ECONOMISTS FOR UKRAINE

POLICY BRIEF #3

Inside Russia's Wartime Economy: Adaptation, Vulnerabilities, and Policy Implications

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Executive Summary

Key Messages

1. Russia poses a lasting security threat to Europe, making it necessary to degrade its capacity to continue the war in Ukraine rather than accommodate its maximalist objectives.
2. Russia's economic and manpower constraints are more binding than the Kremlin acknowledges. Targeted pressure on its largest revenue sources—oil and gas—as well as on other critical enablers such as Chinese support and gold sales could meaningfully influence decision-making.
3. Further weakening the Russian economy is both in democracies' strategic interest and well within their capabilities. By contrast, relaxing existing measures would likely prolong the conflict and erode Europe's long-term security.

Core Recommendations

1. **Replace the oil price cap with a full transport ban**: prohibit any tanker that has loaded Russian crude or petroleum products from accessing Union ports or maritime services and encourage other major importers and exporters to join Union restrictions.
2. **Close the maritime route for Russian LNG:** deny Union ports and maritime services to any carrier that has loaded Russian LNG and work with partner countries to adopt parallel restrictions.
3. **Open a market-access track with China**: offer phased reductions in Union trade barriers in exchange for verifiable curbs on Chinese support for Russia's war effort.
4. **Cut off Russia's ability to monetise its gold reserves**: tighten origin-verification at the refining stage to prevent reclassification of Russian-mined gold, and extend secondary sanctions to refiners, traders and financial institutions in key intermediary jurisdictions.

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Strategic Context

At no point since launching its full-scale invasion of Ukraine in 2022 has Russia shown a credible willingness to engage in meaningful negotiations or to compromise on its maximalist demands regarding Ukraine. Instead, Moscow continues to insist on conditions that are incompatible with a sustainable peace in Europe. Among these are (1) the annexation of internationally recognized Ukrainian territory, including areas Russia does not fully control militarily; (2) severe restrictions on Ukraine's armed forces; (3) no credible security guarantees, leaving the country vulnerable to renewed aggression; and (4) the replacement of Ukraine's government with one aligned with Russian interests. Therefore, genuine negotiations with Russia are not currently feasible.

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This reality leaves Ukraine's Western partners with two broad strategic options. One is to pressure Ukraine to accept Russia's maximalist demands in order to end the fighting. The other is to work toward ending Russia's ability to continue waging the war. Even if the first option were to "succeed" in the short term by ending hostilities, it would almost certainly fail to produce lasting stability. Accepting Russia's demands would reward aggression and create strong incentives for future military action—not only against Ukraine, but potentially against other European countries, such as the Baltic states. It would also likely intensify ongoing hybrid operations, including cyberattacks, sabotage, and disinformation campaigns, as tools to further destabilize European security.

A common counterargument is that, even if Russia poses a long-term security threat in principle, the war has weakened it sufficiently that it cannot credibly act on that threat in practice. But predictions about Russian restraint have a poor track record—few analysts believed the full-scale invasion of Ukraine was likely—and the same reasoning is now being applied to whether a battered Russia will stop after Ukraine. A settlement that leaves Russia's military-industrial complex intact would free up the capacity currently consumed by Ukraine—personnel, weapons production, industrial mobilisation—and make it available for aggression against the Baltic states, Moldova, expanded hybrid operations against Union territory, or a renewed offensive against Ukraine itself after a period of rearmament. The relevant question is not whether Russia can attack tomorrow, but whether it will retain the capacity to do so in five or ten years. On current trajectory, the answer is yes.

This brief therefore focuses on the second strategic option: degrading Russia's economic capacity to sustain the war in Ukraine, which will also limit its ability to threaten the rest of Europe. That focus directs attention to the near-term outlook and to the vulnerabilities most relevant to Russia's war effort.

Russia routinely justifies its extreme demands by asserting that its victory is inevitable and that its economic resources allow it to prosecute the war indefinitely. As with many official Russian claims, these assertions are highly overstated. The Russian economy has displayed greater resilience to sanctions than many initially expected, but the absence of a collapse so far should not be interpreted as evidence of unlimited capacity or structural immunity.[2] Russia's war in Ukraine is becoming increasingly costly across all dimensions, from manpower to capital. Russia's unemployment hit a record low, signifying a tight economy and labour shortage. Its entire war economy rests precariously on a very limited set of external factors—chiefly continued oil and gas revenue and implicit economic backing from China (e.g., Becker et al. 2026). A significant weakening of either of these pillars of support would seriously undermine Russia's ability to sustain prolonged military operations.

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Historical experience shows that highly distorted wartime and authoritarian economies can absorb shocks for extended periods before failing abruptly once critical constraints are reached. Russia's ability to sustain the war reflects not inherent economic strength but the scope and enforcement limits of Western sanctions to date, which have allowed key revenue streams and adjustment mechanisms to persist. Even without changes to the sanctions regime, Russia's economy remains vulnerable to a range of shocks—including stagflation or recession as military stimulus tapers, declining energy demand or prices, Ukrainian strikes on export infrastructure, reduced Chinese support, and financial-sector stress from politically directed lending to defence firms. Tightening sanctions would compound these vulnerabilities, accelerating the point at which Russia's economic constraints become binding on its war effort.

Russia's capacity to sustain the war

Overview

Since the full-scale invasion in February 2022, Russia has spent hundreds of billions of dollars on the war against Ukraine, with on-budget military expenditure reaching USD 190 billion (over 7 percent of GDP) in 2025 alone. This is almost certainly an underestimate, because the headline figure omits (1) the directed, below-market credit banks are pressured to extend to defence producers, which surfaces as corporate debt rather than budget outlays, (2) enlistment bonuses that are funded through regional budgets, and (3) military spending

[2] It is also worth noting that Russia actively obscures the true state of its economy, and official statistics should therefore be treated with caution. Throughout, we interpret available data with this caveat in mind.

concealed within ostensibly civilian budget lines, which the heavy classification of the defence budget makes hard to detect (Kennedy 2025).

Because war-related spending now constitutes a significant share of Russian economic activity, its current economic strategy has been described as "military Keynesianism": the use of elevated defence spending to stimulate economic activity (e.g., Snegovaya et al. 2025). It is true that government spending on military goods, services, and investment can boost GDP and generate spillovers to consumption and other parts of the economy. But that boost is finite: demand stimulus raises real output only while spare capacity exists. Once an economy runs up against its supply-side constraints, additional spending is absorbed by inflation or a contraction in civilian output rather than converted into growth. Russia has largely reached that point: with acute labour shortages and record-low unemployment leaving little slack, further military outlays increasingly translate into price pressures and the crowding-out of civilian activity rather than real economic growth (Gorodnichenko, Korhonen and Ribakova 2024). Furthermore, a large share of the military spending is concentrated on assets likely to be destroyed soon after they are created, so it builds little productive capital and contributes little to longer-run growth.

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Since 2022, Russia's broader productive capacity has also weakened. The exit of many Western firms has had lasting effects on Russia's ability to grow. Although Russian firms that took over the Western assets—many of which were expropriated from Western firms by the Russian government—benefited from them, this large-scale nationalization is likely to hamper economic performance. Constraints on access to advanced inputs, management expertise, global supply chains, and export markets have reduced productivity more generally. As a result, much of Russia's existing capital stock is now underutilized or operating below its potential, weakening medium-term growth prospects even where headline output appears resilient.

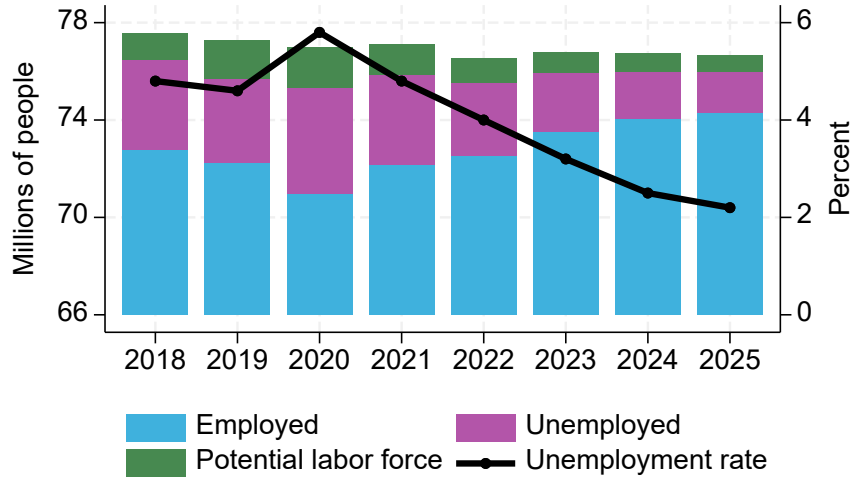
Government pressure on banks to extend credit to firms involved in military production effectively shifts part of the war's financing off-budget, increasing contingent liabilities and weakening the financial sector. This practice implies that public debt and fiscal risks are higher than headline statistics suggest, while also leaving Russia's banking system more exposed to future stress (Kennedy 2025).

Russia's labour market

Russia's labour market is under growing pressure. The potential labour force has more than halved between 2021 and 2025, falling from about 3.7 million to 1.7 million persons (Figure 1).[3] The official

[3] The increase in employment apparent in Figure 1 is likely partly or entirely due to members of the armed forces being included in that number, as per international labour statistics guidelines. Additionally, there may be some double-counting

unemployment rate has fallen to a record low—from 4.8 percent in 2021 to 2.2 percent in 2025, roughly half the 4.5 percent natural rate estimated by Russian economists as of 2024. The divergence from the natural rate points to overheating and underlying economic stress, as firms struggle to fill vacancies, wages rise without commensurate productivity gains, and non-military economic activity is increasingly constrained.



The conscription and voluntary recruitment of well over a million working-age men have strained the civilian labour force, contributing to acute shortages in key sectors.

Figure 1. Trends in Russia's labour market, 2018–2025.

Source: *Rosstat (2026a).*

Underlying these trends is a continuous outflow of working-age men into the military. The conscription and voluntary recruitment of well over a million working-age men have strained the civilian labour force, contributing to acute shortages in key sectors. Russia is suffering heavy losses—roughly 35,000 killed or wounded monthly—that must constantly be replaced if it wants to continue waging the war. Cumulatively, nearly 1.4 million Russian servicemen have been killed or seriously wounded since the start of the full-scale invasion, a largely permanent withdrawal from the working-age labour force. The share of permanent withdrawals is also rising, as the ratio of fatalities to wounded has worsened from roughly 1:2–1:3 in earlier years to nearly 2:1 in 2025.

Labor force participation in Russia has remained broadly flat over the past five years. The principal way for Russia to raise it to try to address labour shortages would be the large-scale activation of youth—including students—and older workers through targeted federal programmes. But the scope for this is limited by unfavourable demographic trends, skill mismatches, health-related constraints among older workers, regional labour market frictions, and the fiscal costs of

of employed individuals, as employers may report mobilized individuals among their employees due to job-protection rules. Unfortunately, we lack data to confirm these hypotheses.

such activation policies. In any case, these groups would only partially alleviate shortages, particularly in sectors requiring specialised skills or physically demanding work. As a result, labour constraints are likely to become an increasingly binding limitation on Russia's economic growth, raising the likelihood of prolonged stagnation.

An additional drain on Russia's labour force is outmigration. Figure 2 shows annual immigration by Russian citizens into OECD countries from 2015 to 2024, with total flows in black and the male component in pink.[4] Through 2021, both series were broadly stable at roughly 1.1–1.2 million per year, of which about half a million were men. The full-scale invasion produced a sharp break: total flows rose to over 1.4 million in 2022 and 2023 before falling back to pre-war levels in 2024. Almost all of the post-invasion increase in outflows was accounted for by men, whose annual flows climbed by around 200,000 between 2021 and 2023. The male skew is consistent with working-age men leaving in connection with the war, although the data do not allow direct inference about migrant age or motivation.

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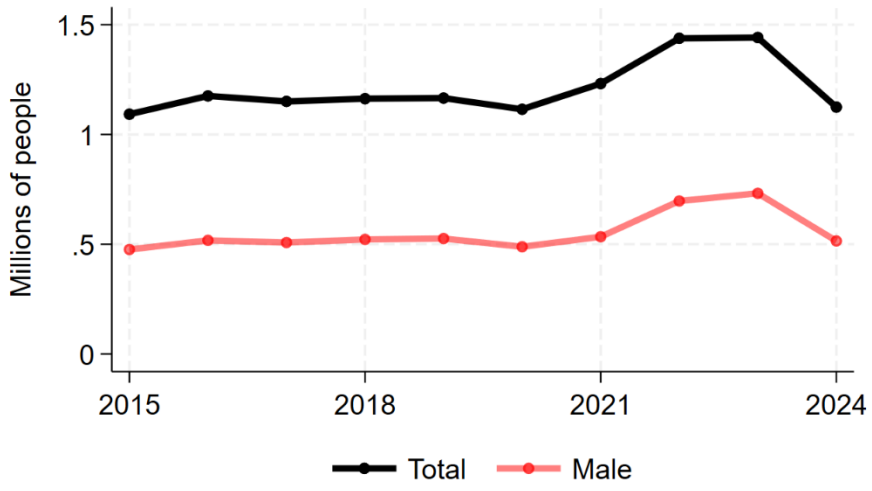

Figure 2. Russian immigration to OECD countries, 2015–2024.

Source: *OECD International Migration Database, OECD Data Explorer (accessed April 2026); authors' calculations.*

This outflow likely entails a disproportionate loss of skilled workers, since emigration to OECD destinations selects for those with the language ability, education, and resources to make such a move. The figure also understates the total scale of post-2022 emigration, since substantial numbers of Russians have also settled in non-OECD destinations such as Georgia, Kazakhstan, Turkey and Uzbekistan.

[4] The inflows of foreign population by nationality are compiled from national sources (population registers or residence-permit data) and capture gross arrivals of Russian nationals entering for residence. Depending on each country's source and minimum-stay threshold, the data also include longer-term non-permanent migrants (students, temporary workers).

Inflation and interest rates

Russia's labour-market conditions are also likely accelerating the tightening cycle of domestic monetary policy. Through the logic of the Phillips curve, an overheated labour market drives compounding wage-push inflation, forcing the monetary authorities to respond with sustained and punitive increases in the benchmark interest rate.

Consistent with this logic, Russia's wartime economy has at times struggled to contain inflation. The year-over-year change in the official Consumer Price Index rose to roughly 18 percent in the months following the February 2022 invasion before retreating sharply in early 2023 (Figure 3). From late 2023 onward, inflation climbed again, hovering between 7 and 10 percent through 2024 and 2025. The Central Bank of Russia has responded with sustained monetary tightening, raising its policy rate to a record 21 percent in late 2024 and holding it near that level for half of 2025.

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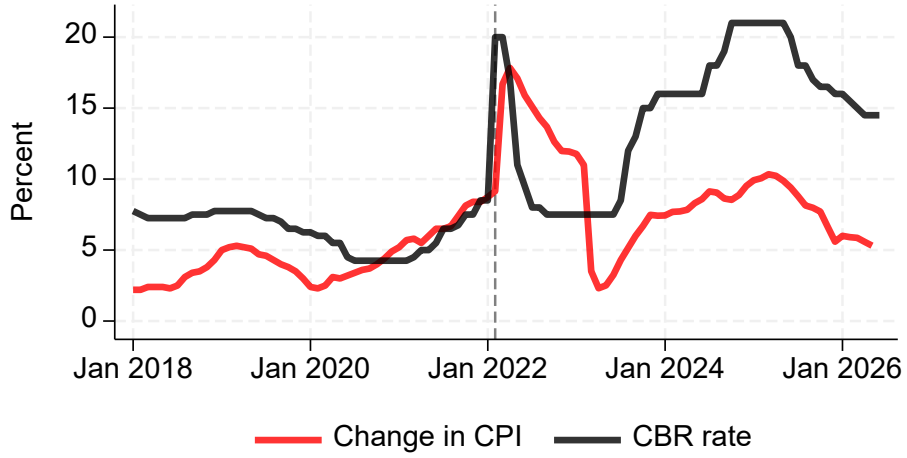

Figure 3. Russian consumer price inflation and the central bank policy rate, 2018–2026.

Notes: *The figure plots the year-over-year change in Russia's official Consumer Price Index (CPI) and the interest rate set by the Central Bank of Russia (CBR).*
Source: *CPI inflation: Rosstat (2026b); policy rate: Bank of Russia (2026a).*

The clear post-2022 gap between the policy rate and reported inflation is also notable. As of late 2025, the CBR rate exceeded official CPI inflation by 9-10 percentage points, an unusually large spread both by international standards and compared to the pre-war series, where the two tracked much more closely.

There are several possible reasons for this divergence. First, war-related spending is pumping liquidity into an economy with acute labour shortages, generating inflationary pressure that monetary policy alone cannot offset. Second, large-scale subsidized lending further fragments monetary transmission, forcing the CBR to set the headline rate

extremely high so that the unsubsidized civilian sector absorbs the squeeze. The burden of these high rates therefore falls highly asymmetrically: while state-backed defense firms benefit from direct government subsidies, private small and medium-sized enterprises find credit inaccessible. Progressively starved of credit and fresh investment, the civilian sector is becoming increasingly uncompetitive. Taking Rosstat at face value, real interest rates this high imply a sustained drag on private investment and on the long-run productive capacity of the civilian economy.

Alternatively, true inflation may be substantially higher than Rosstat reports. The Russian government has clear political incentives to understate inflation and overstate real GDP growth—both to project economic stability and to limit indexed obligations such as pensions and public-sector wages—and independent estimates have suggested that actual price increases for many consumer categories exceed those reported by Rosstat. On that reading, the CBR's elevated rates are simply tracking what is likely double-digit inflation. Either way, the high policy rate points to mounting macroeconomic stress.

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War financing mechanisms

Due to sustained high military expenditures, Russia's fiscal position has come under increasing pressure (Figure 4). Russia has run a federal budget deficit of 1.7–2.6 percent of GDP every year since 2022, with a noticeable deterioration in 2025, driven in part by weaker oil and gas revenue. In absolute terms, the 2025 budget deficit amounted to 5.6 trillion RUB (USD 72 billion). As a result, financing the war effort has required Russia to increasingly rely on fiscal buffers that we describe below.

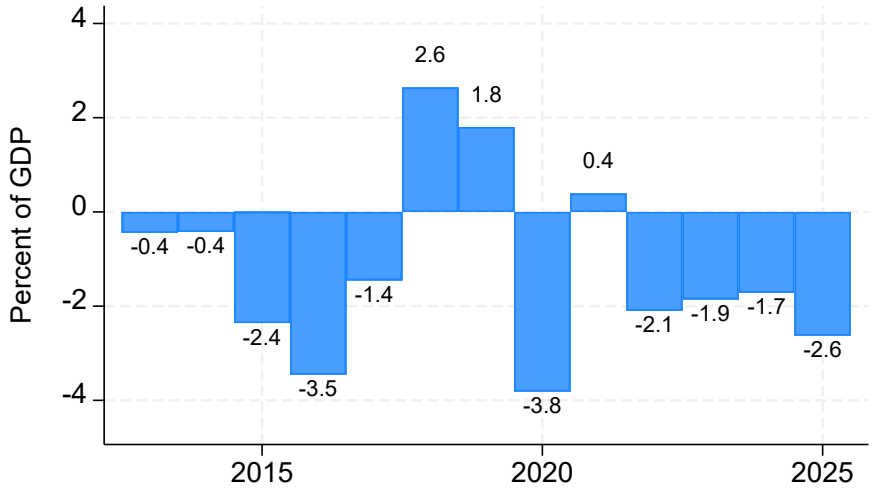

Figure 4. Russian government budget balance as a percentage of GDP, 2013–2025.
Notes: *The chart plots the general government fiscal balance relative to gross domestic product.*
Source: *Bank of Finland Institute for Emerging Economies (BOFIT) (2026).*

Russia is also increasingly dependent on current military production and imports rather than its significantly depleted Soviet-era stockpiles to sustain the war. This reliance heightens its exposure to economic pressure, creating more opportunities to constrain access to key inputs and slow the pace at which new weapons can be produced or acquired.

With domestic buffers largely exhausted and weapons stockpiles significantly drawn down, the Kremlin's capacity to sustain the war now hinges on factors largely outside its control—above all, energy export income and China's continued willingness to supply and finance the war effort. Together, these have enabled the Kremlin to offset domestic weaknesses and finance the war effort despite mounting structural strain. The Kremlin's financing capacity also draws on general tax receipts, withdrawals from the National Wealth Fund (NWF)—Russia's sovereign wealth fund managed by the Ministry of Finance—and domestic bond issuance, absorbed chiefly by state-controlled banks.

While Russia retains multiple avenues for financing the war, they are neither equally effective nor equally sustainable; strategically tightening sanctions against the weakest of them could raise the cost of continuing the war enough for meaningful negotiations to take place. Reducing Russia's oil revenue in particular would weaken the Kremlin's ability to finance critical imports by limiting access to the hard currency that remains essential for purchasing many components and services, even when transactions are routed through intermediaries.

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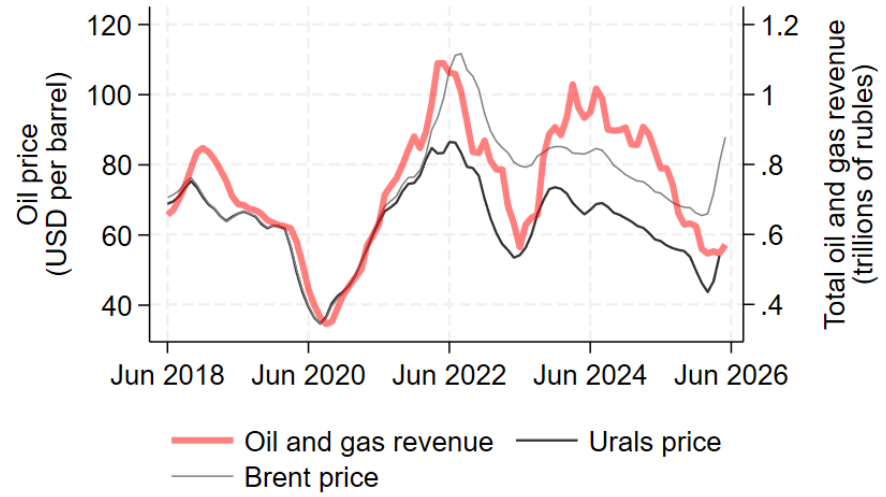
We next describe three key sources of financing and external support—energy revenue, trade with China, and gold sales.

Energy revenue

Energy revenue remains both the most important and the most externally exposed source of war financing. Unlike domestic taxes or borrowing, energy revenue depends heavily on access to foreign markets, pricing conditions, and the effectiveness of sanctions enforcement, making it the most direct and effective channel through which European policy can constrain Russia's fiscal position. Should this source of war financing be meaningfully weakened, Russia's ability to sustain prolonged military operations would be seriously undermined. Conversely, any relaxation or dilution of sanctions would ease these constraints, bolster state revenue, and materially increase Russia's capacity to continue waging the war.

Panel A of Figure 5 shows the Russian oil and gas revenue (right axis, trillions of rubles), the Urals free-on-board (FOB) spot price—which is the closest proxy for the oil price Russia receives—and the Brent FOB spot price (the global benchmark), all as six-month moving averages. Panel B plots the difference between the Brent and Urals spot prices.

Panel A: Russian government oil and gas revenue, the Urals spot price, and the Brent spot price.



Panel B: Difference between the Brent and the Urals price.

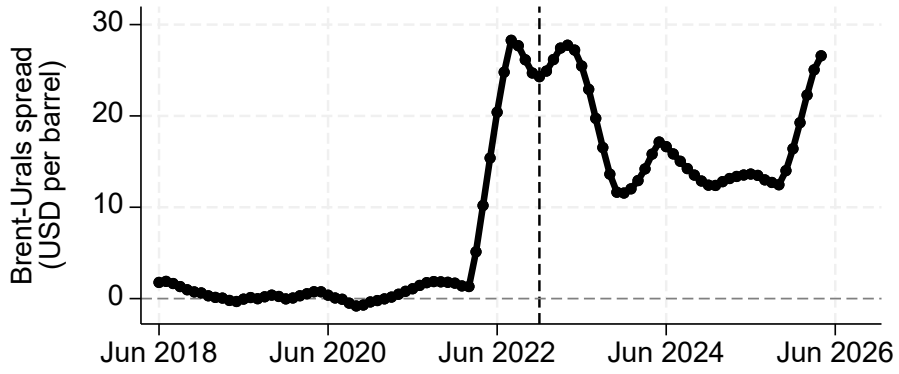


Figure 5. Russian fossil fuel revenue and oil prices.
Panel A. *Russian government oil and gas revenue, the Urals spot price, and the Brent spot price.*
Panel B. *The difference between the Brent and the Urals price.*
Notes: *All series are six-month moving averages. Vertical dashed line in panel B indicates December 2022.*
Source: *Revenue: Ministry of Finance of the Russian Federation (2026); Urals: OPEC (2026a, b); Brent: US EIA (2026).*

Before the full-scale invasion, Urals and Brent traded essentially on par with each other, with only a small and stable difference of one to three dollars per barrel. Starting in March of 2022—even before the oil import embargo and price cap took effect in December 2022—a clear Urals discount emerged. In 2023–2026, Urals traded at a discount averaging about 17 dollars per barrel, a substantial transfer of revenue away from the Russian budget.

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Despite the divergence in price *levels*, the Urals price remains highly correlated with its Brent counterpart, with a post-full-invasion correlation coefficient of 0.86 (based on the moving-average series). Likewise, Russian oil and gas revenue tracks the Urals series closely, with a post-full-invasion correlation coefficient of 0.85. The global price of oil itself therefore also meaningfully affects Russia's ability to finance the war, in addition to the Urals discount.

The post-invasion Brent-Urals spread is not constant. After widening sharply in 2022–2023, it narrowed to roughly ten to fifteen dollars per barrel, reflecting a combination of Russia's shadow-fleet logistics, the build-up of alternative insurance and financing arrangements, and uneven enforcement of the cap by Western jurisdictions.[5] By October 2025, around two-thirds of Russian seaborne oil shipments moved on the shadow fleet, beyond the cap's enforcement reach, and much of the remainder is thought to have circumvented the price cap through fraudulent paperwork (Spiro, Wachtmeister and Gars 2025b). There is also evidence that even the shadow fleet is effectively backed by Western insurance and maritime services firms through opaque arrangements.

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The implication for Western sanctions policy is that enforcement capabilities matter. Johnson, Rachel and Wolfram (forthcoming) show that a tightly enforced cap can keep oil flowing while sharply cutting the producer's revenue. But the cap becomes much less effective with leakage, and, when the market is tight, can even have a perverse effect if the producer optimally shuts in output to sell outside the regime at elevated prices. They conclude that a leaky cap calls for tighter enforcement.

Recent analysis also indicates that the Union import embargo, rather than the price cap, has been the more consequential of the two existing measures (Spiro, Wachtmeister and Gars 2025a). Lowering the cap, moreover, has limited effect in periods when Urals trades above the cap, since the price is then set by shadow-fleet dynamics rather than by sanctions-compliant tankers. Moving from the price cap to a full transport ban, restricting shadow-fleet operations, and constraining export volumes would translate more directly into reduced budget revenue.

[5] By late 2025 and into early 2026, the spread has widened again, with Urals declining more sharply than Brent—a pattern consistent with renewed enforcement, with shifts in non-Western buyer demand, or with both.

China

China's economic support for Russia operates through four distinct channels, each of which has expanded materially since the full-scale invasion.

The most quantifiable channel is dual-use exports. In 2023, for example, China accounted for about 90 percent of Russia's imports of high-priority items on the G7 control list—the components Russia uses to manufacture missiles, drones, and other weapons systems. The value of such item flows amount to hundreds of millions of US dollars each month.

The second channel is energy: China is now Russia's largest crude oil buyer, paying in yuan and using non-Western insurance and shipping arrangements that have allowed substantial volumes to clear above the G7 price cap (Raghunandan et al. 2026).

The third channel is financial: yuan-denominated trade settlement, a Russia-China cross-border clearing architecture that the US Treasury exposed and designated in January 2025 (US Department of the Treasury 2025), and the continued willingness of smaller regional Chinese banks to process transactions that the major state-owned lenders have largely abandoned under secondary-sanctions pressure.

The fourth and most recent channel is gold: Chinese imports of Russian gold rose sharply in 2025, providing Russia with a mechanism to convert mining output and reserve drawdowns into foreign exchange through Hong Kong-centred front-company networks documented by US Treasury enforcement actions (US Department of the Treasury 2024).

Each of these flows is independently meaningful; together, they are the principal external lifeline keeping Russia's wartime budget and military-industrial complex functioning at current scale.

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National Wealth Fund and gold sales

Sanctions have significantly constrained Russia's access to external borrowing. In response, the government has relied more heavily on domestic financing sources and the drawdown of sovereign assets. In particular, the National Wealth Fund (NWF) has been used extensively to cover budget shortfalls.

The depletion of the NWF highlights the increasing fiscal burden associated with sustained wartime spending. The liquid portion of the NWF has declined substantially. This includes a large reduction in gold holdings, which fell from approximately 406 tonnes before the full-scale invasion to around 173 tonnes by late 2025. Much of this adjustment did not involve open-market sales. Instead, the Ministry of Finance conducted transactions with the Central Bank of Russia, whereby gold

assets were transferred to the Central Bank in exchange for ruble liquidity. Using estimates of the market value of the gold drawn down from the National Wealth Fund, we calculate that such transactions boosted the governmental budget by about three trillion rubles between January 2024 and April 2026. However, sustained reliance on this monetary-financing mechanism contributes to both inflationary pressures and currency devaluation.

It is worth noting that drawing down the NWF is the least costly of a set of unattractive options—heavier domestic borrowing, the inflationary monetisation of reserves, higher taxes, or spending cuts—and exhausting it would force Russia onto those harder margins while stripping away its last fiscal shock absorber. A visibly draining fund also undercuts the Kremlin's claim that it can sustain the war indefinitely.

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More recently, Russia also appears to have shifted from relying primarily on internal transfers of sovereign assets to conducting actual market sales of gold from the Central Bank's reserves. From January to March of 2026, Russia's central bank gold reserves declined markedly (Figure 6), consistent with reports of open-market gold sales totalling approximately 22 tonnes in the quarter.

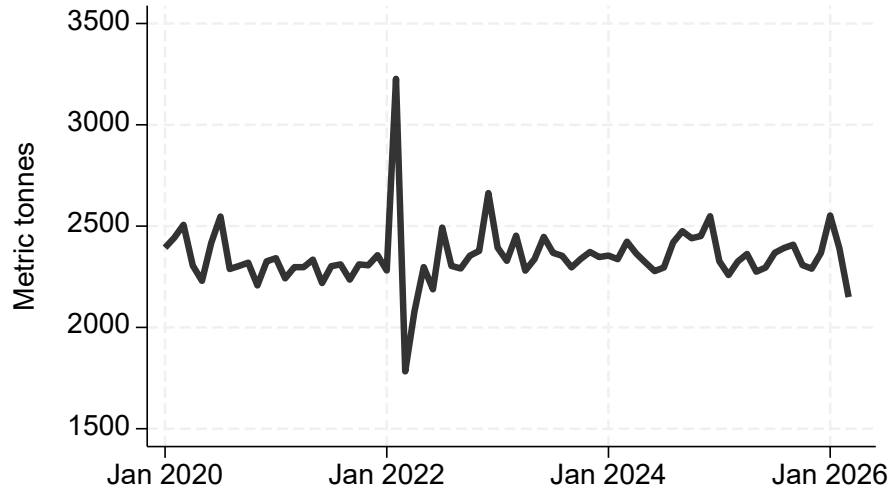

Figure 6. Russia's central bank gold reserves, 2020–2026.
Notes: *The figure shows the implied quantity of gold held in Russia's central bank reserves, calculated by dividing the dollar value of gold reserves reported by the Central Bank of Russia by the bank's reference price for gold. Note that month-to-month changes in this series also reflect fluctuations in the gold reference price.*
Source: *Central Bank of Russia (2026b) and author calculations.*

In contrast to domestic transfers of gold—such as movements between the NWF and the Central Bank of Russia—external sales of gold may generate foreign exchange inflows, easing fiscal constraints. This channel underscores the importance of sanctions that restrict Russia's access to international gold markets: by limiting its ability to convert

gold into foreign exchange, such measures constrain a key channel of external financing and reduce the effectiveness of gold in mitigating fiscal pressures from high military spending.

Sanctions already restrict Russia's ability to sell gold abroad through major global trading hubs such as London or New York. Russian-origin gold is officially excluded from the London Bullion Market Association system. Nevertheless, Russia can still access international markets indirectly. Gold can be exported to intermediary countries where it may be reclassified or used in bilateral transactions. For example, UAE-based entities have facilitated the movement of Russian gold abroad, where proceeds from its sale were subsequently converted into fiat currency and cryptocurrencies (US Department of the Treasury 2024). These arrangements are a sophisticated, multi-layered laundering operation, routing the proceeds of Russian gold sales through front companies in the UAE and Hong Kong.

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The Russian government has recently begun using its reserve assets to finance growing budget shortfalls. Figure 7 plots the six-month moving average of net purchases of foreign currency and gold by the Russian Ministry of Finance under the country's budget rule, the mechanism that channels above-benchmark oil and gas revenue into reserve accumulation (positive values) and conversely draws on those reserves when revenue fall short (negative values). Since early 2024, net purchases have trended steadily downward and the moving average has recently turned negative, meaning the government is no longer rebuilding its buffer and has begun drawing it down. This is consistent with energy revenue running below the level required to cover budgeted obligations and points to a tightening fiscal position even absent declines in oil prices or new sanctions measures.

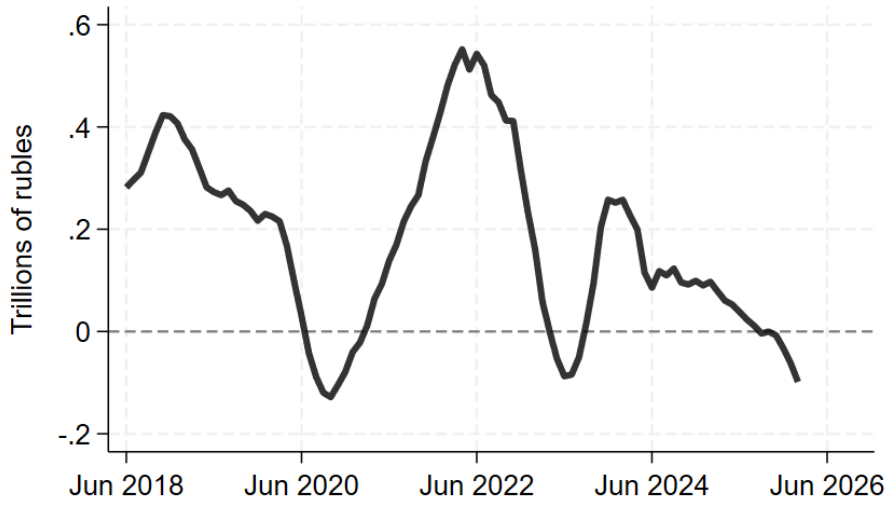

Figure 7. Volume of purchases and sales of foreign currency and gold.
Notes: *Positive values indicate purchases; negative values indicate sales.*
Source: *Ministry of Finance of the Russian Federation (2026)*

Russia has also repeatedly adjusted the budget rule governing how oil and gas revenue are split between current spending and the National Wealth Fund. The rule routes revenue earned above a baseline Urals price into the Fund and draws on the Fund when prices fall short. Facing sustained low prices, the government lowered the baseline from USD 60/barrel in 2025 to USD 59 in 2026 and set a path toward USD 55 by 2030 explicitly to reduce the budget's reliance on volatile energy revenue and slow the Fund's depletion. The 2025 oil-and-gas revenue forecast itself was cut mid-year from 10.9 to 8.3 trillion rubles. The persistent drawdowns this produced—visible in the recent negative net purchases in Figure 7—are direct evidence that Western pressure on Russia's energy revenue has been effective. But the same rule refills the fund as soon as prices clear the baseline, so times of increasing oil prices are precisely the circumstance in which that pressure must be maintained and tightened.

The Kremlin is increasingly forced into trade-offs between financing social spending and financing the war, an important pressure point to maintain to get to genuine negotiations.

The limits of Russian adaptation

In principle, Russia could attempt to compensate for any reductions in energy or gold revenue by raising taxes further, increasing borrowing, or cutting non-military spending. Indeed, it has already begun utilizing some of these options—even though each of them carries growing economic and political costs—suggesting that Russia already faces binding constraints on less politically costly sources of financing the war. More broadly, the Kremlin is increasingly forced into trade-offs between financing social spending and financing the war (Ribakova and Risinger 2025), an important pressure point to maintain to get to genuine negotiations.

Russia has also raised taxes in recent years, a sign that the existing financing model is under strain (SITE 2025). Higher taxes risk suppressing already strained private-sector activity and household consumption, while spending cuts—particularly to social programs—carry domestic political risks.

Borrowing options are also increasingly limited: Russia is now effectively confined to borrowing from domestic investors, reducing flexibility and increasing pressure on the domestic financial system. Reliance on domestic borrowing raises concerns about crowding out private investment and weakening bank balance sheets. Russia has also struggled to place government bonds, demonstrating that continued reliance on domestic borrowing is unlikely to be sustainable.

Personnel costs constitute a growing burden on the war budget. Substantial resources are devoted to recruitment bonuses, compensation for wounded soldiers, and payments to families of those killed in action. High casualty rates increase pressure on this spending both by expanding the pool of eligible recipients and by forcing the government to raise financial incentives to attract new recruits to replace losses. The

Kremlin's continued reluctance to implement large-scale conscription is therefore notable and likely reflects concern that compulsory mobilization could trigger broader social discontent and political instability.

Furthermore, a large share of the aforementioned directed lending to defence producers is effectively toxic: some of it is unlikely to be repaid, and much of the rest earns banks less than their own cost of funding, particularly with the CBR's high policy rate. A growing stock of such non-performing or negative-carry assets erodes bank capital and net interest margins at the same time, and losses of this kind tend to crystallise quickly once confidence shifts—raising the prospect of a rapid deterioration in the banking sector rather than a gradual one. The open question is whether, and how effectively, Russia could absorb such a shock—through recapitalisation, forbearance, or liquidity support—at a moment when its fiscal buffers are already being drawn down to finance the war. To the extent that it could not, distress originating in the financial sector is one of the more plausible channels through which Russia's economy could shift from apparent resilience to abrupt failure.

Union policymakers should prohibit any tanker that has loaded Russian crude oil or refined products from entering Union ports or accessing Union maritime services, regardless of sale price or claimed compliance.

Policy Recommendations

Oil transport ban

Union policymakers should move beyond the price cap, whose effectiveness has materially eroded. The more effective alternative is a full transport ban: prohibit any tanker that has loaded Russian crude oil or refined products from entering Union ports or accessing Union maritime services, regardless of sale price or claimed compliance. Because a large share of Russian seaborne exports transits Union waters and chokepoints—notably the Danish Straits—and because the Union is itself a major oil importer, the mechanism does not depend on US participation, though its effectiveness would increase if other major importers (Japan, South Korea) or exporters (Norway, Canada) joined the coalition.

The expected effect is to raise Russia's transport costs by reducing the pool of tankers willing to serve the Russian trade. Even a USD 5 per barrel increase translates into Russian losses of roughly 0.5% of GDP. The supply-disruption risks that may have been a legitimate concern when the price cap was first designed in 2022 are now substantially lower, given the size of the shadow fleet, Russia's low marginal production costs, and its strong economic incentives to keep exporting (Spiro, Wachtmeister and Gars 2025a, 2025b). Under a transport ban, paperwork fraud becomes a non-issue: the trigger for sanctioning is whether a vessel has called at a Russian port, not the reported sale price.

Two caveats apply. First, ship-to-ship transfers outside Union waters could erode the effect at the margin, though Union jurisdiction over its own waters limits this channel. Second, the environmental risks already posed by the ageing shadow fleet would not be eliminated—a problem the price cap also failed to address—and continued vessel and port enforcement under the existing framework should run in parallel.

At the same time, the environmental risk posed by the shadow fleet is itself a source of leverage. Because the shadow fleet is genuinely substandard and frequently underinsured, maritime-safety and pollution-prevention rules offer an independent, non-sanctions basis for action. Consistent with international maritime law, states that border critical chokepoints such as the Danish Straits can and should demand evidence of adequate insurance and seaworthiness from transiting vessels, which substandard tankers are poorly placed to meet. This approach advances a legitimate environmental objective while adding cost and friction to the Russian oil trade at minimal political expense.

Union policymakers should deny Union ports and maritime services to any carrier that has loaded Russian LNG, regardless of flag, sale price, or destination.

Closing the maritime route for Russian LNG

The 19th sanctions package (October 2025) introduced a full prohibition on imports of Russian LNG, with general application from 25 April 2026 and a wind-down for pre-existing long-term contracts running to 1 January 2027. The 20th package (April 2026) added prohibitions on providing LNG terminal services to Russian entities and on maintenance and other services for Russian LNG tankers and icebreakers. Together these measures end the Union's own consumption of Russian LNG and begin to restrict the services that sustain its export, but they leave largely intact the seaborne route through which Russia continues to reach third-country buyers.

The central forward-looking step is to extend the vessel-based logic of the oil transport ban to LNG: deny Union ports and maritime services to any carrier that has loaded Russian LNG, regardless of flag, sale price, or destination. The trigger is whether a vessel has lifted Russian cargo, not the terms under which it was sold, which removes the documentation and pricing disputes that complicate enforcement. The rationale, however, differs from the oil case. The oil ban draws part of its force from the Union's role as a major importer and from the chokepoints Russian crude must transit; for LNG, where the Union will shortly import nothing from Russia, the leverage rests instead on the Union's position—alongside the United Kingdom and other partners—as the hub for the maritime services, classification, insurance, and maintenance on which the global LNG carrier fleet depends, and on the unusual structure of Russia's Arctic export trade.

That structure is the measure's principal point of leverage. Russia's Arctic LNG, centred on the Yamal project, relies on a small, purpose-built fleet of Arc7 ice-class carriers able to transit Arctic conditions—

vessels that are costly, slow to build, hard to replace, and in many cases tied to European ownership or financing. When the Union closed its ports to Russian LNG transshipment in March 2025, Novatek relocated reloading to ship-to-ship transfers near Murmansk. But transshipment volume fell by almost half, suggesting that such circumventions are costly. A transport ban reaching any vessel that loads Russian LNG—at a terminal or in a ship-to-ship transfer—would target the conventional carriers serving that route and force the wider fleet to choose between the Russian trade and continued access to Union and partner services. The 20th package's maintenance ban on Russian-flagged tankers and the maritime-services ban the United Kingdom brought into force in May 2026 are the first footholds; extending the restriction to vessels of all flags, and coordinating it across jurisdictions, is what would make it substantially more effective.

Alongside this measure, the Union should address the remaining Russian pipeline gas flows that still reach some Member States, and accelerate the wind-down of grandfathered LNG contracts before the 2027 deadline where contractual structures permit. It should also encourage partner countries—notably Japan and South Korea—to adopt parallel restrictions, as the United Kingdom has already done, to forestall the rerouting of displaced volumes through non-Union markets.

A coordinated international approach remains essential. Union and G7 governments should expand the targeted use of secondary sanctions against entities that facilitate evasion, including those involved in trade routed through third countries such as the United Arab Emirates, Türkiye, mainland China and Hong Kong, and the Kyrgyz Republic, where successive Union and US investigations have already documented substantial circumvention activity. At the same time, export-control authorities across the Union, United States, and partner countries should shift emphasis toward enforcement rather than simply expanding control lists, prioritizing end-use verification and disrupting transshipment networks and shell companies.

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Encouraging China to end support for Russia

Getting China to reduce its economic support for Russia may seem difficult, given China's size, global integration, and capacity to resist external pressure. However, China's willingness to bear significant costs in support of Russia should not be assumed. Beijing's relationship with Moscow is driven by strategic alignment and opportunism rather than alliance obligations, and China has strong incentives to avoid actions that would materially harm its own economic interests or provoke serious secondary sanctions.

Crucially, the asymmetry in the relationship runs in China's favour. Russia is far more dependent on China than China is on Russia—

whether in terms of trade, access to critical imports, financial channels, or diplomatic backing. This imbalance gives Beijing considerable leverage and limits Moscow's room for manoeuvre. If Chinese policymakers come to view continued or expanded support for Russia as economically costly, reputationally damaging, or strategically counterproductive, they are likely to scale back their involvement rather than incur substantial losses on Russia's behalf.

As a result, even modest shifts in China's behaviour—such as greater caution by Chinese financial institutions, reduced tolerance for sanctions evasion, or tighter controls on dual-use exports—could have outsized effects on Russia's ability to sustain the war. While actively coercing China may be unrealistic, shaping its cost-benefit calculus remains feasible. The key is not to force a rupture in Sino-Russian relations, but to ensure that supporting Russia becomes increasingly inconsistent with China's own economic and strategic priorities.

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The case for using positive economic inducements toward China rests on the magnitude of the underlying security stake. Russia's war against Ukraine is not a peripheral foreign-policy concern for the Union but the defining security challenge facing Europe for at least the next decade. Member states are raising defence spending and absorbing a sustained campaign of sabotage, cyber operations, and disinformation from Russian-linked actors. These costs will continue for as long as the Kremlin retains the capacity to wage war. They are also a floor, not a ceiling. A Russia that emerges from this conflict with its military-industrial base intact and its strategic objectives unchanged has both the means and the demonstrated willingness to escalate further—through intensified hybrid operations against Union territory, sustained provocation along NATO's eastern flank, and conventional aggression beyond Ukraine. Each scenario would push European security costs substantially above their already elevated baseline. Tools that can materially degrade Russia's war-making capacity must therefore be evaluated against this trajectory.

The same opportunism that has made China willing to support Russia also makes Chinese support contingent and negotiable. Beijing's posture rests on commercial advantage and geopolitical convenience, not alliance commitment, and this is precisely the condition under which positive inducements work. The Union's internal market—over 450 million consumers and one of the largest destinations for Chinese exports—is leverage Beijing cannot replicate elsewhere; it dwarfs anything Russia can offer in return. That dependence gives the Union meaningful bargaining power over the specific behaviors that matter most for Russia's war effort: facilitation of sanctions evasion, exports of dual-use components (machine tools, semiconductors, drone parts, optical equipment), and the channels through which Russia monetizes oil and gold.

The costs to the Union of such a track are real but bounded. Phased reductions in tariffs on Chinese electric vehicles, expedited market access for Chinese green-tech exports, and the suspension of selected anti-dumping investigations would intensify competition for European producers. These costs should be managed through targeted industrial policy and careful sequencing—conditioning each tranche of market access on verified Chinese reduction of support for Russia. Strategic infrastructure, advanced semiconductors, telecommunications equipment, and any technology with direct defense applications should remain firmly off the table. Within those limits, the relevant comparison is not market access versus the status quo but market access versus a Russia that retains the capacity to wage war for years, to sustain its hybrid campaign against the Union, and to threaten further aggression against the Baltic states and beyond. Against that counterfactual, conditional market access is not a concession but the cheapest available instrument for shifting the trajectory of the conflict.

Granting China conditional market access is not a concession but the cheapest available instrument for shifting the trajectory of the conflict.

What follows are illustrative examples of what such a track might look like. The Union's anti-subsidy duties on Chinese electric vehicles could be phased down in tranches tied to measurable declines in Chinese exports of high-priority dual-use items to Russia, verifiable through the joint US-EU-Japan-UK control list and third-country re-export data. Anti-dumping investigations targeting Chinese green-technology exports—solar modules, wind components, lithium-ion batteries—could be paused conditional on Chinese authorities restricting financial institutions that continue to facilitate sanctioned Russian trade and dismantling known cross-border clearing platforms (US Department of Treasury 2025). And procedural concessions of long-standing Chinese interest—greater predictability in foreign direct investment screening, expedited market access in non-strategic sectors—could be tied to active Chinese cooperation in disrupting the Hong Kong-centred front-company networks through which Russian gold and Western dual-use components are being laundered. None of these pairings is offered as a final menu; the point is that the Union holds discrete, valuable, and divisible positive incentives that can be matched against discrete, verifiable, and consequential Chinese behaviours.

Comprehensive gold sanctions enforcement

A further priority is to constrain Russia's ability to draw down sovereign reserves, and gold in particular, to finance the war. The Russian Ministry of Finance has used the National Wealth Fund's gold holdings as a fiscal buffer. Although Russian-origin gold is formally excluded from the London Bullion Market Association system, sales are routed through intermediary jurisdictions—notably the United Arab Emirates and Hong Kong—where bullion is reclassified at the refining stage and the proceeds converted into fiat currency or crypto-assets through front-company networks (US Department of Treasury 2024). Tightening

origin-verification and documentation standards at the refining stage in global bullion markets, extending secondary sanctions and enhanced due-diligence obligations to refiners, bullion traders and the financial institutions handling gold-related flows, and disrupting the front-company networks already identified by US enforcement would close a significant remaining channel through which the Russian state monetises domestic gold production to fund the war. Because Russia retains substantial domestic mining and refining capacity, gold revenue will increasingly substitute for the energy revenue that current sanctions have squeezed if no further action is taken.

Principles of effective sanctions

A tempting argument against tightening sanctions is that Russia will simply find ways to evade them, forcing the West into a perpetual game of catch-up. This objection, however, overlooks three important points. First, evasion is costly: even when workarounds exist, they are rarely perfect substitutes unless sanctions are poorly designed, and for some measures there are no viable workarounds at all. Second, the need to adapt and respond is not a compelling reason for inaction; policymakers routinely accept this dynamic in other domains—such as cybersecurity, counterterrorism, and financial crime—where defences are continually updated in response to evolving threats. Third, the alternative to "playing catch-up" is far worse: allowing an aggressive Russia to continue waging war against Ukraine for the foreseeable future, to persist in its hybrid campaign against Europe, and potentially to expand its aggression to other countries, including the Baltic states. There is little evidence that Russia is on the verge of achieving decisive battlefield gains, suggesting that absent sustained pressure, the conflict is likely to persist rather than resolve itself.

A related point concerns how individual measures should be judged. The instinctive test is to consider the absolute impact of each potential sanction, with measures whose effect on Russia looks small set aside as not worth the effort. But that is the wrong criterion. The objective of economic warfare is not to maximize the absolute harm done to the opponent but to maximize the gap between the loss imposed on Russia and the cost incurred at home (Spiro 2023). By that standard, a modestly effective measure is still worth adopting whenever it costs the imposing states little or nothing, for example, since it improves their relative position at negligible expense. This logic is especially favourable to the Union, many of whose instruments—denying Union maritime services to vessels carrying Russian energy or tightening an LNG trade from which the Union already buys nothing—impose minimal domestic cost while still subtracting from Russia's resources.

The objective of economic warfare is not to maximize the absolute harm done to the opponent but to maximize the gap between the loss imposed on Russia and the cost incurred at home.

Finally, sustaining sanctions poses a collective-action problem for the countries opposed to Russia. In the short term, it can seem individually

rational for states to weaken sanctions in pursuit of self-interest (for example by purchasing discounted Russian energy). But this behaviour effectively shifts costs onto others while preserving the very system that enables continued aggression. If widely adopted, such choices hollow out the sanctions regime, dissipate collective leverage, and allow Russia to sustain its war economy and destabilize the international order for years, if not decades. The clear lesson is that sanctions only function as intended when governments act in concert: coordinated enforcement, shared burden-bearing, and political discipline are necessary conditions for success.

Conclusion

The strains on the Russian economy this brief has traced—across manpower, capital, and public finances—are compounding rather than easing. Historical experience shows that economic collapses often occur far more rapidly than linear forecasting implies, even in systems that appear resilient until the moment they fail. Examples include Soviet economic breakdown in 1991, East Germany's collapse before the fall of the Berlin Wall, economic exhaustion of Russia and Germany at the end of WWI, and Suharto's Indonesia in the wake of the East Asian Crisis. In each case, analysts tended to extrapolate from visible stocks such as reserves, industrial capacity, or employment, while underestimating dependence on fragile flows and nonlinear thresholds. A wartime economy like Russia's—dependent on a narrow base of energy revenue, reliant on imported inputs and a war-depleted labour force, fiscally strained, and distorted by directed credit and suppressed price signals—may therefore be vulnerable less to gradual erosion than to abrupt, regime-style economic failure if pressure is applied in a way that simultaneously undermines financing, inputs, and expectations.

A wartime economy like Russia's may be vulnerable less to gradual erosion than to abrupt, regime-style economic failure if pressure is applied in a way that simultaneously undermines financing, inputs, and expectations.

At the same time, ending the war on terms that ensure long-term security in Europe need not require a full collapse of the Russian economy. It is unlikely that the Kremlin is willing to subject its population—particularly residents of large urban centres—to extreme levels of economic hardship, as doing so could threaten the stability of Putin's regime. Maintaining the perception of Russia as a great power is central to Putin's political legitimacy and continued grip on power. There is also evidence that public support for prolonging the war is limited, although obtaining accurate and representative polling data in Russia is inherently difficult. While Putin may be prepared to tolerate a degree of economic deterioration, doing so entails significant political risk, a reality of which the Kremlin is acutely aware.

As many analysts have pointed out, ensuring that Russia fails in its war of aggression is not a question of feasibility or available resources, but one of political will. The same logic applies to sanctions: the challenge is not that they are ineffective in principle, but that their impact depends

critically on design, enforcement, and sustained commitment. When implemented consistently and adjusted in response to evasion, sanctions can impose meaningful constraints; when applied hesitantly or unevenly, they allow pressure to dissipate. Ultimately, the effectiveness of sanctions hinges less on what is possible in theory than on the willingness of governments to follow through in practice.

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About Economists for Ukraine

Economists for Ukraine is a collective of economists and members of the global academic community dedicated to supporting Ukraine in response to Russia's invasion. The organization focuses on advancing policies that strengthen Ukraine's resilience, contribute to the cessation of hostilities, and support long-term reconstruction and economic stability. It operates as the think tank arm of the AI for Good Foundation, a global non-profit organization focused on leveraging technology to address major societal challenges.

The group brings together expertise across macroeconomics, finance, behavioral economics, environmental economics, governance, and game theory to produce policy-relevant analysis. Its work includes research publications, policy briefs, and collaboration with initiatives such as the International Working Group on Russian Sanctions, with the aim of informing effective economic and financial measures targeting the Russian economy.

In addition to analytical work, Economists for Ukraine contributes to practical recovery efforts. In coordination with the AI for Good Foundation, Ukrainian government institutions, and local partners, the organization supports initiatives addressing urgent humanitarian needs and longer-term reconstruction priorities.