

## **Working Group Paper #14**

# **Using Energy Sanctions to Shorten the War**

The International Working Group on Russian Sanctions

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

## I. Executive Summary

Russia is heavily dependent on oil and gas earnings, which finance Russia's imports and budget, and thereby Russia's war on Ukraine. In response to Russia's invasion, Ukraine's allies have targeted energy – the lifeblood of the Russian economy – through broad embargos on Russian oil and coal, including an oil price cap, and slashing purchases of Russian gas.

These energy sanctions are helping to constrain Russia's economy, and ability to conduct war. Russian oil sales to Ukraine's allies – who account for about half the global economy – have largely ceased, pipeline gas sales to Europe are down over 80%, and Russian oil sales to other countries are at a deep discount. As a result, we estimate that Russia has lost \$140-170 bn in oil and gas revenues since Russia's invasion. Russian oil and gas revenues have fallen sharply this year, reflected in a two-thirds decline in Russia's trade surplus and a 50% decline in oil and gas budget revenues. Last year, record oil and gas export earnings of \$350 bn driven by a spike in global prices offset the record \$240 billion capital outflow, allowing Russia to stabilize the economy despite the shock. This year, the halving in energy revenues has left the economy exposed, as capital outflows continue, and the cost of war rises. This drove the August weakening of the ruble, leading to public disagreement among policymakers, and the Central Bank of Russia's abrupt shift to tighter monetary policy. Energy sanctions are working, undermining Russia's ability to wage war.

Unfortunately, just as energy sanctions start to bite, Russia is having some success in circumventing them, with some 35% of its seaborne exports transported by tankers not subject to the price cap. With Russian oil now on average selling above the price cap, and Russia maintaining and even increasing pipeline and LNG gas sales to Europe, Moscow is poised to recapture some of its lost energy revenues. To reinforce our steadfast support for Ukraine in the face of Russia's ongoing aggression, we propose improved implementation to prevent Russia circumventing current sanctions, as well as proposing further options to increase pressure and shorten the war:

1. **Improved implementation of existing sanctions to sharply reduce Russian circumvention.** First, we propose to strengthen price-cap compliance, in particular, by requiring that price attestations for Russian oil cargoes can only be issued by a whitelist of approved traders. Second, to constrain Russia's use of its unregulated "shadow" fleet, we propose requiring all tankers transiting ecologically sensitive European territorial waters to verify they hold adequate oil spill ("P&I") insurance. Such insurance is mandatory under international law. Third, we propose an EU embargo on Russian LNG and a requirement for Russian pipeline gas to Europe to flow via Ukraine as the next steps to end European dependence on Russian energy.
2. **Additional measures to shorten the war.** We also set out a broader and more ambitious set of measures to shorten the war. Alongside enhancing the resilience and scope of the oil price cap through whitelisting and insurance verification, the single most effective measure, in our view, is to ratchet down the oil price caps. We propose an immediate reduction in the cap, with a timetable of reductions to a target level of \$30/bbl. We also propose sanctions on Russian oil companies and Gazprombank,

their subsidiaries, and their Boards and management; and to require all Western energy companies to exit Russia and stop serving Russian clients.

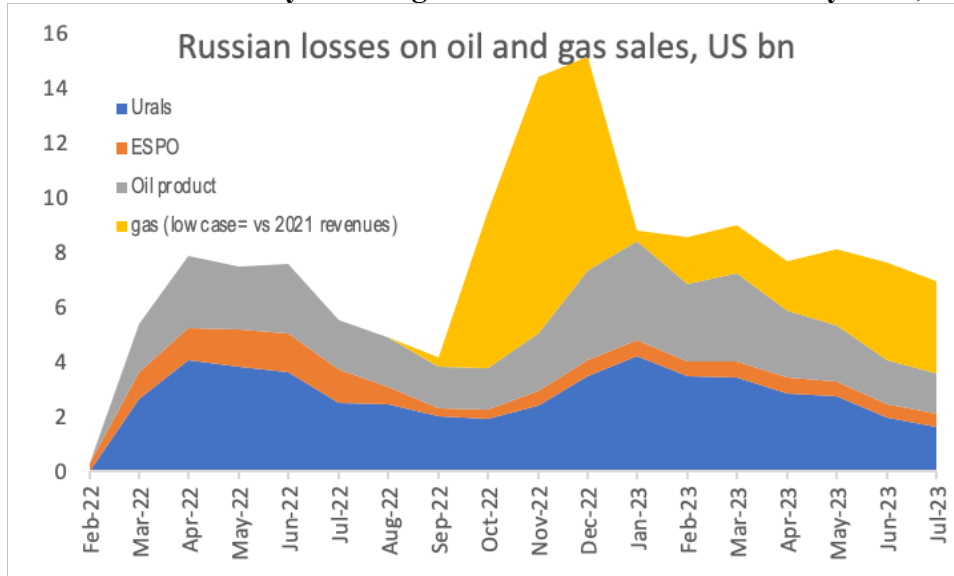
Some counsel against tougher enforcement and more sanctions, concerned that Russia could weaponize energy, triggering a damaging supply shock. Exactly the wrong advice, we think. Tougher enforcement improves credibility, and looks likely to be deflationary, by triggering additional supply at a lower price. At the same time, weaponization looks an empty threat: too likely to backfire like gas weaponization, but with much graver consequences for the Putin regime. We urge a forward-leaning policy, keeping faith with Ukraine by enforcing current policies, while taking further steps to reduce Russian oil revenues, accelerating peace by constraining the Russia's ability to finance war. Few measures can have as great an impact as energy sanctions. It is important to make sure they work as well as they can.

## **II. The Impact of Energy Sanctions**

We estimate the lost oil revenues as a result of the deeper discount on Russian oil – underpinned by sanctions, including embargoes and the G7 oil price cap – with the discount on the main Russian benchmark (Urals) to the Brent benchmark widening from a negligible \$1-2/bbl quality differential before the invasion to an average of \$29/bbl discount since the invasion. Using this method, we estimate that Russia has lost \$100 bn in oil revenues as a result of sanctions, in the period from the invasion up to August 2023.

Estimating the impact of lost gas revenues is harder, partly since the fall in Russian gas supply to Europe drove a dramatic spike in the gas price from which Russia also benefited, albeit to a lesser extent than other gas producers. Mechanically, you could estimate the lost gas revenue as the fall in the volumes of Russian pipeline gas sales to Europe compared to 2021 – a more or less “normal” year – multiplied by the average price of gas in Europe, as represented by the TTF benchmark. This would imply a loss on gas sales of \$160 bn. However, this is clearly an overestimate since prices would have been much lower if the missing Russian supply had been available, and unrealistic given Russia's record gas revenues last year. Rather we take two approaches: a higher case comparing Russian gas revenues from September 2022 (after the closure of Nordstream) to 2021 Russian gas revenues which yields an estimate of a cumulative loss of \$70 bn, and a lower case which compares Russian gas revenue from September 2022 to the revenue from selling the pre-war export volume – defined by a reference pre-war month (Feb-22) with a typical volume of exports – at the market price, which yields a cumulative loss of \$39 billion. Broadly speaking, in 2022, the volume of Russian gas sales to Europe halved and in 2023 they halved again, and Russia's gas revenues are now \$2-3 billion per month lower than before the war.

**Chart 1: Russia’s monthly oil and gas revenue loss since February 2022, bn USD**



Source: Kyiv School of Economics, using IEA data

Clearly, the cost cannot be definitively estimated since the counterfactual situation – Russian oil and gas revenues if there had been no invasion of Ukraine – cannot be observed. Still, we see a cumulative cost of \$140-170 bn and a current monthly cost of \$5-7 billion as a reasonable broad brush estimate of Russia’s lost oil and gas revenue so far.

### **III. Full delivery of current commitments**

#### **a. Oil Price Cap**

The sanction coalition’s signature policy to reduce Russian oil and gas revenues while maintaining supply is the oil price cap. It prohibits EU and G7 companies from providing marine transportation services – such as shipping, finance, and insurance – to any Russian origin oil, unless the cargo is priced at or below a price cap, currently set at \$60/bbl for crude, \$45/bbl for low value oil products (e.g., fuel oil) and \$100/bbl for high value oil products (e.g., diesel).

The price cap policy has contributed, alongside the impact of consumer boycotts and the oil embargoes, to the wide wedge between Russian oil and market benchmarks. Moreover, until recently the price of the main Russian benchmark – Urals – has held below the \$60/bbl cap. Fundamentally, we think that the oil cap policy can be successful since Russia today remains dependent on hard-to-replace EU/G7 marine services for 65% of its seaborne exports, while only 35% of Russian seaborne oil is exported on vessels not subject to price-cap compliance (“the shadow fleet”).

However, unfortunately, it appears that Russia has had some success using G7/EU tankers and other service providers in selling oil above the \$60/barrel threshold. In such cases, Russian sellers and their traders likely provide attestations to shipping and insurance companies that do not reflect the actual price (“attestations fraud”). Originally, attestation fraud was largely confined to the Pacific Ocean port of Kozmino, where ESPO grade crude

has routinely traded above \$60. In July, however, market prices for Russia's Urals blend crude also rose above the cap. Urals ships in much larger volumes and from Russia's western ports on the Baltic and the Black Sea. And it's not just Urals that has begun trading above its cap. According to the IEA, by early August, Russian gas, oil, and diesel were trading above the premium product price cap of \$100/bbl and Russian fuel oil and naphtha were trading above the discount product price cap of \$45/bbl.<sup>1</sup> Russia does not have enough shadow tanker capacity to transport this much crude and oil product in circumvention of the price cap regime. Consequently, Russia is likely to try expanding the use of attestation fraud. If unchecked, this could enable Russia to secure the additional shipping capacity it needs from the mainstream, price-cap-compliant fleet, while still receiving full market prices – above the cap – for those cargoes.

An additional problem is that Russian companies may be able to capture some of the arbitrage that exists in the oil market due to the sanctions regime. Specifically, spreads between the prices of Russian oil exports at ports of origin and those of imports of Russian oil at ports of destination significantly exceed what would be justified by the cost of the transportation, insurance and other services provided. While difficult to prove, this suggests that Russian oil exporters and traders are capturing some of the spread, likely making it easier for Russia to implement its July decision to raise oil taxes.

Ultimately, the price cap's effectiveness is based on Russia's enduring dependence on G7/EU service providers to transport oil. Russia has undertaken a concerted effort to acquire a sanctions-proof fleet to reduce this dependence. But this is not an easy task and coalition countries can make it more difficult still, ensuring the price cap remains an effective policy tool for longer.

We propose a package of enforcement measures to ensure that shipments of Russian oil which use G7/EU services comply with the price cap, and that make it difficult for Russia to utilize and expand its shadow fleet.

#### To stop attestations fraud:

1. **Establish a whitelist of reliable trading intermediaries authorized to provide price attestations to other EU/G7 marine service providers.** We see this as the crucial step in enforcement. Coalition governments should set up a whitelist of brokers/traders authorized to provide price attestations. The list would be made up of well-established commodity trading groups based in G7/EU countries, and therefore subject to legal action for violating sanctions and providing false information. G7/EU service providers would be able to nominate additional entities for the list, but they would be subject to vetting and approval by enforcement agencies. Failure to obtain price attestations from a whitelisted trader would trigger legal action against EU/G7 shipowners and invalidate International Group P&I insurance coverage. Accurate price attestations are critical to a credible price cap regime, and essential to effective enforcement.

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<sup>1</sup> IEA (2023), Oil Market Report - August 2023, IEA, Paris <https://www.iea.org/reports/oil-market-report-august-2023>

2. **Conduct regular audits of transactions.** Once confidence in the accuracy of price attestation has been established by restricting them to a whitelist of reputable shippers, there will be a solid basis for investigating violations of the price cap. We propose regular risk-based audits of attestations, starting with transactions that pose the relatively highest risks of sanctions violations due to the involvement of suspicious entities, including traders that have only recently begun to participate in the Russian oil trade. Audits based on credible attestation will provide the incentive to G7/EU service providers to improve their own compliance efforts.
3. **Strengthen documentation requirements.** By requiring a whitelisted trader to be party to any transaction involving other G7/EU participant, it creates a stronger documentary basis for monitoring price cap compliance. As “tier-1” participants, whitelisted traders will have access to underlying pricing contracts and contracts for additional services, such as freight and insurance. Authorities already require that G7/EU tier-1 participants, such as traders, retain and disclose all relevant pricing data needed for comprehensive audits and effective price cap enforcement. These include documents that reflect the actual sales prices, including original contracts, charter party agreements, cargo insurance and financing charges, and associated customs declarations.
4. **Increase penalties for violations.** We propose to enforce the price cap on a strict-liability basis, meaning that fines can be imposed if a breach is identified without having to meet the higher bar of proving intent to violate the price cap. More broadly, we propose to increase penalties for violations significantly.
5. **Sanction facilitators of sanctions violations.** We propose to impose sanctions on third-country entities, including shipping companies and oil traders, that have been shown to facilitate violations, including asset freezes and transaction bans. This would be similar to the mechanism set up by the European Union in its 11<sup>th</sup> sanctions package to target companies that contribute to export control breaches.

To limit Russian capture of arbitrage on trading Russian oil:

1. **Require full documentation retention by whitelisted traders.** To qualify to be on the whitelist of brokers which can provide price attestations, brokers will need to retain and disclose documents on freight rates, insurance, and trader/broker fees. Moreover, as the sellside principal, they will likely be doing the chartering and insurance themselves, ensuring greater transparency.
2. **Add any inflated costs to the price of the cargo.** Using the fuller disclosure associated with a whitelist, “commercially reasonable rates” for shipping insurance and broker services can be developed. Where service costs are inflated, we propose that any excess over normal commercial rates should be treated as a hidden payment

for the cargo, and the price of the cargo increased accordingly, with the appropriate sanction applied if the cargo then breaches the oil price cap.

3. **Investigate beneficial ownership structures.** We propose to make use of existing frameworks in fields such as anti-money laundering and counter-proliferation to investigate beneficial ownership of Russian oil, and ensure no sanctioned entities are involved in the trade. Regulations may have to be aligned across jurisdictions and coverage broadened so non-banks are authorized to share such information.

To maintain the effectiveness of the price cap:

1. **Require tankers transiting G7/EU territorial waters to verify adequacy of mandatory spill insurance.** Russia's efforts to build up a sanctions-proof fleet of tankers pose a significant environmental risk to coastal states around the world. The threat is especially acute in Europe, through whose territorial waters more than 80% of Russian seaborne exports routinely pass. These shadow tankers tend to be near the end of their service life and registered in flag states with poor reputations for enforcing international maintenance and safety requirements. The arrangements these shadow tankers have in place to meet their mandatory spill liability insurance tend to be opaque and of indeterminate quality. This contrasts starkly with the large majority of the global fleet that insures through a transparent network of mutual assurance clubs that provide standard levels of disclosure and maintain investment grade credit ratings.

Undermaintained and underinsured tankers represent a menace to coastal states and are in violation of international maritime law. In recent months, we have seen incidents in the Danish Straits and elsewhere involving shadow fleet tankers laden with Russian oil that came close to causing ecological catastrophes.

We propose that European coastal states should follow the lead Turkey set last December when it required verification of adequate spill insurance as a condition of passage through its territorial waters. This reflects a growing trend among coastal states to assert their rights to protect their territorial waters from environmental risk when flag states have failed properly to enforce safety and environmental standards for the tankers they oversee. Some 95% of the global fleet already provides adequate verification of insurance. Requiring all tankers to do so could sharply reduce Russia's ability to utilize the shadow fleet. This would make Russia even more heavily reliant on price-cap compliant tankers and further constrain its ability to capture windfall margins above the price cap. It would also significantly reduce the environmental threat Russia's growing shadow fleet poses to coastal states around the world.<sup>2</sup>

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<sup>2</sup> For more on insurance verification, see Craig Kennedy, "[Measuring the Shadows: Moscow's Strategies for Evading Oil Sanctions and How to Stop them from Succeeding.](#)" *Navigating Russia*, Substack, August 2023.

2. **Crack down on G7/EU participation in the sale of used tankers to Russia.** To constrain the growth of Russia's sanctions-proof fleet, authorities should crackdown on G7/EU ship owners selling used tankers to Russian buyers or buyers whose ultimate beneficial ownership is not fully disclosed. Greater scrutiny should likewise be given to G7/EU ship brokers, legal advisors, and banks supporting such transactions. While determined Russian buyers will likely still manage to structure acquisitions through intermediary buyers, increased oversight can slow these sales and raise their cost.

Such a package of measures could we believe be successful in increasing up towards 80% the share of Russia's seaborne exports which are shipped using western services and therefore subject to the price cap. This, in turn, could reduce Russian oil revenues materially from current levels. Further, stricter enforcement of the oil price cap could actually turn out to be deflationary, on the grounds that a) Russia is unlikely to withhold/weaponize supply, given its weak finances, the very high risk such a stratagem would soon fail, as did its attempted weaponisation of gas; and b) Russia may try to increase supply to compensate for lower prices, which could undermine OPEC+ and lead to a general increase in oil supply.

#### **b. Completing the European embargo on Russian energy**

Under the REPowerEU strategy set out in May 2022, the EU has committed to ending its dependence on Russian energy as soon as possible. It has made impressive progress in this direction, with the oil and coal embargoes and the sharp fall in Russian gas sales to Europe. However, progress has stalled recently, particularly in gas, even as gas prices have returned to more normal levels, and storage has been running at record levels. In particular, Russian pipeline sales to Europe via Turkstream have moved higher, while Russian LNG sales to Europe have continued to run at a high level.

We call for the EU to set a timetable to end the direct supply of Russian gas to the European market. Specifically, we propose to prevent Russia selling gas via a Russia-controlled pipeline into the European market, which would require all Russian pipeline gas supply to Europe to flow through Ukraine. Further, we call for a clear commitment to end Russian LNG delivery to Europe and a clear timetable for delivery of this commitment, starting with a ban on any deliveries to Europe from Russia's new Arctic 2 LNG facility, which is scheduled to open in 4Q-23. Such an arrangement would give Ukraine greater leverage, including the scope to impose a reconstruction levy on transiting volumes of Russian gas to make Russia pay, as well as providing additional gas transit revenues. We note that Ukraine has sufficient transit capacity (around 160 bcma) to accommodate up to twice the current level of Russian exports to Europe.

In addition, to prevent Russia from undermining the European gas market, we would also recommend that the Commission be given exclusive right to be the sole European buyer of Russian gas, including any gas flowing out of Turkey which is Russian in origin, while all existing Russian gas supply contracts to member states should be taken on by the Commission acting on behalf of the member states.



We believe that these measures to improve implementation of existing sanctions can reduce Russian oil and gas revenues by \$2-4 bn per month, or \$25-50 bn pa, approximately evenly divided between reduced oil and reduced gas revenues. We estimate credible enforcement of the oil price cap would reduce Russia's revenues by \$5-10/bbl on average, and that the EU Repower implementation measures reduce gas sales to Europe by 15 bcma – which is not then sold elsewhere – and drives a substantial discount on the redirected LNG sales.

## **IV. Tightening Energy Sanctions To Shorten the War**

Further energy sanctions are justified to squeeze Russia's energy revenues, weaken the economy and budget, and thereby constrain Russia and accelerate the end of the war.

### **a. Oil Price Ratchet**

In particular, alongside the package of enforcement measures to ensure compliance with the oil price cap, we propose to ratchet down the price caps.

The current price caps are set far above Russian production costs, providing producers and the state with large oil rents, far above the normal commercial returns needed to motivate production. We estimate average Russian production costs in the \$10-15/bbl range, and marginal production costs in the \$20-30/bbl range, with only negligible volumes with a marginal cost above \$30/bbl.

We propose the coalition should reduce the crude oil price cap by a cumulative \$30/bbl, starting with an immediate initial move, and announcing a timetable of reductions to an ultimate \$30/bbl cap for crude, with corresponding cuts in the oil product caps. The impact of this measure dwarfs the impact of other sanctions, since every \$1/bbl off the Russian oil price is equivalent to nearly \$3 bn less in annual export earnings. Cutting the oil price cap from \$60/bbl to \$30/bbl could on its own reduce Russia's monthly oil revenues by \$7-8 bn, or \$70-\$90 bn pa.

We see the risk of Russia weaponizing supply in response to a lower oil price cap – reducing deliveries to engineer an oil supply shock – as overstated, for several reasons. First, weaponization would be costly for Russia, which is in a fragile financial and economic state, and would struggle with lower oil revenues. Moreover, shut-ins can damage reservoirs and lead to a permanent loss of reserves and production. Second, it looks unlikely to work – last year, weaponization failed even in the much less liquid gas market, where Russia lost its dominant role in the European gas market and was unable to compel Europe to abandon Ukraine. And failure – and the associated permanent loss of a large share of the oil market to competitors – would risk a repeat of the 1990s when Russia's oil production halved, and Russia's economy was chronically weak. Third, it is likely to hurt neutrals and Russia's allies (“the Global South”) more than Ukraine's allies, who have less oil-intensive economies as well as strategic oil reserves. Fourth, while Russia would prefer to circumvent sanctions and sell at a higher market price, if circumvention is blocked, then we assess Russia will prefer reluctant compliance - which generates significant profits even at \$30/bbl given low

production costs in Russia – plus ongoing efforts to circumvent sanctions by building up the shadow fleet to the risks of weaponization.

#### **b. Embargoes**

We propose Ukraine’s allies in advanced East Asia (Japan, South Korea, and Taiwan) follow Europe’s lead and stop buying Russian energy, setting firm deadlines for ending purchases of Russian LNG, crude, and coal, with targeted and time-limited exemptions, if required.

We propose a ban on Western firms providing products and services in the energy industry in Russia, or to Russian-controlled entities in other countries.

#### **c. Sanctions**

We propose to impose sanctions on all Russian oil and gas companies – including Gazprom and Gazpromneft, Rosneft, Surgutneftegaz, Lukoil, Zarubezhneft, Tatneft, Transneft, Sibur and Novatek as well as Russian oilfield services companies – with limited exemptions for oil price cap compliant transactions and for temporary exemptions to the European embargo. Similarly, full sanctions can now be imposed on Gazprombank, which previously was exempted from sanctions to facilitate the now marginal Russian energy trade with Europe. To complicate standard Russian circumvention tactics of using unsanctioned subsidiaries when the main company is sanctioned, we propose further to sanction all subsidiaries of the main holding company.

We also propose to impose personal sanctions on the senior officials and managers of the sanctioned companies, reflecting their enhanced level of responsibility – as the leadership of the critical industry which underpins the Russian economy and budget – for the actions of the Russian state and therefore for the invasion of Ukraine.

#### **Additional Offensive Option: Turning the Tables on Gazprombank**

Gazprombank plays a central role in financing the gas trade and has so far been exempt from sanctions because of Europe’s dependence on Russian energy. We propose to turn the tables on Gazprombank by applying a mechanism used by the Russians which would deny Russia access to energy export receipts paid to Gazprombank. In particular, on March 5th, President Putin issued decree 95 that allows Russian residents to repay their debt to non-residents by paying in rubles into dedicated “C” accounts set up with the National Settlement Depository. The money in those accounts is not available for withdrawal or conversion into hard currency, but the debtor’s obligations are considered extinguished under Russian law. By analogy we propose to turn Gazprombank itself into such a “C” account (essentially an escrow account) by adding it to the SDN list and issuing a general license to allow correspondent banks to only credit USD accounts held at Gazprombank. This would allow customers to satisfy their obligations by making the payment but would then freeze the funds and put them beyond reach for Russia. This would avoid a breach of contract by customers and be consistent with Russia's own treatment of its financial obligations.

#### d. **Other Energy-Related Measures**

**Nuclear power.** We propose a package of measures against Rosatom, with a view in particular to deterring Russia's reckless actions at the Zaporizhzhia Nuclear Power Plant (ZNPP), including a ban on Russian uranium, personal sanctions on the management of Rosatom, and Rosatom officials active in Ukraine, combined with a commitment to a full set of sanctions if Russia triggers a nuclear incident at ZNPP. This threat must be accompanied by actions – as committed to by the G7 civilian nuclear powers – to reduce the West's dangerous dependence on Russian civil nuclear fuel services, particularly in enrichment and conversion.

**Energy intensive exports: tariffs and caps.** One of Russia's key competitive advantages is its cheap energy, which underpins the high profitability of many Russian exports, including petrochemicals, nitrogen fertilizer and metals. Russia's export earnings can be reduced while maintaining the incentive to supply by imposing higher tariffs on selected Russian exports, particularly those for which substitutes are readily available, as recently done by the US and Canadian governments on a number of Russian metal exports. We also see scope for an extension of the price cap to hold the price of petrochemicals and nitrogen fertilizer sold to sanction coalition countries at a level consistent with the crude price cap.

### **V. Conclusion: Using Energy Sanctions to Shorten the War**

We see sanctions as part of the toolkit to support Ukraine's efforts to liberate its territory from Russia's aggression. In particular, we see energy sanctions as among the most material sanctions, given Russia's dependence on oil and gas revenues. We estimate that they currently reduce Russia's revenues by \$5-7 bn per month, or \$60-90 bn pa.

We now see Russia as being in a fragile financial state, with limited available FX reserves, and sharply reduced oil and gas revenues. This fragility was highlighted in August in the sharp fall in the ruble and the emergency hike in rates.

We believe that robust implementation of existing commitments on the oil price cap and ending Europe's dependence on Russian energy can reduce Russia's oil and gas revenues by a further \$2-4 bn per month, or \$25-50 bn pa, increasing pressure on Russia's fragile economy. We also highlight that additional measures, notably ratcheting the oil price cap down to \$30/bbl, could reduce oil and gas revenues by a further \$5-7 bn per month, or \$60-90 bn pa, which would put Russia in a heavily constrained position and we believe would shorten the war by compelling Russia to abandon its aggressive war of choice on Ukraine.

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