

OIL, GAS, AND WAR:

The Effect of Sanctions on the Russian Energy Industry

by Vladimir Milov



Russia's full-scale invasion of Ukraine in February 2022 challenged much of the common Western understanding of Russia. How can the world better understand Russia? What are the steps forward for Western policy? The Eurasia Center's new "Russia Tomorrow" series seeks to reevaluate conceptions of Russia today and better prepare for its future tomorrow.

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TABLE OF CONTENTS

INTRODUCTION	2
THE IMPACT OF SANCTIONS: A BRIEF OVERVIEW	3
GAZPROM IN LIMBO: NO SUBSTITUTES FOR THE LOST EUROPEAN MARKET	5
THE OIL INDUSTRY: SURVIVING IN DIFFICULT ASIAN MARKETS	10
THE G7 OIL-PRICE CAP IS NOT WORKING	13
LNG: A LIFELINE FOR PUTIN	14
THE RUSSIAN BUDGET: NO MORE SUPER PROFITS	16
THE GLOBAL SOUTH AND THE LIMITS OF COOPERATION	18
RUSSIA'S DIMINISHED ABILITY TO USE ENERGY AS A WEAPON	19
WHAT IS TO BE DONE? RECOMMENDATIONS FOR POLICYMAKERS	21
CONCLUSIONS	23
ABOUT THE AUTHOR	25

INTRODUCTION



In the two-plus years since Russia's full-scale invasion of Ukraine, the United States and its allies have imposed approximately two thousand sanctions on Russian corporations, financial institutions, and individuals. But while the sanctions have been broad, sweeping, and in some cases unprecedented, the discussion about their level of efficacy is still ongoing.

This is particularly true for the industries that comprise the lifeblood of the Russian economy—the oil and gas sectors. While Russia's hydrocarbon revenues have been significantly affected by Western sanctions, this impact has varied significantly across sectors.

Assessing the real impact of sanctions on these vital industries, and calibrating them to have the maximum impact on Vladimir Putin's ability to continue financing and waging his war of aggression, will require policymakers to understand these nuances—to understand what has worked, what has not, and why.

Primarily, this requires an understanding of how the effect of sanctions has varied between the oil and gas industries. It also requires an examination of other relevant factors, most notably the role of China, other Asian markets, and the Global South in mitigating the negative impact of sanctions. It also requires an understanding of the role liquified natural gas (LNG) has played in Putin's efforts to evade sanctions.

THE IMPACT OF SANCTIONS: A BRIEF OVERVIEW

➤ **T**he impact of Western sanctions differs not only between the oil and gas industries, but also between natural gas and LNG. There is also a significant divergence between the negative impact of sanctions on the Russian oil and gas industries on one hand, and the impact on state budget revenues on the other.

It should be stressed that the decoupling of Gazprom from the European gas market was mostly caused not by the Western sanctions—the European Union (EU) did not introduce an embargo against Russian natural gas as such—but, rather, by Gazprom’s self-imposed cutoff of piped-gas supplies to most EU member states.¹

The Russian natural-gas industry, primarily Gazprom, has struggled with the consequences of decoupling from the EU market, as it lacks a viable business model to compensate for the loss. The oil industry, on the other hand, has managed to weather the sanctions better, albeit with significant loss of revenue due to heavy price discounts in Asian gas markets and sharp increases in the cost of shipping oil to Asia.

The party that has suffered the most from Western sanctions, however, is Russia’s state budget, which saw its revenues from oil and gas decline 24 percent in 2023 compared to 2022.

This has forced the authorities to consider serious tax hikes on the oil and gas industry to compensate for the losses and enable Putin to finance the war in Ukraine. Such a move would hurt investment and could result in subsequent output decline.

While piped-gas exports to Europe have decreased dramatically, Russia continues to export significant amounts of LNG to the EU unabated, resulting in significant revenue. Unlike Gazprom’s piped-gas exports, however, LNG exports are largely untaxed, meaning the government does not receive direct revenues from them. But for reasons that will be discussed in greater detail below, the Russian state has other means to extract rents from LNG exports to finance the war—notably through windfall taxes.

¹ For simplicity, this report will not provide a separate disclaimer for this while assessing the overall impact of developments from the past two years on the Russian oil and gas industry. Most of the time, the report will refer generally to “sanctions” and “decoupling from European markets.”

Sanctions and decoupling from European oil and gas markets have also significantly reduced Russia's ability to use energy as a tool of political pressure against Western democratic countries. However, as will be discussed in greater detail below, this capability has not been eliminated entirely.

In what follows, this report will discuss each of these trends in greater detail, beginning with Gazprom, which has suffered the most serious consequences from Russia's standoff with the West and faces nothing short of a full reinvention of its entire business model.

GAZPROM IN LIMBO: NO SUBSTITUTES FOR THE LOST EUROPEAN MARKET

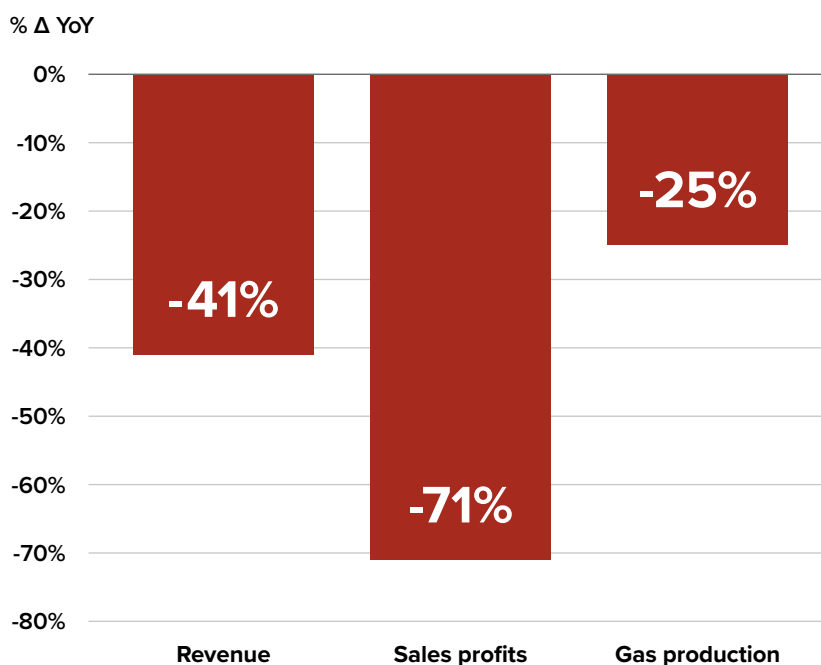
➤ **R**ussia's natural-gas giant Gazprom has suffered enormously from cutting ties with Europe, formerly its largest market. As noted earlier, the termination of gas supplies to Europe happened not because of sanctions, but due to voluntary actions by Russia. In mid-2022, Gazprom cut off gas supplies to Europe through most of the export-pipeline routes, clearly aiming at creating political and economic problems for EU countries ahead of the 2022–2023 winter season.

The Kremlin's hopes didn't materialize. Despite rising gas prices, the EU managed to successfully navigate the winter and, in the process, find alternative long-term sources of gas imports. This allowed Europe to free itself from most Russian piped-gas imports, without even imposing sanctions on Gazprom.

Gazprom's lost revenue and profits turned out to be enormous.

According to the **company's own reporting**, Gazprom's revenue fell by 41 percent year-over-year in the first half of 2023, while sales profits fell by 71 percent and **gas production** by 25 percent. In the first quarter 2024, Gazprom **reported** a net loss of almost \$7 billion in 2023, marking its first annual loss in more than 20 years. Moreover, Gazprom's upstream gas-production base is now isolated because infrastructure connecting its main western Siberian fields with alternative Asian markets is lacking. Gazprom also failed to build any LNG plants in western Siberia, which, before the imposition of sanctions, would have enabled the company to reroute natural gas to alternative markets.

Chart 1. Gazprom's Self Reported Losses (January–July 2023)



SOURCE: RBC

Gazprom does not disclose the estimated construction costs of new pipeline infrastructure to China, but it would probably require at least \$100 billion given the company's experience constructing the existing Power of Siberia pipeline. That pipeline, which connects western and eastern Siberia and also delivers gas supplies to China, is considerably shorter than a proposed new pipeline, known as Power of Siberia-2, which would pipe gas from western Siberia to China.² That raises the fundamental question of whether Russian gas supplies to China will ever be profitable.

Gazprom refuses to publish any data on gas-supply prices to China via Power of Siberia, but data published by Reuters, citing obtained internal materials of the Russian government, **suggests** that the average annual price of piped gas supplied to China was \$297.30 per thousand cubic meters (tcm) in 2023 and will be \$271.60 in 2024. Prices for 2023 were also not published, but the officially disclosed **volume of supply** was 22.7 billion cubic meters (bcm), and **the cost** of Chinese imports of piped gas from Russia was \$6.4 billion. Thus, the average 2023 gas-supply price from Russia to China was \$282/tcm (in 2020–2022, the price was well below \$300/tcm).

This means that Russia is, in fact, most likely selling gas to China at a significant loss. When the contract to deliver gas to China via the Power of Siberia pipeline was signed in 2014, the average gas-supply price was set in the range of \$350–

² The potential route of the Power of Siberia-2 gas pipeline from western Siberia to China via Surgut, Kemerovo, Krasnoyarsk, and Irkutsk is discussed here: <https://neftegaz.ru/news/transport-and-storage/724605-gazprom-predvaritelno-opredelil-trassirovku-gazoprovoda-do-kitaya/>.

380 per tcm. Even at that price level, Gazprom had requested that the Russian government effectively zero out all major taxes for the Power of Siberia project—claiming that the project would not be profitable unless near-total tax exemptions were provided. The exemptions were granted and, as a result, the mineral-extraction and property taxes were **forgiven** for fifteen years until 2035. In reality, the price of gas supplies to China via Power of Siberia never even reached \$300/tcm, and **many analysts** believe they do not generate any profits.

That suggests that Russian gas supplies to China may not become profitable for the foreseeable future. China is clearly **not expected** to need additional gas supply until after 2030, and that appears to explain why Beijing is not interested in granting Gazprom any kind of price premium for new gas-supply contracts. Moreover, China has alternatives: domestic Chinese gas production, LNG, and imports of piped gas from Central Asia.

Speaking at the Eastern Economic Forum in September 2022, Vladimir Putin **admitted** that “our Chinese friends are tough bargainers,” which is why agreeing with Beijing on gas-supply price parameters “is never so easy.” More than a year later, there is still no indication that an agreement on gas supplies via the proposed new Power of Siberia-2 pipeline project is imminent. This is despite Putin’s promise made in September 2022 (and reiterated in March 2023 during a summit with Xi Jinping in Moscow) that Russia and China are “close” to signing a gas contract for Power of Siberia-2.

The lack of agreement on Power of Siberia-2 reflects the fundamental dilemma Gazprom faces: China is just not ready to buy Russian gas at a price that will be profitable for Moscow.

Moreover, the shipment distance for gas produced in western Siberia and shipped via the proposed Power of Siberia-2 pipeline will be significantly lengthier than that of Power Siberia-1, which means that Gazprom would need a significantly higher sales price than even \$350/tcm to make any money from gas exports to China. At the very least, gas exports to China will not deliver any notable revenues to the Russian state budget.

Gazprom’s overall business model has been shattered by its decoupling from the European gas market. Most of the company’s profits came from the EU and, with its significantly lower gas prices, Russia’s domestic gas market just can’t deliver comparable profits. Building new gas-pipeline infrastructure to China, as discussed above, would require enormous capital investments, without offering obvious profits. Building a pipeline to deliver gas to India and other South Asian countries doesn’t seem viable given the complicated mountainous terrain and geopolitical challenges with potential transit countries like Afghanistan. Moreover, Gazprom **suspended** the construction of planned new LNG projects due to lack of access to critical Western technology.

In this situation, Gazprom attempted various measures aimed at containing gas output, expanding domestic gas demand, and seeking customers elsewhere, but with marginal results. It is not difficult to cut gas production given that the bulk of output comes from matured western Siberian fields, with a significant share of low-pressure gas from depleted reservoirs that require booster measures to

increase well productivity. In many cases, it is simply enough to cancel additional booster activities to minimize production.

But finding alternative gas markets with comparable profitability to that of the lost European market will inevitably prove challenging. Russian Deputy Prime Minister Aleksandr Novak has formulated an ambitious program aimed at boosting Russian domestic natural-gas demand, including an **accelerated program** of gasification for Russian regions, the expansion of small-scale LNG, and boosting natural-gas use as engine fuel for the transport sector.

At the same time, Gazprom, through its lobbyists in the State Duma, is **actively lobbying** for the full liberalization of natural gas prices for domestic Russian consumers, with an exemption for households. But even with such a policy change, Russia's domestic gas market is not capable of delivering profits even remotely comparable to those Gazprom received from the EU in the past. Also, significant growth in domestic gas prices will impede Russia's fragile economic recovery, which is why the government will most likely intervene and cap Gazprom's domestic gas price if it goes too far.

Gazprom is also actively trying to find new export consumers or to boost exports through existing pipelines. But these efforts have also met with little success. For example, Gazprom has signed a new contract with Uzbekistan, but it amounts to just **3 bcm per year**, with scant prospects for growth. Since the full-scale invasion of Ukraine in February 2022, Gazprom has also been trying to set up a "gas hub" scheme with Turkey. This is effectively a "gas laundering" operation that involves mixing Russian gas with Azerbaijani or Iranian gas and then reselling the rebranded product to Europe via Turkey. But the project has been **stalled** due to wrangling between Moscow and Ankara over who would control the hub and trading schemes, as well as over concerns about the EU's response.

All this leaves Gazprom in limbo for the foreseeable future. The domestic gas market and potential alternative piped-gas export markets will not be able to make up for those lost from the EU market, and the development of LNG exports so far remains blocked due to lack of access to critical Western technology.

This has ramifications for Russia's budget, as Gazprom was a major source of tax revenue before the invasion of Ukraine. In 2021, the last year when Russia published detailed reporting on budget revenues, Gazprom's share of federal budget revenues exceeded 7 percent, but it was estimated to be only about half of that share in 2023.³ These revenues are not recoverable in the foreseeable future, as Gazprom's "super profits" from the European gas market were taxed heavily and LNG exports are largely exempt from taxation.

³ Detailed data on this are classified since the beginning of the full-scale invasion of Ukraine, but this estimate is based on known information about the decline of gas output and exports.

THE OIL INDUSTRY: SURVIVING IN DIFFICULT ASIAN MARKETS

➤ **T**he Russian oil industry has weathered sanctions much better than Gazprom has, largely because it doesn't suffer from the infrastructure limitations that exist in the gas industry. Russian oil can still be shipped via seaports to Asian markets, albeit with discounts and at a higher cost. Additionally, the industry is benefiting from a lighter tax burden that was introduced in response to falling oil prices. However, the government is planning to gradually raise taxes.

Oil output has contracted **only slightly** as compared to the pre-war period, by 1–2 percent. Russia **currently produces** about 10.5 million barrels per day (mbd) of crude oil, as opposed to just over 11 mbd before the war.

However, it should be noted that there are no verifiable and detailed public data on actual Russian oil output. We are therefore forced to rely on official aggregated figures. The general assumption among experts is that Russia has reduced its oil output in the past year by approximately 500,000 barrels per day (kbd) according to an agreement on oil-supply cuts within the Organization of Petroleum Exporting Countries Plus (OPEC+), which includes ten non-OPEC members including Russia. The exact figures remain unknown because the Russian government **classified** oil-production data following the full-scale invasion of Ukraine. But generally, in contrast to the gas industry, Russia has continued to produce oil more or less at pre-war levels.

The Russian oil industry has, however, suffered from significant revenue and profit losses due to the EU oil embargo. From December 2022 through March 2023, for example, Russia's average monthly Urals crude-export prices have fallen to \$48–50 per barrel due to the steep price discounts demanded by Asian consumers.

Russian oil exporters have managed to reduce these Asian discounts. In the second quarter of 2023, Urals oil prices rebounded to \$55–58 per barrel. They exceeded \$60 per barrel in July 2023 and reached \$80 per barrel in September 2023. Overall, Asian price discounts for Urals oil **have been reduced** to \$10–12 per barrel. Since November 2023, after the US Government has exerted some sanctions enforcement pressure on oil shippers and traders, discounts for Russian oil shipped to Asia grew again - they now stand at about \$17 per barrel,

but the **average price** of the Russian Urals oil export crude was around \$68 per barrel in April 2024, well above the G7 oil price cap.

Oil-price level is not the only parameter influencing the profitability of Russian oil exports to Asia. Another is the significantly higher cost of shipping oil to Asian markets. For instance, there's a reason why Russia barely exported any crude-oil volumes to India before the full-scale invasion of Ukraine. It takes approximately a month for an oil tanker to travel from Russia's Black or Baltic Sea ports to India. In contrast, it takes just a few days to ship oil to Genoa or Rotterdam. Shipping oil to India also involves passing through additional bottlenecks, such as the Suez Canal or Bab al-Mandeb Strait, where tankers risk delays due to traffic and incur additional demurrage and insurance costs. Per the author's estimates (as exact figures are unavailable), the extra costs of shipping Russian oil from Novorossiysk or Primorsk to India vary in the range of \$10–15 per barrel, significantly reducing the efficacy of exports to India and other Asian destinations.

Russia has also established a so-called "shadow fleet" of oil tankers with obscure ownership and jurisdiction. It also sought to use third-country intermediaries and traders to sell oil to Asian destinations or even resell it to Europe, circumventing sanctions. But while such schemes may yield revenues for some Russian-affiliated shell companies, these revenues are not very large (just a few dollars per barrel). These profits also do not add revenues to the Russian state budget because oil exports are taxed according to officially available crude-oil price numbers and these shadow operations abroad are not visible to the Russian tax authorities.

In 2023, Russia adopted a **new mechanism** of gradually increasing the oil-export price used for taxation, in an apparent effort to force oil companies to negotiate lower discounts with consumers. However, all these accounting tricks do not change the fundamentals of the situation, and paying too much attention to them is a distraction. Russian oil-export revenues throughout 2023 have largely been determined by the overall dynamics of the international market, and the declining discounts for Russian crude resulted from markets becoming significantly tighter due to the Saudi-led OPEC+ oil-output cuts **announced** in the spring of 2023.

Due to rebounding export prices, Russian oil revenues have normalized in the third quarter of 2023, following a sharp plunge early in the year. Nevertheless, it is also clear that rerouting oil exports to Asia has created additional cost burdens for Russian oil exporters. Another significant issue involves the relations between Russian oil majors and the Western oilfield-services companies working in oil-reservoir management, such as Baker Hughes, Halliburton, Weatherford, and SLB. Some of these announced they were leaving Russia following the full-scale invasion of Ukraine.

It is beyond the scope of this report to discuss which of these oilfield-services companies have kept their word and actually left Russia. What is important is that they possess unique technologies for oilfield-reservoir management and enhancing the productivity of oil wells, which can't be substituted by Russian, Chinese, or other third-party technologies and know-how. Most of the oilfield stock of Russian oil companies is matured and depleted fields with difficult reservoirs in western Siberia, the Urals, and other regions. Therefore, using cutting-edge

Western technology remains critical to maintaining the productivity of oil wells and overall levels of oil output.

At the end of the 1990s and the beginning of the 2000s, the massive outsourcing of Russian oilfield services to these Western companies led to dramatic increases in productivity. For example, the average Russian oil well **increased production** from approximately fifty-five barrels per day in 1995 to more than seventy-five barrels by the mid-2000s, a productivity growth of more than one-third. Should Western oilfield services completely depart Russia, this may result in comparable loss in average well productivity and, as a result, overall oil production. There are, however, strong indications that at least some of the Western oilfield-service companies **continue to work** with the Russian oil industry, reneging on their promises to leave.

THE G7 OIL-PRICE CAP IS NOT WORKING



It is clear that the oil-price cap the Group of Seven (G7) imposed on Russia in September 2022 is not working. Russia has continued to easily sell oil exported via the Eastern Siberia-Pacific Ocean oil pipeline to China at a price **well above** the \$60-per-barrel limit, effectively ignoring the price cap. Moreover, the Russian Finance Ministry **reports** that even the price of Urals crude shipped through Black and Baltic Sea ports has exceeded \$60 per barrel. As said above, as of March 2024, Russia continued to export crude oil priced well above the \$60 cap. When the oil-price cap was introduced, the G7 countries lacked sufficient capacity and legal authority to monitor the thousands of shipping, trading, and insurance transactions Russian oil-exporters use—particularly those outside the G7’s jurisdiction.

As a **US Treasury Department press release** put it, the Treasury Department simply hoped that “nonparticipating countries’ goal is to get the lowest price for buying oil, and the price cap will give them additional leverage in their negotiations with Russia.” However, this did not happen. When market prices went up, Russia was able to sell its crude **above the price cap**, switching mostly to traders, shippers, and insurers operating outside the G7 regulatory jurisdiction. Widespread price-cap evasion schemes are **thriving** due to a loose regulatory framework that does not require insurers and shipowners to know any pricing information about the oil shipped.

It is questionable whether the G7 will be able to enforce its oil-price cap at all, given these circumstances. At the very least, G7 countries will need to significantly beef up their sanctions-enforcement capacity. Hundreds of additional employees will be needed to monitor the thousands of transactions related to Russian crude-oil exports to ensure compliance with the oil-price cap. Unless these additional staffing measures are taken, and are accompanied by relevant legal action against companies involved in breaching the oil-price cap, enforcement will just not happen. It remains an open question whether the G7 countries will ever be able to do anything about Russia’s “shadow tanker fleet” or other shell companies engagement in trading, shipping, and insurance transactions, which are operating fully outside the G7 regulatory jurisdiction. It was the EU oil embargo, and not the price cap, that truly worked against Russian oil exports.

LNG: A LIFELINE FOR PUTIN

➤ **W**hile the EU nearly stopped purchasing piped gas from Gazprom following the full-scale invasion of Ukraine in February 2022, Russia's LNG exports to Europe in 2023 **surged** by about 38 percent as compared to the pre-war year of 2021; the EU imported **about 22 bcm** of Russian LNG in 2023. Remarkably, after the United States, Russia is Europe's largest supplier of LNG.

Despite Russia's increasing presence on the LNG market, Gazprom is not involved. The key Russian LNG exporter is Novatek, the country's second-largest natural-gas producer. In 2022, Novatek exported **more than 76 percent** of the LNG produced by its Yamal LNG project to Europe. Overall, Russia currently exports **more than 50 percent** of its LNG to Europe, compared to just 39 percent in 2021.

These exports are not a major source of budget revenue for Russia as Novatek's LNG production and exports are largely untaxed, enjoying a twelve-year exemption from mineral-extraction taxes and export duties. Nevertheless, such massive LNG exports to Europe are a major source of revenue for Russia, totaling up to 10 billion euros per year, and can be used by Putin to finance the war against Ukraine. For example, the Russian government has **raised the profit tax** on Novatek from 20 percent to 32 percent for 2023–2025. The draft budget for 2024 also contains hints that the authorities may impose certain one-time payments on oil and gas companies, including Novatek, in 2024. The European Union is not currently considering sanctioning Russian LNG, which means that the revenue flow will likely continue uninterrupted in 2024.

Novatek also managed to continue with a massive project called Arctic LNG-2 (ALNG-2), despite some initial difficulties accessing critical Western technology due to sanctions. Western companies such as Linde, Technip, and Baker Hughes left the project after February 2022, but Novatek managed to either assure the supply of previously contracted equipment or to find alternative Chinese suppliers. However, after **sweeping US sanctions** were introduced against the ALNG-2 project in November 2023, the project was effectively **brought to a halt**, which undermines Russia's plans to expand LNG exports in the coming years and show the effectiveness of individual sanctions against specific oil and gas projects.

THE RUSSIAN BUDGET: NO MORE SUPER PROFITS

➤ **D**espite rebounding oil prices and the G7 oil-price cap not working, Russian oil and gas budget revenues were significantly down in 2023, **contracting** by 23.9 percent year-over-year. By comparing pre-war figures from 2021, the contraction of oil and gas revenues becomes even more visible. While the average oil price in 2021 and 2023 is comparable, oil and gas budget revenues have fallen precipitously. In 2021 they were 6.8 percent of GDP and accounted for 35.6 percent of total budget revenues; in 2023 they were just 5.3 percent of GDP and 30.9 percent of total budget revenues (see Table 1).

Table 1. Oil and Gas Revenues of the Russian Federal Budget

	2021	2022	2023
Average Urals oil price (dollars per barrel)	69.1	76.1	63.4
Oil and gas revenues of the Russian federal budget (billion USD under average annual exchange rate)	115.0	172.8	104.0
Oil and gas revenues of the Russian federal budget (as percentage of GDP)	6.8	8.0	5.3
Oil and gas revenues of the Russian federal budget (as percentage of total budget revenues)	35.6	42.1	30.9

SOURCE: Russian Ministry of Finance, federal budget projections

While oil-export revenues recovered in the second half of 2023, as discussed above, gas-export revenues appear lost for the foreseeable future. LNG revenue exports are not sufficient to compensate for the loss of piped-gas exports to the EU. Moreover, rerouting of oil shipments to Asia reduces the profitability of oil exports. It is, therefore, reasonable to expect that Russian oil and gas revenues will be significantly depressed due to Western sanctions and Gazprom's decoupling from the European gas market. And barring a sharp rise in oil prices, these super profits will not return.

Russian budget revenues from oil and gas fell 55–58 percent in the first two quarters of 2023 as compared to the same period in 2022. In the third quarter of 2023 they recovered to nearly 2022 levels, although this is largely due to higher international prices resulting from output cuts announced by Saudi Arabia in the spring of 2023. Had Saudi Arabia maintained its previous levels of oil production, Russian revenue losses would have been significantly higher.

According to the 2024 federal budget projections, Russian government is nevertheless forecasting 29.8-percent year-over-year growth in oil and gas revenues in 2024, despite not projecting a significant rise in oil prices. The draft budget projects average oil prices for 2024 at \$71.30 per barrel. The government has hinted that it may impose a one-time windfall tax on the oil and gas industry, although the nature of this tax remains unclear. Such a tax, combined with the increased cost of oil shipments to Asia and the loss of productivity due to the lack of access to Western technology, will have a negative impact on upstream capital investments, putting additional pressure on the industry.

THE GLOBAL SOUTH AND THE LIMITS OF COOPERATION

➤ **A**fter February 2022, Russia placed a lot of hope in developing energy cooperation with China, India, and the Global South. More than two years in, these hopes appear to be in vain. Investors do not appear interested in entering the Russian oil and gas sector, and the switch to Chinese technology and equipment has proven significantly more costly than working with Western companies.

Russia had high hopes that exiting Western oil and gas majors would be replaced by investors from the Global South. But thus far, there have been no significant oil and gas investments from China, India, or the Middle East since February 2022. This is largely due to fears of secondary sanctions and excessive wartime regulations, which increase the risks of investing in Russian assets.

Notably, Chinese and Indian companies were not rushing to invest in Russia even before the full-scale war. According to data from the Russian Central Bank, the total accumulated foreign direct investment (FDI) in Russia from all Chinese investors across all sectors totaled just over \$3 billion at the end of 2021. For investors from India, the total was just \$600 million. And no new FDI from the Global South has been recorded since.

Moreover, some Chinese companies even suspended certain operations in Russian oil and gas and related industries. The Chinese petroleum and chemicals firm Sinopec, for example, **suspended** talks with the Russian petrochemical company Sibur regarding a major investment and gas-marketing venture in the spring of 2022.

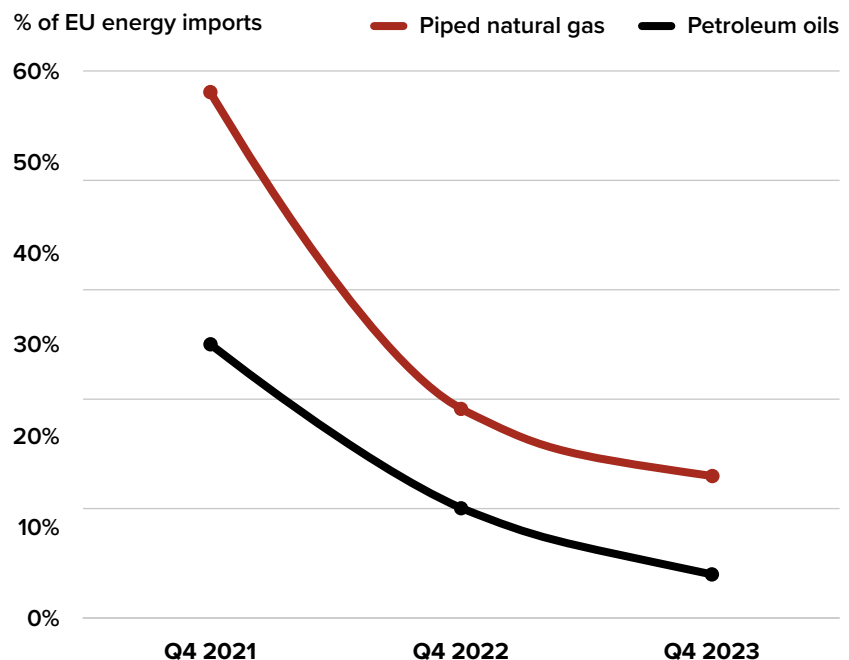
Switching to Chinese technologies and equipment to replace the departing Western technology companies has also proven costly. Novatek, for example, has reported a 17-percent (nearly \$4-billion) **increase** in capital expenditures for the Arctic LNG-2 project due to switching from Baker Hughes turbines to Shanghai Electric equipment. Similar cost increases and losses in productivity can be reasonably expected across the Russian oil and gas industry.

China, India, and the countries of the Global South seem more interested in taking advantage of the current situation and buying Russian energy at a discount than they are in investing in Russia's oil and gas industries.

RUSSIA'S DIMINISHED ABILITY TO USE ENERGY AS A WEAPON

➤ **D**ecoupling of Western markets from Russian oil and gas has seriously undermined Moscow's ability to use energy as a weapon against Western democracies. According to the European Commission, the Russian share of EU imports of petroleum oils fell to 3.5 percent in the fourth quarter of 2023, down from 24.8 percent in the fourth quarter of 2021. The **share** of piped natural gas fell to 12.7 percent from 48.0 percent across the same period. This all significantly reduces Russia's leverage over European countries through oil and gas supplies.

Chart 2. Russia's Share of EU Energy Imports



SOURCE: Eurostat

Some EU countries, most notably Hungary and Slovakia, continue to buy Russian oil and gas. Not surprisingly, these countries remain the **least favorable** to keeping sanctions against Russia and aiding Ukraine. In Slovakia, this became even more visible when the pro-Putin politician Robert Fico became prime minister

after the October 2023 elections, but Hungary and Slovakia remain outliers in the EU.

Central Asian energy exporters, on the other hand, are much more vulnerable to Russia's energy blackmail. Kazakhstan, which exports about 80 percent of its crude oil through Russian territory and seaports via the Caspian Pipeline Consortium, is particularly vulnerable. Establishing an alternative export route to Europe will be difficult for Kazakhstan, as it would require investing in and developing a tanker fleet in the Caspian Sea. In 2022, Russia **threatened** to shut down the Caspian Pipeline Consortium on regulatory grounds in an apparent effort to assure Kazakhstan's loyalty amid the international backlash over Ukraine.

WHAT IS TO BE DONE? RECOMMENDATIONS FOR POLICYMAKERS

➤ **H**ow can Western policymakers make sanctions against Russia's oil and gas industry more effective?

First, it is important to understand that Russian oil-export revenues have been rebounding recently not because the EU oil embargo is ineffective. In fact, the embargo is working. It has led to a sharp increase in costs of shipping Russian oil to consumer markets in Asia (more than \$10 per barrel, according to the author's estimate). It has also led to price discounts, which remain at levels above \$10 per barrel. The key factor contributing to increasing Russian revenues from oil exports is the spring 2023 OPEC+ decision to cut oil output. Therefore, one key focus for Western policymakers should be to put diplomatic pressure on OPEC members and other oil-producing states to increase oil output.

The EU should also tighten sanctions against Russian oil transshipment through its territorial waters. This would further complicate the logistics of rerouting Russian oil to Asian markets. This matters, because the bulk of Russian oil is still exported via Baltic and Black Sea ports, as direct pipeline infrastructure to Asia is insufficient and its expansion requires huge investments.

The G7 oil-price cap on Russian oil is clearly not working. Several steps would, at least partially, increase the efficiency of the price cap, including

- increasing the number of professional staff permanently dedicated to monitoring Russia's export-oil shipments (currently, the job is mostly done by outside experts, journalists, and investigators, while the tens of thousands of transactions involved require regular monitoring and analysis to uncover price-cap evasion schemes);
- introducing secondary sanctions against third-country insurers, traders, and shippers who are helping Russia evade the price cap; and
- improving the mechanism of "attestation" of transactions ensuring compliance with the price cap. This involves assuring that shipowners and insurers are provided with sufficient pricing information by the buyers and sellers of the Russian crude to make sure that the oil is sold below the price cap.

Regarding piped-gas imports from Russia, the European Union should keep asking the EU member states that are still buying gas from Russia for specific plans to phase out Russian imports. Countries like **Italy**, which continue to receive certain volumes of Russian piped gas, are promising to end Russian gas imports quite soon, others, like **Hungary** and **Austria**, continue unrestricted imports of Russian gas, reaching and even exceeding pre-war import levels. At the same time, these countries have made little progress in renewable-energy production or reducing gas demand. EU unity on singling out Gazprom's gas supplies is essential to continue minimizing Putin's export revenues.

The EU should also unequivocally reject the import of natural gas from the so-called "energy hub in Turkey." This project is nothing more than an attempt to launder Russian gas supplies by mixing them with gas from other producers like Azerbaijan and Iran. Turkey should be sent a clear message that laundering Russian gas will not be tolerated. Any contracts for gas supplies via Turkey to the EU should be concluded directly with suppliers, and not through opaque intermediary schemes that might assist Russia.

The EU also needs a comprehensive policy on LNG imports from Russia. These imports may be necessary in the short term to fill the gap left by the cessation of Russian pipeline-gas imports. Nevertheless, the surge of Russian LNG imports to the EU in 2022–2023 is not normal and generates significant revenues for Russia (which may also be used to finance the war through emergency windfall taxation). The EU needs a clear schedule to phase out Russian LNG imports. It should also accelerate its efforts to **develop offshore natural-gas production**, particularly in the Mediterranean and Black Seas, as an alternative to Russian gas in the medium and longer term.

The G7 countries should also conduct a comprehensive critical oil-and-gas technology review. Such a review would identify critical technologies Moscow still has access to that may assist Russia in sustaining its oil and gas exports and evading Western sanctions. It could also provide policy recommendations for additional sanctions, including secondary sanctions against third countries where appropriate.

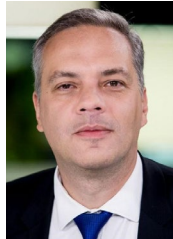
CONCLUSIONS



It is reasonable to conclude that sanctions have had a significant impact on the Russian oil and gas industries and the budgetary revenues that come from them. And it is wrong to conclude that sanctions are not working—they are. However, much more work must be done to enhance the effectiveness of sanctions.

Also, for the purpose of setting realistic goals and expectations, it is important to understand that the Russian oil and gas industries and Russia's public finances are too strong and resilient to simply collapse under the weight of sanctions. They haven't collapsed yet, and probably won't in the foreseeable future. But they are suffering enormous difficulties due to sanctions and decoupling from the Western energy markets. Over time, this is likely to result in further loss of investment, output, efficiency, and revenue.

ABOUT THE AUTHOR



Vladimir Milov is a Russian opposition politician, publicist, economist, and energy expert, and recently served as an economic and international affairs adviser to the late Russian opposition leader Alexey Navalny. He is also vice president of the Free Russia Foundation, an international organization supporting civil society and democratic development in Russia based in Washington, D.C. From 1997 to 2002, Milov had worked with the Russian Government, including as Deputy Energy Minister in 2002. He was the author of the concept of breaking up and unbundling Gazprom vetoed by Vladimir Putin. Later, Milov became one of the major public critics of Vladimir Putin, working closely with late opposition politician Boris Nemtsov, and later with Alexey Navalny. He is a research associate at the Wilfried Martens Centre for European Studies in Brussels, vice president of the Free Russia Foundation (Washington, D.C.). Milov is currently based in Vilnius, Lithuania.



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