Russia Sanctions – How to Make Them Work

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Executive summary

This report gives an overview of the effect of Russia sanctions and provides recommendations for further steps. We start with a look at the purpose of sanctions, showing that the goal of sanctions is two-fold: inhibiting Russia’s capacity to wage war against Ukraine and undermining the Kremlin’s long-term capacity to launch another war.

Though sanctions have not inflicted a truly devastating macroeconomic effect yet, this dynamic is gradually changing. Sanctions targeted towards the financial and energy sectors have weakened Russia’s economy. That said, the effects have not yet reached a sufficient level to undercut the ability of Moscow to finance the war.

On the energy front, the EU’s priority should be directed at the reduction and/or stabilization of energy prices, especially for gas and electricity. Market inefficiencies in these sectors have exacerbated Europe’s vulnerability to Russian energy extortion.

The bans on technology and equipment exports to Russia and voluntary company withdrawals, particularly in technology-related sectors, have proven to be the most effective measures to date. Weapons manufacturing, car production and air transportation have been hit hardest. To force an end to the war, it would be prudent to double down on technology sanctions by introducing additional measures restricting IT services, limiting third-party supplies and improving coordination among allies.

Introduction

Since Russia launched its full-fledged invasion of Ukraine in February 2022 and Western allies imposed sanctions, the effectiveness of these measures has garnered lots of attention. The question extends far beyond military and strategic issues to considerations about how best to force Russia to change its behaviour. It is, furthermore, about defending the values of the free world. The prevalent narrative in the West asserts that people need to bear sacrifices to withstand the aggressor and preserve the basic values of democracy and the international order. There are also those in the West, nevertheless, who have sought to exploit this issue by suggesting the hardship that sanctions are inflicting on Europe and the US is not justified or too steep. This group argues that governments should rather focus their efforts on other pressing issues. At the same time, there is considerable evidence that sanctions work, especially now more than nine months into the war. Two approaches can contribute to bringing clarity to this discussion: granularity and timing. While at the macro level, numerous economic performance indicators may not ring alarm bells yet, closer scrutiny of sectoral metrics signals that significant strain is being placed on the Russian economy. Moreover, it is important to be clear about expectations regarding timing: the effect of sanctions comes with a lag. Any assessment of the role of sanctions, consequently, must heed this time horizon effect.

This paper synthesizes current information about the effects of sanctions imposed on Russia. We also sketch out some of the strategies on next steps.

* The report includes the latest data and information as of December 9th, 2022.
The purpose of sanctions

To assess the effectiveness of sanctions, we need to be clear about their purpose. The initial declared objectives of sanctions both by the EU and US focused on curtailing the Kremlin’s capacity to wage the war. There were also political and moral considerations raised, whereby sanctions serve as a form of “punishment” for the aggressor and a powerful signal to all “rogue” states that they should think twice before invading another country.

According to the European Commission¹, the aims of the EU economic sanctions against Russia are:

- to cripple the Kremlin’s ability to finance the war
- to impose clear economic and political costs on Russia’s political elite responsible for the invasion
- and diminish its economic base.

The initial US formulation on sanctions was put forward as such²:

- The Treasury is continuing to inflict costs on the Russian Federation and President Putin for their brutal and unprovoked assault on the people of Ukraine.

Yet as the war has progressed, the objectives have de-facto become broader. US officials, especially its military, suggest that the goal of the US involvement includes not only the defeat of Russia in the war but also undermining its capacity in the foreseeable future to conduct any similar assault.³

A key motive underpinning restrictions on Russian imports of technology and equipment concerns an effort to target Russia’s military and defence sector. Sanctions, that said, have also been more broadly designed to constrain Russia’s access to vital technological inputs, thereby atrophying its industrial base, according to a White House communication.⁴

These assertions underscore a two-fold goal for sanctions: they are designed both to inhibit Russia’s capacity to wage the current war and undermine its long-term ability to launch another war.

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¹ EU sanctions against Russia following the invasion of Ukraine, European Commission.
³ This shift in the goal has become apparent at the press-conference of US defence secretary Lloyd Austin on 25 April in Warsaw. “We want to see Russia weakened to the degree that it can’t do the kinds of things that it has done in invading Ukraine.” That meant Russia should “not have the capability to very quickly reproduce” the forces and equipment that have been lost in Ukraine.
⁴ FACT SHEET: Joined by Allies and Partners, the United States Imposes Devastating Costs on Russia, White House, 24 February 2022.
Types of sanctions

Sanctions include targeted restrictive measures (individual sanctions), economic sanctions and visa measures.

Sanctions on individuals include travel bans and asset freezes. So far, they have been applied to 115 entities and 1236 individuals. Four Russian broadcasting outlets are among affected entities known for spreading propaganda in the past.

Economic sanctions include:

1. Trade sanctions
   - Restrictions on Russian imports: cutting-edge technologies, transport, maritime and aviation equipment (including spare parts), energy sector equipment and dual-use products and technologies. These are, in essence, technology sanctions.
   - Restrictions on Russian exports (mainly energy and raw materials): oil and oil products, coal, steel cement, wood, etc... Not all of these sanctions have entered into force, however. Restrictions on oil only became effective in December 2022 and those on oil products will take effect in February 2023. Coal sanctions were also introduced with a transition period and went into effect in August 2022.
   - (See the list of products covered by both groups in Annex 1)

2. Restrictions on Russian financial industry and its central bank
   - Sanctions against the Central Bank of Russia (CBR)
   - The EU prohibited all transactions with the CBR related to the management of CBR reserves and assets – this entails a freeze of CBR assets in the EU.
   - SWIFT ban for Russian and Belarusian banks
   - The ban prevents ten Russian and four Belarusian banks from making or receiving international payments using SWIFT. There are, however, notable exceptions: the banks that transfer payments for Russian oil and gas do not fall subject to this ban.

In addition to formal sanctions, some Western companies have voluntarily withdrawn from the Russian market.

Source: EU sanctions against Russia explained, European Council
General economic effects

The initial predictions that sanctions would inflict an enormous impact on the Russian economy in 2022 failed to materialise. The past year appeared to only partially affect Russia, with the Kremlin bailed out in large part by skyrocketing oil and gas prices (improving the Russian budgetary situation), skilful monetary policy and financial reserves that Russia had built up since 2014. The Russian economy contracted by 4% YoY in Q3 2022 (Figure 1) - better than the 8-11% contraction forecasted by a diverse range of institutions. The IMF has revised its forecast for Russian GDP growth in 2022 from -8.5% as of April 2022 to -3.4% in its September WEO (Figure 2).

Even though the forecast has improved, Russia’s performance has been considerably weaker than other oil exporters. A KSE report shows that the lost growth could be 15pp if one compares Russia to Saudi Arabia. However, this loss of GDP has not yet damaged Russia’s short-term ability to wage and finance the war.

According to a KSE simulation, Russia will experience a strong drop in oil and gas revenues as the European oil embargo comes into force and global oil prices calm down. Russian energy revenues are expected to fall by over 40% from around $325 billion in 2022 to $180 billion in 2023. However, this is still above the critical level of $150 billion, below which pressure on the rouble could mount (based on past experience). Oil and gas revenues accounted for half of budget revenues in 1H-22. Revenue from oil and gas briefly spiked in March and April in response to high oil prices and a weak rouble exchange rate. However, starting from July, energy revenue has shrunk due to a stronger rouble and reduced gas exports. At the same time, Russia has significantly increased its fiscal spending in 2022 both to fund the war and counter the economic effects of sanctions. Consequently, Russia’s budget began to run a deficit in the summer. For the year combined, the Russian MinFin forecasted a deficit of 0.9% and a 2% deficit for 2023. The MinFin’s projections are most probably overly optimistic but given the wide variety of options for the Russian government to collect additional revenue, the deficit is unlikely to be substantially higher. The MinFin said it plans to finance the deficit through debt issuance. We should not also forget about the National Welfare Fund - it held $120 billion of liquid assets as of October 2022, more than enough to cover the 2% deficit (~$46 billion).

The impact of the sanctions on the financial system has not proven devastating either. Following an initial shock, banking sector liquidity returned to normal. A Bruegel report provides an insightful

Figure 1 - Russia GDP growth

Figure 2 - Russia GDP growth forecast, %, IMF

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP Growth</th>
</tr>
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<tbody>
<tr>
<td>2021</td>
<td>10.5%</td>
</tr>
<tr>
<td>2022</td>
<td>-4.1%</td>
</tr>
</tbody>
</table>

Source: Rosstat and IMF

5 KSE (2022a) Impact of sanctions on the Russian economy. Kyiv School of Economics, August 2022
6 KSE (2022a) Impact of sanctions on the Russian economy. Kyiv School of Economics, August 2022, p.28
7 When oil and gas revenues dropped sharply in 2008, 2014-15 and 2020, there were sharp falls in the rouble leading to higher inflation, tighter policy and a weaker economy. See KSE (2022a).
8 In response to the expected drop in revenues, the government has announced an increase in taxes on oil and gas companies as well as metal and coal producers.
9 See, for example, an insightful analysis of the Russian fiscal situation by the former Deputy Minister of Finance of Russia: Sergey Aleksashenko “Does Russia have enough money for war?”, 5 Dec 2022, Aljazeera
10 Bruegel (2022) How have sanctions impacted Russia? Policy Brief, October 2022
overview on this topic. In a nutshell, the Russian financial system has been aided by (1) pre-war efforts of Russia to become autonomous and create a financial cushion\textsuperscript{11}, (2) savvy Central Bank crisis management, (3) high energy prices that have ensured an inflow of foreign currency and (4) the fact that only partial sanctions were implemented and did not cover the major banks involved in energy payments. Even though the asset freeze and a crisis operations regime has caused the Russian Central Bank to lose nearly half of its reserves, it still holds around $300 billion, giving it breathing room over the near term.

Trade sanctions

Prior to the war, the EU and Russia were strongly trade dependent on each other in particular areas: while the EU relied on energy supplies from Russia, the latter itself depended on the supply of technological goods and services from the EU. Both parties have sought to exploit these vulnerabilities during the war.

Although Russia was only the 5\textsuperscript{th} largest trading partner for the EU in terms of trade volume and accounted for 5.9% of EU trade in goods in 2021\textsuperscript{12}, the bloc has been highly dependent on energy and some minerals imports from Russia. In 2021, the EU imported more than 40% of its total gas consumption needs, 27% of its oil imports and 46% of its coal imports from Russia.\textsuperscript{13} The EU also maintains critical dependencies on Russian supplies of fertilisers (60% from Russia and Belarus combined), nickel mattes, direct reduced iron and nuclear fuel elements and cartridges\textsuperscript{14}. At the same time, Russia is considerably more dependent on the EU in terms of its trade. In 2020, the EU was Russia’s largest trading partner, accounting for 37.3% of the country’s total trade in goods.\textsuperscript{15} Russia earned $117 billion from energy sales to the EU in 2021. Importantly, Russia depends a lot on imports of foreign high-tech goods, especially machinery, equipment and vehicles: these goods accounted for half of Russian total imports in 2021 (Figure 3). And the EU is a major supplier of these goods to Russia: in 2021, machinery, equipment and motor vehicles were on the top of the list of goods that the EU exported to Russia, totalling €36 billion (Figure 4). This dependency of Russia on the supplies of technological goods from the EU and the West in general has been critical to the success of sanctions.

\textsuperscript{11} The Central Bank of Russia introduced alternatives to SWIFT, compelled Western credit card providers to integrate into a Russian payments system and shifted some of its reserves into other currencies.
\textsuperscript{12} EU27 Trade in Goods by partner, 2021, European Commission
\textsuperscript{13} In focus: Reducing the EU’s dependence on imported fossil fuels, European Commission
\textsuperscript{14} Taran, Svitlana (2022) Strengthening the impact of EU sanctions against Russian aggression in Ukraine. Discussion Paper, European Policy Centre, October 2022, p. 1.
\textsuperscript{15} EU trade relations with Russia. Facts, figures and latest developments, European Commission
The sanctions that the EU has adopted so far (eight packages as of November 2022) are more restrictive with respect to Russian imports than Russian exports. According to estimates by the Kyiv School of Economics, as of July 2022, sanctions covered about 25% of total Russian imports but only 8% of its exports\(^{16}\). This pattern is not surprising given the relative positioning of the trade partners: on Russian exports, both Brussels and Moscow could be substantially harmed by any ban. But as it pertains to EU exports to Russia, the EU has a clear advantage: it accounts for 40% of Russia’s imports even as Russia constitutes only less than 2% of total EU exports. This allows the EU to cut Russia off from critical supplies with limited impact on EU export revenue.

This asymmetry with regard to the trade effect of sanctions is apparent in the aggregate trade statistics (see Table 1). Throughout the Jan-Jun 2022 period, Russian exports boomed (supported by high energy prices) even as imports contracted sharply due to the impact of sanctions. This resulted in a sizable trade and current account surpluses, lending support to the rouble.

The primary effects of sanctions, however, are not visible in the aggregate statistics. The effectiveness of sanctions rather depends more on their capacity to target Russian vulnerabilities. The next section turns to analysing these effects.

Table 1. Russian current account and trade balance, USD bn

<table>
<thead>
<tr>
<th></th>
<th>Q2 2021 YTD</th>
<th>Q2 2022 YTD</th>
<th>Growth YoY</th>
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<tbody>
<tr>
<td>Exports</td>
<td>128</td>
<td>162</td>
<td>27%</td>
</tr>
<tr>
<td>Imports</td>
<td>93</td>
<td>72</td>
<td>-23%</td>
</tr>
<tr>
<td>Trade balance</td>
<td>35</td>
<td>90</td>
<td>159%</td>
</tr>
<tr>
<td>Current account</td>
<td>17</td>
<td>77</td>
<td>343%</td>
</tr>
</tbody>
</table>

Source: Central Bank of Russia

\(^{16}\) KSE (2022a) Impact of sanctions on the Russian economy. Kyiv School of Economics, August 2022
Restrictions on Russian exports (energy sector sanctions)

Numerous policy debates have been focused on sanctioning Russian energy exports, with oil and gas important sources of Russian revenue and especially funds for government expenditures, and thus, of war financing. By restricting the purchase of Russian energy supplies, the allies can undermine the ability of Putin’s regime to wage war.

Canada, the US and Australia all banned imports of Russian oil early on. The UK, for its part, announced a phaseout to zero by the end of 2022. However, these countries make up only a small share of total Russian oil exports. By contrast, the EU, the largest buyer of Russian oil and gas, adopted a rather partial and gradual approach. Before the oil embargo came into force on December 5th, 2022, EU sanctions had rather limited coverage. They included an embargo on coal and seaborne transportation of Russian oil into the EU. The latter could have potentially inflicted a severe blow to Russia - 75% of Moscow’s oil exports going to the EU had been previously transported by sea.

That said, an abundance of evidence suggests these sanctions have been circumvented (see the box “Oil sanctions circumvention” below).

Another hurdle concerns an important exemption from the EU oil sanctions: Greece. Athens was exempted from the ban on seaborne transportation of Russian oil in the sixth package of sanctions out of deference to the important role that shipping plays for the Greek economy. The share of Russian oil transport carried by Greek ships has, consequently, grown from 35% pre-war to 55% as of August 2022. The Institute of International Finance has developed a database that tracks the movement of oil tankers out of Russian ports, thereby helping to identify the ultimate owner. Their data reveals that 2022 has seen all-time high volumes of oil transported out of Russian ports.

This means that prior to the embargo entering into force in December 2022, oil sanctions failed to constrain Russian oil exports. While there was a reduction of Russian exports to the EU, other countries increased their Russian oil purchases, more than compensating for the loss of the EU market. Bruegel’s “Russian crude oil tracker” report spotlighted the massive growth in “non-EU non-G7” and “undetermined” purchasers of Russian oil since spring 2022, resulting in higher purchase volumes compared to 2021. Significant shares of Russian oil exports were rerouted to China, India, Turkey and the United Arab Emirates. In Q2 2022, Turkey’s imports of Russian oil and gas surged by 120% YoY, China’s by 37% and India’s by 364%.

Yet the sanctions have influenced the price secured by importers: the discount on Russian oil versus Brent global benchmark has widened to $23-$35 per barrel. Sanctions, to this end, have managed to eat into Russian oil revenues. The simulation by KSE shows that by the end of 2023, Russian oil and gas revenues will fall closer to the critical level of $150 billion based on the status of sanctions as of August 2022.

Oil sanctions circumvention

To circumvent the EU ban on Russian oil, it is mixed, refined, or processed in third countries (e.g. Kazakhstan, the UAE and Turkey) to conceal its country of origin. Other attempts to evade the bans have involved mixing crude oil cocktails when transferring oil between ships at sea to hide their origin.

India has devised another evasive tool – safety certificates that allow Russia to export oil to India even if the Western insurance sanctions are put into effect.
After the ban on oil came into force on December 5th and the ban on oil products comes into effect in February 2023, more than 90% of Russia’s oil exports to the EU will be barred. This will bring more visible effects on Russia: it will mean a significant increase in the volume of sanctioned Russian export revenues – from the current 8% to 29%. It will also mean an earlier tipping point for budget revenues and the Russian economy more broadly.

Simultaneously with the EU oil embargo, the G7 introduced an oil price cap (see the box “Oil price cap”) for oil shipments to third countries. Energy sector experts expect some disruptions in the oil supply initially, as energy and shipment companies adapt to the sanctions regime and as Russia seeks to find non-western fleets to transport its oil. Vitol, the world’s largest independent energy trader, has said it expects Russian seaborne oil exports to fall by almost 20%.

The effect on volumes will, however, most likely be limited. China, India and Turkey, which have become the main buyers of Russian oil in 2022, declined to join the initiative. In fact, the logic of the cap is not so much to limit export volumes but rather Russian revenue. In theory, the cap should not lead to an increase in the global oil price, since shipments are still permitted. However, if Russia decides to withhold shipments under the price cap (as it declared it will), there could be some disruptions in supply and ensuing price volatility.

Turning to Russian gas, the EU, in fact, refrained from introducing any sanctions in this area. Instead, Russia cut its gas supplies to Europe in an extortion attempt. As a result, Russia’s gas exports to Europe are now down to around 20% of their 2021 levels. This abrupt disruption has sparked economic tension in the EU and the situation may extend through this coming winter and possibly into 2023-24. Yet, the cut-off of supplies of Russian gas to Europe will inflict consequences on Russia, too. The Kremlin will need to shut down a sizeable portion of its gas-export infrastructure and build new infrastructure directed towards the east. Unlike oil, most of Russia’s exports of gas are transported via pipelines. The possible connection of western gas fields to the existing Siberian pipeline would take years to complete – at least 2030. On top of that, the price point that Russia can attain in the east for its gas is considerably less attractive than the price the EU has been paying. Before the war, Russia charged $3 per MMBtu for deliveries to China via the Power of Siberia pipeline. The estimated charge for deliveries to Europe, meanwhile, stood at $10-$25/MMBtu. In sum, Russia’s self-sanctions on gas will contribute to substantial reductions both in volumes and selling prices for Russia. The detrimental effects of this contraction, however, will be mitigated by the fact that gas exports have typically brought significantly less revenues to Russia than oil (in 2021 oil exports brought around $180 billion compared to $55 billion for gas exports). The impact of the gas self-embargo on Russian energy revenues, therefore, will hit Russia hard, but its scale will not be devastating.

What all experts agree is that the oil embargo and the gas supply cuts will, undoubtedly, have serious medium-term consequences for Russia, substantially constraining its energy revenues and capacity for investments and social spending. However, it is unclear whether this decline in well-being will translate into a course change or regime change. EUISS conducted one such analysis finding that despite the squeeze on the economy, no indications of regime change in Russia could be identified either through an elite coup or mass protests. This absence of unrest is connected to certain characteristics about

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26 Vitol, the world’s largest independent energy trader, has said it expects Russian seaborne oil exports to fall by almost 20%
28 For a good summary on oil price cap see Bruegel (2022) How have sanctions impacted Russia? Policy Brief, October 2022, p. 15.
27 Letter to Treasury Secretary Janet Yellen: In Support of a Price Cap on Russian Oil Exports, 11 October 2022
29 UK to ban ship insurance cover for Russian oil ahead of G7 price cap, FT, 3 November 2022
30 Bruegel (2022) How have sanctions impacted Russia? Policy Brief, October 2022, p. 17.

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Oil price cap

Since spring, the US has been advocating for a price cap on oil to be applied to shipments to third countries. Such an oil cap, finally, came into force on December 5th, 2022, alongside EU bans on imports of oil. The level of the cap has been set at $60/b (which is roughly equal to the actual price at which Russian oil was trading in November 2022 and, therefore, not very binding). Its mechanism is linked to oil tankers insurance: insurance is offered to ships transporting Russian oil only when the price cap is respected. Securing cooperation with the UK is crucial to the success of the mechanism, as over 90% of the world’s oil tankers are insured via the International Group of P&I Clubs, a London-based association of insurers.
Russian society and the autocratic regime that has suppressed all potential sources of dissent. The EUISS paper looks to the past - the 2014 annexation of Crimea, similarly, was followed by sanctions from the EU and US that resulted in an economic squeeze. The sanctions undermined the Russian economy over the medium term and forced the government to introduce unpopular measures over the next several years, such as an increase in the pension age, instigating widespread frustration throughout the population. However, they failed to trigger a change in course on Russian policy or regime change.

There is a view that holds that the fall of the Kremlin will most likely happen through an internal coup. The vertical of power is the most vulnerable aspect to dictatorships and it rests on the belief that the regime will continue to reign indefinitely. Once there are signs of a possible collapse, the members of the regime start to behave opportunistically and abandon the dictator. Putin, up to now, has kept his empire together through massive cash handouts to the ruling circle. Any economic squeeze from sanctions will limit his capacity to continue these generous payments and may indeed become the tipping point for regime collapse.

**Way forward**

In this war of attrition, the extent to which the EU (and the West in general) manages to withstand pressure will be critical. The energy price spikes have induced a major shock to the European economy that threatens to translate itself into social and political tension. From this perspective, the primary focus of the EU should be to reduce or stabilise energy prices, notably, of gas and electricity.

The price of gas soared substantially already in 2020 and 2021, even before the war. The rise of the price of gas is partially attributable to such factors as the post-pandemic recovery in global consumer demand and technical limitations on supply capacities. The extortion manoeuvres by Russia have also played a role, with Moscow reducing its supplies to Europe in 2021. However, these factors do not justify the 20-times increase versus the long-time average that occurred in the summer of 2022. Market failure, monopoly pricing and speculative behaviour contributed to the enormous jump in prices.

Industry participants and regulators agree that the wide swings in the price of gas in 2022 can be blamed on the dysfunctionality of the current mechanism for setting the price of gas, namely the TTF Index. TTF has become disconnected from fundamentals, and its fluctuations placed tremendous strain on energy companies. The European Union decided to initially prioritise filling gas storage and only later in autumn turned to the matter of pricing. On October 18th, it published a proposal of a regulation aimed at curbing the excessive volatility of the TTF and developing an alternative index for LNG pricing. Had these measures been enacted earlier, the EU would have avoided the gas price disaster that it went through in the summer of 2022.

The **price of electricity** in the EU is another story about how the market appeared to be incapable of handling shocks. The malfunctioning of the European electricity market was evident even before the war. As electricity prices surged in 2021, experts and market players started to voice their concerns about the inappropriateness of the EU energy market design. The major issue, which had become apparent in 2022, concerned the pegging of electricity prices to the price of gas (which is determined by TTF). According to ACER’s report, published at the end of April 2022, the current energy crisis is in essence a gas price shock, with knock-on effects on electricity prices. Following the summer price shock, the Commission started to move on this issue, putting forward a proposal for decoupling electricity and gas prices. This issue, however, is only one of several problems in the electricity market. There is considerable evidence that monopolistic price setting practices are being deployed by energy companies (see, for example, a paper by Nauschnigg), a development that has also been acknowledged by the Commission. In September, it put forward proposals for developing diverse...

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32 Dubrovskiy, Vladimir and Krassen Stanchev (2022) Sanctions against Russia: Why and how they work, or should work, FPC, 10 August 2022
33 Global energy and cereals prices and Putin’s war against Ukraine, OENB, 1 August 2022
34 The drivers of the winter 2021-2022 gas crisis, Energy Transitions Commission
35 Bruegel Annual Meeting, session “Mitigating the energy shock”, 7 September 2022
36 Commission makes additional proposals to fight high energy prices and ensure security of supply, European Commission, 18 October 2022
37 Soaring energy prices question today’s market design and long term energy system resilience, by Eryk Kłossowski - CEO Polskie Sieci Elektroenergetyczne, 15 December 2021
38 ACER publishes its Final Assessment of the EU Wholesale Electricity Market Design, 29 April 2022
39 Brussels proposes electricity decoupling alternative to gas price cap, Politico, 25 October 2022
40 Nauschnigg, Franz (2022) Inflation bekämpfen durch Senkung der Monopolrenten, Wirtschaftsdienst
tools to limit electricity price volatility and the abnormal profits of non-gas electricity producers.  

All told, the prevailing narrative that high energy prices have been caused by sanctions on Russia is false. What is true is that Russian extortion caused disruptions in the gas market, though it is only part of the story. Significant impacts have been sparked by the failure of the EU gas and electricity markets and a delayed response by European regulators. The EU needs to move faster and bolder on energy market reform to withstand the coercive strategies of Russia and put its energy sector on a sustainable path forward.

Restrictions on Russian imports (technology sanctions)

An area where sanctions, in fact, had a noticeable effect on Russia’s ability to wage war pertains to bans on exports from the West to Russia of high-end technology products and spare parts. The sectors that appear to have been most vulnerable include the manufacturing of transportation equipment, chemicals, IT services, food products and telecommunications. Notably, while EU sanctions are limited to sales and exports to Russia from the Union, the US prohibits exports to Russia and Belarus from anywhere in the world of any product created using American software or equipment. Other important tech players such as South Korea, Japan and Taiwan have also joined the blockade.

The sanctions were also complemented by the voluntary withdrawal of Western companies. According to the latest data gathered by KSE, as of October 31, 132 foreign companies had completely departed Russia and 1,139 had curtailed their operations. This latter figure represents 43% of the total 2,958 companies identified in the KSE database, corresponding to 52% of the workforce and 40% of total assets of foreign companies in Russia.

41 Energy prices: Commission proposes emergency market intervention to reduce bills for Europeans. European Commission Press release, 14 September 2022
42 Give and tech: How technology sanctions can help counter the threat from Russia, by Julian Ringhof, 4 March 2022, European Council on Foreign Relations
43 KSE (2022) Impact of Foreign Companies Self Sanctions on RF Economy. Kyiv School of Economics, 31 October 2022
Car production and air transportation have been the hardest hit sectors so far. Car production fell 43.5% YoY across the Jan-Oct 2022 period, as foreign car manufacturers withdrew from the country and restrictions on EU exports led to a shortage of input components. Air transportation has also collapsed due to the cancellation of aircraft leases and maintenance contracts, on top of the closure of the airspace of numerous European countries to Russian planes. A Yale report also provides evidence on shortages of cars and electronics and highlights the massive surge in prices for these products on the consumer market.

The production of weapons and war equipment has also been affected by technology sanctions. There is considerable anecdotal evidence on a lack of spare parts, with Russians cannibalising household appliances for chips. The Ukrainian military has reported finding Russian military equipment filled with semiconductors taken from dishwashers and refrigerators. Russians are also running out of high-precision modern weapons, tilting the situation on the frontlines. The use of modern weapons and satellite technologies, smart drones and night-vision devices has enabled the Ukrainian side to acquire an artillery advantage in the southern parts of the country (see, for example, reporting from the New York Times). While sanctions, undoubtedly, are not the primary reason that Russian equipment is outdated, they are making a difference in hampering Russia’s ability to replenish their stocks.

The effectiveness of technology sanctions, though, has been undermined by circumvention and a lack of coordination among allies. See Box 3 for more details on circumvention.

Technology sanctions will inflict a devastating impact on the Russian economy and military sector over the medium-to long term. The measures can be expected to curb Russia’s technological and industrial potential. Moscow’s import substitution strategy that it pursued for years before the war proved generally unsuccessful and the Russian economy remained highly dependent on Western technological imports. The allies, therefore, should strengthen technology sanctions to further weaken the Kremlin and ensure it cannot wage a similar war in the future.

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**Figure 5 - Output in selected industries, Jan-Oct 2022, %, YoY**

![Chart showing output in selected industries, Jan-Oct 2022, %, YoY](chart.png)

Source: Rosstat

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44 Yale (2022) Business Retreats and Sanctions Are Crippling the Russian Economy. August 2022
45 With Western Weapons, Ukraine Is Turning the Tables in an Artillery War, NYT, 29 October 2022
Box 3. Circumvention of technology sanctions

Russian companies have invented different ways to circumvent sanctions. Russians have, in fact, explained some of these methods in their own presentations (cited in the paper by Taran46). These include importing goods via third countries, direct re-export, indirect re-export or resale enroute, and false transit. Belarus, Armenia and Central Asian countries stand out as Russia’s most frequently used cooperation partners for such schemes. Russian military manufacturers deploy these different arrangements to evade sanctions for dual-use items by establishing intermediate companies in third countries, using false descriptions and importing individual components.

Numerous instances of Western dual-purpose equipment being supplied to Russia have also surfaced. Components manufactured by Texas Instruments, the US technology company, for instance, were found in Russian rockets and Iranian drones that are currently being used against Ukraine. Closer to home, media reports emerged that Slovak companies supplied dual-purpose equipment to Russia and Iran after the start of the war. It is difficult to control the sale of dual-purpose goods as they often are reported as civilian equipment. The US and allies, that said, have gradually improved their capacity to track and thwart the circumvention of sanctions.

The fact that China and other “non-aligned” countries are not participating in the sanctions regime is also undermining these efforts. Following the imposition of Western sanctions, Russia has turned to Beijing to increase their supply of chips and equipment48.

The insufficient coordination of bans on international supplies to Russia undermines their effectiveness. A recent Harvard study showed that out of all sanctioned product categories, only about 50% of products have been sanctioned by both the EU and the US. Around 31% have been targeted only by the EU and 19% just by the US49. This study underlines that an increase in the scope of the embargo would lead to Russian losses that are proportionately larger (i.e. even moderate increases in the scope of sanctions could lead to significant losses for Russia). Moreover, the estimated welfare loss would be considerably greater to Russia than the sanctioning parties, amounting to a factor of ~100, apart from the Baltic countries. This suggests additional potential gains could come from increasing the coverage of sanctions, in particular, through better coordination among coalition countries. Similar conclusions have been drawn by DIW & Kiel50 and Bruegel51 reports.

In expanding the scope of sanctions, the allies should target sectors in which Russia has low production capacity and cannot easily substitute banned imports. Another focal point for sanctions should include areas where the sanctioning countries have a dominant market position, taking away the option for Russia to turn to third countries. This approach has proven successful to date but it now needs to be enhanced and strengthened with better monitoring of compliance.

The IT sector is a particularly promising field for sanctions. Targeted measures here will strongly undermine Russia’s military capability, limit its ability to conduct propaganda, increase the Russian military vulnerability to Ukrainian counterattacks and reduce the Russian capacity to engage in cyberwarfare worldwide. This is, indeed, not only an issue about assisting Ukraine but, to a large extent, helping protect allies against Russian cyber-aggression and propaganda. The Yermak-McFaul group has prepared an extensive report on this topic, together with proposals on services and technologies to be sanctioned.52 An important issue that the report raises is that now there is should be no distinction between civilian and military technology and IT. Any foreign IT or industrial machinery could be eventually deployed in weapons, including repurposing components from consumer goods. The Russian military relies heavily on foreign commercial

Way forward

For the near-term future, the priority should be placed on increasing the scope of technology sanctions (especially in IT), improving coordination, broadening the alliance of sanctioning states and combating circumvention.

The insufficient coordination of bans on international supplies to Russia undermines their

46 Taran, Svitlana (2022) Strengthening the impact of EU sanctions against Russian aggression, in Ukraine. Discussion Paper, European Policy Centre, October 2022
47 From America with love: How a US company helps to bomb Ukraine. Ukrainska Pravda, 20 October 2022 (in Ukrainian)
48 Chinese Firms Are Selling Russia Goods. Its Military Needs to Keep Fighting in Ukraine. WSJ. 15 July 2022
51 Bruegel (2022) How have sanctions impacted Russia? Policy Brief. October 2022
hardware and software to manage its logistics, field operations, etc... By simply disabling key services on smartphones, Western companies can substantially undermine the Russian war machine.

Both the US and EU have recently enhanced their sanctions in the IT sector. As a part of its 8th package, the EU introduced a ban on IT services (installation of computer hardware and computer networks as well as software implementation services) and enhanced restrictions on crypto assets. However, large parts of IT infrastructure in Russia continue obtaining services from Western companies. Foreign software, services, technical infrastructure, intellectual property and other non-tangible items have not been explicitly covered by sanctions. Compared to all other types of sanctions (energy, finance), IT sanctions represent a low hanging fruit that promise tremendous potential benefits and, importantly, quick results on the battlefield.

Efforts to address sanctions circumvention should involve closing loopholes in the design of said sanctions, implementing robust enforcement actions against Russian-controlled companies that evade sanctions and similarly against countries and foreign companies that are facilitating this evasion and enhancing the monitoring of sanctions implementation. A recent detailed proposal from the McFaul-Yermak group lays out a comprehensive and detailed set of measures on enhancing the effectiveness of sanctions. They include:

- Enhanced monitoring system and sharing of data among allies.
- Improved and more aggressive enforcement and improved formulation of sanctions to close loopholes. Intermediary companies between Russian military complex and Western suppliers should also be sanctioned.
- Sanctioning authorities in each country should ask companies in their country to provide evidence that they are implementing a rigorous process to prevent supplies being sent to the Russian military.
- A structured dialogue between business and government on Russian sanctions and trade to ensure feedback and support good policy and its effective implementation.

To deal with circumvention through third countries, the recognition of Russia as a “state sponsor of terrorism” (SST) would be a powerful move – see the box below. The US, however, has refused to embrace this SST option. On September 6th, Joe Biden said the US would not do it, saying that such a move could backfire and have unintended consequences for US support of Ukraine.

State sponsor of terrorism (SST)

This status is formally defined in the US and Canadian legislation. The designation of Russia as a SST would allow the US to impose secondary sanctions on countries and companies that continue to cooperate with the Russian state. This designation would also considerably strengthen controls on supplies of military and dual-purpose equipment to Russia. The SST designation would, moreover, amplify the contraction of international business with Russia, even in the absence of explicit bans on particular Russian entities. International companies would need to conduct extra due diligence in their dealings with Russian entities and might decide to withdraw altogether to avoid potential risks of non-compliance and reputational damage. Other consequences may encompass legal, financial, symbolic and political repercussions. It would, finally, increase pressure on adding Russia to the blacklist of the Financial Action Task Force (FATF). More on this can be found in the proposals by the Yermak-McFaul International Working Group in Paper #5 published at the end of September.

Another tool for dealing with circumvention concerns secondary sanctions. The US has been a front-runner in the adoption of secondary sanctions and the deployment of diplomatic and economic channels to dissuade third countries from supporting Russia. The EU has officially announced the possibility that it may apply secondary sanctions in its 8th package in early October. In mid-October, after Russia’s massive attacks on Ukraine with Iranian drones, the EU sanctioned Iranian officials and three companies over the supply of drones to Russia. These measures should, undoubtedly, be expanded given the apparent large-scale circumvention of sanctions.

53 Working Group Paper #9 “Measures to Increase the Effectiveness of Sanctions” Yermak-McFaul International Working Group
54 Biden Says No to Appeals to Designate Russia a State Sponsor of Terror, VOA News, 6 September 2022
55 EU adopts its latest package of sanctions against Russia, European Council Press release, 6 October 2022
56 Timeline - EU restrictive measures against Russia over Ukraine, European Council
Conclusions

- Hopes that sanctions could precipitate a quick and devastating implosion of the Russian economy were unrealistic. The effects of sanctions, however, are growing with time.

- Sanctions in the financial and energy sectors have weakened Russia’s economy, though the critical level that would undermine the Kremlin’s ability to finance the war has not been reached yet. The threshold of pain from these sanctions in their present form is expected to be breached closer to the end of 2023. The oil embargo and oil price cap will bring up the tipping point to an earlier date though.

- Squeezing Russia economically through sanctions (of which denial of energy sector revenues is most important) will be a medium-term game, serving the purpose of undermining its capacity to wage a similar war in the future. However, on its own, this aspect of the sanctions is unlikely to force Russia to change its course in the current war.

- The most effective sanctions so far have been bans on technology and equipment supplies to Russia, as well as voluntary company withdrawals, especially in technology-related sectors. To stop the war, it would be prudent to double down on these measures, in particular, by introducing sanctions on IT services, limiting third-party supplies and better coordinating steps among allies.

- The efficacy of Western sanctions has been challenged by numerous loopholes (some of them done by design) but also sanctions circumvention by companies from Russia, China and other non-allied countries (and even some Western companies).

- The energy price crisis in the EU was only partially driven by natural causes and the Russian war; a large role in the price hike can be attributed to market failure and inadequate regulation. It is in the EU’s hands to put its internal market in order.

- The argument that the West is shooting itself in the foot by inflicting – via sanctions – pain on itself is not true. The sanctions are asymmetrical in the manner that their purpose is to hobble the Russian economy while shielding Western economies from collateral damage.

- Regardless of the sanctions and their effectiveness, the West’s (especially the EU) intention remains to free itself from its
dependency on Russian hydrocarbons. Such a process, by definition, will afflict hardship, bringing shocks to the economy and society. The costs of this strategic realignment constitute a strategic investment into the energy independence of Europe. Whatever the outcome of the war in Ukraine, Russia will continue to be distrusted and avoided as a trading partner for years to come.

- The general public tends to conflate the effects of sanctions on their lives and a wider set of war-related problems (such as hostile self-sanctioning measures adopted by Russia) and problems not related to the war (post-pandemic fiscal consolidation, monetary pressures, policy failures as regards the EU energy market etc...). What needs to be underscored (and explained to citizens) is that high energy prices in Europe are not caused by the sanctions imposed on Russia but rather are a consequence of Russian extortion.

- The mutual war of attrition in the framework of the sanctions regime between Russia and the West is related to societal resilience and the willingness of people to accept some economic distress in the name of achieving political goals. As Russia is an authoritarian state where rights of individuals are curtailed, the Russian government has greater room for manoeuvre than Western democratic societies. The regular elections of Western democracies mean that governments need to proactively explain any sanctions-related challenges to society.

- It is not clear how the economic squeeze is going to play out politically in Russia and whether it can spark regime change. One future route could involve popular discontent, where Russian citizens are swayed from supporting the invasion when their incomes fall and they are increasingly denied access to Western goods, with the accompanying psychological impact. Another route, though, could be the type of internal coup that is more par for the course for authoritarian regimes.

Recommendations

- Place priority on increasing the scope of technology-related sanctions, improving the coordination of sanctions and broadening the alliance of sanctioning states.

- Introduce sanctions on IT goods and services (software, services, technical infrastructure, intellectual property and other non-tangible items). These measures will provide a swift method to undermine Russia’s military capability. It would also be a prudent strategy for reducing Russian hybrid threats to Western allies themselves.

- Eliminate loopholes in the design of sanctions and remove exemptions. For example, sanctions should be extended to cover the entire Russian financial system.

- Better monitor and punish sanctions circumventions, especially related to military and dual-purpose equipment.

- Expand secondary sanctions on states, companies and persons who support Russia’s war effort (e.g. Iran and North Korea).

- Engage in dialogue with third countries such as China with respect to the potential implications of their support for Russia on their trade relations with the West.

- Fix deficiencies in gas and electricity markets to avoid further destabilisation caused by price volatility.
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Working Group Paper #5 The Case for Designating the Russian Federation as a State Sponsor of Terrorism

Working Group Paper #7 "IT & Supporting Technologies: Recommendations for Sanctions against the Russian Federation"

Working Group Paper #9 “Measures to Increase the Effectiveness of Sanctions”
Annex 1. EU restrictions on trade with Russia

(As of November 2022)

What goods cannot be exported to Russia from the EU?

The list of sanctioned products includes among others:

- cutting-edge technology (e.g. quantum computers and advanced semiconductors, high-end electronics and software)
- certain types of machinery and transportation equipment
- specific goods and technology needed for oil refining
- energy industry equipment, technology and services
- aviation and space industry goods and technology (e.g. aircraft, spare parts or any kind of equipment for planes and helicopters, jet fuel)
- maritime navigation goods and radio communication technology
- a number of dual-use goods (goods that could be used for both civil and military purposes), such as drones and software for drones or encryption devices
- luxury goods (e.g. luxury cars, watches, jewellery)

What goods cannot be imported from Russia to the EU?

The list of sanctioned products includes among others:

- crude oil and refined petroleum products, with limited exceptions (with phase out of 6 to 8 months)
- coal and other solid fossil fuels (as there is a wind-down period for existing contracts, this sanction will apply as from August 2022)
- steel, steel products and iron
- gold, including jewellery
- wood, cement and plastics
- seafood and liquor (e.g. caviar, vodka)
- cigarettes and cosmetics

Source: European Council. EU sanctions against Russia explained