening Sanctions against the Russian Federation* ([here](#)), *Action Plan 2.0: Strengthening Sanctions against the Russian Federation* ([here](#)), and *Action Plan 3.0: Strengthening Sanctions against the Russian Federation* ([here](#)). All of the group’s working papers can be found [here](#).

² For the group’s work on energy sanctions, see for instance, *Energy Sanctions Roadmap: Recommendations for Sanctions against the Russian Federation* ([here](#)), *Implementation of the Oil Price Cap* ([here](#)), *Using Energy Sanctions to Shorten the War* ([here](#)), and *Energy Sanctions: Four Key Steps to Constrain Russia in 2024 and Beyond* ([here](#)).

Because the incoming Trump administration is likely looking for some negotiated settlement in Ukraine, it is critical to increase pressure on Russia as much as possible in the coming months to put Ukraine and its allies in the strongest position possible vis-à-vis the Putin regime in any potential settlement. Ukraine's allies may also want to consider an entirely different approach to energy sanctions: increasing their own (and partners, e.g., Saudi Arabia's) supply of oil and gas to global markets, which would drive down prices and allow for the removal of Russian supplies from the market altogether.

Like military moves that elicit countermoves and diplomatic efforts that provoke counter-responses, sanctions must constantly evolve and adapt to prevent Russia's attempts to evade them and mitigate their effects. This paper proposes a targeted set of measures that would materially reduce Russia's energy revenues at a low cost to Ukraine's partners.

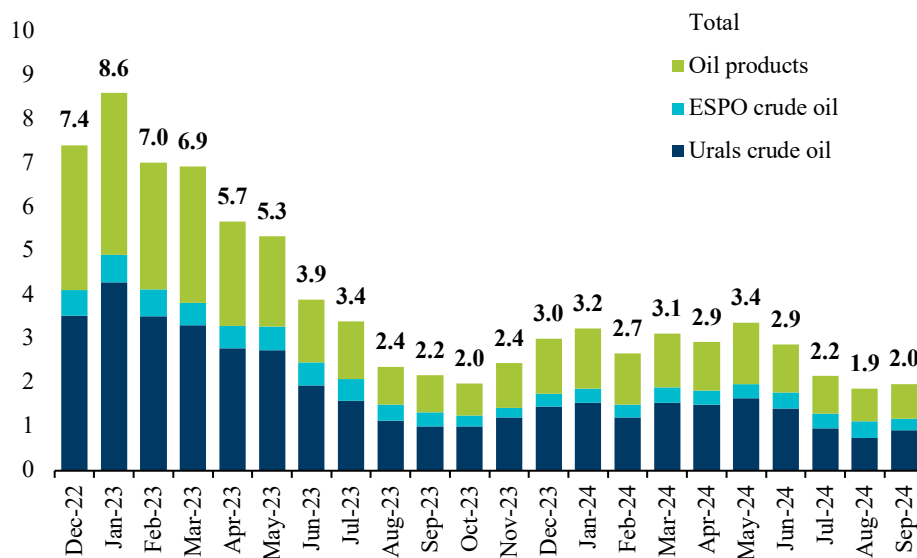
New steps that should be taken this year include (i) reining in Russia's shadow fleet through tanker designations to reinstate the price cap's leverage; (ii) improving compliance by addressing enforcement challenges related to the attestation system; (iii) reducing the levels of the price cap; (iv) completing the EU's ban on Russian oil and natural gas as much and as quickly as possible to deprive Russia of money and future geopolitical leverage; (v) addressing the refining loophole that allows Russian oil to reach coalition countries in the form of oil products; (vi) imposing sanctions on the Russian energy sector more broadly, including its nuclear industry; and (vii) banning the provision of energy-related services to Russia by coalition-based companies.

Impact Assessment of Existing Sanctions

Economic sanctions, including those in the energy sphere, have significantly impacted Russia. If further steps are taken, sanctions could meaningfully undermine Russia’s ability to continue its war of aggression against Ukraine in 2025. Evaluating what has worked and what has not is critical for designing additional, successful energy sanctions.

Energy sanctions have significantly reduced Russia’s oil and natural gas export earnings. Compared to 2022, when comparatively few restrictions on imports from Russia were in place in coalition countries and commodity prices soared due to geopolitical risks as well as the Putin regime’s attempts to weaponize energy, exports fell by roughly one-third in 2023, depriving Russia of \$114 billion in sales. Oil and gas exports are expected to remain broadly stable at their 2023 level in 2024.³ As goods imports recovered following a sharp drop in the first months of the war, this has resulted in a \$195 billion decline in Russia’s trade balance and a \$188 billion drop in its current account surplus in 2023 vs 2022. Especially in the first half of 2023, the EU embargo and G7+ price cap forced Russia to accept heavily discounted prices to attract new buyers for its oil, e.g., India. We estimate that these actions resulted in \$85 billion in lost exports from December 2022, when the price cap on crude oil took effect, to September 2024 (see Figure 1).

Figure 1: Export losses due to sanctions, in \$ billion

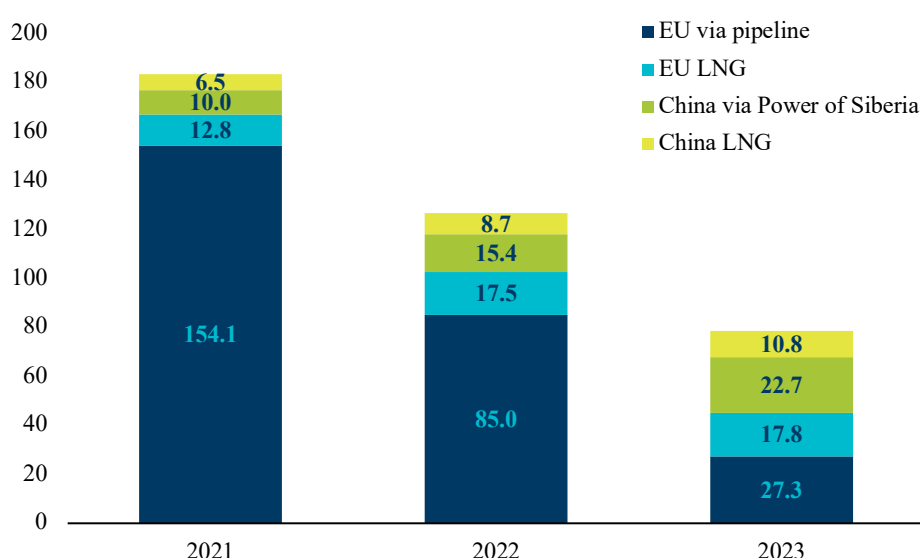


Source: KSE Institute

³ For an in-depth assessment of the Russian economy, see KSE Institute’s monthly *Russia Chartbook* [here](#).

Russia’s attempts to weaponize natural gas flows to Europe in response to the coalition’s support for Ukraine and the imposition of economic sanctions have backfired. Russia has effectively lost its previously most crucial export market—the European Union. Although Russia is searching for alternative buyers, infrastructure constraints mean that it has not been able to replace these lost flows (see Figure 2). From 2021 to 2023, EU imports of Russian natural gas dropped by 73% (or 122 billion cubic metres), driven by a collapse in pipeline flows (-82%, -127 bcm), while LNG deliveries increased (+40%, +5 bcm). Over the same period, exports to China more than doubled, but the difference in volume terms was only 17 bcm. In the short-to-medium term, any talks from Russia about building new, eastward-flowing pipelines (e.g., Power of Siberia 2) to replace its lost European customers are empty political declarations. Amazingly, the Kremlin’s disastrous energy policy has turned Gazprom from one of the world’s most profitable companies into a cash sinkhole. In 2023, losses amounted to \$7.3 billion (629 billion rubles, with operational losses from Gazprom’s gas business reaching \$14 billion (or 1.2 trillion rubles). To stay afloat, the company has had to borrow heavily in the domestic market (around \$22 billion) at rates above 20%, and domestic gas tariffs had to rise significantly.

Figure 2: EU natural gas imports from Russia, in bcm



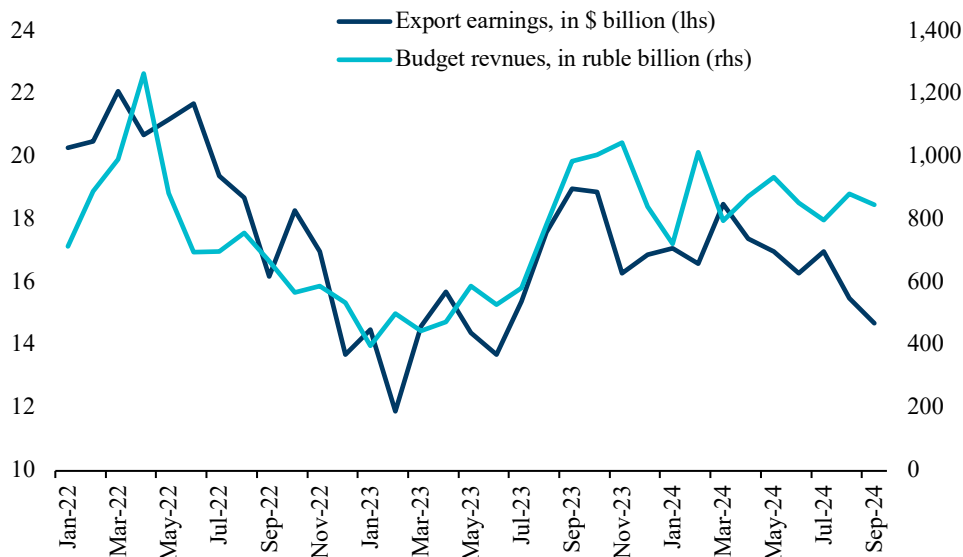
Sources: Bruegel, Eurostat, S&P Global, KSE Institute

Lower export earnings from oil and gas have eroded Russia’s macroeconomic stability and constrained monetary and fiscal policy. For instance, the ruble has lost more than 46% of its value vs. the US dollar (and 48% vs. the Euro) since mid-2022, which has put significant upward pressure on inflation and ultimately forced the Russian Central Bank (CBR) to increase interest rates dramatically. Such tighter monetary policy has produced painful side effects as it weighs on economic activity, hitting fiscal revenues and rising debt service costs. Following the CBR’s latest interest rate hike to 21%, Russian borrowers face real rates above 12% (if they do not benefit from subsidized loans), which will inevitably constrain consumption and investment. Lower budget revenues from oil and gas also forced the government to rely heavily on its Sovereign Wealth Fund (NWF) to finance the deficit. This has reduced macroeconomic buffers and created severe vulnerabilities. Russia’s loss

of export earnings—its previous main oil and natural gas market—and the knock-on effects on the economy are very serious constraints.

However, energy sanctions have not turned the tide of the war due to policy design and enforcement issues. After two-and-a-half years of Russia’s full-scale invasion of Ukraine and the most extensive and complex sanctions regime in history, Russia continues its brutal and illegal war. In this sense, sanctions have not “worked.” Sanctions are also yielding diminishing returns. Monthly losses in oil export earnings due to sanctions have declined from a peak of more than \$8 billion in January 2023 to an average of \$2 billion recently. This directly translates into more significant budget revenues for the Russian government to help finance the war against Ukraine (see Figure 3). The reduced effectiveness of sanctions is primarily a result of the build-up of a “shadow fleet” of oil tankers that have no links to the G7+, and, therefore, do not fall under the price cap.⁴ In recent months, more than two-thirds of Russia’s oil exports were transported with such ships, including more than 90% of crude oil (see Figure 4).⁵ The financial impact is significant. Over the first nine months of this year, the shadow fleet has allowed Russia to generate an extra \$8.4 billion in export earnings, with the total number for the post-December 2022 period reaching almost \$14 billion. This is more than Russia is estimated to have spent on these ships. Furthermore, enforcement of the oil cap has been hindered from the start by unreliable pricing data used by authorities in coalition countries.

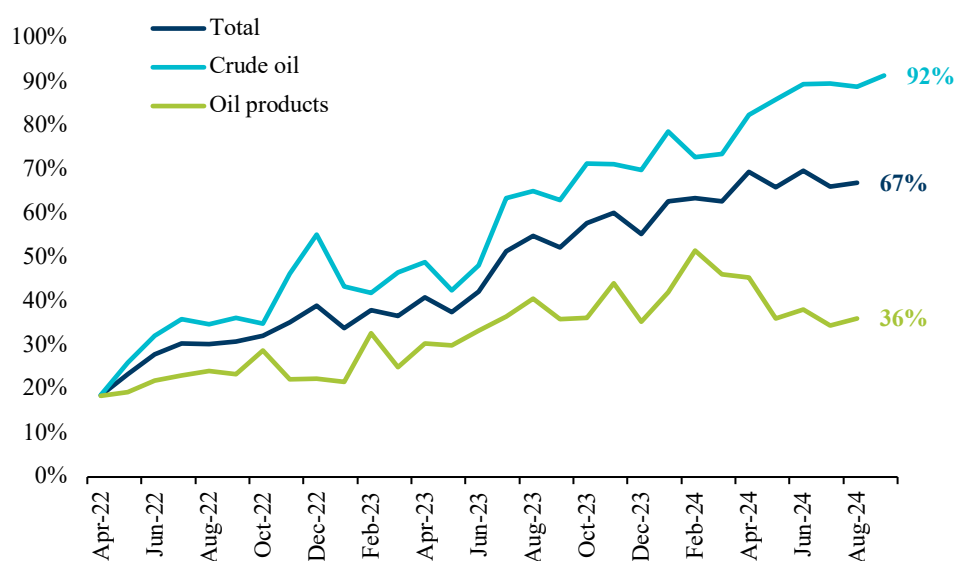
Figure 3: Oil export earnings and budget revenues



Sources: Bank of Russia, Ministry of Finance

⁴ For more information on the shadow fleet’s build-up, composition, activities, and related challenges, see KSE Institute’s reports *Assessing Russia’s Shadow Fleet* ([here](#)), *The Core of Russia’s Shadow Fleet* ([here](#)), and *Establishing ‘Shadow-Free Zones’* ([here](#)) as well as Craig Kennedy’s blog, *Navigating Russia* ([here](#)).

⁵ For an in-depth assessment of Russian oil exports, see KSE Institute’s monthly *Russian Oil Tracker* [here](#).

Figure 4: Percentage Share of Russian seaborne oil exports on shadow tankers

Source: KSE Institute

Sanctions have not achieved their ultimate objective due to coalition governments’ “pulling punches.” Any sincere evaluation of the record of energy sanctions must conclude that their limited effectiveness is a result of the inadequacy of existing measures and insufficient steps to enforce them. The decision to implement a price cap to maintain the flow of Russian oil to the market (instead of, for example, interdicting it entirely) inevitably limited the potential effect on Russian macroeconomic and fiscal stability. In addition, issues related to price cap enforcement (i.e., attestation fraud) have been known from the beginning but never adequately addressed. The sanctions coalition also observed the build-up of the Russian shadow fleet for some time—which did not come as a surprise as other sanctioned countries (e.g., Iran, Venezuela) have employed a similar strategy in the past—without taking decisive steps, including regarding the sale of tankers by G7+ owners to Russia or Russian-linked operators on the second-hand market. Furthermore, significant segments of Russian energy exports remained largely unaffected, including pipeline oil, products refined from Russian oil in third countries, and Russian natural gas (pipeline and LNG). Finally, coalition governments continue to allow companies in their jurisdictions to provide critical services to the Russian oil and natural gas industry.

At the same time, now there is a moment of opportunity to increase pressure on Russia in 2025.

Oil markets have already become looser. Gas markets will become much looser next year, increasing the scope to tighten energy sanctions on Russia without a broader adverse impact on energy markets and the global economy. The G7+ oil price cap was established to reconcile two potentially competing priorities: reducing Russian export earnings and budget revenues from oil while keeping Russian supplies on the global market lest its withdrawal spark a worldwide shortage and ensuing energy crisis. Fortunately, the international oil market is much better supplied today than in 2022 amid weaker Chinese demand, strong non-OPEC+ supply, and overproduction in several OPEC+ countries. Meanwhile, the LNG market is on the verge of a massive increase in supply, especially from the US

and Qatar. Given the coalition's improved position regarding energy supplies, we see the potential for further steps to constrain Russian revenues without the risk of causing a severe supply shock.

Steps to Increase Pressure on Russia

Energy sanctions can exacerbate the underlying vulnerabilities of the Russian economy, weaken macroeconomic stability, and erode the country's ability to continue its war of aggression against Ukraine. Importantly, these steps can be taken without imposing significant costs on the coalition of Ukraine's allies and partners. Four actions can be taken immediately: (1) strengthen the G7+ oil price cap, (2) impose further sanctions against Russian oil, (3) step up pressure on Russia's gas sector, and (4) weaken the Russian energy sector more broadly.

1. Strengthen the G7+ Oil Price Cap

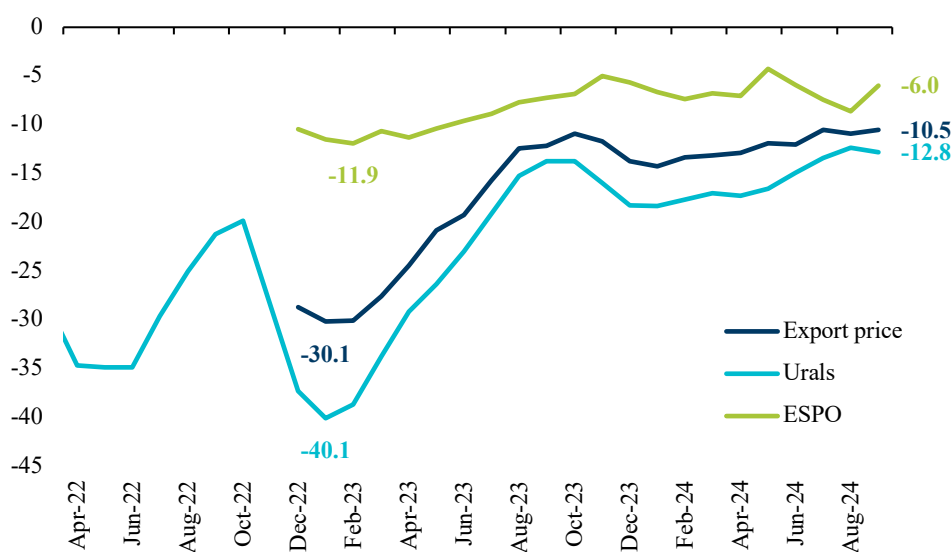
The price cap remains the sanction coalition's key instrument for constraining Russia's oil export earnings while keeping global prices stable by maintaining the flow of Russian oil to the international market. With import bans by the EU and other coalition countries, the price cap has had a meaningful effect on Russian export earnings by widening the discount Russia has been forced to offer to find new buyers for its oil. Russia is estimated to have lost \$85 billion in exports since the price cap took effect in December 2022 for crude oil and in February 2023 for oil products. However, monthly losses have eased due to the build-up of the shadow fleet and enforcement challenges related to the price cap. More broadly, the sanctions regime's waning effectiveness allowed Russia to benefit from high global oil prices. Restoring the price cap's leverage and ensuring its provisions are complied with is critical. In addition, Ukraine's allies should consider lower cap levels.

1.1. Restore the price cap's leverage by reining in the shadow fleet. The G7+ oil price cap is fundamentally under threat due to Russia's build-up of alternative export capacities that circumvent its restrictions—the so-called “shadow fleet.” Over the last two-plus years, Russia has spent roughly \$10 billion to acquire hundreds of tankers that it subsequently stripped of any restricted services relationships, including ownership, ship management, flagging, and (oil spill aka P&I) insurance originating in G7+ countries. As a result, Russia can export a large share of its crude oil (more than 90% of seaborne exports as of September 2024) with ships that do not fall under the price cap and thereby generate additional export earnings. Since the price cap took effect in December 2022, Russia has transported 1.56 billion barrels of crude oil on shadow tankers, with extra income from prices above the cap's \$60/barrel threshold amounting to almost \$14 billion—more than the estimated total cost of the shadow fleet's acquisition.

Sanction coalition countries have a powerful, underutilized tool to limit Russia's ability to evade the price cap while producing substantial sunk costs for shadow fleet operators: sanctions on individual ships. While measures targeting management companies have been evaded relatively easily by transferring ships to new entities, vessel designations have effectively removed shadow tankers from commercial operations altogether. To date, the US, EU, and UK have blocked sanctions on 93 tankers. Most of the sanctioned ships are now idle, representing essentially lost investments for their owners and operators. The sanctioned ships' total value is estimated to be at least \$2.5 billion. Additionally, designations have widened the discount that Russia must offer. However, the limited pace of the vessel designation campaign has allowed Russia to replace a

substantial share of the removed capacity, and the spread between global and Russian prices has narrowed to its lowest level since the start of the full-scale invasion (see Figure 5).

Figure 5: Discount to Brent of key Russian crude oil grades, in \$/barrel



Source: International Energy Agency

Sanctions on shadow tankers should significantly increase in the coming months to restore the price cap's leverage. In addition, tanker designations could be applied systematically to enforce a requirement to carry adequate oil spill insurance, thus addressing the significant and urgent threat posed to the marine environment by the shadow fleet. It is worth noting that previous rounds of vessel designation have only impacted Russian prices while leaving global ones unaffected.⁶ This is critical for policymakers, given the public's sensitivity to higher energy prices following soaring costs for households and companies in 2022. Sanctions on individual vessels also have the advantage of being gradually scalable. Coalition countries could target the ships most consistently used to transport Russian oil to interfere with operations. Another helpful tactic would be to focus on the most recently acquired ships to maximize sunk costs before they can be used to earn back the considerable initial investment.⁷

Now is the moment to sanction the entire Russian shadow fleet out of existence. With electoral considerations less pronounced now that the US presidential election is over and with the oil market in a situation of oversupply, policymakers should be less concerned about temporary distortions to global markets and prices. In addition, it is important to emphasize that spare capacity exists in many key oil-producing countries, including the US and Saudi Arabia, and that an unlikely but possible loss of Russian supplies could easily be replaced.

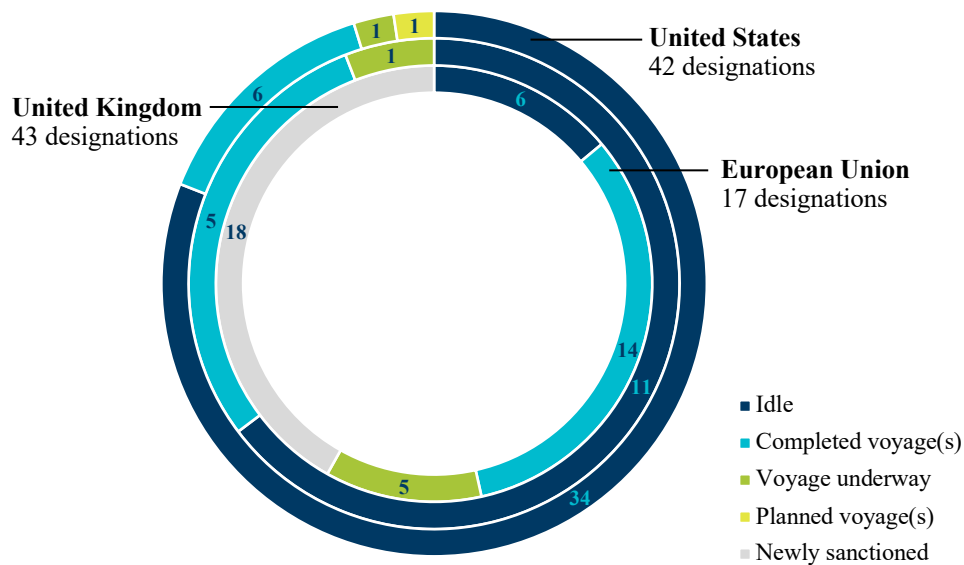
In this context, it is essential to maintain the credibility of the vessel designation campaign by acting against violators. While most sanctioned ships are out of service, some have conducted voyages. Any entities involved in these operations should face enforcement action (see Figure 6). This includes ship owners and operators, oil traders, cargo buyers, and financial institutions

⁶ See KSE Institute's report *Establishing 'Shadow-Free Zones'* [here](#).

⁷ See KSE Institute's report *The Core of Russia's Shadow Fleet* [here](#).

conducting transactions related to the shipments. Regarding the US, this is relatively straightforward because vessel designations come with an implicit threat of secondary sanctions. Other jurisdictions like the EU or UK, where sanctions do not have an extraterritorial component, need to establish legal instruments to go after violators. For instance, third-country entities could be targeted as the EU goes after intermediaries involved in export-controlled goods. Without strong action against parties that deal with sanctioned ships or their cargo, designations will lose their impact as actors adjust to the business risks involved.

Figure 6: Status of designated vessels by jurisdiction



Source: KSE Institute

1.2. Address enforcement challenges related to the attestation system. Beyond the shadow fleet, the price cap system suffers significant enforcement challenges. These are related to methods used to collect information on export prices so governments can detect violations. For this purpose, the price cap coalition created the so-called attestation system, through which actors with direct information on prices (e.g., commodities brokers and traders) affirm that a transaction took place at or below the price cap, and on which all other actors (e.g., ship owners and managers, insurers) rely. From the start of the price cap, it has been discovered that this pricing information has likely been falsified.⁸ The problem first emerged for exports from Russia's Pacific Ocean ports, where prices for Russia's Far East ESPO Blend consistently exceeded the threshold. It spread into the broader market when Urals crude oil prices rose above \$60/barrel in mid-2023.⁹

The fundamental weakness of the attestation system is that the prices are provided by entities that cannot be relied upon to enforce sanctions on Russia. After most Western trading companies left the market, the trade with Russian oil was taken over by direct subsidiaries of Russian oil

⁸ See *Russian Oil Exports Under International Sanctions* [here](#).

⁹ See *Bold Measures Are Needed as Russia's Oil Is Slipping Beyond G7 Reach* [here](#).

companies abroad (e.g., Litasco) or entities suspected to be linked to Russian interests. Given their apparent conflicts of interest, these actors cannot be trusted to provide accurate prices, which is critical for the sanctions' effectiveness. The price cap coalition should modify the regime so that only trusted "white-listed" traders (i.e., those with a reputation of integrity and regulatory compliance who fall under G7+ jurisdiction) are authorized to provide pricing information. For this purpose, Western oil traders must be reassured that they can re-enter the Russian oil trade without generating legal exposure. In addition, any criteria for establishing a "whitelist" must fully comply with competition laws.

1.3. Reduce price caps to step up pressure on Russia. Our International Working Group on Russian Sanctions has argued from the start that the price cap levels adopted by the G7+ were too high and that further pressure can be exerted on Russian export earnings without jeopardizing the supply of Russian crude oil and petroleum products to the global market.¹⁰ Assuming full compliance with the price cap, a \$10/barrel reduction in crude oil prices could reduce export earnings by more than \$17 billion over one year (based on average volumes in 2024). For petroleum products, a \$10/barrel reduction in the average export price amounts to a roughly \$10 billion fall in export earnings for an entire year. It is also important to recognize that the price cap for premium products (e.g., diesel, gasoline) was set so high that it has only ever constrained prices for a few months in mid-2023. It is now well above market prices, reflecting lower crude oil prices and refining margins.

Russia's incentive to produce and export would remain in place even at a much lower price cap for crude oil. Average production costs in Russia are estimated at \$10-15/barrel, with more expensive fields closer to \$25/barrel. In its last management report before the post-invasion suspension of their publication, Rosneft—Russia's largest oil company—listed capital costs of 713 ruble/barrel (\$9.7/barrel) and operating costs of 250 ruble/barrel (\$3.4/barrel) for 2021.¹¹ In addition, Russia remains heavily dependent on sales of oil in terms of export earnings as well as budget revenues. It, therefore, cannot retaliate against lower price caps by reducing supplies to the global market. While changes to the tax regime have shifted much of the burden from export duties to extraction taxes, Russia's lack of storage capacity means that reductions in export volumes will also quickly affect production levels. Whether exports would continue at a much lower price cap is not a theoretical claim. When the EU embargo reduced the price of Urals crude oil to around \$45/barrel in early 2023, Russia was willing to sell at that price to secure India as a new buyer and maintain export volumes. In our view, the incentive for Russia to produce and export even at much lower prices remains intact.

It is also important to remember that the current price caps were set in a very different market environment. Weak Chinese demand, strong non-OPEC+ supply, and deteriorating compliance among OPEC+ members, including Iraq, Kazakhstan, Russia, and the UAE, have led Saudi Arabia to abandon its \$100/barrel target and announce that the country would unwind its voluntary 1-million-barrel cut. As long as there are no significant disruptions in the Middle East, it is likely that the global market will be well-supplied at considerably lower prices in 2025. In this new environment, the price cap for crude oil should be reduced as prices slide to maintain a significant discount compared to market prices, for instance, to \$50/barrel or even lower.

¹⁰ See, for instance, *Working Group Paper #10: Implementation of the Oil Price Cap* [here](#).

¹¹ See [here](#).

Additionally, the petroleum products price caps should be reduced by at least the same amount, with a more aggressive reduction possible for the premium products cap. Furthermore, the discounted product price cap should also be applied to vacuum gas oil (VGO), a key element for refining crude oil into more valuable products.

2. Further Sanctions Against Russian Oil

The European Union (EU) - formerly Russia's most important fossil fuel customer - has significantly reduced its dependency on Russian oil, but some imports remain. Most significantly, pipeline flows are exempt from the embargo. Germany and Poland voluntarily decided to stop oil pipeline purchases, but three EU countries continue to purchase Russian oil -- the Czech Republic, Hungary, and Slovakia. With the Transalpine pipeline's extension due to be completed at the end of the year, crude oil imported through the port of Trieste should allow Czech refineries to replace Russian oil from the southern Druzhba pipeline entirely. The Czech government has committed to ending all Russian crude purchases by mid-2025. Other exemptions to the ban on crude oil and petroleum products are also being eliminated, with the derogation on liquefied petroleum gas (LPG) expiring at the end of the year. We propose further steps to complete the European ban on Russian fossil fuels and, more broadly, weaken the Russian oil industry.

2.1. Eliminate remaining imports by EU countries. The Hungarian and Slovak governments have stated they wish to continue buying Russian oil. However, they are also bound by the RePowerEU commitment to end all purchases of Russian fossil fuels by 2027. Oil from Russia is not needed to run the refineries in these two countries. There is more than adequate capacity to supply them via pipeline from Croatia. The European Commission should request a plan of action from authorities to end purchases of Russian crude by 2027 with offers of financial support for any needed adjustments and support in negotiating an acceptable import deal with Croatia. Offers of help should be accompanied by threats of punitive action, including taxes on any cross-border movement of fuels that cannot prove a non-Russian origin and fines and restrictions on access to EU funds if they fail to progress with credible plans. More generally, all coalition countries should reduce their imports of Russian oil to zero within a reasonable timeframe to ensure that Russia's war of aggression against Ukraine is not supported financially and to reduce Russia's ability to weaponize energy supplies.

2.2. Address the "refining loophole." To maintain an adequate supply to the market following the implementation of the EU embargo in 2023, coalition governments opted not to ban importing petroleum products refined from Russian crude oil in third countries. This is an element of the sanctions regime known as the "refining loophole." The thinking was that moving the refining process outside of Russia would generate added value abroad and thus cut into Russian revenues. Furthermore, the crude oil used by third-country refineries was supposed to fall under the price cap. However, the success of the shadow fleet has dramatically reduced the leverage of the price cap. That, coupled with overall enforcement challenges, leads us to believe that this strategy should be revisited. By buying products made from Russian crude oil, consumers in coalition countries indirectly pay Russia prices above the price cap. In addition, moving the value added

out of Russia does not work if Russian firms partially own refineries in third countries. For example, India's second-largest refinery in Vadinar, which Nayara Energy operates, is 49.13% owned by Rosneft.

The market situation has also changed. The oil market has become looser due to lower Chinese demand, strong non-OPEC+ supply growth, and compliance issues within OPEC+. There has been substantial growth in refining capacity, including the Dangote refinery in Nigeria and the Al-Zour refinery in Kuwait, and refining margins have fallen back from elevated levels. In this new context, there is room to be more aggressive on products refined from Russian crude oil. Specifically, we propose a prohibitively high tariff on all imports, lacking proof that they were made with oil from non-Russian origins. This would primarily create adverse effects for Indian and Turkish exports to the EU while supporting refineries in coalition countries.

3. Increase Pressure on Russia's Gas Sector

Natural gas is an area where Russia imposed high costs on Ukraine's partners by squeezing supplies in 2021-22 in an effort to deter Europe from supporting Ukraine. As a result of its blackmail campaign, Russia drove European gas and power prices to unprecedented levels. Russia had the leverage back then, reflected in the fact that sanctions were not imposed on Russia's gas sector until 2023. The situation looks very different now. Russia has lost most of its traditional export market for natural gas in Europe and has been unable to replace it with new customers. As a result, Gazprom, once one of the world's most profitable companies, accumulated a loss of \$7.3 billion in 2023, with its gas business incurring losses of \$14 billion. Russia tried to launch the new Arctic LNG 2 project in 2024 but was quickly shut down after failing to find anywhere to send its output due to sanctions. Today, as global LNG supply increases significantly in 2025-26 and the market becomes looser, there is a new window of opportunity for sanctions to be tightened significantly at a relatively low cost for those imposing them. Moreover, it is critical for the EU to fully realize its RePowerEU commitment to end purchases of Russian fossil fuels by 2027. We have several proposals for tightening sanctions on Russian gas, which could reduce export earnings by ~\$20-25 billion per year.

3.1. Reduce flows of Russian natural gas to Europe. The EU is currently on track to import more natural gas from Russia in 2024 than in 2023, driven mainly by a noticeable increase in LNG deliveries. In the context of a much looser liquified natural gas (LNG) market expected in the coming years, which will help to minimize the impact on European customers, the paramount objective now should be to reduce imports of Russian gas as much as possible so that Russia loses further export earnings as well as its ability to blackmail Europe over natural gas flows. One crucial question relates to gas transit through Ukraine, which is set to stop at the end of this year when the current transit contract with Russia expires. Ukraine's government has publicly committed not to seek any arrangement that would allow flows to continue. Having declined dramatically in recent years, 14 bcm are currently sent via Ukraine's pipeline network per year despite the war. While we respect Ukraine's decision, we believe the optimal outcome would be to first cut other Russian gas supplies to Europe. This would allow Ukraine to benefit from transit fees for as long as any Russia gas finds its way to the EU while also giving Ukraine control over any remaining Russian gas transit into Europe.

There should be two conditions for any extension of the transit agreement. First, the EU should turn its transshipment restrictions regarding Russian LNG, which will enter into force in March 2025, into an outright ban on all LNG purchases from Russia. This would remove a similar volume as the end to Ukraine transit while reducing the impact on global prices as some of the banned LNG would find buyers elsewhere. Second, all flows through TurkStream to Europe should be routed via the Trans-Balkan pipeline (part of the so-called Vertical Gas Corridor aimed at supporting flows of LNG from Greece to Ukraine) so that they would flow through Ukraine before reaching any buyers (see Figure 7). If agreements are reached to end EU imports of Russian LNG in 2025 and progress is made on the investments required to allow all flows of Russian gas into Europe from Turkey to be taken via Ukraine from the end of 2026, Ukraine could consider a temporary extension of the current Ukraine transit contract.

Figure 7: Map of the Virtual Corridor Initiative



Source: Gas Transmission System Operator of Ukraine

One way of achieving this outcome would be for the EU to sanction Gazprom, thereby releasing European companies from their current contracts while issuing a waiver for the Commission to permit it to serve as the only European entity allowed to receive deliveries of Gazprom pipeline gas. The Commission could then receive the gas either at Sudzha on the Ukraine-Russia border or Strandzha-2 on the Bulgaria-Turkey border, where the gas would be redirected through Ukraine on its way to European buyers. Consequently, imports of Russian pipeline gas would be effectively controlled by Ukraine and the European Commission, making it much harder for Russia to undermine EU solidarity by offering cheap gas to Russia-friendly governments.

3.2. Target the Russian LNG sector more broadly. Russia has ambitions to become a leading LNG player. With a massive expansion of global LNG export capacity in the works and many

more projects close to approval, this is the right moment to end such plans and push Russia to the margins of this global market, thereby hitting future Russian energy revenues and limiting its geopolitical influence. Russia would have to sell at heavily discounted prices while being unable to secure funding for future LNG projects. To achieve this outcome, a series of measures are necessary: (i) further sanctions on companies involved in new Russian LNG projects such as Arctic LNG 2 and Murmansk LNG to prevent Russia from producing material volumes at new plants as well as sanctions on any vessels that seek to load at Arctic LNG 2; (ii) an EU ban on LNG supplies by Gazprom, which would severely hit the Portovaya LNG plant; (iii) a comprehensive ban on entities from coalition countries to provide services to the Russian LNG sector; (iv) a comprehensive ban on EU imports of Russian LNG, perhaps from June 2025, once new US LNG plants have started production; (v) a ban on imports of Russian LNG by Ukraine's allies in Asia, including Japan, Korea, and Taiwan after winter 2025/26; and (vi) a ban on any vessels transporting LNG from Russia's LNG projects, notably Yamal and Sakhalin, from entering coalition ports starting in 2027.

3.3. Introduce an ammonium fertilizer tariff. Russian exports of ammonium fertilizer to Europe, produced with Russian natural gas, have increased since the start of the full-scale war. Given the significant spare capacity in fertilizer production in Europe today, now is the right time to impose a substantial tariff on Russian ammonium fertilizer exports to Europe and other coalition countries. The tariff should be high enough to make Russian ammonium fertilizer, produced with cheap Russian gas sold below market prices, uncompetitive with fertilizer produced in Europe, which uses natural gas at market prices.

4. Weaken Russia's Energy Industry

While oil and natural gas are critical to Russian export earnings and budget revenues, Russia's energy industry, more broadly, should also be targeted. This means imposing comprehensive sanctions on the energy industry (including companies currently exempt), restricting the nuclear sector, and banning the provision of energy-related services altogether.

4.1. Sanction entities in the Russian oil and gas sector. If countries in the sanctions coalition cease purchasing Russian oil, exempting entities within the Russian oil industry from restrictions will no longer be necessary. As we previously proposed, coalition governments should sanction all critical companies in the sector, including Gazprom and Rosneft. Gazprombank, which plays a crucial role in energy payments, should also be blocked. These sanctions should be imposed at the holding company level and on all the leading trading and production entities to be effective. Such broad sanctions can also help persuade countries like Hungary and Slovakia to complete the Russian oil and gas ban since such measures raise the cost of doing business with Russian entities. The sanctions could also expose MOL, the Hungarian state-owned oil firm that serves as the vital conduit for remaining Russian oil and gas sales to Europe, to the risk of secondary sanctions for facilitating sanctions evasion.

4.2. Sanction the Russian nuclear sector. In our previous paper on sanctioning Rosatom and Russian nuclear services, we argued that Western dependency on Russian nuclear fuel services, particularly enrichment and conversion, created a vulnerability in a critical sector of an adversary.¹² We proposed the expansion of Western nuclear capacities, especially in enrichment and conversion, as well as sanctions to eliminate this dependency. We also argued that Rosatom contracts with Soviet legacy reactors, mainly in Eastern Europe, for nuclear assemblies should be replaced with contracts with alternative Western suppliers. We further noted that Rosatom's network of international projects was an important source of Russian influence.

Some progress has been made, with expansion projects in enrichment and conversion underway in some Western countries that will reduce dependency on Rosatom over time. For instance, France's Orano has announced a 30% increase in uranium enrichment capacity in France by 2028 and has plans to build a new facility in the US. The UK's Urenco has announced an investment in a new facility to produce enriched uranium by 2031, backed by government funds. In addition, several European countries—including Bulgaria, the Czech Republic, Finland, and Slovakia—have announced plans to move away from Rosatom as a supplier of nuclear assemblies. The US also has sanctioned some Rosatom subsidiaries and officials.

At the same time, Russian nuclear exports increased to Europe and the US in 2023, perhaps reflecting a desire to build stockpiles, given uncertainty about future access to Russian supplies. Unfortunately, Hungary has also continued to build a new nuclear plant in cooperation with Rosatom. Sanctions on Rosatom personnel directly involved in the illegal occupation of the Zaporizhzhia NPP in Ukraine have been way too limited. More generally, coalition countries, particularly in the EU, seem to be cautious about sanctioning Rosatom, given lingering dependencies on Russia in the nuclear fuel cycle and broader nuclear industry.

Most immediately, we propose sanctions to accelerate the disentanglement of the Western nuclear industry from Rosatom, including (i) personal sanctions on people in the chain of command involved in the occupation of the Zaporizhzhia NPP, including the management board and board of directors of the Rosatom holding company, as well as comprehensive personal sanctions on Mikhael Kovalchuk, the head of the Kurchatov Institute, a close associate of Putin's, a vocal supporter of the war and Putin's key official on nuclear matters, who is currently only sanctioned by the UK and Canada; (ii) a ban by all coalition countries on new contracts for the supply of nuclear fuel services by Rosatom; and (iii) a tariff set at a significant level on the supply of Russian nuclear fuel services to coalition countries to incentivize the investment for a transition from Russian supplies to Western alternatives.

As alternative Western nuclear fuel supplies come on line and dependency on Rosatom is eliminated, coalition governments should also ban Russian nuclear services and fuel supply on national security grounds and sanction all Rosatom subsidiaries. Further, coalition-based nuclear companies should cooperate to compete against Rosatom in the developing world by offering attractive contracts based on Western standards. At the diplomatic level, governments should also work closely with the IAEA to ensure that Russia is not offering a backdoor to nuclear latency through its programs to build nuclear power stations in other countries.

¹² See *Working Group Paper #8: Rosatom and Civilian Nuclear Power* [here](#).

4.3. Ban the provision of energy-related services. Actions taken by the US against the Arctic LNG 2 project have shown that the continued involvement of companies from coalition countries in Russia can be leveraged to constrain Russian oil and gas production and exports. Russia relies on companies based in the sanctions coalition for access to advanced oil field services, which cannot be easily replaced with domestic systems or infrastructure from countries such as China. Many service providers have announced limitations on their operations in Russia or exited, but some—notably the industry leader SLB, formerly Schlumberger—continue to operate in the country and generate significant revenues for the Russian government. The precise details of their ongoing Russian operations are challenging to determine from public disclosures. In recent years, however, Russia has increasingly relied on SLB’s more advanced hardware and software products and support services to maintain productivity in Russia’s increasingly challenging upstream environment. Despite various initiatives to develop domestic alternatives to these high-end products, the Russian industry has made little progress.

Targeting such products and services should not interfere with global energy markets as it does not need to affect the volume of Russian production. Concerns regarding Russian production levels are significantly exaggerated. Sanctions can meaningfully drive-up development and production costs as Russia will need to rely on less advanced technology for its more challenging fields. Since Russia invaded Crimea and the Donbas in 2014, Russia has been facing challenges regarding the development of new oil and gas fields due to sanctions imposed. Since the start of the full-scale invasion in 2022, many foreign companies have pulled out of their remaining projects and exited Russia. The departure of their investments and expertise is taking its toll.

However, continued operations of Western companies in Russia’s oil and gas sectors benefit only the shareholders of those companies while harming the interests of Ukraine and its allies. More must be done. We propose that coalition countries announce that from January 1, 2025, their companies will be prohibited from providing any services to the Russian oil and gas sector, which should be broadly defined to include petrochemicals, as well as exploration, extraction, refining, processing, and transportation of hydrocarbons in the Russian Federation or on behalf of a company controlled by individuals or corporate entities based in Russia or Belarus, unless they have been issued a specific license to provide such a service by an authorized coalition agency by that date. In addition, countries in the sanctions coalition should require full public disclosure from their companies of any Russia-related contracts and associated profits generated by participation in the Russian oil and gas sector.

4.3. Increasing Capacity for Robust Sanctions Enforcement. Even when political leaders have sought to close loopholes and robustly enforce existing measures, the scale of the Russia energy sanctions regime—which, along with other sanctions and export controls measures enacted on Russia, represents the most significant single sanctions regime ever pursued in history—has lacked an adequate number of sanctions officials to ensure enforcement. We recommend that the US Department of the Treasury, US State Department, US Department of Energy, and US Department of Commerce, along with other relevant US government agencies, work to significantly increase staffing to a level commensurate with the robust enforcement of such a complex and globe-reaching regime. Likewise, the European Commission should finally create and robustly staff a similar enforcement body to ensure vigorous Russia sanctions enforcement, and these models should be followed at the national level across Europe. Significantly increasing

the number of trained professionals allocated to sanctions enforcement is requisite to ensuring Russia is held to account for its aggression against Ukraine and hybrid warfare against the West more broadly.

Conclusion

Energy sanctions have had a considerable impact on Russia. They have reduced export earnings from oil and gas by \$114 billion (or 33%) and budget revenues by 2.8 trillion rubles (or 24%) in 2023 vs. 2022, contributing to significant ruble depreciation, higher inflation, rising interest rates, and reduced policy space. However, Russia has found ways to circumvent some of the most essential restrictions, including the G7+ oil price cap, with the result that export earnings and budget revenues rose again and could increase further. This paper has proposed further steps to respond to these developments and meaningfully step up pressure on Russia in 2025. These include:

First, to counteract Russia’s increasingly successful efforts to evade the oil price cap, we propose a significant increase in the number of shadow tanker designations by the coalition and a requirement that price attestations be issued by actors on an approved “whitelist,” which excludes any entities under Russian control or suspected to be linked to Russian interests. We believe that now is the time to effectively sanction the shadow fleet out of existence and ensure that the credibility and effectiveness of the price cap—the key instrument in oil sanctions—is restored.

Second, to strengthen sanctions in the context of looser global oil and gas markets, we propose to ratchet down the oil price caps to maintain the discount on Russian oil vs. global prices, to impose prohibitive tariffs on imports of oil products made from Russian crude oil into coalition countries, and to ban LNG deliveries to Europe in 2025. Furthermore, we argue that any remaining flows of Russian natural gas into Europe should be directed through Ukraine’s pipeline system (via the Vertical Corridor initiative) starting in 2027, providing Ukraine with leverage and a source of revenue.

Third, we argue that the Russian energy sector should be targeted more broadly by comprehensively sanctioning oil and gas companies and the nuclear industry and by prohibiting the provision of energy-related services altogether. Russia appears committed to continuing its war of aggression against Ukraine for the foreseeable future, and the threat to peace and security in Europe is unlikely to disappear any time soon. Therefore, Ukraine’s allies must also develop a consistent medium-term strategy, which goes beyond simply reacting to Russia’s most recent sanctions evasion efforts.

If President-elect Trump and his incoming administration are serious about negotiating a settlement for the war in Ukraine, it is absolutely critical to increase pressure on Russia as much as possible in the coming months to strengthen the negotiating position of Ukraine and its partners.

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