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The Cost of EU Export Bans to Russia and Their Circumvention

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Abstract

Since the beginning of Russia's full-scale invasion of Ukraine in February 2022, the European Union has implemented an unprecedented series of sanctions, with export bans playing a central role. These measures aim to restrict Russia's access to critical technologies, particularly dual-use and strategic goods, and to raise the economic cost of the war. This policy brief assesses how EU export bans affected Russian import sourcing, while documenting their costs for European exporters.

Using detailed firm-level custom data, the analysis shows that the direct cost of export bans for French exporters has been limited in aggregate and highly concentrated across a small number of sectors and firms. Russia accounted for a modest share of French exports prior to the war, and firms exposed to export restrictions tend to be among the most internationally diversified, enabling them to absorb the shock relatively well. The decline in exports to Russia reflects not only export bans, but also financial sanctions, heightened uncertainty and voluntary disengagement by firms.

On the Russian side, detailed product-level trade data show that, export bans triggered a rapid reorientation of import sources toward non-sanctioning countries, most notably China and several intermediary economies. A substantial share of sanctioned and strategic products has been fully compensated through trade diversion. However, this adjustment is costly. Russian import prices increased significantly after 2022, driven by higher transport and insurance costs, rising demand for strategic goods, and most importantly, an increased market power for countries continuing to serve the Russian market.

Overall, while export bans have not prevented Russia from accessing key goods, they have succeeded in making these imports more expensive, slower and potentially of lower quality. Circumvention, therefore, should not be interpreted as a failure of sanctions, but as the channel through which they impose economic pressure in a fragmented global economy.

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The Cost of EU Export Bans to Russia and Their Circumvention

1. A brief history of EU sanction packages: objectives, timing and content of export bans

Since February 2022, the European Union has adopted an unprecedented series of sanctions against Russia in response to its invasion of Ukraine. These measures have been implemented through successive sanction packages, each expanding the scope, depth and ambition of previous restrictions. While sanctions target a wide range of economic and political relationships including individuals, financial assets, firms, and institutions, their economic impact is also reflected in international trade.

Export bans are a central component of this strategy. Between February 2022 and December 2025, 19 EU sanction packages progressively restricted exports to Russia, ultimately covering more than 2,100 products at the HS-6 level. These restrictions affect a wide range of products, from consumer goods (such as luxury items) to intermediate inputs and advanced technologies (i.e. computers, lasers, navigational radio, etc.). Particularly important are around 800 dual-use goods, which are products that can serve both civilian and military purposes, and a narrower set of so-called "Common High Priority Items", which include 50 critical electronic components, navigation equipment and semiconductors considered as particularly sensitive by the coalition of countries imposing sanctions on Russia.[1]

In value terms, these export bans represent around 60% of pre-war EU exports to Russia. The gradual implementation of restrictions, together with exemptions linked to pre-existing contracts or price thresholds, implies that the shock was neither instantaneous nor uniform across products and firms. This sequencing complicates the assessment of sanctions but also reflects a deliberate attempt by the EU to balance geopolitical objectives against potential costs for its own economies.

Assessing the effectiveness of sanctions is inherently a complex task (CEPII, 2025). First, the political objectives of the sanctions are often unclear and multifaceted, ranging from constraining Russia's military advance to raising the economic cost of the war for Russia. Second, the stated objectives are usually misaligned from the chosen policy instruments, as the content of sanction packages are not necessarily designed to halt a military aggression. Finally, sanctions operate alongside other dynamics such as voluntary firm exits and heightened uncertainty, making any causal links between sanctions and various outcomes blurred by the war context. Against this background, this policy brief evaluates whether export bans are well calibrated to impose economic costs on Russia, while also documenting their consequences for European exporters.

[1] https://finance.ec.europa.eu/publications/list-common-high-priority-items_en#related-links

2. Friendly fire: the cost of export bans is concentrated and limited in scope for French exporters

From the perspective of sanctioning countries, export bans may be perceived as a form of "friendly fire": restricting exports inevitably implies foregone sales for domestic firms (Crozet and Hinz, 2020). However, evidence from French customs data suggests that the aggregate cost of EU export bans for French exporters has been limited.[2]
Before the war, Russia accounted for only 1.3% of total French export value (Emlinger and Lefebvre, 2023). Products subject to EU export bans represented an even smaller share: 0.8% of total French export value in 2021. In aggregate terms, the direct exposure of the French economy to export restrictions vis-à-vis Russia was therefore modest.

This low aggregate cost masks a strong concentration across sectors and firms. Transport equipment, chemicals and machinery alone accounted for roughly 82% of French exports targeted by sanctions. In some narrowly defined sectors, such as aeronautics or specific chemical products, the share of exports affected by bans was substantial. For example, while chemical products represented 21% of French exports to Russia in 2021, export bans covers half of it. Geographic concentration is also evident, reflecting the spatial clustering of these industries within France (Emlinger and Lefebvre, 2023). While less than 1% of exports from most French departments are affected, this share rises to 6% in Haute-Garonne (aeronautics hub) and 3% in Var, Alpes-Maritimes, and Allier (chemicals, perfumes, and luxury goods).

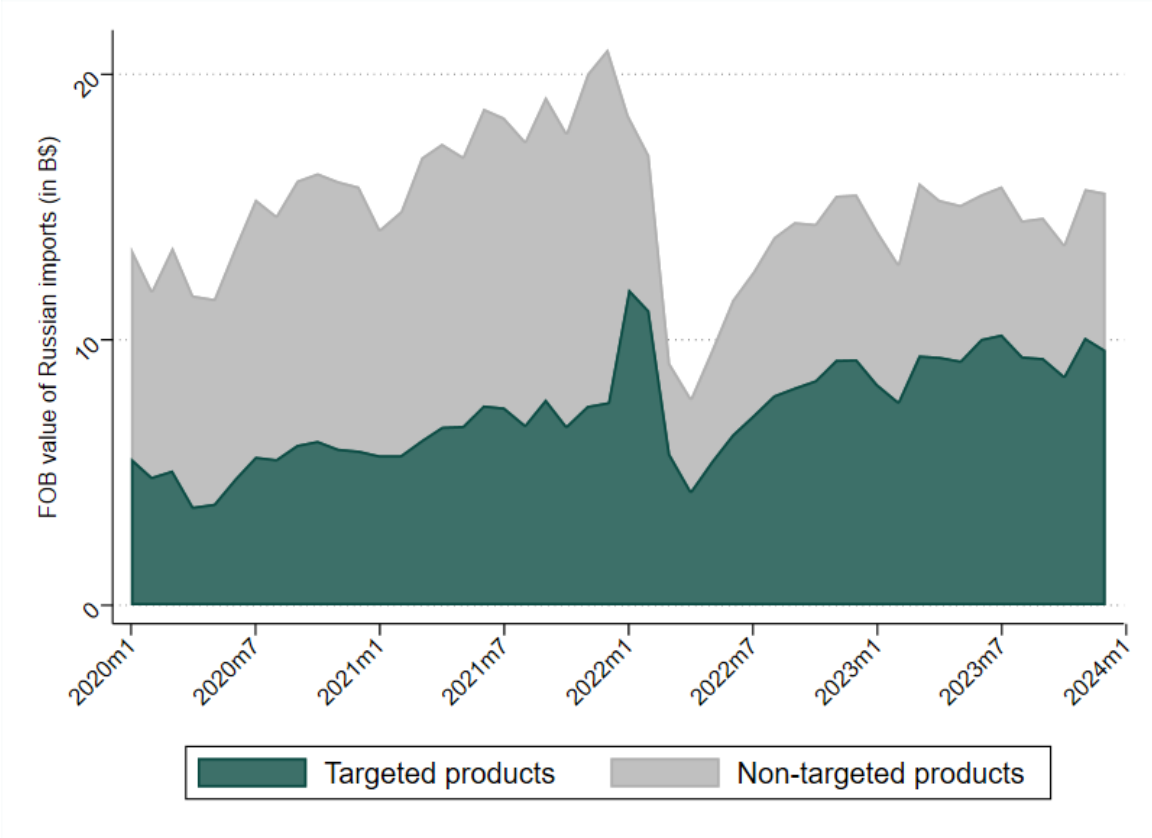
At the firm level, only 3% of French exporters (3,552) were exporting to Russia before the war, and 2.4% (or 2,436 firms) were directly exposed to export bans. These firms, however, tend to be among the most internationally diversified: they export more products, to more destinations, and at higher values than the average exporter. For most of them, Russia represented a small share of total sales, around 5% on average, suggesting a relatively strong capacity to absorb the shock.

The sharp decline in the number of French exporters serving the Russian market after February 2022 highlights the magnitude of the disruption. Yet the adjustment occurred primarily through exit rather than through large contractions in export values among remaining firms. Moreover, the fall in exports cannot be attributed solely to export bans. Financial sanctions, payment difficulties, reputational concerns and uncertainty related to the war potentially played a major role, affecting both sanctioned and non-sanctioned products. For French exporters, the economic cost of the war and the surrounding uncertainty appears to have exceeded that of export bans alone.

3. Friendshoring in action: Russia successfully manages to reorient its supply sources

From the Russian perspective, EU export bans triggered a rapid reconfiguration of import sourcing. While total Russian imports initially declined after February 2022, imports of targeted products rebounded quickly and even exceeded pre-war levels (figure 1).

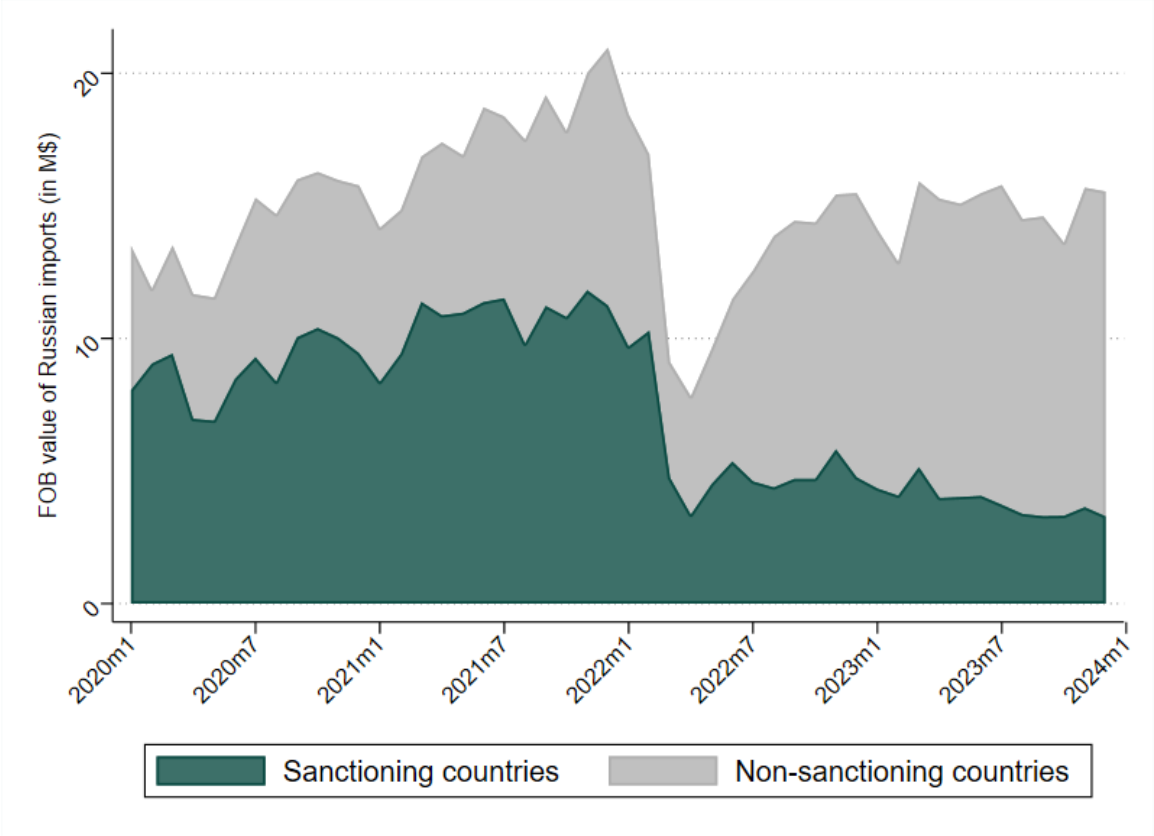
Figure 1: Evolution of Russian imports, by origin



Note: authors' calculation using Global Trade Trackers database.

This adjustment relied heavily on trade diversion: while Russian imports from sanctioning countries shrinked, its sourcing from non-sanctioning countries increased substantially (figure 2). Before the war, the EU supplied around three-quarters of Russian imports of targeted products. By 2023, this share had collapsed, while China emerged as the dominant supplier, accounting for more than 60% of Russian imports of targeted goods. Other countries including Turkey, Armenia and several Central Asian economies also experienced sharp increases in exports to Russia, albeit from a much lower base.

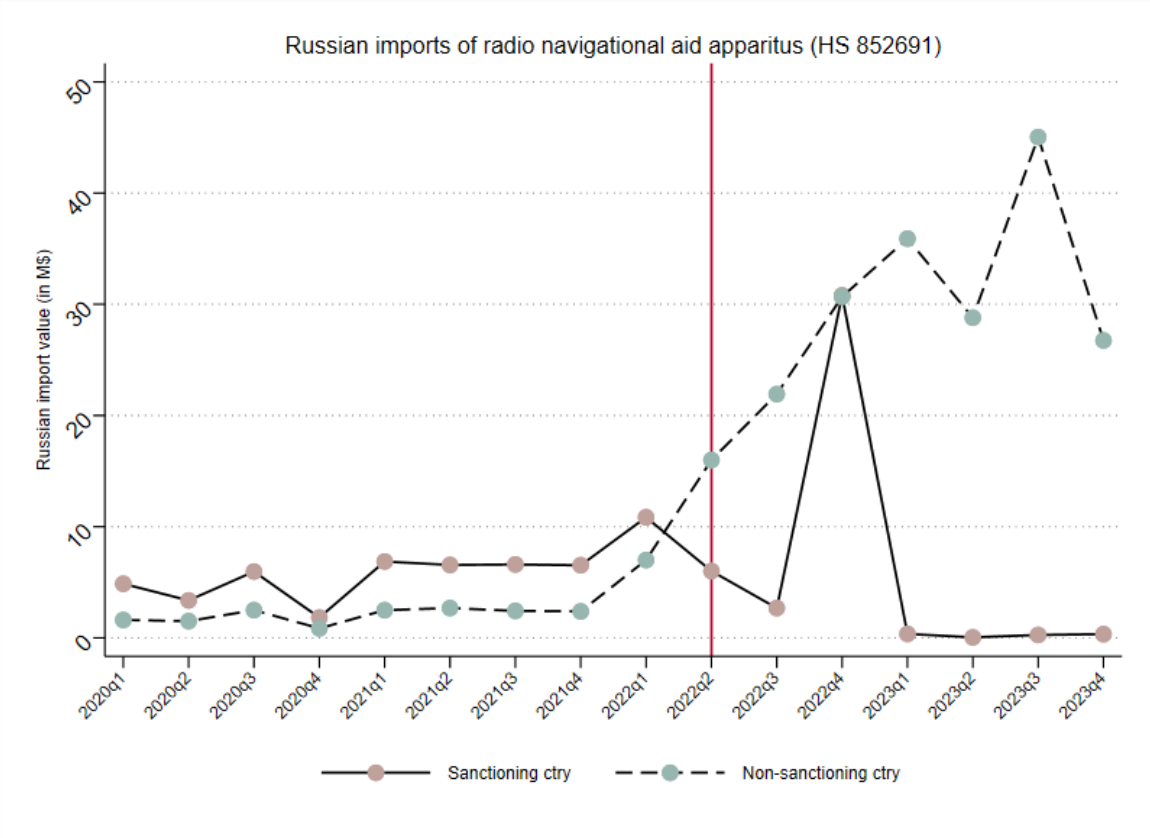
Figure 2: Evolution of Russian imports, by product type



Note: authors' calculation using Global Trade Trackers database.

At the product level, a substantial share of sanctioned goods has been fully compensated by imports from non-sanctioning countries. Around one third of all sanctioned products, and nearly two thirds of strategic products, exhibit compensation rates above 100%, meaning that increased imports from alternative suppliers more than offset the loss of imports from sanctioning countries (Emlinger and Lefebvre, 2025). This pattern is especially pronounced for machinery, electronics and optical instruments, sectors critical for both civilian and military uses in which Russian demand has been growing. Russian imports of radio navigational aid apparatus provide a clear illustration of this adjustment: prior to 2022, these products were primarily sourced from sanctioning countries, whereas following the imposition of sanctions, imports of these products from non-sanctioning countries surged to meet Russia's wartime needs (figure 3).

Figure 3: Example of products with high compensation rates



Note: authors' calculation using Global Trade Trackers database.

These facts clearly show that export bans did not prevent Russia from accessing many of the sanctioned products it needed, including sensitive items. In a globalized economy where sanctions are imposed by a coalition rather than universally, the scope for trade diversion remains substantial. However, the ability to reorient supply sources does not imply that sanctions are free of economic costs for the targeted country.

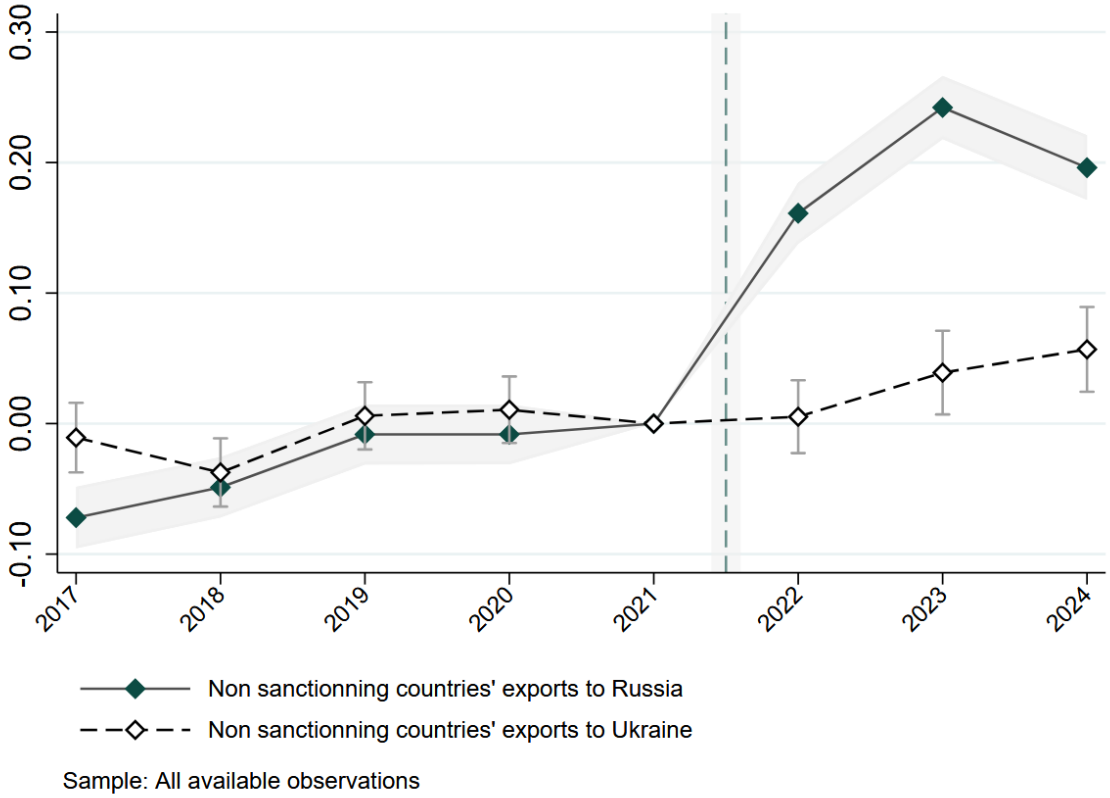
4. No such thing as free friends: the cost of working around sanctions for Russia

While Russia continues to have access to these products, the cost of sanctions does not necessary lie in the reduction of imports, but may be reflected by higher prices of imports.
One way to investigate the cost of this trade diversion is to exploit the price Russia spent for each imported products before and after the intensification of the war in February 2022. More specifically, using detailed product-level trade data from 2017 to 2024, we compare the price charged by each origin country o, for each detailed product p (i) before/after February 2022 and (ii) to Russia as compared to other countries. In other words, this exercise will tell us how much the evolution of the price paid by Russia differed from the price other country paid for the same products coming from the same origin country.

Results are presented in Figure 4. After February 2022, the price of Russian imports (green squares) increased on average by more than 20% in 2023. This substantial evolution is particularly important compared to the evolution of the price of Ukrainian imports (white squares), which was below 5% in the same year. Accordingly, the war itself cannot explain the

overall price premium of Russian imports after 2022. Furthermore, this increase in price for Russian imports is even larger (+40%) when we consider the set of 50 strategic products. Several channels could explain why Russia had to pay more for the same products coming from the same origin country. The rest of this section tests four channels that could explain the price increase of Russian imports.

Figure 4: Impact of sanctions and the war on Russian and Ukrainian import prices



Note: authors calculations using Global Trade Trackers database

a. Increase in trade costs?

One channel through which sanctions increase costs is higher transport and insurance expenses. Trade diversion often implies sourcing goods from more distant origins or through more complex routes. In addition, the war and financial sanctions have increased perceived risks, raising insurance premia.

Comparisons between CIF (cost, insurance and freight) and FOB (free on board) prices indicate that transport and insurance costs for Russian imports rose by around 3% after the onset of the war. This effect is particularly pronounced for the set of 50 strategic products imported from non-sanctioning countries, where logistical constraints and risk premia are higher.

b. Increase in re-exports?

Another potential channel is the re-export of goods from sanctioning countries through intermediary countries. If higher-priced products originally exported by sanctioning countries are then re-exported to Russia via third countries, this could mechanically raise the average

price of Russian imports from non-sanctioning countries. For some countries such as Armenia and Uzbekistan trade patterns consistent with re-exports can be identified, particularly for certain strategic goods (Emlinger and Lefebvre, 2025).

However, systematic evidence indicates that re-exports are not the main driver of the observed increase in Russian import prices. Products that appear to be re-exported do not exhibit significantly higher unit values than other imports. In addition, the price increases observed for former Soviet Union countries are not statistically different from those recorded for the rest of the world. While re-exports play a role in facilitating sanctions circumvention for specific products, they cannot account for the overall rise in Russian import prices.

c. Increase in demand for specific products?

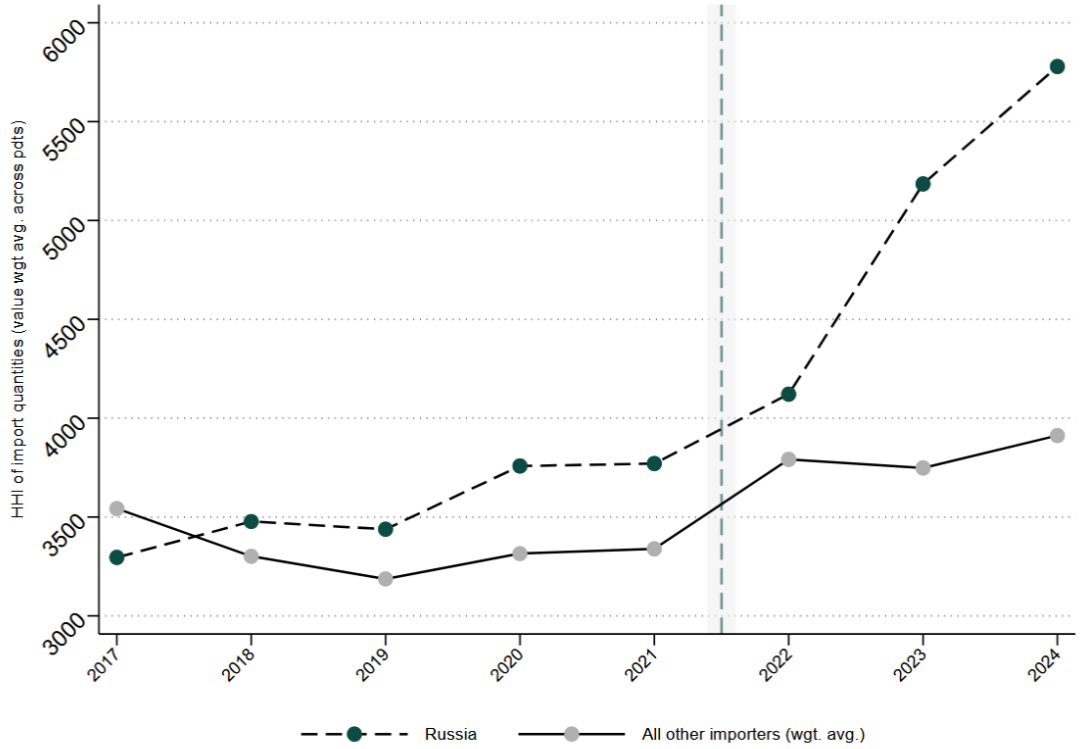
The war economy has reshaped the composition of Russian import demand. Strategic and dual-use goods, which are critical for military production, have seen a sharp increase in demand since 2022. This demand pressure may also contribute to higher prices.

Empirical estimates show that strategic products for which the share of Russia in product-specific global imports has risen the most also exhibit stronger price increases. However, this mechanism does not extend to other categories of products. This suggests that factors other than demand pressures for strategic products are responsible for the broader rise in Russian import prices.

d. Increase in "friends'" market power?

The most important channel appears to be an increase in exporters' market power. By forcing Western suppliers out of the Russian market, sanctions reduced competition and strengthened the bargaining position of remaining suppliers. Descriptive statistics show that the concentration of Russian imports, measured by the Herfindahl–Hirschman Index (HHI), rose sharply after February 2022 (Figure 5).

Figure 5: Evolution of Russian imports' concentration



Note: authors calculations using Global Trade Trackers database

This pattern is confirmed by empirical estimates. After February 2022, exporters from non-sanctioning countries charged significantly higher prices when selling to Russia products for which import concentration increased the most. In other words, price increases are larger for products that were previously supplied by many countries but are now sourced from only a few.

These higher prices reflect increased margins rather than higher costs alone. Russia's remaining trading partners have therefore been both willing and able to exploit their strengthened position in the Russian market. Moreover, many of these suppliers were, prior to the war, lower-cost and likely lower-quality producers. As a result, the shift in sourcing implies not only higher prices, but also potentially lower product quality.

Conclusion

EU export bans against Russia illustrate both the limits and the logic of trade sanctions. They have imposed limited and concentrated costs on French exporters, while Russia has managed to reorient its imports toward non-sanctioning countries. Yet this reorientation has not been costless. Russia now imports strategic products at higher prices, faces in certain cases higher trade costs, relies on a narrower set of suppliers, and likely accepts lower quality.

Sanctions have therefore achieved a core objective: not to stop trade altogether, but to make it harder, slower and more expensive. In this sense, circumvention is not evidence of failure. It is the very channel through which sanctions exert economic pressure in a fragmented global economy.

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