

**Economic Sanctions Evasion: Literature Review Case Study**

**Thomas Mihaljevic**

**ECON 5110 - Economics of Defence**

**K. Skogstad**

## **Introduction**

In February of 2022, the Russian Federation launched a full-scale invasion of Ukraine. President Vladimir Putin sought to annex Ukrainian territory and reduce the influence of the North Atlantic Treaty Organization (NATO) in Europe.<sup>1</sup> In response, a coalition led by the European Union (EU) and NATO imposed sanctions on Russia and seized its foreign assets.<sup>2</sup> These measures sought to weaken Russia's military by restricting its access to resources and financial capital, including export controls on machinery and technology essential to the war,<sup>2</sup> making a prolonged conflict unsustainable and costly.<sup>3</sup> The estimated economic impact of these measures, including frozen foreign assets and lost trade revenue, has exceeded \$450 billion since 2022.<sup>4</sup>

Russia's war effort has continued despite these restrictions, suggesting that the country has adjusted its financial networks and supply chains in response to sanctions, raising the question of how it has done so. This paper examines sanctions evasion by outlining its context, reviewing the literature, modelling intermediary behaviour, and analyzing the networks that sustain it. Finally, these findings are applied to the post-2022 sanctions on Russia to assess how Putin's regime evades restrictions to support its war.

## **Contextual Background**

Economic sanctions are policy tools governments use to pressure foreign states economically without resorting to military force.<sup>5</sup> Firms in the sanctioning countries cannot transact with firms or government entities in the targeted nation, including the sale of goods and financial services. Sanctions may also target individuals, such as oligarchs and government officials. Their goal is to limit the targeted country's access to global markets and weaken its economic and military industrial base. Ultimately, these measures aim to compel the target country to meet the demands of the sanctioning coalition for change.

However, during an armed conflict, demand for these restricted goods often remains high in targeted countries. A country at war maintains demand for machinery, oil, technology, and military supplies. Instead of eliminating this demand, sanctions raise the cost and risk of obtaining these goods. Demand for these goods in the short to medium run, therefore, is highly inelastic.<sup>6</sup> This increase in prices creates incentives for intermediaries, such as traders and logistics firms, to move goods between sanctioned and sanctioning states.<sup>7</sup> As a result, trade shifts from direct legal channels to intermediaries, requiring building complex supply chains to evade restrictions. Common tactics include using shell companies, falsified invoices, and routing goods through countries with weaker oversight and enforcement.<sup>8</sup>

## **Literature Review**

Enforcement and evasion tend to evolve iteratively, as regulators close loopholes while evaders adapt and adjust their strategies.<sup>9</sup> The academic literature on sanctions evasion spans political economy, game theory, international trade, and international law. It generally treats evasion as a predictable response by market actors rather than a failure of sanctions policy.<sup>5</sup>

### **Sanctions Evasion as an Inspection Game**

The interaction between the sanctioning authority and the targeted state can be modelled as an inspection game within non-cooperative game theory.<sup>11</sup> An inspection game models a scenario in which an enforcer (the inspector) seeks to verify the compliance of another actor (the inspectee), who has a persistent incentive to be noncompliant while avoiding detection. In this model, inspections are costly, cannot be carried out continuously, and are not guaranteed to succeed. As a result, both actors must make decisions and optimize their strategies while operating under uncertainty.

The sanctions regime can be interpreted within this framework.<sup>11</sup> The sanctioning authority acts as the inspector, maximizing compliance while minimizing monitoring costs across decentralized financial and industrial networks. As Baliga et al. outline, the enforcing authority faces a “defender's

dilemma” due to imperfect attribution.<sup>11</sup> The enforcer sees a “noisy signal,” such as an unexpected surge in exports to a third-party country, but cannot be certain if that activity is legitimate or is sanction evasion.<sup>11</sup> The enforcer must decide whether the benefits of enforcement outweigh the risk of acting on false alarms. Aggressive responses risk alienating neutral nations and disrupting legitimate trade, while inaction undermines the enforcement threshold and signals tolerance for evasion.<sup>10</sup> The fungibility of goods and dual-use technologies, which blend into civilian supply chains, further complicates attribution.<sup>11</sup>

Conversely, the targeted state and intermediaries act as the inspectee, seeking to maximize economic utility by exploiting legal gray areas and rerouting supply chains. They weigh their expected economic benefit against supply chain restructuring costs and the potential of detection and retaliation.<sup>7</sup> Heavily sanctioned nations like Russia face minimal diplomatic costs because large countries outside the sanctioning coalition, such as Iran and China, are willing to serve as strategic partners.<sup>12</sup> However, the material costs of detection remain severe, such as frozen capital, seized cargo, and the permanent sanctioning of valuable intermediaries.<sup>2,3</sup>

Obfuscation tactics include dark fleets, shell companies, and layered shipment routes.<sup>8</sup> The evader’s objective is to invest just enough in alternative supply chains and obfuscation to prevent asset forfeiture. This occurs where profit is maximized, provided the enforcer’s attribution is below the enforcement threshold.<sup>11</sup> As a result, evasion is a rational response when the economic benefit outweighs the cost and risk.<sup>5,12</sup>

### Exploiting Institutional Gaps and Structural Loopholes

While the inspection game model explains the theory behind actors’ behaviour in sanctions enforcement and evasion, real-world strategy depends on regulatory inconsistencies in laws and treaties governing trade and geopolitical behaviour. International trade spans multiple jurisdictions, each with varying enforcement capacity and political priorities. Because sanctions are implemented by different jurisdictions rather than a single global authority, enforcement gaps emerge that evaders can exploit.

Peiran Wang's research outlines the structural inconsistencies within the EU and NATO that motivated actors can exploit.<sup>10</sup> Because economic sanctions are not a NATO policy tool, their implementation and enforcement fall to individual NATO states or the European Union, creating divided coalitions. Countries outside the EU are not bound to enforce its restrictions, allowing intermediaries to facilitate trade between sanctioned and sanctioning states. As a result, targeted states reroute trade through jurisdictions with weaker enforcement, undermining the effectiveness of sanctions.<sup>10</sup>

Before a targeted nation can reroute trade through these opportunistic third parties, it must first reroute its capital to circumvent regulations imposed on institutions within the Western financial system.<sup>8,10</sup> To do so, they use Offshore Financial Centres (OFCs). Targeted states make extensive use of loosely regulated financial hubs, such as the United Arab Emirates, that remain tied to the Western financial system to "sanction-proof" their financial capital. By establishing a network of shell companies in these OFCs, evaders can obscure their links to the funds that enable these transactions. These tactics bypass financial regulations such as Anti-Money Laundering (AML) and Know Your Customer (KYC) compliance checks used by Western financial institutions, allowing restricted capital to filter through the legitimate global market.<sup>8</sup>

Furthermore, sanctioning authorities cannot directly compel the closure of these loopholes.<sup>10</sup> Doing so would infringe upon the rights of these sovereign nations. Because sanctioning bodies lack the legal authority to dictate these nations' domestic policy, they must resort to expanding the reach of their sanctions through extraterritoriality.<sup>10</sup> Rather than violating these nations' sovereignty, they threaten these nations' access to the Western financial system. By threatening secondary sanctions, the enforcing bodies pressure third parties to choose between facilitating sanctions evasion and maintaining access to global markets.<sup>12</sup>

However, using these measures risks diplomatic backlash and World Trade Organization (WTO) disputes, increasing the cost and risk of enforcement. To handle non-compliance, authorities use "responsive regulation."<sup>9</sup> Regulators use an "enforcement pyramid" where they gradually escalate

enforcement, beginning with diplomatic warnings, progressing to targeted entity listings, and reserving aggressive secondary sanctions for last resort.<sup>9</sup>

### Trade Deflection and Economic Gravity

When economic sanctions are imposed on a nation, bilateral trade with other nations is artificially severed. As theorized by Pokorny's Pressure Diffusion Model, third-party intermediaries function as "economic release valves."<sup>13</sup> When trade between two nations is severed, the demand is redistributed across alternative economies and commercial networks. Since these intermediary economies remain integrated with Western markets, they absorb demand from the targeted nation, and imports from the sanctioning states surge before being re-exported to the targeted state. This pattern produces trade deflection, where the suppression of exports to the target nation leads to a spike in trade with a third-party nation.<sup>13</sup>

To quantify this increase in unexpected trade between nations, economists use a "gravity model" that predicts economic activity based on the relative sizes of two nations' economies and the distance between them. Tyazhelnikov and Romalis use this methodology to identify and quantify the exact volume of "missing trade" that actively circumvents Western embargoes.<sup>14</sup> Economists establish a baseline of expected import volume under normal market conditions and compare it to the actual recorded levels of trade. By subtracting the baseline predictions from the actual trade data, the model isolates an unexplained, positive surplus. This unexplained surplus can be interpreted as an estimate of goods that may be reaching the sanctioned state through intermediaries.<sup>14</sup>

### **Mathematical Framework: Expected Utility Model**

Using the mechanisms outlined above, we can build an expected utility model of the intermediary's decision to facilitate sanctions evasion. The model shows that, under specific conditions, facilitating sanction evasion is individually rational even at the enforcer's constrained best response, making it a persistent and predictable market outcome.

### Expected Utility of the Third-Party Facilitator

The third-party intermediary acts as a rational profit maximizer, who will facilitate trade between the sanctioning coalition and the targeted state if the expected utility of evasion is greater than zero.<sup>7</sup>

Drawing on the literature, the following expected utility function can be constructed:

$$E(U_e) = (1 - \theta)P - \theta F - C(\theta)$$

Where:

- $P$  (Net Margin): The price premium the intermediary extracts from the targeted state, net of non-obfuscation costs such as freight and cost of goods.<sup>6,7</sup>
- $F$  (Penalty): The maximum financial or diplomatic penalty the enforcer can apply to the evader, such as asset forfeiture or secondary sanctions.<sup>3, 10, 12</sup>
- $\theta$  (Probability of Attribution): The likelihood that the sanctioning coalition successfully and correctly attributes the illicit trade to the intermediary.<sup>8, 11</sup>
- $C(\theta)$  (Cost): The logistical and transactional costs incurred to obfuscate trade at a given level of  $\theta$ .<sup>8, 11</sup>

To increase expected profit, intermediaries invest in logistical networks and concealment by exploiting institutional loopholes to minimize the probability of attribution.<sup>10, 11</sup> Applying the intermediaries' necessary condition,  $E(U_e) > 0$ , to facilitate trade, the following condition must be met:

$$(1 - \theta)P > \theta F + C(\theta)$$

### Rationality of Evasion Under Enforcement

Under normal conditions, intermediaries weigh the gains from evasion against the risk of detection, with neither evasion nor compliance being strictly dominant. However, wartime conditions

fundamentally change this calculation. As conflict intensity increases, the expected utility of evasion rises, while the enforcer's ability to punish it remains structurally constrained. The goal of this section is to show that evasion remains individually rational even when the enforcer plays its constrained best response.

We first establish two constraints derived from the literature review. The enforcing coalition faces imperfect attribution due to the fungibility of dual-use goods and the decentralized nature of financial networks.<sup>11</sup> Furthermore, the coalition cannot achieve perfect monitoring without violating the sovereign rights of neutral nations and incurring severe diplomatic costs.<sup>10</sup> Attribution is therefore constrained between  $\theta$  and some hypothetical maximum ceiling  $\bar{\theta}$ . The maximum penalty the enforcer can impose on a third-party intermediary,  $F$ , is subject to the same constraints.<sup>9, 10</sup> Let  $\bar{F}$  represent the maximum fine the sanctioning coalition can politically and legally impose on a third party without triggering unacceptable diplomatic costs. Lastly, because  $C(\theta)$  is the cost of obfuscation at a given level of  $\theta$ , there exists an investment level,  $C(\bar{\theta})$ , that is sufficient to evade detection even when the enforcer employs its best response.<sup>8, 11</sup> This investment level will not be exceeded as any further investments will not affect their probability of detection.

We can substitute these best response variables into our necessary condition and rearrange to find the minimum net margin the third party must gain,  $P^*$ , to choose to facilitate sanctions evasion, even when the enforcer employs its constrained best response:

$$P \geq P^* = \frac{\bar{\theta} \bar{F} + C(\bar{\theta})}{(1 - \bar{\theta})}$$

Structural constraints bound the right-hand side of the equation, while the left-hand side grows with conflict intensity. Although competitive entry among intermediaries places some downward pressure on  $P$ , barriers to entry, including proprietary route knowledge, jurisdiction-specific legal expertise, and established relationships with corrupt officials, prevent the market from becoming fully competitive. The military necessity of sanctioned goods during active conflict ensures demand is sufficiently inelastic to

keep  $P$  elevated above the threshold. For any armed conflict in which wartime demand pushes  $P$  above this ceiling, evasion remains individually rational even at the enforcer's best response. Evasion is therefore a persistent and predictable outcome whenever this condition holds. This provides the framework for examining the case of the post-2022 sanctions levied against the Russian Federation.

### **Case Study: Russian Sanctions Post-2022**

The case study will establish whether the war in Ukraine generated a net margin  $P$  on goods critical to the war effort, examine the trade networks, obfuscation efforts, and geopolitical factors that kept enforcement and detection bounded, and determine whether the conditions for individually rational evasion facilitation were met.

#### Sanctions Data, Trade Flows, and Establishing $P$

The impact of Western sanctions on Russia was an immediate collapse in bilateral trade between the EU and Russia. For directly sanctioned goods, trade declined by 80% more than non-sanctioned goods, according to the European Bank for Reconstruction and Development.<sup>15</sup> For Russia, the result was a major supply shock to its military supply chain.

However, Russia remained at war, and therefore sustained high demand for military goods, such as machinery, electronics, and dual-use goods. In response, Russia legalized parallel imports in May 2022, formally permitting Russian firms to source sanctioned Western goods through third-party intermediaries without manufacturer authorization.<sup>16</sup> Many of these intermediaries operate within the Eurasian Economic Union, which is integrated into Russia's customs architecture, allowing deflected goods to reach their final destination. This institutionalized the intermediary network as state policy to sustain its war effort. As direct Russian imports from the EU collapsed, European exports to the EAEU surged. This is consistent with the literature's trade deflection and economic gravity models. Exports to Russia increased in 2022 across multiple EAEU intermediaries, each driven by a corresponding expansion

of imports from the European Union. Kazakhstan saw a 30 percent increase, Armenia's exports rose 193 percent, while Georgia rose 5 percent.<sup>15, 17</sup>

The deflected imports are largely comprised of goods with direct military applications, those with the most inelastic demand and therefore the highest  $P$  value. The most striking example is trade between Germany and Kyrgyzstan. German exports to Kyrgyzstan stood at \$47.8 million in 2021, surging to \$355 million in 2022, a 642 percent increase, reaching \$783 million in 2023.<sup>18</sup> Between March 2022 and October 2023, German automotive exports to Kyrgyzstan alone rose by 5,500 percent.<sup>20</sup> In this time, Kyrgyzstan's population and GDP remained essentially static throughout this period, suggesting this activity is abnormal.<sup>19</sup>

In fact, this evasion pattern is not limited to dual-use goods. This exact evasion tactic has enabled the import of small arms from the EU through the EAEU. European exports of these weapons to the EAEU have grown by over two and a half times since 2020.<sup>21</sup> The high concentration of critical military goods being rerouted to Russia, combined with supply chain disruptions and inelastic wartime demand, confirms the existence of a net margin reflecting strategic military value, placing it well above the rationality threshold derived in the proof.

#### The Evasion and Enforcement Dynamic

The most compelling evidence that the Central Asian trade represents sanctions evasion rather than legitimate bilateral trade is the presence of ghost trade. Economist Robin Brooks, analyzing the International Monetary Fund's Direction of Trade Statistics database, identified large discrepancies between what European countries report as exports to EAEU countries and what those EAEU countries report as imports.<sup>20</sup> Roughly half of Germany's reported exports to Kyrgyzstan do not appear in Kyrgyz import data, with similar discrepancies found for Czech and Hungarian exports. This discrepancy suggests these goods do not arrive in the EAEU as their final destination, but rather continue to another location.<sup>22</sup>

Enabling this diversion is the EAEU's unified customs zone across Russia, Belarus, Armenia, Kazakhstan, and Kyrgyzstan. Once goods legally enter any member state, they can be moved freely to Russia without any additional customs checks. This demonstrates Wang's structural loophole in practice.<sup>10</sup> Because the sanctioning authority cannot disrupt this economic union without infringing on the sovereign rights of nations, the EAEU provides the institutional mechanisms that enable sanctions evasion. Turkey represents a similar example of Wang's NATO structural gap.<sup>17</sup> As a NATO member without EU obligations, Turkey is not legally bound by EU sanctions legislation and is a critical facilitator for Russian goods and financial transactions. Together, these institutional structures keep  $\bar{\theta}$  structurally bounded below one.<sup>10</sup>

In addition to a legal limitation, the attribution ceiling is also a practical one.<sup>11</sup> In practice, goods depart the EU on route to the EAEU. While in transit, often routing through Turkey or Georgia, bills of lading are altered and shipments are diverted into Russian territory before reaching their documented destination. The complexity of international logistics, where goods routinely pass through multiple freight forwarders, holding companies, and insurers, provides the cover for this mid-transit diversion.<sup>8</sup> At the same time, intermediaries route Russian capital through Offshore Financial Centres, establishing shell companies that appear as legitimate purchasers to Western financial institutions.<sup>8</sup> Evaders seek the path of least institutional resistance, exploiting whichever jurisdictional gap, transit hub, or financial channel is least scrutinized at any given moment. These are costly investments in obfuscation,  $C(\theta)$ , that remain rational because  $P$  is high enough to justify them.

As the model predicts,  $C$  rises with enforcement pressure. When the EU issued stronger anti-circumvention warnings, evasion networks adapted, routing through new jurisdictions and developing more sophisticated documentation. This mirrors Baliga et al.'s prediction that the enforcer detects evasion in aggregate but cannot attribute specific shipments without incurring prohibitive monitoring costs.<sup>11</sup> The EU responded by escalating enforcement consistent with Ayres and Braithwaite's responsive regulation framework, reserving the most aggressive enforcement for last.<sup>9</sup> The EU's 11th Sanctions Package (June

2023) introduced the Anti-Circumvention Tool, allowing the EU to ban exports of dual-use goods to third-country jurisdictions demonstrating systemic re-export patterns.<sup>2</sup> The 12th Package mandated that no re-export to Russia clauses be included in all contracts with third-country buyers.<sup>2</sup>

The most significant development was the EU directive of April 2024, criminalizing sanctions circumvention committed with serious negligence.<sup>2</sup> By criminalizing negligence, the coalition effectively privatizes the inspection game. The cost of supply chain monitoring is transferred from public enforcement agencies to private corporations. A firm that exports sophisticated machinery to a newly established, unknown entity in Kyrgyzstan without investigating the ultimate end use of the transaction now risks criminal prosecution. Within the model, this raises  $\bar{\theta}$  without imposing additional costs on the EU's public agencies, and therefore raises  $C(\theta)$  as intermediaries are forced to make expensive investments in legal and logistical obfuscation to bypass this scrutiny.

#### Mapping Evidence onto the Evasion Rationality Model

Taken together, the evidence maps cleanly onto all three conditions required by the proof. Primary sanctions generated the supply scarcity that drove  $P$  above the rationality threshold, the EAEU's institutional structure held  $\bar{\theta}$  below one,<sup>10</sup> and the evasion network demonstrate  $C(\theta)$  rising with enforcement pressure while remaining economically rational because  $P$  justifies the increased cost. The sanctioning coalition's iterative response represents an attempt to raise  $P^*$ , meaning to tighten the conditions under which evasion remains rational, rather than eliminate it. The enforcer cannot raise the rationality threshold to infinity, but does have the ability to progressively tighten the conditions under which evasion remains individually rational.<sup>9</sup>

#### Conclusion

The results indicate that sanctions evasion reflects a predictable market response rather than a failure of policy design. Facilitating evasion emerges as the individually rational choice for intermediaries

whenever enforcement constraints are structurally limited, and wartime demand is sufficiently inelastic,<sup>6</sup> a condition the Russia case demonstrates is met.

Sanctions should be understood as a cost-imposing instrument rather than a supply-eliminating one. A targeted state with sufficiently inelastic short- to medium-run demand for critical goods will continue to attract intermediaries willing to supply them.<sup>7</sup> Enforcement effectiveness depends less on the severity of primary sanctions and more on the coalition's ability to raise  $\bar{\theta}$  through coordinated action, and therefore  $C(\theta)$ . The Russia case illustrates a tension within economic statecraft. The same global financial system that enables sanctions also enables the intermediary networks that enable evasion.

## References

1. Kirby P. Why did Putin's Russia invade Ukraine? BBC News [Internet]. 2025 Mar 18 [cited 2026 Mar 29]. Available from: <https://www.bbc.com/news/articles/cj0q964851po>
2. Caprile A, Cirlig C. EU sanctions against Russia 2025: state of play, perspectives and challenges [Internet]. Brussels: European Parliamentary Research Service; 2025 Feb [cited 2026 Mar 29]. Briefing PE 767.243. Available from: [https://www.europarl.europa.eu/RegData/etudes/BRIE/2025/767243/EPRS\\_BRI\(2025\)767243\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2025/767243/EPRS_BRI(2025)767243_EN.pdf)
3. McMaster HR, López L, Clunan F, Johnstone T, editors. Sanctions as a tool of economic statecraft: designing, integrating, and implementing to advance vital interests [Internet]. Stanford (CA): Hoover Institution; 2025 Apr [cited 2026 Mar 29]. Available from: [https://www.hoover.org/sites/default/files/research/docs/McMaster-Lopez-Clunan-Johnstone\\_Sanctions%20as%20a%20Tool%20of%20Economic%20Statecraft\\_web-250404.pdf](https://www.hoover.org/sites/default/files/research/docs/McMaster-Lopez-Clunan-Johnstone_Sanctions%20as%20a%20Tool%20of%20Economic%20Statecraft_web-250404.pdf)
4. Tadeo M. A conversation with David O'Sullivan, EU Sanctions Envoy [Internet]. Paris: Groupe d'études géopolitiques; 2025 Jul 15 [cited 2026 Mar 29]. Available from: <https://geopolitique.eu/en/2025/07/15/a-conversation-with-david-osullivan-eu-sanctions-envoy/>
5. Morgan TC, Syropoulos C, Yotov YV. Economic sanctions: evolution, consequences, and challenges. *Journal of Economic Perspectives* [Internet]. 2023;37(1):3-30. doi:10.1257/jep.37.1.3. Available from: <https://www.aeaweb.org/articles?id=10.1257/jep.37.1.3>
6. Becko JS. A theory of economic sanctions as terms-of-trade manipulation. *J Int Econ* [Internet]. 2024 [cited 2026 Mar 29];150:103914. doi:10.1016/j.jinteco.2024.103914. Available from: <https://www.sciencedirect.com/science/article/abs/pii/S0022199624000229>
7. Kakutani Y. MNC decision making under sanctions: South Africa and Rhodesia. *Cornell Int Aff Rev* [Internet]. 2017 [cited 2026 Mar 29];11(1):102-113. Available from: <https://doi.org/10.37513/ciar.v11i1.500>
8. Cilizoglu M, Estancona C. Hide and seek: Offshore financial centers and targeted sanctions [Internet]. *British Journal of Political Science*. 2025;55:e166. doi:10.1017/S0007123425101087. Available from: [https://scholarcommons.sc.edu/cgi/viewcontent.cgi?article=1129&context=poli\\_facpub](https://scholarcommons.sc.edu/cgi/viewcontent.cgi?article=1129&context=poli_facpub)
9. Ayres I, Braithwaite J. Responsive regulation: Transcending the deregulation debate [Internet]. New York: Oxford University Press; 1992 [cited 2026 Mar 29]. Available from: <https://johnbraithwaite.com/wp-content/uploads/2016/06/Responsive-Regulation-Transce.pdf>
10. Wang P. Economic sanctions: The absent instrument for NATO dealing with emerging challenges [Internet]. Abstract presented at: BISA 2024; 2024 [cited 2026 Mar 29]. Available from: <https://researchportal.vub.be/en/publications/economic-sanctions-the-absent-instrument-for-nato-dealing-with-em/>
11. Baliga S, Bueno de Mesquita E, Wolitzky A. Deterrence with imperfect attribution. *Am Polit Sci Rev* [Internet]. 2020 [cited 2026 Mar 29];114(4):1155-1178. Available from: <https://doi.org/10.1017/S0003055420000362>
12. Anderson SR, Baev PK, Brooks R, Gross S, Harris B, Hamilton DS, et al. Can sanctions change the course of conflict? [Internet]. Washington (DC): Brookings Institution; 2025 Dec 17 [cited 2026 Mar 29]. Available from: <https://www.brookings.edu/articles/can-sanctions-change-the-course-of-conflict/>
13. Pokorny L. The economics of sanctions evasion through proxy networks: Iranian proxy groups as economic pressure release valves [dissertation on the Internet]. New Jersey: ICL Institute; 2026 [cited 2026 Mar 29]. Available from: <https://doi.org/10.5281/zenodo.18727062>
14. Tyazhelnikov V, Romalis J. Russian counter-sanctions and smuggling: Forensics with structural gravity estimation. *J Int Econ* [Internet]. 2024 [cited 2026 Mar 29];152:104014. Available from: <https://doi.org/10.1016/j.jinteco.2024.104014>

15. Chupilkin M, Javorcik B, Plekhanov A. The Eurasian roundabout: trade flows into Russia through the Caucasus and Central Asia [Internet]. London: European Bank for Reconstruction and Development; 2023 Feb [cited 2026 Mar 28]. Working Paper No. 276. Available from: <https://www.ebrd.com/publications/working-papers/the-urasian-roundabout>
16. Baker McKenzie. Russia partially legalizes parallel imports [Internet]. Global Sanctions and Export Controls Blog; 2022 May 11 [cited 2026 Mar 28]. Available from: <https://sanctionsnews.bakermckenzie.com/russia-partially-legalizes-parallel-imports/>
17. Hess M. The impact of Russia sanctions on Central Asia [Internet]. Philadelphia (PA): Foreign Policy Research Institute; 2024 Dec [cited 2026 Mar 28]. Available from: <https://www.fpri.org/article/2024/12/the-impact-of-russia-sanctions-on-central-asia/>
18. Hedlund S. The path of sanctions evasion leads through Kyrgyzstan [Internet]. GIS Reports; 2026 Feb 25 [cited 2026 Mar 28]. Available from: <https://www.gisreportsonline.com/r/sanctions-evasion-kyrgyzstan/>
19. Trading Economics. Germany exports to Kyrgyzstan [Internet]. Trading Economics; 2026 [cited 2026 Mar 29]. Available from: <https://tradingeconomics.com/germany/exports/kyrgyzstan>
20. Brooks R. Transshipments from Germany to Russia [Internet]. Washington (DC): Brookings Institution; 2024 Sep 26 [cited 2026 Mar 28]. Available from: <https://www.brookings.edu/articles/transshipments-from-germany-to-russia/>
21. The Insider, Investigace.cz, IrpiMedia, Vlast.kz. Russia imports rifles from EU and US evading sanctions—investigation [Internet]. Insight News Media; 2024 Dec 13 [cited 2026 Apr 2]. Available from: <https://insightnews.media/russia-imports-rifles-from-eu-us/>
22. Kazakhstani Initiative on Asset Recovery. Sanctions evasion in Central Asia [Internet]. KIAR; 2023 Feb 6 [cited 2026 Mar 28]. Available from: <https://kiar.center/analytical-report-updated/>