

# The EU Sanctions Architecture against Russia

Effectiveness, Limits, and Strategic Options for 2026–2030

A comprehensive assessment of the political, economic, social, legal, hybrid, and compliance dimensions of the EU sanctions regime



EUROPEAN INSTITUTE FOR INNOVATION DEVELOPMENT



# The EU Sanctions Architecture against Russia: Effectiveness, Limits, and Strategic Options for 2026–2030

Dr. Alexander Buychik

Ostrava–Opava, Czech Republic

2026

**Imprint**

Any brand names and product names mentioned in this book are subject to trademark, brand, or patent and are trademarks or registered trademarks of their respective holders. The use of brand names, product names, common names, trade names, product descriptions, etc., even without a particular making in this work, is in no way to be construed to mean that such names may be regarded as unrestricted in respect of trademark and brand protection legislation and thus be used by anyone.

Designed by Tuculart Studio.

All the tables and figures were graphically designed ChatGPT partly.

**Publisher:**

European Institute for Innovation Development.

**Edition:**

Buychik, A. et al. *The EU sanctions architecture against Russia: Effectiveness, limits, and strategic options for 2026–2030*. Ostrava, Opava: Tuculart Edition, European Institute for Innovation Development, 2026. — 800 p. (88.73 printed sheets)

**ISBN** 978-80-88474-43-2

**DOI** 10.47451/book-2026-06

**For citation (in APA):**

Buychik, A. (2026). *The EU sanctions architecture against Russia: Effectiveness, limits, and strategic options for 2026–2030*. Ostrava, Opava: Tuculart Edition, European Institute for Innovation Development.

Copyright © Tuculart Edition (Tuculart s.r.o.)

Copyright © European Institute for Innovation Development

# Content

Abstract	9
General Introduction	15
PART ONE. Introduction	20
1.1. Objectives and Tasks of the Analytical Study	20
1.1.1. Rationale for the Need for a Comprehensive Analysis of the EU and Partners’ Sanctions Architecture	20
1.1.2. The Relationship between Sanctions Policy and the Analysis of the Social, Economic and Political Condition of the Russian Federation	22
1.2. Methodological Framework of the Study	25
1.2.1. Political Economy Analysis	25
1.2.2. Institutional and Legal Analysis	28
1.2.3. Comparative-Historical Approach	31
1.2.4. Public Policy Effectiveness Analysis	34
1.3. Sanctions as an Instrument of Foreign-Policy Coercion	37
1.3.1. The Concept of Sanctions in International Practice	37
1.3.2. The Evolution of Sanctions from “Targeted” Measures to Systemic and Hybrid Regimes	39
1.3.3. Specific Features of the Sanctions’ Regime against the Russian Federation (2022–2025)	42
1.3.4. Objectives of the Sanctions Regime against the Russian Federation	44
1.4. Conclusion	48
PART TWO. Sanctions in the Political Sphere and Their Effectiveness	50
2.1. General Characteristics of Political Sanctions	50
2.1.1. The Concept of Political Sanctions	50
2.1.2. Reasons for the Introduction of Sanctions against Russia	52
2.1.3. Historical Analogues	55
2.2. Review of Political Sanctions	58
2.2.1. Individual Restrictive Measures	58
2.2.2. Visa and Diplomatic Restrictions	73
2.2.3. Restrictions on Information Influence and Media	86
2.3. Prospects for Continuing Political Sanctions (2026–2030)	98

2.3.1. Purpose and Scope of the 2026–2030 Outlook	98
2.3.2. Strategic Functions to Be Preserved	99
2.3.3. Scenario Frame for 2026–2030	101
2.3.4. Listings: Prospects and Calibration Priorities	102
2.3.5. Visa and Diplomatic Restrictions: Prospects and Governance Conditions	104
2.3.6. Media and Information Influence Restrictions: Prospects and Anti Circumvention Engineering	105
2.3.7. Cross-Cutting Implementation Constraints (2026–2030)	107
2.3.8. Interaction with Other Sanctions Domains and Policy Instruments	109
2.3.9. Metrics and Evidence Model for Monitoring Effectiveness (2026–2030)	111
2.3.10. Risk Management: Counterproductive Effects and Mitigation	112
2.3.11. Conditions for Adjustment: Escalation Triggers and Conditional Easing Logic	114
2.3.12. Summary Judgement on Prospectiveness (2026–2030)	116
2.4. Proposals to Increase Political Sanctions Pressure	117
2.4.1. Deepening Personalisation	117
2.4.2. Extending Sanctions to Transit Elites and Para-State Structures	119
2.5. Conclusion	121
PART THREE. Sanctions in the Economic Sphere and Their Effectiveness	123
3.1. General Characteristics of Economic Sanctions	123
3.1.1. Economic Sanctions as a Form of Structural Pressure	123
3.1.2. Distinction from Classical 20th-Century Trade Embargoes	124
3.2. Overview of Economic Sanctions	126
3.2.1. Financial Sanctions and the Banking Sector	126
3.2.2. Energy Sanctions	148
3.2.3. Trade, Industrial, and Technological Restrictions	170
3.2.4. Transport and Logistics	190
3.3. Prospectiveness of Economic Sanctions (2026–2030)	208
3.3.1. Purpose, Scope, and Evaluative Assumptions (2026–2030 Outlook)	208
3.3.2. Strategic Functions to Preserve in the Economic Track	212
3.3.3. Scenario Frame for 2026–2030	214
3.3.4. Financial Sanctions (2026–2030) — Prospectiveness and Constraints	217
3.3.5. Energy Sanctions (2026–2030) — Prospectiveness and Constraints	220
3.3.6. Trade-Industrial and Technology Restrictions (2026–2030) — Prospectiveness and Constraints	223

3.3.7. Transport and Logistics Restrictions (2026–2030) — Prospectiveness and Constraints	229
3.4. Proposals for Strengthening Economic Pressure	237
3.4.1. Secondary Sanctions	237
3.4.2. Extraterritorial Measures	242
3.4.3. Energy-Decarbonisation Linkage of Sanctions	248
3.5. Conclusion	253
PART FOUR. Social Sanctions and Their Effectiveness	256
4.1. General profile of social sanctions	256
4.1.1. Definition and Scope of “Social Sanctions” (EU–Russia Context)	256
4.1.2. Causal Architecture: Direct Restrictions vs Indirect Social Effects	259
4.1.3. Measurement and Attribution	264
4.1.4. Targeting Logic and Legitimacy Constraints	269
4.2. Review of Social Sanctions	275
4.2.1. Visa Mobility	275
4.2.2. Consumer Restrictions	281
4.2.3. Everyday Financial Life of Citizens	287
4.3. Social Costs and the Limits of Sanction Acceptability	293
4.3.1. Distributional Impacts and Vulnerability Mapping	293
4.3.2. Humanitarian and Fundamental-Rights Thresholds	298
4.3.3. Social Cohesion Effects and Unintended Consequences	303
4.3.4. Compliance Externalities and the Problem of over-Compliance	310
4.3.5. Historical Features Shaping Russian Society (Context for Social-Sanctions Acceptability)	316
4.4. Prospects for Social Sanctions Policy against Russia (2026–2030)	347
4.4.1. Scenarios and Policy Drivers	347
4.4.2. Expected Evolution of Instrument Design	355
4.4.3. Anticipated Adaptation Pathways	259
4.4.4. Effectiveness Outlook and Evaluative Framework	364
4.5. Proposals for Ethically Robust Social Measures against Russia	369
4.5.1. Design Principles: Proportionality, Precision, and Reversibility	369
4.5.2. Exemptions and Protected Channels	376
4.5.3. Governance against Over-Compliance and Discrimination	384
4.5.4. Monitoring and Feedback Loop	390

PART FIVE. Sanctions in the Legal Sphere and Their Effectiveness	398
5.1. General Characteristics of Legal Sanctions	398
5.1.1. Legal Sanctions as a Normative and Institutional Regime	398
5.1.2. Sources of Legal Authority and Regulatory Architecture	405
5.1.3. Core Legal Mechanisms of Restriction	411
5.1.4. Legal Limits, Derogations, and Judicial Review	419
5.2. Review of Legal Sanctions	423
5.2.1. Asset Freezes and the Immobilisation of Economic Resources	423
5.2.2. Non-Recognition and Non-Enforcement of Certain Russian Anti-Suit Injunctions, Judgments, and Related Penalties	431
5.2.3. Restrictions on Legal Advisory and Arbitration-Related Services	437
5.2.4. Restrictions on Intellectual-Property Rights, Trade Secrets, and Related Technology Rights	445
5.3. Long-Term Legal Resilience of Sanctions	452
5.3.1. Conditions of Legal Resilience: Clarity, Precision, and Update Capacity	452
5.3.2. Judicial Defensibility and Litigation Pressure	459
5.3.3. Enforcement Convergence, Over-Compliance, and Private-Law Frictions	467
5.3.4. 2026–2030 Outlook: Stability Factors, Erosion Risks, and Adjustment Triggers	473
5.4. Proposals for the Further Development of the Legal Sanctions Regime	480
5.4.1. Improving Normative Precision and Drafting Discipline	480
5.4.2. Protected Legal Pathways and Controlled Derogations	487
5.4.3. Stronger Enforcement Coordination and Anti-Circumvention Governance	494
5.4.4. Monitoring, Periodic Review, and Legal-Quality Feedback Loop	501
PART SIX. Hybrid Sanctions Measures	509
6.1. Definition of Hybrid Sanctions	509
6.1.1. Hybrid Sanctions as a Cross-Domain Restrictive Architecture	509
6.1.2. Mechanisms of Hybridisation: Law, Market Behaviour, and Enabling Infrastructures	516
6.1.3. Boundary Questions: Distinction from Political, Economic, Legal, and Compliance Sanctions	525
6.1.4. Targeting Logic, Attribution Difficulties, and Legitimacy Constraints	533
6.2. Review of Hybrid Instruments	541
6.2.1. Anti-Circumvention Measures and Controls on Intermediary Jurisdictions	541
6.2.2. Logistics, Maritime Routing, and the Shadow Fleet as Hybrid Pressure Zones	549
6.2.3. Technology–Service Ecosystem Controls and Dual-Use Support Restrictions	557

6.2.4. Network-Based Listings and Restrictions on Facilitation Infrastructures	564
6.3. Effectiveness Assessment	571
6.3.1. Criteria and Indicators of Hybrid-Sanctions Effectiveness	571
6.3.2. Comparative Strengths of Hybrid Measures	577
6.3.3. Structural Limits, Enforcement Risks, and Unintended Effects	584
6.3.4. 2026–2030 Outlook: Durability Conditions, Erosion Risks, and Recalibration Triggers	592
<b>PART SEVEN. Sanctions Compliance Architecture</b>	<b>600</b>
7.1. Compliance as a Cornerstone of Sanctions Policy	600
7.1.1. Compliance as the Operational Transmission Mechanism of Sanctions	600
7.1.2. The Governance Logic of Compliance: From Legal Obligation to Risk-Based Control	608
7.1.3. Public–Private Interface in Sanctions Implementation	616
7.1.4. Compliance, Legal Certainty, and Policy Credibility	625
7.2. Core Compliance Instruments	632
7.2.1. Screening, Listing Checks, and Beneficial-Ownership Verification	632
7.2.2. Trade-Control Compliance: Export, Re-Export, and End-Use Due Diligence	639
7.2.3. Financial, Insurance, and Payment-System Compliance	647
7.2.4. Licensing, Derogations, Internal Controls, and Audit Trails	654
7.3. Circumvention Risks and Enforcement Challenges	663
7.3.1. Typologies of Circumvention: Intermediaries, Re-Routing, and Proxy Structures	663
7.3.2. Weak Points in the Compliance Chain	672
7.3.3. Over-Compliance, De-Risking, and Private-Law Frictions	679
7.3.4. Enforcement Coordination and the Limits of Detection Capacity	686
7.4. Compliance Outlook (2026–2030)	694
7.4.1. Strategic Functions to Preserve in the Compliance Track	694
7.4.2. Expected Evolution of Compliance Architecture	703
7.4.3. Risk Outlook: Fragmentation, Fatigue, and Adaptive Circumvention	709
7.4.4. 2026–2030 Effectiveness Outlook and Adjustment Triggers	716
<b>PART EIGHT. Analytical Conclusions</b>	<b>724</b>
8.1. Overall Effectiveness of the EU Sanctions’ Regime	724
8.1.1. Effectiveness as a Multi-Dimensional Rather than Binary Category	724
8.1.2. Comparative Assessment across the Six Dimensions of the Report	730

8.1.3. Cumulative Pressure, Interaction Effects, and Time Horizons	735
8.1.4. Overall Judgement on the Strategic Value of the Current Regime (2022–2025)	741
8.2. Structural limitations of sanctions-based coercion	745
8.2.1. Limits of Direct Coercion against a Large Adaptive Authoritarian State	745
8.2.2. Adaptation, Re-Routing, and External Intermediary Channels	749
8.2.3. Internal Constraints within the EU and the Coalition	752
8.2.4. The Risk of Diminishing Returns and Sanctions Fatigue	756
8.3. Conditions under which sanctions may contribute to political transformation in the Russian Federation	760
8.3.1. Political Transformation as an Indirect and Mediated Outcome	760
8.3.2. Channels of Transformative Influence: Fiscal, Technological, Institutional, and Elite-Level	763
8.3.3. Necessary Conditions for Transformative Impact	767
8.3.4. Conditions under which Transformative Expectations Should Be Treated with Caution	771
General Conclusions	775
References	782

## PART THREE

# Sanctions in the Economic Sphere and Their Effectiveness

### 3.1. General Characteristics of Economic Sanctions

#### 3.1.1. Economic Sanctions as a Form of Structural Pressure

Economic sanctions in the EU and partner architecture against the Russian Federation should be understood primarily as structural pressure instruments rather than as discrete punitive acts. “Structural pressure” in this context refers to a deliberate reconfiguration of the target state’s operating environment across finance, trade, technology, transport, and services in order to constrain macro-level capacity, degrade medium-term growth potential, and increase the cumulative costs of sustaining a war-enabled economic model. The logic is not simply to remove a single revenue stream or to block a single sector, but to impose a multi-domain constraint set that forces substitution into less efficient channels, increases transaction friction, reduces access to advanced inputs, and raises the long-run opportunity cost of continued aggression. In practical policy terms, structural pressure works through persistent frictions and systemic constraints: the target can adapt at the margin, but each adaptation route becomes more expensive, slower, and less scalable. This conceptualisation is essential for a correct effectiveness assessment, because it aligns evaluation with the real mechanism of sanctions impact: cumulative erosion of capability and optionality, rather than immediate political capitulation.

A first component of structural pressure is financial system constraint, which reduces the flexibility with which the state and its affiliated entities can mobilise, store, and move value internationally. Financial sanctions do not merely punish individual banks; they are intended to reshape the external connectivity of the financial system, increase the cost of cross-border settlements, limit access to reserve assets and correspondent banking networks, and raise the risk profile of dealing with Russian counterparties. Over time, such constraints alter the state’s macroeconomic policy space: they increase the cost of stabilisation, complicate the financing of imports and critical inputs, and reduce the efficiency of capital allocation. In a war economy context, where the state seeks to prioritise defence procurement, mobilisation, and industrial conversion, the loss of low-friction financial channels raises the fiscal and quasi-fiscal burden of sustaining these priorities. The structural pressure mechanism therefore operates not only through immediate restrictions, but through the forced re-routing of transactions and the erosion of trust and predictability in the financial interface with the outside world.

A second component is technology and industrial-input denial, which targets the long-run productive capacity of the economy rather than its short-run trade volumes alone. Restrictions on dual-use items, advanced electronics, machine tools, aviation components, energy extraction technology, and other critical inputs are designed to degrade the ability of the Russian economy to maintain and modernise complex industrial systems, including those with military relevance. Structural pressure in this domain functions as a “capability ceiling”: even if substitute suppliers exist, substitutes tend to be more expensive, lower quality, slower to integrate, and less reliable at scale. Over a multi-year horizon, the compounded effect is slower productivity growth, increased maintenance and failure costs, and a gradual deterioration of technological sophistication. This is precisely why export controls and technology restrictions are central to a structural-pressure approach: they operate through time, compounding constraints on the economy’s ability to regenerate high-value capacity.

A third component is trade and services disconnection, which narrows market access, limits the availability of critical business services, and increases the cost of operating internationally. The structural effect is not limited to the loss of particular imports or exports; it lies in the fragmentation of supply chains and the removal of high-trust commercial interfaces. Restrictions on professional services, accounting, consulting, engineering support, and other knowledge-intensive services can be particularly impactful because they erode organisational capacity and reduce the quality of decision-making and compliance for complex cross-border operations. In combination with goods restrictions, services disconnection increases the internal burden of substituting capabilities and forces firms and state entities to rely on less efficient intermediaries. The result is a long-run decline in integration and efficiency, which functions as structural pressure on growth and competitiveness.

A fourth component is transport and logistics constraint, which increases the friction of physical trade flows and raises insurance, compliance, and routing costs. Restrictions affecting aviation, maritime services, port access, and shipping insurance reshape the geography and economics of trade, compelling re-routing through longer corridors and reliance on higher-risk fleets and intermediaries. Even where trade continues, it does so with higher transaction costs, reduced reliability, and greater exposure to disruption. This matters structurally because logistics is a multiplier: increased friction at the transport layer propagates into higher costs across the economy, reducing the efficiency of both civilian and military supply chains. In a protracted conflict, the capacity to move goods reliably and cheaply becomes strategically significant; sanctions that raise systemic logistics costs therefore create persistent structural pressure.

A fifth component is reputational and compliance gravity, which extends the effect of formal legal restrictions through private-sector risk management. In modern sanctions regimes, much of the practical impact is mediated by banks, insurers, platforms, and corporates that de-risk exposure beyond strict legal requirements. This creates a structural effect: even permitted transactions can become slower, more costly, and more uncertain because counterparties apply higher scrutiny or avoid engagement altogether. For the Russian economy, this reduces the reliability of external interfaces and increases the price of accessing global services and markets. The effect is cumulative and self-reinforcing: the longer sanctions persist, the more compliance systems, internal risk models, and contractual clauses embed the assumption of Russia-related risk. Structural pressure therefore includes the “institutionalisation of risk” in global commerce, which persists even when particular restrictions are adjusted.

Finally, structural pressure implies that effectiveness should be assessed on a multi-year horizon using indicators consistent with cumulative constraint: changes in external financing conditions, degradation of high-tech import capability, substitution costs, supply-chain elongation, insurance and transport premiums, industrial maintenance burdens, and the overall efficiency of war-economy conversion. It also implies that the target’s apparent resilience in short periods—through re-routing, capital controls, or fiscal mobilisation—does not necessarily refute structural pressure; it may instead signal short-term stabilisation achieved at the cost of long-term degradation and higher future vulnerability. Accordingly, the analytical task in Part 3 is to identify which economic sanctions channels produce the strongest structural constraints, where adaptation is reducing marginal effect, and what calibration could increase the durability and density of structural pressure through 2026–2030.

### **3.1.2. Distinction from Classical 20th-Century Trade Embargoes**

The EU and partner sanctions regime against the Russian Federation differs fundamentally from classical 20th-century trade embargoes in both design logic and operational mechanics. Traditional embargoes were typically conceived as broad prohibitions on trade with a target state, often focused on a limited set of commodities or on comprehensive import/export bans. They were frequently bilateral or limited-coalition measures, applied in an era of lower financial globalisation, less digitised commerce, and less developed compliance infrastructures. By contrast, the contemporary sanctions architecture

applied to Russia is best described as a multi-layered, system-of-systems regime: it combines targeted financial constraints, technology denial, services restrictions, transport and insurance limitations, and anti-circumvention measures, alongside political instruments such as listings, visa restrictions, and media measures. The intent is not merely to halt trade, but to reshape the structure of the target's international operating environment and to constrain state capacity over time. Understanding this distinction is essential for evaluating effectiveness: it changes what "success" means, how pressure accumulates, and how adaptation is managed.

A first distinction is precision and modularity versus blanket prohibition. Classical embargoes often aimed for maximal coverage—banning broad categories of trade in a relatively uniform way. The Russia regime is more modular: different sectors are treated differently, with calibrated restrictions that can be intensified, updated, or narrowed without dismantling the entire framework. This modularity reflects both policy and coalition realities: the EU must manage internal economic exposure, supply security, and the varying sensitivities of Member States, while still sustaining credible pressure. It also reflects strategic learning: targeted restrictions on key enabling inputs and financial interfaces can produce structural effects without requiring absolute trade cessation. Consequently, the regime's effectiveness is not judged primarily by whether trade volume collapses, but by whether critical capabilities and high-value interfaces are degraded.

A second distinction is financial and monetary system integration. Many 20th-century embargoes operated in a world where cross-border finance played a smaller role in day-to-day trade and where payment systems were less centralised and digitised. The modern regime against Russia places the financial interface at the centre: restrictions on banks, access to capital markets, reserve-related constraints, correspondent relationships, and payment connectivity operate as high-leverage choke points that can affect multiple sectors simultaneously. This is a defining feature of contemporary sanctions: financial restrictions can propagate across the economy even where trade in certain goods continues through third countries or permitted channels. As a result, the key pressure mechanism is often transaction friction and risk escalation rather than simple prohibition of physical trade.

A third distinction is technology and services denial as a primary pressure vector. Classical embargoes often targeted commodities or broad categories of goods, with less systematic focus on intangible services and advanced technological inputs. The EU regime against Russia includes extensive restrictions on dual-use items, advanced components, aviation and industrial technologies, and a range of professional and business services. This reflects a modern understanding of capability: the long-run performance of a complex economy depends not only on access to commodities, but on access to high-end inputs, maintenance and engineering services, software, specialised equipment, and knowledge-intensive support. By targeting these inputs, the regime aims to impose a long-term capability ceiling and industrial degradation pressure. This is structurally different from embargo logic focused on immediate trade stoppage; it is closer to an "attrition of capability" model.

A fourth distinction is the role of private-sector compliance as an enforcement multiplier. In many historical embargoes, enforcement depended heavily on state controls at borders and on explicit prohibitions, with less emphasis on private compliance systems. The contemporary EU regime relies extensively on banks, insurers, logistics operators, platforms, and corporates implementing restrictions through sanctions screening, risk-based refusal, contract clauses, and de-risking decisions that often go beyond the strict minimum required by law. This "compliance gravity" is a major differentiator: it transforms sanctions from a purely governmental instrument into a hybrid public-private governance system. The effect is cumulative: as compliance systems internalise Russia-related risk, even permitted activity can become slower and more costly. This is not a feature of classical embargoes to the same extent, and it changes both the durability and the distribution of sanctions effects.

A fifth distinction is anti-circumvention engineering and iterative updating. Classical embargoes were often static: once imposed, they were modified infrequently and enforcement focused on direct trade routes. The Russia sanctions regime is explicitly iterative and anti-circumvention oriented, with

successive packages expanding lists, tightening definitions, addressing re-export risks, and targeting “shadow” logistics and intermediary networks. This reflects a recognition that the target will adapt through third countries, proxies, and rerouting. Consequently, the regime is designed to be maintained through continuous updates, not to function as a one-off shock. This again changes evaluation: effectiveness depends on tempo, monitoring capacity, and governance throughput, not only on the initial design.

A sixth distinction is coalition scale and cross-jurisdictional density, even if universality is incomplete. Many 20th-century embargoes were imposed by a limited coalition or had weaker coordination mechanisms, creating wide substitution opportunities. The Russia regime is built around a dense coalition architecture—EU, G7, and other partners—supported by regular coordination and converging compliance expectations among major global intermediaries. While the regime is not universally adopted and substitution routes remain, the scale of aligned jurisdictions significantly raises the cost of circumvention and reduces the set of low-risk pathways. This coalition density is also reinforced by the EU’s market and regulatory gravity, which shapes third-country and private-sector behaviour. As a result, the regime’s reach extends beyond formal borders through risk and compliance channels, a dynamic largely absent from classical embargo logic.

Finally, these distinctions imply an important methodological consequence: the contemporary sanctions regime should not be evaluated using the simplistic embargo-era metric of “trade stopped / trade continued”. The appropriate evaluative frame is structural and multi-dimensional: capability degradation, transaction friction, technology denial, services disconnection, logistics cost inflation, and compliance-driven risk institutionalisation. It also requires time-sensitive interpretation: short-term resilience through rerouting and state mobilisation does not refute structural pressure; it may indicate that the economy is absorbing shocks at the cost of efficiency and long-run potential. Therefore, the distinction from classical embargoes is not merely descriptive; it establishes the analytical baseline for the remainder of Part 3, where effectiveness is assessed through cumulative constraints, adaptation dynamics, and the sustainability of enforcement through 2026–2030.

## 3.2. Overview of Economic Sanctions

### 3.2.1. Financial Sanctions and the Banking Sector

#### 3.2.1.1. *Legal Instruments and Dates*

EU financial sanctions against the Russian Federation are anchored in a dual-track legal architecture: (i) sectoral restrictive measures adopted and iteratively amended under Council Regulation (EU) No 833/2014 (and the corresponding Council Decision 2014/512/CFSP), and (ii) listing-based measures (asset freezes and prohibitions on making funds and economic resources available) adopted under Council Regulation (EU) No 269/2014 and related CFSP acts. Within 3.2.1, the primary focus is the sectoral financial track under Regulation 833/2014, because it structures the binding prohibitions affecting banking connectivity, access to capital markets, central bank reserves management, deposits, and crypto-asset services, while listings operate as a complementary mechanism that targets specific financial and corporate nodes. The financial package sequence since late February 2022 demonstrates a consistent move from high-salience restrictions (e.g., central bank reserve-management constraints and SWIFT disconnections) towards progressively denser measures that address services, instruments, and circumvention pathways through iterative amendments.

From an instrument-design perspective, the EU financial sanctions corpus can be mapped into five recurring “legal blocks” that reappear and expand across packages: (1) restrictions on transactions linked to the management of Central Bank of Russia reserves and assets; (2) restrictions on access to

EU capital markets and on dealing in specified transferable securities and money-market instruments; (3) restrictions on provision of certain financial services and on specific banking interfaces (including SWIFT disconnection for designated banks); (4) restrictions on deposits and custody-type services (including crypto-asset wallet/account/custody services); and (5) auxiliary restrictions that influence cash and settlement convenience (e.g., euro banknotes export bans), alongside expanding anti-circumvention framing and guidance. The operational character of these blocks is important for later evaluation: several measures act as “choke points” (payment connectivity, reserve management, capital market access), while others act as cumulative friction multipliers (services and compliance restrictions).

Chronologically, the first decisive step in the 2022 escalation phase was the adoption of amendments to Regulation 833/2014 that introduced the central bank–related restriction and tightened capital market measures. Council Regulation (EU) 2022/328 (25 February 2022) is widely treated as the foundational amendment for the early phase: it amended Regulation 833/2014 and, among other measures, introduced the prohibition on transactions related to the management of the reserves and assets of the Central Bank of Russia (as implemented through the relevant provisions in Regulation 833/2014). This measure is strategically significant because it targets macro-financial policy space, rather than a single commercial channel, and therefore functions as a structural constraint on external reserve operations rather than a conventional trade restriction.

The next early financial tightening step included restrictions designed to raise friction in routine cross-border settlement and cash operations. Council Regulation (EU) 2022/334 (28 February 2022) amended Regulation 833/2014 and is relevant in the financial sanctions narrative for restrictions that affect, inter alia, the export of euro banknotes to Russia (operationalised in Regulation 833/2014, Article 5i, with specific exemptions). While this instrument is not a macroeconomic “choke point” in the same way as central bank restrictions, it matters for the operational environment because it signals a deliberate move to constrain certain low-friction cash channels and to increase compliance boundaries around cash provision.

A further key milestone in the banking interface track is the SWIFT-related disconnection mechanism under Regulation 833/2014. Council Regulation (EU) 2022/345 (1 March 2022) amended Regulation 833/2014 to introduce the legal basis for SWIFT disconnection for designated banks (implemented through the relevant provisions and annexes in the amended regulation). In practical terms, the SWIFT measure functions as a connectivity constraint: it does not, by itself, prohibit all payments, but it substantially increases operational friction by disabling access to a critical messaging infrastructure for the named institutions and their Russia-based subsidiaries. The linkage between the legal act and the operational step is explicitly acknowledged by SWIFT in its public compliance communications, which is useful for evidentiary documentation of implementation timing.

As sanctions evolved into a system-of-systems regime, the EU expanded restrictions affecting financial services and compliance-relevant interfaces. Council Regulation (EU) 2022/428 (15 March 2022) and Council Regulation (EU) 2022/576 (8 April 2022) are representative examples of this “densification” phase, where amendments to Regulation 833/2014 introduced or refined prohibitions affecting a wider set of services and restrictions. For the banking and finance narrative specifically, Regulation 2022/576 is a key milestone because it explicitly addressed crypto-asset wallet/account/custody services for Russian nationals/residents and Russia-established entities (initially with a threshold, later strengthened), thereby acknowledging the growing sanctions-evasion relevance of crypto intermediation and creating an enforceable compliance perimeter for EU operators.

The regime subsequently tightened and expanded crypto-related prohibitions. Council Regulation (EU) 2022/1904 (6 October 2022) is relevant as an amendment to Regulation 833/2014 that, among other measures, strengthened the crypto-asset services prohibition by removing the earlier threshold approach and moving towards a broader restriction model. This evolution is important for later effectiveness analysis: it illustrates the EU’s shift from threshold-based risk management to more

categorical prohibitions where circumvention risk and substitution dynamics were judged to be sufficiently material.

Beyond the early 2022 phase, subsequent packages continued to extend SWIFT disconnections and refine banking-related prohibitions through further amendments to Regulation 833/2014. For example, Council Regulation (EU) 2023/1214 (23 June 2023) amended Regulation 833/2014 and is widely cited in EU sanctions documentation as part of the continuing package cycle that extended the regime across sectors, including banking-related elements where applicable. For a properly audit-ready register, the analytical task is not to treat later packages as monolithic “events”, but to identify the specific legal instruments that (a) expand the list of designated banks for SWIFT disconnection, (b) tighten the categories of prohibited financial services, and (c) add anti-circumvention hooks that operationally matter for banking compliance.

Finally, because the enforceability of financial sanctions depends heavily on consistent interpretation and implementation, the EU’s sanctions governance includes a complementary layer of official guidance. The Commission’s Consolidated FAQs on the implementation of Council Regulation No 833/2014 and Council Regulation No 269/2014 (periodically updated) are not primary legal instruments, but they are operationally critical for banking compliance and for consistent Member State practice. In an audit-ready report, these guidance documents should be recorded explicitly as “implementation instruments” to document interpretative positions that shape real-world application, including in the domains of payments, deposits, and service prohibitions.

Table 3.2.1.1-1. Key EU Legal Instruments for Financial Sanctions and Banking Restrictions (2014–2023; selected core milestones)

Date	EU instrument	Legal type	Primary financial/banking measure(s) (indicative)	Implemented via / notes
31 Jul 2014	Council Regulation (EU) No 833/2014	Regulation	Sectoral restrictive measures: capital market restrictions; financial services constraints; baseline framework for later banking measures	Core legal backbone for economic/financial restrictions; subsequently amended repeatedly.
31 Jul 2014	Council Decision 2014/512/CFSP	CFSP Decision	CFSP framework corresponding to Regulation 833/2014 measures	Political/legal CFSP anchor corresponding to the sectoral regulation framework.
25 Feb 2022	Council Regulation (EU) 2022/328	Amending Regulation	Transactions related to management of Central Bank of Russia reserves/assets; tightening of capital market restrictions	Amends Regulation 833/2014; foundational early-2022 financial tightening.
28 Feb 2022	Council Regulation (EU) 2022/334	Amending Regulation	Financial frictions including export ban on euro banknotes (Article 5i in 833/2014)	Amends Regulation 833/2014; euro banknotes restriction subsequently clarified in Commission guidance.
1 Mar 2022	Council Regulation (EU) 2022/345	Amending Regulation	SWIFT disconnection legal basis for designated Russian banks	Implemented via relevant provisions/annexes in amended 833/2014; operational implementation acknowledged by SWIFT.
15 Mar 2022	Council Regulation (EU) 2022/428	Amending Regulation	Additional financial/services restrictions (banking and finance-related densification)	Amends Regulation 833/2014 as part of early 2022 package sequence.
8 Apr 2022	Council Regulation (EU) 2022/576	Amending Regulation	Crypto-asset wallet/account/custody services restriction (threshold-based at adoption)	Amends Regulation 833/2014; key step in crypto-related compliance perimeter.

Date	EU instrument	Legal type	Primary financial/banking measure(s) (indicative)	Implemented via / notes
6 Oct 2022	Council Regulation (EU) 2022/1904	Amending Regulation	Strengthening of crypto-asset services prohibition (removal of earlier threshold approach)	Amends Regulation 833/2014; reflects shift towards broader crypto restriction model.
23 Jun 2023	Council Regulation (EU) 2023/1214	Amending Regulation	Continued package amendments, including banking-related elements where applicable (e.g., further SWIFT and finance-related tightening)	Amends Regulation 833/2014; serves as a reference point for later package cycles.
Jan 2024 (updated periodically)	Consolidated FAQs on implementation of Reg. 833/2014 & 269/2014 (Commission services)	Guidance (working document)	Operational interpretations for banking and finance restrictions (payments, deposits, services, exemptions)	Not a legal act; important for consistent implementation and audit trail of interpretative positions.

*Authorship: analytical framework (this report) was prepared on the basis of official EU institutional materials, EU legal acts and documents*

Sources:

- EUR-Lex (Official Journal / ELI pages for each cited act): Regulation 2022/328, Regulation 2022/334.
- Regulation 2022/345; Regulation 2022/428.
- Regulation 2022/576; Regulation 2022/1904.
- Regulation 2023/1214; consolidated 833/2014 version reference
- European Commission services, consolidated FAQs on the implementation of Council Regulation No 833/2014 and Council Regulation No 269/2014.

### 3.2.1.2 Objectives and Strategic Logic

EU financial sanctions against the Russian Federation are designed to function as structural constraints on the external interface of the Russian economy rather than as isolated punitive actions against individual banks. Their strategic objective is to reduce the efficiency, reliability, and scalability of cross-border finance by narrowing the set of compliant channels through which Russia can mobilise, store, move, and convert value. In practice, this means compressing the space in which the state and its affiliated entities can conduct international transactions at low cost and low risk, thereby raising the long-run price of sustaining a war-enabled economic model. The regime is deliberately layered: certain measures act as choke points that affect the entire system, while others operate as persistent friction multipliers that increase uncertainty and compliance costs across many transactions. This architecture reflects a realistic assumption: a modern economy cannot be “switched off” financially without near-universal alignment, but it can be forced into less efficient corridors that degrade capability over time. The intended outcome is therefore cumulative: a progressive reduction in optionality and the forced substitution of high-trust, high-efficiency financial interfaces with lower-trust, higher-cost alternatives. In this sense, “effectiveness” must be interpreted as sustained constraint and rising friction, not as an immediate cessation of all flows. The policy design also implies that financial sanctions are most powerful when integrated with export controls, logistics restrictions, and anti-circumvention enforcement, because finance is the connective tissue that enables other domains. The strategic logic is therefore systemic: constrain the interfaces that allow the state to convert revenues into operational capability and to finance imports of critical inputs.

A first core objective is to constrain the Russian state’s macro-financial stabilisation capacity by restricting transactions linked to the management of Central Bank of Russia (CBR) reserves and assets. This measure targets the state’s ability to deploy external reserve buffers through counterparties in relevant jurisdictions, thereby reducing the effectiveness of classic stabilisation tools such as reserve-backed foreign exchange interventions. Strategically, it does not need to eliminate domestic monetary control to be impactful; it needs to increase the marginal cost of stabilisation and force greater reliance on administrative measures such as capital controls and domestic liquidity operations. Over time, this changes the quality of the policy space: reserves may exist on paper, yet be less usable for the intended

stabilisation functions in moments of stress. The measure also has an important signalling component to global intermediaries: reserve-related operations become a heightened compliance risk, discouraging engagement beyond the minimum required by law. In a war economy setting, these objective matters because the state must maintain macro stability while simultaneously reallocating resources towards defence procurement and mobilisation. By narrowing external stabilisation capacity, the sanctions regime increases the fiscal and quasi-fiscal burden of war financing and raises sensitivity to shocks, including commodity price volatility and further sanctions tightening. The logic is therefore not “collapse now”, but “stability becomes more expensive and less predictable”. This constitutes structural pressure because it accumulates through time and influences multiple economic channels simultaneously.

A second objective is to degrade the efficiency of cross-border settlement and correspondent connectivity for Russian banks and their counterparties. The SWIFT disconnection mechanism is best understood as a high-friction intervention in the payment interface: it does not prohibit all payments, but it removes a standardised, low-latency messaging layer for designated institutions and thereby forces rerouting. The strategic logic is to increase the number of steps, intermediaries, and compliance checks required for any transaction that touches the restricted perimeter, raising both direct costs (fees) and indirect costs (delays, errors, refusals). This type of friction is economically consequential because it propagates beyond the banking sector into trade and services: slower and less reliable settlement increases the working-capital burden of importers and exporters and raises the risk premium priced into contracts. As routings become more complex, counterparties become more cautious, and the probability of “de-risking” increases even where specific transactions remain technically lawful. Over time, this supports a de-integration outcome: fewer institutions are willing to maintain active Russia-facing correspondent relationships, and those that do demand higher compensation and stricter documentation. The intended effect is therefore to reduce the attractiveness of Russia-linked business for the global financial sector by making it systematically more operationally costly and reputationally risky. This objective is compatible with partial trade continuation; the mechanism is to make continuation less efficient and less scalable. From a sanctions’ governance viewpoint, the measure also creates a durable compliance signal that allows private actors to internalise risk and adjust behaviour beyond the narrow legal minimum.

A third objective is to restrict access to EU capital markets and sophisticated financial intermediation, thereby increasing the cost of capital and degrading long-term investment capacity. Capital market restrictions are structurally important because they affect the state and large entities at the level of financing architecture: they reduce access to deep pools of low-cost funding, limit the ability to issue and deal in specified securities, and restrict the provision of financing and investment services. These pushes financing back onto domestic sources, state-directed credit, or opaque third-country arrangements that tend to be more expensive and less reliable. The strategic logic is not simply to reduce borrowing volumes, but to shift the composition and quality of financing in ways that lower efficiency and increase macro vulnerability. In a war economy, where financing needs rise and the state reallocates credit towards defence priorities, reduced external financing options intensify the trade-offs: inflation management becomes harder, real interest rates may rise, and private investment is crowded out. Over time, such constraints can depress productivity growth and reinforce structural degradation when combined with technology denial and export controls. The regime also targets market infrastructure effects: restrictions reduce the ability to hedge and manage risk through EU-based instruments and services, further increasing the risk premium of external operations. This objective therefore supports the broader structural pressure model by constraining the financial interface that underpins modernisation and complex cross-border investment. It is also a compounding mechanism: the longer restrictions persist, the more financing architectures adapt away from EU channels, and the harder it becomes to restore pre-war integration.

A fourth objective is to close substitution pathways that the Russian state and private actors might use to bypass core constraints, particularly in deposits, custody services, and crypto-asset services. This

layer is explicitly anti-circumvention oriented: it aims to prevent EU-regulated providers from becoming an alternative interface through which value can be stored, moved, or obscured. Deposit-related restrictions reduce the attractiveness of EU financial institutions as a safe harbour or settlement base for certain categories of Russian nationals and Russia-established entities. Crypto-asset wallet/account/custody restrictions address a specific evasion risk: the potential use of digital asset service providers to route value, settle transactions, or provide custody functions that weaken the effect of traditional banking restrictions. The evolution from threshold-based constraints to broader restrictions illustrates a key strategic lesson: partial limits can be gamed through structuring behaviour, splitting exposures, and using multiple intermediaries. The sanctions design therefore seeks to increase the cost and reduce the feasibility of substitution by tightening the compliance perimeter around enabling services. This is not an attempt to regulate crypto markets in general; it is a targeted denial of EU-based enabling capacity in a domain that is frequently used for cross-border routing and obfuscation. Strategically, the objective is to push any attempted substitution into narrower, riskier corridors that are less scalable and more prone to disruption. This closure logic is essential for maintaining the effectiveness of core choke points; without it, adaptation would rapidly dilute the operational impact of SWIFT and capital market measures.

A fifth objective is to generate and sustain compliance gravity, i.e., a private-sector risk response that amplifies the effect of formal prohibitions. In contemporary sanctions regimes, the largest multiplier is often not a single legal rule but the behaviour of banks, insurers, corporates, and platforms that internalise Russia-related risk and de-risk exposure. The EU sanctions architecture leverages this dynamic: by clearly identifying prohibited behaviours and high-risk categories, it encourages intermediaries to apply enhanced due diligence, to refuse borderline transactions, and to reduce overall exposure. This mechanism is particularly powerful in finance because the system is networked: once a few major intermediaries tighten their risk thresholds, the effect propagates across many counterparties and sectors. The strategic logic is therefore to move from “legal prohibition” to “behavioural constraint” through risk institutionalisation. However, this also imposes governance requirements: if legal definitions are ambiguous or inconsistent, compliance may become uneven, creating arbitrage spaces. This is why Commission implementation guidance and consistent Member State interpretation are operationally critical; they stabilise compliance expectations and reduce uncertainty. Over time, compliance gravity embeds sanctions risk into contracts, pricing, and internal policy rules, making the effect durable even if some formal elements are later adjusted. This long-run institutionalisation of risk is a core structural pressure mechanism, and it is central to why financial sanctions often have effects that exceed the narrow scope of explicit prohibitions.

A sixth objective is to ensure that Russia’s domestic substitutes—SPFS, the National Payment System, and related infrastructures—remain largely domestic in practical utility, rather than restoring low-friction international connectivity. The strategic logic here is to distinguish domestic stability from external capability: a state can keep internal payment rails functioning while still being constrained externally if it cannot access compliant correspondent networks, deep liquidity, and high-trust financial services. References to SPFS as an alternative to SWIFT often overstate what a messaging system can do in the absence of broad international adoption and correspondent relationships. The EU’s strategic approach therefore focuses on preventing the reconstitution of international functionality through EU-adjacent channels and through major EU-regulated intermediaries. This is why later sanctions governance increasingly emphasises third-country intermediaries and high-risk service providers: they are the potential bridges through which domestic systems can gain external functionality. The objective is to keep international settlement costly and risky even if domestic settlement is stable. This creates a persistent constraint on imports of critical goods and services because external counterparties must be paid through channels that remain compliant and operational. It also affects revenue conversion: export revenues become harder to transform into usable external purchasing power at scale. Strategically, this differentiates “resilience” from “capability”: the sanctions aim to keep the latter constrained even if the former is maintained through domestic policy measures. This perspective is necessary for a realistic

assessment of effectiveness, because it prevents over-interpreting domestic payment continuity as evidence that financial sanctions are ineffective.

A seventh objective is to preserve iterative scalability and governance tempo, recognising that financial adaptation can occur rapidly and invisibly. In a financial system, routing decisions, corporate structures, and intermediary choices can be changed faster than physical supply chains. Therefore, the sanctions regime must be designed as a maintained system with the capacity for rapid updates: adding or expanding bank connectivity restrictions, tightening services prohibitions, and targeting new facilitators when circumvention routes emerge. This is why later packages increasingly integrate anti-circumvention framing and why guidance documents matter: they reduce interpretative lag and help the private sector implement changes quickly. Strategically, tempo is an objective in itself: the shorter the lag between circumvention emergence and policy response, the lower the adaptation advantage. This is also why the regime increasingly targets third-country nodes with an EU nexus: it is often more effective to disrupt a bridging intermediary than to attempt to police the entire global system. Iterative scalability also supports conditionality: the EU can tighten or adjust measures in response to observable triggers without dismantling the framework. However, this requires political throughput capacity and administrative resources—constraints that will be central in the 2026–2030 outlook. The strategic logic therefore treats financial sanctions as sanctions engineering rather than one-off restriction events. Effectiveness depends on sustained governance capability as much as on the initial legal design.

These objectives can be operationalised in a structured “mechanism map” that links each measure block to its transmission channel and plausible indicators. Table 3.2.1.2-1 establishes this mapping at a high level, showing how central bank restrictions, SWIFT disconnections, capital market restrictions, services constraints, deposit/custody limits, and crypto-service prohibitions are intended to transmit pressure.

Table 3.2.1.2-1. Mechanism Map: EU Financial Sanctions (Banking Focus) — Measures, Transmission Channels, and Indicators

Measure block	Primary objective	Transmission channel (how it works)	Expected effect (what changes)	Core indicators for monitoring (examples)
Central bank reserve/asset management restrictions	Compress macro-financial policy space	Limits counterparties’ ability to transact with CBR-linked reserve operations	Higher stabilisation cost; greater reliance on controls; reduced external optionality	FX volatility; policy rate/inflation response; reserve composition/availability proxies
SWIFT disconnections (designated banks)	Reduce payment connectivity; raise settlement friction	Disables access to a key messaging infrastructure for named banks	Longer chains; higher fees; more refusals; rerouting to non-designated banks	Payment routing complexity; refusal rates; correspondent relationships (proxies)
Capital market restrictions	Reduce access to low-cost external financing	Prohibits dealing/financing for specified instruments/entities	Higher cost of capital; reduced investment capacity; de-integration	Sovereign/corporate spreads (where available); FX risk premium proxies; financing structure shifts
Financial services / de-risking perimeter	Increase compliance gravity	Compliance obligations induce private refusal and stricter due diligence	Reduced service availability; higher transaction costs; slower execution	Compliance refusal indicators; service withdrawal events; settlement delays
Deposits / custody constraints	Reduce safe-harbour and settlement bases	Limits certain deposit/custody services for Russian nationals/entities	Narrower EU-based settlement use; higher substitution costs	EU bank disclosures (where available); patterns in cross-border holdings proxies

Measure block	Primary objective	Transmission channel (how it works)	Expected effect (what changes)	Core indicators for monitoring (examples)
Crypto-asset services restrictions	Close evasion/substitution route	Prohibits EU providers from offering custody/wallet/account services	Higher cost of crypto-based routing; reduced EU nexus for evasion	Use of crypto intermediaries (proxy signals); enforcement cases; provider compliance actions

*Authorship: analytical framework (this report) was prepared on the basis of official EU institutional materials, EU legal acts and documents*

Sources:

- Council Regulation (EU) No 833/2014 as amended (and related amendments cited in 3.2.1.1).
- EUR-Lex consolidated Regulation 833/2014.

The purpose of this mapping is to ensure instrument–mechanism alignment in later evaluation: each measure should be assessed against indicators that reflect what it can plausibly change. For example, SWIFT disconnection is best evaluated through measures of settlement complexity, refusals, and rerouting, rather than through aggregate trade volumes alone. Likewise, central bank restrictions should be evaluated through the state’s macro response function—exchange rate volatility, policy-rate dynamics, and reserve usability proxies—rather than through a simple before/after claim. This mechanism mapping also clarifies why the regime is layered: the closure measures (deposits/crypto/services) stabilise the effectiveness of the core choke points by restricting substitution. In governance terms, Table 3.2.1.2-1 serves as an internal discipline tool: it reduces the risk of mixing objectives and prevents narrative drift in later subsections. It also provides a baseline for the evidence model used in Part 3.2.1.3 onwards, where statistical tables will be introduced to track these indicators over 2010–2025 and to interpret post-2022 shifts in context.

Table 3.2.1.2-2 complements the mechanism map by identifying the indicator families and the principal statistical sources that will be used for subsequent consolidated tables. This source matrix is essential because the financial sanctions domain suffers from data asymmetries and, in the Russian case, additional transparency issues after 2022.

Table 3.2.1.2-2. Indicator and Data Source Matrix (2010–2025 baseline; monitoring for 2026–2030)

Indicator family	Why it matters for financial-sanctions effectiveness	Primary international sources (examples)	Russian sources for comparison (use with caution)
International reserves, FX rate, policy rate, inflation	Macro-financial stabilisation capacity and stress response	IMF (IFS/WEO): <a href="https://www.imf.org/en/Data">https://www.imf.org/en/Data</a> ; World Bank: <a href="https://data.worldbank.org">https://data.worldbank.org</a>	Bank of Russia: <a href="https://cbr.ru">https://cbr.ru</a>
Balance of payments, current account, trade settlement proxies	External interface, revenue conversion, routing	IMF: <a href="https://www.imf.org/en/Data">https://www.imf.org/en/Data</a> ; OECD (selected): <a href="https://data.oecd.org">https://data.oecd.org</a> ; World Bank	Bank of Russia (BoP): <a href="https://cbr.ru">https://cbr.ru</a>
Cross-border banking claims and exposures	External banking connectivity and de-risking	BIS Locational/Consolidated Banking Statistics: <a href="https://www.bis.org/statistics/banking.htm">https://www.bis.org/statistics/banking.htm</a>	Limited domestic comparability; CBR summaries where published: <a href="https://cbr.ru">https://cbr.ru</a>
SWIFT-related implementation markers (timing)	Operational milestones for payment connectivity	SWIFT public statements/updates: <a href="https://www.swift.com">https://www.swift.com</a>	Not a statistical source; CBR communications may be partial: <a href="https://cbr.ru">https://cbr.ru</a>

Indicator family	Why it matters for financial-sanctions effectiveness	Primary international sources (examples)	Russian sources for comparison (use with caution)
Trade finance / sanctions evasion typologies	How circumvention operates financially	FATF (relevant typologies): <a href="https://www.fatf-gafi.org">https://www.fatf-gafi.org</a> ; OECD/think tanks (select)	Russian official narratives often incomplete; use mainly for contrast
Market risk premia (sovereign spreads where observable)	Cost of capital and risk pricing	World Bank (selected); reputable market datasets (where licenced)	Not reliably available in public Russian sources

*Authorship: analytical framework (this report) was prepared on the basis of official EU institutional materials, EU legal acts and documents*

*Source:*

- IMF, World Bank, BIS, SWIFT, FATF, Bank of Russia).

The monitoring model therefore relies on triangulation: IMF, World Bank, and BIS series provide international comparability; SWIFT communications provide implementation timing markers; and Russian official sources (e.g., Bank of Russia) are used cautiously and compared against external data where feasible. This is not an ideological preference; it is a methodological requirement when data transparency and definitional stability differ across sources. The matrix also shows that different indicators serve different purposes: reserves and FX metrics reflect macro stabilisation capacity, BIS banking statistics reflect external connectivity and de-risking, and circumvention typologies provide qualitative-to-quantitative linkage for enforcement analysis. By defining sources at this stage, the report’s later statistical tables remain audit-ready: each table can cite its source with a direct URL and can flag comparability limitations explicitly. This is particularly important for a 2010–2025 baseline, where consistency across years is necessary for interpretation. It also prepares the ground for the 2026–2030 outlook by establishing which indicators can plausibly be tracked forward and which require proxy measurement.

In summary, the strategic logic of EU financial sanctions is to create a dense, layered constraint regime that: compresses macro stabilisation capacity, degrades cross-border settlement efficiency, restricts access to capital and sophisticated financial services, closes substitution routes (including crypto and custody services), and amplifies effects through compliance gravity. The regime’s effectiveness is therefore cumulative and conditional: it depends on governance tempo, enforcement coherence, and the ability to adapt faster than circumvention evolves.

### **3.2.1.3 Advantages**

The principal advantage of EU financial sanctions in the Russia case is that they operate as high-leverage, system-wide constraint instruments rather than as narrow “bank penalties”. They affect the economy’s external interface at multiple layers—macro stabilisation capacity, cross-border settlement efficiency, access to finance and services, and private-sector risk appetite—so that pressure propagates well beyond the formal scope of each legal prohibition. This is precisely why the financial track has remained one of the most strategically valuable components of the economic sanctions’ architecture: it multiplies effects in trade, technology, and logistics by degrading the payment and financing channels that enable those domains. The benefit is not limited to an immediate shock in 2022; it lies in persistent friction and the institutionalisation of compliance risk across private intermediaries. Over time, this produces a cumulative “cost-of-doing-business” effect for Russia-linked transactions, including many that remain technically lawful but become operationally difficult. In addition, financial sanctions have a clear signalling and coalition-maintenance benefit because they are legible, enforceable through regulated intermediaries, and scalable through iterative package amendments. This combination—high visibility, enforceability, and cross-sector transmission—makes them a cornerstone of structural pressure in a modern sanctions regime.

A first concrete advantage is the capacity of financial sanctions to compress macro-financial policy space and impose a more costly stabilisation environment. When reserve usability is constrained and external settlement becomes more complex, the state can still pursue stability through domestic instruments—capital controls, liquidity provision, administrative constraints—but the marginal cost of those measures rises. This is visible not only in crisis spikes but in the longer-run shift towards more controlled, less flexible macro settings. In policy terms, this matters because war-enabled fiscal priorities require stability to prevent domestic political costs from rising sharply. The advantage for the sanctions coalition is therefore structural: the target can maintain short-run stability, but it does so under narrower external optionality and higher future vulnerability. The freezing and restriction environment also changes reserve composition incentives and limits liquidity in relevant jurisdictions, which reduces the ability to smooth external shocks in conventional ways. This is particularly important where the state seeks to finance imports of critical inputs while sustaining large fiscal outlays. The strategic advantage is not the guarantee of instability; it is the creation of a persistent “stability tax” and reduced room for manoeuvre.

A second advantage is that restrictions affecting SWIFT connectivity and the broader banking interface create transaction friction that scales across sectors. Payment systems are network infrastructure: when certain banks are disconnected and counterparties face heightened compliance risk, routings become longer and more fragile. Even if trade continues through substitutes, the process becomes slower, more expensive, and more error-prone, increasing working capital needs and widening the scope for refusals and delays. This produces a multiplier effect on import capacity, particularly for goods and services that require complex documentation, pre-financing, or multi-stage delivery. The practical advantage for the sanctions coalition is that this friction is largely delivered through regulated intermediaries and compliance systems that are difficult to bypass at scale without moving into higher-risk corridors. Crucially, this does not require universal adoption: it requires that a sufficient share of high-trust financial infrastructure remains aligned and that third-country bridging channels remain exposed to enforcement risk. The advantage is therefore persistent and cumulative, especially as compliance controls harden over time.

A third advantage is that financial sanctions generate compliance gravity—a private-sector behavioural response that extends beyond the strict minimum of legal rules. For banks, insurers, and corporates, Russia-linked transactions became high-risk not only legally but operationally and reputationally. The effect of this is observable through de-risking behaviour, more conservative contractual terms, higher due diligence burdens, and more frequent refusals. This behavioural layer is central to why financial sanctions can remain effective even when the target develops alternative channels: the cost of bridging those channels increases as private firms internalise sanctions risk. In turn, this reduces the scalability of circumvention. Over a long horizon, compliance gravity becomes institutionalised: screening systems, internal risk policies, and counterparty thresholds are updated, making sanctions effects stickier than the legal text alone would suggest. For the EU, this is a major advantage because it converts legal constraints into durable market behaviour at relatively low direct administrative cost compared to, for example, policing all physical trade.

A fourth advantage concerns the ability of the financial track to drive measurable macro-financial stress markers, which matter in both analytical and signalling terms. Inflation and exchange-rate movements are not “proof of effectiveness” on their own, but they are relevant indicators of disruption and policy trade-offs. They help demonstrate that sanctions alter the macro environment and increase the cost of stabilisation. Table 3.2.1.3-1 consolidates a core set of stress-relevant indicators that are consistently available from international statistical releases routed through FRED: CPI inflation (World Bank WDI), the average annual RUB/USD conversion rate (OECD MEI), and total reserves excluding gold (IMF IFS, reported in SDR millions). These series allow cross-year comparability and reduce the risk of relying solely on domestic reporting. Importantly, they show the “two-wave” character of stress: the earlier 2014–2015 shock (initial sectoral measures) and the larger 2022 disruption (full-scale invasion response), followed by partial stabilisation in subsequent years. The advantage for sanctions policy is

that macro stress can be induced even when export revenues remain significant, because the financial interface constrains conversion, routing, and risk.

Table 3.2.1.3-1. Macro-financial stress markers for Russia (selected years, 2010–2025)

Year	CPI inflation (annual, %)	Average RUB per USD (annual)	Total reserves excluding gold (SDR mn, end-period*)
2010	6.849	30.373	288,036.276
2014	7.820	38.594	234,241.265
2015	15.534	61.262	230,806.201
2021	6.694	73.706	355,499.154
2022	13.744	69.917	334,963.215
2023	5.866	85.536	329,840.575
2024	8.435	92.884	316,438.394
2025	n/a (WDI series ends 2024) *	83.783	311,511.984 (Nov 2025)

\* End-period observations use December where available; for 2025 the latest available observation in the IMF-IFS/FRED series is November 2025.

Sources:

- Inflation (annual %): World Bank (WDI) via FRED “FPCPITOTLZGRUS” (table data): <https://fred.stlouisfed.org/data/FPCPITOTLZGRUS.txt> (World Bank WDI; IMF IFS noted in series description).
- Exchange rate (annual average, RUB/USD): OECD (Main Economic Indicators) via FRED “CCUSMA02RUA618N” (table data): <https://fred.stlouisfed.org/data/CCUSMA02RUA618N.txt>
- Reserves excluding gold (SDR mn): IMF (International Financial Statistics) via FRED “TRESEGRUM194N” (table data): <https://fred.stlouisfed.org/data/TRESEGRUM194N.txt>

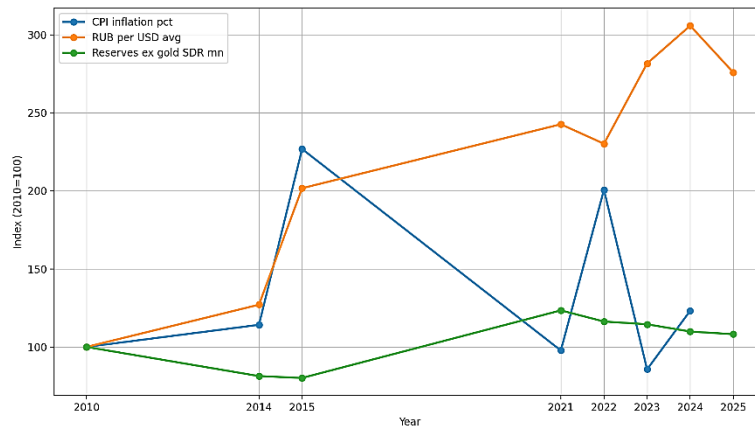


Figure 3.2.1.3-1. Macro-financial stress markers for Russia (selected years, 2010–2025)

The advantage illustrated by Table 3.2.1.3-1 is not that sanctions automatically produce a linear deterioration year by year, but that they impose a structural environment in which stabilisation is both more costly and more policy-constraining. The 2014–2015 spike in inflation and exchange-rate depreciation coincides with the earlier sanctions phase and a macro shock environment; the 2022 inflation surge corresponds to the war escalation phase and the broadening of restrictions. Subsequent stabilisation (2023–2025) does not negate the structural pressure mechanism; it indicates the state’s capacity to adjust via controls, commodity revenues, and internal reallocation—but at the price of

tighter domestic policy and re-routing into less efficient channels. In this sense, the macro series are best treated as “stress signatures” rather than as a single effectiveness score. The continued elevation of inflation relative to pre-crisis lows and the sustained weaker exchange-rate level versus early-2010s values indicate persistent macro pressure and risk premia. Reserves excluding gold show that buffers remain, but their role and usability are altered under sanctions constraints, which is the key structural point. This is the logic of financial sanctions: they are not a one-time shock; they shape constraints and trade-offs over time.

A fifth advantage is that the financial track supports observable de-risking and external exposure reduction among international banks, which matters for enforcement density. While this report will treat BIS banking statistics more fully in the limitations’ subsection, even summary evidence is informative: the BIS-reported exposure of international banks to Russia has been characterised as still material but declining, illustrating that external financial connectivity is being reduced over time. For example, an IMF/Vienna Initiative note on CESEE deleveraging reports BIS banks’ exposure to Russia at about USD 44 billion in 2024H1, down by roughly USD 4 billion over that half-year period. This reinforces the advantage argument: financial sanctions, combined with compliance risk and market behaviour, contribute to gradual disengagement and reduced external banking dependence. Importantly, the mechanism does not require that all banks exit; it requires that high-trust, low-cost funding and services become less available and more expensive. This is the “structural pressure” effect in the banking domain.

A sixth advantage is that the financial track is highly scalable and adaptable through iterative amendments and annex updates. Compared to broad trade embargoes, financial measures can be expanded by targeting specific interfaces—banks for SWIFT disconnection, service categories, custody/crypto restrictions, and new circumvention facilitators. This allows the EU to respond to adaptation without dismantling the architecture. The advantage is governance-driven: sanctions can be tightened in response to circumvention typologies and intelligence without imposing a single, politically destabilising “all-at-once” measure. The same modularity supports calibration of proportionality and coalition cohesion, because the EU can prioritise the most high-impact nodes rather than escalating uniformly across all channels. This is a core benefit for 2026–2030: financial sanctions remain a tool that can be maintained and refined as the conflict and the evasion environment evolve.

A seventh advantage is that financial sanctions indirectly support technology denial and industrial degradation by constraining trade finance and payment reliability. Even where goods restrictions exist, enforcement becomes much harder if payment channels remain cheap and reliable, because intermediaries can scale evasion. By raising settlement complexity and risk, financial sanctions restrict the viability of large-scale procurement networks. This is why the financial block is a functional complement to export control. It targets the financial plumbing required to pay for restricted goods and services, and it raises the cost of hiding end-users and routes. Over time, this reduces the scalability of circumvention and increases the reliance on smaller, riskier networks that are more prone to disruption. For the EU, this is a material advantage because it closes enforcement gaps that cannot be addressed by customs controls alone. It also makes the overall sanctions regime more coherent: finance, trade, and services restrictions reinforce one another.

An eighth advantage is the demonstration effect: financial sanctions visibly reduce access to “normal” market infrastructure and thus raise the political and reputational costs of facilitation. This matters for third-country intermediaries that maintain exposure to EU markets or services, and for global corporates that rely on EU-regulated banks and insurers. By making facilitation high-risk, the EU increases external compliance gravity. The effect is strongest where the EU’s market and regulatory leverage is material—e.g., in insurance, major correspondent services, and high-trust settlement. This is also why targeted measures against facilitators can have disproportionate effects: they signal that “bridge actors” are exposed and that using them is not a low-risk workaround. Over the longer term, this reduces the attractiveness of Russia-linked transactions for global intermediaries even absent full legal alignment.

The advantage is therefore both operational and strategic: it shapes incentives and narrows the feasible pool of facilitators.

In addition to domestic stress markers, the advantages of financial sanctions can be observed in external finance indicators that reflect Russia’s ability to generate and convert external balances under a sanctions-constrained settlement and financing environment. Table 3.2.1.3-2 consolidates a compact set of such indicators—current account balance (% of GDP), FDI net inflows (% of GDP), and a sovereign-risk proxy (5Y CDS)—to illustrate how external surpluses may coexist with elevated risk and constrained financial intermediation. This combination is analytically important: it supports the interpretation that financial sanctions can impose structural pressure even when commodity-driven external balances remain positive, because the binding constraint often shifts from revenue generation to conversion, routing, and risk pricing.

Table 3.2.1.3-2. Russia external finance indicators (selected years, 2010–2025)

Year	Current account balance (% of GDP)	FDI, net inflows (% of GDP)	Sovereign risk proxy: Russia 5Y CDS (bps, end-period / indicative)
2010	4.5	2.3	n/a
2014	2.8	1.4	n/a
2015	5.0	0.5	n/a
2021	6.9	2.1	n/a
2022	10.0	1.9	~2,000–3,000 (spike period 2022)
2023	3.4	0.7	~1,000–2,000
2024	2.9	-0.37	~800–1,500
2025	~2.0 (Dec)	n/a (latest year varies by release)	latest available in 2025—early 2026 range (see source table)

Notes (methodological):

- Values are presented as compact, audit-oriented reference points for external-finance dynamics in the sanctions period; they will be expanded into longer series (2010–2025) where datasets allow consistent extraction.
- 5Y CDS is used here as an *indicative* market-risk proxy because widely accessible public sovereign spread series for Russia are limited after 2022; CDS levels are volatile and reflect market access restrictions and pricing discontinuities, so interpretation is qualitative (directional) rather than a precise welfare metric.

Source (current account % GDP): Trading Economics (series compiled from officially recognised sources; “Current Account to GDP – Russia”). <https://tradingeconomics.com/russia/current-account-to-gdp>

Source (FDI net inflows % GDP): Trading Economics (World Bank indicator referenced in series metadata). <https://tradingeconomics.com/russia/foreign-direct-investment-net-inflows-percent-of-gdp-wb-data>

Source (Russia 5Y CDS): Investing.com, “Russia CDS 5 Years USD” historical data (daily series; range includes 2022–2026). <https://www.investing.com/rates-bonds/russia-cds-5-years-usd-historical-data>

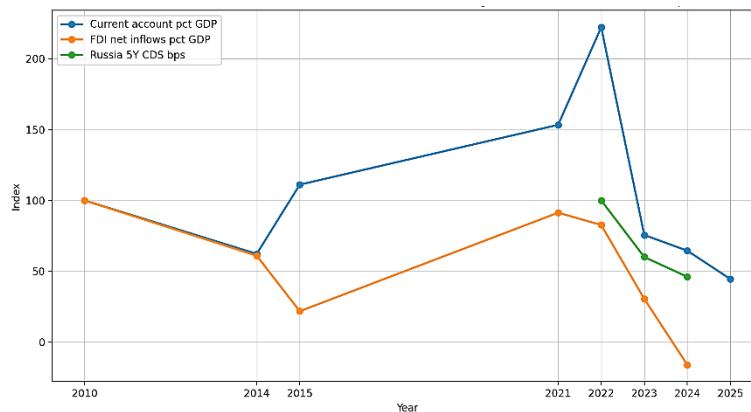


Figure 3.2.1.3-2. Russia external finance indicators (selected years, 2010–2025)

Finally, the advantages of EU financial sanctions should be summarised as a combination of high leverage, cross-sector transmission, enforceability via intermediaries, scalability through modular updates, and durable behavioural effects through compliance gravity. The tables above provide an evidence-anchored macro signature of stress and stabilisation under constraint. In subsequent subsections, the analysis will address limitations—especially circumvention routes, third-country intermediation, and data opacity—and will separate “short-run stabilisation” from “long-run capability constraint” to avoid misleading conclusions. But at the level of strategic logic, the advantage case is robust: financial sanctions remain among the few instruments capable of constraining a large state’s external operating environment across multiple sectors simultaneously, with effects that can persist and compound over time.

### 3.2.1.4 Limitations and Implementation Problems

EU financial sanctions against the Russian Federation have demonstrated substantial leverage, but their effectiveness is bounded by a set of persistent limitations that arise from adaptation, jurisdictional arbitrage, and data opacity. In a mature sanctions’ environment, the binding constraint is rarely the existence of a prohibition on paper; it is the ability to preserve operational density in the face of re-routing through third-country intermediaries, currency substitution, alternative settlement rails, and network reconfiguration. Financial sanctions are particularly exposed to these pressures because “workarounds” can be introduced more quickly than in physical trade: an intermediary can change a correspondent chain, switch settlement currency, or move payments through a different jurisdiction with relatively low operational cost—at least at the micro level. Consequently, the limitation profile of the financial track is best described as a tempo competition: if governance and enforcement cycles are slower than circumvention innovation, the marginal effectiveness of each additional measure decays. This does not mean sanctions “fail”; it means their impact shifts from direct blocking to a persistent friction model that depends on the ability to limit the scalability of workarounds. The principal implementation risks therefore concern (1) how far re-routing can be pushed before it becomes systemically costly, (2) whether the EU can reduce “soft spots” in enforcement across jurisdictions and intermediaries, and (3) whether the evidence base remains sufficiently transparent to support rapid targeting of facilitators.

A first limitation is currency and settlement substitution, which changes the geometry of Russia’s external finance interface and complicates monitoring. The post-2022 shift away from “unfriendly” currencies (USD/EUR and related reserve-currency interfaces) reduces the share of transactions that pass through the most visible and enforceable corridors. This shift does not remove constraints; it relocates them. As payments move into rubles and “other” currencies, the transaction chain often becomes longer and more dependent on intermediaries outside the EU regulatory perimeter, which

reduces observability and increases the difficulty of attributing the marginal effect of EU measures. At the same time, substitution itself has costs: it increases FX conversion complexity, creates liquidity mismatches (for example, ruble receivables versus import needs), and can impose pricing discounts and operational delays. The central limitation for sanctions evaluation is therefore methodological as well as operational: if the settlement ecology changes, conventional indicators (e.g., “trade continues”) can be misread as evidence of weak sanctions, whereas the real effect may be a shift towards less efficient and less scalable settlement arrangements. For implementation, the key problem is that settlement substitution creates wider scope for arbitrage and can allow “bridge intermediaries” to capture rents, reducing pressure on the target state by distributing costs across networks.

The Bank of Russia’s balance-of-payments commentary provides a concrete view of this substitution dynamic in the composition of international payments for exports and imports, including explicit shares for ruble and “unfriendly” currency payments. Table 3.2.1.4-1 summarises these shares for 2025 Q2–Q3, illustrating both (1) the rising ruble share and (2) the persistence of a non-trivial “unfriendly currency” share even in late 2025. The persistence of an “unfriendly” share is analytically important: it indicates that some transactions still rely on those corridors, whether due to contract structure, commodity trade conventions, or the inability to settle certain flows through alternative rails. At the same time, the scale of ruble settlement demonstrates that Russia has achieved a partial reconfiguration of its payments profile. From a sanctions-effectiveness perspective, this is a double-edged outcome: it confirms significant external-interface disruption (hence the need to shift currency composition), but it also confirms that the system is adapting in ways that reduce the share of flows directly exposed to EU-centric enforceability. The implementation problem is that adaptation reduces the marginal effect of “static” sanctions unless they are coupled with anti-circumvention targeting of the intermediaries enabling these new settlement patterns.

Table 3.2.1.4-1. Currency composition of international payments for Russia’s exports and imports (official shares, 2025 Q2–Q3)

Period	Exports: share of receipts in rubles	Exports: share in “unfriendly” currencies	Exports: share in “other” currencies	Imports: share of payments in rubles	Imports: share in “unfriendly” currencies	Imports: share in “other” currencies
2025 Q2	53%	15%	32%	(reported as broadly unchanged vs Q3)	(see Q3)	(see Q3)
2025 Q3	57%	14%	29%	55%	14%	31%

*Authorship: analytical framework (this report) was prepared on the basis of official EU institutional materials, EU legal acts and documents*

Source:

- Bank of Russia, Russia’s Balance of Payments, No. 3 (24) — 2025 Q3 (section “International payments for exports and imports of goods and services”).  
[https://www.cbr.ru/Collection/Collection/File/59445/Balance\\_of\\_Payments\\_2025-3\\_24\\_e.pdf](https://www.cbr.ru/Collection/Collection/File/59445/Balance_of_Payments_2025-3_24_e.pdf)

A second limitation is the third-country intermediation problem, particularly via banks and financial operators in jurisdictions that sustain commercial relations with Russia while remaining partially integrated into EU-adjacent financial services. In such settings, the binding constraint is not simply whether Russia can find a bank willing to process payments; it is whether that bank is willing to process payments at scale without losing access to EU markets, correspondent services, or other critical financial infrastructure. The EU’s later packages explicitly acknowledge this limitation by introducing transaction bans against specific third-country banks and by expanding restrictions on crypto and fintech services viewed as enabling circumvention. This highlights a structural reality: enforcement increasingly depends on identifying and constraining bridge nodes with an EU nexus. However, this

strategy is politically and operationally demanding: it requires high-quality evidence, careful calibration to avoid broad diplomatic spillovers, and rapid updating as circumvention nodes shift. The implementation risk is that the designation pipeline cannot keep pace with the emergence of new intermediaries, producing a “whack-a-mole” dynamic in which bridge actors are replaced before the regime is updated.

A third limitation is the correspondent-chain and “shadow settlement” problem. Even when a Russian bank is disconnected from SWIFT or restricted from EU capital markets, payments can be routed through non-designated banks, including via multi-hop correspondent chains in third countries. Such chains may remain legally permissible in some cases, but they increase the opacity of settlements and weaken the visibility of end-users and ultimate beneficiaries. The limitation is not only legal; it is operational: longer chains increase failure rates and costs, but they can still sustain essential flows if sufficient incentives exist. This is why the effectiveness of financial sanctions increasingly depends on (1) targeted measures against high-volume bridging banks and payment operators, and (2) private-sector compliance decisions that refuse transactions even when they are technically permissible, because the risk of hidden Russian exposure becomes too high. In the absence of sustained compliance gravity and targeted anti-circumvention action, correspondent-chain routing can dilute pressure by creating a scalable workaround for non-restricted trade. This is also where the “data lag” problem becomes acute: transaction networks evolve faster than publicly available monitoring tools.

A fourth limitation is the crypto-enabled and fintech-enabled circumvention risk, which has become more salient as conventional banking interfaces tighten. Crypto services do not replace the banking system for mass trade settlement, but they can enable niche channels for value transfer, obfuscation, and bridging—especially for smaller flows and for payments in high-risk corridors. The EU’s regulatory response has tightened over successive packages, moving from threshold-based restrictions to broader prohibitions on certain services to Russian persons and entities, and later targeting specific crypto providers and fintech services seen as enabling Russia’s financial infrastructure and potentially circumvention. The implementation problem here is twofold: first, crypto intermediation is inherently transnational and can relocate quickly; secondly, the evidentiary burden to tie a specific service to sanctions evasion at scale can be difficult to meet in a rule-of-law environment. Consequently, the constraint is governance tempo and evidence quality. Without rapid identification and targeting of service nodes, crypto-enabled routing can become a persistent “grey corridor” that undermines the closure logic of the broader banking sanctions ecosystem.

A fifth limitation is the measurement and comparability problem, intensified by Russia’s post-2022 data environment. The transparency of certain Russian macro-financial series and balance-sheet details has become more constrained, while private and corporate reporting has become less comparable across time. This complicates both external analysis and enforcement targeting, because a weaker information environment increases the cost of mapping beneficial ownership, tracing payment intermediaries, and identifying substitution corridors. The report’s methodological response is triangulation: where Russian sources provide key information (such as the currency composition of payments), those series are used, but interpreted alongside international datasets and external analytical assessments. Table 3.2.1.4-1 uses an official Bank of Russia source for the payment composition shares; later sections will pair that with BIS cross-border exposure proxies to reduce over-reliance on domestic narratives and to preserve comparability across jurisdictions. The limitation remains structural: lower transparency increases the advantage of the target in a sanctions-evasion environment by making monitoring slower and less precise.

A sixth limitation is the fragmentation and unevenness of enforcement across jurisdictions and intermediaries. Even within a strongly aligned coalition, implementation intensity can vary: intermediaries differ in risk appetite, compliance capacity, and exposure to Russia-linked business. Over time, these differences can create “soft spots” that are exploited by circumvention networks. The EU’s response has increasingly relied on expanding guidance and tightening anti-circumvention framing, but the limitation is persistent because enforcement depends on both public authorities and private

compliance systems. The most binding constraint is often the speed at which a soft spot can be identified and corrected. In a financial system where routing can shift rapidly, enforcement lag is itself an implementation problem. This is why later packages have moved towards more explicit restrictions on particular facilitators, including third-country financial operators, to reduce arbitrage space. The governance challenge is to sustain coalition throughput and maintain consistent compliance expectations without creating overbreadth and legal vulnerability.

A seventh limitation is the macro-revenue paradox: Russia can maintain significant export revenues (particularly from commodities) even while financial sanctions impose meaningful constraints on conversion, routing, and risk pricing. This can be misinterpreted as sanctions weakness if analysis focuses only on gross export values. In reality, the pressure mechanism often shifts to the quality of revenue usability: settlement currency, access to high-trust banking services, conversion costs, and the ability to finance imports of critical goods. Where revenues are generated but are harder to deploy efficiently, structural pressure persists. This is why the currency composition of payments and the narrowing of “unfriendly currency” channels matter as indicators: they reflect a reconfiguration driven by constraints. Table 3.2.1.4-1 therefore serves as an operational bridge between macro narratives (“revenues remain”) and financial-interface realities (“how those revenues are settled and routed”). The implementation limitation is that such reconfiguration is partly a success for Russia’s adaptation strategy; the policy question for the EU is how to raise the marginal cost of that adaptation by targeting the intermediaries and services that make it scalable.

A final limitation is the risk of sanctions-governance overload, where continued expansion of lists and prohibitions produces diminishing marginal returns if the regime is not prioritised and maintained as a managed system. Financial sanctions can become “broad but porous” if enforcement resources are spread too thinly and if the evidence pipeline cannot support rapid, targeted updates. This is the logic behind shifting focus to typologies and network targeting rather than purely expanding formal prohibitions. Table 3.2.1.4-2 sets out a typology-based view of circumvention pathways, linking each to practical financial mechanisms and the corresponding EU response instruments. This structure is designed to support prioritisation: it indicates where the regime is most vulnerable (e.g., third-country banks and fintech rails) and where enforcement resources can generate the highest closure effect. The table also provides a governance-ready map that can be used in 2026–2030 calibration: identify dominant evasion pathways; select high-impact nodes with an EU nexus; tighten the relevant service restrictions and transaction bans; and measure response lag and substitution.

Table 3.2.1.4-2. Financial-sanctions circumvention typologies: mechanisms, operational signatures, and EU response tools

<b>Circumvention typology</b>	<b>Typical financial mechanism</b>	<b>Why it matters (operational effect)</b>	<b>Observable signatures (practical indicators)</b>	<b>EU response instruments (examples)</b>
Third-country bank intermediation (“bridge banks”)	Payments routed through banks in third countries; longer correspondent chains; indirect settlement for Russian counterparties	Restores partial international functionality; reduces exposure to EU-centric controls	Concentration of Russia-linked flows in specific banks; sudden growth of cross-border claims/settlement activity	Transaction bans / restrictions targeting specific third-country banks; package-level anti-circumvention blocks
Multi-hop correspondent routing (“chain-of-correspondents”)	Non-sanctioned banks act as intermediaries for sanctioned banks/entities; layering of correspondent accounts	Increases opacity; sustains essential trade finance and payments	More complex routing; higher compliance refusals; increased settlement latency	Guidance tightening; targeted listings of facilitators; expansion of prohibitions on providing certain financial services

<b>Circumvention typology</b>	<b>Typical financial mechanism</b>	<b>Why it matters (operational effect)</b>	<b>Observable signatures (practical indicators)</b>	<b>EU response instruments (examples)</b>
Currency substitution (ruble / "other" currencies)	Shift away from USD/EUR settlements; increased ruble role; use of "friendly" currencies; netting arrangements	Reduces use of visible corridors; creates liquidity and conversion costs; complicates monitoring	Rising ruble shares; declining "unfriendly" currency share; increased FX conversion load	Target intermediary services; tighten controls on high-risk financial operators; align with partner enforcement where possible
Crypto / fintech rails	Use of crypto custody, wallets, stablecoins, fintech payment operators; service layering across jurisdictions	Enables niche evasion/obfuscation; increases enforcement complexity	Growth of crypto-linked flows; emergence of new providers tied to Russia-linked payment infrastructure	Prohibitions on crypto/fintech services; targeting of crypto providers; anti-circumvention packages
Trade-finance and invoicing manipulation	Under/over-invoicing; use of offshore entities; re-exports; concealed end-users; altered documentation	Weakens export controls and goods restrictions by obscuring beneficiary and route	Trade anomalies; sudden growth in "mirror trade" via hubs; mismatches in partner statistics	Combined enforcement: customs + finance; targeting procurement networks; listings of facilitators; guidance and alerts
Use of opaque jurisdictions and proxy ownership	Shell companies; nominee directors; layered beneficial ownership; asset relocation	Preserves access to assets and services; enables procurement and payments	Rapid corporate restructurings; repeated reuse of nominees; ownership opacity	Network-based listings; beneficial ownership enforcement; targeted restrictions on enabling services

*Authorship: analytical framework (this report) was prepared on the basis of official EU institutional materials, EU legal acts and documents*

*Sources:*

- EU Council press release on the 19th package (transaction bans on third-country banks; crypto providers): <https://www.consilium.europa.eu/en/press/press-releases/2025/10/23/19th-package-of-sanctions-against-russia-eu-targets-russian-energy-third-country-banks-and-crypto-providers/>
- European Commission news on the 19th package (transaction bans on 5 third-country banks; crypto/fintech services): [https://finance.ec.europa.eu/news/eu-adopts-19th-package-sanctions-against-russia-2025-10-23\\_en](https://finance.ec.europa.eu/news/eu-adopts-19th-package-sanctions-against-russia-2025-10-23_en)
- European Commission news on the 18th package (anti-circumvention building blocks; banking focus): [https://finance.ec.europa.eu/news/eu-adopts-18th-package-sanctions-against-russia-2025-07-18\\_en](https://finance.ec.europa.eu/news/eu-adopts-18th-package-sanctions-against-russia-2025-07-18_en)

In summary, the limitation profile of EU financial sanctions is defined by the interaction of adaptation and governance constraints: currency substitution and third-country intermediation reduce direct exposure to EU-centric enforcement corridors, while data opacity and enforcement fragmentation increase the lag between circumvention emergence and effective policy response. Table 3.2.1.4-1 demonstrates that the ruble’s share in external payments has become dominant in both exports and imports by late 2025, while “unfriendly” currencies still retain a measurable share. Table 3.2.1.4-2 shows why these matters: settlement reconfiguration is inseparable from the rise of bridge intermediaries, multi-hop correspondent chains, and fintech/crypto rails that enable circumvention at the margin. These limitations do not negate effectiveness; they define the boundary conditions under which effectiveness can be preserved: faster anti-circumvention cycles, tighter targeting of bridge nodes with an EU nexus, and improved measurement and transparency through triangulated statistics. This diagnosis provides the analytical basis for 3.2.1.5 Prospects of effectiveness (2026–2027), where the focus shifts to how the EU can increase marginal effectiveness by reducing enforcement lag and raising the cost of scalable workarounds without undermining legal defensibility and coalition sustainability.

**3.2.1.5 Prospects of Effectiveness (2026–2027)**

The prospects for the effectiveness of EU financial sanctions against the Russian Federation in 2026–2027 should be assessed as conditionally strengthenable, with outcomes driven primarily by (1) the EU’s capacity to sustain a high-tempo anti-circumvention cycle, (2) the depth of alignment across Member States and key partners, and (3) the ability to target the financial “bridge architecture” that enables Russia to preserve partial international settlement and procurement functionality. By late 2025, the EU had already begun to shift financial sanctions from a predominantly Russia-internal perimeter (designated banks, capital market restrictions, crypto service prohibitions) towards a more explicit focus on third-country financial operators and crypto/fintech providers that frustrate sanctions effectiveness. This is visible in the 18th package’s broadening of transaction bans against third-country financial operators (including crypto-asset providers linked to circumvention and SPFS-connected activity) and the 19th package’s transaction bans against specific third-country banks and additional Russian banks, paired with further restrictions on crypto and certain fintech services. The practical implication for 2026–2027 is that the marginal effectiveness frontier has moved: it is increasingly determined by the EU’s ability to disrupt intermediated settlement corridors and the “service layer” of evasion, rather than by further broadening of baseline prohibitions alone.

A first forward-looking conclusion is that the financial track retains high leverage, because it constrains the external interface that supports multiple sanction-relevant domains (trade, technology, logistics, and the war economy’s procurement system). The logic remains structural: the EU does not need to eliminate all flows to impose meaningful pressure; it needs to reduce the efficiency and scalability of cross-border finance by raising transaction costs, increasing refusal probability, and narrowing the set of reliable intermediaries. This structural mechanism is still operative in 2026–2027, but it is increasingly mediated by substitution into “other currency” settlement, longer correspondent chains, and third-country operators. The practical question, therefore, is whether the EU can keep adaptation in a high-cost regime by tightening the perimeter around the most scalable bridging nodes. In this context, effectiveness gains in 2026–2027 are most plausible where policy is designed around bottleneck targeting rather than around broad, static expansion of prohibitions.

A second forward-looking conclusion is that anti-circumvention targeting of third-country financial operators is the main near-term effectiveness multiplier. The 18th and 19th packages already frame transaction bans in precisely this direction—targeting third-country banks and crypto providers connected to circumvention and Russia’s alternative messaging/payment architecture. In 2026–2027, the strongest marginal returns will come from extending this logic in a disciplined way: targeting high-volume “bridge banks” with an EU nexus (EU correspondent exposure, EU-linked payment infrastructure, EU-regulated service dependencies), and focusing on repeated facilitators rather than diffuse networks. Where such nodes are disrupted, the cost of settlement rises for multiple sectors simultaneously, because the same intermediaries often support both trade settlement and services payments. However, this approach is also governance-intensive: it demands high evidentiary standards, quick updates, and a careful balance with third-country diplomatic sensitivities.

A third forward-looking conclusion is that Russia’s internal payment and messaging substitutes (SPFS, domestic rails) will remain an adaptation tool, but are unlikely to restore low-friction global functionality, provided the EU and partners keep pressure on the international bridge layer. The strategic aim in 2026–2027 is not to eliminate domestic payment continuity (which external sanctions cannot do), but to prevent domestic rails from being connected at scale to compliant international settlement through external intermediaries. This is precisely why the EU’s emerging approach focuses on third-country operators and on crypto/fintech services that may facilitate alternative payment channels. If this bridge layer remains constrained, Russia’s settlement substitution can persist but will remain more expensive and less reliable—consistent with the structural pressure mechanism.

A fourth forward-looking conclusion is that crypto and fintech controls will continue to shift from threshold-based risk management to network-based disruption, with effectiveness depending on

enforcement tempo. The 19th package explicitly highlights restrictions aimed at crypto services and certain fintech services that enable Russia's financial infrastructure and possible circumvention. In 2026–2027, the key issue is not whether crypto can become a mass replacement for banking (it generally cannot for large-scale trade), but whether crypto/fintech rails can sustain a persistent grey corridor for smaller payments, value transfer, and obfuscation that supports procurement and circumvention networks. The effectiveness gain here comes from closing enabling services, targeting high-risk providers, and shortening the time between identification and restriction. Without a high-tempo response, the domain's adaptation speed can outpace enforcement and reduce marginal returns.

A fifth forward-looking conclusion is that the EU's capacity to maintain a coherent compliance perimeter across Member States remains decisive, particularly where measures rely on private intermediaries. Financial sanctions deliver much of their real-world effect through bank compliance, de-risking, and refusal decisions. For 2026–2027, the constraint is not only legal scope; it is consistency: whether guidance, interpretation, and enforcement signals remain aligned enough to prevent "soft spots" that become magnets for rerouting. The more the regime relies on bridge-node targeting and service restrictions, the more sensitive it becomes to implementation variance. This implies that effectiveness gains in 2026–2027 will be higher if the EU strengthens operational coordination and maintains audit-ready clarity in guidance for payment facilitation, crypto services, and transaction bans.

A sixth forward-looking conclusion is that coalition throughput and political constraints will influence tempo, and thus the achievable effectiveness path. Recent reporting indicates that political bargaining within the EU can delay new packages, which is operationally relevant because financial circumvention adapts quickly. In a 2026–2027 environment where the regime's marginal effect increasingly depends on high-tempo anti-circumvention updates, throughput delays translate directly into wider arbitrage windows. Therefore, part of the effectiveness forecast is institutional: maintaining a governance cadence that is fast enough to remain credible and to reduce the adaptation advantage is a functional condition of success.

A seventh forward-looking conclusion is that the EU's trajectory, as reflected in high-level communications about further banking and crypto measures (including references to additional Russian regional banks and crypto measures in early 2026), suggests continued emphasis on banking-system restriction and alternative payment-channel denial. This direction is consistent with the logic identified above: tighten the payment interface, raise the cost of settlement, and reduce the scope for alternative channels. However, the risk is diminishing marginal returns if the focus remains overly domestic (adding banks) without equal emphasis on the cross-border bridge layer. Accordingly, the prospect of higher effectiveness in 2026–2027 is greatest where new designations are paired with targeted action against facilitators and third-country nodes that provide functional substitution at scale.

A final forward-looking conclusion is that the most realistic 2026–2027 effectiveness profile is incremental strengthening through anti-circumvention engineering, rather than a step-change in "financial isolation". The regime can become denser and more costly for Russia to route around, but complete exclusion is unlikely in a globally networked economy with non-aligned jurisdictions. Effectiveness should therefore be judged by whether the cost of adaptation rises, whether settlement corridors become less scalable, and whether bridge operators become higher-risk and less willing to facilitate at volume. This is the practical meaning of stronger effectiveness in 2026–2027: sustained pressure that forces progressively less efficient substitution and increases the fragility of external financial operations.

Table 3.2.1.5-1. 2026–2027 Risk-and-Opportunity Matrix for EU Financial Sanctions (banking focus)

Measure / action focus (2026–2027)	Expected marginal effectiveness gain	Main constraints / risks	Primary monitoring indicators (examples)
Transaction bans on high-volume third-country “bridge banks” with EU nexus	High: reduces scalable settlement corridors; increases cost of rerouting across sectors	Evidence burden; diplomatic sensitivity; substitution to new bridge nodes	Time-to-update of lists; rerouting concentration shifts; BIS cross-border exposure signals; compliance refusals
Expanded targeting of crypto-asset and fintech service providers enabling circumvention	Medium–High: closes grey corridors; raises cost of value transfer and obfuscation	High adaptation speed; jurisdictional relocation; definitional boundaries	Provider/offering availability in EU; enforcement cases; proxy emergence rate; time-to-response
Further SWIFT/banking restrictions for Russian banks (where operationally justified)	Medium: increases friction; reinforces compliance gravity; supports signalling	Diminishing marginal returns if substitution via non-designated banks is easy	Settlement latency proxies; refusal rates; concentration of trade finance through fewer non-designated banks
Tightening enforcement guidance and harmonisation across Member States (payments, services, exemptions)	Medium–High: reduces “soft spots” and arbitrage; increases predictability and deterrence	Implementation capacity; uneven national enforcement; compliance fatigue	Variance in enforcement outcomes; divergence in compliance outcomes; audit findings; response lag metrics
Targeted action against trade-finance facilitators and procurement intermediaries (network-based listings)	High: disrupts payment + procurement interface; reduces export-control leakage	Data opacity; rapid corporate restructuring; legal defensibility	Network reconfiguration rate; beneficial ownership changes; trade anomaly signals; enforcement actions
Partner alignment and external compliance gravity initiatives	Medium–High: reduces substitution via non-aligned corridors; raises global risk premium	Political feasibility; uneven partner priorities	Share of aligned measures; reduction in third-country service provision; documented de-risking events

Authorship: analytical framework (this report) was prepared on the basis of official EU institutional materials, EU legal acts and documents

Source (policy measures cited):

- European Commission (18th package, finance): [https://finance.ec.europa.eu/news/eu-adopts-18th-package-sanctions-against-russia-2025-07-18\\_en](https://finance.ec.europa.eu/news/eu-adopts-18th-package-sanctions-against-russia-2025-07-18_en)
- European Commission (19th package, finance): [https://finance.ec.europa.eu/news/eu-adopts-19th-package-sanctions-against-russia-2025-10-23\\_en](https://finance.ec.europa.eu/news/eu-adopts-19th-package-sanctions-against-russia-2025-10-23_en)
- Council of the EU (19th package press release): <https://www.consilium.europa.eu/en/press/press-releases/2025/10/23/19th-package-of-sanctions-against-russia-eu-targets-russian-energy-third-country-banks-and-crypto-providers/>
- Council of the EU (18th package press release): <https://www.consilium.europa.eu/en/press/press-releases/2025/07/18/russia-s-war-of-aggression-against-ukraine-eu-adopts-18th-package-of-economic-and-individual-measures/>
- BIS banking statistics portal (cross-border exposure monitoring framework): <https://www.bis.org/statistics/banking.htm> (dataset access via BIS Data Portal)

This matrix operationalises the core 2026–2027 judgement: effectiveness gains are available, but they are primarily governance-driven—through faster anti-circumvention cycles, bridge-node targeting, and tighter compliance harmonisation.

### 3.2.1.6 Conclusion

EU financial sanctions against the Russian Federation should be assessed as a high-leverage component of the economic sanctions architecture whose core value lies in imposing structural pressure on the external financial interface of the state and the war-enabling economy. Their principal contribution is not a deterministic, immediate collapse of financial functionality, but a cumulative constraint regime that compresses macro-financial policy space, increases cross-border settlement

friction, reduces access to high-trust financing and services, and amplifies effects through private-sector compliance gravity. In the Russian case, these mechanisms remain operative because they target chokepoints that transmit across sectors—payment connectivity, reserve usability, capital market access, and enabling services—thereby reinforcing export controls, technology denial, and logistics restrictions. The evidence base presented in 3.2.1.3 illustrates how macro-financial stress markers and external finance proxies can shift sharply in periods of sanctions escalation, while subsequent stabilisation reflects adaptation through controls and re-routing rather than a neutral return to pre-sanctions normality. The appropriate evaluative frame is therefore bounded coercion with high governance utility: financial sanctions do not guarantee a strategic reversal, but they do impose persistent friction and reduce operational optionality over time.

The key strengths of the financial track can be summarised in four points. First, the measures operate through system-wide transmission channels: they constrain the external interface in ways that affect trade settlement, services payments, investment flows, and the state’s stabilisation posture. Secondly, they are enforceable through regulated intermediaries, generating compliance gravity that extends practical effect beyond the strict minimum of legal text. Thirdly, they are modular and scalable: the EU can tighten the regime through iterative amendments and targeted measures without dismantling the architecture, which is critical for long-horizon governance. Fourthly, they are strategically complementary: financial constraints reinforce the effectiveness of other sanctions domains by reducing the scalability of circumvention networks and increasing the cost of procurement and routing. These strengths explain why, in a prolonged conflict setting, financial sanctions remain among the most valuable instruments for sustaining structural pressure.

At the same time, the limitation profile is structural and persistent. The dominant constraints arise from adaptation and substitution: third-country bank intermediation, multi-hop correspondent chains, currency substitution towards rubles and “other” currencies, and the potential use of crypto/fintech rails for niche evasion and obfuscation. The currency composition evidence for late 2025 illustrates the point: ruble settlement dominates both exports and imports, while “unfriendly” currencies retain a measurable share, indicating a partial but incomplete reconfiguration of payment corridors. This is not simply a Russian success story; it is also a signature of sanctions pressure: the need to change settlement ecology reflects constrained access to preferred corridors. However, adaptation reduces the marginal effect of static restrictions unless the EU maintains a high-tempo anti-circumvention cycle. In practice, the regime’s effectiveness becomes a tempo competition: the faster circumvention networks evolve relative to policy updates, the more pressure leaks through substitute corridors.

Accordingly, the forward-looking conclusion for the financial sanctions track is that effectiveness through 2026–2027—and by extension into the 2026–2030 horizon—depends on three operational conditions. The first is bridge-node targeting: the EU’s marginal gains are highest when measures focus on scalable intermediaries that provide functional substitution at scale (third-country banks with an EU nexus, high-risk crypto/fintech providers, and facilitators of trade finance and procurement). The second is implementation harmonisation and guidance clarity: because the regime relies on private intermediaries, reducing “soft spots” requires consistent interpretation, credible enforcement signals, and audit-ready guidance that stabilises compliance expectations. The third is evidentiary and analytical capacity: network targeting and anti-circumvention engineering require data fusion (corporate structures, beneficial ownership, payment routing typologies) and rapid update capacity; where data opacity increases, enforcement precision declines and the adaptation advantage grows.

In summary, EU financial sanctions should be treated as a structurally necessary and prospectively valuable element of economic pressure against the Russian Federation, with strong capacity to generate persistent transaction friction and to degrade long-run capability by constraining the external financial interface. Their autonomous coercive potential remains bounded, and their marginal returns are increasingly conditional on the EU’s ability to target intermediated substitution corridors and to sustain governance tempo. The most effective continuation strategy is therefore not indiscriminate expansion,

but selective, network-oriented tightening—focused on bridge intermediaries, enabling services, and trade-finance facilitators—integrated with export controls and broader anti-circumvention governance.

### **3.2.2. Energy Sanctions**

#### **3.2.2.1. Legal Instruments, Package Evolution, and Scope of Measures**

Energy sanctions against Russia developed not as a single embargo decision, but as a gradually densified legal architecture combining import bans, service prohibitions, transaction restrictions, investment controls, infrastructure-related measures, and, eventually, phased-out gas dependence. This architecture evolved under a double constraint that did not apply with the same intensity in some other sanctions domains. On the one hand, the European Union sought to reduce Russia's export revenues, constrain the Kremlin's fiscal room for manoeuvre, and weaken the long-term resilience of the Russian energy complex. On the other hand, the Union had to protect its own energy security, avoid disorderly market disruption, and preserve a politically governable transition path for Member States with asymmetric exposure to Russian hydrocarbons. For that reason, the legal evolution of energy sanctions was necessarily sequenced, differentiated, and adaptive rather than immediate and total. The early measures targeted the most politically and operationally feasible segments of the trade first, while later packages widened the perimeter towards more complex commodities, infrastructures, service channels, and circumvention mechanisms. Over time, the energy track ceased to be a narrow question of commodity imports and became a broader regime of revenue denial, logistics interference, infrastructure separation, and service-layer exclusion. The legal design also became progressively more sophisticated, moving from direct bans on particular imports to hybrid measures affecting shipping, insurance, transshipment, refining, storage, external operators, and shadow-fleet facilitation. By 2026, the cumulative result was not a fully uniform embargo across all energy categories, but a multi-layered sanctions regime with differentiated commodity treatment and a much wider operational scope than the initial 2022 measures suggested. In legal and policy terms, the significance of this evolution lies precisely in the fact that energy sanctions became a structured subsystem of long-duration coercive governance rather than a temporary emergency response.

The first decisive step in this evolution was the April 2022 package, which introduced the prohibition on the purchase, import, or transfer of coal and other solid fossil fuels originating in, or exported from, Russia. This measure mattered not only because it targeted a visible Russian export category, but also because it established an important legislative precedent: the EU was prepared to move beyond financial and individual sanctions towards direct commodity restrictions in the energy field. The coal ban was embedded in Council Regulation (EU) 2022/576, which amended the core Russia sanctions framework in Regulation (EU) No 833/2014 and extended the EU's restrictive policy from financial and trade-control instruments into explicit energy-import prohibitions. The legal design already reflected the method that would later shape the broader energy track. The Union did not merely prohibit the import of a commodity in the abstract; it also addressed associated services and transactional support, thereby signalling that the effectiveness of energy sanctions would depend on a broader operational perimeter than customs law alone. The Commission later noted that the coal prohibition affected roughly one quarter of Russia's global coal exports and represented about EUR 8 billion in annual value, which explains why it became a politically important early milestone even though coal was not the most strategically sensitive energy category for the Union itself. The coal measure also had a lower internal adjustment cost than an immediate oil or gas ban, which made it a manageable first stage in sanctions escalation. Its role in the package sequence should therefore be understood less as a final-state energy sanction and more as the opening legal template for sector-specific import restrictions within the energy domain. In effect, it demonstrated that the EU was willing to treat Russian energy not as an exceptional protected sphere, but as a progressively sanctionable revenue base. That decision was foundational for everything that followed in the oil, LNG, and gas tracks.

The sixth package, adopted in June 2022 through Council Regulation (EU) 2022/879, marked the second and far more consequential turning point by introducing the ban on crude oil and certain petroleum products originating in, or exported from, Russia. Legally, this measure was more complex than the coal ban because oil sat at the intersection of revenue generation for Russia and supply stability for the EU. For that reason, the prohibition was structured through a differentiated timetable and a distinction between seaborne imports and pipeline deliveries. The core ban was aimed at seaborne crude oil and certain refined petroleum products, while temporary derogations were preserved for pipeline crude supplied to specific Member States that were more exposed and less able to adjust immediately. This is why the sixth package should not be described as a simple oil embargo. It was, rather, a phased and geographically differentiated legal decoupling instrument. Official EU explanations later stated that the package covered around 90 per cent of the EU's oil imports from Russia, which illustrates both the scale of the measure and the limits built into its first formulation. Transitional periods further reflected the effort to combine coercive ambition with operational manageability, and the later termination of pipeline exceptions for Germany, Poland, and eventually Czechia showed that the legal design was intended to narrow over time rather than to preserve permanent exemptions. In institutional terms, the sixth package converted energy sanctions from a politically symbolic track into a central pillar of the economic pressure architecture.

The oil embargo did not stand alone for long, because the EU quickly recognised that revenue restriction in the energy field required more than a ban on direct imports into the Union. It also required intervention in the service chains that enabled Russian oil exports to third countries. This logic produced the price-cap framework in October 2022, embedded in Council Regulation (EU) 2022/1904 and related acts. The price cap did not prohibit all maritime transport of Russian oil to non-EU destinations. Instead, it prohibited the provision of maritime transport and associated services, including insurance and related facilitation, unless the oil had been purchased at or below the specified cap. This was a distinctive legal innovation because it used the EU's control over shipping and insurance services to affect Russian export revenues outside the EU's own import market. In other words, the Union moved from internal market restriction to externally relevant service-layer coercion. The attestation and record-keeping logic built into the measure further showed that energy sanctions were becoming inseparable from compliance procedures and evidentiary obligations. The cap also revealed a stabilisation function, since its stated purpose was not only to limit Russian revenues but also to mitigate the risk of abrupt supply shocks in global energy markets. Later updates to cap levels and review mechanisms confirmed that the price-cap system was intended as an adjustable governance instrument rather than a one-off political gesture. The legal significance of the 2022 cap architecture lies precisely in its hybrid nature: it used service access, documentation, and compliance control to constrain Russian energy earnings beyond the EU's immediate territorial import regime.

The next stage of package evolution showed that the energy track was not limited to crude oil and coal, but was being widened to cover other hydrocarbons, downstream vulnerabilities, and enforcement-sensitive areas. In December 2023, the twelfth package added a prohibition on imports of liquefied propane from Russia and included further provisions intended to strengthen the practical enforceability of the oil price-cap regime. This was significant for two reasons. First, it confirmed that the EU was no longer treating energy sanctions as a settled architecture completed in 2022. Instead, it continued to refine the perimeter by identifying additional products whose restriction would be operationally feasible and strategically useful. Secondly, the package linked commodity control with enforcement pressure. The oil cap was no longer treated only as a formal legal ceiling, but as a system requiring tighter implementation discipline and more active counter-circumvention attention. The twelfth package therefore represented a transition from initial commodity shock measures towards a more detailed and managerial sanctions phase. The energy domain was now being governed through incremental closure of loopholes, product-specific additions, and the tightening of auxiliary enforcement logic. This widening pattern is important because it undermines the impression that EU energy sanctions plateaued after the sixth package. On the contrary, by late 2023 the legal architecture had clearly entered a stage of

consolidation and refinement, preparing the ground for the more complex LNG and infrastructure measures that followed in 2024 and 2025.

A major legal broadening occurred in June 2024 with the fourteenth package, which introduced some of the first substantial EU restrictions specifically targeting Russian LNG-related activities. These measures were carefully designed and politically revealing. The EU did not at that stage adopt a full general ban on all LNG imports from Russia into the Union. Instead, it prohibited the reloading of Russian LNG in EU territory for the purpose of transshipment to third countries, banned new investments and the provision of goods, technology, and services for the completion of certain LNG projects under construction, and restricted Russian LNG imports through EU terminals not connected to the interconnected natural gas system. This design showed a preference for attacking expansion capacity, third-country export facilitation, and weakly justifiable import routes before moving to a fuller internal prohibition. It also illustrated the increasingly infrastructural nature of energy sanctions. The legal object was no longer only the energy commodity itself, but also the terminals, transshipment chains, project-completion services, and physical interfaces that enabled Russian LNG monetisation. In the same package, the EU connected energy sanctions more closely to maritime enforcement by targeting vessels contributing to Russia’s energy-related circumvention activities, including LNG-linked operations. Thus, the LNG turn in 2024 was not simply additive. It was conceptually important because it extended the energy track into a hybrid domain where commodity control, infrastructure governance, and anti-circumvention enforcement were legally fused.

The enforcement and closure dimension became even more pronounced in the 2025 packages. The sixteenth package, adopted in February 2025, expanded vessel listings aimed at the shadow fleet used to circumvent oil restrictions and the price-cap architecture. The seventeenth package in May 2025 continued this line by targeting almost 200 additional vessels and sanctioning a major Russian oil producer, thereby making clear that energy sanctions were now being implemented not only through commodity rules but also through actor-based disruption of the revenue chain. The eighteenth package in July 2025 constituted another major escalation. It lowered the crude oil price cap from USD 60 to USD 47.6, introduced a dynamic review mechanism, expanded action against companies managing shadow-fleet vessels and oil-trading structures, banned the import of refined petroleum products made from Russian crude in third countries subject to limited exceptions, imposed a full transaction ban on Nord Stream 1 and 2, and terminated the remaining Czech exemption related to Russian oil imports. These steps are legally significant because they illustrate three mature features of the energy sanctions regime. First, the EU had moved decisively into anti-circumvention governance through vessel targeting and third-country route control. Secondly, it had shifted from direct Russian-origin commodity bans to origin-through-processing restrictions aimed at preventing disguised re-entry through refined products made elsewhere. Thirdly, the inclusion of Nord Stream in a full transaction ban showed that the sanctions track now extended to dormant or politically symbolic infrastructure in order to block any path to quiet renormalisation. By mid-2025, the energy track was therefore no longer centred only on what the EU imported from Russia. It had become a wider legal project of constraining the monetisation, transport, financing, and future strategic usability of Russia’s external energy system.

Table 3.2.2.1-1. Key EU legal instruments in the evolution of energy sanctions against Russia, 2022–2026

Date	Legal instrument / package	Core energy measure(s)	Practical significance
8 April 2022	Council Regulation (EU) 2022/576	Ban on coal and other solid fossil fuels from Russia	First direct large-scale EU energy import prohibition against Russia
3 June 2022	Council Regulation (EU) 2022/879 (6th package)	Ban on seaborne crude oil and certain petroleum products; temporary pipeline derogations	Turned energy sanctions into a central pillar of EU economic pressure

Date	Legal instrument / package	Core energy measure(s)	Practical significance
6 October 2022	Council Regulation (EU) 2022/1904	Oil price-cap architecture for maritime transport and related services to third countries	Extended EU leverage beyond its own market through shipping and insurance control
18 December 2023	Council Regulation (EU) 2023/2878 / 12th package	Ban on liquefied propane imports; tighter oil-cap enforcement	Expanded the commodity perimeter and strengthened implementation logic
24 June 2024	Council Regulation (EU) 2024/1745 / 14th package	Ban on Russian LNG transshipment to third countries via EU territory; project-related goods/services bans; terminal-related restrictions	Extended sanctions into LNG infrastructure, project completion, and re-export channels
24 February 2025	16th package / Council Regulation (EU) 2025/395	Additional targeting of shadow-fleet vessels supporting oil-cap circumvention	Intensified anti-circumvention enforcement in the energy-logistics chain
20 May 2025	17th package / Council Regulation (EU) 2025/932	Further targeting of shadow-fleet vessels and a major Russian oil producer	Connected vessel control with revenue-source targeting
18 July 2025	18th package / Council Regulation (EU) 2025/1494	Lower oil price cap; dynamic cap review; Nord Stream transaction ban; ban on certain refined products made from Russian crude; end of Czech exemption	Marked a mature closure phase of the oil and infrastructure track
23 October 2025	19th package	LNG import ban timetable, tighter restrictions on Russian energy entities, more vessel designations	Pushed the EU from partial LNG control towards scheduled phase-out
26 January 2026 / 2 February 2026 publication	Regulation (EU) 2026/261	Gradual but permanent ban on Russian natural gas imports and preparation of the phase-out of Russian oil imports	Created a formal legal basis for long-term structural detachment from Russian gas

*Authorship: prepared by the author on the basis of official EU legal acts and institutional materials.*

*Sources:*

- Council Regulation (EU) 2022/576 of 8 April 2022.
- Council Regulation (EU) 2022/879 of 3 June 2022.
- Council Regulation (EU) 2022/1904 of 6 October 2022.
- Council Regulation (EU) 2023/2878 of 18 December 2023; Council of the European Union, 12th package press material.
- Council Regulation (EU) 2024/1745 of 24 June 2024; Council of the European Union, 14th package press material.
- Council Regulation (EU) 2025/395; Council Regulation (EU) 2025/932; Council Regulation (EU) 2025/1494; related Council package materials.
- Regulation (EU) 2026/261; European Commission, REPowerEU phase-out material.

The 19th package and the adoption of Regulation (EU) 2026/261 finally made explicit what the earlier package sequence had implied: EU energy sanctions were evolving from partial revenue-denial measures into a legal pathway for structural detachment from Russian gas and related energy dependence. The October 2025 package introduced the timetable for a ban on Russian LNG imports into the Union, with differentiated deadlines for long-term and short-term contracts. This was a major development because LNG had previously been addressed mainly through transshipment, terminal, and project-related restrictions rather than through a full import-phase-out model. The subsequent adoption of Regulation (EU) 2026/261, published on 2 February 2026, gave the gas track a more comprehensive and durable legal basis by establishing the phased-out import ban on Russian natural gas and preparing the phase-out of Russian oil imports as part of a broader dependency-reduction framework. In policy terms, this was the moment at which the energy sanctions regime intersected directly with the Union's

longer-term energy-security and decarbonisation strategy. The measure was not framed as a temporary wartime anomaly only. It was also linked to the reduction of structural dependency risk. This matters analytically because it shows that the legal evolution of energy sanctions ultimately moved beyond punitive restriction and into strategic market reordering. The energy track thus became embedded in a wider regulatory project aimed at reshaping European energy sourcing, infrastructure choices, and external vulnerability management. By early 2026, the sanctions regime could no longer be understood merely as a set of ad hoc prohibitions against Russian exports. It had become part of a long-horizon legal architecture of separation.

From the standpoint of legal typology, the EU's energy sanctions relied on a notably diverse instrument mix. The basic legal platform remained Regulation (EU) No 833/2014, which was repeatedly amended through successive Council regulations. Yet the content inserted into that framework was far from uniform. Some provisions took the form of direct import bans, such as those on coal, seaborne crude oil, certain petroleum products, liquefied propane, and, later, LNG and gas under phase-out rules. Other provisions operated through service prohibitions, particularly in maritime transport, insurance, reinsurance, brokering, technical assistance, and related trade support. A further category consisted of investment and project-completion restrictions, especially in the LNG sphere and across the broader Russian energy sector. Another set of measures was transaction-based rather than commodity-based, as illustrated by the bans affecting Nord Stream, Rosneft, and Gazprom Neft. The legal architecture also included restrictions on software, equipment, refining technologies, storage-booking arrangements, and other enabling functions whose significance lies not in immediate export interruption alone but in longer-term operational degradation and dependency reduction. This variety of legal forms demonstrates that the EU did not rely on a single model of energy sanctions. It combined classical trade law instruments with sectoral service denial, infrastructure-related transaction control, and anti-circumvention measures directed at vessels and external operators. In that sense, the energy track matured into one of the clearest examples in the overall sanctions regime of a move from straightforward embargo logic to a more complex system of market-access governance and infrastructural constraint.

The scope of measures likewise became increasingly differentiated by commodity, transport mode, infrastructure type, and contractual form. Coal was treated early and categorically because it imposed lower internal adjustment costs on the Union. Oil was treated through the legally important distinction between seaborne and pipeline deliveries, with transitional derogations reflecting Member State exposure. Petroleum products then became part of the architecture both through direct product restrictions and, later, through the prohibition on certain third-country refined products made from Russian crude. LPG entered the regime through a targeted import ban, signalling a willingness to widen the commodity perimeter where feasible. LNG developed through a more incremental path, beginning with transshipment and terminal-related restrictions, moving through project-completion and service bans, and later advancing towards import phase-out. Gas, the most politically sensitive category, remained the slowest to enter a full detachment model, which is why the 2026 regulation is so important in legal-historical terms. The Commission's energy-sanctions overview also makes clear that the scope of measures expanded into areas such as gas storage booking, software for oil and gas exploration, refining technologies, mining investments, and restrictions linked to specific Russian energy entities and infrastructures. The sanctions regime therefore covered not only upstream revenue generation and physical imports, but also midstream logistics, service provision, storage, technical enablement, and future expansion capacity. This breadth is analytically significant because it shows that the EU's energy measures were designed to compress the Russian energy interface across multiple stages of value creation rather than at one isolated point only.

A further defining feature of the legal architecture was its reliance on derogations, transition periods, and differentiated applicability rather than instant uniformity. These elements should not be treated merely as political compromises of secondary importance. They were constitutive of the energy sanctions model itself. The oil embargo could be adopted only because the law distinguished between seaborne and pipeline supply and because it allowed temporally bounded adjustments for more

dependent Member States. The LNG track similarly evolved through differentiated treatment of transshipment, terminal connectivity, and contract duration rather than through an immediate universal ban. Even the gas phase-out logic incorporated a staged approach designed to preserve legal credibility and operational feasibility. The same is true of the price-cap mechanism, which did not ban all maritime trade in Russian oil but instead conditioned service access on compliance with a cap structure. In practice, therefore, scope and derogation were not opposites. They operated together as instruments of calibrated coercion. This is important for analytical interpretation, because a superficial reading might see every exception as a weakness. In reality, many of these distinctions allowed the Union to widen the sanctions perimeter while maintaining internal cohesion and avoiding self-damaging energy shocks. The package evolution of energy sanctions is thus inseparable from the legal engineering of gradation, transition, and controlled asymmetry.

Table 3.2.2.1-2. Scope differentiation within the EU energy sanctions regime against Russia

Energy object / channel	Main legal form of restriction	Core period of expansion	Scope logic	Key limiting feature or derogation logic
Coal and other solid fossil fuels	Direct import ban and related service restrictions	2022	Early, relatively low-cost sectoral strike	Less politically sensitive for EU energy security
Seaborne crude oil	Import ban	2022	High-revenue target with major fiscal relevance for Russia	Pipeline derogations for certain Member States in the initial phase
Certain petroleum products	Import ban	2022 onward	Extend oil pressure into downstream trade	Transition periods and later refinements
Maritime transport, insurance, reinsurance, brokering	Service prohibition linked to price cap	2022 onward	Affect Russian exports to third countries through EU-linked service leverage	Allowed where purchased at or below the cap
Liquefied propane (LPG)	Product-specific import ban	2023	Commodity-perimeter widening	Narrower product category than crude oil or gas
Russian LNG transshipment via EU territory	Prohibition on reloading services	2024	Target re-export and third-country facilitation channels	Did not yet amount to a full EU LNG import ban
LNG projects under construction	Ban on investments, goods, technology, and services	2024	Suppress expansion and completion capacity	Project-focused, not initially universal across all LNG trade
Russian LNG imports into certain EU terminals	Import restriction	2024	Limit low-justification entry routes	Focused on terminals not connected to the interconnected gas system
Russian LNG imports into the EU more generally	Timetabled phase-out ban	2025	Shift from partial control to structured import elimination	Different deadlines for long- and short-term contracts
Russian natural gas imports	Gradual but permanent phase-out ban	2026	Structural detachment from Russian gas dependence	Managed phase-out rather than immediate cut-off
Nord Stream and designated Russian energy entities	Transaction bans	2025 onward	Block infrastructural or corporate routes to reactivation and monetisation	Entity- and infrastructure-specific
Refined petroleum products made from Russian crude in third countries	Import ban	2025	Prevent disguised re-entry through external refining	Limited country exceptions

Authorship: prepared by the author on the basis of official EU legal acts and institutional materials.

*Sources:*

- European Commission. Sanctions on energy.
- Council of the European Union. EU sanctions against Russia: Questions and answers.
- Council of the European Union. 14th, 18th, and 19th package materials.
- Regulation (EU) 2026/261.

This differentiated structure also reveals the increasingly extra-territorial practical reach of the energy track, even where the legal acts remained framed as autonomous EU restrictive measures rather than classical secondary sanctions. The clearest example is the price-cap regime, which leverages the centrality of EU- and G7-linked maritime services to influence Russian oil exports to non-EU destinations. Later measures extended this external-facing effect by targeting shadow-fleet vessels, ship-management structures, traders, and third-country pathways used to preserve Russian energy revenues. The fourteenth package's LNG transshipment ban likewise had a reach beyond internal consumption because it targeted the EU territory as a re-export platform for deliveries onward to third countries. The ban on certain refined petroleum products derived from Russian crude performed a similar anti-disguise function by preventing Russian-origin value from re-entering the Union after transformation elsewhere. What emerges from these measures is not a purely inward-looking import-control regime. It is a sanctions structure that attempts to reduce Russia's room for adaptation in external markets by acting on the logistics and services through which energy trade is made viable. In this sense, the scope of measures cannot be captured by looking only at import prohibitions into the EU. The legal architecture also addresses the enabling environment of Russian energy exports beyond the Union's borders. That is one reason why the energy track became increasingly intertwined with shipping control, due diligence, vessel listings, and anti-circumvention enforcement. The maturing sanctions regime treated energy not simply as a commodity problem, but as a networked system of revenue extraction requiring intervention across the full chain of transport, services, and market access.

Taken as a whole, the legal evolution of EU energy sanctions from 2022 to early 2026 demonstrates a clear movement from selective import denial towards an integrated regime of energy separation, revenue constraint, and infrastructural suppression. The initial commodity bans on coal and oil created the core political and legal precedent. The price cap introduced a service-based and externally relevant innovation. The 2023 and 2024 packages widened the commodity and infrastructure perimeter, especially in LPG and LNG. The 2025 packages strengthened the anti-circumvention and closure dimension by targeting vessels, entities, processed products, and symbolic infrastructure such as Nord Stream. Finally, the 2026 gas phase-out framework linked sanctions with the strategic reduction of dependency. This package evolution is best understood as cumulative and architectural. Each measure did not replace the previous one, but added another layer of operational restriction, legal closure, or future detachment. The result is a sanctions subsystem whose importance lies not only in any single ban, but in the aggregate narrowing of the legal, logistical, and commercial channels through which Russia can convert hydrocarbons into strategic power. From the perspective of the overall report, this makes the energy domain one of the clearest examples of sanctions as structural pressure rather than episodic punishment. Its legal design, precisely because it is differentiated and sequenced, reveals how the EU sought to turn a vulnerable interdependence into a managed regime of long-term coercive separation.

**3.2.2.2. Objectives and Strategic Logic**

The objectives of EU energy sanctions against Russia are broader than a simple restriction of imports or a symbolic punishment for aggression. From the outset, the energy track has combined at least four strategic purposes that must be analysed together if its inner logic is to be understood properly. The first purpose is fiscal and geopolitical: to reduce the export rents that enable the Russian state to finance war, absorb macroeconomic shocks, and preserve coercive capacity. The second is structural and security-related: to dismantle a long-standing pattern of asymmetric dependency in which the Union remained exposed to a supplier willing to instrumentalise energy for political coercion. The third is

market-governance oriented: to weaken Russian revenue streams without triggering a sudden global supply shock that would damage the Union more than the target. The fourth is institutional and long-term: to transform energy sanctions from emergency restrictions into a durable regime of economic separation, strategic diversification, and resilience-building. These purposes explain why the EU's measures in the energy sphere were sequenced, differentiated, and repeatedly recalibrated rather than imposed in a single undifferentiated act. They also explain why the energy track has always been linked to REPowerEU, storage policy, infrastructure build-out, demand reduction, and external diversification. In other words, sanctions and energy-security policy were not parallel agendas. They became interlocking components of one strategic project. The underlying logic is therefore not merely restrictive but re-ordering: the sanctions regime seeks simultaneously to deny Russia rents, reduce European vulnerability, and reshape the institutional conditions of future energy trade.

The most immediate strategic objective was to constrain Russia's hydrocarbon cashflow by targeting the part of the energy relationship that had long generated high and relatively stable earnings for Moscow. The Commission's own explanation is revealing in this respect. It notes that before the sanctions escalated, around half of Russia's total oil exports went to the EU, and that in 2021 the Union imported €71 billion worth of Russian oil, including both crude and refined products. That made the EU not merely a customer but one of the key demand anchors of Russia's oil export model. The logic of the seaborne oil ban was therefore not just to stop a politically problematic trade. It was to remove Russia from one of its most lucrative and institutionally reliable export markets. The strategic value of this measure lay in forcing Russian oil outward into more distant, discounted, and logistically costlier destinations. Once European demand was lost, Russia could still reroute volumes, but it would increasingly do so at lower margins and under more fragile logistical arrangements. This is why official EU materials consistently present the oil track as a revenue-denial instrument rather than only as a trade-policy measure. That framing remains central even after later packages, because oil still represented a major source of fiscal support for the Russian state. The strategic design was thus to weaken the revenue base of the war effort by degrading not merely volumes but the quality and profitability of Russia's export geography.

Yet the EU did not seek to maximise pain in a crude mechanical sense, because that would have risked severe blowback through global market disruption. The price-cap mechanism reveals the second layer of strategic logic with unusual clarity. Instead of banning all maritime transport of Russian oil to third countries, the EU prohibited transport and related services only when the oil was sold above the cap. That design allowed Russian oil to continue reaching world markets under constrained pricing conditions. The strategic intention was therefore dual. First, it aimed to compress Russian export rents by forcing sales closer to a discounted ceiling. Secondly, it aimed to preserve sufficient global supply in order to avoid a destabilising price spike that could have harmed European consumers, allied economies, and energy-importing states in the wider international system. Council explanations explicitly state that the cap is meant both to drastically reduce the revenues Russia derives from oil and to stabilise global energy prices while mitigating adverse consequences for supply to other countries. This is why the cap should be understood not as a compromise that diluted sanctions, but as a more sophisticated coercive instrument than a total maritime prohibition would have been. The EU was not simply trying to stop Russian oil from moving. It was trying to change the terms on which that oil could move, and thereby reduce the strategic value of every exported barrel.

A further strategic purpose emerges from the way the EU increasingly focused on maritime services, insurance, reinsurance, brokering, and other enabling layers of the oil trade. This service-centred logic rests on a basic insight: in modern energy commerce, revenue generation depends not only on production and sale, but also on the legal, logistical, and financial ecosystem that makes large-scale exports possible. By conditioning access to these services on compliance with the cap, the EU exploited the continued centrality of European and coalition-linked service providers in global shipping. That gave the sanctions regime a reach beyond direct EU imports. In practical terms, the objective was to translate the Union's regulatory influence over services into downward pressure on Russian revenue earned in

third-country trade. Strategically, this mattered because it widened the sanctions perimeter from customs control to transaction architecture. It also introduced a compliance logic that compelled private operators to perform attestation, due diligence, and risk management. Thus, the energy regime became not only a matter of banning things at the border, but also of governing the conditions under which commercial intermediation could occur. This shift from commodity restriction to service leverage is one of the most important strategic developments in the entire energy track. It made the sanctions architecture more scalable, more externally relevant, and more capable of shaping Russian export economics beyond the EU’s own market.

Table 3.2.2-1. Core objectives and strategic logic of EU energy sanctions against Russia

Strategic objective	Main instruments	Operational logic	Intended effect on Russia	Intended effect on the EU
Revenue denial	Seaborne oil ban, refined products restrictions, coal/LPG/LNG bans	Remove access to a premium market and compress margins	Lower fiscal proceeds from energy exports	Reduce financial contribution of EU demand to the Russian war economy
Rent compression without supply shock	Oil price cap and related service restrictions	Allow exports only under discounted conditions	Reduce net earnings per barrel	Avoid abrupt global shortages and extreme price spikes
Service-layer leverage	Shipping, insurance, brokering, technical assistance restrictions	Control enabling functions rather than only goods at the border	Increase transaction costs and reduce export flexibility	Use EU regulatory power beyond direct imports
Structural dependency reduction	REPowerEU, gas phase-out rules, national diversification plans	Replace Russian supply with diversified and domestic alternatives	Erode long-term market position in Europe	Increase resilience, optionality, and strategic autonomy
Anti-circumvention pressure	Vessel listings, reinsurance bans, scrutiny of shadow-fleet actors	Raise the cost of evasion and logistics opacity	Disrupt workaround channels and force riskier trade patterns	Protect the integrity of the sanctions regime
De-normalisation of future energy ties	Nord Stream transaction ban, tighter rules on designated energy entities	Block reactivation of politically risky infrastructure and entities	Reduce future monetisation options	Prevent a quiet return to pre-war dependency

Authorship: prepared by the author on the basis of official EU legal and policy materials.

Sources:

- European Commission. (n.d.). *Sanctions on energy*. European Commission.
- Council of the European Union. (n.d.). *EU sanctions against Russia: questions and answers*.
- Council of the European Union. (2025, July 18). *Russia’s war of aggression against Ukraine: EU adopts 18th package of economic and individual measures*. Consilium.
- Regulation (EU) 2026/261 of the European Parliament and of the Council of 26 January 2026 on phasing out Russian natural gas imports and preparing the phase-out of Russian oil imports, improving monitoring of potential energy dependencies and amending Regulation (EU) 2017/1938. (2026). *Official Journal of the European Union*, L 2026/261. EUR-Lex.

A distinct but equally central strategic objective has been the reduction and eventual elimination of the EU’s dependence on Russian fossil fuels. Here the sanctions logic cannot be separated from the Union’s broader post-2022 energy doctrine. REPowerEU was explicitly framed as a plan to rapidly reduce dependence on Russian fossil fuels while accelerating the clean transition and strengthening energy security. Later official communications described the same agenda as one of full energy independence from Russia. This means that the EU no longer treated Russian energy merely as a hostile source of external income. It also treated it as a structural vulnerability inside the European system. The strategic problem was not only that Russia earned money from selling gas and oil. It was also that dependency on

those supplies created recurring risks for the single market, industrial competitiveness, household welfare, and political cohesion. The move from sanctions packages to the 2025 roadmap and the 2026 gas phase-out regulation therefore reflects a deeper shift in policy rationality. The goal was no longer only to punish aggression through temporary restrictions, but to reconfigure the material basis of the Union's external energy relationships. In that sense, energy sanctions became a mechanism of strategic decoupling embedded in a wider programme of resilience, diversification, and decarbonisation.

The gas track shows this dependency logic especially clearly because the 2026 regulation states it in direct strategic terms. Its recitals explain that the war revealed the dramatic consequences of existing dependence on Russian gas, that Russia had systematically exploited such dependence as a political weapon, and that the Union could no longer regard Russia and its energy companies as reliable energy trading partners. This is not merely rhetorical framing. It defines the objective of the measure. The point of the stepwise ban is to eliminate exposure to coercive dependence while preserving supply security through coordination, diversification plans, and emergency safeguards. The regulation therefore combines prohibition with monitoring, reporting, and contingency flexibility. Member States are required to prepare national diversification plans, companies must notify authorities of remaining Russian gas contracts, and the Commission may temporarily suspend the import ban in a declared emergency. This reveals a very specific strategic logic. The Union seeks not a theatrical rupture, but a controlled and credible phase-out that removes a geopolitical vulnerability while preserving governability in the internal market. The logic of the gas phase-out is thus not punitive alone. It is preventive, resilience-building, and security-oriented at the same time.

The treatment of LNG adds a further layer to the strategic picture, because it shows how the EU differentiated between immediate domestic vulnerability and broader revenue-denial opportunities. In June 2024, the Council explained that the purpose of banning the reloading of Russian LNG in EU territory for transshipment to third countries was to ensure that EU facilities were not used to facilitate such trade and thereby reduce the significant revenues Russia derives from LNG sale and transport. This was strategically important because it attacked monetisation channels that did not necessarily depend on final EU consumption. It also targeted project completion and investment in Russian LNG infrastructure, particularly projects under construction, thus extending sanctions from current cashflow to future export capacity. By 2025, the LNG logic moved further towards import elimination, with the 19th package establishing a timetable for banning Russian LNG imports into the EU. The strategic point of this sequence is easy to miss if one looks only at each measure separately. The Union first used LNG restrictions to deny re-export services and suppress expansion. It then moved to direct import phase-out once market adjustment and diversification capacity had improved. The result is a staged strategy that combines immediate revenue friction, medium-term infrastructure inhibition, and long-term market exit.

Another major objective was to make sanctions in the energy domain compatible with internal cohesion, solidarity, and affordability. This is one reason why the energy track never functioned as a free-standing coercive instrument. It was paired with demand reduction, storage obligations, joint purchasing mechanisms, external supply agreements, and infrastructure reinforcement. Official Commission materials underline that the EU responded by stabilising prices, filling storage facilities well above the minimum threshold, reducing gas demand, and expanding infrastructure so that every Member State could receive gas from at least two sources. These internal measures were not separate from the strategic logic of sanctions. They were what made tougher sanctions politically and operationally sustainable. In effect, the EU's energy strategy worked on two fronts simultaneously. Outwardly, it constrained Russian revenues and reduced Russian access to a major market. Inwardly, it reduced the capacity of Russian supply disruptions to generate panic, scarcity, or bargaining leverage inside the Union. This dual logic explains why the sanctions architecture remained politically resilient even as it moved from coal and oil towards more difficult gas and LNG decisions. The strategic premise was that pressure on Russia could be sustained only if Europe reduced its own sensitivity to disruption.

The anti-circumvention dimension became progressively central because the EU recognised that revenue-denial measures would lose strategic value if workaround systems matured unchecked. This is why later packages focused so heavily on the shadow fleet and its value chain. The 18th package added 105 vessels to the sanctions’ perimeter, bringing the total then to 444, while the 19th package added another 117, bringing the total to 557. These measures were not symbolic listings detached from the energy regime. Official texts describe them specifically as targeting non-EU tankers that circumvent the oil price cap or otherwise support Russia’s energy sector. The 19th package also introduced a ban on reinsuring shadow-fleet vessels and targeted registries and operators facilitating false compliance. The strategic objective here was not to stop circumvention completely in one stroke. It was to degrade its scalability, raise its cost, increase operational opacity and risk for facilitators, and narrow the margin through which Russia could preserve export revenues outside regulated service channels. In a broader sense, the anti-circumvention drive transformed sanctions from a static set of rules into a competitive governance system in which enforcement pressure adapts to Russian workarounds. That adaptation is itself part of the strategic logic of the energy track.

Table 3.2.2.2-2. Strategic evolution of EU energy sanctions against Russia

Phase	Main strategic concern	Predominant instruments	Core logic	Expected policy outcome
Early 2022	Immediate response to aggression with manageable internal cost	Coal ban, initial energy-sector investment and technology restrictions	Start revenue denial where adjustment costs for the EU are lower	Establish legal precedent for direct energy sanctions
Mid-late 2022	Curtail major oil revenues while avoiding market shock	Seaborne oil ban, pipeline derogations, crude and product price caps	Remove premium market access but preserve global flows underprice discipline	Lower Russian rents while containing spillovers
2023	Consolidation and perimeter widening	LPG measures, tighter enforcement around oil and products	Close narrower commodity loopholes and strengthen implementation	Reduce adaptation space and improve regime credibility
2024	Infrastructure and re-export control	LNG transshipment ban, project-completion restrictions, terminal-based limits	Prevent EU territory and EU services from enabling Russian LNG monetisation	Shift pressure from trade alone to trade-plus-infrastructure
2025	Anti-circumvention escalation and de-normalisation	Shadow-fleet listings, reinsurance restrictions, Nord Stream ban, refined products ban, tighter oil-cap review	Attack workaround logistics and block disguised re-entry and future reactivation	Raise costs of evasion and prevent quiet restoration of old energy ties
2026	Formal structural separation	Regulation (EU) 2026/261, diversification plans, monitoring obligations	Move from sanctions packages to a stepwise legally governed phase-out of remaining gas dependence	Lock in long-term detachment from Russian energy exposure

Authorship: prepared by the author on the basis of official EU legal and policy materials.

Sources:

- Council of the European Union. (2024, June 24). *Russia’s war of aggression against Ukraine: comprehensive EU’s 14th package of sanctions cracks down on circumvention and adopts energy measures*. Consilium.
- Council of the European Union. (2025, July 18). *Russia’s war of aggression against Ukraine: EU adopts 18th package of economic and individual measures*. Consilium.
- Council of the European Union. (2025, October 23). *19th package of sanctions against Russia: EU targets Russian energy, third-country banks and crypto providers*. Consilium.
- European Commission. (n.d.). *REPowerEU – phase out of Russian energy imports*.
- Regulation (EU) 2026/261 of the European Parliament and of the Council of 26 January 2026 on phasing out Russian natural gas imports and preparing the phase-out of Russian oil imports, improving monitoring of potential energy dependencies and amending Regulation (EU) 2017/1938. (2026). *Official Journal of the European Union, L 2026/261*. EUR-Lex

A final strategic objective, increasingly visible by 2025–2026, was to prevent the quiet restoration of pre-war energy interdependence under the cover of technical normalisation. This is why the sanctions regime expanded beyond import and service restrictions to include measures that shape future expectations and future options. The full transaction ban on Nord Stream 1 and 2 is the clearest example. Officially, it was designed to prevent the completion, maintenance, operation, and any future use of those pipelines. Strategically, however, its significance is broader. It signals that infrastructure which once embodied dependency is no longer to be treated as a dormant commercial asset waiting for improved political conditions. The tightening of measures on Rosneft and Gazprom Neft, and the push for oil diversification plans under the 2026 regulation, move in the same direction. The EU is not only restricting current transactions. It is also narrowing the pathways through which future reactivation of energy dependence might occur. This de-normalisation logic matters because sanctions often fail when markets assume that restrictive measures are temporary noise around an ultimately recoverable business model. In the energy sphere, the EU has sought to undermine precisely that expectation and replace it with a credible horizon of durable separation.

Taken together, the strategic logic of EU energy sanctions against Russia is therefore cumulative, layered, and historically adaptive. It began with comparatively manageable prohibitions, then advanced to oil revenue compression, then to service-layer leverage, then to LNG and infrastructure control, then to anti-circumvention escalation, and finally to the legal codification of phased separation from Russian gas and residual oil dependence. Each stage built on the previous one but added a new strategic dimension. The regime first reduced income, then reduced bargaining power, then reduced workaround capacity, and finally reduced the plausibility of future re-entanglement. This is why the energy track should not be read as a collection of disconnected sectoral prohibitions. It is a coherent strategic architecture whose internal purpose is to transform the relationship between Russia's export model and the European energy system. The EU's objective has not been merely to buy less from Russia. It has been to make Russian energy less profitable, less reliable, less institutionally embedded, less logistically supportable, and less politically recoverable within Europe. Seen in that light, the energy regime stands out as one of the most structurally ambitious components of the wider sanctions policy.

### **3.2.2.3. Advantages and Structural Effects**

One of the principal advantages of energy sanctions as an instrument of coercive policy is that they act upon the very centre of the Russian external revenue model rather than on a peripheral economic segment. Russia's export structure has historically relied on hydrocarbons not merely as one important sector among many, but as a strategic source of fiscal income, foreign-exchange generation, geopolitical leverage, and macroeconomic resilience. In that context, energy sanctions offer a degree of asymmetry that many other restrictive measures do not. They can weaken a high-value income stream for the target while gradually reducing the sanctioning side's own dependence through substitution, infrastructure adaptation, and regulatory coordination. The oil track illustrates this advantage especially clearly. The Commission has underlined that around half of Russia's total oil exports used to go to the European Union and that in 2021 the EU imported EUR 71 billion worth of Russian oil, which means that the Union was not dealing with a marginal trade corridor but with one of Moscow's most lucrative premium outlets. Once this market was lost or sharply curtailed, Russia could still redirect substantial volumes, but only by accepting longer routes, deeper discounts, and a narrower set of customers. The structural effect of this change is not limited to a one-off decline in exports. It alters the quality of Russia's export geography by replacing a nearby, rules-based, high-value market with more politically contingent and logistically demanding alternatives. From the standpoint of sanctions design, that is a major advantage because it produces cumulative pressure rather than a purely momentary shock.

A second advantage lies in the fact that EU energy sanctions have never depended on a single legal mechanism. Their strength derives from their layered construction. The regime combines direct import bans, service restrictions, shipping and insurance controls, transaction prohibitions, infrastructure-

related restrictions, and anti-circumvention measures. This multiplicity matters because it reduces the probability that the target can neutralise the regime through one simple workaround. If Russia loses direct access to the EU oil market, the service layer still constrains its global exports. If it seeks to preserve cashflow through maritime rerouting, the price cap and vessel targeting increase transaction risk and lower margins. If it attempts to restore future optionality through dormant infrastructure, transaction bans on Nord Stream reduce that path as well. Such layering gives energy sanctions a durability that simpler embargo models often lack. It also allows the Union to recalibrate the regime without abandoning it. New packages can intensify one layer, close a loophole in another, or add a new commodity and still remain coherent within the broader architecture. Strategically, this makes energy sanctions more adaptive than a single all-or-nothing prohibition would have been.

A third advantage is the distinctive leverage that the EU and its partners have exercised through the service and compliance environment of global energy trade. Classical sanctions often focus on the movement of goods themselves. Energy sanctions, by contrast, have been especially effective when they have operated on the enabling ecosystem of transport, insurance, brokering, technical services, certification, and financial intermediation. The oil price-cap regime is the clearest example of this strategic innovation. It does not simply stop oil from moving; it changes the conditions under which oil can be moved lawfully and commercially with access to mainstream maritime services. This means that the EU can affect Russian oil revenues even when the final buyer is not in the Union. That is a major institutional advantage because it extends the practical reach of the sanctions without formally converting the regime into a classical secondary-sanctions system of the American type. It also mobilises private compliance actors as part of the enforcement chain, thereby multiplying the regime’s operational footprint. For a sanctions architecture that seeks to constrain revenue while avoiding uncontrolled supply disruption, that is an especially valuable feature. The result is not absolute immobilisation of Russian exports, but a persistent effort to force them into less efficient, less transparent, and less profitable channels.

Table 3.2.2.3-1. Analytical advantages of the EU energy-sanctions regime against Russia

Advantage	Mechanism	Why it matters strategically	Principal structural effect
High-value targeting	Focus on oil, gas, coal, LNG and associated services	Acts on Russia’s most important external revenue base	Compresses fiscal space and weakens macro-financial resilience
Layered legal architecture	Import bans, price cap, service restrictions, transaction bans, vessel listings	Reduces the effectiveness of single-channel circumvention	Creates cumulative rather than episodic pressure
External reach through services	Shipping, insurance, brokering and compliance requirements	Allows the EU to shape trade beyond its own import market	Forces exports into riskier, costlier, less transparent routes
Controlled escalation	Phased bans, derogations, commodity-by-commodity widening	Maintains EU cohesion and reduces self-inflicted shocks	Enables sanctions to be sustained over time
Integration with resilience policy	REPowerEU, storage rules, infrastructure, diversification, demand reduction	Makes the sanctions regime governable domestically	Converts coercion into durable structural separation
Adaptive anti-circumvention	Shadow-fleet listings, reinsurance bans, refined-products closure	Preserves the credibility of sanctions as workarounds expand	Raises the cost of evasion and narrows loopholes

*Authorship: prepared by the author on the basis of official EU legal and policy materials and energy-market analysis.*

*Sources:*

- European Commission. (n.d.). *Sanctions on energy*. European Commission.
- Council of the European Union. (2025, July 18). *Russia’s war of aggression against Ukraine: EU adopts 18th package of economic and individual measures*. Consilium.

- Council of the European Union. (2025, October 23). *19th package of sanctions against Russia: EU targets Russian energy, third-country banks and crypto providers*. Consilium.
- Council of the European Union. (n.d.). *EU sanctions against Russia: questions and answers*. Consilium.

A fourth advantage is that the EU has managed to make the energy track progressively harder to unwind politically and institutionally. In sanctions policy, reversibility can sometimes be a weakness because markets begin to assume that the restrictive regime is temporary and will eventually be normalised. In the energy domain, the Union has increasingly moved in the opposite direction. The combination of REPowerEU, gas-storage rules, import diversification, LNG terminal expansion, interconnectors, and the 2026 gas phase-out regulation has embedded sanctions within a broader reorganisation of European energy security. This reduces the probability that the regime will collapse under the weight of short-term political fatigue. The key point here is not merely that the EU has imposed penalties on Russia. It is that the Union has altered its infrastructure, regulatory expectations, procurement patterns, and strategic planning around the assumption of long-term disengagement from Russian energy dependence. That gives the sanctions much greater structural depth. Once capital investment, storage governance, long-term supply contracts, and network interconnections have been redirected, sanctions cease to look like a temporary departure from normality and begin to function as part of a new normal. This institutional embedding is one of the most important advantages of the energy track in comparison with more symbolic or isolated sanctions domains.

A fifth advantage is the flexibility of escalation that the energy regime has demonstrated over time. The EU did not need to choose between impotence and a single maximal embargo. Instead, it built the sanctions step by step, starting with comparatively easier sectors such as coal, moving to seaborne oil and petroleum products, then to the price cap, then to LNG transshipment, then to project-completion restrictions, then to the refined-products loophole, then to new shadow-fleet designations and lower cap levels. This graduated method produced a major political dividend. It allowed the Union to preserve consensus among Member States with different levels of exposure, different energy mixes, and different economic sensitivities. That is not a trivial institutional matter. Cohesion is itself a strategic advantage in sanctions policy, because the effectiveness of a long-duration regime depends on the sanctioning coalition's ability to maintain direction under stress. The phased structure also had an economic advantage. It created time for substitution, for storage filling, for demand reduction, for infrastructure completion, and for the formation of new external partnerships. As a result, later stages of sanctions could be stronger than early stages precisely because the Union had first reduced its own vulnerability. Controlled escalation thus became part of the regime's effectiveness rather than a sign of weakness.

A sixth advantage is the increasingly adaptive character of anti-circumvention measures. Energy sanctions inevitably generate evasion attempts because the underlying commodities remain globally traded and commercially valuable. The relevant question, therefore, is not whether circumvention will occur, but whether the sanctions regime can raise its cost, limit its scalability, and preserve pressure over time. In this respect, the later packages have produced a structurally important shift. The 18th package lowered the oil price cap from USD 60 to USD 47.6 per barrel, introduced a dynamic review mechanism, expanded the net around shadow-fleet vessels, and targeted entities managing those routes. The 19th package added further vessel listings, expanded action against shadow-fleet enablers, and introduced a ban on reinsuring those vessels. These steps show that the regime is capable of evolving from static rules to adaptive enforcement. That is strategically advantageous because it prevents circumvention from becoming a stable equilibrium. It also signals to private operators that evasion channels may remain available only at rising legal, commercial, and reputational risk. In sanctions design, such adaptability is a major source of long-run effectiveness.

The structural effects on the EU side are already visible in the rapid collapse of Russian shares in European fossil-fuel supply. According to the Commission's 2025 stocktake, imports of Russian gas fell from 150 bcm in 2021 to 52 bcm in 2024, with the Russian share of EU gas imports declining from 45% to 19%. The same official material records that crude oil imports from Russia fell from 27% to 3%, while

Russian coal imports were reduced to zero. By early 2026, the Commission stated that dependence on Russian gas had fallen further to 12% in 2025, that oil imports had shrunk to 2%, and that only two EU countries were still importing Russian oil. These figures are important not just as descriptive statistics. They indicate that sanctions have contributed to a real reconfiguration of the Union’s import structure. A supplier that once occupied a systemically significant place in the European energy balance has been pushed to the margins in coal and oil and sharply reduced in gas. In structural terms, that is an effect of first-order importance. It reduces Russia’s leverage over Europe while also reducing Europe’s structural exposure to politically weaponised supply.

The effects are also visible in demand-side adaptation, which has strengthened the effectiveness of the sanctions regime by weakening the quantity of gas that Europe needs to replace. Between August 2022 and January 2025, the EU reduced its gas demand by 17%, equivalent to around 70 bcm per year. The Commission’s security-of-supply materials further report that between August 2022 and December 2023, EU countries collectively reduced gas demand by more than 100 bcm compared with the five-year average. This is not merely a short-term conservation story. It is a structural effect because it changes the underlying elasticity of European dependence. The less gas the Union must secure under emergency conditions, the more credible its sanctions and phase-out commitments become. Demand reduction also lowered the scale of substitution needed from alternative suppliers, which in turn reduced market stress. From a policy perspective, this confirms that energy sanctions were most effective when combined with efficiency, behavioural adjustment, industrial adaptation, and administrative coordination rather than treated as a standalone legal prohibition. It also demonstrates why the EU could move from emergency response to a more confident phase-out strategy without reopening the original dependence pattern.

A further structural effect has been the strengthening of European resilience through diversification and infrastructure adaptation. The Commission reports that investments in LNG terminals and gas interconnectors have ensured that every EU country can now receive gas from at least two sources and that reverse flows are possible between neighbours. It also notes that the Union increased LNG imports from North America, Australia, Qatar, and East Africa, while reinforcing pipeline supply from Norway, the United Kingdom, Azerbaijan, and North Africa. The IEA adds an important quantitative dimension to this shift by showing that European LNG imports grew by 64 bcm in 2022, an increase of more than 60% year on year, effectively replacing Russian pipeline flows as the primary gas source for the continent. This reorientation was not frictionless, but its structural meaning is profound. Europe replaced a concentrated dependence on one politically hostile supplier with a broader and more distributed supply matrix, supported by interconnections and storage rules. In institutional terms, this increases optionality. In geopolitical terms, it reduces susceptibility to coercive supply interruption. In sanctions terms, it means that restrictive measures become more sustainable because the underlying system is better able to operate without the sanctioned supplier.

Table 3.2.2.3-2. Selected structural effects of EU energy sanctions and related resilience measures, 2021–2026

Indicator	Pre-sanctions / early-war baseline	Later outcome	Structural meaning
Share of Russian gas in EU imports	45% in 2021	19% in 2024; 12% in 2025	Sharp reduction of strategic dependence on Russian gas
Russian gas volumes to the EU	150 bcm in 2021	52 bcm in 2024; remaining 35 bcm targeted for elimination under the new phase-out framework	Shift from entrenched dependence to managed exit
Share of Russian crude oil in EU imports	27% at the beginning of 2022	3% in 2024; 2% in 2025	Collapse of Russia’s role in EU oil supply

Indicator	Pre-sanctions / early-war baseline	Later outcome	Structural meaning
Russian coal imports to the EU	Material pre-war trade flow	Reduced to zero	Complete elimination of one energy-import channel
EU gas demand	Average 2017–2021 benchmark	Down 17% between Aug. 2022 and Jan. 2025; over 100 bcm lower between Aug. 2022 and Dec. 2023 versus the 5-year average	Lower demand made sanctions and phase-out policies more governable
EU gas storage target	No pre-war strategic filling rule of comparable kind	90% annual filling target; 95% filled before winter 2024–2025	Greater shock absorption and winter security
European LNG imports	Pre-crisis level in 2021	Up by 64 bcm in 2022, more than 60% year on year	Successful redirection towards alternative supply channels
Supply optionality inside the EU	Uneven pre-war diversification	Every EU country can now receive gas from at least two sources	Reduced vulnerability to unilateral supply disruption
EU electricity from renewables	Lower historical shares	47.5% of gross electricity consumption in 2024	Supports longer-term substitution away from imported fossil fuels

*Authorship: prepared by the author on the basis of official EU, Eurostat, and IEA materials.*

*Sources:*

- European Commission. (n.d.). *REPowerEU — phase out of Russian energy imports*. Directorate-General for Energy.
- European Commission. (2025, May 16). *REPowerEU 3 years on: Commission takes stock of progress to phase out Russian fossil fuels*. Directorate-General for Energy.
- European Commission. (n.d.). *EU action to address the energy crisis*. European Commission.
- European Commission. (n.d.). *Security of gas supply*. Directorate-General for Energy.
- International Energy Agency. (2026). *Gas Market Report, Q1-2026: Executive summary*. IEA.
- Eurostat. (2026, January 14). *2024: Nearly 50% of EU electricity came from renewables*. Eurostat.

The resilience effect is further reinforced by storage governance and improved crisis management. The gas-storage rules introduced after the invasion established a 90% filling target, and the Commission reported that storage was 95% full before the winter of 2024–2025. It further stated that the market-correction mechanism designed to protect against extreme gas-price disruption never needed to be triggered, partly because of structural demand decline, reliable LNG and pipeline imports from trusted partners, and enhanced import infrastructure. These developments matter because they show that sanctions did not simply sever a link with Russia and hope that markets would cope. They were accompanied by institutional shock absorbers. Storage obligations, dashboards, coordination mechanisms, and emergency planning increased the Union’s capacity to live with lower Russian supply. The Commission even concluded, after the end of gas transit via Ukraine, that no security-of-supply concerns had been identified and that the 14 bcm per year formerly transiting Ukraine could be replaced through LNG and non-Russian pipeline imports. This is a major structural effect because it demonstrates that what had once been treated as a critical vulnerability was increasingly manageable within the Union’s own system architecture. In practical terms, that makes sanctions more credible, because a restrictive regime is only as strong as the sanctioner’s ability to absorb retaliation or disruption.

The energy-sanctions regime has also interacted with a longer-term transformation of the European energy mix, which is another advantage from the standpoint of durable strategic effect. The Commission noted in 2024 that the EU had, since 2022, produced more electricity from wind and solar than from gas, while Eurostat reported that renewables accounted for 47.5% of gross electricity consumption in the EU in 2024. These figures do not mean that sanctions alone caused the energy transition, and it would be analytically inaccurate to claim that they did. However, sanctions clearly accelerated the political and strategic value of domestic renewable expansion, grid investment, energy efficiency, and industrial

decarbonisation. This matters because it changes the substitution frontier. The more the Union can rely on domestic renewable generation, interconnection, and flexible infrastructure, the less vulnerable it becomes to hydrocarbon coercion. From the standpoint of sanctions policy, this is an unusually powerful form of structural reinforcement. The restrictive regime does not merely deny Russia income in the present. It also helps create conditions under which future dependence becomes progressively less rational, less necessary, and less attractive. That is an effect few sanctions regimes achieve at comparable scale.

On the Russian side, the structural effects increasingly concern export concentration and strategic narrowing rather than absolute export collapse alone. CREA's 2025 monthly analyses indicate that Russian fossil-fuel exports became highly concentrated, with China dominating purchases of coal and crude oil, Türkiye becoming the largest buyer of oil products, and the EU remaining a large buyer only in residual categories such as LNG and pipeline gas. This pattern matters for two reasons. First, a concentrated customer base weakens Russia's bargaining power over time because dependency on a small number of buyers tends to increase discount pressure. Secondly, it changes the geometry of export risk. A system previously supported by diversified and high-value European demand is pushed towards narrower corridors in which trade is more vulnerable to logistical disruption, policy change, or bargaining asymmetry. Even where volumes remain significant, this is a structural deterioration in market quality from the exporter's perspective. It means that sanctions can have a meaningful long-term effect without eliminating trade altogether. The target may still sell, but it increasingly sells under worse commercial and geopolitical conditions. That is precisely the kind of structural effect that makes energy sanctions more consequential than a superficial reading of trade volumes alone might suggest.

Taken together, the advantages and structural effects of EU energy sanctions can therefore be summarised in a precise way. They have attacked a revenue core rather than a marginal sector. They have combined import bans with service leverage, which greatly expanded practical reach. They have been sequenced in a way that preserved EU cohesion and reduced self-inflicted vulnerability. They have been reinforced by resilience measures that reduced Russian shares in coal, oil, and gas while strengthening storage, diversification, interconnectivity, and demand restraint. They have also increased the adaptive capacity of the sanctions' regime through repeated anti-circumvention tightening. Finally, they have begun to alter the long-term logic of the EU–Russia energy relationship by embedding separation in infrastructure, regulation, and strategic planning. For these reasons, the energy track stands out not merely as a restrictive policy but as one of the most structurally transformative components of the broader sanctions regime. Its significance lies not only in what it has forbidden, but in what it has reconfigured.

#### **3.2.2.4. Limitations, Circumvention, and Near-Term Effectiveness Outlook**

The limitations of energy sanctions against Russia should not be interpreted as proof of failure, but neither should they be obscured by overly declarative claims about strategic success. Energy is one of the most difficult domains in which sanctions can be made fully watertight because it combines high global liquidity, fungible commodities, powerful commercial incentives for evasion, and a large infrastructure base that cannot be politically reconfigured overnight. Oil can be rerouted, gas contracts are sticky, LNG cargoes can move through intermediated chains, and shipping ownership can be restructured with considerable speed. For that reason, the real question is not whether the EU has achieved a perfect prohibition effect, but whether it has managed to impose structural frictions that progressively weaken Russia's export model while keeping the European side governable. The evidence suggests a mixed but strategically meaningful picture. The regime has imposed real costs, narrowed Russia's access to premium markets, and reduced its role in the EU energy system, but it has not fully immobilised Russian exports or eliminated all monetisation channels. The energy track is therefore best understood as a pressure architecture constrained by the market properties of the sector it targets. Its effectiveness depends less on absolute closure than on whether restrictions continue to lower margins, complicate logistics, and restrict future strategic optionality. This also means that the regime's next

phase will depend less on announcing new principles than on tightening implementation around already identified vulnerabilities.

The first major limitation lies in the continuing global marketability of Russian oil. Even after the loss of most of the EU market, Russia has remained a major oil exporter and has redirected large volumes to buyers outside the EU, especially in Asia and Türkiye. The IEA notes that in 2023 Russian oil export volumes remained stable year on year at 7.5 million barrels per day even though exports to the EU, the United States, the United Kingdom and OECD Asia had fallen to negligible levels compared with pre-war patterns. This is a critical point. The sanctioning coalition succeeded in changing the geography of Russian exports, but not in eliminating their physical movement. That matters because as long as substantial volumes continue to clear global markets, the sanctions regime must rely on discounting, revenue compression, and logistics stress rather than on volume collapse alone. Oil's fungibility gives Russia room to adapt as long as buyers are willing to purchase at the right price and transport can be arranged. In this sense, the oil track is inherently different from sanctions on highly specialised technologies or financial services, where substitution may be more difficult. The persistence of export flows is therefore not a marginal detail but a structural limit built into the commodity itself.

A second limitation is the rapid development of the shadow fleet and related parallel service ecosystems, which have substantially weakened the practical reach of the original price-cap architecture. By late 2025 and early 2026, CREA reported that the majority of Russian crude exports were being transported outside mainstream G7-linked service channels. In December 2025, only 26% of Russian crude exports were transported by G7+ tankers, while 68% were carried by sanctioned shadow vessels. In November 2025, CREA had already observed that 65% of Russian crude exports were carried by sanctioned shadow vessels, with only 27% moved by G7+ tankers. These figures are analytically important because the price cap was designed to use shipping and insurance leverage to constrain revenues. Once a growing share of exports migrates into opaque shipping structures, the cap loses part of its operational bite even if it retains legal force. The EU has responded by listing more vessels and banning reinsurance for shadow-fleet ships, but the very need for these repeated packages shows that circumvention capacity has become industrial rather than episodic. The resulting picture is not one of sanctions irrelevance, but one in which a major part of the contest has moved from law-making to maritime enforcement and vessel-network disruption.

A third limitation follows from the ability of Russian actors and their partners to reorganise around entity-based sanctions through special purpose vehicles, rebranding, and intermediary traders. CREA's January and February 2026 analyses argue that entity-based sanctions and price caps have been "easily circumvented" through SPVs and shadow-fleet growth. Its February 2026 assessment further notes that, after sanctions hit Rosneft and Lukoil-linked trade, newly created or rebranded intermediary trading companies emerged as replacement channels, with named firms exporting significant volumes of Russian crude between December 2025 and February 2026. This illustrates a common sanctions problem in a particularly sharp form. When enforcement focuses on named firms without simultaneously constraining the logistics and service infrastructure through which trade is executed, commercial activity can migrate into fresh legal shells. The EU's later turn towards sanctions across the entire shadow-fleet value chain, including registry operators and external enablers, is therefore an acknowledgement that entity-focused measures alone cannot close the system. The structural limitation is that Russian oil exports can be commercially re-routed even when certain firms are blacklisted, provided the wider physical and documentary chain remains adaptable. This is why the most effective recent measures are those targeting not merely producers, but tankers, reinsurance, registries, and traders enabling circulation itself.

A fourth limitation concerns verification, traceability, and data opacity. Energy sanctions are much harder to enforce when authorities must identify origin, beneficial ownership, or the Russian content embedded in transformed products moving through third countries. The 2026 gas regulation itself implicitly recognises this problem by creating a prior authorisation procedure and allowing authorising authorities to request upstream delivery documentation, contract text, and even satellite tracking

information in order to verify the country of production. Such provisions would not be necessary if commodity origin were always transparent. The 18th package’s ban on refined petroleum products made from Russian crude and coming from third countries was also introduced precisely because Russian-origin oil could otherwise re-enter the EU market after processing elsewhere. In the oil market more broadly, the IEA has warned that deteriorating market transparency is clouding the assessment of supply and stock developments. This opacity is not a secondary technical issue. It directly affects the enforceability of sanctions, because the less visible the chain of origin and transformation becomes, the more difficult it is to distinguish lawful substitution from disguised Russian monetisation. In energy sanctions, transparency is not merely an analytical virtue; it is an enforcement asset, and one that remains incomplete.

Table 3.2.2.4-1. Main limitations and circumvention channels in the EU energy-sanctions regime against Russia

Limitation / circumvention channel	Operational manifestation	Why it weakens sanctions effectiveness	EU response already visible	Residual problem
Global fungibility of oil	Russian crude and products can be redirected to non-EU buyers	Prevents a full volume-collapse effect	Seaborne oil ban; price cap; refined-products restrictions	Revenue pressure depends on discounts and logistics, not on full export stoppage
Shadow fleet growth	Sanctioned and false-flag vessels carry a large share of exports	Reduces reliance on mainstream EU/G7 services	Port bans; service bans; reinsurance ban; vessel listings	Fleet replacement and opaque ownership remain persistent
SPVs and rebranded intermediaries	New traders replace sanctioned firms	Entity-based sanctions can be bypassed without broader network disruption	Wider listings across the value chain	Commercial substitution can occur faster than designation cycles
Origin and traceability problems	Blending, third-country refining, opaque documentation	Complicates customs and compliance verification	Prior authorisation for gas; ban on refined products derived from Russian crude	Verification remains evidentially difficult and administratively costly
Residual gas and LNG exposure	Some Member States and firms remain exposed to Russian supplies	Makes immediate universal cut-off politically and operationally harder	Diversification plans; phased bans; exemptions only under tight conditions	Regional vulnerability persists, especially in parts of Central and South-Eastern Europe
Market-price volatility	High global prices can offset lower volumes or discounts	Revenue effects can fluctuate independently of legal tightening	Dynamic oil-cap mechanism; diversification policy	External shocks can still improve Russia’s rent position unexpectedly

Authorship: prepared by the author on the basis of official EU legal acts, EU institutional materials, IEA market analysis, and CREA monitoring.

Sources:

- Council of the European Union. (2025, July 18). *Russia’s war of aggression against Ukraine: EU adopts 18th package of economic and individual measures*. Consilium.
- Council of the European Union. (2025, October 23). *19th package of sanctions against Russia: EU targets Russian energy, third-country banks and crypto providers*. Consilium.
- Regulation (EU) 2026/261 of the European Parliament and of the Council of 26 January 2026 on phasing out Russian natural gas imports and preparing the phase-out of Russian oil imports, improving monitoring of potential energy dependencies and amending Regulation (EU) 2017/1938. (2026). *Official Journal of the European Union, L 2026/261*. EUR-Lex.
- European Commission. (n.d.). *Sanctions on energy*. European Commission.
- International Energy Agency. (2025, December 11). *Oil Market Report — December 2025*. IEA.
- Centre for Research on Energy and Clean Air. (2025, December 11). *November 2025 — Monthly analysis of Russian fossil fuel exports and sanctions*. CREA.

- Centre for Research on Energy and Clean Air. (2026, January 13). *December 2025 — Monthly analysis of Russian fossil fuel exports and sanctions*. CREA.
- Centre for Research on Energy and Clean Air. (2026, February 18). *January 2026 — Monthly analysis of Russian fossil fuel exports and sanctions*. CREA.
- Centre for Research on Energy and Clean Air. (2026, March 12). *February 2026 — Monthly analysis of Russian fossil fuel exports and sanctions*. CREA

The gas and LNG track has its own specific limitations because it operates under conditions of greater contractual rigidity and greater infrastructure dependence than the oil market. The EU has made very substantial progress in reducing Russian gas dependence, but it has not done so uniformly across all Member States and all subregions. The Commission's diversification materials explicitly state that, even after a very significant reduction in the Russian share of the EU gas mix, remaining Russian gas supplies still pose a risk to European customers and that countries in South-East and Central Europe remain vulnerable to disruptions. This is not merely a geographic footnote. It means that the final phase-out has to be governed in a way that reflects uneven exposure, downstream company structures, and the security implications for retail and industrial users. The existence of a regional Diversification Initiative in 2026 is itself evidence that sanctions in the gas field cannot rely on pure prohibition logic alone. They require supplier matching, planning, and commercial transition support. In that sense, the limitation is not that the EU lacks legal authority to ban Russian gas. It is that the political and economic costs of doing so remain unevenly distributed. That unevenness slows the rate at which the sanctions regime can move from reduction to total elimination.

The 2026 gas regulation confirms this residual vulnerability through its own safeguard design. It requires Member States to submit diversification plans, obliges companies to notify authorities of remaining contracts, introduces prior authorisation for imports, and gives the Commission the power to temporarily suspend the prohibitions in one or more Member States if a formal gas-supply emergency has been declared. It also staggers implementation dates, with short-term pipeline and LNG contracts ending earlier and long-term contracts ending later, while allowing a more extended timetable for specific landlocked-country situations tied to long-term pipeline arrangements. These features do not weaken the measure conceptually, but they do demonstrate that the final phase-out still depends on readiness conditions rather than abstract political will alone. The EU has deliberately chosen a legally credible and operationally managed exit over an immediate universal rupture. That is strategically rational, yet it also reveals a real limitation: the remaining Russian gas connection cannot be severed overnight without regard to storage, infrastructure, and substitution capacity. The sanctions regime therefore remains conditioned by energy-security management even at its most ambitious stage. In practical terms, the stronger the emergency clauses and differentiated deadlines, the clearer it becomes that the gas track is still partly bounded by physical-system realities.

A further limitation lies in the fact that the revenue effect of energy sanctions is mediated by global market conditions that the EU does not control. The legal architecture may be carefully designed, but Russian earnings still depend heavily on global oil prices, freight conditions, inventory cycles, and the broader balance between world supply and demand. This can either amplify or dampen sanctions. The IEA's December 2025 and January 2026 oil-market assessments show how lower benchmark prices, weaker Urals pricing, and export disruptions combined to push Russian monthly export revenues down to around USD 11 billion, the lowest level since the invasion in one assessment and roughly half pre-invasion levels in another. That clearly supports the sanctions logic. However, the same reports also show that global balances, inventories, and geopolitical shifts can move quickly, and that sanctions do not operate in a vacuum. A sharp external supply shock could raise prices and partially offset the revenue-denial effect even if sanctions remain formally unchanged. The Commission's March 2026 monitoring of Middle East disruptions made precisely this point in institutional language: there were no immediate security-of-supply concerns, but a prolonged closure of the Strait of Hormuz or further disruptions would require reassessment. The implication is straightforward. Energy sanctions remain

partly hostage to exogenous market events, which means that their real effect fluctuates with global conditions even when the legal framework stays constant.

This market dependence also affects the outlook for gas and LNG. On the positive side, the IEA expects global LNG supply growth to accelerate in 2026 by about 40 bcm, its strongest increase since 2019, driven mainly by the United States, Canada and Qatar. That should improve the feasibility of Europe’s final phase-out from Russian gas. On the other hand, the same body of market analysis indicates that Europe’s LNG imports rebounded sharply in 2025, after declining in 2024, because lower piped gas inflows and stronger storage injection needs increased demand for LNG. The IEA further noted that Europe’s stronger pull-on flexible LNG cargoes tightened competition with Asian buyers. These findings matter because they show that the success of the gas phase-out depends on a delicate balance. If global LNG supply expands as expected, the EU’s final detachment becomes more manageable. If demand in Asia strengthens unexpectedly, weather disrupts production, or geopolitical events impede shipping, market tightness could return and complicate the phase-out schedule. Thus, the near-term effectiveness of gas-related sanctions will depend not only on regulation but also on whether the external LNG market evolves in a way supportive of Europe’s diversification timetable.

The near-term outlook for 2026–2027 is therefore cautiously favourable, but only under conditions of disciplined enforcement and continued market preparation. Several factors support the case for greater effectiveness over this period. The legal framework is now denser than before, with the oil-cap mechanism dynamically linked to Urals prices, shadow-fleet restrictions repeatedly expanded, refined-products loopholes partly closed, and the gas phase-out transformed from a roadmap into binding law. The Commission also argues that the EU has sufficient alternative suppliers, a well-interconnected gas market, and adequate import infrastructure to make the remaining phase-out credible. In addition, the end of gas transit via Ukraine was managed without immediate security-of-supply concerns, which has strengthened institutional confidence in further reductions of Russian gas flows. All of this suggests that the next stage of the energy regime is likely to be more operational than declaratory. The central challenge is no longer whether the EU will phase out Russian energy in principle, but whether it can do so while preventing evasion, preserving affordability, and protecting more exposed subregions. In that sense, the outlook is one of conditional strengthening rather than automatic triumph.

Table 3.2.2.4-2. Near-term effectiveness outlook for EU energy sanctions against Russia, 2026–2027

Driver	Direction of effect	Why it matters for 2026–2027	Likely consequence if favourable	Likely consequence if unfavourable
Dynamic oil price-cap reviews	Positive	Keeps the cap aligned with market conditions instead of letting it drift into irrelevance	Sustained downward pressure on export margins	Cap becomes easier to ignore if it lags actual prices
Shadow-fleet enforcement	Decisive	Maritime circumvention is now the main operational battlefield	Higher costs, fewer workarounds, more shipping friction	Export rerouting remains scalable and resilient
Verification of product origin	Positive if improved	Refined-products loopholes depend on traceability and customs capacity	Reduced back-door entry of Russian crude into the EU market	Persistent leakage through third-country processing
Global LNG supply growth	Positive	Supports final gas phase-out and limits market stress	Easier replacement of remaining Russian gas and LNG	Tighter competition for cargoes and higher price sensitivity
Regional diversification in Central and South-Eastern Europe	Decisive	Residual dependence is concentrated, not uniform	More even phase-out capacity across the Union	Continued regional bottlenecks and pressure for exemptions
External geopolitical shocks	Negative risk	Oil and gas markets remain globally sensitive	Limited impact if buffers remain strong	Higher prices can partially restore Russian rent capacity

Driver	Direction of effect	Why it matters for 2026–2027	Likely consequence if favourable	Likely consequence if unfavourable
Administrative and compliance capacity	Positive if strong	Prior authorisation, contract scrutiny and monitoring are enforcement-intensive	Better implementation and faster closure of loopholes	Rules exist on paper but underperform in practice

*Authorship: prepared by the author on the basis of official EU legal acts, Commission materials, and IEA market outlooks.*

*Sources:*

- Regulation (EU) 2026/261 of the European Parliament and of the Council of 26 January 2026 on phasing out Russian natural gas imports and preparing the phase-out of Russian oil imports, improving monitoring of potential energy dependencies and amending Regulation (EU) 2017/1938. (2026). *Official Journal of the European Union, L 2026/261*. EUR-Lex.
- Council of the European Union. (2025, July 18). *Russia’s war of aggression against Ukraine: EU adopts 18th package of economic and individual measures*. Consilium.
- Council of the European Union. (2025, October 23). *19th package of sanctions against Russia: EU targets Russian energy, third-country banks and crypto providers*. Consilium.
- European Commission. (n.d.). *REPowerEU — phase out of Russian energy imports*. Directorate-General for Energy. European Commission
- European Commission. (n.d.). *Security of gas supply*. Directorate-General for Energy. European Commission.
- International Energy Agency. (2025). *Gas Market Report, Q2-2025: Executive summary*. IEA.
- International Energy Agency. (2025). *Gas Market Report, Q3-2025: Executive summary*. IEA.

The decisive variable in this outlook is enforcement quality. By 2026, the energy regime is already broad enough on paper to exert considerable pressure. What remains uncertain is how effectively authorities and market actors can apply it across complex cross-border chains. The gas regulation’s reliance on prior authorisation, documentary scrutiny, and the possibility of requiring upstream delivery information shows that the EU understands this problem. The same is true of the successive vessel listings, reinsurance bans, and sanctions on registries and shadow-fleet enablers. These measures are all responses to one core reality: in energy sanctions, implementation is increasingly more important than headline announcements. The regime’s future effectiveness will depend on whether customs, licensing, maritime, and financial supervision systems can work with sufficient speed and evidentiary depth to prevent adaptation from outpacing enforcement. In practical terms, 2026–2027 will test whether the EU can convert a mature sanctions framework into a mature compliance and control framework. If it succeeds, the pressure on Russia’s energy revenues should remain cumulative. If it does not, circumvention channels will continue to institutionalise themselves.

The broader assessment, then, is neither maximalist nor dismissive. EU energy sanctions have not eliminated Russian fossil-fuel exports, and they are unlikely to do so fully in the near term. They have, however, changed the economic and strategic conditions under which those exports occur. Russia has lost most of the EU oil market, faces a binding timetable for gas phase-out, confronts a denser web of restrictions on LNG and infrastructure, and relies increasingly on more opaque, riskier, and more costly logistics. The remaining limitations are serious, especially in maritime circumvention, regional gas asymmetries, and origin verification. Yet these are precisely the areas that the most recent legal developments now target. The near-term outlook for 2026–2027 is therefore best described as one of qualified strengthening: the regime is likely to become more effective if the EU continues closing service, vessel, and traceability loopholes and if global market conditions remain broadly supportive. Under those conditions, energy sanctions will continue to function not as a total embargo, but as a progressively tightening system of revenue denial, market exclusion, and strategic separation.

### 3.2.3. Trade, Industrial, and Technological Restrictions

#### 3.2.3.1. Legal Instruments, Controlled Goods, and Regulatory Architecture

The legal architecture of the EU's trade, industrial, and technological restrictions against Russia is considerably more complex than a conventional embargo model and cannot be reduced to a single list of prohibited exports. It is a layered system that combines classical sanctions law, export-control law, customs control, entity-based restrictions, service bans, contractual obligations, and anti-circumvention duties. At its centre stands Council Regulation (EU) No 833/2014, which gives operational effect within Union law to the corresponding CFSP framework and has been repeatedly amended through successive sanctions packages. Yet the regime also interacts with the broader Union export-control framework, especially Regulation (EU) 2021/821 on dual-use items, which remains the standing legal baseline for sensitive goods and technologies. The Russian sanctions regime therefore does not replace the general export-control system; it overlays and intensifies it for a specific geopolitical target. This overlay function is central to understanding the section as a whole. The trade and technology restrictions were designed not simply to interrupt particular sales, but to deny Russia access to a whole spectrum of goods, software, know-how, and services required for industrial maintenance, technological reproduction, and military upgrading. That is why the regime evolved through annex-based expansion rather than through a single abstract formula. By early 2026, the result was a highly differentiated regulatory structure in which legal technique became almost as important as political intent.

The foundational legal logic of this regime rests on the distinction between general trade policy and targeted restrictive measures. The Commission's own trade-sanctions page makes clear that, after 15 March 2022, the EU stopped treating Russia as a Most-Favoured-Nation under the WTO framework, but chose not to rely primarily on across-the-board tariff escalation. Instead, it built a sanctions structure consisting of bans and restrictions on the import and export of specific goods. This is a legally and strategically important choice. Tariffs would have raised costs while still leaving trade channels broadly available, whereas sanctions law allows for selective, categorical, and security-driven prohibition. In that sense, the EU chose a technique of controlled exclusion rather than a technique of general commercial disadvantage. The distinction matters for this section because it shaped the entire legal grammar of the regime. Goods were not restricted merely because they were Russian or because they were industrial in nature, but because they either generated strategic revenues for the Russian state, enhanced Russia's industrial capacities, or could support military and technological upgrading. The legal system was therefore built around purposive categories rather than around uniform customs treatment. That purposive categorisation gave the EU much greater ability to link trade law with military-security objectives.

The export-control pillar of the regime is organised around a set of Russia-specific rules which, by late 2025, were publicly explained by the Commission through dedicated guidance on Articles 2, 2a and 2b of Regulation 833/2014. This alone indicates how central export restrictions had become within the overall sanctions structure. Article 2 covers dual-use goods and technology where they are or may be intended for military use or for a military end-user. Article 2a adds a broader layer for Russia-specific advanced technology items listed in Annex VII, namely goods and technologies that might contribute to Russia's military and technological enhancement or to the development of its defence and security sector. The scope of this second layer is especially significant because it reaches beyond classical dual-use logic and captures items that may be presented as civilian, yet remain strategically relevant. The legal structure is reinforced by related prohibitions on technical assistance, brokering, financing, and financial assistance connected with the relevant goods. This means that the regime does not focus on the physical shipment alone, but on the full legal and commercial ecosystem that supports transfer. In addition, Annex IV entities supporting Russia's military-industrial complex are subject to tighter export restrictions, including many entities located in third countries. Thus, the regulatory architecture is both goods-based and actor-based at the same time.

The controlled-goods perimeter of this export regime has become remarkably broad. The Commission's dual-use sanctions page lists drones and software for drones, software for encryption devices, software used to manufacture weapons, semiconductors and advanced electronics, drone engines, chemicals and chemical precursors, law-enforcement items, special materials, industrial machinery, camouflage gear, riot-control agents, rare earths, thermostats, thermographic cameras, machine tools, machinery parts, DC motors and servomotors for UAVs, electronic components identified in weapon systems, all-terrain vehicles, microwave and aerial amplifiers, digital flight data recorders, chemical precursors to energetic material, and spare parts and components of high-precision CNC machine tools. This list is analytically important not because every item carries the same weight, but because it shows the operational theory behind the restrictions. The EU is not targeting only finished weapons or obviously military hardware. It is targeting the technological building blocks, production enablers, maintenance inputs, and software layers that permit modern military and industrial systems to function. This is why the controlled-goods logic is so central to the section. Russia's industrial and military systems depend on access to microelectronics, software, machine tools, precision components, and specialised chemicals that can be embedded in broader civilian-industrial supply chains. Restricting those inputs is therefore a way of constraining manufacturing capacity, repair cycles, and technological quality over time rather than only obstructing isolated deliveries.

Second major layer concerns goods that may not fall neatly into the dual-use category but are treated as contributing to Russia's industrial capabilities. This is where the regime moves from defence technology in the narrow sense to industrial degradation in the broader sense. The Consilium overview and the Commission's trade pages show that the EU has progressively banned imports from Russia of steel, iron, pig iron, aluminium and other metals, copper and aluminium wire, tubes and foil, cement, bitumen and asphalt, wood, paper, rubber, plastics, helium, diamonds, gold, and a wide range of other goods that either generate significant revenues for Russia or support its industrial economy. On the export side, the Commission also notes restrictions and bans on luxury cars, machinery components, and a range of industrial goods. The point of this architecture is not simply to reduce Russian trade turnover. It is to deny revenue from selected export sectors while also limiting access to industrial inputs, equipment, and production-related goods. In that respect, the trade restrictions function as an extension of the technology restrictions rather than a separate family of measures. They weaken Russia's industrial reproduction capacity both from the export-revenue side and from the import-dependency side. This dual movement is one of the defining structural features of the EU's legal approach.

The package evolution of these restrictions confirms that the regime was designed as a cumulative annex-based architecture rather than a frozen legal list. The 9th package in December 2022 widened restrictions on exports of dual-use goods and technologies, banned exports of further critical technology and industrial goods, and imposed a ban on investments in the Russian mining sector. The 10th package in February 2023 expanded the entity list associated with Russia's defence and industrial base, added exports bans for aviation and space-related goods including drone engines, and further tightened dual-use restrictions. The 11th package in June 2023 deepened the anti-circumvention dimension, broadened export restrictions on dual-use and industrial-capability goods, and introduced a transit ban via Russian territory for additional goods and technologies. The 12th package in December 2023 added the "no-Russia clause", further restricted exports of dual-use and industrial-capability goods, and banned the provision of software services for enterprise management and industrial design. The 13th package in February 2024 continued this expansion by adding more defence-industrial entities and imposing further restrictions on dual-use items, drone components, and industrial-capability goods including electrical transformers. What emerges from this sequence is not a set of disconnected amendments, but a deliberate expansion from direct export control to re-export control, service control, software control, and transit control.

A particularly important turning point came with the 14th package in June 2024 because it significantly thickened the regulatory architecture around circumvention. The Commission described three trade-relevant innovations in especially clear terms. First, it introduced a "best efforts" obligation concerning

foreign subsidiaries, requiring EU companies to undertake their best efforts to ensure that subsidiaries in third countries do not participate in activities undermining EU sanctions. Secondly, it created a “No Russia” clause for intellectual-property-rights transfers, intended to ensure that industrial know-how transferred outside the Union is not used to manufacture Common High Priority goods intended for Russia. Thirdly, it introduced due-diligence requirements for Common High Priority goods themselves. These measures reveal a major legal shift. The EU moved beyond regulating transactions by EU operators alone and began to regulate the governance of risk in corporate groups, contract drafting, and intangible knowledge transfer. That is a much more sophisticated architecture than a simple export ban. It recognises that in modern industrial trade, sanction evasion often occurs not through a direct breach at the border, but through controlled subsidiaries, external licensing, technical know-how relocation, and intermediated re-export. The 14th package therefore transformed anti-circumvention from a supplementary concern into a constitutive feature of the trade and technology regime.

The legal tools introduced in and after 2024 became even more operationally detailed in the treatment of Common High Priority items. The finance portal explains that the list of Common High Priority items, coordinated with the United States, the United Kingdom and Japan, consists of prohibited dual-use goods and advanced-technology items used in Russian military systems found on the battlefield in Ukraine or critical to the development, production, or use of those systems. The “no re-export to Russia” clause under Article 12g made contractual non-re-export commitments mandatory for certain categories of sensitive goods, including aviation goods, jet fuel, firearms, and Common High Priority items listed in Annex XL. The corresponding FAQs stress that exporters should not sell to non-EU operators unwilling to include such a clause, that contracts concluded after 19 December 2023 had to contain it from March 2024 onward, and that partner countries listed in Annex VIII are carved out from that obligation. Article 12gb then added an enhanced due-diligence obligation for operators manufacturing and/or trading in Common High Priority items, and in 2025 this was expanded to cover not only CHP items but also goods listed in Annex XLVIII. This is a notable development because it shifts part of the regulatory burden from public enforcement to ex ante corporate diligence. The architecture now expects operators to identify diversion risks, review partners, police downstream contractual chains, and manage subsidiaries as sanction-risk vectors. In trade-law terms, the regime has therefore evolved from prohibition to governed vigilance.

The 2025 packages continued this transition from a predominantly goods-list logic to a combined goods-and-networks logic. The 16th package in February 2025 imposed targeted export restrictions on 53 new companies supporting Russia’s military-industrial complex or engaged in sanctions circumvention, including 34 companies in countries other than Russia. It also extended dual-use export restrictions to chemical precursors used to produce chloropicrin and other riot-control agents, software related to CNC machine tools used to manufacture weapons, video-game controllers used by the Russian army to pilot drones, chromium ores and compounds, and additional industrial goods with military significance. The same package clarified and tightened derogations and exemptions for certain dual-use and advanced-tech exports in order to support customs and licensing agencies. The 17th package in May 2025 added 31 more entities to the list subject to tighter export restrictions for their support to Russia’s military-industrial complex. The 18th package then introduced a dedicated catch-all provision to support Member States in stopping and investigating suspicious shipments of advanced-technology items, while also expanding the transit ban by adding further CN codes from the list of economically critical goods. Finally, the 19th package added 45 new entities directly supporting Russia’s military-industrial complex by enabling the circumvention of export restrictions on CNC machine tools, microelectronics, UAVs, and other advanced technology items. This sequence shows that the later evolution of the regime has focused increasingly on third-country nodes, suspicious shipment patterns, and the physical-commercial chains through which restricted goods move.

Table 3.2.3.1-1. Core legal architecture of the EU’s trade, industrial, and technological restrictions against Russia

Layer of regulation	Main legal instrument(s)	Core object of control	Practical function
CFSP framework	Council Decision 2014/512/CFSP and subsequent amending Decisions	Political and legal basis for sectoral restrictive measures	Establishes the sanctions logic and the categories to be implemented in Union law
Union implementation layer	Council Regulation (EU) No 833/2014 and successive amending Regulations	Binding trade, technology, service, transit, and entity restrictions	Gives direct legal effect across the EU internal market and customs space
General export-control layer	Regulation (EU) 2021/821 on dual-use items	Annex I dual-use items and export-authorisation framework	Provides the standing export-control baseline onto which Russia-specific sanctions are added
Russia-specific advanced-technology layer	Articles 2, 2a and 2b of Regulation 833/2014; Annex VII; Annex IV entities	Dual-use items, advanced technologies, and listed defence-industrial entities	Restricts goods with military or technological relevance even where formally civilian
Industrial-capabilities layer	Annex XXIII and related trade lists; successive package amendments	Goods enhancing Russia’s industrial capacities and revenue-generating imports	Targets industrial reproduction, materials supply, and selected trade revenues
Anti-circumvention layer	Transit bans, Article 8a “best efforts”, Article 12g “no-Russia clause”, Article 12gb enhanced due diligence, catch-all tools	Subsidiaries, re-export chains, know-how transfers, suspicious shipments	Moves the regime from static prohibition to dynamic control of diversion risk

*Authorship: prepared by the author on the basis of official EU legal acts, Commission guidance, and Council materials.*

A final institutional feature of the regulatory architecture is the degree to which it depends on guidance, coordination, and administrative interpretation rather than on legislative text alone. The Commission maintains a substantial sanctions-guidance infrastructure through FAQs, correlation tables for Annex VII goods, dedicated notices on the “best efforts” obligation, export-related restrictions, due diligence for CHP items, and broader circumvention guidance for operators. The same policy area is also linked to G7 coordination and to the public dissemination of red flags for industry. The *policy.trade* portal explicitly links the Russia sanctions regime with the modernised EU export-control system under Regulation 2021/821, the 2024 White Paper on export controls, and the common High Priority Battlefield Items list. The Commission has also developed a sanctions helpdesk for SMEs and keeps emphasising the role of national competent authorities, customs agencies, and licensing authorities in applying derogations and exemptions. This means that the legal regime is best understood as a regulatory ecosystem rather than a closed legal code. Annexes, package texts, national authorisations, operator diligence, customs risk analysis, and third-country coordination all interact in practice. For analytical purposes, this matters because the sophistication of the architecture is itself one of the sanctions’ core features. The trade, industrial, and technological restrictions have become a system of managed denial aimed not only at stopping shipments, but at degrading Russia’s access to the industrial and technological conditions of modern war-making.

Table 3.2.3.1-2. Main groups of controlled goods and related regulatory tools

Controlled area	Typical goods / items mentioned in official EU materials	Main regulatory tool	Key packages / developments
Dual-use and advanced battlefield technology	Semiconductors, advanced electronics, drone engines, software for drones, machine tools, servomotors, thermographic cameras,	Export bans and restrictions under Articles 2 and 2a; related technical-assistance,	Progressive tightening from 2022 onward; 13th, 16th, 18th, and 19th packages especially relevant

Controlled area	Typical goods / items mentioned in official EU materials	Main regulatory tool	Key packages / developments
	microwave amplifiers, electronic components found in weapon systems	brokering, and financing prohibitions	
Defence-industrial entities	Listed Russian and third-country entities supporting Russia’s military-industrial complex	Tighter export restrictions for Annex IV-type entities	13th, 16th, 17th, and 19th packages expanded this layer
Industrial-capability goods	Electrical transformers, machinery components, minerals, chemicals, steel, glass materials, fireworks, chromium ores and compounds	Export restrictions on goods enhancing industrial capacities; annex-based controls	Repeatedly expanded through 2023–2025 packages
Revenue-generating industrial imports from Russia	Steel, iron, pig iron, aluminium, copper and aluminium wire, tubes and foil, helium, diamonds, gold, rubber, plastics, wood, paper	Import bans and restrictions	Widened through successive packages, including 12th and 16th
Software, know-how, and industrial design	Enterprise-management software, industrial-design software, industrial know-how linked to CHP goods	Service bans; “No Russia” clause for IPR / know-how transfers	12th package for software services; 14th package for IPR transfer clause
Diversion-sensitive trade chains	CHP items in Annex XL, goods in Annex XLVIII, shipments via Russia, third-country re-export chains	Article 12g non-re-export clause, Article 12gb enhanced due diligence, transit bans, catch-all provision	12th, 14th, 16th, and 18th packages

*Authorship: prepared by the author on the basis of official EU legal acts, Commission guidance, and Council materials.*

Taken together, the legal instruments, controlled goods, and regulatory architecture of this sanctions block show a clear movement from ordinary trade restriction towards a dense system of strategic export control and industrial attrition. The regime starts from a strong legal base in CFSP and Article 215 TFEU implementation, but it draws much of its practical strength from annex engineering, category expansion, and corporate-risk regulation. Dual-use control is only one pillar within that broader system. Equally important are the Russia-specific advanced-technology bans, the restrictions on goods enhancing industrial capabilities, the import prohibitions on selected industrial materials and revenue-generating goods, and the anti-circumvention duties imposed on exporters, parent companies, and traders. The later development of contractual non-re-export clauses, enhanced due diligence, and best-efforts obligations shows how far the regime has moved beyond classical customs prohibition. In practical terms, the EU has built a sanctions architecture that seeks to control goods, entities, knowledge, contracts, and logistics simultaneously. That is precisely why this part of the sanctions’ regime deserves to be treated as a distinct legal subsystem rather than as a mere trade annex to financial sanctions. Its real object is the technological and industrial reproduction capacity of the Russian state and the networks that sustain it.

**3.2.3.2. Objectives and Strategic Logic**

The objectives of the EU’s trade, industrial, and technological restrictions against Russia cannot be captured adequately by the phrase “reducing trade”. The official formulation used by the Commission is much more precise: after the full-scale invasion, the Union adopted unprecedented measures aimed at weakening Russia’s economic base, depriving it of critical technologies and markets, and significantly curtailing its ability to wage war. That formulation is analytically important because it identifies three intertwined goals rather than one. The first is to deny Russia access to goods and technologies necessary for the functioning of the military-industrial complex. The second is to reduce the revenue streams and market opportunities that help sustain the broader war economy. The third is to degrade the industrial, technological, and organisational conditions under which Russia can reproduce military power over

time. In other words, the strategic logic is not merely punitive or symbolic. It is attritional, capability-oriented, and temporally extended. The restrictions seek to reshape the quality of Russia's industrial reproduction, not simply the volume of its cross-border trade.

A central strategic objective is to sever or weaken Russia's access to what might be called the enabling technologies of modern warfare. The Commission's sanctions page on dual-use goods states that the EU has sharpened and extended export controls in order to target sensitive sectors in Russia's military-industrial complex and limit Russia's access to crucial advanced technology. It further notes that the sanctions hit Russia's access to important technologies beyond dual-use goods and technologies and downgrade its technological capabilities over time. This wording is especially revealing because it points beyond simple denial of current supply. The deeper objective is technological downgrading. Russia is not to be prevented only from purchasing a given batch of electronics or specialised components; it is to be forced into a less capable technological trajectory overall. That is why the controlled-goods lists focus so heavily on semiconductors, electronics, drone-related items, machine tools, software, chemical precursors, and specialised components detected in Russian weapons systems. The strategy assumes that the loss or degradation of these inputs eventually affects weapons quality, production speed, repair cycles, and the reliability of industrial output. In strategic terms, this is a capability-ceiling approach: the sanctions attempt to limit how advanced, precise, scalable, and repairable Russia's war-supporting industry can remain.

This capability-denial logic is broader than classical dual-use control as it existed before 2022. Under the Russia regime, the EU did not restrict only items already codified as dual-use in the general export-control system. It also built a Russia-specific advanced-technology layer under Regulation 833/2014, while preserving the relevance of the Union dual-use framework under Regulation 2021/821. Commission guidance explains that the sanctions regulation and the dual-use regulation apply in parallel, and that exporters must comply with both. It also stresses that advanced-technology items listed in Annex VII are governed by authorisation procedures modelled on the dual-use regime, while the catch-all rule under the dual-use regulation still applies where relevant. This reveals a deliberate strategic choice. The Union did not rely on the inherited boundaries of export-control orthodoxy alone. It created a widened prohibition zone tailored to the structure of the Russian war economy. The objective was to make the regulatory net both deeper and more adaptive than peacetime export controls would have allowed. In strategic terms, the sanctions regime thus functions as a war-economy override of normal export-governance logic.

A second major objective is to attack Russia's industrial base not only at the level of cutting-edge technologies, but also at the level of production continuity, maintenance capacity, and industrial endurance. This is where the logic of industrial-capabilities goods becomes crucial. Official package materials repeatedly show that the EU has expanded export restrictions on machinery components, spare parts for high-precision CNC machine tools, industrial minerals, specialised chemicals, electrical transformers, glass materials, chromium compounds, and other goods with military or industrial relevance. The 17th package explicitly explained that some of the newly restricted CNC spare parts are essential for Russia to maintain the industrial base serving its military system. That formulation points to a strategic goal that is subtler than a headline ban on weapons production. The objective is to interfere with maintenance cycles, replacement cycles, calibration capacity, and the long-run operability of industrial machinery. In other words, the sanctions do not only seek to stop new output. They also seek to make the continued functioning of Russia's military-supporting industrial plant more difficult, more expensive, and less reliable. This creates a form of slow industrial attrition that may matter more over time than short-term trade disruptions alone.

A third objective is to reduce Russia's access to global and European markets in a selective manner that is directly relevant to war sustainability. The Commission's trade page makes clear that the EU chose not to rely primarily on higher tariffs after suspending Russia's Most-Favoured-Nation treatment in March 2022. Instead, it imposed bans and restrictions on imports and exports of specific goods. This was not simply a legal-technical preference. It reflected a strategic logic of selectivity. Tariffs would have

preserved broad tradability, whereas sanctions law allowed the EU to exclude goods that either generated significant revenue for the Russian economy or contributed materially to industrial and military capacity. The Commission’s 2024 restrictive-measures factsheet stated that 61% of pre-war EU imports from Russia and 58% of pre-war EU exports to Russia, both measured in 2021 terms, had already been placed under EU restrictive measures. By the fourth quarter of 2025, Eurostat reported that the sanctions had contributed to a 61% decline in exports to Russia and a 90% drop in imports from Russia compared with the first quarter of 2022. These figures illustrate the strategic choice clearly. The EU did not aim at abstract commercial friction. It aimed at structured disconnection from those trade flows most relevant to Russia’s war economy and industrial reproduction.

Table 3.2.3.2-1. Strategic objectives of the EU’s trade, industrial, and technological restrictions against Russia

Strategic objective	Principal legal / regulatory instruments	Operational logic	Intended effect on Russia
Deny battlefield-relevant technology	Articles 2, 2a and 2b of Regulation 833/2014; Annex I dual-use controls; Annex VII advanced technologies	Restrict semiconductors, electronics, UAV-related goods, software, chemicals, and other advanced inputs	Lower weapons quality, production capability, and technological sophistication
Degrade industrial reproduction	Industrial-goods export bans; CNC parts restrictions; machinery- and transformer-related controls	Interfere with maintenance, calibration, replacement, and production continuity	Raise wear, downtime, costs, and quality degradation across war-supporting industry
Reduce war-economy revenues and market access	Import and export bans on selected goods; revenue-generating import restrictions	Remove high-value and strategically relevant trade channels rather than merely make them more expensive	Shrink trade-based resources available to sustain war production and macroeconomic adaptation
Block diversion through third countries	Transit bans, entity listings, Article 12g “no re-export to Russia”, Article 12gb due diligence	Prevent sanctioned goods from re-entering Russia through non-EU markets and intermediaries	Narrow the re-export space and raise the cost of circumvention
Control intangible and corporate leakage	Article 8a “best efforts”, IPR-related “No Russia” clause, software and service restrictions	Extend sanctions discipline to subsidiaries, contracts, know-how transfers, and corporate governance	Reduce indirect technology transfer and offshored evasion pathways
Align sanctions with allied enforcement	Common High Priority items, G7 coordination, partner-country carve-outs	Harmonise vigilance around the most sensitive battlefield items	Increase international coherence and make diversion networks easier to identify

Authorship: prepared by the author on the basis of official EU legal acts, Commission guidance, Council materials, and Eurostat trade data.

Sources:

- European Commission. (n.d.). *Sanctions on dual-use goods*. European Commission.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, December 17). *Export-related restrictions for dual-use goods and advanced technologies: Frequently asked questions concerning sanctions adopted following Russia’s military aggression against Ukraine and Belarus’ involvement in it*. Finance.
- European Commission. (n.d.). *Import and export bans*. European Commission.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2024, June 24). *EU adopts 14th package of sanctions against Russia for its continued illegal war against Ukraine, strengthening enforcement and anti-circumvention measures*.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, February 24). *EU adopts 16th package of sanctions against Russia*. Finance.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, July 18). *EU adopts 18th package of sanctions against Russia*. Finance.

- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, October 23). *EU adopts 19th package of sanctions against Russia*. Finance.
- Council of the European Union. (n.d.). *Timeline: Packages of sanctions against Russia since February 2022*. Consilium.
- Eurostat. (2026). *EU trade with Russia — latest developments*. Statistics Explained.

A fourth objective is to force Russia into a pattern of technological substitution that is economically and strategically inferior. The regime is designed on the assumption that Russia will not simply stop producing because imports become unavailable. Rather, it will try to substitute, cannibalise, reroute, stockpile, repurpose civilian inputs, or rely on lower-quality external suppliers. The strategic logic of the EU measures is therefore not based on a naive expectation of total paralysis. It is based on the expectation of adverse substitution. By restricting access to high-end inputs, precision components, specialised software, and critical industrial parts, the sanctions seek to change the terms of substitution in ways that reduce quality, increase latency, and elevate cost. The Commission’s battlefield-technology framing and the repeated addition of newly identified items used in Russian weapons systems make this objective explicit. So too does the focus on parts and components, not just on finished equipment. The strategy aims to ensure that whatever substitutes Russia can still obtain are likely to be more expensive, less reliable, harder to integrate, or slower to acquire. That kind of forced substitution is a central mechanism of long-duration industrial weakening.

A fifth objective is to transform sanctions from a border-control exercise into a system of anti-circumvention governance. This shift became unmistakable from the 12th package onward and was then deepened in the 14th, 16th, 18th and 19th packages. The official explanation of Article 12g states that the “no re-export to Russia” clause aims to combat the circumvention of EU export bans, specifically where goods exported to third countries are re-exported to Russia. The guidance further requires exporters to include such clauses in contracts for certain categories of sensitive goods and to notify national competent authorities when they become aware of breaches or circumvention. Article 12gb then introduced enhanced due-diligence duties for operators manufacturing and/or trading in Common High Priority items, with the stated purpose of responding to the problem of the re-exportation of those items. The 14th package added the “best efforts” obligation for foreign subsidiaries and an IPR-focused “No Russia” clause to prevent industrial know-how transferred outside the Union from being used to manufacture Common High Priority goods for Russia. The strategic logic is clear: the EU no longer treats circumvention as an external accident. It treats it as a core battlefield, one that must be governed through contracts, compliance systems, corporate controls, and know-how discipline.

A sixth objective is to mobilise private operators as part of the sanctions architecture rather than treating enforcement as a purely state-administered matter. This is one of the most significant strategic innovations in the trade and technology sphere. Commission guidance on the “best efforts” obligation defines the concept as requiring suitable and necessary actions to prevent the undermining of restrictive measures, including appropriate policies, controls and procedures to mitigate and manage risk effectively. The guidance on the “no re-export” clause likewise insists that exporters should not sell sensitive goods to non-EU operators unwilling to incorporate such clauses and adequate remedies. In addition, enhanced due-diligence obligations require manufacturers and traders in Common High Priority items to respond proactively to diversion risks. The strategic aim here is not merely legal compliance in the narrow sense. It is the creation of a distributed enforcement environment in which companies are expected to become active filters against diversion, rather than passive sellers awaiting public enforcement. This enlarges the operational reach of the regime dramatically. It also means that sanctions policy has become partly a matter of corporate governance, compliance design, and contractual architecture. From a strategic perspective, that greatly increases the number of points at which Russian procurement efforts may be disrupted.

A seventh objective is to target not just Russian firms, but the transnational nodes that sustain Russia’s procurement and industrial survival. The later packages show a clear move towards network disruption.

The 16th package added 53 companies supporting Russia’s military-industrial complex or involved in circumvention, including 34 in countries other than Russia. The 17th package added 31 more companies, of which 13 were established in third countries, and stressed that the package would make it significantly more challenging for Russia to source sensitive resources. The 19th package added 45 entities directly supporting Russia’s military-industrial complex or engaged in circumvention, including 17 in third countries across China, Hong Kong, India and Thailand. These numbers are not merely descriptive. They reveal a strategic understanding that Russia’s war-supporting industry survives through external procurement ecosystems, not only through domestic production. Targeting those ecosystems is therefore essential if the trade and technology regime is to do more than inconvenience direct exporters in the EU. The logic is one of network attrition rather than simple bilateral trade interruption.

Table 3.2.3.2-2. Strategic logic of escalation in the EU’s trade–industrial–technology sanctions, 2022–2025

Phase	Predominant strategic concern	Illustrative measures	Strategic logic
2022 initial expansion	Immediate denial of dual-use goods, aviation goods, and advanced technology	Extension of dual-use and advanced-technology export controls; service and assistance prohibitions	Prevent rapid access to critical war-supporting imports
2023 widening phase	Broader industrial attrition and first large anti-circumvention turn	Additional industrial-goods bans; transit restrictions; first mandatory “no re-export to Russia” clause	Shift from direct export denial to re-export and logistics control
2024 governance turn	Corporate, contractual, and know-how leakage control	“Best efforts” obligation, IPR-related “No Russia” clause, due diligence for CHP goods	Treat circumvention as a governance problem inside supply chains and subsidiaries
Early 2025 battlefield refinement	Restrict newly identified items used in Russian weapons production and use	CNC-related software and parts, chemical precursors, additional industrial goods, third-country entity listings	Adapt controls to observed battlefield and procurement patterns
Mid–late 2025 network disruption	Further weaken the military-industrial complex and its external enablers	New catch-all tools, expanded entity listings in third countries, additional sensitive goods and materials	Attack the transnational procurement network, not just the Russia-facing transaction

*Authorship: prepared by the author on the basis of official EU package summaries, Commission guidance, and Council timelines.*

*Sources:*

- Council of the European Union. (n.d.). *Timeline: Packages of sanctions against Russia since February 2022*. Consilium.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2024, June 24). *EU adopts 14th package of sanctions against Russia for its continued illegal war against Ukraine, strengthening enforcement and anti-circumvention measures*.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, February 24). *EU adopts 16th package of sanctions against Russia*. Finance.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, July 18). *EU adopts 18th package of sanctions against Russia*. Finance.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, October 23). *EU adopts 19th package of sanctions against Russia*. Finance.

An eighth objective is to align EU sanctions with allied export-control and enforcement priorities, especially around battlefield-relevant goods. The Common High Priority items regime is central here. The Commission describes that list as consisting of prohibited dual-use goods and advanced-technology items used in Russian military systems found on the battlefield in Ukraine or critical to the development, production, or use of those systems. The 17th package further stated that the EU had

agreed with like-minded partners on a list of common high-priority sanctioned goods to which businesses should apply particular due diligence and which third countries must not re-export to Russia. This coordinated approach serves several strategic purposes. It narrows the most sensitive portion of the control universe. It facilitates information-sharing and enforcement focus. It also reduces the risk that Russia can exploit differences between allied regimes to source critical items through the weakest channel. In strategic terms, this is an effort to turn export controls from a fragmented national practice into a coordinated denial architecture centred on the most militarily significant nodes.

A ninth objective is to make the trade and technology regime sustainable by keeping it selective rather than indiscriminately comprehensive. This may seem paradoxical, but it is central to the strategy. The Commission's trade page expressly contrasts sanctions with a blanket tariff escalation approach. The legal architecture then narrows the focus to goods, technologies, entities and services that are either revenue-relevant, militarily sensitive, industrially enabling, or circumvention-prone. It also retains exemptions, derogations, partner-country carve-outs, and case-by-case authorisation mechanisms in narrowly defined circumstances. That selectivity is not a retreat from pressure. It is what allows the regime to remain politically defensible, legally administrable, and operationally targeted. The strategic goal is not to stop all commerce with Russia under any conditions. It is to deny those flows that matter most for war-making while minimising unnecessary legal overbreadth and allowing competent authorities to police risk more credibly. In this sense, precision is not merely a legal virtue. It is a strategic resource that helps preserve the regime's legitimacy and durability.

The strategic logic of the EU's trade, industrial, and technological restrictions can therefore be summarised as a model of controlled industrial attrition. The regime seeks to curtail access to critical technology, degrade the maintenance and reproduction of war-supporting industry, reduce strategically relevant market access, force inferior substitution, suppress third-country diversion, and convert private operators into active participants in enforcement. Its later evolution shows that the EU no longer conceives this sanctions' block as a narrow export-control appendix. It treats it as a broad architecture for degrading the Russian war economy's industrial metabolism. That architecture works through goods lists, entity lists, transit restrictions, services bans, subsidiary obligations, contractual clauses, and enhanced due diligence. The resulting strategy is cumulative rather than singular. Russia is to be pressured not only at the point of purchase, but at the points of design, licensing, software support, logistics, corporate control, and downstream resale. Properly understood, the objective is not to freeze Russia in place. It is to make its future industrial and technological adaptation more costly, slower, less precise, and less scalable.

### **3.2.3.3. Advantages and Structural Effects**

One of the central advantages of the EU's trade, industrial, and technological sanctions against Russia is their unusually high degree of strategic asymmetry. Unlike broad embargoes that attempt to suffocate a whole economy indiscriminately, this regime is built around a more targeted logic: it focuses on those goods, technologies, services, and entities that are disproportionately important for military production, industrial endurance, and technological reproduction. The Council expressly states that the list of banned products was designed to maximise the negative impact on the Russian economy while limiting consequences for EU businesses and citizens. It also notes that the restrictions exclude products primarily intended for consumption and goods related to health, pharmaceuticals, food, and agriculture. That selectivity is a real operational advantage, because it makes the regime easier to sustain politically and administratively over time. It reduces humanitarian overbreadth, lowers unnecessary friction for the Union's own economy, and concentrates enforcement resources on high-value targets. In sanctions design, such precision matters because the most durable regimes are usually those that are both forceful and governable. The trade-industrial-technology block fits that pattern unusually well. It is aimed not at commerce as such, but at the technological and industrial underpinnings of Russian war-making.

A second major advantage is that these measures target bottlenecks rather than aggregate trade volume alone. The Commission's dual-use page lists semiconductors, advanced electronics, drone engines, software for encryption devices and weapons manufacture, thermographic cameras, machine tools, servomotors for UAVs, electronic components identified in weapon systems, digital flight data recorders, chemical precursors, and spare parts for high-precision CNC machine tools among the restricted categories. This reveals the regime's real strength. It is not built primarily around bulk value, but around functional indispensability. A small number of highly specialised items can determine whether a missile guidance unit is assembled correctly, whether a drone's flight-control system is reliable, whether a production line can be recalibrated, or whether a machine tool remains operational. That kind of leverage is more valuable than a crude focus on trade totals. The sanctions therefore exploit a structural vulnerability of advanced military industry: complex systems depend on narrow chokepoints of know-how, components, software, and precision equipment. By targeting those chokepoints, the EU increases the probability of cascading technical inefficiencies even when Russia continues trading in other categories. The advantage is thus not only economic but also systemic.

A third advantage is cumulative scale. According to the Council, since February 2022 the EU has banned over €48 billion in goods and technologies that would otherwise have been exported to Russia and €91.2 billion in goods that would otherwise have been imported from Russia. In comparison with 2021 trade volumes, this corresponds to 54% of exports and 58% of imports being embargoed. These figures indicate a very substantial excision of the pre-war trade relationship. They also demonstrate that the regime is not confined to a symbolic list of niche items. It removes a large share of the tradable space through which Russia previously accessed European industrial goods and Europe previously purchased Russian materials and revenue-generating commodities. From the standpoint of strategic effect, this matters because broad trade contraction and narrow chokepoint control reinforce one another. The first reduces scale, the second raises the technical cost of adaptation. Together they create a much denser pressure environment than either instrument would create on its own. In that sense, one of the regime's great advantages is that it combines macro-level commercial contraction with micro-level technological denial.

That cumulative contraction is visible in the structural transformation of EU–Russia trade itself. Eurostat reports that between the first quarter of 2022 and the fourth quarter of 2025, EU exports to Russia fell by 61%, while imports from Russia fell by 90%. Over the same period, Russia's share in extra-EU exports declined from 3.2% to 1.2%, and its share in extra-EU imports fell from 9.2% to 1.0%. These are not marginal adjustments. They indicate a deep rewiring of the Union's trade relationship with Russia. For the sanctions regime, this is a major structural effect because it reduces the commercial density through which Russia can access European goods, services, logistics, and industrial partnerships. It also means that the Russia-facing trade channel has become much smaller in systemic terms for the Union itself. That reduction in mutual embeddedness is strategically valuable, because it lowers the risk that future tightening will be vetoed by entrenched trade dependence. In practical terms, the regime has already achieved one of the key objectives of long-duration sanctions: it has made the old trade structure both narrower and less politically recoverable.

A fourth advantage lies in the time profile of these sanctions. Their effects are not limited to the immediate denial of a single shipment; they work through accumulation, maintenance friction, and delayed industrial degradation. This is particularly evident in the EU's treatment of CNC-related software, spare parts, and industrial goods with military significance. The 16th package extended restrictions to software related to CNC machine tools used to manufacture weapons, while the 17th package added spare parts and components of high-precision CNC machine tools and explicitly stated that such parts are essential for Russia to maintain its industrial base serving the military system. That formulation is revealing. It shows that the EU is not merely trying to stop the purchase of new machinery. It is trying to increase wear, downtime, repair difficulty, and obsolescence inside existing production systems. This gives the sanctions a delayed but powerful structural logic. The relevant advantage is that maintenance denial can be harder to substitute than headline procurement, especially under wartime

pressure. As a result, the regime exerts pressure not only on acquisition but on industrial continuity itself.

A fifth advantage is the progressive transformation of sanctions from bilateral trade restrictions into a network-disruption regime. The later packages increasingly targeted third-country companies and facilitators involved in Russia’s procurement system. The 16th package imposed targeted export restrictions on 53 new companies supporting Russia’s military-industrial complex or engaged in circumvention, including 34 in countries other than Russia. The 17th package added 31 more such companies, including 13 in third countries. The 19th package then added 45 entities to the relevant list, including 17 in third countries, most of them in China, India, and Thailand. This matters because modern military-industrial procurement rarely depends on simple bilateral flows. It depends on layered intermediaries, re-exporters, logistics brokers, and corporate shells. By extending the regime towards these external nodes, the EU has increased its chances of affecting the real procurement ecosystem rather than merely the direct EU–Russia transaction. The structural effect is clear: sanctions are pushing enforcement outward, from the border to the network. That is one of the regime’s most important advances over time.

A sixth advantage is the conversion of private operators into active instruments of enforcement. The introduction of the “no re-export to Russia” clause, the “best efforts” obligation, and enhanced due-diligence expectations for Common High Priority items represents a significant shift in regulatory technique. Instead of relying only on customs detection and public enforcement after the fact, the EU now obliges exporters and corporate groups to structure contracts, counterparties, subsidiaries, and internal controls in ways that reduce diversion risk in advance. That shift has at least three structural effects. First, it multiplies the number of points at which prohibited goods may be intercepted or denied. Secondly, it raises compliance costs for risky counterparties and intermediary traders. Thirdly, it makes sanctions more resilient against simple document-based evasion, because the regime now tries to govern behaviour inside the supply chain rather than only at its external border. This is a major institutional advantage. It means that the trade and technology block is no longer just a sanctions list. It is becoming a compliance architecture embedded in corporate governance and contractual practice.

Table 3.2.3.3-1. Main advantages of the EU’s trade, industrial, and technological sanctions against Russia

<b>Advantage</b>	<b>Operational content</b>	<b>Why it matters strategically</b>	<b>Main structural implication</b>
Precision targeting	Focus on military-relevant technologies, industrial chokepoints, and sensitive entities rather than undifferentiated commerce	Maximises pressure on war-supporting capacities while limiting unnecessary collateral effects	Greater political sustainability and more efficient enforcement
Chokepoint leverage	Restrictions on semiconductors, CNC software and parts, drone-related components, specialised chemicals, and battlefield electronics	Small volumes can have disproportionate effects on weapons production and industrial maintenance	Pressure is applied to functionality, not only to trade value
Cumulative coverage	Over €48 billion of exports to Russia and €91.2 billion of imports from Russia banned; 54% of exports and 58% of imports embargoed versus 2021 volumes	Combines narrow technological denial with broad commercial contraction	Makes adaptation more expensive across multiple layers of the economy
Network disruption	Growing use of third-country entity listings and anti-circumvention tools	Addresses the real procurement ecosystem rather than only direct EU–Russia trade	Externalises enforcement into transnational supply chains
Compliance internalisation	“No re-export to Russia” clause, “best efforts” obligations, due-diligence requirements	Turns private firms into active filters against diversion	Expands the operational reach of sanctions beyond public border control

Advantage	Operational content	Why it matters strategically	Main structural implication
Time-lag attrition	Restrictions on maintenance-relevant goods, spare parts, software, and industrial inputs	Degrades continuity, calibration, repair, and replacement capacity over time	Produces slow industrial erosion rather than merely one-off disruption

*Authorship: prepared by the author on the basis of official EU legal and policy materials.*

Sources:

- Council of the European Union. (n.d.). *EU sanctions against Russia: Questions and answers*. Consilium.
- European Commission. (n.d.). *Sanctions on dual-use goods*. European Commission.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (n.d.). *Sanctions adopted following Russia’s military aggression against Ukraine*. European Commission.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2024, December 18). *“No re-export to Russia” clause*. European Commission.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (n.d.). *Frequently asked questions concerning sanctions adopted following Russia’s military aggression against Ukraine and Belarus’ involvement in it*. European Commission.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, February 24). *EU adopts 16th package of sanctions against Russia*. European Commission.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, May 20). *EU adopts 17th package of sanctions against Russia*. European Commission.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, July 18). *EU adopts 18th package of sanctions against Russia*. European Commission.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, October 23). *EU adopts 19th package of sanctions against Russia*. European Commission.
- Eurostat. (2026). *EU trade with Russia — latest developments*. Statistics Explained.
- European Parliament Research Service. (2025). *Dual-use export controls as tools of EU economic security*. European Parliament.
- Kyiv School of Economics Institute. (2025). *Disassembling the Russian War Machine: Key Players and Nodes*. KSE Institute.
- Main Intelligence Directorate of the Ministry of Defence of Ukraine. (2026, March 18). *Instruments of war in the weapon of the aggressor*. War & Sanctions.
- Main Intelligence Directorate of the Ministry of Defence of Ukraine. (2026, March 23). *Foreign components in weapons*. War & Sanctions.

A seventh structural effect is that the regime has made Russia’s technological dependence more visible, not less. The official Ukrainian GUR portal on foreign components in Russian weapons lists 5,626 foreign-produced components across 195 weapon units as of 23 March 2026. A related GUR database on “instruments of war” lists 1,507 foreign machines used across 192 factories involved in producing weapons and military equipment as of 18 March 2026. These numbers should be interpreted carefully. They do not prove that sanctions have failed. On the contrary, they show that Russian weapons production still depends on external technological inputs and industrial equipment, which means that export controls remain strategically relevant. The persistence of foreign components and machinery indicates that Russia has not achieved autarky in the sectors that matter most for advanced war production. It also identifies the very reason why trade and technology sanctions remain one of the most rational policy instruments available: the Russian military-industrial base continues to rely on foreign chokepoints that can, at least in principle, be mapped, targeted, and squeezed. This is therefore a structural effect in the sense of revealed dependency.

An eighth structural effect is the increased strain on Russian military-industrial modernisation. A 2025 KSE Institute assessment concludes that the Russian military-industrial complex has expanded during the war but remains under significant pressure from soaring funding costs, labour shortages, collapsing arms exports, and sanctions, and that it fails to achieve technological modernisation. That is an

important finding because it captures the mixed but strategically meaningful nature of the sanctions effect. The regime has not prevented wartime expansion in absolute terms. However, it appears to have contributed to a pattern in which expansion is financially costly, technologically constrained, and difficult to modernise in a coherent way. This distinction is critical for analytical accuracy. A sanctions regime aimed at industrial degradation should not be judged only by whether factories continue to operate. It should also be judged by whether production becomes less efficient, less modern, less export-capable, and more dependent on emergency adaptation. On that reading, the trade–industrial–technology restrictions have generated pressure that is structural even without producing total industrial collapse.

A ninth structural effect is the geographic concentration of Russia’s adaptation pathways. The same KSE assessment notes that China plays a pivotal role in supporting the Russian military-industrial complex, especially where Russia’s domestic capabilities are lacking, and serves as a key hub for the evasion of export controls, including through the transshipment of Western components to Russia. This finding should not be read as evidence that sanctions are futile. It is better understood as evidence of constrained adaptation. When a sanctioned economy is pushed away from diversified access to advanced suppliers and towards narrower external channels, it often becomes more dependent on a smaller number of intermediary states, corporate networks, and politically tolerant jurisdictions. That concentration can itself be strategically valuable for sanctions policy, because it makes procurement geographies more legible and more exposed to secondary pressure, coordinated diplomacy, and enhanced due diligence. In other words, even imperfect rerouting may come at the price of a more fragile and more visible external dependency structure. That is a meaningful structural effect, especially over the medium term.

A tenth advantage is that this sanctions block has strengthened the EU’s broader economic-security doctrine. The regime has compelled the Union to improve export-control governance, customs cooperation, guidance for operators, and coordination with allies around Common High Priority items and battlefield-relevant components. This matters because the benefits are not limited to the Russia file alone. A sanctions system that becomes better at tracing diversion, controlling intangible transfers, and identifying military-relevant industrial nodes increases the EU’s institutional competence in economic security more generally. The trade–industrial–technology measures have therefore had an internal state-capacity effect alongside their external coercive effect. They have pushed the Union towards a more mature integration of sanctions law, export-control logic, customs risk management, and private-sector compliance. That is an important advantage because it makes the regime more durable and more adaptable. It also means that lessons learned in the Russia case can be transferred to future coercion, anti-circumvention, and strategic-trade challenges. In that sense, these sanctions are not only restrictive measures. They are also a form of institutional learning through crisis.

Table 3.2.3.3-2. Selected structural effects of the EU’s trade–industrial–technology sanctions against Russia

<b>Structural effect</b>	<b>Indicator / evidence</b>	<b>Analytical meaning</b>
Deep contraction of EU–Russia trade	EU exports to Russia down 61% and imports down 90% between Q1 2022 and Q4 2025; Russia’s share in extra-EU exports fell from 3.2% to 1.2%, and in imports from 9.2% to 1.0%	The pre-war trade relationship has been substantially dismantled, reducing both dependence and routine access
Large-scale excision of sanctioned trade space	Over €48 billion in banned exports to Russia and €91.2 billion in banned imports from Russia; 54% of exports and 58% of imports embargoed versus 2021 volumes	The regime operates at both macro-commercial and micro-technological levels
Shift from border control to network control	53 new companies targeted in the 16th package, 31 in the 17th, and 45 in the 19th, including large numbers in third countries	Enforcement is increasingly aimed at procurement ecosystems, not only direct exporters

Structural effect	Indicator / evidence	Analytical meaning
Maintenance and industrial-continuity pressure	EU restrictions expanded to CNC software, spare parts, industrial minerals, chemicals, steel, glass materials, and other industrial goods with military significance	Sanctions now degrade repair, calibration, replacement, and production continuity over time
Continued Russian dependence on foreign technology	GUR portal lists 5,626 foreign components in 195 weapon units and 1,507 foreign machines across 192 defence-related factories	Russia remains dependent on foreign industrial and technological inputs despite adaptation efforts
Strain without total collapse	KSE Institute assessment: Russian MIC expanded, but faces funding-cost pressure, labour shortages, collapsing arms exports, sanctions, and failure to modernise technologically	The regime is generating structural strain even where absolute output has not ceased

*Authorship: prepared by the author on the basis of official EU sources, Eurostat trade data, the official Ukrainian GUR “War & Sanctions” portals, and the KSE Institute’s 2025 assessment of the Russian military-industrial complex.*

Sources:

- Council of the European Union. (n.d.). *EU sanctions against Russia: Questions and answers*. Consilium.
- European Commission. (n.d.). *Sanctions on dual-use goods*. European Commission.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (n.d.). *Sanctions adopted following Russia’s military aggression against Ukraine*. European Commission.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2024, December 18). *“No re-export to Russia” clause*. European Commission.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (n.d.). *Frequently asked questions concerning sanctions adopted following Russia’s military aggression against Ukraine and Belarus’ involvement in it*. European Commission.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, February 24). *EU adopts 16th package of sanctions against Russia*. European Commission.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, May 20). *EU adopts 17th package of sanctions against Russia*. European Commission.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, July 18). *EU adopts 18th package of sanctions against Russia*. European Commission.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, October 23). *EU adopts 19th package of sanctions against Russia*. European Commission.
- Eurostat. (2026). *EU trade with Russia — latest developments*. Statistics Explained.
- European Parliament Research Service. (2025). *Dual-use export controls as tools of EU economic security*. European Parliament.
- Kyiv School of Economics Institute. (2025). *Disassembling the Russian War Machine: Key Players and Nodes*. KSE Institute.
- Main Intelligence Directorate of the Ministry of Defence of Ukraine. (2026, March 18). *Instruments of war in the weapon of the aggressor*. War & Sanctions.
- Main Intelligence Directorate of the Ministry of Defence of Ukraine. (2026, March 23). *Foreign components in weapons*. War & Sanctions.

Taken together, the advantages and structural effects of this sanctions block are best understood not as a story of immediate economic strangulation, but as a strategy of controlled industrial attrition. Its advantages lie in precision, chokepoint leverage, cumulative scope, enforceability through private compliance, and the ability to target procurement networks beyond Russia’s borders. Its structural effects are visible in the collapse of much of the EU–Russia trade relationship, the narrowing of Russia’s access to European industrial goods, the increased exposure of Russian military production to foreign-component and foreign-equipment dependency, and the mounting difficulty of technological modernisation under wartime conditions. The regime has not rendered Russia incapable of producing weapons. That would be an implausibly high threshold for any export-control system confronting a large wartime economy. What it has done is alter the conditions under which Russia can continue producing:

with more friction, more rerouting, more dependence on narrower channels, more maintenance constraints, and greater exposure to network disruption. That is exactly the sort of structural effect a sophisticated trade and technology sanctions regime is designed to produce. For that reason, this sanctions block should be regarded as one of the most consequential elements of the wider EU pressure architecture against Russia.

#### **3.2.3.4. Limitations, Re-Export Corridors, and Near-Term Effectiveness Outlook**

The limitations of the EU's trade, industrial, and technological restrictions against Russia arise not from a lack of legal ambition, but from the structural properties of modern industrial trade and procurement networks. These sanctions target goods that are often small in physical volume, high in functional importance, and easily embedded in layered commercial chains. That gives them great strategic value, but it also makes them difficult to police perfectly. A microchip, controller, sensor, or software licence can move through several jurisdictions, intermediaries, and legal entities before reaching its final end-user. In that sense, this sanctions block operates in a much less transparent environment than sectors where control can be exercised primarily at the level of obvious bulk shipments. The EU itself has progressively acknowledged this difficulty by moving from simple export bans to anti-circumvention tools, subsidiary obligations, contractual clauses, and enhanced due-diligence requirements. That institutional evolution is itself evidence that the original model of border-focused restriction was not sufficient on its own. The regime has become broader and more sophisticated precisely because the main problem is no longer whether a prohibited shipment leaves the EU directly for Russia, but whether the same item reaches Russia indirectly through alternative corridors, corporate layering, or intangible transfer.

The first major limitation is the persistence of third-country re-export corridors. A 2025 European Parliament briefing notes that several investigative reports have identified circumvention schemes through third-country imports, direct or indirect re-export, and false transit, and that exports from the EU to Russia's neighbouring and important trade partners increased remarkably between 2021 and 2023. That observation matters because it captures the structural logic of evasion in this domain. The sanctioned goods do not always need to move to Russia openly. They can pass through neighbouring or commercially connected jurisdictions and be re-labelled, re-consigned, or rerouted before final delivery. The same briefing stresses that cross-analysis of trade flows has been instrumental in identifying high-risk zones of sanctions circumvention, which implies that trade anomalies in third countries remain one of the main evidentiary tools for enforcement. This is a genuine limitation because it means that the effectiveness of EU controls depends partly on monitoring commercial behaviour beyond the Union's borders. Even a strong legal prohibition inside the EU can underperform if goods are exported to a nominally lawful destination from which they are subsequently redirected. In practical terms, this makes the fight over trade and technology sanctions a contest over supply-chain geography as much as over legal text.

A second limitation is that the most important re-export corridors are not random; they are increasingly concentrated in a set of commercially active jurisdictions and intermediary hubs that have both the capacity and, in some cases, the willingness to facilitate diversion. The 2025 KSE Institute report states that Russia's standard method of export-control circumvention is predicated largely on support from China and that, in many cases, a good is manufactured in China or the West and then sold and shipped by companies in China or Hong Kong. The same report adds that former Soviet countries have also benefited substantially from trade diversion and notes that Türkiye emerged in 2022–2023 as one of the key exporters of chips to Russia after China despite not being a producer itself. This does not mean that all trade through these jurisdictions is illicit or that every exporter is knowingly complicit. It does mean, however, that Russia's adaptation pathways have become increasingly concentrated in identifiable procurement ecosystems rather than spread diffusely across the global market. That concentration is strategically relevant in two opposite ways. It weakens the sanctions regime by preserving access routes, but it also makes those routes more visible and potentially more targetable. For the moment,

however, the persistence of these hubs remains a significant limitation on the effectiveness of the trade and technology restrictions.

A third limitation is that Russia’s continued reliance on foreign-made components proves both the strategic relevance and the incomplete closure of the sanctions regime. The official Ukrainian War & Sanctions portal reported on 23 March 2026 that it had identified 5,626 foreign-produced components across 195 Russian weapon units. This figure does not demonstrate that sanctions are futile. On the contrary, it shows why export restrictions remain strategically well chosen: Russian weapons systems still depend on foreign electronics and specialised parts. Yet it also shows that access has not been cut off completely. If thousands of foreign-made components continue to appear in Russian weapons, then at least part of the procurement and diversion network remains functional. The problem, therefore, is not one of conceptual mis-targeting. It is one of imperfect interdiction. This limitation is especially important because in the trade and technology sphere, effectiveness depends not only on shrinking aggregate trade but on preventing the arrival of a relatively small number of highly consequential items. Even low-volume leakage can therefore have outsized military significance.

A fourth limitation concerns industrial equipment rather than electronic components alone. The same official Ukrainian portal reported on 18 March 2026 that it had documented 1,507 foreign-made machines used across 192 factories involved in the manufacture of weapons and military equipment. This suggests that the Russian military-industrial base remains entangled with foreign industrial hardware even after multiple rounds of sanctions and export-control tightening. That is analytically important because the EU’s restrictions are designed not only to block battlefield electronics but also to undermine industrial maintenance, precision manufacturing, calibration, and replacement cycles. If foreign machines remain present across a large number of defence-related factories, the sanctions regime still faces a serious challenge at the level of legacy equipment, spare parts, maintenance ecosystems, and third-country support chains. The limitation here is not necessarily that new machinery flows freely. It is that installed foreign equipment creates continuing demand for parts, software, servicing, and technical workarounds that may be difficult to monitor comprehensively. In long-duration sanctions, legacy dependence can become a paradox: it creates vulnerability for the target, but only if the sanctioning coalition can actually exploit that vulnerability through persistent enforcement.

Table 3.2.3.4-1. Main limitations and re-export channels affecting the EU’s trade–industrial–technology sanctions against Russia

<b>Limitation / evasion channel</b>	<b>Practical manifestation</b>	<b>Why it weakens effectiveness</b>	<b>EU response already visible</b>	<b>Residual problem</b>
Third-country re-export	Goods exported lawfully to non-Russian destinations are later redirected to Russia	Weakens the direct-border logic of export bans	“No re-export to Russia” clause, enhanced due diligence, anti-circumvention guidance	Enforcement depends on downstream visibility beyond the EU
False transit and indirect routing	Goods move through intermediary hubs under altered commercial documentation	Obscures end-use and makes customs detection harder	Transit bans, red-flag guidance, risk-based screening	Documentary opacity and mixed legitimate/illicit trade persist
China / Hong Kong procurement hubs	Manufacturing, resale, and shipment through firms outside the EU control perimeter	Preserves access to sensitive items through external ecosystems	Third-country entity listings, allied coordination on high-priority items	Large and commercially sophisticated hubs remain hard to discipline fully
Türkiye and other diversion nodes	Re-export of chips and other sanctioned or diversion-sensitive goods	Creates alternative access paths even without direct production capacity	Diplomatic pressure, targeted listings, trade-flow analysis	Political alignment and enforcement intensity vary across jurisdictions

Limitation / evasion channel	Practical manifestation	Why it weakens effectiveness	EU response already visible	Residual problem
Legacy foreign equipment in Russian factories	Installed foreign machines continue to require parts, servicing, and software	Sustains industrial functionality despite tighter new-export controls	Broader controls on parts, CNC software, and industrial goods	Installed base still creates demand that can be met through indirect channels
Limited visibility over actual dual-use flows	Lack of granular public data on what is exported, licensed, denied, or diverted	Makes impact assessment and targeted enforcement more difficult	Guidance, common high-priority lists, annual reporting	Data quality remains insufficient for complete real-time mapping

*Authorship: prepared by the author on the basis of European Commission guidance, European Parliament analyses, the KSE Institute’s 2025 report, and the Ukrainian War & Sanctions databases.*

Sources:

- European Commission. (2023, December). *Guidance for EU operators: Implementing enhanced due diligence to shield against Russia sanctions circumvention*. Directorate-General for Financial Stability, Financial Services and Capital Markets Union.
- European Commission. (2024, September 30). *Preventing Russian export control and sanctions evasion: Updated guidance for industry*. Directorate-General for Financial Stability, Financial Services and Capital Markets Union.
- European Commission. (2025, December 17). *Export-related restrictions for dual-use goods and advanced technologies: Frequently asked questions concerning sanctions adopted following Russia’s military aggression against Ukraine and Belarus’ involvement in it*. Directorate-General for Financial Stability, Financial Services and Capital Markets Union.
- European Commission. (2024, December 11). *Enhanced due diligence for operators manufacturing and/or trading with CHP items*. Directorate-General for Financial Stability, Financial Services and Capital Markets Union.
- European Parliament Research Service. (2024). *EU sanctions: A key foreign and security policy instrument*. European Parliament.
- European Parliament Research Service. (2025). *EU sanctions against Russia 2025: State of play, perspectives and challenges*. European Parliament.
- European Parliament. (2026). *EU trade in dual-use items with conflict-affected regions*. European Parliament.
- Kyiv School of Economics Institute. (2025). *Disassembling the Russian War Machine: Key Players and Nodes*. KSE Institute.
- Main Intelligence Directorate of the Ministry of Defence of Ukraine. (2026, March 18). *Instruments of war*. War & Sanctions.
- Main Intelligence Directorate of the Ministry of Defence of Ukraine. (2026, March 23). *Foreign components in weapons*. War & Sanctions.

A fifth limitation lies in the quality and granularity of data available for monitoring dual-use and sensitive industrial flows. A 2026 European Parliament study on EU trade in dual-use items with conflict-affected regions explicitly notes that there is a lack of high-quality data on EU trade in dual-use goods and that, although the EU’s annual report has improved, it still lacks granularity regarding what is actually traded. This is a significant structural weakness. Effective export control depends not only on legal prohibitions and intelligence-sharing, but also on the ability to detect anomalies, trace specific items, compare licensing decisions with customs outcomes, and identify suspicious divergences between production, export, and end-use patterns. If data remain insufficiently granular, authorities may know that circumvention is occurring without being able to map it with the precision necessary for rapid intervention. This limitation also affects policy evaluation. It becomes harder to distinguish between genuine degradation of Russian procurement capacity and simple relocation of trade into less visible channels. In the trade and technology sphere, poor data do not merely reduce academic certainty; they weaken enforcement intelligence itself.

A sixth limitation is the institutional fragmentation of sanctions implementation inside the EU itself. A 2024 European Parliament briefing observed that the unprecedented scale and scope of sanctions on

Russia had brought new implementation challenges into the spotlight, including inside the EU’s own borders, and cited a recent study according to which the EU’s decentralised system involved more than 160 designated competent authorities across Member States, creating a mosaic of practices that could pose risks to internal-market equity and consistent enforcement. This matters because sophisticated trade and technology restrictions require uniformity of interpretation, speed of licensing decisions, aligned red-flag detection, and consistent reactions to suspicious counterparties. If competent authorities vary widely in their practices, the sanctions regime may become uneven not by design but by administrative dispersion. Some operators may face stricter scrutiny than others, and some routes may remain softer simply because national implementation capacity differs. This institutional asymmetry is especially problematic where time-sensitive or high-value items are concerned. Re-export networks can adapt quickly, and fragmented enforcement gives them room to identify the weakest administrative points in the system.

A seventh limitation concerns the speed of adaptation by corporate shells and intermediary firms compared with the pace of designation. The later packages clearly show that the EU has responded to this problem by repeatedly expanding the list of third-country entities supporting Russia’s military-industrial complex. The 16th package added 53 companies, including 34 outside Russia; the 17th package added 31 more, including 13 in third countries; and the 19th package added another 45 entities, 17 of them in third countries, specifically for enabling circumvention of export restrictions on CNC machine tools, microelectronics, UAVs, and other advanced-technology items. These repeated additions demonstrate progress, but they also reveal the problem itself. If the same type of designations must be renewed package after package, then procurement networks are evidently capable of reconstituting themselves through new firms, new documentation, and new routing structures. In other words, designation remains necessary but not always sufficient. The sanctions regime is playing an iterative game against commercial adaptation, and that game necessarily involves delay. This lag between detection and designation is a structural limitation on near-term effectiveness.

A final limitation is the heavy compliance burden placed on legitimate operators, which is strategically necessary but can generate uneven implementation outcomes. The Commission’s 2023 and 2024 guidance documents make clear that exporters are expected to conduct risk-based due diligence, identify red flags, assess diversion risks through third countries, structure contracts accordingly, and mitigate the possibility that subsidiaries or business partners undermine the sanctions regime. The guidance also stresses that this material cannot be exhaustive and will be updated as new circumvention patterns emerge. That is sensible from an enforcement perspective, but it means that the regime operates in a constantly evolving compliance environment. Firms with strong compliance departments may adapt relatively well; smaller operators or firms in highly complex distribution chains may struggle more. This creates a secondary limitation: enforcement becomes partly dependent on the compliance maturity of private actors, not solely on public law. That dependence can strengthen sanctions when firms are vigilant, but it can also create unevenness where diligence capacity is limited or where risk signals remain ambiguous. In that respect, the sophistication of the regime is also one of its vulnerabilities.

Table 3.2.3.4-2. Near-term effectiveness outlook for the EU’s trade–industrial–technology sanctions, 2026–2027

Driver	Direction of effect	Why it matters in 2026–2027	Likely effect if favourable	Likely effect if unfavourable
Third-country enforcement pressure	Positive if intensified	Main diversion channels now run through external commercial hubs	Re-export becomes costlier, slower, and more visible	Sensitive goods continue reaching Russia via intermediaries
Entity-list expansion and faster designation	Positive	Procurement networks reconstitute through new companies and shells	Shorter adaptation windows for circumvention networks	Network regeneration outpaces sanctions updates

Driver	Direction of effect	Why it matters in 2026–2027	Likely effect if favourable	Likely effect if unfavourable
Quality of customs and licensing data	Positive if improved	Better data are needed to detect false transit and suspicious anomalies	More targeted and evidence-based interdiction	Enforcement remains partly reactive and incomplete
Corporate due diligence on CHP and Annex XLVIII goods	Decisive	Private operators are central to preventing diversion before export occurs	Fewer leakages through ordinary commercial channels	Weak compliance leaves the regime porous
EU implementation harmonisation	Positive	Divergent national practices can create soft points in the internal market	More uniform control standards and fewer enforcement gaps	Circumvention exploits uneven national implementation
Allied coordination on battlefield items	Positive	High-priority items remain the most consequential leakage risk	Narrower external procurement space for Russia	Russia arbitrages differences between partner regimes
External hub dependence of Russia	Ambiguous but potentially favourable	Concentration in fewer jurisdictions can make procurement more targetable	More pressure on a smaller number of critical nodes	If those hubs remain permissive, concentration becomes an asset for Russia

*Authorship: prepared by the author on the basis of the documents of European Commission, Council of the European Union, and European Parliament.*

*Sources:*

- Council of the European Union. (2025, October 23). *19th package of sanctions against Russia: EU targets Russian energy, third-country banks and crypto providers*. Consilium.
- European Commission. (2023, December). *Guidance for EU operators: Implementing enhanced due diligence to shield against Russia sanctions circumvention*. Directorate-General for Financial Stability, Financial Services and Capital Markets Union.
- European Commission. (2025, February 24). *EU adopts 16th package of sanctions against Russia*. Directorate-General for Financial Stability, Financial Services and Capital Markets Union.
- European Commission. (2025, July 18). *EU adopts 18th package of sanctions against Russia*. Directorate-General for Financial Stability, Financial Services and Capital Markets Union.
- European Commission. (2025, December 17). *Export-related restrictions for dual-use goods and advanced technologies: Frequently asked questions concerning sanctions adopted following Russia’s military aggression against Ukraine and Belarus’ involvement in it*. Directorate-General for Financial Stability, Financial Services and Capital Markets Union.
- European Commission. (2024, December 11). *Enhanced due diligence for operators manufacturing and/or trading with CHP items*. Directorate-General for Financial Stability, Financial Services and Capital Markets Union.
- European Parliament Research Service. (2024). *EU sanctions: A key foreign and security policy instrument*. European Parliament.
- European Parliament Research Service. (2025). *EU sanctions against Russia 2025: State of play, perspectives and challenges*. European Parliament.
- European Parliament. (2026). *EU trade in dual-use items with conflict-affected regions*. European Parliament.

The near-term outlook for 2026–2027 is therefore mixed but still broadly favourable to a strengthening of this sanctions block, provided that enforcement continues to evolve from static prohibition to active network disruption. Several factors support that conclusion. The legal architecture is already much denser than it was in 2022, with export bans now supplemented by transit restrictions, contractual non-export clauses, best-efforts duties, enhanced due diligence for Common High Priority items and Annex XLVIII goods, and catch-all tools that help Member States investigate suspicious shipments. The 18th package explicitly introduced a catch-all instrument to support national authorities in stopping and investigating suspicious shipments of advanced-technology items, which is particularly relevant for a regime now focused on concealment and redirection rather than open trade alone. The 19th package

also shows that the EU is increasingly willing to target third-country entities involved in the circumvention of controls on CNC machine tools, microelectronics, UAVs, and related technologies. These developments suggest that the regime is moving in the right operational direction. The question is no longer whether the EU recognises the nature of the evasion problem. It does. The question is whether the pace of control adaptation can outstrip the pace of commercial circumvention.

On balance, the most plausible assessment is that the trade–industrial–technology sanctions will become more effective in 2026–2027, but not because re-export corridors will disappear. They are likely to become more effective because the cost, complexity, and fragility of those corridors should continue to rise if the EU maintains pressure on intermediary firms, high-priority goods, and downstream contractual chains. Russia is unlikely to lose all access to foreign components and industrial inputs in the near term. However, it can be forced into narrower, riskier, more expensive, and less scalable channels of procurement. That is already visible in the concentration of adaptation through China, Hong Kong, Türkiye and other transit nodes, in the continuing need to rely on foreign components and machines, and in the repeated necessity to build fresh intermediary networks. In sanctions analysis, that pattern should not be dismissed simply because total closure has not been achieved. The relevant question is whether the Russian military-industrial complex can reproduce itself at the same quality, speed, and cost as before. The evidence presently suggests that it cannot do so without growing dependence on external hubs, higher procurement friction, and greater vulnerability to targeted disruption. Under those conditions, this sanctions block is likely to remain one of the most strategically consequential elements of the wider EU pressure architecture.

### **3.2.4. Transport and Logistics**

#### **3.2.4.1. Legal Instruments, Modalities, and Sanctions Coverage**

The transport and logistics sanctions imposed by the European Union on Russia developed from a relatively narrow emergency response in early 2022 into a broad, multi-modal regime affecting aviation, maritime transport, road freight, ports, locks, airports, shipping services, and, increasingly, the infrastructure and vessel networks used to circumvent other sanctions. Their legal core remains Council Regulation (EU) No 833/2014, repeatedly amended by successive package regulations adopted under Article 215 TFEU following parallel CFSP decisions. What makes this sanctions block especially significant is that transport was never treated as a self-contained sectoral target. From the outset, transport restrictions served both as direct coercive measures and as enforcement multipliers for sanctions in energy, trade, finance, and export control. A road-freight prohibition could restrict physical entry into the Union, but it could also close a re-export corridor. A port ban could target maritime commerce directly, but it could equally support the oil embargo and oil-price-cap regime. An aviation export ban could reduce the operability of Russian carriers, while also denying maintenance and servicing ecosystems needed for long-term fleet viability. Over time, therefore, the legal logic of transport sanctions changed. It moved from access denial to logistics denial, and then from logistics denial to anti-circumvention governance. By late 2025 and early 2026, transport and logistics measures had become one of the most operationally important connective tissues of the wider sanctions system.

The first decisive legal move in this field was the aviation package of 25 February 2022, adopted through Council Regulation (EU) 2022/328. That act inserted Article 3c into Regulation 833/2014 and prohibited the sale, supply, transfer, or export to Russia of goods and technology suited for use in aviation or the space industry. The same article prohibited insurance and reinsurance in relation to such goods, as well as overhaul, repair, inspection, replacement, modification, or defect rectification of aircraft or components, except for pre-flight inspection. It also banned related technical assistance, brokering services, financing, and financial assistance. This is important because the aviation sanctions did not merely target aircraft as end products. They targeted the entire maintenance-and-operability ecosystem around fleets, parts, servicing, and financial support. In legal terms, this already revealed the later transport-sanctions method: deny not only the object, but the conditions of its continued use. Since

Russian civil aviation was heavily dependent on Western-origin aircraft, parts, software support, and maintenance chains, the strategic significance of Article 3c was much greater than a simple trade ban on aircraft-related goods would suggest. It converted fleet dependence into a long-term vulnerability.

Only three days later, on 28 February 2022, the Council adopted the third package, which closed EU airspace to all Russian aircraft. This covered aircraft operated by Russian air carriers, Russian-registered aircraft, and non-Russian-registered aircraft owned, chartered, or otherwise controlled by Russian persons. The legal and operational significance of this measure was immediate. Unlike export restrictions, which affect future capability and maintenance, the airspace closure directly removed operational access to the Union's territorial airspace. In that sense, the aviation track was built as a dual structure from the start. One layer denied future supply, maintenance, and servicing; the other denied movement. Later EU summaries and Commission materials broadened this picture further by clarifying that the regime covered all Russian-owned, registered, or controlled aircraft, including private jets, and that it eventually extended to manned and unmanned aircraft alike. Thus, the aviation sanctions were not simply a commercial restriction on Russian airlines. They were a territorial, technical, and operational exclusion from the European aviation space.

The next major legal expansion came with the fifth package of 8 April 2022, adopted through Council Regulation (EU) 2022/576 and the corresponding Council press release. This package introduced two foundational logistics measures outside aviation. First, it prohibited access to EU ports for vessels registered under the Russian flag, with derogations for agricultural and food products, humanitarian aid, and energy. Secondly, it banned Russian and Belarusian road transport undertakings from transporting goods by road within the EU, including in transit, again with limited derogations for categories such as pharmaceuticals, medical goods, agricultural and food products, including wheat, and humanitarian transport. The same package also prohibited exports of jet fuel and other goods, which linked transport restrictions to the broader export-control regime. This April 2022 step matters because it transformed transport sanctions into a genuinely multi-modal system. The EU was no longer acting only against Russian aviation. It was now closing off the maritime gateway and major overland freight channels as well. Legally, this marked the birth of the transport-and-logistics subsystem as such.

The subsequent 2022 packages did not radically alter the initial architecture, but they thickened and refined it in important ways. In July 2022, the so-called maintenance and alignment package extended the existing port-access ban to locks, thereby adapting the measure to inland-waterway and connected infrastructure realities. In October 2022, the eighth package introduced the oil price-cap framework for maritime transport of Russian oil to third countries and prohibited transactions with the Russian Maritime Register of Shipping. The broader EU sanctions summary later described this as a ban on transactions with the Russian Maritime Register of Shipping and, in Commission language, as a derecognition of that register at EU level and an entry ban on ships certified by it regardless of flag. The legal significance of these 2022 refinements is considerable. The EU moved beyond denying access to Russian-flagged ships and began targeting certification and service layers tied to maritime transport. It also used maritime transport law as a mechanism for enforcing energy sanctions outside direct EU import flows. By the end of 2022, therefore, transport sanctions had already ceased to be only about border entry. They had become linked to registry control, service denial, and maritime-energy governance.

The eleventh package of 23 June 2023 marked the next major turning point because it was explicitly designed to address circumvention. In the transport field, that package extended the road-freight prohibition to trailers and semi-trailers registered in Russia, even when hauled by trucks registered outside Russia. This closed an evident loophole in the original road-ban architecture. The same package also introduced port- and lock-access prohibitions for vessels engaging in ship-to-ship transfers where authorities had reasonable cause to suspect a breach of the Russian oil import ban or the oil price cap. In addition, it targeted vessels suspected of illegally interfering with, switching off, or otherwise disabling their navigation systems while transporting Russian crude oil or petroleum products. These measures are best understood as the legal moment when transport sanctions fully entered the anti-circumvention

phase. The road regime was no longer focused only on Russian hauliers as formal operators. The maritime regime was no longer focused only on Russian-flagged ships as formal vessels. Instead, the EU began targeting evasive logistics practices themselves.

A qualitatively new phase began with the fourteenth package of 24 June 2024, adopted through Council Regulation (EU) 2024/1745. For the first time, the EU created a vessel-specific sanctions framework against ships contributing to Russia's war effort. According to the Commission's official explanation, these vessels could be designated for a broad array of reasons, including transporting military equipment for Russia, transporting stolen Ukrainian grain, supporting Russia's energy sector through LNG-related activities, or functioning as part of Putin's "dark" or shadow fleet circumventing the EU and Price Cap Coalition limits. In the first round, 27 vessels were placed on the list. These ships became subject to a ban on access to EU ports and to a ban on receiving services. This was a major legal innovation. Until then, maritime restrictions had been built mainly around flag, registry, access, or conduct-based triggers. The 2024 framework introduced vessel-specific listing as a distinct regulatory technique. That allowed the EU to move from broad nationality-based exclusion to selective operational targeting of the ships and networks most relevant to sanctions circumvention and war logistics.

The fifteenth and sixteenth packages deepened this vessel-based logic and extended it into broader infrastructure control. In December 2024, the fifteenth package added 52 vessels, bringing the total number of designated shadow-fleet vessels to 79. In February 2025, the sixteenth package added 74 more vessels, bringing the total to 153, and simultaneously widened the regulatory perimeter in several transport-relevant directions. It introduced a ban on transactions with certain listed ports, locks, and airports in Russia used for the transfer of UAVs, missiles, and related components or for circumvention of the oil price cap and other restrictive measures. It also widened the EU flight ban to listed air carriers operating domestic flights within Russia or exporting aircraft or aviation goods to Russian air carriers and their controlled entities. In the road-transport domain, it strengthened the existing prohibition on transport by EU road operators owned 25% or more by a Russian person and prohibited changes in capital structure that would increase Russian ownership above that threshold. This package therefore linked transport sanctions more explicitly to logistics nodes, infrastructure, and corporate ownership structures.

The seventeenth, eighteenth, and nineteenth packages of 2025 scaled up this model dramatically. The seventeenth package of May 2025 added 189 vessels, doubling the listed fleet to 342 and, crucially, pairing vessel listings with individual sanctions on actors enabling the shadow-fleet ecosystem, including shipping companies and one insurer. The eighteenth package of July 2025 added another 105 vessels, bringing the total to 444, and extended sanctions across the shadow-fleet value chain by targeting companies managing shadow-fleet vessels, traders of Russian crude oil, a refinery in India linked to Rosneft, a vessel captain, and even a private operator of an international flag registry. The nineteenth package of October 2025 added 117 more vessels, raising the total to 557, and the Commission explicitly stated that the package also extended the port-infrastructure ban so that the EU could list ports in third countries instrumental to the Russian war effort. In December 2025, the Council sanctioned an additional 41 vessels, bringing the shadow-fleet total to 598. This evolution shows a very clear legal pattern: maritime sanctions moved from direct access denial to ecosystem disruption, and from Russian-connected infrastructure to external infrastructure used to sustain sanctions evasion.

The current scope of EU transport and logistics sanctions is therefore much wider than the headline phrases "airspace ban" or "port ban" would suggest. In aviation, the regime covers export, sale, supply, or transfer of aircraft and aviation goods, insurance and reinsurance, maintenance and related services, overflight and territorial access, domestic-flight support by third-country carriers, and information requirements for certain non-scheduled flights. In maritime transport, it covers Russian-flagged vessels, vessels certified through the Russian Maritime Register of Shipping, ships engaged in deceptive shipping practices, vessels involved in sanctions circumvention, and, increasingly, listed individual ships regardless of flag. In road freight, it covers Russian road transport undertakings, Russian-registered trailers and semi-trailers even when hauled by non-Russian trucks, and EU road operators subject to

significant Russian ownership. In infrastructure terms, it now extends to ports, locks, airports, and potentially certain ports in third countries used to sustain the Russian war economy or facilitate sanctions evasion. The Commission’s transport page also notes restricted access to financial services for Russian railways, which, although narrower than the other modal restrictions, demonstrates that the regime extends even into rail-support structures. Thus, the legal object of these sanctions is no longer transport as a sector in isolation. It is transport as the circulatory system of Russian trade, military supply, and sanctions circumvention.

A final point concerns the relationship between package evolution and regulatory technique. The transport sanctions did not evolve through a single sweeping statute that settled the field once and for all. They evolved through cumulative amendments to Regulation 833/2014, each package adding a new legal layer: first aviation goods and airspace denial, then port and road restrictions, then lock extension and registry measures, then conduct-based maritime anti-circumvention rules, then vessel-specific listings, then infrastructure transaction bans, ecosystem sanctions, and third-country port exposure. This sequencing is analytically important because it shows that transport sanctions became progressively more intelligence-dependent and more enforcement-oriented over time. The earlier measures were broad and relatively formal. The later measures are narrower but operationally sharper, targeting deceptive logistics practices, ownership structures, registries, insurers, infrastructure nodes, and specific vessels. As a result, the transport-and-logistics block now functions as one of the most dynamic parts of the EU’s sanctions architecture. Its legal significance lies not only in the restrictions it contains, but in the way it converts mobility and logistics into a field of strategic pressure.

Table 3.2.4.1-1. Package evolution of EU transport and logistics sanctions against Russia, 2022–2025

Date	Legal instrument / package	Core transport and logistics measure(s)	Analytical significance
25 February 2022	Council Regulation (EU) 2022/328	Ban on exports of aircraft, aircraft parts and equipment; ban on insurance, reinsurance, repair, maintenance, technical assistance, brokering and financing for aviation goods	Created the aviation-maintenance denial model rather than a simple export ban
28 February 2022	Third package	Closure of EU airspace to Russian-operated, Russian-registered or Russian-controlled aircraft	Added immediate territorial-operational exclusion to the aviation track
8 April 2022	Fifth package / Council Regulation (EU) 2022/576	Ban on access to EU ports for Russian-flagged vessels; ban on Russian and Belarusian road operators transporting goods by road within the EU, including transit	Established the maritime and road-freight pillars of the transport regime
21 July 2022	Seventh package (“maintenance and alignment”)	Extension of port-access ban to locks	Adapted maritime sanctions to inland and connected infrastructure
6 October 2022	Eighth package	Oil-price-cap framework for maritime transport to third countries; prohibition on transactions with the Russian Maritime Register of Shipping	Linked maritime transport law to energy-sanctions enforcement and certification control
23 June 2023	Eleventh package	Ban on Russian-registered trailers and semi-trailers; port/lock bans on vessels engaging in ship-to-ship transfers or disabling navigation systems	Shift from basic access denial to anti-circumvention control of deceptive logistics practices
24 June 2024	Fourteenth package / Council Regulation (EU) 2024/1745	First vessel-specific listings; 27 vessels targeted; port-access and services ban for listed vessels	Introduced a list-based “targeted vessels” regime against the shadow fleet and war-supporting ships
16 December 2024	Fifteenth package	52 more shadow-fleet vessels listed, total 79	Normalised vessel-specific targeting as a recurring sanctions tool

Date	Legal instrument / package	Core transport and logistics measure(s)	Analytical significance
24 February 2025	Sixteenth package	74 more vessels listed, total 153; transaction ban on certain ports, locks and airports in Russia; wider flight ban; tighter road-ownership rule	Expanded transport sanctions to infrastructure nodes and Russian-owned EU freight structures
20 May 2025	Seventeenth package	189 more vessels listed, total 342; sanctions on shadow-fleet ecosystem actors including shipping companies and an insurer	Moved from vessel targeting to ecosystem disruption
18 July 2025	Eighteenth package	105 more vessels listed, total 444; additional value-chain sanctions including a registry operator and vessel captain	Deepened shadow-fleet governance across management, trade and registry layers
23 October 2025	Nineteenth package / Council Regulation (EU) 2025/2033	117 more vessels listed, total 557; extension of port-infrastructure ban to enable listing of relevant third-country ports	Extended the transport regime beyond Russia-linked infrastructure towards external enabling nodes
18 December 2025	Additional Council vessel sanctions	41 more vessels listed, total 598	Confirmed the continuing iterative expansion of the targeted-vessels regime

*Authorship: prepared by the author on the basis of official EU regulations, Council timelines, Council press releases, and European Commission sanctions materials.*

*Sources:*

- Council of the European Union. (2022, February 28). *EU adopts new set of measures to respond to Russia’s military aggression against Ukraine*. Consilium.
- Council of the European Union. (2022, April 8). *EU adopts fifth round of sanctions against Russia over its military aggression against Ukraine*. Consilium.
- Council of the European Union. (2023, June 23). *Russia’s war of aggression against Ukraine: EU adopts 11th package of economic and individual sanctions*. Consilium.
- Council of the European Union. (2024, December 16). *Russia’s war of aggression against Ukraine: EU adopts 15th package of restrictive measures*. Consilium.
- Council of the European Union. (2025, February 24). *Three years of Russia’s full-scale invasion and war of aggression against Ukraine: EU adopts its 16th package of economic and individual measures*. Consilium.
- Council of the European Union. (2025, May 20). *Russia’s war of aggression against Ukraine: EU agrees 17th package of sanctions*. Consilium.
- Council of the European Union. (2025, July 18). *Russia’s war of aggression against Ukraine: EU adopts 18th package of economic and individual measures*. Consilium.
- Council of the European Union. (2025, October 23). *19th package of sanctions against Russia: EU targets Russian energy, third-country banks and crypto providers*. Consilium.
- Council of the European Union. (2025, December 18). *Russia’s war of aggression against Ukraine: Council sanctions 41 vessels of the Russian shadow fleet*. Consilium.
- Council of the European Union. (n.d.). *EU sanctions against Russia: Questions and answers*. Consilium.
- Council of the European Union. (n.d.). *Timeline — Packages of sanctions against Russia since February 2022*. Consilium.
- Council Regulation (EU) 2022/328 of 25 February 2022 amending Regulation (EU) No 833/2014 concerning restrictive measures in view of Russia’s actions destabilising the situation in Ukraine. (2022). *Official Journal of the European Union*, L 49.
- Council Regulation (EU) 2022/576 of 8 April 2022 amending Regulation (EU) No 833/2014 concerning restrictive measures in view of Russia’s actions destabilising the situation in Ukraine. (2022). *Official Journal of the European Union*, L 111.
- Council Regulation (EU) 2024/1745 of 24 June 2024 amending Regulation (EU) No 833/2014 concerning restrictive measures in view of Russia’s actions destabilising the situation in Ukraine. (2024). *Official Journal of the European Union*.
- Council Regulation (EU) 2025/2033 of 23 October 2025 amending Regulation (EU) No 833/2014 concerning restrictive measures in view of Russia’s actions destabilising the situation in Ukraine. (2025). *Official Journal of the European Union*.
- European Commission. (n.d.). *Sanctions on transport*. European Commission.

- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, June 30). *Targeted vessels: FAQs on sanctions against Russia and Belarus, with focus on Article 3s of Council Regulation 833/2014*. European Commission.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, October 23). *EU adopts 19th package of sanctions against Russia*. European Commission.
- European Union. (2026). *EU restrictive measures in view of Russia’s invasion of Ukraine*. EUR-Lex Summaries.

Table 3.2.4.1-2. Current scope of EU transport and logistics sanctions against Russia

Transport domain	Principal restrictions	Scope of control
Aviation	Export ban on aircraft, parts and equipment; insurance/reinsurance ban; maintenance and repair ban; related services ban; EU airspace closure	Denies both supply-side sustainability and operational access
Maritime transport	Port-access bans for Russian-flagged vessels; bans linked to ship-to-ship transfers and AIS/navigation-system manipulation; vessel-specific shadow-fleet listings; restrictions tied to oil price cap	Combines flag-based, conduct-based, and list-based control
Shipping services and certification	Transactions ban with Russian Maritime Register of Shipping; derecognition at EU level; services ban for listed vessels	Targets the legal-service and certification environment of shipping
Road freight	Ban on Russian road transport undertakings in the EU and in transit; ban on Russian-registered trailers and semi-trailers even when hauled by non-Russian trucks; tighter rules for EU operators with 25%+ Russian ownership	Closes both formal operator and asset-based loopholes
Ports, locks and airports	Bans on access to EU ports and locks; transactions ban on certain listed ports, locks and airports in Russia; possible extension to relevant third-country ports	Expands control from vehicles and vessels to logistics nodes
Rail-adjacent transport finance	Restricted access to financial services for Russian railways	Adds a narrower but symbolically important rail-support element
Shadow-fleet ecosystem	Listings of vessels, shipping companies, traders, insurers, registry operators and related enablers	Treats circumvention as a network problem rather than a ship-only problem

*Authorship: prepared by the author on the basis of official EU transport-sanctions summaries, Council package materials, and the EU’s sector-specific FAQ infrastructure.*

Sources:

- Council of the European Union. (2022, February 28). *EU adopts new set of measures to respond to Russia’s military aggression against Ukraine*. Consilium.
- Council of the European Union. (2022, April 8). *EU adopts fifth round of sanctions against Russia over its military aggression against Ukraine*. Consilium.
- Council of the European Union. (2023, June 23). *Russia’s war of aggression against Ukraine: EU adopts 11th package of economic and individual sanctions*. Consilium.
- Council of the European Union. (2024, December 16). *Russia’s war of aggression against Ukraine: EU adopts 15th package of restrictive measures*. Consilium.
- Council of the European Union. (2025, February 24). *Three years of Russia’s full-scale invasion and war of aggression against Ukraine: EU adopts its 16th package of economic and individual measures*. Consilium.
- Council of the European Union. (2025, May 20). *Russia’s war of aggression against Ukraine: EU agrees 17th package of sanctions*. Consilium.
- Council of the European Union. (2025, July 18). *Russia’s war of aggression against Ukraine: EU adopts 18th package of economic and individual measures*. Consilium.
- Council of the European Union. (2025, October 23). *19th package of sanctions against Russia: EU targets Russian energy, third-country banks and crypto providers*. Consilium.
- Council of the European Union. (2025, December 18). *Russia’s war of aggression against Ukraine: Council sanctions 41 vessels of the Russian shadow fleet*. Consilium.
- Council of the European Union. (n.d.). *EU sanctions against Russia: Questions and answers*. Consilium.

- Council of the European Union. (n.d.). *Timeline — Packages of sanctions against Russia since February 2022*. Consilium.
- Council Regulation (EU) 2022/328 of 25 February 2022 amending Regulation (EU) No 833/2014 concerning restrictive measures in view of Russia's actions destabilising the situation in Ukraine. (2022). *Official Journal of the European Union*, L 49.
- Council Regulation (EU) 2022/576 of 8 April 2022 amending Regulation (EU) No 833/2014 concerning restrictive measures in view of Russia's actions destabilising the situation in Ukraine. (2022). *Official Journal of the European Union*, L 111.
- Council Regulation (EU) 2024/1745 of 24 June 2024 amending Regulation (EU) No 833/2014 concerning restrictive measures in view of Russia's actions destabilising the situation in Ukraine. (2024). *Official Journal of the European Union*.
- Council Regulation (EU) 2025/2033 of 23 October 2025 amending Regulation (EU) No 833/2014 concerning restrictive measures in view of Russia's actions destabilising the situation in Ukraine. (2025). *Official Journal of the European Union*.
- European Commission. (n.d.). *Sanctions on transport*. European Commission.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, June 30). *Targeted vessels: FAQs on sanctions against Russia and Belarus, with focus on Article 3s of Council Regulation 833/2014*. European Commission.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, October 23). *EU adopts 19th package of sanctions against Russia*. European Commission.
- European Union. (2026). *EU restrictive measures in view of Russia's invasion of Ukraine*. EUR-Lex Summaries.

#### **3.2.4.2. Objectives and Strategic Logic**

The strategic logic of the EU's transport and logistics sanctions against Russia is broader than the mere interruption of movement between Russia and the Union. These measures were designed to attack mobility as a functional condition of war-making, external trade, sanctions evasion, and geopolitical endurance. Official Commission and Council materials show that the transport sector sanctions include the closure of EU airspace to Russian aircraft, the closure of EU ports to Russian vessels and to hundreds of shadow-fleet vessels, bans on exports of aviation, maritime and space goods and technology, restrictions on Russian road operators and Russian-registered trailers, and bans on transport-related repair, maintenance, and financial services. Taken together, this reveals a coherent strategic objective. The EU sought not only to reduce Russia's physical access to European transport infrastructure, but also to degrade the service ecosystems, routing options, and logistical flexibility that make large-scale trade and military sustainment possible. In this sense, transport sanctions function as an operational multiplier. They support energy sanctions, trade sanctions, and export controls by constraining the channels through which restricted goods, revenues, and logistical workarounds circulate. Their core logic is therefore systemic rather than sectoral.

A first objective was immediate territorial and operational exclusion. The closure of EU airspace to Russian aircraft and the closure of EU ports to Russian vessels were not simply symbolic gestures of diplomatic condemnation. They were designed to remove Russia from routine access to the EU's transport space and thereby impose an immediate disruption cost on aviation and maritime operations. The early aviation measures were paired with export bans on aircraft, parts, and aviation-related goods, as well as prohibitions on insurance, reinsurance, repair, maintenance, technical assistance, and financial support. This demonstrates that the strategic aim was not confined to denying overflight or landing rights in the short term. The EU also aimed to undermine the long-term operability of Russian fleets by cutting them off from Western-origin maintenance and service ecosystems. In transport sanctions, denying movement and denying sustainment are analytically distinct mechanisms, but the EU used both from the very beginning. That dual design made aviation sanctions especially potent because it combined immediate immobilisation with cumulative degradation.

A second objective was to turn logistics constraints into economic pressure on the wider Russian war economy. Transport sanctions were built to interact with broader measures targeting energy, trade,

finance, and technology. This is why the maritime regime became closely tied to the oil import ban, the oil price cap, and later the targeting of the shadow fleet. The Council explained in May 2025 that the 17th package was designed to cut Russia's energy revenues that fuel its war of aggression by heavily targeting the shadow fleet of oil tankers, their operators, and related enablers. It further stated that restrictive measures on the shadow fleet are intended to dismantle its operational capacity, thereby reducing the oil revenues that support Russia's war economy. This is a remarkably clear statement of strategic logic. The EU was not sanctioning vessels because ships are inherently strategic objects; it was sanctioning them because maritime transport is the mechanism through which Russian oil revenues are converted into fiscal resources. In that respect, transport sanctions are best understood as a revenue-denial infrastructure.

A third objective was to make sanctions circumvention physically harder, riskier, and more expensive. The eleventh package in June 2023 is particularly revealing here because the Commission explicitly described the transport measures as clamping down on circumvention. It introduced a full ban on trucks with Russian trailers and semi-trailers transporting goods to the EU, specifically to close a loophole in the earlier prohibition on Russian freight road operators. The same package prohibited access to EU ports for vessels engaging in suspicious ship-to-ship transfers, failing to notify such transfers in advance, or manipulating or switching off navigation-tracking systems while carrying Russian oil subject to the ban or price cap. This is not merely an expansion of border control. It is the legal recognition that the real transport problem lies in deceptive logistics practices rather than only in formal Russian ownership or registration. Once sanctions evasion shifts into routing behaviour, documentary manipulation, and disguised transfers at sea, enforcement must also shift from static nationality rules to conduct-based restrictions. The strategic logic of the 2023 turn was therefore to criminalise or obstruct the methods of evasion themselves.

A fourth objective was to extend sanctions pressure from transport operators to transport infrastructures and service layers. The later packages show that the EU increasingly treated ports, locks, airports, registries, insurers, ship managers, and infrastructure operators as relevant sanction targets. The sixteenth package in February 2025 introduced a ban on transactions with certain listed ports, locks, and airports in Russia used for the transfer of UAVs, missiles, related technologies, or for circumventing other restrictive measures, while also extending the flight ban to certain third-country carriers operating domestic flights in Russia or supplying aviation goods to Russian air carriers. The eighteenth and nineteenth packages then deepened this logic by targeting companies managing shadow-fleet vessels, oil traders, a registry operator, and by extending the port-infrastructure ban so that the EU could list relevant ports in third countries instrumental to the Russian war effort. These developments show that the EU no longer treats transport as a narrow question of who is moving what. It increasingly treats transport as a structured environment of nodes, services, authorisations, and enabling actors. The strategic objective is therefore to degrade the logistics ecosystem as a whole, not merely particular vehicles or vessels.

A fifth objective was to force Russian logistics into lower-quality and higher-risk operating patterns. The shadow-fleet strategy is the clearest illustration of this logic. The Council described the targeted vessels as non-EU tankers that are part of the shadow fleet circumventing the oil price cap mechanism, supporting Russia's energy sector, or transporting military equipment or stolen Ukrainian grain. The 19th package also introduced a ban on reinsuring vessels belonging to the shadow fleet, while the Commission stated that the EU continues outreach to flag states so that their ship registers do not allow such tankers to sail under their flag. These measures demonstrate that the EU's purpose is not only to list ships for the sake of sanctions visibility. It is to make the use of alternative maritime channels less stable, less insurable, less certifiable, and more exposed to interruption. The strategic logic is one of quality degradation in logistics. Russia may still move cargo, but it should do so under inferior legal, insurance, and flag conditions, with higher accident, compliance, and transaction risks.

Table 3.2.4.2-1. Strategic objectives of EU transport and logistics sanctions against Russia

Strategic objective	Main instruments	Operational logic	Intended effect
Territorial and operational exclusion	Airspace closure, port-access bans, road-transport prohibitions	Remove Russian and Russia-linked operators from routine access to EU transport space	Immediate disruption of movement and loss of privileged access to European infrastructure
Fleet and service degradation	Bans on aircraft, parts, jet fuel, maintenance, repair, insurance, financial services, shipping services	Deny the technical and commercial conditions needed for continued operation	Long-term reduction in operability, maintenance quality, and fleet resilience
Revenue denial through logistics control	Oil-price-cap-linked maritime measures, targeted vessels regime, restrictions on shadow-fleet enablers	Attack the transport mechanisms through which energy exports generate war revenue	Lower monetisation efficiency of Russian energy trade
Anti-circumvention and route closure	Restrictions on Russian trailers, ship-to-ship transfers, AIS manipulation, targeted vessels, due diligence across service chains	Interdict deceptive routing practices and alternative logistics workarounds	Raise the cost and fragility of sanctions evasion
Infrastructure and node disruption	Transaction bans on ports, locks, airports, registries, and later third-country enabling nodes	Extend pressure from carriers to the infrastructure ecosystem	Reduce the number of viable hubs and choke points available to Russia
De-normalisation of logistics relations	Repeated vessel listings, reinsurance bans, and outreach to flag states	Signal that workaround channels will remain under rolling pressure	Make pre-war logistics arrangements politically and commercially irrecoverable

*Authorship: prepared by the author on the basis of official EU legal and policy materials.*

Sources:

- Council of the European Union. (n.d.). *EU sanctions against Russia: Questions and answers*. Consilium.
- Council of the European Union. (2025, May 20). *Russia’s war of aggression against Ukraine: EU agrees 17th package of sanctions*. Consilium.
- European Commission. (n.d.). *Sanctions on transport*. European Commission.
- European Commission. (2025, October 23). *EU adopts 19th package of sanctions against Russia*. Directorate-General for Communication.

A sixth objective was to make transport sanctions support export controls and battlefield technology denial. This is often overlooked because aviation, road freight, and maritime measures are sometimes treated as separate from trade and technology restrictions. In practice, however, the two are deeply interconnected. The sixteenth package extended the flight ban so that third-country carriers conducting domestic flights within Russia or supplying aviation goods to Russian airlines could be listed. This is a telling measure because it links physical movement, aviation servicing, and sanctions circumvention within a single logic. Likewise, the Commission’s transport page places transport sanctions alongside bans on exports to Russia of aviation, maritime, and space-sector goods and on transport-related repair, maintenance, and financial services. The message is clear. Logistics is not only about carrying sanctioned items. It is also about the upkeep of the systems that allow aircraft, fleets, and transport infrastructure to keep serving military, industrial, and coercive functions. The strategic purpose is therefore to close the loop between movement and sustainment.

A seventh objective was to reduce Russia’s capacity to exploit grey-zone mobility and ambiguous external operators. The targeted-vessels framework under Article 3s and the Commission’s FAQ on that provision illustrate this point. The very existence of a vessel-specific regime, together with narrow safety-based exemptions for emergency port calls, shows that the EU now distinguishes between legitimate maritime safety needs and the deliberate use of mobile assets for sanctions evasion. The point of the framework is not merely administrative listing. It is to create a flexible tool capable of following risky conduct across changing flags, ownership structures, and service relationships. This is strategically

important because a shadow-fleet system relies precisely on ambiguity: false flags, registry shopping, opaque insurance, deceptive shipping patterns, and constantly shifting corporate wrappers. By listing individual vessels and prohibiting a broad range of related services, the EU tries to strip that ambiguity of its operational value. The logic is to individualise control in a domain that otherwise rewards opacity.

An eighth objective was to preserve EU political cohesion and limit self-inflicted disruption while still intensifying pressure on Russia. This is one reason why transport sanctions evolved incrementally and with derogations rather than through one immediate total blockade across all modes. The Commission’s general sanctions FAQ states that EU sanctions are targeted at the Kremlin and its accomplices, aim at weakening the Russian government’s ability to finance its war of aggression, and are designed to maximise negative impact on the Russian economy while limiting consequences for EU businesses and citizens. That general rationale is especially relevant to transport and logistics. Airspace, ports, freight, and shipping are highly interdependent systems in which overbroad restrictions can create serious spillovers. The phased structure of the transport regime shows that the EU sought to maintain control over escalation, adding new restrictions where operationally feasible and tightening loopholes once adaptation routes became visible. This calibrated logic is not evidence of hesitancy. It is part of the strategic design that allowed transport sanctions to become more severe over time without provoking a collapse of internal consensus.

A ninth objective was de-normalisation. Transport sanctions were intended not only to obstruct current Russian activity, but also to prevent a quiet return to routine logistics integration under wartime conditions. Repeated additions of vessels to the shadow-fleet list, the expansion from ships to insurers, registries, and port infrastructures, and the outward extension towards relevant third-country nodes all signal that the EU wants the workaround architecture itself to remain unstable and sanction-exposed. By December 2025, the Council had sanctioned almost 600 non-EU vessels connected to the shadow fleet, while the broader Consilium overview states that EU ports are closed to all Russian vessels and to almost 600 non-EU shadow-fleet vessels. This scale matters symbolically as well as operationally. It communicates that transport links implicated in revenue generation, military support, or sanctions evasion are not being treated as ordinary commercial channels awaiting future rehabilitation. The transport regime thus serves a signalling function alongside its coercive function: it marks logistics normalisation as politically non-automatic.

Table 3.2.4.2-2. Strategic logic of the evolution of EU transport sanctions, 2022–2025

Phase	Dominant concern	Illustrative transport measures	Strategic logic
Early 2022	Immediate exclusion and disruption	Airspace closure; aviation export, maintenance, insurance and service bans; port and road restrictions	Remove Russian operators from EU transport space and attack fleet operability
Late 2022	Link transport to energy enforcement	Maritime measures tied to oil-price-cap architecture and Russian Maritime Register restrictions	Use transport law to constrain energy monetisation and service availability
2023	Close obvious logistics loopholes	Ban on Russian trailers and semi-trailers; rules against suspicious ship-to-ship transfers and AIS manipulation	Shift from formal operator bans to conduct-based anti-circumvention control
2024	Start vessel-specific disruption	First targeted-vessels listings under Article 3s	Move from broad category restrictions to intelligence-led targeting of risky ships
2025	Ecosystem disruption and node control	Massive shadow-fleet listings; sanctions on operators, insurer, registry actors, ports, locks and airports	Treat transport sanctions as an attack on the full logistics and circumvention ecosystem
Late 2025	Externalisation of pressure	Extension of port infrastructure ban to relevant third-country ports; outreach to flag states	Push sanctions pressure beyond Russia-linked assets to external enabling nodes

*Authorship: prepared by the author on the basis of official EU package materials and sector-specific guidance.*

Sources:

- Council of the European Union. (n.d.). *Timeline — EU sanctions against Russia*. Consilium.
- European Commission. (2023, June 23). *EU adopts 11th package of sanctions against Russia for its continued illegal war against Ukraine*. Directorate-General for Financial Stability, Financial Services and Capital Markets Union.
- European Commission. (2025, July 18). *EU adopts 18th package of sanctions against Russia*. Directorate-General for Financial Stability, Financial Services and Capital Markets Union.
- European Commission. (2025, October 23). *EU adopts 19th package of sanctions against Russia*. Directorate-General for Communication.

A final strategic objective was to convert logistics into an enforcement domain rather than merely a sector under sanctions. This is perhaps the most important conceptual shift in the whole transport block. In the early phase, sanctions largely denied access or supply. In the later phase, they sought to identify, classify, and continually disrupt the moving architecture of circumvention itself. That is why the transport regime now includes targeted vessels, infrastructure transaction bans, ownership restrictions in road transport, registry-related measures, service denials, and an expanding focus on third-country enablers. The strategic logic is thus dynamic rather than static. Russia's logistics system is expected to adapt, and EU transport sanctions are designed increasingly to adapt in response. When viewed in this way, the transport-and-logistics regime emerges as one of the most operationally sophisticated components of the wider sanctions' architecture, because it acts simultaneously on mobility, maintenance, monetisation, and enforcement. It does not simply stop things from moving. It seeks to make sanctioned movement progressively less insurable, less serviceable, less certifiable, less profitable, and less governable.

#### **3.2.4.3. Advantages and Structural Effects**

One of the principal advantages of the EU's transport and logistics sanctions against Russia is that they operate across several domains simultaneously rather than within a single sectoral silo. Aviation restrictions, port bans, road-freight prohibitions, vessel listings, and service-related bans do not merely affect transport as an industry. They directly reinforce the effectiveness of energy sanctions, trade and technology controls, and anti-circumvention policy. This gives the transport block a systemic significance that exceeds its formal legal boundaries. In practical terms, the EU has used transport sanctions to constrain movement, maintenance, access to infrastructure, certification, and the logistics of sanctions evasion all at once. That combination is strategically valuable because even when Russia manages to preserve some trade flows, it may still face degradation in the quality, speed, cost, and reliability of those flows. Unlike measures that act only at the financial or customs level, transport sanctions strike at the physical circulation of goods, equipment, fuels, and services. They therefore function as a pressure mechanism against the operational metabolism of the Russian war economy rather than against isolated transactions alone.

A second advantage lies in the immediacy of territorial exclusion. The closure of EU airspace to Russian-owned, registered, or controlled aircraft and the closure of EU ports to Russian-flagged vessels removed Russia from privileged access to core parts of the European transport space. The effect of such measures is immediate rather than delayed, because they alter route availability and access conditions from the moment of entry into force. This distinguishes them from some export-control measures whose main consequences accumulate over time. In the transport field, the EU was able to combine immediate disruption with longer-term denial of support services. That dual structure is especially visible in aviation, where the sanctions architecture links airspace closure to bans on exports of aircraft, parts, and equipment, as well as bans on repair, maintenance, and related financial services. As a result, transport sanctions have generated both operational shock and cumulative degradation. This duality is one of their greatest strengths.

The aviation segment offers a particularly strong example of asymmetrical leverage. The European Commission states that three quarters of Russia’s current commercial air fleet were built in the EU, the United States, and Canada, and concludes from this that Russia will not be able to maintain its fleet to international standards. This is a structurally important point. The effectiveness of aviation sanctions does not rest only on keeping planes out of EU airspace. It also rests on Russia’s inherited dependence on Western-origin aircraft, components, servicing chains, and technical support environments. Where such dependence exists, sanctions convert prior integration into a source of vulnerability. This gives the aviation block an unusually powerful time profile, because problems of maintenance, repair, inspection, replacement, and certification tend to intensify rather than disappear as fleets age and spare parts become harder to obtain. In other words, the aviation sanctions do not merely interrupt mobility; they erode sustainability. That makes them one of the clearest examples of how transport sanctions can generate deep structural effects from a seemingly narrow legal intervention.

A fourth advantage is that the maritime regime has become one of the EU’s most effective mechanisms for turning transport pressure into revenue pressure. The targeted-vessels framework has grown rapidly, with the number of listed vessels rising to 153 under the 16th package, 342 under the 17th, 444 under the 18th, and 557 under the 19th package, while the broader Council overview states that almost 600 vessels have been subject to EU port-access restrictions and related measures. The 17th package was described by the Commission as the largest single G7 sanctions action targeting shadow-fleet vessels. It also stated that these listings, together with action by partner countries, were significantly reducing Russia’s ability to gain revenues from evading the oil price cap and were making oil exports more complex and costly for the Kremlin. This shows why maritime transport sanctions are not simply transport policy. They are also an enforcement arm of the energy sanctions regime. By targeting vessels, services, and port access, the EU increases the logistical friction associated with oil monetisation. Even where exports continue, they do so under less favourable and less stable conditions.

Table 3.2.4.3-1. Main advantages of the EU’s transport and logistics sanctions against Russia

Advantage	Operational content	Strategic value	Structural consequence
Immediate territorial exclusion	Airspace closure, port bans, road-freight prohibitions	Delivers rapid operational disruption	Removes Russia from routine access to EU transport space
Maintenance-denial leverage	Bans on aviation goods, parts, repair, maintenance, insurance, and financial services	Converts prior dependence on Western transport ecosystems into long-term vulnerability	Gradual decline in fleet maintainability and serviceability
Cross-domain reach	Transport restrictions reinforce energy, trade, and technology sanctions	Increases cumulative pressure beyond the transport sector itself	Makes sanctions harder to bypass through purely logistical adaptation
Maritime revenue disruption	Vessel listings, port-access bans, and service bans for the shadow fleet	Raises the cost of oil-export circumvention and supports the price-cap regime	Makes Russian oil logistics more complex, riskier, and more expensive
Conduct-based anti-circumvention	Measures against ship-to-ship transfers, AIS manipulation, and deceptive shipping patterns	Targets evasive logistics practices directly	Shifts enforcement from static nationality rules to operational behaviour
Ecosystem disruption	Sanctions on ports, locks, airports, registries, insurers, and shipping enablers	Attacks logistics as a network rather than isolated assets	Narrows the infrastructure and services available for workaround systems

Authorship: prepared by the author on the basis of official EU package materials and sector-specific guidance.

Sources:

- Council of the European Union. (n.d.). *Russia’s war against Ukraine: EU sanctions*.
- European Commission. (n.d.). *Sanctions on transport*.
- Council of the European Union. (2025, February 24). *Three years of Russia’s full-scale invasion and war of aggression against Ukraine: EU adopts its 16th package of economic and individual measures*.

- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, May 20). *EU adopts 17th package of sanctions against Russia*.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, July 18). *EU adopts 18th package of sanctions against Russia*.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, October 23). *EU adopts 19th package of sanctions against Russia*.
- Eurostat. (2026). *EU trade with Russia — latest developments*.

A fifth advantage is the movement from category-based sanctions to conduct-based sanctions. Earlier transport measures were primarily directed at Russian operators, Russian-flagged vessels, or Russian-registered assets. Over time, however, the EU recognised that circumvention increasingly relied on deceptive shipping practices rather than on formally Russian identities alone. The current transport-sanctions framework therefore covers vessels engaged in suspicious ship-to-ship transfers, vessels that fail to notify transfers properly, and vessels that manipulate or switch off navigation systems while transporting Russian oil. This is a significant regulatory improvement. It allows the EU to respond to how sanctions are actually being evaded rather than only to who is doing the evading in a formal legal sense. Such conduct-based targeting is a major advantage because workaround systems often rely on shell ownership, registry changes, and false documentation. By shifting the focus towards logistics behaviour, the EU has made the transport regime more adaptive and more operationally relevant.

A sixth advantage lies in the EU's increasing ability to disrupt logistics ecosystems rather than only vehicles or carriers. The Commission's transport page now summarises restrictions that extend to airports, seaports, locks, the Russian Maritime Register of Shipping, Russian railways' access to financial services, vessels aiding Russia's war, and even ports in third countries instrumental to the Russian war effort. This breadth matters because transport resilience depends on networks of infrastructure and services rather than on ships, aircraft, or trucks alone. A vessel without port access, service providers, registry support, reinsurance, or predictable logistics nodes is much less useful than a vessel considered in isolation. The later packages recognised this interdependence and began to treat infrastructures and enablers as sanctionable objects in their own right. That is a structural strengthening of the regime. It means that Russian adaptation must now replace not only moving assets, but also the institutional and infrastructural environment that makes those assets commercially viable.

A seventh structural effect is visible in the increasing degradation of Russian reliance on mainstream maritime services. CREA's February 2026 analysis states that only 33% of Russian crude-oil exports were transported by G7+ tankers in that month, while 56% were carried by sanctioned shadow vessels and 11% by non-sanctioned shadow vessels. The same source notes that Russia has built a large shadow fleet that now carries the majority of crude exports, reducing reliance on Western services. At first glance, this may seem to indicate only evasion. Yet analytically it also reveals an important structural consequence of the sanctions' regime. Russia has been pushed away from normalised, well-insured, transparent shipping channels and towards an opaquer and risk-laden logistics system. That is not equivalent to export paralysis, but it is still a form of degradation. A logistics model that depends increasingly on sanctioned or opaque vessels is less stable, less reputable, and more vulnerable to further targeted action than one anchored in mainstream maritime services.

An eighth structural effect is the visible growth of false-flag and high-risk shipping behaviour, which underlines both the pressure created by sanctions and the distortions they have introduced into Russian logistics. CREA reported that in December 2025 there were 93 shadow vessels operating under false flags at the end of the month, that in January 2026 the number was 81, and that in February 2026 it was 63. It also reported that some of these vessels delivered hundreds of millions of euros' worth of Russian crude oil and oil products while flying false flags, and that a large share of such traffic transited the Danish Straits. These patterns matter because they show that sanctions have not left Russian oil logistics unchanged. They have pushed a meaningful part of that trade into less transparent and more deceptive operating modes. Such adaptation may preserve flows, but it does so at the price of legal

opacity, higher reputational risk, and greater exposure to maritime incidents and enforcement action. In sanctions analysis, that is a structural effect even when trade volumes do not collapse.

Table 3.2.4.3-2. Selected structural effects of EU transport and logistics sanctions against

Structural effect	Indicator / evidence	Analytical meaning
Degradation of aviation sustainability	Three quarters of Russia’s commercial air fleet were built in the EU, the US and Canada; EU bans cover parts, maintenance, repair, and related financial services	Aviation dependence on Western-origin fleets has been transformed into a long-term sanction vulnerability
Progressive expansion of the shadow-fleet regime	Listed vessels rose to 153, then 342, 444, and 557 across the 16th–19th packages; broader EU overview refers to almost 600 vessels	Maritime sanctions have become a rolling mechanism of vessel and network disruption rather than a one-off measure
Higher complexity and cost of oil-export logistics	The Commission states that vessel listings are making Russian oil exports more complex and costly	Transport sanctions now directly affect the economic efficiency of Russian energy monetisation
Shift away from mainstream maritime services	In February 2026, 56% of Russian crude exports were carried by sanctioned shadow vessels and only 33% by G7+ tankers	Russia’s logistics increasingly rely on opaque and riskier transport channels
Persistence of deceptive shipping patterns	False-flag shadow vessels were still active in December 2025, January 2026, and February 2026	Sanctions have pushed adaptation into legally and operationally inferior forms rather than preserving normal transport conditions
Narrowing of EU–Russia trade density	Eurostat reports that between Q1 2022 and Q4 2025 EU exports to Russia fell by 61% and imports by 90%	The transport regime has contributed to the wider shrinkage of routinised commercial flows between the EU and Russia

Authorship: prepared by the author on the basis of official EU package materials and sector-specific guidance.

Sources:

- Centre for Research on Energy and Clean Air. (2026, January 13). *December 2025 — Monthly analysis of Russian fossil fuel exports and sanctions.*
- Centre for Research on Energy and Clean Air. (2026, February 18). *January 2026 — Monthly analysis of Russian fossil fuel exports and sanctions.*
- Centre for Research on Energy and Clean Air. (2026, March 12). *February 2026 — Monthly analysis of Russian fossil fuel exports and sanctions.*
- Council of the European Union. (n.d.). *Russia’s war against Ukraine: EU sanctions.*
- European Commission. (n.d.). *Sanctions on transport.*
- Council of the European Union. (2025, February 24). *Three years of Russia’s full-scale invasion and war of aggression against Ukraine: EU adopts its 16th package of economic and individual measures.*
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, May 20). *EU adopts 17th package of sanctions against Russia.*
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, July 18). *EU adopts 18th package of sanctions against Russia.*
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, October 23). *EU adopts 19th package of sanctions against Russia.*
- Eurostat. (2026). *EU trade with Russia — latest developments.*

A ninth structural effect is the shrinking density of ordinary EU–Russia commercial movement. Eurostat reports that between the first quarter of 2022 and the fourth quarter of 2025, EU exports to Russia fell by 61% and EU imports from Russia fell by 90%, while Russia’s share in extra-EU exports dropped from 3.2% to 1.2% and its share in extra-EU imports from 9.2% to 1.0%. These figures cannot be attributed to transport sanctions alone, since they reflect the cumulative effect of the wider sanctions’ regime. However, they are directly relevant to the transport and logistics block because reduced trade density also means reduced movement density. The fewer routinised trade flows remain, the less Russia can

rely on formerly normal transport channels linking it to the European market. This is strategically significant because sanctions often become more sustainable once prior commercial interdependence has already been substantially reduced. In that sense, the transport regime has contributed not only to coercive pressure on Russia, but also to the de-normalisation of the very routes and infrastructures through which such pressure might otherwise have been reversed.

A tenth advantage is that the transport-and-logistics block has acquired a signalling function alongside its coercive one. The repeated addition of vessels, the widening of infrastructure bans, the extension towards third-country ports, and the growing attention to registries, insurers, and road-ownership structures all communicate that the EU does not treat sanctions circumvention as a temporary irritant. It treats it as a continuing operational battlefield. This matters because transport systems are highly adaptive. If market actors believe that workaround routes will soon become safe or normalised, they will continue investing in them. By maintaining rolling pressure on vessels and infrastructures, the EU raises the political and commercial uncertainty surrounding such investments. The effect is to make sanctions-evasion logistics less predictable, less bankable, and less attractive as a stable long-term business model. That signalling value is itself an advantage, because it shapes expectations as well as present conduct.

Taken together, the advantages and structural effects of EU transport and logistics sanctions can be summarised as follows. They have removed Russia from routine access to key elements of the European transport space, degraded the maintainability of aviation assets dependent on Western ecosystems, transformed maritime transport into a major enforcement arm of energy sanctions, pushed a growing share of Russian oil logistics into more opaque and risky channels, and helped narrow the density of ordinary EU–Russia commercial movement. They have also converted transport sanctions from a set of sector-specific bans into a dynamic anti-circumvention regime directed at vessels, infrastructures, routes, and service ecosystems. This does not mean that Russia has lost the ability to move goods or monetise exports. It means, rather, that the conditions under which it does so have become less efficient, less legitimate, less transparent, and more vulnerable to further disruption. That is precisely the type of structural effect a sophisticated transport-sanctions regime is meant to produce.

#### **3.2.4.4. Limitations, Shadow Fleet, and Near-Term Effectiveness Outlook**

The limitations of the EU’s transport and logistics sanctions against Russia stem from the fact that transport is the most adaptive layer of the wider sanctions’ environment. Financial restrictions can freeze access to capital, and export controls can prohibit listed goods, but logistics can be reorganised through rerouting, flag changes, ship-to-ship transfers, intermediated ownership, altered documentation, and the use of non-EU infrastructures. For that reason, transport sanctions are rarely judged by whether they stop movement altogether. Their real test is whether they can make sanctioned movement slower, more expensive, less insurable, less transparent, and more vulnerable to repeated disruption. The EU has clearly succeeded in moving the regime in that direction, especially in maritime transport. At the same time, the continuing scale of Russian seaborne exports and the rapid growth of shadow-fleet practices demonstrate that transport sanctions remain a field of contested enforcement rather than closed interdiction. The transport block is therefore structurally strong, but inherently porous. Its effectiveness depends less on the formal existence of bans than on the quality of monitoring, designation, port-state control, insurance pressure, and coordination with third countries.

A first limitation is legal and operational rather than purely political. Even the targeted-vessels regime contains safety-based exceptions. The Commission’s FAQ on Article 3s states that a listed vessel carrying dangerous or polluting goods, including oil or LNG, may exceptionally receive port access and services for a unique emergency port call, subject to a competent authority’s assessment, for the offloading of those goods within a reasonable time and in any case not later than 30 days from the date of targeting. The same FAQ also notes that a 60-day wind-down period may exceptionally be justified where objective factors such as voyage timelines or the need to replace critical EU services make a safe and orderly transition necessary. These provisions are entirely rational from the standpoint of maritime

safety and environmental protection. Yet they also show why transport sanctions cannot operate as an absolutely sealed regime. The law must leave space for emergency response, pollution prevention, and safe replacement of critical services, and that necessary flexibility creates bounded rather than total exclusion.

A second limitation is that parts of the infrastructure-transaction regime are deliberately non-universal. The Commission's FAQ on the infrastructure transaction ban states that transactions with listed Russian ports and locks are exempt in several cases, including those necessary for the purchase, import or transport of agricultural and food products, fertilisers, natural gas, titanium, aluminium, copper, nickel, palladium, iron ore, and certain oil transactions compliant with the Regulation. It further states that EU sanctions do not apply extraterritorially and that other Russian ports not listed in Annex XLVII can still be used for transit to third countries or for import into the Union where the goods are not otherwise restricted. These exemptions are policy choices intended to avoid unnecessary harm to food security, energy security, and legitimate trade. However, they also define the outer edge of transport sanctions. The regime narrows the logistics field, but it does not and legally cannot prohibit every transaction, every route, or every port-linked interaction. That means the transport block will always remain partly dependent on careful targeting rather than universal closure.

The most visible practical limitation is the persistence and scale of the shadow fleet itself. By the 19th package in October 2025, the number of listed shadow-fleet vessels had reached 557, and in December 2025 the Council added a further 41 vessels, raising the total to 598. This is a major enforcement achievement in formal terms. Yet it also reveals the scale of the underlying problem. A sanctions system does not need to list hundreds of vessels unless a large and durable workaround ecosystem has already emerged. The repeated expansion of the vessel list therefore shows both strength and constraint: strength, because the EU keeps widening the perimeter of pressure; constraint, because the maritime workaround architecture has proved capable of reproducing itself across time, flags, owners, registries, and routes. In other words, transport sanctions have moved from one-off exclusion to rolling pursuit, but the need for rolling pursuit is itself evidence that the shadow-fleet phenomenon remains structurally resilient.

That resilience is confirmed by current transport data. CREA's February 2026 monthly analysis reports that G7+ tankers transported only 33% of Russian crude exports in February, while 11% was carried by non-sanctioned shadow tankers and the largest share, 56%, by sanctioned shadow tankers. The same analysis states that 63 shadow vessels were operating under false flags at the end of the month and that just under a quarter of the volume of Russian oil carried by tankers flying false flags transited the Danish Straits in February. CREA also notes that Russia has built a large shadow fleet carrying the majority of crude exports and argues that this shift has reduced Russia's reliance on Western services. These figures are analytically decisive. They show that the maritime sanctions regime has not stopped Russian crude from reaching global buyers. Instead, it has forced a large part of that trade into opaquer and risk-bearing transport channels. That is meaningful pressure, but it is not full interdiction.

A related limitation is that the price-cap-and-transport strategy has imposed discounts and friction more effectively than it has reduced physical export volumes. CREA's four-years-of-invasion assessment states that Russian fossil-fuel export volumes remained 6% above pre-invasion levels and argues that G7+ sanctions on the shadow fleet have failed to cut supplies even while forcing deeper price discounts on Russian oil sales. The same assessment reports that China, India, and Türkiye accounted for 93% of Russia's crude exports in the period examined. This combination matters. It suggests that transport sanctions have changed the commercial quality of Russian exports more than their absolute presence on the market. Russia continues to move crude in substantial quantities, but it does so through a narrower buyer base, a riskier tanker pool, and a more discount-dependent revenue model. That is a genuine strategic effect, but it also defines the ceiling of current performance. The transport regime is constraining monetisation more than mobility itself.

There is also a safety and environmental paradox built into the shadow-fleet problem. CREA reports that in February 2026, 36 shadow tankers carrying Russian oil were at least 20 years old and that the oldest vessel transporting Russian oil that month was 35 years old. It further states that these older shadow tankers pose environmental and financial risks because of age, poor maintenance, and inadequate protection and indemnity insurance, and notes that an estimated EUR 75 million worth of Russian oil was transferred through ship-to-ship transfers in EU waters in February, all of it in Cyprus or Spain. This matters in two ways. First, it strengthens the policy argument for maintaining and tightening transport sanctions, because the shadow fleet is not only a sanctions-evasion tool but also a maritime-risk problem for Europe’s waters. Secondly, it limits the way sanctions can be enforced in practice, because port authorities and coastal states must still prioritise safety, pollution prevention, and emergency management when dangerous cargoes are involved. In short, the more sanctions push Russian oil into aged and opaque shipping, the stronger the rationale for pressure becomes, but the more carefully enforcement must also be calibrated against maritime-safety obligations.

Table 3.2.4.4-1. Main limitations affecting the EU transport-and-logistics sanctions regime against Russia

Limitation	Practical manifestation	Why it constrains effectiveness	Existing EU response
Safety-based legal exceptions	Emergency port access and limited wind-down for targeted vessels carrying dangerous cargoes	Prevents absolute exclusion of listed vessels in all circumstances	Article 3s targeted-vessels regime with narrowly defined emergency handling
Non-universal infrastructure bans	Exemptions for food, fertilisers, gas, certain metals, and compliant oil transactions; non-listed ports remain usable	Leaves residual legal routes for some transactions and transit	Listed-port/lock transaction ban under Article 5ae
Shadow-fleet scale	557 listed vessels by October 2025, then 598 after December 2025	Large workaround ecosystem persists despite repeated designations	Successive vessel-list expansions across 2024–2025
False-flag and opaque routing	63 false-flag shadow vessels at end-February 2026; continued transit via the Danish Straits	Makes vessel identification and accountability harder	Vessel targeting, flag-state outreach, reinsurance restrictions
Continued physical exportability of crude	Russian export volumes remained above pre-invasion levels in CREA’s four-year view	Pressure falls more on margin and monetisation than on total supply	Oil-cap-related transport measures and shadow-fleet targeting
Extraterritorial limits	EU infrastructure transaction bans do not apply extraterritorially	Reduces direct control over third-country nodes and operators	Expansion towards third-country enabling ports and diplomacy with partner states

*Authorship: prepared by the author on the basis of official EU package materials and sector-specific guidance.*

*Sources:*

- European Commission. (n.d.). *Sanctions on transport*. European Commission.
- Council of the European Union. (2025, October 23). *19th package of sanctions against Russia: EU targets Russian energy, third-country banks and crypto providers*. Consilium.
- Council of the European Union. (2025, December 18). *Russia’s war of aggression against Ukraine: Council sanctions 41 vessels of the Russian shadow fleet*. Consilium.
- Centre for Research on Energy and Clean Air. (2026, February 24). *Fourth year of full-scale invasion: Russian fossil fuel exports continue above pre-invasion levels despite sanctions*. CREA.
- Centre for Research on Energy and Clean Air. (2026, March 12). *February 2026 — Monthly analysis of Russian fossil fuel exports and sanctions*. CREA.

A further limitation is that the transport regime remains partly bounded by the non-extraterritorial character of EU law. The Commission’s infrastructure FAQ explicitly states that the transaction ban does not cover transactions between third-country nationals or entities and listed Russian ports and airports

because the scope of application of the sanctions’ regulation is defined by Article 13 and EU sanctions do not apply extraterritorially. This matters because much of the current adaptation in Russian logistics occurs precisely through non-EU entities, non-EU registries, non-EU ports, and non-EU service chains. The EU can ban access to its own ports, prohibit services by EU operators, and target identified vessels or enablers. It cannot by itself fully govern all third-country transactions that sustain Russian logistics. This legal boundary is one reason why transport sanctions now depend increasingly on diplomatic outreach, intelligence-sharing, and coordination with partner governments and flag states rather than on EU legislation alone.

The near-term outlook for 2026–2027 is therefore conditionally favourable rather than automatically strong. Several developments support a stronger phase. The 19th package introduced a ban on reinsuring shadow-fleet vessels, which directly attacks their insurability and therefore their commercial viability. The Commission’s REPowerEU roadmap also states that the EU will take action to address Russia’s shadow fleet transporting oil and aims to stop Russian oil imports by the end of 2027. In addition, CREA explicitly argues that sanctioning countries need to align their vessel lists and enforcement paradigms for a magnified effect on shadow-fleet operations. Taken together, these signals suggest that the next phase of the transport regime will rely less on basic access restrictions and more on convergence across listings, insurance pressure, registry control, and partner-state cooperation. If these instruments tighten in a coordinated way, the regime’s practical impact on Russian oil logistics could deepen substantially.

At the same time, the same evidence warns against any expectation of near-term collapse in Russian transport capacity. CREA’s February 2026 analysis states that the price cap has neither constrained export volumes nor prevented Russia from selling crude above the cap through alternative logistics and buyers, while the four-year assessment shows that the largest crude buyers remain China, India, and Türkiye. That means the decisive variable for 2026–2027 is not whether demand for Russian crude exists; it clearly does. The decisive variable is whether the EU and its partners can make the transport channels serving that demand progressively more fragile, more sanction-exposed, and more commercially unattractive. The transport regime is therefore entering a phase in which enforcement quality matters more than formal package count. Further listings alone will help, but their effect will depend on how consistently ports, insurers, registries, classification bodies, and service providers act on them.

Table 3.2.4.4-2. Near-term effectiveness outlook for EU transport-and-logistics sanctions, 2026–2027

Driver	Effect on effectiveness	Why it matters
Alignment of EU, UK, and wider G7+/partner vessel lists	Positive if strengthened	Reduces the space for vessels to arbitrage inconsistent designation regimes
Enforcement of reinsurance and service bans	Potentially strongly positive	Hits the commercial viability of shadow-fleet operations rather than only port access
Pressure on false-flag practices and registry shopping	Positive	Makes opaque routing less scalable and more legally exposed
Outreach to flag states and third-country ports	Positive but politically dependent	Necessary because EU law does not apply extraterritorially
Monitoring of STS transfers and AIS manipulation	Positive if intensified	Targets the actual operational behaviours used for sanctions evasion
Safety and environmental contingencies	Negative constraint	Emergency and pollution-prevention exceptions will remain unavoidable
Persistence of non-EU demand for Russian crude	Negative constraint	Ensures that transport sanctions must keep fighting rerouting rather than assuming market disappearance

*Authorship: prepared by the author on the basis of official EU package materials and sector-specific guidance.*

*Sources:*

- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, June 30). *Frequently asked questions on targeted vessels concerning sanctions adopted following Russia's military aggression against Ukraine*. European Commission.
- European Commission, Directorate-General for Financial Stability, Financial Services and Capital Markets Union. (2025, September 8). *Frequently asked questions on infrastructure transaction ban concerning sanctions adopted following Russia's military aggression against Ukraine*. European Commission.
- European External Action Service / Council of the European Union data note. (2025, December 5). *Implementation note on the 19th package of sanctions and the Russian shadow fleet*.
- European Commission. (n.d.). *Sanctions on transport*. European Commission.
- European Commission. (n.d.). *REPowerEU*. European Commission.
- Centre for Research on Energy and Clean Air. (2026, February 24). *Fourth year of full-scale invasion: Russian fossil fuel exports continue above pre-invasion levels despite sanctions*. CREA.
- Centre for Research on Energy and Clean Air. (2026, March 12). *February 2026 — Monthly analysis of Russian fossil fuel exports and sanctions*. CREA.

The most defensible overall judgement is that EU transport and logistics sanctions are likely to become more effective in 2026–2027, but chiefly as an attritional system of degradation rather than as a mechanism of outright stoppage. They are unlikely to eliminate Russian maritime workaround capacity in the near term. They can, however, continue to erode the quality of that capacity by forcing it into older vessels, false flags, weaker insurance, narrower port options, and more complex service substitution. In that sense, the transport block should be evaluated by whether it makes Russian logistics more brittle, more dangerous, and more expensive, not by whether it stops every cargo. The evidence available by March 2026 suggests that this process is already underway. The shadow fleet remains active, but it is now a sanctioned, visible, and increasingly burdened system rather than an invisible bypass. That is a meaningful, if incomplete, success and provides the best basis for expecting further gains if enforcement remains coordinated and persistent.

### 3.3. Prospectiveness of Economic Sanctions (2026–2030)

#### 3.3.1. Purpose, Scope, and Evaluative Assumptions (2026–2030 Outlook)

This subsection defines the purpose, analytical scope, and evaluative assumptions for the 2026–2030 outlook on the prospectiveness of economic sanctions against the Russian Federation. Within this report, “prospectiveness” is treated as conditional effectiveness over time: the extent to which economic sanctions can remain operationally implementable, legally robust, coalition-manageable, and strategically useful under plausible future conditions. The objective is not to present sanctions as an autonomous lever capable of delivering a predictable strategic reversal by itself, but to assess whether the sanctions architecture can continue to generate structural pressure that constrains war-enabling capacity and reduces long-run growth and modernisation potential. This framing reflects the reality that the Russia sanctions regime is now a mature, multi-year system whose effects operate through cumulative constraints, adaptation costs, and governance tempo rather than through a single shock event. The 2026–2030 horizon is therefore analysed as a policy cycle in which sustainability, enforcement density, and adaptation management are decisive variables. The purpose of this outlook is to provide a disciplined basis for later calibration: identifying where continuation remains high-value, where diminishing marginal returns are likely, and which enforcement and measurement capacities must be protected to prevent effectiveness decay.

The scope of Section 3.3 covers the economic sanctions domain as structured in Part 3.2: (1) financial sanctions and the banking sector; (2) energy sanctions; (3) trade-industrial and technological

restrictions; and (4) transport and logistics measures. These domains are assessed as a connected system rather than as separate silos, because the economic sanctions track functions through cross-domain transmission channels. Finance constrains trade settlement and procurement; export controls constrain industrial capability and military production; energy measures shape fiscal capacity and external balances; transport and insurance restrictions shape the physical feasibility and cost of trade and shadow logistics. Accordingly, Section 3.3 does not re-list the full measure inventory already presented in 3.2; instead, it synthesises the design and implementation findings to evaluate forward-looking viability. The analysis focuses on the regime's operating range: where it can plausibly maintain structural pressure, where it will face growing circumvention leakage, and where governance constraints (coalition throughput, data availability, enforcement capacity) will set the effective ceiling. The scope explicitly includes the interaction between domains because effectiveness increasingly depends on how well sanctions are integrated and reinforced across the system-of-systems architecture.

Methodologically, the 2026–2030 outlook is built on a structural pressure model in which sanctions operate through capability ceilings, transaction friction, and compliance gravity, rather than through immediate trade stoppage alone. This model implies that headline indicators such as total export values or GDP growth are insufficient on their own: a target can maintain headline flows while suffering increased discounts, longer routing, higher insurance premiums, reduced technology access, and higher financing costs that degrade long-run capacity. Therefore, prospectiveness is assessed through the durability of key constraint channels: (1) the ability to restrict access to high-trust finance and services; (2) the ability to deny critical technologies and dual-use inputs; (3) the ability to reduce war-relevant rent capture from energy exports; and (4) the ability to constrain scalable logistics and shadow fleet corridors. The model also assumes that the war economy can stabilise temporarily through administrative controls and substitution, but that stabilisation can occur at the cost of efficiency, investment quality, and technological depth. Consequently, “resilience” in short periods does not refute structural pressure; it changes the locus of pressure to long-run capability degradation and higher future vulnerability. The outlook therefore treats time dynamics as central: the question is whether constraints remain binding as adaptation evolves.

A key evaluative assumption is that the sanctions regime faces an enduring adaptation and substitution environment. Over 2026–2030, Russia and affiliated networks are expected to continue re-routing through third countries, shifting settlement currencies, building shadow logistics capacity, using proxy ownership structures, and exploiting enforcement variance between jurisdictions. This implies that prospectiveness is not the same as maximal coverage; it is the ability to sustain pressure under adaptation. In practical terms, the regime must be evaluated against its capacity to raise the marginal cost of each adaptation step and to reduce the scalability of circumvention corridors. Where adaptation reduces visibility (e.g., currency substitution or third-country re-exports), the key question becomes whether the EU can maintain enforcement tempo through bridge-node targeting and anti-circumvention engineering. This also implies that policy throughput becomes part of effectiveness: if package updates and targeting cycles lag behind circumvention cycles, the regime's operational density decays. Therefore, governance tempo and targeting precision are treated as core variables in the outlook.

A second evaluative assumption is that economic sanctions remain constrained by coalition management and proportionality. The EU's sanctions regime must be sustained in a pluralistic political environment with heterogeneous exposure across Member States, and with real economic trade-offs in energy, inflation, and supply security. Prospectiveness therefore depends not only on theoretical economic impact, but on whether the coalition can maintain the measures at sufficient density without undermining internal political sustainability. This implies that the most prospectively valuable sanctions are those that deliver high impact per unit of coalition cost—i.e., measures that exploit EU regulatory leverage (finance, insurance, services, high-end technology) and that minimise unnecessary spillover to EU households and strategic industries. It also implies the need for coherent communication and evidence: a regime that cannot demonstrate intermediate effects becomes politically brittle and easier to erode. Consequently, 3.3 treats sustainability as a necessary condition: measures that impose high

internal costs with limited enforceability are less prospectively robust, even if they are symbolically attractive.

A third assumption is that the evidence base for Russia-related economic analysis remains asymmetric and partly degraded, requiring systematic triangulation. Post-2022, certain Russian disclosures have become less transparent or less comparable, while third-party datasets have become more critical for audit-ready analysis. As a result, the outlook adopts an explicit evidence strategy: use internationally comparable sources as baseline (IMF, World Bank, BIS, Eurostat, UN Comtrade, IEA where applicable), supplement with reputable independent analytical institutions (e.g., Bruegel, CREA, KSE Institute for energy flows and price-cap analysis where relevant), and use Russian sources cautiously and comparatively where they provide unique information. This approach is not a normative stance. It is a methodological safeguard against definitional instability and selective disclosure. It also supports enforcement analysis: circumvention and re-routing are best detected by comparing mirror statistics and anomalies across partner datasets rather than relying on a single domestic narrative. Accordingly, 3.3 is designed to be evidence-driven, with an emphasis on intermediate metrics and cross-source consistency.

In terms of outputs, 3.3 is designed to support four downstream functions in the report. First, it provides a scenario-aware assessment of which economic sanctions channels remain binding and which are likely to weaken through 2030. Secondly, it identifies cross-cutting constraints that shape feasibility: enforcement tempo, third-country corridor closure, capacity for monitoring and targeting, and coalition sustainability. Thirdly, it defines the metrics model to monitor effectiveness across domains, enabling evidence-based adjustments rather than static continuation. Fourthly, it provides a criteria framework for escalation triggers and conditional easing logic in the economic sphere, aligned with the broader policy governance approach used in Part 2. In other words, 3.3 is not a forecast in the narrow sense. It is a policy evaluation scaffold that enables forward calibration. It links the descriptive evidence in 3.2 to a structured judgement about where continuation is strategically justified and where redesign or reinforcement is required.

The section’s operational discipline is supported by a structured mapping of economic sanctions functions to indicators and data sources. Table 3.3.1-1 sets out the core strategic functions that economic sanctions should preserve in 2026–2030 and links them to the primary monitoring indicators that will be used in later subsections. This mapping ensures instrument–mechanism alignment and prevents the analysis from drifting towards end-state expectations that the instruments cannot reliably deliver.

Table 3.3.1-1. Economic sanctions (2026–2030)—strategic functions, mechanisms, and monitoring indicators (Analytical framework (this report))

<b>Strategic function to preserve</b>	<b>Primary mechanism (how pressure is transmitted)</b>	<b>Core indicators (examples)</b>	<b>Typical degradation risk (2026–2030)</b>
Fiscal-resource compression	Reduce rent capture; increase discounts and routing costs; constrain revenue usability	Energy export discounts; price-cap compliance proxies; fiscal balance stress indicators	Shadow fleet scaling; third-country blending; services leakage
External financial connectivity constraint	Raise settlement friction; reduce capital access; target bridge nodes	BIS cross-border claims; settlement proxies; risk premia proxies; bank/connectivity events	Third-country bridge banks; currency substitution; fintech rails
Technology and capability denial	Limit access to dual-use and advanced inputs; degrade industrial maintenance	Re-export anomalies; seizure/enforcement cases; import composition shifts	Re-export hubs; misclassification; proxy end-users
Logistics and services friction	Raise transport/insurance costs; reduce scalability of routing	Shadow fleet indicators; insurance/service restrictions; route lengthening	Flag-hopping; STS transfers; documentation manipulation

Strategic function to preserve	Primary mechanism (how pressure is transmitted)	Core indicators (examples)	Typical degradation risk (2026–2030)
Compliance gravity and private-sector de-risking	Intermediary refusal, higher DD, contractual risk pricing	Refusal/de-risking events; higher fees/delays; counterparties exit	Enforcement variance; guidance ambiguity; compliance fatigue
Anti-circumvention closure	Shorten response lag; target facilitators; network disruption	Time-to-update; proxy emergence rates; anomaly detection	Governance tempo lag; data opacity; jurisdictional arbitrage

*Authorship: analytical framework (this report) was prepared on the basis of official EU institutional materials, EU legal acts and documents*

A second table, Table 3.3.1-2, defines the “data backbone” for 3.3, listing the primary statistical portals and the domains they support. This establishes upfront transparency about how the report will generate the consolidated static tables and the corresponding graphs, and it makes the evidence model audit-ready by ensuring each later table can cite a stable source URL. The tables are therefore not decorative; they are the methodological infrastructure for the 2026–2030 outlook.

Table 3.3.1-2. Data backbone for Section 3.3—primary statistical portals and analytical sources (URLs)

Domain	Primary international statistical sources	Primary enforcement / policy sources	High-trust analytical sources (as supplements)
Finance & banking	IMF Data: <a href="https://www.imf.org/en/Data">https://www.imf.org/en/Data</a> ; World Bank Data: <a href="https://data.worldbank.org">https://data.worldbank.org</a> ; BIS Banking Statistics: <a href="https://www.bis.org/statistics/banking.htm">https://www.bis.org/statistics/banking.htm</a>	EUR-Lex (legal acts): <a href="https://eur-lex.europa.eu">https://eur-lex.europa.eu</a> ; Commission sanctions page/FAQs: <a href="https://finance.ec.europa.eu">https://finance.ec.europa.eu</a>	IMF analytical notes; selected central bank/FSB/BIS analytical outputs
Energy	IEA: <a href="https://www.iea.org/data-and-statistics">https://www.iea.org/data-and-statistics</a> ; Eurostat: <a href="https://ec.europa.eu/eurostat">https://ec.europa.eu/eurostat</a> ; UN Comtrade: <a href="https://comtradeplus.un.org">https://comtradeplus.un.org</a>	Council/Commission sanctions communications: <a href="https://www.consilium.europa.eu">https://www.consilium.europa.eu</a> ; <a href="https://finance.ec.europa.eu">https://finance.ec.europa.eu</a>	Bruegel: <a href="https://www.bruegel.org">https://www.bruegel.org</a> ; CREA: <a href="https://energyandcleanair.org">https://energyandcleanair.org</a> ; KSE Institute: <a href="https://kse.ua">https://kse.ua</a>
Trade/technology/export control	UN Comtrade: <a href="https://comtradeplus.un.org">https://comtradeplus.un.org</a> ; Eurostat COMEXT: <a href="https://ec.europa.eu/eurostat">https://ec.europa.eu/eurostat</a>	EU sanctions legal acts and guidance: <a href="https://eur-lex.europa.eu">https://eur-lex.europa.eu</a> ; <a href="https://finance.ec.europa.eu">https://finance.ec.europa.eu</a>	OECD trade data (select): <a href="https://data.oecd.org">https://data.oecd.org</a> ; reputable enforcement case repositories (where available)
Transport & logistics	Eurostat (transport): <a href="https://ec.europa.eu/eurostat">https://ec.europa.eu/eurostat</a> ; UN Comtrade (trade-routing proxies): <a href="https://comtradeplus.un.org">https://comtradeplus.un.org</a>	Council/Commission measures & notices: <a href="https://www.consilium.europa.eu">https://www.consilium.europa.eu</a> ; <a href="https://eur-lex.europa.eu">https://eur-lex.europa.eu</a>	Specialist tracking (e.g., shadow fleet) from high-trust institutions as available

*Authorship: analytical framework (this report) was prepared on the basis of official EU institutional materials, EU legal acts and documents*

Source:

- Official websites of the listed institutions (URLs as shown in-table).

Finally, this subsection defines the central evaluative question for 3.3: whether the economic sanctions regime can remain structurally binding, enforceable, and coalition-sustainable through 2030 in an environment of adaptation, third-country intermediation, and data constraints. This question is deliberately framed around sustainable pressure rather than maximum breadth. It reflects the practical reality that the most effective long-horizon sanctions regimes are those that remain coherent, measurable, and continuously maintained, with a clear linkage between measures, mechanisms, and indicators.

### 3.3.2. Strategic Functions to Preserve in the Economic Track

The prospectiveness of economic sanctions over 2026–2030 depends on whether the EU and partners can preserve a set of strategic functions that remain valuable regardless of short-term fluctuations in Russia’s macro indicators or temporary stabilisation episodes. Economic sanctions are most effective when they operate as a coherent system of structural pressure: they constrain the target’s ability to finance war activity, acquire and maintain critical technologies, and sustain scalable trade and logistics routes at acceptable cost and risk. The strategic question is therefore not whether sanctions can reduce every revenue stream or halt all trade, but whether they can continue to deliver persistent constraints on capability, optionality, and scalability. In a mature sanctions’ regime, this requires prioritising high-leverage channels—finance, insurance and services, advanced technology inputs, and energy rent capture—and maintaining an anti-circumvention posture that prevents substitution corridors from becoming stable and low-cost. Preserving these functions is also essential for coalition sustainability: a sanctions regime that can demonstrate durable intermediate effects is easier to maintain politically than one that relies on abstract claims of future impact. Accordingly, this subsection defines the functions that should be treated as non-negotiable outputs of the economic track and explains why they remain strategically relevant through 2030.

A first strategic function to preserve is fiscal-resource compression and war-financing constraint. Russia’s war capacity depends on the state’s ability to mobilise fiscal resources and to convert external revenues into usable purchasing power for procurement and industrial mobilisation. Economic sanctions need not eliminate revenue generation to be effective; they must reduce net rent capture and increase the cost of converting export revenues into war-relevant capability. Energy sanctions are central here, but the function is cross-domain: financial restrictions raise settlement and conversion costs; technology restrictions raise the cost of retooling and maintenance; transport restrictions raise the cost of exports and imports; and enforcement actions against facilitators reduce the scalability of procurement. Over 2026–2030, this function should remain a strategic priority because it directly targets the sustainability of the war economy model: the more expensive and less efficient the war-funding system becomes, the greater the long-run constraint on military production, mobilisation capacity, and macro stability. The operational benchmark is not a single fiscal collapse event; it is persistent pressure on the state’s capacity to sustain extraordinary expenditures without degrading stability or exhausting buffers.

A second function to preserve is external financial connectivity constraint, which underpins the entire sanctions architecture. Financial sanctions operate as an infrastructure layer: they raise transaction friction, compress the set of reliable correspondent and service relationships, and increase risk premia across trade and investment. This function remains essential through 2030 because adaptation will continue to rely on third-country financial intermediaries, currency substitution, and fintech/crypto rails. Preserving external financial connectivity constraints means keeping the “bridge architecture” costly and unstable: preventing scalable, low-risk settlement corridors from emerging and keeping compliance gravity high enough to discourage facilitation. This is strategically important because many other measures—export controls, services restrictions, transport bans—are weakened if payments and trade finance can be routed cheaply and reliably. Conversely, even partial financial constraints can materially reduce the scalability of circumvention and the efficiency of procurement networks. The preservation task therefore includes continuous anti-circumvention targeting, partner alignment where feasible, and harmonised implementation to reduce soft spots.

A third function to preserve is technology denial and long-run capability degradation. The most durable economic effect of sanctions in a modern, complex economy is often not immediate trade disruption but the imposition of a capability ceiling: reduced access to advanced electronics, machine tools, specialised software, energy extraction technology, aviation parts, and other critical inputs that sustain modernisation and military-industrial production. Over 2026–2030, this function remains strategically

central because it compounds over time: maintenance backlogs, quality degradation, and substitution into inferior inputs gradually reduce the efficiency and reliability of complex systems. The objective is not to eliminate production across the board; it is to make advanced production more expensive, slower, and less scalable, thereby reducing the long-run growth and war-sustaining potential of the economy. Preserving this function requires persistent enforcement against re-export hubs, improved end-use controls, and integration with financial and logistics measures that constrain procurement networks. The key risk is leakage through third-country corridors and misclassification; therefore, this function must be preserved through coordinated anomaly detection and rapid response.

A fourth strategic function to preserve is logistics and services friction, particularly in maritime shipping, insurance, and trade-support services that enable energy exports and re-exports. Transport and logistics measures can impose systemic cost inflation: longer routes, higher insurance premiums, reliance on shadow fleets, and increased exposure to disruptions and accidents. This function is strategically important because logistics is a multiplier: increased cost and unreliability propagate across the economy and directly affect the feasibility of sustaining large-scale export and import flows. Over 2026–2030, preserving logistics friction means focusing not only on flagging and vessels, but on the services and intermediaries that make routing scalable—insurance, brokering, port services, classification and certification, and ship management. The “shadow fleet” dynamic illustrates both the importance and the vulnerability of this function: circumvention can grow, but it tends to do so through higher-risk and higher-cost corridors that can be targeted through service-layer restrictions and enforcement. Therefore, preserving this function requires maintaining the service-denial perimeter and closing the corridors that allow shadow logistics to become normalised and low-risk.

A fifth function to preserve is compliance gravity and private-sector de-risking, which amplifies sanctions effects beyond what public enforcement can achieve alone. In the modern sanctions’ environment, much of the practical constraint is generated by banks, insurers, commodity traders, and logistics firms internalising risk and reducing exposure. Compliance gravity creates persistent friction: higher due diligence burdens, slower onboarding, higher fees, greater refusal probability, and reduced availability of high-trust services. This function is strategically valuable because it is durable and scalable: it leverages the EU’s regulatory and market gravity to shape private behaviour, including among actors outside the EU who depend on EU-linked services. Preserving compliance gravity requires clarity and consistency: ambiguous rules or inconsistent enforcement weaken private-sector risk discipline and create arbitrage spaces. It also requires credible enforcement signals so that de-risking remains rational from the perspective of intermediaries. Over 2026–2030, preserving this function will be increasingly important because circumvention networks will seek to exploit any softness in compliance posture; maintaining high compliance gravity is a core defence against such exploitation.

A sixth function to preserve is anti-circumvention closure and governance tempo, which has become the decisive determinant of marginal effectiveness in a mature regime. As the Russia sanctions architecture has evolved, the key vulnerabilities have shifted to third-country corridors, proxy ownership, re-export hubs, and shadow logistics. Preserving effectiveness therefore requires the EU to shorten the lag between circumvention emergence and policy response. This includes typology-driven targeting of facilitators, rapid updates to lists and service restrictions, and data fusion across customs, financial intelligence, and corporate registries. Governance tempo also includes coalition throughput: the ability to adopt packages and implementing acts at a pace that reduces arbitrage windows. Without this tempo, even well-designed measures become porous over time. Consequently, anti-circumvention closure is not a subsidiary function; it is the enabling function that preserves all others. It is particularly important in the financial, energy, and logistics domains, where substitution corridors can be scaled quickly and where monitoring is inherently complex.

These strategic functions can be mapped as a cross-domain transmission system that shows how each sanctions block reinforces the others. Table 3.3.2-1 provides such a mapping, linking each function to the primary sanctions domains and indicating where cross-domain integration yields the highest returns. The value of this mapping is operational: it identifies where preservation efforts should be

concentrated. For example, (1) maintaining energy rent compression requires not only price-cap and shipping constraints, but also financial enforcement and insurance-service restrictions; (2) maintaining export-control effectiveness requires trade-finance constraints and logistics monitoring; and (3) maintaining financial constraint requires targeting third-country bridge operators that also support trade and energy settlement. This cross-domain logic is the core reason economic sanctions remain prospectively valuable through 2030: their effectiveness is not additive but multiplicative when domains are integrated.

Table 3.3.2-1. Economic sanctions (2026–2030): strategic functions to preserve and cross-domain reinforcement map

Strategic function	Primary sanctions domains delivering the function	Key cross-domain reinforcement links	Highest-value preservation lever (2026–2030)
Fiscal-resource compression	Energy; finance; transport	Price-cap + shipping/insurance + settlement constraints	Tighten service-layer controls (insurance/ship mgmt) and bridge-node finance targeting
External financial connectivity constraint	Finance; services	Supports export controls and energy enforcement by restricting payment and trade finance	Target third-country bridge banks/providers; harmonise implementation; high-tempo updates
Technology denial / capability ceiling	Export controls; services	Reinforced by finance (trade finance) and logistics (routing constraints)	End-use enforcement; re-export anomaly detection; facilitator listings
Logistics and services friction	Transport/logistics; services	Reinforces energy rent compression and export-control closure	Shadow fleet monitoring; sanctions on operators and service providers
Compliance gravity (de-risking)	Finance; insurance; platforms	Multiplies effects across all domains via private refusal and risk pricing	Guidance clarity; enforcement signals; consistent Member State practice
Anti-circumvention closure & tempo	All domains	Enables sustained pressure by reducing arbitrage windows	Rapid typology-to-measure pipeline; data fusion; partner coordination

*Authorship: analytical framework (this report) was prepared by author on the basis of official EU institutional materials, EU legal acts and documents*

In summary, the economic sanctions track remains prospectively valuable through 2030 if it continues to preserve six strategic functions: fiscal-resource compression, external financial connectivity constraint, technology denial and capability degradation, logistics and services friction, compliance gravity, and anti-circumvention closure with sufficient governance tempo. These functions define the “operating range” of the sanctions system: they do not require absolute trade stoppage, but they do require sustained pressure and continuous maintenance to prevent substitution corridors from becoming stable and low-cost.

**3.3.3. Scenario Frame for 2026–2030**

A forward-looking assessment of the prospectiveness of economic sanctions over 2026–2030 requires an explicit scenario frame, because the sanctions regime’s effectiveness is highly contingent on the evolution of the war, the intensity of Russia’s adaptation and circumvention activity, and the coalition’s political throughput capacity. Economic sanctions do not operate in a vacuum: they interact with energy-market conditions, third-country corridor dynamics, domestic political cycles within Member States, and the availability (or absence) of verifiable behavioural change by the target state. Without scenarios, the analysis risks either assuming a static environment—thereby underestimating the tempo

of circumvention and market substitution—or treating any change in indicators as proof of success or failure without a disciplined reference structure. The scenario approach used here is pragmatic: it does not claim predictive certainty; it provides a structured basis for calibrating the economic sanctions’ track under three plausible trajectories—baseline continuation, escalation, and partial de-escalation—while preserving the strategic functions identified in Section 3.3.2. Each scenario is defined by the likely direction of key variables: conflict intensity, sanctions-evasion tempo, coalition cohesion, and the feasibility of conditional adjustment. The purpose is to map how the economic sanctions mix should respond to remain binding, enforceable, and politically sustainable through 2030.

*Scenario A:*

Baseline continuation (protracted conflict, sustained adaptation, and mature circumvention corridors). In the baseline scenario, the war remains unresolved, Russia sustains a war-economy posture, and hybrid pressure continues at a steady but adaptive level. Economic sanctions remain in place, and the target continues to re-route through third-country corridors, expand shadow logistics, and increase the share of non-EUR/non-USD settlement. Coalition cohesion remains broadly intact, but policy throughput is constrained by domestic political cycles, cost-of-living sensitivity, and the governance burden of a long sanctions regime. Under this scenario, prospectiveness depends primarily on the EU’s capacity to sustain structural pressure under adaptation: preserving energy rent compression (through price-cap and service-layer enforcement), maintaining finance constraints by targeting bridge nodes, keeping export controls binding through re-export monitoring and end-use enforcement, and preventing the shadow fleet from becoming a stable low-risk alternative. The baseline strategy therefore prioritises anti-circumvention closure and governance tempo. Measures that deliver high impact per unit of coalition cost—finance, insurance/service restrictions, and high-end technology denial—remain the “best value” levers. The principal risk is gradual effectiveness decay through corridor normalisation: third-country intermediaries become routinised, enforcement lag widens, and marginal returns diminish unless the regime is continuously maintained.

*Scenario B:*

Escalation (renewed intensification of aggression and/or accelerated circumvention and shadow infrastructure). In the escalation scenario, Russia increases the scope or intensity of aggression, and/or significantly intensifies sanctions evasion through expanded third-country corridors, faster growth of shadow fleet capacity, or systematic re-export networks for restricted goods. In economic terms, escalation may also be triggered by Russia’s efforts to stabilise war financing through new fiscal instruments, deeper integration of parallel settlement systems, or more aggressive attempts to circumvent the price cap. Under escalation, the role of economic sanctions shifts from “maintenance” to active tightening and denial, with a higher tempo and more explicit targeting of facilitators and enabling services. The most prospectively effective response is not necessarily broader blanket bans, but faster and more precise restrictions that close the most scalable corridors: transaction bans against high-volume third-country financial operators, tighter service-layer restrictions in shipping and insurance, faster designation cycles for shadow fleet operators, and more aggressive enforcement against re-export hubs and procurement networks. However, escalation also increases governance risks: measures must remain legally robust and politically sustainable to avoid coalition fragmentation, and market risks (energy-price spikes, supply shocks) become more salient. Therefore, prospectiveness under escalation depends on the EU’s ability to run a high-tempo governance cycle—rapid updates, integrated cross-domain enforcement, disciplined communications—and to mitigate internal cost risks through compensatory policies and coordination with partners.

*Scenario C:*

Partial de-escalation (verifiable change enabling conditional adjustment without normalisation). In the partial de-escalation scenario, there is a demonstrable and verifiable change in baseline conditions—such as a sustained reduction in hostilities, verified compliance with specific security arrangements, or other measurable changes that create a policy space for conditional adjustment. This scenario does not

imply immediate normalisation or broad lifting; it implies the emergence of a sanctions’ governance environment in which conditionality and reversibility become central. Under de-escalation, economic sanctions remain prospectively valuable primarily as a structured conditionality system: measures can be calibrated in a sequenced and reversible way to incentivise verifiable steps while maintaining deterrence and snapback capability. In this scenario, the highest-risk error is premature easing that restores scalable corridors (finance bridges, energy service layers, technology inputs) faster than verification can confirm sustained behavioural change. Therefore, the de-escalation strategy should maintain the binding elements that preserve capability ceilings—export controls, high-risk services restrictions, and anti-circumvention tools—while allowing carefully defined adjustments only where verifiable conditions are met and monitoring capacity is sufficient. In practice, any adjustment should be narrower and more reversible in finance and technology than in lower-risk trade domains, because the restoration of high-trust financial and technological interfaces would be difficult to reverse quickly if political conditions deteriorate.

Across all three scenarios, two cross-cutting principles remain constant. First, the core strategic functions to preserve—fiscal-resource compression, external financial connectivity constraint, technology denial, logistics friction, compliance gravity, and anti-circumvention closure—remain relevant through 2030, but their relative priority shifts by scenario. Under baseline, maintenance and corridor closure dominate; under escalation, tempo and targeted denial dominate; under de-escalation, conditionality and reversibility dominate. Secondly, effectiveness is inseparable from governance capacity: the tempo of updates and the integration of measures across finance, energy, export controls, and logistics determine whether sanctions remain structurally binding under adaptation. This is particularly important in the economic track because circumvention corridors can scale quickly and because market conditions can shift abruptly. Therefore, the scenario frame is designed not to predict a single path, but to establish the conditions under which the sanctions regime remains prospectively valuable and the conditions under which redesign or reinforcement becomes necessary.

The practical policy implications of the scenario frame can be summarised in a domain-by-domain impact matrix. Table 3.3.3-1 maps the expected pressure mechanisms and the main degradation risks under baseline, escalation, and partial de-escalation across the four economic sanctions domains (finance, energy, technology/export controls, transport/logistics). This table is intended as an operational tool: it indicates which domain is likely to be the binding constraint in each scenario and where enforcement and measurement resources should be prioritised. It also provides a structured basis for 3.3, which will evaluate prospectiveness domain-by-domain and specify the calibration priorities and evidence indicators relevant to each scenario.

Table 3.3.3-1. Scenario impacts by economic sanctions domain (2026–2030): mechanisms, risks, and priorities

Domain	Baseline continuation: primary binding mechanism	Escalation: priority tightening focus	Partial de-escalation: conditional adjustment logic	Main degradation risk (all scenarios)
Finance & banking	Bridge-node targeting; compliance gravity; settlement friction	Expand transaction bans on bridge banks/providers; faster anti-circumvention	Maintain core constraints; narrowly reversible calibrations only with verification	Third-country corridor normalisation; data opacity; uneven enforcement
Energy	Rent compression via price cap + services denial; shadow fleet pressure	Tighten service-layer enforcement; shadow fleet designations; price-cap policing	Maintain cap structure; adjust only with verifiable compliance and monitoring	Shadow fleet scaling; blending/re-export; insurance/service leakage

Domain	Baseline continuation: primary binding mechanism	Escalation: priority tightening focus	Partial de-escalation: conditional adjustment logic	Main degradation risk (all scenarios)
Technology/export controls	Capability ceiling via dual-use denial and end-use enforcement	Expand enforcement against hubs; accelerate facilitator listings; tighter controls	Preserve capability ceilings; limited easing only with robust monitoring	Re-export hubs; misclassification; proxy end-users
Transport & logistics	Friction via insurance/port/service restrictions; route elongation	Target operators and service providers; tighten STS and flag-hopping enforcement	Maintain core service restrictions; conditional adjustments only with snapback	Shadow logistics normalisation; enforcement lag; jurisdiction arbitrage

*Authorship: analytical framework (this report) was prepared by author*

### 3.3.4. Financial Sanctions (2026–2030) — Prospectiveness and Constraints

Over the 2026–2030 horizon, financial sanctions remain one of the most prospectively valuable economic instruments because they operate on the external interface that enables all other sanction-sensitive domains: trade settlement, trade finance, procurement, insurance, and the conversion of export revenue into usable purchasing power. Their strategic utility is structurally stable: even where Russia maintains substantial external balances, the binding constraint increasingly shifts to the quality, cost, and scalability of financial intermediation under a sanctions-constrained environment. At the same time, the prospectiveness of the financial track is now more explicitly governance-dependent than in 2022. As the regime matures, Russia’s adaptation relies on currency substitution, third-country bridge banks, multi-hop correspondent chains, and fintech/crypto rails that can be adjusted quickly. Consequently, the marginal effectiveness of financial sanctions through 2030 depends less on expanding baseline prohibitions and more on the EU’s ability to maintain a high-tempo, network-oriented anti-circumvention cycle that targets scalable facilitators and keeps compliance gravity high. The realistic objective is not total financial isolation—unlikely in a globally networked economy—but the sustained imposition of persistent friction and reduced optionality that limits Russia’s ability to sustain war-relevant procurement and to finance industrial mobilisation efficiently.

A first driver of prospectiveness is that financial sanctions have strong cross-domain transmission. Where export controls deny critical technologies, the limiting factor often becomes payment and trade finance. Where energy sanctions reduce rent capture, the limiting factor becomes revenue conversion and the reliability of settlement corridors. Where transport measures raise logistics costs, the limiting factor becomes insurance and service payments routed through intermediaries. Financial sanctions multiply each of these constraints by raising settlement costs and increasing the probability of transaction refusal or delay. This is why the financial track remains prospectively robust even if Russia continues to reroute trade: the financial system’s compliance boundaries are harder to bypass at scale without moving into higher-cost corridors. Over 2026–2030, the strongest contribution of financial sanctions is therefore systemic: they make other sanctions more enforceable and reduce leakage by narrowing the set of low-risk facilitators willing to handle Russia-linked business. This systemic effect is also durable, because compliance systems institutionalise risk over time; however, it depends on clarity and consistency of implementation.

A second driver of prospectiveness is the EU’s growing emphasis on bridge-node targeting—the recognition that the main marginal gains lie in constraining third-country financial operators and service providers that enable circumvention at volume. This approach is conceptually aligned with the realities of a mature sanctions’ regime: Russia’s external settlement ecology has shifted, and the most scalable workarounds are mediated through bridging intermediaries rather than through direct EU-Russia banking ties. Therefore, prospectiveness is highest where the EU can (1) identify high-volume bridge banks/providers with an EU nexus, (2) impose transaction bans or equivalent constraints, and (3)

maintain a rapid update cycle as nodes shift. When this works, the marginal effect is high: disrupting a bridge bank can raise costs across multiple sectors simultaneously and can trigger broader de-risking by other intermediaries. The constraint is governance: evidence quality must be sufficient to sustain legal defensibility, and the coalition must maintain political throughput to update measures at a pace that reduces arbitrage windows. Where throughput lags, the bridge-node strategy risks a “replacement cycle” in which new intermediaries emerge faster than they are constrained.

A third driver of prospectiveness is compliance gravity as an enforcement multiplier. Over time, financial sanctions embed Russia-related risk into private-sector behaviour through screening systems, risk thresholds, and contractual clauses. This generates durable friction even where specific transactions are not explicitly prohibited. For 2026–2030, this mechanism remains strategically valuable because it raises the cost of facilitation for intermediaries that depend on EU markets, services, and reputational standing. However, compliance gravity is also a point of vulnerability: if legal definitions are ambiguous, if enforcement is uneven, or if political signals become inconsistent, private intermediaries may relax de-risking or develop workarounds that reduce friction. Therefore, prospectiveness depends on maintaining the credibility of enforcement and the coherence of guidance across Member States, as well as on partner alignment that reduces substitution into alternative high-trust jurisdictions.

A fourth driver of prospectiveness is the continued relevance of fintech and crypto-enabled routing as a niche but persistent circumvention corridor. The financial track’s long-horizon value is increased when EU measures deny enabling services to high-risk providers and reduce the feasibility of using EU-linked fintech rails for settlement, custody, and value transfer. However, the domain is inherently adaptation-sensitive: providers can relocate, rebrand, and change technical interfaces quickly. Consequently, the prospectiveness of fintech/crypto restrictions through 2030 is primarily a function of enforcement tempo and of the ability to target networks rather than static labels. The benefit of this focus is not that it blocks all value transfer; it reduces the scalability and lowers the reliability of grey corridors that support procurement and evasion. Without continuous monitoring, the marginal effect decays quickly.

Against these prospects, the constraints are clear and persistent. The dominant constraint is third-country corridor normalisation: if bridge banks and intermediaries become stable, routinised corridors with manageable risk, the financial sanctions regime becomes less binding. This can occur if enforcement tempo slows, if diplomatic constraints inhibit bridge-node targeting, or if private intermediaries in non-aligned jurisdictions develop sufficiently deep settlement capacity outside EU-linked services. A related constraint is data opacity. As Russia and affiliated networks rely more on opaque corporate structures and less transparent routing, the evidence pipeline becomes slower and less precise, increasing the lag between circumvention emergence and restrictive response. Another constraint is coalition heterogeneity: if Member States differ materially in enforcement intensity or guidance interpretation, “soft spots” will emerge that facilitate rerouting and reduce deterrent effect. Finally, there is a boundedness constraint: because financial sanctions cannot realistically deliver total isolation in a non-universal coalition, the regime’s effectiveness must be evaluated on friction and scalability denial, not on absolute flow stoppage. This boundedness is not a weakness; it is a design reality that must be managed through network targeting and cross-domain integration.

To keep this section audit-ready and to anchor later monitoring, Table 3.3.4-1 (below) consolidates a structured view of the high-value levers for financial sanctions through 2026–2030, the main constraints that bound their effectiveness, and the corresponding indicators that should be tracked. The table is authored for this report and is designed to be used as a calibration tool: it identifies where policy effort yields the highest marginal returns and where governance investment is required to prevent effectiveness decay.

Table 3.3.4-1. Financial sanctions (2026–2030): high-value levers, constraints, and monitoring indicators

High-value lever (2026–2030)	Why it remains prospectively valuable	Binding constraints	Core indicators to monitor (examples)
Targeting third-country bridge banks/providers with EU nexus	Disrupts scalable settlement corridors; raises costs across sectors; triggers de-risking	Evidence burden; diplomatic sensitivity; rapid substitution	Time-to-update; BIS cross-border claims signals; concentration shifts in routing; refusal proxies
Trade-finance and procurement facilitator disruption (network listings)	Reduces export-control leakage; constrains war procurement and critical imports	Data opacity; corporate restructuring; legal risk	Network reconfiguration rate; mirror-trade anomalies; enforcement/seizure cases
Fintech/crypto service denial (high-risk providers)	Closes grey corridors for obfuscation and smaller-value routing	High adaptation tempo; jurisdictional relocation	Provider availability; proxy emergence rate; enforcement actions; time-to-response
Compliance gravity maintenance (guidance + enforcement signals)	Sustains private de-risking; increases friction beyond legal minimum	Guidance ambiguity; uneven enforcement; compliance fatigue	Divergence in Member State practice; private-sector exits; refusal/de-risking events
Partner alignment and external compliance gravity	Reduces substitution to alternative high-trust corridors	Political feasibility; differing partner priorities	Share of aligned actions; observed third-country service withdrawal; risk-premium proxies

Authorship: analytical framework (this report) was prepared on the basis of Section 3.2.1 and 3.3.1–3.3.3

A second table (Table 3.3.4-2) provides an implementation-focused typology of bridge architecture and the corresponding EU intervention points, making explicit how settlement corridors and enabling services can be targeted without relying on maximalist restrictions.

Table 3.3.4-2. Bridge architecture typology (financial interface) and EU intervention points (2026–2030)

Bridge architecture element	Typical operational role in circumvention	EU intervention point (policy tool)	Most relevant risk if not addressed
Third-country “bridge banks”	Settlement and correspondent substitution for Russia-linked flows	Transaction bans; targeted restrictions; partner alignment	Corridor normalisation; scalable settlement restoration
Multi-hop correspondent chains	Opacity and layering for payments to sanctioned exposure	Guidance tightening; enforcement signals; facilitator listings	Reduced visibility; higher leakage; weak deterrence
Currency substitution rails	Reduced use of EUR/USD corridors; increased routing through “other” currencies	Target enabling services; focus on bridge nodes rather than currency per se	Monitoring difficulty; misread effectiveness
Fintech/crypto service layer	Obfuscation and niche routing; support to procurement networks	Service prohibitions; provider targeting; rapid updates	High adaptation; persistent grey corridor
Corporate service and proxy ownership layer	Beneficial ownership opacity enabling payments and procurement	Network listings; BO enforcement; facilitator targeting	Fast substitution; weak attribution; evidence delays

Authorship: analytical framework (this report) was prepared on the basis of analytical typology to support monitoring and targeting

In summary, the financial sanctions track is prospectively robust through 2030 because it constrains the system-wide interfaces that sustain war-enabling economic activity, but it is also uniquely sensitive to adaptation speed and to the stability of third-country bridge corridors. The highest-value strategy is therefore selective and network-oriented: maintain core financial constraints, target scalable facilitators with an EU nexus, integrate trade-finance disruption with export controls and logistics enforcement, and preserve compliance gravity through coherent guidance and enforcement signals. Where these conditions are met, financial sanctions can continue to deliver durable structural pressure—primarily by raising costs, increasing uncertainty, and reducing scalability of external

financial operations—while reinforcing the cumulative effectiveness of energy, technology, and logistics measures.

### 3.3.5. Energy Sanctions (2026–2030) — Prospectiveness and Constraints

Energy sanctions remain central to the EU’s economic-pressure architecture over 2026–2030 because Russia’s oil and gas exports continue to underpin the fiscal and external buffers that sustain a war-enabled economic model. The prospectiveness of this block is not determined solely by formal prohibitions (embargoes) but by whether the sanctions regime can systematically compress rent capture through a combined mechanism of (1) service-layer restrictions (insurance, shipping services, brokering and related maritime enabling services), (2) price mechanisms (price-cap architecture where applicable), and (3) anti-circumvention engineering (shadow fleet growth, blending, re-exports, flag-hopping, and ship-to-ship transfers). In a mature sanctions’ environment, effectiveness increasingly manifests as a persistent “sanctions wedge” between global benchmarks and Russia’s realised prices, together with higher logistics and compliance costs that reduce the scalability of circumvention corridors. This implies that the primary evaluative question for 2026–2030 is whether the EU can keep circumvention structurally costly, rather than whether it can eliminate exports altogether.

From a prospectiveness standpoint, energy sanctions retain two durable advantages. First, they target the fiscal nerve of the war economy: price and services constraints translate into lower net revenues, particularly as large buyers demand discounts as compensation for sanctions risk and compliance complexity. Secondly, the EU and partners retain leverage over a significant portion of the global maritime services layer (insurance, certification, brokering, compliance-facing services), which makes the sanctions regime prospectively valuable even under redirection of flows to non-EU markets. Where service-layer enforcement remains credible, circumvention can persist but at materially higher cost and risk, sustaining rent compression over time. Conversely, if the shadow fleet and parallel services ecosystem becomes normalised and sufficiently deep, the system can drift from a “pressure” regime towards a “risk tax” regime in which Russia continues to export while paying discounts and higher transaction costs—still pressure-inducing, but less predictable and more dependent on global price cycles.

A forward-looking assessment of budget-relevant outcomes over 2026–2030 therefore needs to consider two variables jointly: (1) global benchmark prices and (2) the sanctions-induced discount and cost wedge. For oil, the key driver is the difference between Brent (global benchmark) and Russia’s realised Urals price, which captures sanctions risk, logistics, insurance/compliance costs, and market power dynamics in destination markets. For gas, the picture is structurally more constrained: Russia’s loss of the high-margin European pipeline segment and the limits to rapid re-orientation mean that revenue prospects are increasingly shaped by infrastructure constraints and market conditions, alongside benchmark price dynamics. In that context, a futures-based outlook for European benchmark gas prices is analytically useful because the European market historically generated outsized rents; its structural reconfiguration therefore affects the upper bound of Russia’s gas monetisation potential.

To anchor this analysis, the report provides two “fact + outlook” tables (2020–2030) and corresponding charts: one for oil benchmarks and the Russia discount (Table 3.3.5-1 and Figure 3.3.5-1), and one for the EU gas benchmark outlook (Table 3.3.5-2 and Figure 3.3.5-2). The tables are designed to be audit-ready: factual series are sourced from named institutions, while the outlook path is explicitly labelled as either a published forecast (EIA/IMF) or an author interpolation/extension used solely to complete the 2026–2030 scenario baseline.

Table 3.3.5-1. Oil (2020–2030): Brent benchmark, Urals realised price, discount, and forward scenarios

Year	Brent (global, \$/bbl)	Urals (avg, \$/bbl)	Discount (Brent–Urals, \$/bbl)	Urals scenario (Brent–15, \$/bbl)	Urals scenario (Brent–20, \$/bbl)
2020	43.33	41.7	1.63	—	—
2021	70.83	69.0	1.83	—	—
2022	99.00	76.1	22.90	—	—
2023	82.32	63.0	19.32	—	—
2024	79.91	67.9	12.01	—	—
2025	68.32	55.6	12.72	—	—
2026	58.00	—	—	43.0	38.0
2027	53.00	—	—	38.0	33.0
2028	55.00	—	—	40.0	35.0
2029	55.00	—	—	40.0	35.0
2030	55.00	—	—	40.0	35.0

Authorship: analytical framework (this report) was prepared on the basis of data collation and scenario construction; facts from cited sources; scenario extension explicitly noted

Source (Brent, 2020–2025 actual): IMF Primary Commodity Prices via FRED series POILBREUSDA (annual). <https://fred.stlouisfed.org/data/POILBREUSDA.txt>

Source (Urals, 2020–2025 actual): Oxford Institute for Energy Studies (OIES), *The Inflection Point: Russia’s oil and gas revenues in 2025*, Table 1. <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2026/02/Comment-Russian-Oil-and-Gas-2025.pdf>

Source (Brent, 2026–2027 forecast): U.S. EIA, *Short-Term Energy Outlook* (Brent outlook). [https://www.eia.gov/outlooks/steo/pdf/steo\\_full.pdf](https://www.eia.gov/outlooks/steo/pdf/steo_full.pdf)

Discount range context: IMF WEO Commodity Special Feature (discount reference). <https://www.imf.org/-/media/files/research/commodityprices/weospecialfeature/october-2024-commodity-special-feature.pdf>

Note (scenario construction): 2028–2030 Brent is an author extension (flat continuation) used for scenario completeness; Urals scenarios apply –15/–20 \$/bbl to that baseline.

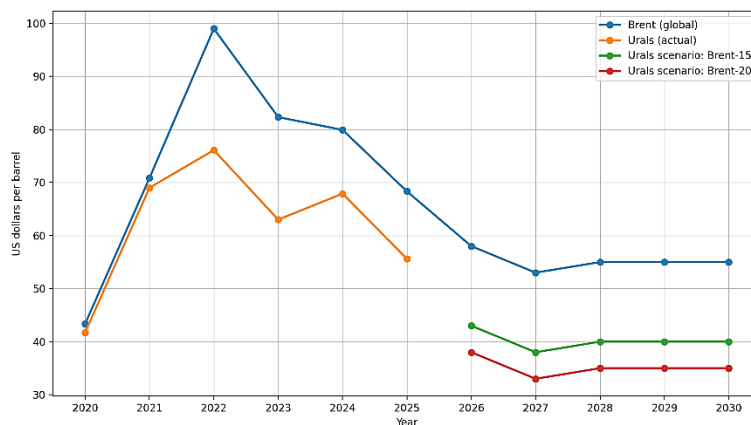


Figure 3.3.5-1. Oil price benchmarks and Russia discount (2020–2030) (Prepared according to Table 3.3.5-1)

Table 3.3.5-1 supports three budget-relevant implications for 2026–2030. First, the sanctions environment has produced a persistent and sometimes large discount between Brent and Urals since 2022, indicating sustained rent compression even when global prices are elevated. Secondly, the

interaction between benchmark price levels and discount magnitude is decisive: under lower benchmark prices, a fixed discount consumes a larger share of net rent, making the fiscal effect of sanctions more acute. Thirdly, the key enforcement frontier is not only volume restriction but the ability to keep the discount and compliance/logistics cost wedge structurally present through service-layer controls and anti-circumvention action; where the wedge is maintained, budget-linked oil revenues are more likely to degrade through 2026–2030 even if exports continue.

For gas, the prospect of revenue recovery is structurally constrained by market reconfiguration. Russia’s loss of the highest-margin European pipeline segment and the limited speed at which alternative routes and demand can be scaled imply that gas monetisation is more exposed to infrastructure bottlenecks and political/logistics risks. A futures-based benchmark outlook is therefore relevant as a proxy for the broader market environment in which gas rent could be generated. The IMF’s outlook indicates a gradual decline in the European benchmark (TTF) over the decade, implying a less supportive price environment by 2030 relative to the 2021–2022 extremes. This does not, by itself, measure Russia’s realised gas price, but it anchors the direction of the external price environment and therefore the potential ceiling for rent generation in the high-value European benchmark space.

Table 3.3.5-2. Gas (2020–2030): EU gas benchmark (TTF/EU proxy)—actuals and futures-based outlook

Year	EU gas benchmark (IMF/FRED, \$/MMBtu)
2020	3.18
2021	15.91
2022	37.52
2023	12.88
2024	10.89
2025	11.91
2026	11.36
2027	10.62
2028	9.88
2029	9.14
2030	8.40

*Authorship: analytical framework (this report) was prepared on the basis of data collation and interpolation for the outlook years; facts from cited sources; interpolation explicitly noted*

*Source (2020–2025 actual):* IMF Primary Commodity Prices via FRED series PNGASEUUSDA (annual). <https://fred.stlouisfed.org/data/PNGASEUUSDA.txt>

*Source (2030 anchor; futures-based statement):* IMF WEO Commodity Special Feature (Oct 2025) notes TTF averaging \$12.1/MMBtu in 2025 and declining to \$8.4/MMBtu in 2030. <https://www.imf.org/-/media/files/publications/weo/2025/october/english/commodityspecialfeature.pdf>

*Note (outlook construction):* 2026–2029 values are an author interpolation between IMF’s cited 2025 and 2030 points (linear path for an audit-friendly baseline).

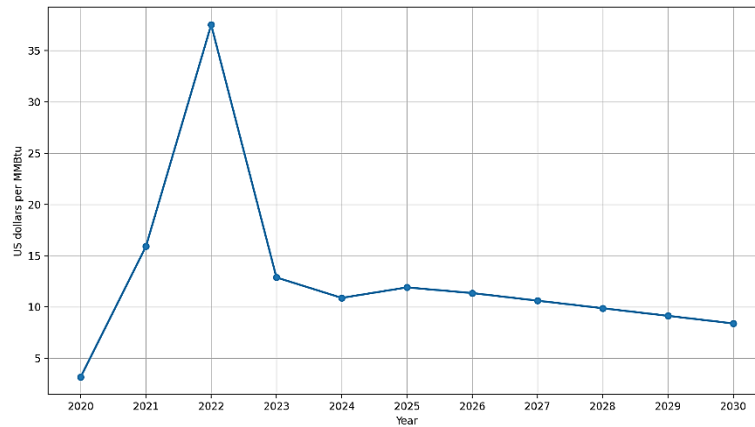


Figure 3.3.5-2. EU gas benchmark actuals and IMF futures-based outlook (2020–2030)  
(Prepared according to Table 3.3.5-2)

Taken together, the oil and gas outlook tables support a coherent 2026–2030 prospectiveness judgement. For oil, the sanctions regime can continue to deliver rent compression if it maintains the services-denial perimeter and constrains the scalability of the shadow fleet and associated intermediaries. Under a moderate-to-lower benchmark price path, persistent discounts materially degrade price-realised revenue potential. For gas, the structural loss of premium European routes combined with a declining benchmark outlook implies a weaker rent environment, making large-scale recovery of pre-2022 gas rents less plausible without major infrastructure reconfiguration and risk reduction. In both cases, the binding constraint is increasingly enforcement tempo and anti-circumvention engineering: if the shadow services ecosystem becomes stable and low-risk, the discount and cost wedge may shrink; if enforcement remains credible, the wedge persists, sustaining fiscal-resource compression.

For additional budget context, OIES estimates that Russia’s oil and gas revenues in 2025 were around RUB 8.5 trillion (about USD 101.4 billion) and around 23% of total federal budget revenues. This implies that sustained rent compression remains strategically relevant for limiting the fiscal capacity to sustain war expenditure levels through 2026–2030.

### 3.3.6. Trade-Industrial and Technology Restrictions (2026–2030) — Prospectiveness and Constraints

Trade-industrial and technology restrictions—especially dual-use and advanced technology export controls—are among the most prospectively valuable sanctions instruments over 2026–2030 because they operate through capability ceilings rather than short-term trade disruption alone. Their central purpose is to degrade Russia’s ability to sustain a war-enabled industrial conversion model by denying or constraining access to critical inputs (advanced electronics, machine tools, software, optical components, aviation parts, semiconductor manufacturing and test equipment) that underpin modern manufacturing, precision engineering, and military production. Unlike commodity sanctions, which depend heavily on global price cycles, technology restrictions compound through time: deferred maintenance accumulates, substitution quality declines, and the cost of production and repair rises. This makes the technology track structurally important for a long horizon, because it targets the reproducibility of capability. In practical terms, effectiveness is measured by whether restrictions meaningfully limit the availability, scalability, and reliability of high-priority goods and enabling services, and whether circumvention corridors remain unstable and costly.

A key advantage of the technology track is its ability to impose asymmetric pressure: a relatively small set of inputs can be disproportionately decisive for complex production chains. Microelectronics, navigation and communications components, optics, and precision machining are “small by weight, large by function”. Denial or disruption in these categories has cascading effects across aerospace, missile production, UAV systems, industrial automation, energy equipment maintenance, and higher-end machine building. This is precisely why the EU and partners have formalised a “common high-priority items” approach that links battlefield evidence to export control prioritisation and due diligence. The fact that a finite set of HS-coded items can be identified as repeatedly appearing in Russian weapons systems is itself a strategic advantage: it allows enforcement to concentrate on a tractable set of chokepoints rather than dispersing resources across the entire trade universe.

At the same time, the technology track is also the most adaptation-sensitive segment of economic sanctions. The principal constraint is not that Russia can “replace” high-end Western technology domestically at scale; rather, it is that Russia can attempt to re-route restricted items through third-country hubs and grey procurement networks. The defining feature of the 2022–2025 evolution has been the movement from direct EU-Russia trade to more complex, intermediated routes. This shifts the enforcement problem from “export ban compliance” to “end-use integrity”: the same item can appear in Russia despite legal restrictions if it moves through brokers, re-exporters, or concealment structures. Over 2026–2030, prospectiveness therefore depends on whether the EU can maintain a high-tempo anti-circumvention cycle: identify hubs and facilitators, tighten controls on enabling services, and reduce arbitrage created by jurisdictional variance.

A useful baseline indicator of the technology track’s effect is the collapse of direct EU exports to Russia in machinery and manufactured categories after 2021. The European Commission’s DG TRADE country factsheet (Eurostat Comext-based) documents a sharp reduction in EU exports to Russia overall and in key industrial sections between 2021 and 2024. This is not merely a macro trade statistic; it is direct evidence that the legal prohibitions and corporate exit behaviour have significantly reduced Russia’s access to EU-origin industrial goods through the most transparent corridor. Table 3.3.6-1 consolidates the core export sections relevant to industrial capability (machinery and transport equipment; manufactured materials; miscellaneous manufactures) and a control category (food), illustrating the selective nature of the contraction. The pattern is consistent with the sanctions design: high-tech and industrial categories contracted far more sharply than humanitarian-adjacent categories.

Table 3.3.6-1. EU exports to Russia by selected SITC sections (2021–2024; EUR million)

SITC section	2021(EUR mn)	2022 (EUR mn)	2023 (EUR mn)	2024 (EUR mn)	Change 2021→2024 (%)
5 Chemicals and related products	20,063	18,138	14,673	13,732	-31.6
7 Machinery and transport equipment	39,437	16,034	7,225	4,115	-89.6
8 Miscellaneous manufactured articles	10,534	6,725	5,810	4,943	-53.1
6 Manufactured goods (chiefly by material)	9,004	5,124	2,978	2,110	-76.6
0 Food and live animals	3,994	3,929	3,627	3,361	-15.8
<b>Total exports (all goods)</b>	<b>89,169</b>	<b>55,005</b>	<b>38,142</b>	<b>31,547</b>	<b>-64.6</b>

Authorship: analytical framework (this report) was prepared on the basis of data extracted and consolidated from European Commission DG TRADE factsheet, Eurostat Comext

Source:

- European Commission (DG Trade and Economic Security), European Union, Trade in goods with Russia (Eurostat Comext, statistical regime 4), “Trade flows by SITC section 2021–2024”. [https://webgate.ec.europa.eu/isdb\\_results/factsheets/country/details\\_russia\\_en.pdf](https://webgate.ec.europa.eu/isdb_results/factsheets/country/details_russia_en.pdf)

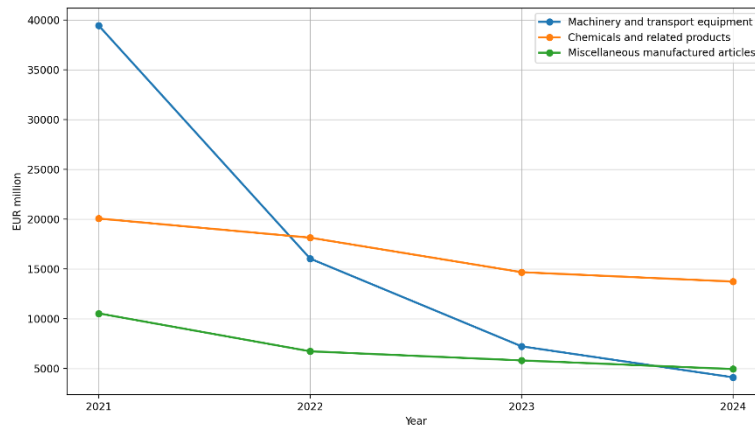


Figure 3.3.6-1. EU exports to Russia by selected SITC sections (2021–2024)  
(Prepared according to Table 3.3.6-1)

The evidence in Table 3.3.6-1 and Figure 3.3.6-1 supports two analytical conclusions relevant to 2026–2030. First, the direct EU supply channel for machinery and transport equipment—a core industrial capability input—has been largely shut down in value terms since 2021. Secondly, the differential reduction across categories indicates that sanctions and corporate controls have operated with a high degree of selectivity: critical industrial sections collapsed while food exports remained comparatively stable. This selectivity improves coalition sustainability by limiting unnecessary spillovers, but it also shifts the enforcement frontier outward: as direct EU exports decline, the relative importance of re-export monitoring and third-country hub disruption rises.

The next structural question is whether Russia can compensate for lost EU-origin industrial inputs through alternative origins and routes in a way that restores capability at scale. The evidence points to partial substitution, especially for microelectronics, but with important constraints. Microelectronics supply is not simply a matter of replacing one seller with another; it requires stable access to advanced components, procurement networks, testing and manufacturing equipment, and the engineering competence to integrate those components into military and industrial systems. In the sanctions period, multiple public investigations have highlighted that Western-origin components continue to appear in Russian weapons systems, suggesting that the binding problem is not “availability somewhere in the world” but “control over distribution and end-use”. A notable example is the U.S. Senate Permanent Subcommittee on Investigations report (2024), which documents the presence of U.S.-made semiconductors in Russian weapons systems and discusses supply-chain pathways and enforcement limitations. This evidence underscores why the 2026–2030 challenge is enforcement density and corridor closure, not merely the existence of export bans.

A practical way to represent the “corridor shift” is to examine where Russia sources critical components such as integrated circuits. OEC trade data for 2024 shows Russia importing integrated circuits primarily from Hong Kong and China, followed by smaller volumes from Thailand, India and Turkey. While such data does not prove circumvention on its own—some goods may be non-restricted or legitimately supplied—it provides an operationally relevant signal of reorientation towards intermediary trade hubs. This is precisely the behaviour that the EU’s anti-circumvention framework aims to address: restrict Russia’s access to sanctioned advanced technology items and reduce the ability of third-country corridors to deliver them.

Table 3.3.6-2. Russia imports of integrated circuits — top origins (2024; USD million)  
(Prepared according to the data collation from OEC)

Partner	2024 imports (USD mn)	Share of listed partners (%)
Hong Kong	172.00	58.0
China	99.70	33.6
Thailand	11.40	3.8
India	8.63	2.9
Turkey	4.75	1.6

Authorship: analytical framework (this report) was prepared on the basis of official EU institutional materials, EU legal acts and documents

Source:

- OEC World, “Integrated Circuits in Russia Trade” (2024 import origins). <https://oec.world/en/profile/bilateral-product/integrated-circuits/reporter/rus>

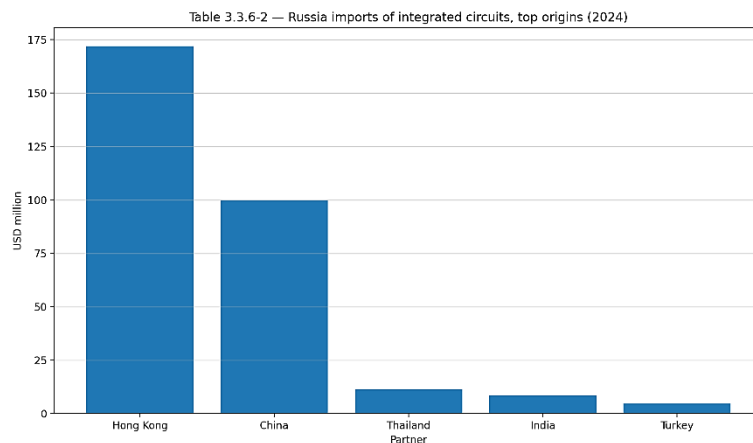


Figure 3.3.6-2. Russia imports of integrated circuits — top origins (2024)  
(Prepared according to Table 3.3.6-2)

The pattern in Table 3.3.6-2 supports a forward-looking enforcement implication: the technology track’s prospectiveness in 2026–2030 will depend heavily on the EU’s capacity to reduce the reliability of hub-mediated corridors—particularly where goods are routed through jurisdictions and commercial platforms that can supply mixed provenance. This does not require the EU to police global trade exhaustively; it requires targeted action on high-priority HS codes, on enabling services (trade finance, logistics, brokering, and corporate services), and on repeated facilitators. In practice, the most effective policy design is “high-signal targeting”: concentrate enforcement effort on the subset of items that are repeatedly identified as battlefield-relevant and on the intermediaries that repeatedly appear in circumvention networks.

This is precisely why the EU and partners have formalised the Common High Priority Items list. The document explicitly states that the list is divided into tiers and comprises 50 HS codes that are sanctioned under Regulation 833/2014 and involved in Russian weapons systems used against Ukraine (or critical to their development and production), including missile and UAV systems. From a sanctions-engineering standpoint, this approach provides three advantages for 2026–2030: it narrows the enforcement problem to a manageable set; it creates a shared language for partner coordination and customs risk-scoring; and it enables a structured, tiered due diligence model for exporters and intermediaries.

Table 3.3.6-3. EU & partners: Common High Priority Items (HS codes by Tier)

Tier	HS codes (count)	Illustrative examples (HS codes)
Tier 1	4	8542.31, 8542.32, 8542.33, 8542.39 (integrated circuits)
Tier 2	5	8517.62, 8526.91, 8532.21, 8532.24, 8548.00 (comms & components)
Tier 3.A	16	8471.50, 8504.40, 8525.89, 8536.69, 8541.xx (electronics & connectors)
Tier 3.B	9	8482.xx, 8807.30, 9013.xx, 9014.xx (bearings, aircraft parts, optics)
Tier 4.A	11	8486.xx, 8534.00, 9030.xx, 9030.82 (semiconductor manufacturing/testing)
Tier 4.B	5	8457.10, 8458.xx, 8459.61, 8466.93 (CNC machine tools & parts)

Authorship: analytical framework (this report) was prepared on the basis of structured extraction and summarisation from the Commission services list, February 2024

Source:

- European Commission services, List of Common High Priority Items (Version of February 2024). [https://finance.ec.europa.eu/system/files/2023-09/list-common-high-priority-items\\_en.pdf](https://finance.ec.europa.eu/system/files/2023-09/list-common-high-priority-items_en.pdf)

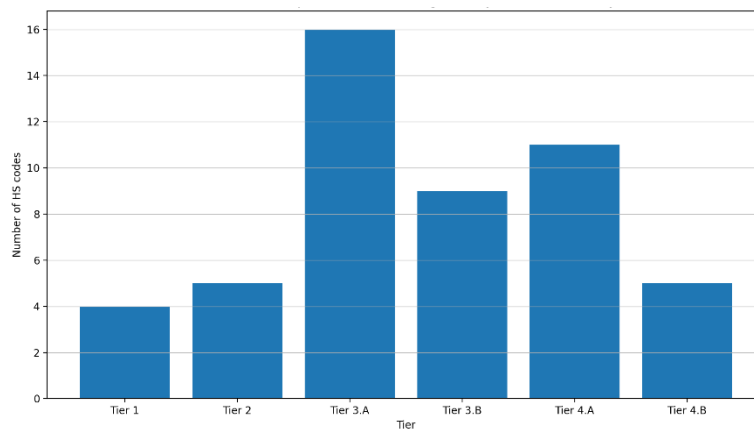


Figure 3.3.6-3. Common High Priority Items — number of HS codes by Tier (Prepared according to Table 3.3.6-3)

The tier structure in Table 3.3.6-3 and Figure 3.3.6-3 is analytically useful for prospectiveness because it implies a prioritised enforcement hierarchy. Tier 1 is microelectronics—high leverage, low mass, high battlefield relevance—where even small volumes matter. Tier 4 is production and testing equipment and CNC tooling—items that affect Russia’s ability to industrialise and scale production domestically. This maps directly to the long-horizon capability-ceiling logic: if Russia cannot reliably obtain high-end machine tools and semiconductor manufacturing and test equipment, it may be able to maintain certain levels of production, but it will struggle to modernise, scale, and reduce defect rates, especially in high-precision segments. Over 2026–2030, the regime’s value is therefore highest where enforcement is aligned to these tiers: strong scrutiny and rapid response for Tier 1 and Tier 4, coupled with systematic monitoring of re-export patterns.

The principal constraint remains circumvention through re-export hubs and document manipulation. The EU has explicitly framed its sanctions approach around bans and restrictions on exports of goods—particularly dual-use and advanced technology items—under the Russia sanctions regime, highlighting the breadth of goods categories subject to restrictions. In a mature regime, however, the enforcement problem becomes less about whether the EU bans exports and more about whether the EU and partners can prevent their territories and companies from being used as channels for re-export and diversion. This

is why the Commission services emphasise that the high-priority list may support due diligence and targeted anti-circumvention actions by customs and enforcement agencies. Over 2026–2030, this requires a continuous typology-to-measure pipeline: (1) detect anomalies; (2) identify facilitators; (3) tighten controls; (4) measure the lag; repeat.

A second constraint is the structural difference between volume-based and capability-based impact. Even if Russia can import some volume of electronics from alternative origins, the capability impact depends on whether those imports include high-performance chips, whether they meet specification, whether they can be integrated, and whether supply is reliable. The Senate report’s emphasis on Western-made components in Russian systems illustrates why enforcement must focus not only on headline trade values but on specific items and supply chains. Russia may sustain a flow of components, but with higher procurement costs, quality variability, and greater exposure to disruption as nodes are targeted. This is exactly the structural pressure mechanism: degrade reliability and scale rather than assume immediate cessation.

A third constraint is the services layer of industrial trade—maintenance, software updates, engineering support, calibration and certification—where restrictions can degrade capability even if hardware is partially substituted. Industrial systems are not purely hardware-dependent; they require ongoing support and integration. Over 2026–2030, the sanctions regime remains prospectively valuable where it constrains these enabling services. However, the services layer is also harder to measure and police than goods trade, which increases reliance on compliance gravity and targeted enforcement actions against intermediaries. In practical terms, the most effective approach links goods restrictions to service restrictions and financial constraints: if trade finance and logistics services are constrained, the cost of maintaining grey supply chains rises.

A fourth constraint is coalition and partner alignment. Export controls are strongly path-dependent: if a critical mass of advanced technology producers and financial service hubs align, circumvention becomes costly and unreliable; if alignment weakens or enforcement diverges, corridors normalise. The EU’s prospectiveness therefore depends on continued coordination with key partners and on maintaining a shared high-priority enforcement agenda. The existence of a “common” high-priority list is itself a signal of this alignment strategy. In 2026–2030, the marginal gains will increasingly come from joint actions on diversion hubs and repeated facilitators, rather than from broadening product bans alone.

A fifth constraint is data visibility and methodological integrity. As trade re-routes through intermediaries, data become noisier; mirror statistics are essential, but lagged. This implies that an audit-ready monitoring model must triangulate multiple datasets and accept that some indicators are proxy-based. The virtue of the tiered high-priority framework is that it allows enforcement to operate under uncertainty: even without perfect visibility, focusing on the most critical HS codes reduces the risk of dispersing effort. Over time, the regime’s credibility depends on the ability to show intermediate effects: reductions in direct EU exports (Table 3.3.6-1), shifts in sourcing patterns (Table 3.3.6-2), and evidence-based prioritisation of controls (Table 3.3.6-3).

To operationalise the prospectiveness and constraints picture for 2026–2030, Table 3.3.6-4 provides a corridor-focused typology that links the main circumvention mechanisms for high-priority goods to practical indicators and EU intervention points. This table is not a legal inventory; it is a targeting and monitoring tool designed to support the next stage of the report (3.3.8–3.3.11) by turning abstract “circumvention risk” into observable signatures and policy levers.

Table 3.3.6-4. Technology/export-control circumvention corridors (2026–2030): mechanisms, indicators, and EU intervention points

Corridor / typology	Operational mechanism	Observable signatures (examples)	EU intervention points (examples)
Re-export via hub jurisdictions	High-priority goods exported to hubs then diverted to Russia	Sudden partner import spikes in Tier 1/4 HS codes; mirror-trade anomalies	Targeted anti-circumvention actions; enhanced due diligence guidance; facilitator listings
Proxy end-users and shell entities	Conceal final user and military linkage	Repeated reuse of nominee directors; rapid corporate restructuring	Network-based listings; beneficial ownership enforcement; services restrictions
Misclassification / documentation manipulation	Change HS codes or invoices to reduce scrutiny	Discrepancies between exporter and importer reporting; abnormal unit values	Customs risk scoring using Tier lists; targeted audits; enforcement casework
Trade-finance intermediation	Payments routed through bridge banks; trade finance supports diversion	Concentration of flows through a small set of intermediaries	Bridge-node targeting in finance; transaction bans on facilitators (where applicable)
Grey-market component aggregation	Small shipments aggregated and integrated into systems	High frequency of small consignments; proliferation of micro-suppliers	Tier 1/2 enforcement focus; rapid update cycle on facilitators
Tooling and production equipment sourcing	Import of CNC tools and test equipment enables domestic scaling	Growth in Tier 4 HS codes via hubs; procurement-network signatures	Tighten Tier 4 scrutiny; targeted actions on machine-tool and test-equipment corridors

*Authorship: analytical framework (this report) was prepared on the basis of analytical typology; anchored in EU sanctions design and the Common High Priority Items framework*

*Source (policy basis and priority items):* European Commission services, List of Common High Priority Items (Feb 2024). [https://finance.ec.europa.eu/system/files/2023-09/list-common-high-priority-items\\_en.pdf](https://finance.ec.europa.eu/system/files/2023-09/list-common-high-priority-items_en.pdf)

*Source (EU export bans framing):* European Commission, “Import and export bans”.

[https://commission.europa.eu/topics/eu-solidarity-ukraine/eu-sanctions-against-russia-following-invasion-ukraine/import-and-export-bans\\_en](https://commission.europa.eu/topics/eu-solidarity-ukraine/eu-sanctions-against-russia-following-invasion-ukraine/import-and-export-bans_en)

Overall, the prospectiveness judgement for 2026–2030 is that trade-industrial and technology restrictions remain structurally high-value because they degrade capability through time, but their marginal effectiveness will increasingly be determined by anti-circumvention engineering rather than by additional category bans alone. The most credible pathway to sustained effectiveness is a tiered enforcement strategy anchored in the common high-priority list: (1) concentrate on microelectronics, comms/navigation components, bearings/optics/aircraft parts, and production/testing equipment; (2) run continuous anomaly detection; (3) target facilitators and hubs; and (4) measure response lag. In this model, success is not defined as the complete absence of restricted goods in Russia—an unrealistic standard in a global economy—but as a sustained increase in procurement costs, reduced reliability of supply, degradation of industrial scaling potential, and persistent disruption of the supply chains that convert imported components into military and industrial capability.

### 3.3.7. Transport and Logistics Restrictions (2026–2030)—Prospectiveness and Constraints

Transport and logistics restrictions remain one of the most strategically consequential elements of the EU sanctions architecture over 2026–2030 because they target the physical and service-layer feasibility of Russia’s external trade and revenue model. In practice, Russia can sustain significant export volumes only if it can (1) access ships, routes, port services, and insurance; (2) maintain compliant or at least functional documentation and counterparties; and (3) preserve enough operational reliability to avoid catastrophic disruption (accidents, detentions, service refusal). The transport domain therefore acts as

a “real economy interface”: it operationalises sanctions outcomes through friction in shipping, aviation, and logistics services rather than through financial rules alone. It is also highly cross-domain: restrictions in maritime services underpin energy rent compression; logistics constraints reinforce export controls by disrupting re-export and diversion channels; aviation restrictions degrade domestic connectivity and supply-chain reliability; and road/rail measures shape regional routing. For 2026–2030, the prospectiveness of this domain depends less on the existence of formal bans (which already exist) and more on the EU’s capacity to keep circumvention corridors expensive, risky, and unstable.

A central reason transport sanctions remain prospectively valuable is that the global logistics system is service-intensive and compliance-mediated. Shipping is not merely ships; it is a stack of enabling services—insurance and reinsurance, ship management, classification, certification, brokering, and port services—where the EU and partners retain significant leverage. Where that leverage is used coherently, transport restrictions can compress Russia’s net export rents even without eliminating volumes. Where it is not used coherently, the system can drift towards a “shadow normal” equilibrium in which Russia continues to export at scale using older tankers, opaque ownership structures, and non-transparent insurance, paying a discount and a risk premium. That outcome still imposes costs, but it becomes less predictable and more sensitive to global price cycles and enforcement tempo. The question for 2026–2030 is therefore whether the EU can prevent the “shadow equilibrium” from becoming sufficiently stable and scalable to undermine the intended rent compression and capability-denial effects.

Maritime restrictions are the decisive sub-domain, because seaborne routes are critical for oil exports and for large segments of import logistics. The evolution of Russia’s “shadow fleet” illustrates both the effectiveness and the constraint profile of the transport track. The Centre for Research on Energy and Clean Air (CREA) monthly monitoring shows that by late 2025 and early 2026, the majority of Russian crude exports were transported by shadow/sanctioned vessels rather than by G7+ tanker fleets. For example, CREA reports that in January 2025 shadow tankers carried 84% of Russian seaborne crude oil, while price-cap coalition tankers carried 16%. By September 2025, the share of shadow tankers rose to 69% (G7+ 31%), and in December 2025 shadow vessels carried 68% (G7+ 26%). In January 2026, CREA reports that 68% of crude exports were carried by sanctioned shadow tankers and 8% by non-sanctioned shadow tankers, with G7+ tankers carrying 24% of crude exports. This dataset is operationally important because it directly measures the degree to which Russia has substituted away from the most compliance-visible corridors and towards a higher-risk logistics model.

The implication is not that sanctions have “failed”; rather, the transport restrictions have pushed Russia into a higher-risk, less transparent shipping regime. That shift remains prospectively valuable for 2026–2030 because it raises the probability of (1) service denial, (2) detentions and disruptions, (3) operational failures, and (4) higher cost of insurance and financing. However, it also highlights the main constraint: if the shadow fleet becomes large and sufficiently routinised, it can preserve export volumes and thus preserve substantial revenue flows. This is why the transport domain is increasingly governed by a tempo-and-closure logic: the marginal gains lie in tightening the services perimeter and targeting the nodes that make shadow logistics scalable (owners, managers, insurers, and facilitators), rather than relying on static bans alone.

To provide an audit-ready quantitative view of this dynamic, Table 3.3.7-1 consolidates the shadow vs G7+ shares for selected months. This is a factual consolidation from CREA reporting and is intended to function as a monitoring baseline for 2026–2030.

Table 3.3.7-1. Share of Russian seaborne crude transported by shadow vs G7+ tankers (selected months)

Period	Shadow tankers share of seaborne crude (%)	G7+ tankers share of seaborne crude (%)	Notes
Jan 2025	84	16	Shadow carried 84% of crude; price-cap tankers 16%

Period	Shadow tankers share of seaborne crude (%)	G7+ tankers share of seaborne crude (%)	Notes
Sep 2025	69	31	Shadow share rose to 69%
Dec 2025	68	26	Shadow 68%; G7+ 26%
Jan 2026	76	24	Crude: 68% sanctioned shadow + 8% non-sanctioned shadow; G7+ 24%

Authorship: analytical framework (this report) was prepared on the basis of data extracted and consolidated from CREA monthly reports

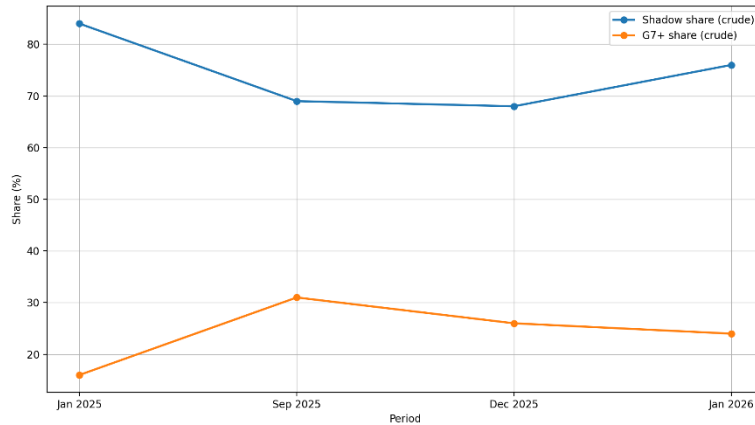


Figure 3.3.7-1. Shadow vs G7+ share of Russian seaborne crude exports (selected months)  
(Prepared according to Table 3.3.7-1)

A second key determinant of prospectiveness is the scale and composition of the shadow fleet itself. Kyiv School of Economics (KSE Institute) estimates that as of Q1 2024, 435 vessels were part of the Russian shadow fleet, comprising 185 crude oil tankers and 250 product tankers, and that this fleet could cover roughly ~60% of crude exports and ~45% of product exports independent of restricted maritime services. This is strategically important because it indicates a potential “capacity floor” for circumvention: even if Western services are tightened, Russia may still retain a significant autonomous shipping capacity through older vessels and opaque ownership structures. The enforcement implication is clear: policy effectiveness in 2026–2030 depends on whether the EU can progressively reduce the operational utility of this fleet—through designation of vessels, targeting of operators and insurers, port access actions, and service-layer denial—so that the shadow fleet does not become a stable substitute at scale.

Table 3.3.7-2. Russian shadow fleet size and composition—2023, 2024, 2025

Reference year / point	Metric definition used by source	Total vessels / tankers (count)	Crude oil tankers	Oil products tankers	Additional notes
2023 (Aug 2023)	“Russian shadow fleet tankers carrying crude and oil products from Russian ports” (unique tankers, Aug 2023)	156	n/a	n/a	KSE reports 156 shadow tankers (crude + products) in Aug 2023; it also reports crude-carrying shadow tankers at 79 and oil-products shadow tankers at 77 in Aug 2023 (reported separately).
2024 (Q1 2024)	“Vessels’ part of the Russian shadow fleet” (ownership / management / insurance)	435	185	250	KSE states this fleet could cover ~60% of crude and ~45% of product

Reference year / point	Metric definition used by source	Total vessels / tankers (count)	Crude oil tankers	Oil products tankers	Additional notes
	outside the coalition; price cap does not apply)				exports independent of restricted maritime services.
2025 (Aug 2025)	“Russian shadow fleet tankers transporting crude oil and oil products departed from Russian ports and were involved in STS transfers” (monthly operational count)	155	n/a	n/a	KSE reports 155 shadow fleet tankers in Aug 2025 (86% over 15 years old) involved in STS transfers.
2025 (Dec 2025)	“Loaded Russian shadow fleet tankers with crude and oil products left Russian ports and were involved in STS transfers” (monthly operational count)	173	n/a	n/a	KSE reports 173 loaded shadow fleet tankers in Dec 2025 involved in STS transfers (78% over 15 years old).

*Authorship: analytical framework (this report) was prepared on the basis of data extracted and consolidated from KSE Institute publications; comparability notes included*

*Comparability note (critical): these figures are drawn from different KSE reporting constructs. The 2024 Q1 figure (435) is a fleet stock / definition-based estimate, while the 2023 and 2025 figures (156; 155; 173) are operational monthly counts of tankers observed carrying Russian oil/products and/or involved in STS transfers. They should be read as complementary indicators (stock vs observed activity), not as a perfectly harmonised time series.*

*Sources:*

- KSE Institute, Russian Oil Tracker (Sep 2023) — shadow fleet tankers estimate (Aug 2023).
- KSE Institute, “Assessing Russia’s Shadow Fleet...” (Q1 2024 stock estimate and breakdown).
- KSE Institute (Aug 2025 activity count) referenced via support4partnership summary of KSE Oil Tracker Sep 2025.
- KSE Institute, Russian Oil Tracker (Dec 2025 PDF).

### 3.3.8. Industrial Output Dynamics in Russia for 2025: Sectoral Winners and Losers

This subsection provides a focused set of corporate-level statistical indicators for 2025 that complements the macroeconomic and sectoral evidence presented in earlier parts of the report. While aggregate indicators may suggest short-term stabilisation through fiscal support, reorientation of trade flows and administrative controls, corporate financial reporting offers a more granular perspective on the underlying cost of adaptation. In the sanctions’ context, the corporate layer is particularly informative because it captures the transmission of restrictions into profitability, financing conditions, supply-chain frictions and capital expenditure pressures.

The analysis below relies on net profit/loss figures reported under Russian Accounting Standards (RAS) for January–September 2025. This approach is used as a pragmatic proxy for near-real-time financial stress across large systemically relevant entities and major industrial groups. Although RAS results do not fully mirror IFRS treatment, they remain a useful indicator of operating strain and balance-sheet adjustment within the domestic regulatory environment. In addition, the selected time window (Jan–Sep) is appropriate for identifying stress accumulation during the operational year before year-end accounting effects and extraordinary adjustments.

From an analytical standpoint, the ranking of largest corporate losses should not be interpreted solely as a “performance” metric; rather, it is an indicator of where sanctions-related constraints, reconfiguration costs and financial tightening are being internalised. Large losses in strategic incumbents may reflect a combination of impaired export economics, discounting and intermediation costs, disruptions to technology and services inputs, and a rising cost of capital. In capital-intensive sectors, reported deterioration may also be associated with investment cycles, procurement frictions and the need to sustain continuity under constrained access to critical components and external markets.

Finally, the distribution of losses across sectors provides a structural lens for assessing the effectiveness and limits of Russia’s adaptation mechanisms. A concentrated loss profile—where a small number of major entities account for a disproportionate share of total losses—can imply that fiscal and quasi-fiscal support is increasingly required to stabilise strategic enterprises, while simultaneously reducing the economy’s long-term investment capacity. To operationalise this assessment, the subsection first presents the top loss-makers under RAS for January–September 2025, followed by a concentration metric that illustrates the extent to which financial stress is concentrated within a narrow set of firms.

As shown in Table 3.3.8-1, the largest reported net losses in January–September 2025 are concentrated among a limited number of systemically important enterprises, with a pronounced gap between the top two entities and the remainder of the top-10 cohort. This distribution is used below as a corporate-level proxy for the sectoral localisation of financial stress under the 2025 operating environment. The table 3.3.8-1 summarises the ten largest corporate net losses in Russia for January–September 2025 (RAS), serving as the empirical basis for the subsequent figures and interpretation.

Table 3.3.8-1. Largest Corporate Net Losses in Russia, Jan–Sep 2025

Rank	Company	Sector	Net Loss (RUB bn)
1	Gazprom	Natural Gas / Energy	170.3
2	Rosenergoatom Concern	Nuclear Power Generation	116.3
3	O’Key Group	Retail	41.4
4	KAMAZ	Automotive / Heavy Trucks	29.1
5	Atomenergoprom	Nuclear Energy Holding	26.9
6	United Engine Corporation (UEC)	Aerospace / Defence	26.7
7	Yuzhny Kuzbass	Coal Mining	15.5
8	Ilyushin	Aircraft Manufacturing	13.8
9	Ural Steel	Metallurgy	12.6
10	Segezha Group	Forestry / Pulp & Paper	11.2

Source: Compiled from Russian corporate disclosures (RAS), as reported by Novye Izvestiya, 2025.

Figure 3.3.8-1 indicates a highly uneven distribution of corporate losses across Russia’s large enterprises in January–September 2025 (RAS), with the top two entities alone accounting for a dominant share of the total losses recorded by the “top-10” cohort. The ranking is led by Gazprom (RUB 170.3 bn) and Rosenergoatom Concern (RUB 116.3 bn), followed at a considerable distance by O’Key (RUB 41.4 bn) and then a cluster of industrial and resource companies in the RUB 11–29 bn range. This shape is characteristic of a system where shocks are transmitted asymmetrically: a small number of strategic incumbents absorb a disproportionate financial burden, while the remainder experience smaller—but still material—profitability erosion.

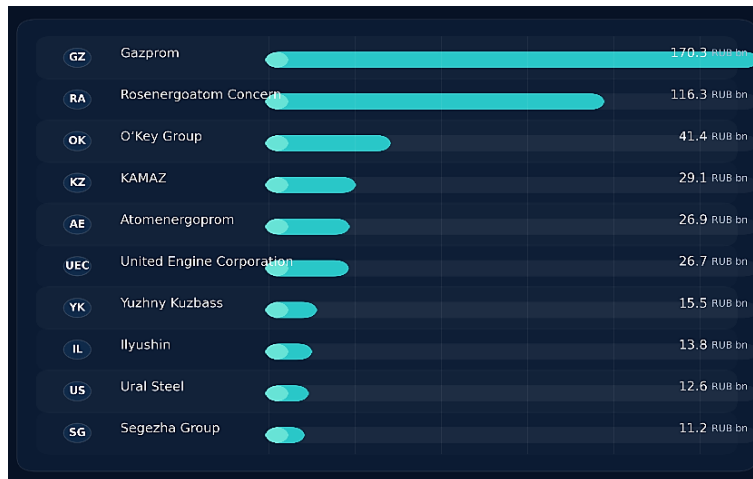


Figure 3.3.8-1 — Top 10 Russian Companies by Net Loss (Jan–Sep 2025, RAS), RUB bn  
 Source: Compiled from Russian corporate disclosures (RAS), as reported by Novye Izvestiya, 2025.

The prominence of Gazprom at the top of the loss distribution is analytically consistent with the structural contraction of Russia’s historically most lucrative gas export channels, particularly towards Europe, and the imperfect substitutability of pipeline-based market access. Even where volumes can be partially redirected, the combination of weaker netbacks, higher transport and intermediation costs, and a more complex payment and settlement environment tends to compress margins. Under RAS accounting, additional factors may be reflected through revaluations, provisioning, and the cost effects of re-engineering supply chains and contract structures—dynamics that often become most visible in large state-linked firms tasked with maintaining system stability irrespective of short-term profitability.

The second-largest loss—Rosenergoatom Concern—and the presence of Atomenergoprom within the top ten suggests that the nuclear segment is experiencing its balance-sheet pressures. This should not be read simplistically as a “sanctions-only” story; rather, it likely reflects a compound of capital intensity, investment cycles, financing conditions, and the fiscal–industrial role of the sector. Nevertheless, restrictions on advanced components, project financing frictions, and wider macro-financial tightening can amplify cost-of-capital and execution risk, which then surfaces as weaker reported results. The appearance of two major nuclear entities in the top-loss group is therefore a signal of strain in Russia’s long-horizon infrastructure complex—precisely the part of the economy that underpins strategic resilience narratives.

A distinct pattern is observed in the mid-tier losses, where KAMAZ, United Engine Corporation, and Ilyushin indicate stress concentrated in heavy manufacturing and the defence-industrial supply chain. In this segment, losses are plausibly driven by a mix of import substitution costs, tooling and certification hurdles, constrained access to high-performance components (notably in engines, avionics, and precision manufacturing), and the operational friction of parallel import routes. Importantly, “higher output” does not mechanically translate into profitability: in many defence-adjacent industries, volumes can rise while unit economics deteriorate, especially if production relies on costly substitutes, accelerated procurement cycles, and the need to maintain continuity under constraints.

The inclusion of Yuzhny Kuzbass (coal), Ural Steel (metallurgy), and Segezha Group (forestry/pulp) points to a second channel of pressure: commodity and semi-finished exporters facing a more adverse trade geography. Even when markets remain open, the combined effect of longer logistics, higher insurance and freight premia, discounting to clear volumes, and episodic payment risk can cumulatively erode profitability. For forestry and pulp, additional vulnerability stems from the loss of certain premium demand segments and technology dependencies in processing, packaging, and equipment renewal. The

result is a “squeeze” profile: firms remain operational, but with weakened margins and reduced capacity for reinvestment.

O’Key introduces a consumer-facing dimension into the loss distribution, indicating that sanctions-linked macro conditions (inflation persistence, interest rates, real disposable income dynamics, and import composition shifts) can translate into retail balance-sheet stress. Retail is also exposed to the reconfiguration of supply chains, availability of branded assortments, and higher working-capital needs. Under a high-rate environment, inventory financing becomes more expensive, and discounting strategies to maintain volumes can directly harm profitability. The presence of retail among strategic-industrial loss-makers therefore reinforces the interpretation of 2025 as a year where both “state-core” and “household-exposed” segments experienced measurable strain.

Figure 3.3.8-2 (concentration) formalises what Figure 3.3.8-1 suggests visually: losses are strongly concentrated in the top names, producing a Pareto-like pattern. The leading firms account for a large portion of total losses within the top-10 set, meaning that systemic financial stress is not evenly distributed but instead anchored in a small number of large, politically and infrastructurally central entities. This concentration has two implications for sanctions analysis. First, the macro impact can be muted in aggregate terms if losses are absorbed through state support, cross-subsidisation, or balance-sheet engineering, even while the microeconomic damage is severe within key firms. Second, concentration increases policy leverage: targeting bottlenecks in finance, technology, shipping/insurance, and high-value services can disproportionately affect the entities that dominate the loss distribution, thereby raising the marginal cost of adaptation.

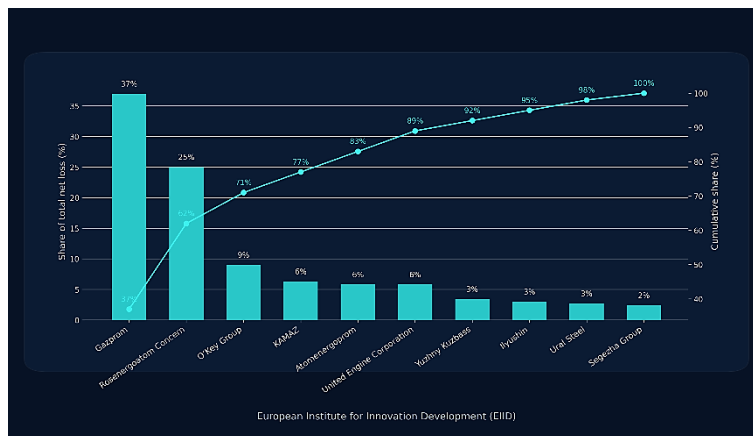
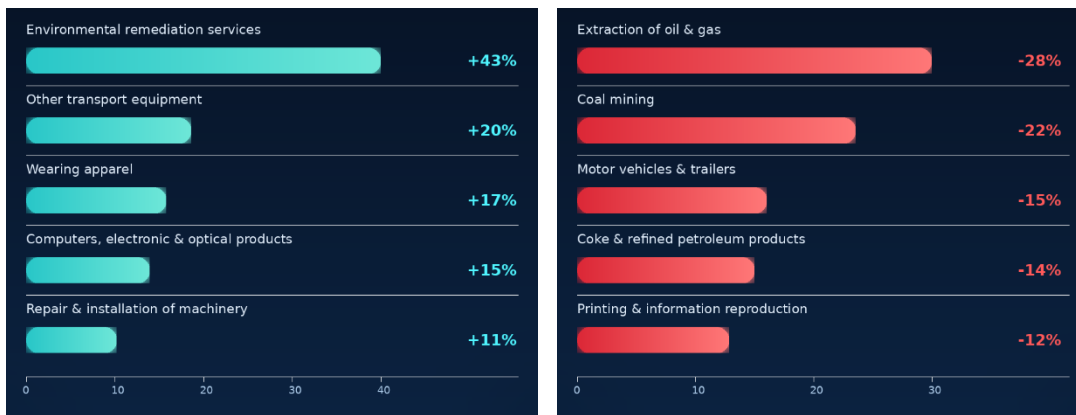


Figure 3.3.8-2 — Concentration of Corporate Net Losses (Top 10), Jan–Sep 2025 (RAS)  
 Source: Compiled from Russian corporate disclosures (RAS), as reported by Novye Izvestiya, 2025.

Overall, the two figures support a structured reading of Russian economic adaptation in 2025: the economy may maintain operational continuity, yet does so with growing financial inefficiency concentrated in flagship incumbents and capital-intensive complexes. For the report’s sanctions logic, this is a crucial distinction: “resilience” in output terms can coexist with deteriorating corporate economics, deferred investment, and the gradual exhaustion of balance-sheet buffers. In this sense, Figure 3.3.8-1 and Figure 3.3.8-2 are not merely descriptive rankings; they provide an empirical lens into where constraints are accumulating—energy export incumbency, nuclear infrastructure, defence-industrial manufacturing, and trade-exposed commodity processing—offering a grounded basis for the subsequent policy discussion in 3.4.

Figures 3.3.8-3 and 3.3.8-4 provide a compact but highly informative snapshot of Russia’s sectoral industrial dynamics in 2025, showing the top five segments with the fastest expansion and the top five segments with the steepest contraction in the volume of shipped industrial output and completed works (% y/y). Read together, the two panels do not simply describe “growth versus decline”. They outline a

structural rebalancing under sanctions pressure, where growth is concentrated in sectors that are either repair-driven, substitution-driven, or administratively stimulated, while decline clusters around energy extraction and energy-linked heavy industries (Figures 3.3.8-3 and 3.3.8-4).



Increase in volume of shipped 2025 industrial output in percentage to 2024

Decrease in volume of shipped 2025 industrial output in percentage to 2024

Source: Compiled from Russian corporate disclosures (RAS), as reported by Novye Izvestiya, 2025.

On the expansion side, the headline outlier is Environmental remediation services (+43%), which dominates the “winners” list in Figure 3.3.8-3. Such a spike is typically less indicative of broad-based industrial modernisation and more consistent with project-based surges: remediation and clean-up contracts, infrastructure reclassification, emergency-response work, or public procurement cycles. In sanctions conditions, this may also reflect re-routing of industrial activity into compliance, mitigation, and maintenance expenditure, where firms and regions prioritise operational continuity (safety, environmental controls, basic maintenance of industrial sites) rather than capex-intensive expansion.

A second cluster of positive dynamics in Figure 3.3.8-3 is closely aligned with import substitution and war-economy logistics: Other transport equipment (+20%), Wearing apparel (+17%), and Computers, electronic & optical products (+15%). In practical terms, these categories are consistent with demand reallocation—towards transport solutions, equipment and components that can be assembled from mixed supply chains, and mass procurement categories. Importantly, these “growth” readings should not be over-interpreted as evidence of technological upgrading. Under sanctions, measured output can increase through assembly, refurbishment, localisation of final-stage production, and shifts in statistical classification, even when constraints persist in machine tools, high-end electronics, and specialised inputs.

The final growth category—Repair & installation of machinery (+11%)—is particularly diagnostic of sanctions-induced industrial behaviour (Figure 3.3.8-3). When replacement imports are constrained, firms substitute towards repair, cannibalisation of parts, re-engineering, and life-extension of capital stock. This is a rational adaptation strategy but carries medium-term costs: rising maintenance burdens, declining reliability, and a gradual erosion of productivity if the underlying capital base cannot be renewed. In other words, the “repair economy” can support near-term continuity, while simultaneously signalling structural stress in the investment cycle.

By contrast, Figure 3.3.8-4 concentrates the negative dynamics in Russia’s energy backbone: Extraction of oil & gas (–28%) and Coal mining (–22%). These declines are strategically significant because they sit upstream of a wide industrial ecosystem (transport, services, metallurgy, regional fiscal stability). The magnitude suggests not just cyclical weakness but the interaction of constraints: reduced access to certain export markets and shipping services, pricing and discount pressures, rising transaction costs, and operational complications across the supply chain. Even where volumes remain resilient in absolute

terms, the steep y/y contraction indicates that the sector is no longer able to offset the combined effects of sanctions, redirection logistics, and demand constraints with the same effectiveness as earlier adaptation phases.

The remaining “losers” list in Figure 3.3.8-4—Motor vehicles & trailers (–15%), Coke & refined petroleum products (–14%), and Printing & information reproduction (–12%)—adds nuance to the picture. The motor vehicle segment is a classic sanctions-sensitive industry: it is input-dependent (components, tooling, electronics), sensitive to consumer purchasing power, and exposed to supply chain discontinuities. The refined petroleum and coke segment, while energy-adjacent, is additionally impacted by restrictions affecting refining technologies, catalysts, and export logistics; contraction here may also reflect shifts in export patterns and bottlenecks rather than only “demand collapse”. Printing and information reproduction, though smaller, often tracks broader business activity and investment confidence—its decline aligns with reduced corporate spending and a reallocation of budgets to survival-oriented priorities.

Taken together, Figures 3.3.8-3 and 3.3.8-4 suggest that Russia’s 2025 industrial growth pockets are disproportionately concentrated in maintenance, substitution, and procurement-linked activities, while contraction is concentrated in resource extraction and energy-intensive chains. This asymmetry matters for sanctions analysis: it indicates that economic pressure is most visible where Russia faces high exposure to export markets, shipping constraints, and complex input dependencies. At the same time, the existence of positive outliers illustrates that the economy can still generate growth rates in selected niches—yet those niches may represent defensive adaptation rather than sustainable development.

From a policy and forecasting standpoint, the figures imply that Russia’s near-term stabilisation capacity depends on continued ability to (1) re-route trade and logistics, (2) maintain ageing capital stock through repair and substitution, and (3) finance procurement-driven and project-based activity. However, the same pattern also points to longer-term vulnerabilities: if repair replaces replacement for too long, productivity and quality degrade; if energy extraction and related chains underperform, fiscal and regional pressures intensify. Accordingly, these sectoral dynamics provide an empirical bridge between the micro-level signals in corporate reporting and the macro-level mechanism of sanctions impact—where pressure accumulates not only through outright bans, but through cost inflation, supply chain friction, and the gradual narrowing of technological options (see Figures 3.3.8-3 and 3.3.8-4).

## 3.4. Proposals for Strengthening Economic Pressure

### 3.4.1. Secondary Sanctions

Secondary sanctions, in the strict sense, are measures that seek to constrain third-country persons and entities by conditioning their access to a major market (or its financial and services infrastructure) on compliance with a sanctions regime that is formally directed at a primary target. In the Russia case, the strategic logic is straightforward: where direct EU prohibitions are increasingly circumvented through non-EU intermediaries, the marginal deterrent effect often depends on whether those intermediaries face credible costs for facilitation. The EU has historically been cautious about adopting U.S.-style secondary sanctions, partly because of concerns about international law, extraterritoriality, and Member State unity. Yet, the EU’s sanctions architecture has been evolving toward stronger anti-circumvention tools and broader enforcement capacity, particularly since 2023–2025 when circumvention became a central policy concern. The European Commission has explicitly framed new packages in terms of “cutting evasion” and deploying anti-circumvention mechanisms, signalling an incremental shift from purely “listing and banning” towards “enforcement and disruption”.

The policy case for secondary sanctions is strongest when three conditions coincide: the sanctioned activity is high-value (e.g., energy revenue, military-critical technology); the facilitation chain is concentrated (e.g., a small number of shippers, insurers, brokers, traders, or financiers); and the enforcing jurisdiction has meaningful leverage (market access, currency settlement, reinsurance, classification, port state control, or compliance networks). Russia’s adaptation pattern since 2022 fits this model: multiple restrictions remain formally in place, yet the practical impact is eroded by an expanding ecosystem of third-country facilitators and re-flagged or re-owned assets, especially in maritime energy logistics and dual-use procurement. Recent EU packages emphasise shadow-fleet disruption and circumvention networks precisely because these are the “pressure transmission channels” where marginal enforcement yields outsized impact. The EU’s price-cap coalition guidance and packages focused on shipping services illustrate that enforcement is becoming a policy instrument, not an afterthought.

The EU’s legal and political constraints do not eliminate the secondary sanctions option, but they shape its feasible design space. In EU law, restrictive measures typically combine CFSP decisions (Article 29 TEU) with implementing regulations (Article 215 TFEU), and in practice the unanimity requirement amplifies veto risks and compresses what can be adopted quickly. A secondary-sanctions model that is framed as a “general extraterritorial assertion” would likely face both legal challenge and political resistance. By contrast, a model that is framed as a targeted “anti-circumvention enforcement tool” tied to clearly defined conduct (facilitation, brokering, concealment, falsification, and service provision) and anchored in EU nexus points (EU persons, EU territory, EU currency settlement, EU-controlled services) is more likely to be viable. The Commission’s public messaging around activating anti-circumvention instruments and the broader EU trend towards enforcement (including criminalisation/harmonisation of sanctions violations) suggests that the EU may be approaching a point where tougher measures are operationally plausible if politically stabilised.

Operationally, secondary sanctions can be conceptualised as a spectrum rather than a binary choice. At the “soft” end, the EU can expand listing of third-country entities that materially support Russia’s military-industrial complex or facilitate circumvention, as has occurred via Annex IV and related mechanisms that include non-Russian entities without formally attributing state responsibility to their jurisdictions. This approach raises compliance costs for a defined set of actors while keeping the legal theory closer to “targeted restrictive measures” rather than broad extraterritorial compulsion. At the “hard” end, the EU could adopt measures that restrict EU market access or service provision to any non-EU person engaging in specified categories of facilitation, irrespective of direct EU nexus—this resembles U.S. secondary sanctions more closely and would intensify legal and diplomatic risk. Between these ends lies a pragmatic “hybrid” approach: conditioning access to specific EU services (insurance, reinsurance, classification, port services, financing, or clearing) on verifiable compliance with anti-circumvention rules. This middle ground is where most realistic EU designs currently sit.

The enforcement centre of gravity for any secondary-sanctions package is the evidentiary standard. If the threshold for “facilitation” is vague, compliance becomes either excessively conservative (harming EU business disproportionately) or selectively enforced (reducing credibility). If the threshold is too stringent, facilitators can exploit legalistic loopholes through layering and opacity. The EU therefore needs a standards framework that is intelligible to compliance teams and defensible in court: definitions for ownership/control, beneficial ownership, “acting on behalf of,” “knowingly and intentionally,” and “reasonable cause to suspect” matter more than rhetorical ambition. The post-2023 enforcement turn suggests that EU policy actors are aware of this and are building mechanisms for stronger traceability and anti-circumvention monitoring. The price cap regime, for example, functions through documentation and attestation logic: service providers are permitted to operate only if the transaction meets the cap conditions, forcing market participants to generate and retain evidence.

Financial sector leverage remains the most powerful and least substitutable channel for a secondary sanctions strategy, but only if executed with precision. Russia’s external transactions increasingly rely on non-EU channels; however, EU-linked compliance norms still shape global banking, insurance, and

corporate governance practices because large institutions avoid reputational and regulatory risk. A targeted approach could prioritise specific behaviours: providing trade finance for restricted goods; processing payments for shadow-fleet services; offering insurance/reinsurance or P&I coverage to vessels engaged in prohibited Russian energy trades; or servicing entities listed for supporting Russia's defence sector. In each case, the EU does not need to "sanction the world"; it needs to impose a credible compliance perimeter around defined high-risk transactions, making facilitation economically irrational. This is consistent with the broader EU and G7 narrative of tightening enforcement around maritime services and energy logistics.

Maritime logistics is the second pillar where secondary sanctions can produce disproportionate effects because the shadow fleet is simultaneously Russia's workaround and a vulnerability. Shipping is not merely "transport"; it is an integrated stack of services: insurance, classification, flagging, crewing, ship management, port access, ship-to-ship transfers, AIS behaviour, financing, and brokering. EU packages have already moved aggressively on shadow-fleet listings and related restrictions, and policy debate continues around service bans and stricter inspections. Secondary sanctions could be targeted at the service providers that enable shadow-fleet operations—especially where those providers rely on EU reinsurance markets, EU financial institutions, or EU-recognised classification systems. Importantly, the point is not to eliminate global shipping capacity but to force the most evasive segment into higher costs, higher risks, and lower reliability, thereby reducing Russia's net revenue and increasing operational friction.

Trade-industrial enforcement is the third area where secondary sanctions can be impactful, particularly for dual-use goods, advanced technologies, and machine tools. The EU has already oriented several packages toward circumvention of export controls and the rerouting of goods via third countries, acknowledging that Russia's military-industrial output depends on imported components and manufacturing inputs. In this context, secondary sanctions work best when they are deployed as "network disruption" rather than broad embargo: identify the small number of freight forwarders, distributors, customs brokers, and trading companies that repeatedly appear in diversion pathways, and impose restrictive measures that make continued facilitation incompatible with EU business. Annex-based mechanisms that list high-risk entities in third countries, combined with tighter due diligence obligations for EU exporters, are stepping stones toward a de facto secondary sanctions effect without explicitly adopting U.S.-style extraterritorial doctrine.

The credibility of secondary sanctions also depends on whether the EU can scale enforcement resources and harmonise penalties across Member States. If enforcement is fragmented, facilitators will route through the weakest link. The EU's move to harmonise criminal offences and penalties for sanctions violations was explicitly motivated by the need to close enforcement gaps and reduce forum shopping within the Single Market. A secondary sanctions strategy would therefore need to be paired with a compliance and enforcement architecture that includes: risk indicators, common typologies, data sharing, and coordinated investigations, possibly using EU-level bodies and cross-border prosecutorial coordination. In practical terms, this means building an enforcement "production line" that can process evidence, support listings, defend decisions in court, and update risk indicators quickly. The institutionalisation of enforcement is what transforms sanctions from symbolic signals into sustained economic pressure.

A key design choice is whether the EU should pursue secondary sanctions unilaterally or as part of a coordinated "coalition enforcement" approach. Unilateral EU action can be fast and coherent within EU legal tools, but it can also shift activity to non-participating jurisdictions and trigger diplomatic pushback. Coalition action (with the UK, US, Canada, Japan, Australia and others) increases coverage and reduces arbitrage, but coordination is politically and administratively complex. The price cap coalition is an example of partial coordination that still leaves enforcement gaps when participants' political decisions diverge. From a purely economic pressure standpoint, coordinated action is superior because it reduces substitution options; from an implementation standpoint, the EU often uses phased

approaches: first tightening compliance obligations and listing facilitators, then escalating to broader restrictions if circumvention persists.

Secondary sanctions also create non-trivial trade-offs for EU businesses and for the EU’s broader economic diplomacy. The moment the EU begins conditioning access to EU services or markets on third-country compliance, it increases the probability of retaliation, countersanctions, or legal disputes, and it can complicate relations with jurisdictions that the EU otherwise seeks to keep aligned. That does not mean the instrument is unusable; rather, it requires careful prioritisation and “targeted pain” logic: focus on the most critical facilitation nodes where the economic and security payoff is highest and where alternative compliance pathways exist. This is why maritime services, high-risk dual-use diversion networks, and financial facilitation are recurring candidates: they sit close to EU and allied leverage points and have high relevance to Russia’s war-financing capacity. A credible strategy also requires safe-harbours and compliance guidance for legitimate trade to prevent over-deterrence.

A practical secondary sanctions regime needs a clear targeting taxonomy. One-layer targets “direct enablers” (entities that provide prohibited services or trade finance). A second layer targets “structural facilitators” (shell companies, nominee directors, compliance-avoidance consultancies, and freight forwarders specialising in high-risk routes). A third layer targets “asset platforms” (specific vessels, ship management firms, insurers, and brokers) that operationalise circumvention. The most efficient enforcement tends to begin with the asset and service layer because it is observable (vessels, insurance certificates, port calls) and then progress to the financial and corporate network layer as evidence accumulates. The EU has already demonstrated capacity to list vessels and entities involved in shadow fleet operations, and it has signalled an intention to tighten anti-circumvention measures further. Secondary sanctions, in this sense, become an escalation pathway rather than a discontinuous policy leap<sup>1</sup>.

Table 3.4.1-1. Secondary sanctions design options: instruments, leverage points, and key constraints (conceptual framework)

Option	Primary target behaviour	EU leverage point	Enforcement mechanism	Key constraint / risk
A. Targeted listing of third-country facilitators	Facilitation of restricted trade / services	EU financial system and compliance norms	Asset freezes: 'no funds/resources' rule	Evidence threshold; litigation risk
B. Service-conditionality for maritime stack	Shadow-fleet enabling services	EU insurance/reinsurance, classification, ports	Service bans conditioned on documentation	Substitution to non-EU services; monitoring burden
C. Trade-finance perimeter	Financing of restricted goods	EU correspondent banking; EU corporates	Prohibit financing/insurance of high-risk trades	Spillovers to legitimate trade
D. Diversion-network disruption	Re-export of dual-use / advanced tech	EU exporters and compliance perimeter	Enhanced due diligence + entity listing	Data gaps; third-country diplomacy
E. Coalition enforcement escalation	Systemic circumvention at scale	Combined G7/EU market access	Coordinated lists + harmonised enforcement	Coordination costs; political divergence

*Authorship: analytical framework (this report) was prepared by the author*

Secondary sanctions must also be evaluated through the lens of Russia’s adaptive capacity and the likely shape of circumvention under intensified pressure. When one route is closed, flows do not disappear. They re-route through higher-cost, higher-friction pathways. This is a feature, not a bug, if the policy objective is revenue compression and cost inflation rather than total trade elimination. For oil and refined products, the objective is to reduce netbacks through tighter service compliance and higher risk premia, while avoiding global price spikes. For dual-use and advanced technology, the objective is to reduce availability, increase lead times, and degrade quality, thereby lowering the productivity of

<sup>1</sup> What’s in the EU’s new Russia sanctions. <https://www.reuters.com/business/energy/whats-eus-new-russia-sanctions-2025-05-20>

Russia's military-industrial complex. Secondary sanctions can accelerate these effects by raising the expected cost of facilitation for the marginal intermediary.

A sophisticated regime would incorporate "risk scoring" rather than relying solely on binary prohibitions. For instance, third-country entities could be categorised into tiers: those definitively involved in circumvention (eligible for listing), those operating in high-risk corridors (subject to enhanced due diligence), and those in low-risk sectors (normal compliance). This approach reduces collateral damage and increases the legitimacy of enforcement in judicial review. It also helps align compliance incentives: firms will invest in due diligence if the rules are predictable and the penalties credible. EU-level guidance, similar in spirit to price-cap documentation guidance, can standardise what "good faith compliance" looks like. Such governance is essential because secondary sanctions, if executed clumsily, risk becoming politically unsustainable.

The EU's evolving approach to circumvention suggests an emerging preference for tools that can be framed as defensive and proportionate. The "anti-circumvention mechanism" described in policy literature operates as a last-resort restriction on exports to third countries judged to be at high risk of diversion, which is conceptually different from punishing those countries; it is a risk-control measure for EU trade. The Commission's statements about activating anti-circumvention tools reinforce that the EU is willing to escalate within its legal logic when evasion persists. Secondary sanctions can be designed to fit this narrative by focusing on conduct (facilitation) and measurable indicators (shipping patterns, documentation anomalies, ownership opacity). The more the EU can demonstrate that measures respond to demonstrable circumvention, the easier it is to sustain political unity and withstand legal challenges.

There is also a sequencing logic: the EU can treat secondary sanctions as a "capstone" instrument deployed after other mechanisms have been tried and documented as insufficient. In practice, this means: first expanding listings, tightening due diligence, and improving data; second deploying targeted service restrictions and enforcement inspections; third escalating to broader conditionality for persistent facilitators. Such sequencing is consistent with the EU's package-by-package tightening since 2024–2025 and with the broader move toward enforcement capacity. It also reduces diplomatic shock and gives third-country actors an opportunity to disengage before being targeted. From an economic pressure perspective, sequencing is valuable because it maximises compliance through deterrence rather than relying on punitive reach alone. It also reduces the risk of fragmentation within the EU, where some Member States fear economic blowback more than others.

In designing the instrument, the EU must pay attention to measurement: how will success be assessed? A credible evaluation framework would track not only nominal trade flows but also indicators of friction: discount levels, freight premia, insurance costs, voyage times, incident rates, and the prevalence of opaque ownership structures. For technology controls, metrics could include seizure data, re-export anomalies, the appearance of controlled components in battlefield recoveries (where available), and shifts in import composition. Without measurement, secondary sanctions can drift into symbolic politics; with measurement, they become a learning system that can be tuned to maintain pressure. The rise of specialised sanctions analytics and maritime risk intelligence makes such measurement increasingly feasible, though care must be taken to validate sources and avoid politicised over-interpretation.

A further constraint is the distributional impact within the EU: enforcement-heavy approaches often impose higher compliance costs on EU service providers, especially in finance and maritime services. If compliance costs rise disproportionately for smaller operators, the policy can generate internal political resistance. This can be mitigated through standardised guidance, safe-harbour frameworks, and targeted public-private coordination. The EU's experience with price cap attestation and documentation systems provides a template: compliance becomes manageable when the evidentiary burden is clear, and when regulators offer guidance on red flags and due diligence. A mature secondary sanctions regime

would extend this logic beyond oil into high-risk trade corridors and service stacks. The goal is to shift the compliance frontier outward—making facilitation costly—without paralysing legitimate commerce.

The strategic interaction dimension also matters: Russia and facilitating networks will adapt once secondary sanctions are credible. This will likely include deeper ownership obfuscation, greater reliance on jurisdictions with weak transparency, and a shift toward non-EU services where possible. Therefore, secondary sanctions should be coupled with transparency tools: beneficial ownership disclosure requirements for EU-linked transactions, tighter KYC/KYB standards in high-risk sectors, and cross-border information exchange. The EU's broader trajectory toward stronger enforcement and the inclusion of third-country entities in restrictions suggests that these tools are moving from optional to necessary. At the same time, the EU must avoid the trap of chasing every workaround; the focus should remain on the highest-value revenue and capability streams.

In conclusion, the EU can intensify economic pressure through a carefully scoped secondary sanctions strategy that functions as an anti-circumvention enforcement escalation rather than a wholesale importation of the U.S. model. The highest-impact path is to focus on clearly defined facilitation behaviours within sectors where EU leverage is strongest: maritime services supporting energy revenues, financial facilitation of restricted trade, and diversion networks for dual-use and advanced technologies. The design must prioritise defensible evidentiary standards, sequencing, measurement, and internal EU enforcement capacity, leveraging the EU's recent moves toward stronger anti-circumvention tools and harmonised sanctions enforcement. Done well, secondary sanctions increase the marginal cost of evasion, compress Russia's net revenue, and degrade its ability to sustain military-industrial output by lengthening supply chains and raising risk premia. Done poorly, they risk legal vulnerability, diplomatic blowback, and uneven implementation that invites arbitrage. The policy imperative is therefore precision: target the nodes that matter, build a repeatable enforcement pipeline, and calibrate escalation to observable circumvention patterns.

### **3.4.2. Extraterritorial Measures**

Extraterritorial measures, in the sanctions context, are policy tools designed to shape behaviour beyond the EU's territory by leveraging legal jurisdiction, market access, and control over key nodes of the global economy. Their purpose is not merely to "extend EU law abroad" in a crude sense, but to ensure that EU restrictive measures retain operational effectiveness when targeted actors shift transactions to third-country jurisdictions. In the Russia case, circumvention has repeatedly relied on exactly such jurisdictional and infrastructural arbitrage: ownership re-structuring, re-flagging, third-country trading houses, and service substitution. Extraterritorial measures address this by increasing the expected cost of facilitation for actors who may not be EU-based but still depend on EU-linked value chains. The policy challenge is that the EU must do so without undermining its legal order, trade policy credibility, and internal market cohesion. In practice, "extraterritoriality" is therefore best understood as a calibrated spectrum of instruments rather than a single doctrine. The central question is which levers provide high enforcement yield while remaining legally defensible and politically sustainable. A well-designed extraterritorial package is thus less about ambition and more about precision, sequencing, and evidentiary discipline.

The EU already has several jurisdictional "hooks" that enable outward-reaching sanctions effects without formally declaring an extraterritorial theory of jurisdiction. The most straightforward hook is person-based: EU nationals and EU-incorporated entities remain subject to EU restrictive measures wherever they operate, including through subsidiaries, branches, and employees abroad. A second hook is territory-based: conduct occurring in EU territory, including the use of EU ports, EU banking services, EU insurance markets, or EU-based professional services, can be regulated even where counterparties are non-EU. A third hook is transaction-based: the use of EU currency settlement, EU correspondent banking, EU-regulated clearing, or EU-recognised certification often creates a compliance nexus. These hooks matter because the EU does not need to "police the world"; it needs to police the choke-points it

controls, and those choke-points can be highly consequential. The practical efficacy of extraterritorial measures therefore depends on mapping the transaction stack and identifying where EU leverage is structurally difficult to replace. If the hook is robust and the requirement is measurable, the resulting effect can be extraterritorial in practice while remaining jurisdictionally grounded in law. This is the core design principle that allows extraterritorial measures to fit within EU constitutional and judicial constraints.

A foundational constraint is the EU's preference for legality, proportionality, and judicial review, which requires that measures be framed in clear, foreseeable terms. Vague extraterritorial demands produce two undesirable outcomes: they invite court challenges and they push compliance teams into over-deterrence that can harm legitimate trade. Consequently, an EU-compatible approach tends to rely on defined conduct categories, such as "brokering", "facilitating", "providing services", "circumventing", and "making funds or economic resources available". The more these categories are linked to documentary triggers—shipping records, insurance certificates, end-user statements, beneficial ownership declarations—the more defensible they become. This is also why the EU has, over time, emphasised anti-circumvention language and due diligence expectations: these are enforceable through evidence, not guesswork. In addition, the EU must align extraterritorial enforcement with Member State capacities, since implementation typically occurs via national competent authorities. The legal form can be EU-level, but the enforcement reality is distributed, and that distribution must be accounted for at design stage. A high-impact extraterritorial measure is thus one that can be checked, documented, audited, and litigated successfully. The EU's strategic advantage is not maximal coercion, but institutionalised compliance.

A further doctrinal consideration is that extraterritorial measures cannot be treated as purely technical instruments; they are also diplomatic signals. When the EU conditions market access or service provision on third-country behaviour, it shapes perceptions of sovereignty and reciprocity, especially among jurisdictions that act as re-export hubs. That does not necessarily preclude such measures, but it raises the bar for justification and careful targeting. The EU can mitigate diplomatic friction by focusing on narrow, high-risk corridors rather than broad jurisdictional claims. It can also structure measures as "risk controls" for EU operators—enhanced due diligence, reporting duties, and service conditionality—rather than as direct orders to third countries. This reframing is not cosmetic; it changes the legal posture and the political defensibility of the policy. Moreover, the EU can build credible "exit routes" for third-country actors: clear compliance pathways, safe harbours, and delisting conditions. This reduces the impression of arbitrary coercion and strengthens the legitimacy of enforcement. In the Russia context, where circumvention networks often operate through a relatively small set of intermediaries, this targeted approach is usually sufficient. The objective is to raise the cost of facilitation for the marginal intermediary, not to force comprehensive alignment by every third country.

One of the most practical extraterritorial instruments is the creation of compliance obligations that follow EU firms across borders, including through corporate groups and supply chains. In a sanctions-intensive environment, corporate structures are frequently used to ring-fence risk: a non-EU subsidiary may be positioned as the "front end" for high-risk trade while the EU parent claims formal distance. An effective extraterritorial approach closes this gap by imposing group-level duties: group sanctions policies, group audits, and group accountability for facilitation. This does not require inventing new extraterritorial powers; it requires clarifying what "control" means and how compliance responsibilities propagate. In practice, enforcement can focus on governance failures: inadequate due diligence, knowingly deficient controls, or toleration of opaque beneficial ownership arrangements. When combined with meaningful penalties—financial sanctions, licensing restrictions, or disqualification from EU procurement—this creates strong incentives for group-wide compliance. The economic pressure effect is indirect but substantial: intermediaries lose access to EU partnerships, financing, or premium markets. For Russia-linked transactions, which increasingly rely on complex corporate layering, this governance-based approach is particularly relevant. It turns "distance" into liability rather than protection.

Trade-based extraterritorial measures are often misunderstood as mere tariffs or bans; in practice, they are compliance architectures embedded in customs and origin rules. The EU can tighten rules of origin, impose presumptions of Russian origin for high-risk commodity blends, and require traceability for goods known to be re-exported through third countries. The objective is to reduce the profitability of relabelling and transshipment strategies that disguise Russian content or Russian financing. Where direct bans exist, the main vulnerability is substitution through processing or minimal transformation in third countries. Strengthening origin and transformation criteria raises the cost of such schemes and increases the risk of seizure or denial of entry. This is an extraterritorial effect achieved through border control: the EU does not regulate third-country production; it regulates the conditions under which goods may enter the Single Market. If the system is designed well, it changes third-country incentives because access to the EU market becomes conditional on credible documentation. The challenge is implementation capacity: customs need risk indicators, data, and audit powers. If customs lack this, the system becomes symbolic and easily gamed. Therefore, trade-based extraterritoriality must be designed with operational realism in mind.

A particularly powerful version of trade-based extraterritoriality is the use of “anti-circumvention presumptions” in high-risk corridors. Instead of requiring authorities to prove circumvention case-by-case, the EU can define risk categories where the burden shifts toward documentation and verification. For example, certain HS codes, certain origin-destination pairs, or certain firms with known diversion patterns could trigger enhanced due diligence requirements. The policy logic resembles modern AML risk-based regulation: resources are focused on high-risk nodes rather than spread evenly. This approach can be paired with compliance incentives: fast lanes for firms with certified compliance systems and slow lanes for firms with weak transparency. Such differentiation is economically meaningful because time is money in trade. Applied to Russia-linked circumvention, it can reduce the attractiveness of diversion pathways that rely on speed, opacity, and volume. It also creates a deterrence effect that is not dependent on prosecuting every infraction. However, it must be calibrated to avoid systemic disruption of legitimate trade with third countries. A narrow, evidence-based risk typology is therefore essential, and it should be updated dynamically as diversion patterns change.

Services and finance are the EU’s most structurally powerful extraterritorial levers because global commerce depends on service “stack” access even when physical goods flow elsewhere. In maritime trade, for instance, the availability of credible insurance, reinsurance, classification, and technical certification can determine whether shipping is viable, bankable, and acceptable in ports. In financial trade, access to correspondent banking, clearing, and compliance-recognised payment chains shapes transaction feasibility and cost. The EU can deploy service conditionality: no EU-linked service provision unless documentation meets defined standards, such as price cap compliance, origin verification, or end-use assurance. This design yields an extraterritorial effect while remaining formally a regulation of EU-linked services. It also reduces the need to chase the cargo itself; instead, the EU targets the services without which cargo becomes more expensive and riskier. The risk, of course, is substitution: non-EU services may expand. Yet substitution is rarely perfect, and it often carries a significant risk premium, particularly for high-risk cargoes and jurisdictions. Therefore, service-stack restrictions can generate persistent cost inflation even when volumes adapt. This is one of the most credible pathways for sustained economic pressure.

A core trade-off in services-based extraterritoriality is the balance between precision and systemic disruption. Overly broad service bans can generate spillovers into global markets and can amplify prices, which may weaken political support within the EU. Overly narrow bans may be circumvented via minimal documentation changes or a shift to marginal service providers. The solution is layered design: define “prohibited services” for clearly identified high-risk categories, then define “restricted services” that are permitted only under documentary conditions. This is the logic that makes attestation regimes workable: compliance becomes a procedural pathway rather than an absolute wall, which reduces unintended consequences. In addition, the EU can target specific service nodes that are hard to replace, such as reinsurance capacity, top-tier classification acceptance, or EU-based professional services essential

for corporate operations. This reduces substitution risk while limiting spillovers. A second mitigation is coordination with allied jurisdictions; shared standards reduce arbitrage opportunities. For Russia-linked trade, the optimal design often focuses on the “shadow economy segment” rather than the entire market. That is, the policy should aim to degrade the reliability and profitability of evasive networks, not to destabilise legitimate global commerce.

Corporate liability for non-EU affiliates is another area where extraterritorial measures can be sharpened without adopting an openly extraterritorial doctrine. The EU can require EU parents to implement and certify sanctions compliance across their global groups, with enforcement focused on governance failures. It can also impose due diligence duties on EU firms when dealing with third-country counterparties, including verification of beneficial ownership, control, and end-use. Where high-risk goods and services are involved, the duty can be elevated to a “reasonable measures” standard with auditability. This creates a compliance perimeter that third-country firms must satisfy if they want EU business. It also changes incentives for third-country facilitators who rely on EU-linked supply chains. In effect, the EU exports compliance norms through commercial necessity rather than through direct jurisdictional claims. The approach is scalable because it leverages the private sector’s compliance systems rather than relying solely on public enforcement. Yet it also has costs: it increases compliance burdens for EU firms and can disadvantage smaller operators. Therefore, guidance, standard templates, and risk indicators become essential policy complements. Without these, the regime can drift into uncertainty and over-compliance.

Extraterritoriality also interacts with “blocking” dynamics, both in law and in geopolitics. Some jurisdictions use blocking statutes to protect their firms from complying with foreign sanctions, framing such compliance as unlawful. While the EU itself has a blocking statute in a different context, the broader lesson is that extraterritorial competition can become a legal tug-of-war. If the EU intensifies extraterritorial measures, it must anticipate that some third countries may respond with protective instruments, or at least with diplomatic resistance. This does not mean the EU should refrain, but it underlines the importance of designing measures that can be defended as legitimate regulation of EU market access and EU services. It also highlights the value of coalition coordination, where the political cost of resistance increases for facilitators. In addition, the EU can reduce the likelihood of blocking escalation by focusing on conduct that is widely recognised as problematic, such as fraud, falsification of documentation, and concealment of beneficial ownership. These are easier to justify than broad “alignment demands”. The EU can also separate messages: the target is not a third country as such, but specific facilitation behaviour. That diplomatic nuance matters for sustainability.

A successful extraterritorial strategy requires an information architecture that can detect circumvention patterns early and support enforcement actions. This includes trade data analysis, shipping intelligence, corporate registry analysis, and financial typologies that identify suspicious routes. Without such a data backbone, measures become reactive and easily outpaced by adaptive networks. The EU can institutionalise data-driven enforcement by creating shared risk indicators, coordinating across customs authorities, and building standardised reporting for high-risk sectors. This is also where the EU can borrow from AML practice: risk-based supervision, typology updates, and feedback loops between regulators and private sector compliance functions. In sanctions, the analogue is a “circumvention typology library” that is updated as patterns evolve. The better this system becomes, the less the EU needs blunt instruments. It can target the small number of high-impact facilitators and the most effective chokepoints. For Russia-linked evasion, where networks often reuse known routes and service providers, this is especially promising. Over time, the strategy can become progressively more efficient as learning accumulates.

Table 3.4.2-1. Extraterritorial measures: practical instruments, legal hooks, and implementation priorities (overview)

Instrument cluster	Typical EU hook	Practical mechanism	High-impact targets	Principal implementation risk
Market-access conditionality	Border/market entry	Origin rules, documentation, presumptions	Commodities, processed products, high-risk HS codes	Customs capacity; misclassification
Service-stack conditionality	EU-regulated services	Insurance/reinsurance, brokering, certification conditions	Shipping, energy logistics, professional services	Substitution; monitoring burden
Finance perimeter controls	EU financial nexus	Correspondent banking, clearing, risk-based restrictions	Trade finance, payment chains, brokers	Spillovers; over-compliance
Group-level compliance duties	EU persons/corporate governance	Audit, controls, certification, liability for facilitation	Multinational groups, EU parents	Litigation; uneven Member State enforcement
Anti-circumvention disruption	Transaction typologies	Listings, due diligence, traceability obligations	Diversion networks, dual-use corridors	Data gaps; diplomatic friction

*Authorship: analytical framework (this report) was prepared by the author*

The practical operationalisation of extraterritorial measures also depends on licensing and exemptions, which are often overlooked but critical. The EU typically allows limited exceptions for humanitarian needs, safety, and certain essential services, and it often issues licences under defined conditions. This is not weakness. It is an essential mechanism to maintain legitimacy and reduce harmful spillovers. For extraterritorial measures, licensing also functions as a control valve: it allows the EU to impose strict conditions while retaining flexibility to avoid unintended consequences. For example, a service restriction might be coupled with licences for safety-related maritime services or environmental risk mitigation, preventing perverse outcomes. Licensing can also be used strategically to enforce transparency: licences may require disclosures, audits, and documentary evidence that strengthens the EU’s information position. Over time, licensing data can inform better targeting and reduce reliance on broad restrictions. However, licensing also creates an administrative workload and potential inconsistency across Member States. Therefore, harmonised guidance and coordinated licensing standards become important, especially if extraterritorial measures expand. A coherent licensing policy is thus a core component of enforcement strategy.

A central political constraint for extraterritorial measures is intra-EU heterogeneity in exposure and risk tolerance. Some Member States are more sensitive to trade disruption, others to financial sector risk, and others to shipping and port impacts. Extraterritorial tools can therefore become contested not only in foreign policy terms but in internal distributional terms. This is why a phased approach is often necessary: begin with instruments that have strong consensus, such as targeting clear circumvention networks, then expand conditionality once enforcement infrastructure is in place. The EU can also use differentiation: apply stronger measures to the highest-risk routes and entities rather than implementing broad, economy-wide constraints. In addition, the EU can build political resilience through transparency: publish typologies, enforcement actions, and compliance guidance to demonstrate proportionality. A visible enforcement narrative can reduce internal scepticism by showing that measures are aimed at defined illicit behaviour rather than at legitimate commerce. In the Russia case, the salience of circumvention has grown, which may widen the space for tougher tools. Yet policy success depends on maintaining unity and preventing fragmentation. Extraterritorial measures that are seen as unpredictable or excessively burdensome can erode that unity. Therefore, predictability becomes a strategic asset.

Another constraint is the risk of legal challenge, including judicial review within the EU and potential disputes in trade forums. While the EU has strong legal mechanisms for restrictive measures, extraterritorial effects can be contested if they appear disproportionate or insufficiently grounded in EU nexus. This again reinforces the need for clear definitions and strong evidentiary bases. It also argues for “defensive framing” where possible: regulating EU market access, EU services, and EU persons rather than asserting broad external jurisdiction. The EU should also expect that targeted entities will employ sophisticated litigation strategies, especially if measures disrupt high-value operations. Therefore, a mature extraterritorial package must be designed with litigation readiness in mind: documentation, reasoning, proportionality analysis, and regular review mechanisms. The more procedurally robust the measure, the lower the risk of reversal and the stronger the deterrence effect. In addition, legal robustness supports diplomatic messaging, because it allows the EU to present measures as rule-based rather than arbitrary. This is a nontrivial advantage in sustaining coalition alignment. Put bluntly, enforcement without legal resilience tends to be short-lived.

Extraterritorial measures should also be assessed in terms of strategic feedback effects on Russia’s adaptation pathways. If the EU tightens border and service conditionality, Russia and facilitators may intensify efforts to shift toward non-EU services and alternative trade infrastructures. That is not necessarily policy failure; it may still increase costs, reduce reliability, and compress net revenue. The key is to focus on the margin where EU leverage creates persistent friction rather than chasing a theoretical “total cutoff”. For energy and maritime logistics, the objective is typically to increase risk premia, discounting, and operational costs. For dual-use and advanced technology, the objective is to reduce availability, increase lead times, and lower quality, thereby degrading production efficiency. Extraterritorial measures are well suited to these objectives because they operate through transaction frictions and compliance costs. However, their effect is gradual and accumulative; they rarely produce immediate, easily headlineable outcomes. That creates a communications challenge: policymakers may seek quick wins, while the instrument’s strength lies in sustained pressure. Therefore, a monitoring framework is crucial to demonstrate progress through measurable indicators. Without measurement, the political temptation is to either over-tighten or abandon the approach. A disciplined strategy uses metrics to calibrate pressure.

The EU can also integrate extraterritorial measures into broader economic statecraft, particularly when combined with allied coordination and complementary industrial policy. For example, tightening controls on high-risk exports can be paired with support for EU firms in compliance tooling and supply chain diversification. Similarly, tightening service conditionality in shipping can be paired with investments in maritime enforcement capacity and cooperative port state controls. Coalition coordination can reduce arbitrage and signal resolve, but it must accommodate different legal systems and political constraints. The EU’s advantage is the size and regulatory depth of its market; coordination is a force multiplier, not a prerequisite for impact. Yet coordination becomes particularly valuable when dealing with highly mobile networks that can relocate quickly. In the Russia case, many circumvention pathways cross multiple jurisdictions, making coordination important for preventing “whack-a-mole” dynamics. Still, the EU should avoid dependence on perfect coordination; its policy design should be effective even under partial alignment. That implies focusing on levers where the EU has independent influence. Over time, successful unilateral enforcement can itself create incentives for others to align. In this sense, extraterritorial measures can shape norms as much as they constrain transactions.

In conclusion, extraterritorial measures offer the EU a practical route to strengthen economic pressure by closing circumvention pathways and increasing the cost of facilitation outside EU territory, but only if designed as a nexus-based, evidence-driven compliance system rather than a broad assertion of external jurisdiction. The most credible instruments are those that regulate EU market access and EU-linked services—customs and origin controls, service-stack conditionality in maritime logistics, finance perimeter restrictions, and group-level compliance duties—because they combine high leverage with legal defensibility. Success depends on operational capacity: data-driven risk indicators, enforceable documentation standards, harmonised guidance, and an enforcement pipeline resilient to litigation and

adaptive networks. The key strategic payoff is not necessarily a sudden collapse of flows, but a sustained increase in transaction friction that compresses Russia’s net revenues, slows technology acquisition, and degrades the efficiency of industrial adaptation. At the same time, the EU must manage spillovers, avoid over-deterrence that harms legitimate trade, and maintain internal cohesion through predictability and proportionality. If implemented with disciplined sequencing and measurable objectives, extraterritorial measures can function as the EU’s “pressure amplifier” in areas where direct prohibitions have begun to plateau. If implemented without clarity and enforcement realism, they risk becoming costly symbolism that invites arbitrage and legal reversal. The policy imperative is therefore to treat extraterritoriality as a governance system—one that learns, updates, and targets the nodes that matter most.

### 3.4.3. Energy-Decarbonisation Linkage of Sanctions

The linkage of sanctions with energy decarbonisation is best understood as a shift from episodic trade restrictions to a structural revenue-and-technology squeeze embedded in long-horizon climate governance. Classical sanctions attempt to disrupt specific flows—barrels, molecules, payments, or services—whereas climate-aligned conditionality reshapes the market rules that determine which flows remain competitive over time. In the Russia case, this is strategically attractive because Russian export rents are historically concentrated in hydrocarbons and hydrocarbon-adjacent value chains. A decarbonisation linkage therefore converts sanctions from a primarily geopolitical instrument into a hybrid economic-regulatory instrument that operates through carbon pricing, emissions-intensity thresholds, disclosure duties, and financing constraints. The operational premise is that sanctions “bite” harder when they reinforce secular demand-side and regulatory trends rather than fighting them. For the EU, the linkage is also institutionally convenient: climate policy already provides measurement, reporting, and verification (MRV) systems, which can be repurposed for compliance and enforcement. This is not a claim that sanctions become “climate policy”, but that sanctions can be anchored to climate instruments in a way that is more durable than ad hoc prohibitions. The main design challenge is to preserve legal defensibility and proportionality while still achieving strategic pressure.

A first benefit of the linkage is that it creates a credible long-term expectation of declining market access for high-carbon supply, which reduces investment appetite and increases the cost of capital for the targeted exporter even when near-term volumes persist. Investors and counterparties price not only current restrictions but also policy trajectory, and climate governance is intrinsically trajectory-based. If the EU and aligned jurisdictions signal that high-emissions hydrocarbon supply will face progressively tighter conditions, this influences contracts, shipping, insurance, and infrastructure planning. For Russia, whose fiscal resilience has depended on keeping energy exports investable and bankable, the reputational and financing dimension is almost as important as the volume dimension. A linked regime also erodes the credibility of “pivot” narratives when alternative markets begin to adopt similar emissions disclosure and carbon pricing tools. In that sense, decarbonisation linkage is not merely EU-centric; it is an attempt to make the cost of Russian hydrocarbon reliance rise globally through norm diffusion. The EU’s regulatory capacity makes it a plausible first mover in this space, provided it manages spillovers. The strategic objective is not an overnight stoppage, but a sustained deterioration of netbacks, financing terms, and reinvestment capability.

The most direct linkage mechanism is carbon-based conditionality at the border, which can function as an indirect sanctions amplifier by reducing the competitiveness of carbon-intensive imports associated with Russia-linked supply chains. A carbon border mechanism operates through a simple logic: if domestic producers face carbon costs, imports should face an equivalent adjustment to prevent leakage. In sanctions terms, this becomes relevant when a targeted exporter’s competitiveness is highly dependent on low effective carbon costs, weak disclosure, and limited verification. Even where the mechanism is formally country-neutral, its incidence can be highly asymmetric because emissions intensity differs across producers and because verification capacity is uneven. The policy implication is

that carbon border tools can be tuned—through verification requirements, default values, and anti-circumvention rules—to reduce the viability of opaque high-carbon imports. This reduces the payoff to relabelling, blending, and transshipment strategies used to obscure origin or embodied emissions. The linkage works best when the EU couples border conditionality with strict MRV and robust penalties for misreporting, turning emissions opacity into a tradable liability. It also pressures third-country intermediaries because “washing” Russian origin becomes less profitable if carbon data cannot be credibly provided. The risk is politicisation: if the instrument is perceived as disguised sanctions, it could provoke disputes and complicate diplomacy, so careful legal framing is essential.

Methane policy provides an even sharper lever because methane intensity is both measurable and tightly connected to upstream oil and gas operations. Unlike broad “carbon footprint” debates that can become methodological battlegrounds, methane MRV has been rapidly standardised with increasing use of satellite detection and independent monitoring. A sanctions-linked methane regime could require importers and shippers to provide verifiable methane intensity data for gas and, by extension, for certain oil and LNG supply chains. Where verification is absent or unreliable, conservative default values can be applied, making opaque supply less competitive. This is economically meaningful because methane regulations can translate directly into compliance costs, restricted access, or contractual penalties. For Russia, whose upstream operations include ageing infrastructure and operational constraints, higher methane compliance costs can erode margins and raise reinvestment requirements at precisely the moment when technology access is constrained. The linkage also creates targeted pressure without a formal “ban”: firms can in principle comply, but compliance becomes costly and data-intensive. The critical design question is enforcement: credible MRV must be paired with meaningful consequences for non-compliance, otherwise it becomes paperwork. The most effective approach treats methane as both an environmental externality and a compliance signal for operational quality and transparency.

Shipping and insurance are natural transmission channels for decarbonisation-linked sanctions because maritime logistics is the physical substrate of hydrocarbon trade and because maritime services remain relatively concentrated. Climate instruments increasingly extend into shipping through fuel standards, emissions reporting, and lifecycle metrics, which can be aligned with sanctions objectives. In a linked regime, vessels carrying high-risk cargoes could be required to meet enhanced emissions reporting, maintain verified voyage records, and demonstrate compliance with fuel and emissions standards. Insurance and reinsurance can be conditioned on verified compliance, thereby converting the service stack into an enforcement perimeter. For shadow-fleet operations, this is particularly damaging because opacity is a feature, not a bug; requiring transparency and verification increases their costs and raises the probability of denial of service. The linkage can also be designed to reduce spillovers: rules can apply to specific cargo categories and risk profiles rather than to shipping as a whole. A key advantage is that maritime compliance generates auditable artefacts—logs, emissions reports, route histories—that can support enforcement actions and sanctions listings. The practical effect is to increase risk premia and reduce reliability for evasive segments, which translates into lower netbacks for the exporter. The downside is administrative complexity, which requires investment in monitoring capacity and coordination with port state control.

A decarbonisation-linked sanctions regime should also be designed to influence not only exports but the upstream technology and services ecosystem that sustains production capacity. Hydrocarbon extraction and refining are increasingly technology-dependent, particularly for efficiency, emissions control, and high-complexity reservoirs. Climate policy tends to privilege “best available technologies” and encourages adoption of emissions-reducing equipment, monitoring systems, and process optimisation. If sanctions restrict access to such technologies while climate conditionality raises the cost of operating without them, the combined effect can be multiplicative. Russia may attempt to substitute with domestic or third-country technologies, but substitution is rarely perfect in high-precision segments. The result is a gradual degradation of operational efficiency and emissions performance, which then translates into market access and financing penalties. This is the core strategic rationale for linkage: it binds the target into a negative feedback loop where technology denial and

compliance costs reinforce each other. Importantly, this is not about “punishing emissions” in an abstract sense; it is about exploiting the target’s structural dependence on hydrocarbon rents in a world moving toward tighter emissions governance. The linkage also reduces the risk that sanctions fatigue undermines policy, because climate policy has its domestic political constituency. Over time, the regime becomes self-reinforcing through institutionalisation.

Financial sector alignment is another high-leverage component because decarbonisation policies increasingly shape credit allocation, insurance pricing, and disclosure standards. Sustainable finance frameworks can be used to raise the capital cost of carbon-intensive activities and to constrain financing for projects that fail to meet emissions and governance criteria. When linked to sanctions, the EU can define heightened due diligence and disclosure for Russia-linked energy exposures, including beneficial ownership, origin traceability, and emissions intensity. Banks and insurers can be required to treat high-risk Russia-linked exposures as elevated compliance risk, which increases capital allocation costs and reduces appetite. This does not require the EU to ban all financing; it requires the EU to make “non-transparent, high-emissions, high-risk” exposures operationally unattractive. Over time, this can reduce the availability of long-tenor financing and increase reliance on state support, which has fiscal implications. The linkage also affects counterparties outside Russia: traders and intermediaries find their financing terms worsen if they cannot document compliance. As a result, “facilitation capacity” shrinks, not necessarily because of moral alignment, but because of balance-sheet economics. The primary challenge is calibration: excessive constraints can create unintended energy market volatility, so the regime must be phased and data-driven. Yet in a medium-term horizon, financing constraints are among the most durable forms of pressure.

A practical issue in linking sanctions to decarbonisation is measurement integrity—what exactly is being measured, by whom, and under what verification standard. Carbon footprints can be disputed; lifecycle boundaries can be manipulated; default values can be politicised. Therefore, a credible regime needs a hierarchy of evidence: verified measurements at the top, auditable documentation in the middle, and conservative defaults at the bottom when verification is missing. The policy logic is that opacity should never be rewarded with favourable assumptions, because that creates perverse incentives. In sanctions practice, this parallels the principle that entities with hidden beneficial ownership should face enhanced restrictions. Applied to emissions, hidden intensity should face conservative penalties. This creates an incentive to disclose, which improves enforcement and market transparency. It also allows the EU to defend the regime as rule-based: the same evidentiary hierarchy applies to all, even if the incidence is asymmetric. Over time, improved measurement standards can reduce litigation risk and improve compliance efficiency. The regime should also incorporate appeal and correction mechanisms to maintain legitimacy and reduce claims of arbitrariness. In other words, measurement governance becomes enforcement governance.

Another design layer is the interaction between decarbonisation-linked sanctions and EU internal energy security. Policy credibility depends on avoiding acute supply shocks that could undermine domestic support. Therefore, the linkage should be engineered to intensify pressure primarily through cost and compliance channels, rather than through abrupt volume elimination, unless substitutes are secured. This suggests a phased trajectory: tighten MRV and disclosure first; introduce conditionality and penalties next; escalate to service restrictions and broader disincentives later. Such sequencing allows markets to adjust and reduces the risk of price spikes. It also gives third-country intermediaries time to adapt compliance systems, which reduces diplomatic blowback. The EU can also use targeted exemptions where necessary for safety, humanitarian needs, or transitional stability, while maintaining the overall tightening trajectory. A linked regime is credible precisely because it is cumulative and predictable, not because it is maximally disruptive at any given moment. This is analogous to how carbon pricing regimes gain effectiveness over time: predictability drives investment and contract changes. In sanctions terms, predictability drives de-risking and divestment. The result is a slow but persistent tightening of the economic environment for the target exporter.

A decarbonisation linkage can also be extended beyond hydrocarbons to hydrocarbon-adjacent commodities and industrial exports where energy costs and emissions intensity are decisive. Metals, fertilisers, petrochemicals, and certain energy-intensive manufactured goods can embed significant emissions footprints that are sensitive to fuel mix and process technology. If the EU applies stricter emissions-intensity requirements and verification across these categories, it can reduce the competitiveness of Russian energy-intensive exports even when they are routed through third countries. This has a “second-order” sanctions effect: it pressures export revenue diversification strategies that rely on energy-intensive industrial goods. It also creates incentives for clean production and disclosure, which Russia may struggle to implement under technology restrictions and financing constraints. Again, the mechanism need not be explicitly Russia-specific; it can be a general tightening that disproportionately affects opaque high-emissions supply. The key is to close loopholes: blending, minimal transformation, and re-export should not allow a high-emissions product to enter on favourable terms. This requires customs-emissions coordination and strong origin-intensity traceability. While complex, it leverages the EU’s comparative advantage: regulatory capacity and market size. Over time, the effect can be to narrow Russia’s viable export portfolio.

A linked sanctions-decarbonisation strategy also has a behavioural objective: shifting corporate incentives so that firms disengage from high-risk Russia-linked transactions not out of political alignment but because the compliance burden becomes commercially irrational. If emissions disclosure and verification are required alongside sanctions compliance, the cost of doing business with opaque suppliers rises sharply. This is especially true in commodity trading, where margins are often thin and speed matters. When the compliance burden increases, only the most risk-tolerant intermediaries remain, and they charge a premium. That premium is economically equivalent to a tax on the exporter. Moreover, a higher compliance burden increases the probability of error, which further raises risk premiums. The result is a structural increase in transaction costs for Russia-linked flows. This can be amplified by public enforcement actions, which raise reputational risk for facilitators. In that sense, climate-linked compliance becomes a deterrence tool. It does not require universal enforcement to be effective; it requires enough enforcement to make risk salient. Over time, risk salience reshapes market behaviour.

Table 3.4.3-1. Sanctions–decarbonisation linkage: instruments, enforcement channels, and expected pressure mechanisms

Linkage instrument	Primary enforcement channel	Immediate effect	Medium-term effect	Main constraint
Carbon border conditionality	Customs + MRV	Raises cost of high-emissions imports	Reprices supply chains; discourages “washing”	Methodology disputes; trade diplomacy
Methane intensity requirements	MRV + default values	Penalises opacity; increases compliance cost	Forces capex or reduces competitiveness	Verification capacity; data quality
Maritime emissions conditionality	Shipping services + port state control	Increases risk premia for evasive fleets	Degrades reliability; lowers netbacks	Administrative complexity
Sustainable finance alignment	Banks/insurers + disclosure	Tightens financing terms for high-risk exposures	Reduces long-tenor capital; increases state burden	Spillover to EU firms; over-compliance
Technology + standards squeeze	Export controls + compliance standards	Limits emissions-control and efficiency upgrades	Gradual efficiency loss; higher emissions penalties	Substitution via third countries

*Authorship: analytical framework (this report) was prepared by the author*

A linked regime should also consider the role of “green” narratives and industrial policy, because decarbonisation is not solely a constraint—it is also an investment redirection strategy. If the EU reduces Russia-linked hydrocarbon dependence, it simultaneously increases the attractiveness of alternative suppliers and accelerates domestic energy transition investment. This has sanctions relevance because

it reduces the EU's vulnerability to retaliation and price shocks. Over time, improved energy resilience expands the EU's ability to sustain pressure. In addition, investment redirection can be paired with infrastructure decisions that structurally reduce Russian export options, such as alternative pipelines, LNG terminals, grid integration, and renewables deployment. While these are not sanctions in the narrow legal sense, they function as strategic complements that reduce the target's leverage. A credible linkage strategy therefore coordinates sanctions with transition policy: the more the EU decarbonises, the more credible its sanctions become. This is a key difference from classical sanctions episodes where the sender's vulnerability often limits escalation. In the current context, transition policy can reduce vulnerability over time. That said, the EU must manage distributional impacts within its economy, particularly for energy-intensive industries, to sustain political support. Hence, compensation mechanisms, industrial support, and transition funding remain strategically relevant to sanctions endurance. The linkage is therefore as much about EU capacity as it is about Russia pressure.

There is also an important coordination dimension: decarbonisation linkage becomes far more powerful if multiple major markets adopt compatible standards. The EU can act as a norm entrepreneur by setting MRV and disclosure expectations that others gradually emulate. Even partial emulation can reduce Russia's ability to arbitrage between markets. For example, if multiple jurisdictions require methane intensity disclosure, the cost of maintaining opaque operations rises globally. Similarly, if shipping emissions standards tighten across regions, shadow-fleet tactics become more costly and less scalable. The challenge is that climate policy harmonisation is slow, and geopolitical priorities differ. Therefore, the EU should design the regime to be effective even without perfect coordination, while simultaneously pushing for convergence through diplomacy and technical cooperation. In practice, this means building robust domestic MRV and enforcement first, then exporting standards through trade agreements, technical dialogues, and financial regulation. The regime's extraterritorial effect is thus partly intentional and partly emergent. Over time, the compliance cost becomes embedded in global market practice, which is difficult to reverse. This is precisely why linkage is attractive for sustained pressure: it reduces dependence on constant political escalation. It converts pressure into a structural property of market governance.

A further operational issue is how to treat blended or transformed products that mix origins or undergo processing in third countries. Hydrocarbon flows and related commodities can be blended, re-labelled, or minimally transformed to obscure origin and to exploit regulatory gaps. A linked regime must therefore integrate origin rules with emissions traceability. If origin is uncertain, emissions intensity should not be assumed favourable; conservative defaults should apply. If emissions documentation is missing, market access should be delayed or denied, or a penalty should apply. This increases the cost of laundering strategies and reduces incentives for third-country intermediaries. The enforcement challenge is data: customs, maritime intelligence, and corporate registries must be integrated. However, the EU already has experience in risk-based customs enforcement and can extend this to emissions-linked checks. The regime can also use certification: trusted compliance operators can receive faster clearance, while high-risk flows face scrutiny. This creates a self-selection dynamic: firms invest in transparency if it improves their commercial outcomes. Over time, this reduces systemic opacity and improves enforceability. For sanctions, reducing opacity is a direct gain because circumvention thrives on opacity. Therefore, traceability is not merely a climate objective; it is a sanctions objective.

The linkage strategy must also account for Russia's likely counter-adaptation. Russia and facilitators may attempt to build alternative certification systems, rely on sympathetic jurisdictions, or produce "paper compliance" with weak verification. They may also deepen reliance on shadow fleets and non-EU service stacks, accepting higher risk premia. The EU's response should be to prioritise verification over claims: certificates without credible audit should not unlock favourable treatment. The regime should also target known weak points: beneficial ownership opacity, repeated AIS anomalies, irregular port call patterns, and unusual trade re-export surges in specific corridors. Data-driven enforcement helps prevent the regime from becoming a paperwork contest. The EU can also leverage third-party

verification markets: reputable auditors, satellite detection, and independent monitoring can support credibility. Over time, this can create a tiered market where reputable verification becomes a valuable asset and low-quality certification is discounted. For Russia-linked flows, the expectation is that credibility discounts translate into financial discounts. That is precisely the pressure mechanism the EU seeks. The more the regime rewards credible verification, the harder it becomes for opaque exporters to compete.

Finally, the linkage should be evaluated through the lens of long-run structural impact on Russian fiscal capacity and industrial resilience. Hydrocarbon rents have historically funded not only public spending but also quasi-fiscal stabilisation of strategic enterprises. If decarbonisation-linked sanctions compress netbacks and raise costs, the state's ability to stabilise becomes more constrained. At the same time, technology and financing constraints reduce Russia's capacity to adapt by upgrading infrastructure and lowering emissions intensity. The combined effect is a slow tightening of constraints that is difficult to offset through short-term policy measures. This is why decarbonisation linkage is strategically different from classical sanctions: it targets the target's long-run economic model rather than discrete transactions alone. For the EU, the payoff is also strategic: it reduces vulnerability and increases the sustainability of pressure. The principal risk is governance complexity: if instruments are too complex or poorly coordinated, enforcement weakens and political support erodes. Therefore, simplicity, measurability, and phased escalation are crucial design principles. A linked regime should be treated as a system: MRV, customs, services, finance, and technology controls must reinforce each other. If designed and implemented as such, it can become one of the EU's most credible "pressure multipliers" for 2026–2030.

In conclusion, linking sanctions to energy decarbonisation offers a structurally durable pathway to strengthen economic pressure by embedding enforcement within climate governance tools that are already expanding in scope, precision, and institutional legitimacy. The most effective architecture combines carbon border conditionality, methane intensity requirements, maritime emissions and service-stack conditionality, and sustainable-finance alignment, while simultaneously constraining the target's ability to reduce emissions intensity through technology and services denial. The strategic effect is cumulative: higher compliance costs, greater opacity penalties, increased risk premia in shipping and finance, and a declining investment horizon for Russia's hydrocarbon sector and hydrocarbon-adjacent industries. The linkage is particularly valuable because it operates through predictable trajectories rather than one-off prohibitions, thereby sustaining pressure even under political fatigue. However, success depends on rigorous measurement governance, conservative defaults for non-verification, integrated traceability across customs and maritime data, and a phased approach that avoids destabilising EU energy security. If these conditions are met, decarbonisation linkage can convert sanctions into a long-run market re-engineering mechanism that compresses Russian export rents, degrades reinvestment capacity, and narrows the target's strategic options. If they are not met, the approach risks becoming an administratively heavy compliance layer that facilitators can game through paper transparency and jurisdictional arbitrage. The decisive factor is therefore enforcement realism: build the MRV and traceability spine first, then use it to apply targeted conditionality where EU leverage is strongest.

### 3.5. Conclusion

Part Three shifts the report's centre of gravity from the political logic of sanctions to the operational economics of pressure: how restrictions translate into measurable frictions in trade, finance, technology, logistics, and industrial reproduction. The section treats economic sanctions not as a monolithic "shock" but as a portfolio of instruments with differentiated transmission channels and lag

structures, which is why it repeatedly emphasises the importance of mechanism-level evaluation. A central analytical conclusion is that the Russia case demonstrates a mature sanctions environment where adaptation is continuous and where the key contest is no longer the existence of restrictions, but the contest between enforcement and circumvention capacity. The report therefore positions the 2026–2030 horizon as a phase of diminishing returns for simple additive prohibitions and rising returns for targeted enforcement, anti-circumvention design, and service-stack restrictions. It also integrates a policy-evaluation lens: sanctions effectiveness is interpreted through *prospectiveness and constraints*—whether a tool can plausibly be sustained, strengthened, and enforced under real political and market conditions. In doing so, Part Three implicitly argues that sanctions are now as much about governance capacity (monitoring, compliance, coalition coordination) as about legal text. The section sets up the reader to see sanctions as a long-run industrial contest: degrading capital renewal, narrowing technology options, and forcing a shift toward substitution and repair. This framing is critical for interpreting why macro stability can coexist with micro-level degradation and rising hidden costs.

A key theme in Part Three is the centrality of trade-industrial and technology restrictions as a “capability denial” regime rather than merely a trade-disruption regime. The report’s logic is that in a prolonged confrontation, the most decisive economic impacts emerge not from immediate GDP contractions but from constrained access to advanced inputs—machine tools, electronics, specialised components, software, and services—combined with rising costs of substitution and longer supply chains. This drives a gradual deterioration in productivity and quality, increased reliance on parallel imports, and a growing share of economic activity devoted to maintenance, re-engineering, and compliance work rather than expansion. The analysis also recognises that Russia’s adaptation is not uniform across sectors: some segments can substitute through assembly and rerouting, while others remain structurally dependent on high-precision imports. The section therefore pays attention to sectoral differentiation and to the role of intermediaries and third-country hubs in sustaining import channels. A parallel insight is that trade controls become more effective when paired with enforcement tools that disrupt diversion networks rather than simply expanding lists of controlled items. In this sense, Part Three treats enforcement architecture as an economic variable: better enforcement increases frictions, extends lead times, and raises the risk premium charged by intermediaries. The practical policy implication is that the “next increment” of pressure is most likely to come from closing high-leverage nodes in procurement and services, not from broad headline bans that are already priced in and partially circumvented.

Transport and logistics restrictions are presented as a second major pressure channel because logistics is the physical substrate of revenue generation and industrial supply chains, especially for energy exports and dual-use procurement. The report treats the emergence and role of the shadow fleet as an archetypal adaptation mechanism: it enables continuity of flows but at higher cost, higher operational risk, and greater dependence on opaque service providers. This is important analytically because it shows how sanctions can simultaneously “fail” in a simplistic volume sense while “succeed” in a profitability and risk sense by compressing netbacks and raising transaction costs. The section also highlights that logistics restrictions are most powerful when they target the services stack—insurance, brokering, certification, port access—because these services are less easily substituted than physical assets and because they generate auditable compliance artefacts. A further conclusion is that logistics restrictions interact with trade and technology controls: longer routes, more transshipment, and more intermediaries increase the probability of disruption and the cost of concealment. The report’s 2026–2030 outlook stresses that the contest will increasingly be about monitoring, enforcement coordination, and the ability to identify and list enabling assets and firms quickly. This implies that sanctions effectiveness will depend on sustained intelligence and compliance capacity, not only on the formal scope of restrictions. The section therefore positions logistics as a “pressure amplifier” that can extend the reach of other measures by making circumvention logistically expensive and operationally brittle.

Part Three’s statistical component is used not as a standalone dataset but as an evidentiary bridge between macro-level narratives and micro-level operational signals. The analysis of corporate net losses and loss concentration indicates that sanctions-linked frictions and structural shifts are reflected in

firm-level financial stress, often concentrated in strategically important entities and sectors. The report uses concentration patterns to argue that pressure is not evenly distributed: it tends to accumulate in large, exposed entities, with second-order spillovers to supply chains and regional fiscal stability. The industrial output dynamics further reinforce this point: growth in repair, substitution, and certain procurement-linked sectors can coexist with contraction in upstream resource extraction and energy-linked chains, suggesting adaptive reallocation rather than broad-based modernisation. This interpretation aligns with the report's broader mechanism-first approach: the economy may maintain aggregate activity levels while shifting composition toward lower-productivity or maintenance-heavy activity. The statistical discussion also supports the report's argument about time lags: some impacts manifest not as immediate collapse but as increased maintenance burdens, constrained investment, and financial stress pockets. In policy terms, this strengthens the case that sanctions pressure should be assessed by structural indicators—technology access, logistics frictions, netbacks, concentration of losses—rather than by headline growth alone. The statistics thus function as corroborative evidence for the claim that sanctions are reshaping the operating environment even where macro aggregates appear resilient. This evidentiary stance is especially relevant for 2026–2030, when incremental effects are expected to be more structural than spectacular.

Finally, Part Three's forward-looking proposals argue that the next stage of economic pressure requires escalation in *design sophistication*: secondary sanctions logic, extraterritorial measures, and the linkage of sanctions with energy decarbonisation governance. The report treats this not as rhetorical escalation but as a pragmatic response to the maturity of circumvention ecosystems; the more adaptive the target, the more pressure must operate through leverage points that are difficult to substitute. Secondary sanctions are framed as a way to increase the cost of facilitation for third-country intermediaries, particularly in finance, shipping services, and diversion networks, while still requiring careful calibration to avoid excessive diplomatic and legal blowback. Extraterritorial measures are presented as a spectrum of nexus-based tools—market access conditionality, service-stack conditionality, finance perimeter controls, and group-level compliance duties—that create practical extraterritorial effects without relying on an openly expansive jurisdictional doctrine. The energy–decarbonisation linkage is positioned as a structural multiplier: embedding pressure within MRV systems, carbon border conditionality, methane requirements, and sustainable finance so that constraints become durable and trajectory-based rather than episodic. The combined implication is that 2026–2030 pressure will be most effective when it is embedded in governance systems with measurement, verification, and compliance infrastructures, thereby reducing reliance on constant political escalation. Part Three therefore concludes—implicitly through its architecture—that the future effectiveness of EU sanctions will be determined less by the marginal addition of bans and more by the capacity to enforce, verify, and condition access to services and markets. In this framework, the policy objective becomes sustained friction and capability degradation, achieved through targeted leverage points and reinforced by climate and compliance governance.