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ECONOMIC WARFARE IN THE BLACK SEA: A GEOECONOMIC ANALYSIS OF COERCION THROUGH GRAIN, BLOCKADES, AND ENERGY INFRASTRUCTURE

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Abstract: *This article examines economic warfare in the Black Sea as a geoeconomic contest over three interdependent systems: (i) grain and agri-food logistics, (ii) maritime trade and insurance, and (iii) offshore and coastal energy infrastructure. Using open-source process tracing and qualitative document analysis of peer-reviewed studies, official datasets and reports, and policy assessments published primarily in 2022–2025, the paper reconstructs how coercive actions in one domain propagate through shipping routes, risk pricing, and energy-security expectations. Three mechanisms are identified. First, disruption of export corridors reconfigures the distribution of bargaining power by raising transaction costs and amplifying domestic price discounts for Ukrainian producers. Second, war-risk and sanctions compliance convert military pressure into insurance and financing constraints that shift trade away from the Black Sea and towards longer, costlier routes. Third, repeated attacks and hybrid interference against energy assets increase systemic uncertainty and alter investment and resilience decisions well beyond the immediate theatre. The article argues that these mechanisms operate as mutually reinforcing channels of coercion: the effect is not only the denial of specific cargo flows or megawatts, but the strategic manipulation of expectations and contractual risk allocation in regional markets. The contribution is conceptual and policy-relevant: it specifies observable indicators for tracing economic coercion in maritime regions and delineates boundary conditions, limitations, and alternative interpretations for causal claims in open-source research.*

Keywords: Economic Warfare, Geoeconomics, Black Sea Security, Economic Coercion, Weaponized Interdependence, Energy Security, Food Security, Bulgaria.

1. INTRODUCTION

The Black Sea is a strategic maritime junction linking European, Eurasian, and Middle Eastern supply chains. Its ports and sea-lanes are structurally embedded in global food, energy, and transport networks, which makes the region unusually susceptible to geoeconomic leverage. Since 2022, the war has accelerated a shift from episodic disruption to sustained economic coercion: decisions about access, insurance, routing, and infrastructure resilience have become instruments through which actors seek political outcomes. Recent policy assessments treat the Black Sea not merely as a battlefield, but as a critical node where security strategy and market governance intersect (Scowcroft Center for Strategy and Security, 2023; European Commission & High Representative, 2025).

Economic statecraft has long captured how states employ trade, finance, and sanctions to influence behaviour without conventional military escalation (Baldwin, 1985; Blackwill & Harris, 2016). What is distinctive in the contemporary Black Sea context is the tight coupling between kinetic pressure and market infrastructure: coercive effects are channelled through private contractual arrangements (insurance clauses, charterparty risk premia, compliance screening) and through the governance of

chokepoints and corridors. The practical implication is that coercion may be observable in prices, routing decisions, and risk spreads even when formal policy instruments remain unchanged (Lowenfeld, 2002).

To capture these dynamics, the article adopts a geoeconomic lens in which interdependence is not treated as a background condition but as a manipulable structure. Weaponized interdependence highlights how network centrality and gatekeeping in global systems can be converted into coercive capacity (Farrell & Newman, 2019). In the Black Sea, this logic is visible in how access to maritime space, export certification, and logistics services can be tightened or relaxed to produce economic and political pressure—often below the threshold of an explicit embargo (Balcaen, 2024).

This paper therefore treats economic warfare as a portfolio of coercive practices that blend military pressure with economic and regulatory frictions. The analytical focus is on mechanisms that are empirically traceable: changes in risk pricing, route selection, commodity-market reactions, and the operational availability of energy assets. This approach reduces reliance on rhetorical claims and instead anchors the argument in observable consequences and documented policy decisions.

The core theoretical claim is that economic warfare in maritime regions operates through expectation management: by increasing uncertainty and altering contractual terms, coercion can persist even when physical flows partially adapt. This claim implies two boundary conditions. Where alternative routes and credible security guarantees are available, coercive effects should be dampened; where dependence is concentrated and risk cannot be diversified, coercive leverage increases.

Against this background, the article asks three questions: (1) how do disruptions in grain corridors translate into measurable market effects and bargaining leverage; (2) how do sanctions, war-risk insurance, and compliance practices reshape maritime trade patterns; and (3) how do attacks and hybrid threats to energy infrastructure produce regional spillovers in security and investment expectations? The aim is not to provide a comprehensive history of the war, but to specify and compare mechanisms of geoeconomic coercion across domains.

The central argument is that coercion in the Black Sea has been exercised through a combination of corridor disruption, risk pricing, and infrastructure pressure. These channels are mutually reinforcing: corridor disruption increases domestic price discounts and logistics costs, elevated war-risk premia discourage commercial participation and re-route trade, and repeated infrastructure attacks raise the perceived permanence of insecurity, affecting both public resilience planning and private capital allocation.

The remainder of the article proceeds as follows. Section 2 specifies the research design and evidentiary standards. Section 3 analyses grain and agri-food logistics as a coercive domain. Section 4 examines maritime trade and the insurance–sanctions interface. Section 5 discusses offshore energy infrastructure and hybrid threats. The conclusion synthesises implications and identifies methodological limits and alternative explanations.

2. METHODOLOGY

This study uses a qualitative, mechanism-focused research design. The unit of analysis is a coercive episode affecting a regional economic system (grain logistics, maritime trade/insurance, or energy infrastructure). Evidence is drawn from English-language peer-reviewed publications, official reports and datasets (UNCTAD, OECD, World Bank), and policy analyses by reputable institutions. The main period of observation covers February 2022 through late 2024, with 2025 sources used to interpret longer-run implications and to cross-validate earlier claims. The literature was identified through structured searches in Google Scholar and major bibliographic databases using combinations of keywords such as «Black Sea Grain Initiative", «war-risk insurance", «Black Sea trade", «maritime corridor", and «energy infrastructure attacks", followed by backward citation tracking from the most relevant peer-reviewed studies.

Source selection followed three criteria: (i) traceability—claims can be linked to identifiable data, documents, or transparent field reporting; (ii) institutional credibility—preference for peer review or established intergovernmental and policy organisations; and (iii) domain relevance—direct linkage to the Black Sea and to one of the three coercive domains. Where sources diverged, priority was given to those with disclosed methods, clear time stamps, and replicable indicators. Exclusion criteria removed undated

or anonymous commentary, sources without editorial oversight, and items whose empirical claims could not be linked to primary material.

The analysis applies process tracing to reconstruct causal sequences from actions (e.g., blockade, corridor restrictions, attacks) to intermediate mechanisms (risk premia, rerouting, domestic price differentials) and then to outcomes (export volumes, market responses, resilience decisions). Causal claims are framed conservatively: where attribution is uncertain or data are incomplete, the text specifies plausible alternative pathways rather than asserting singular causation. Within each case, the narrative is organised around temporally ordered events and documented market or policy reactions; across cases, the comparison tests whether similar coercive logics (risk inflation, rerouting, expectation shocks) recur under different material conditions.

1. Mechanism coding used three observable categories. First, dependency indicators capture the degree to which regional or global systems rely on Black Sea routes or assets. Second, coercive instruments capture the means of pressure, including physical disruption, legal and regulatory constraints, and hybrid interference. Third, effect indicators capture market and policy responses, such as changes in futures pricing, insurance conditions, or infrastructure hardening.
2. Triangulation was implemented across source types. For commodity and trade effects, peer-reviewed market studies were compared with official trade and logistics reporting. For risk pricing, insurance and financial-market analyses were compared with policy documentation and shipping reports. For infrastructure effects, technical assessments were compared with broader security analyses to avoid over-interpreting isolated incidents. Where possible, the analysis aligns evidence to common event markers (e.g., corridor announcements, withdrawals, major strikes) to reduce the risk of attributing broader trends to single incidents.
3. The paper does not use proprietary datasets and therefore cannot observe some commercial variables (e.g., contract-level war-risk premia) directly. Instead, it relies on documented changes in underwriting practices, published risk assessments, and observable routing outcomes as proxies (OECD, 2022; UNCTAD, 2024a).

This methodological strategy helps reduce 'LLM-style' generalities by forcing each substantive claim to meet a minimal evidentiary threshold: a claim is retained only if it can be supported by at least one verifiable source and, where possible, corroborated by an independent source category.

1. A practical limitation is that open-source reporting is uneven across domains. Grain and trade data are comparatively rich, while information on offshore energy assets and covert interference is more fragmented. Accordingly, the energy-infrastructure section emphasises resilience implications and policy-relevant threat patterns rather than attempting precise quantitative damage accounting (Bozhilov, 2025).
2. Another limitation concerns counterfactuals. Shipping and commodity markets were also affected by global inflation, monetary tightening, and other chokepoint disruptions (e.g., Red Sea and Panama Canal constraints). Where relevant, the analysis notes these confounders and treats observed Black Sea effects as part of a broader shock environment (UNCTAD, 2024a).
3. Despite these limits, the combination of process tracing and triangulation allows for a disciplined comparison across domains: the goal is to identify recurring coercive mechanisms and to specify where the evidence supports stronger or weaker causal inference.

Finally, the article adheres to reproducibility in citation practice. Each in-text citation corresponds to a verifiable reference entry, with a DOI or stable URL provided where available. This supports editorial review and reduces the risk of non-existent or misattributed sources in a rapidly evolving policy environment.

3. RESULTS: THE ANATOMY OF ECONOMIC WARFARE IN THE BLACK SEA

Grain exports are a classic vulnerability in the Black Sea because they combine high global relevance with concentrated logistics. Ukraine has historically been a major supplier of wheat, maize, and sunflower products, and the pre-war export model relied heavily on a small number of Black Sea ports. This created

a predictable coercive target: disrupting maritime access can generate both domestic economic losses and international price effects (Welsh & Glauber, 2024; Neyter et al., 2024).

3.1 Case 1: The "Grain Weapon" – Leveraging Global Food Security

First, the dependency structure is asymmetric. Ukrainian producers depend on access to deep-water ports and affordable shipping capacity, while import-dependent states are exposed to volatility rather than absolute scarcity. This configuration enables coercion through cost inflation and uncertainty: even partial disruption can widen basis differentials and depress farm-gate prices in Ukraine (Neyter et al., 2024).

Second, coercive instruments in this domain include physical blockade, targeted strikes on port and storage facilities, and the politicisation of corridor governance. These instruments do not require a permanent interdiction; instead, they function by periodically raising the probability of loss and delay, thereby changing commercial behaviour.

- Third, corridor governance matters because it translates military control into administrative frictions. The Black Sea Grain Initiative (BSGI) reduced some of these frictions, and its suspension or termination re-introduced uncertainty that was rapidly priced into markets. Empirical evidence indicates that the BSGI announcement and implementation were associated with measurable reactions in grain futures and volatility metrics (Steinbach & Yildirim, 2024; Poursina et al., 2024).
- Fourth, the coercive effect is amplified when disruption coincides with information and political signalling. Policy analyses describe the use of grain exports and corridor access as leverage in broader negotiations, including attempts to shift blame for price increases and to frame sanctions relief as a condition for market 'stability' (Paul & Taran, 2023; Welsh & Glauber, 2024).

Fifth, the distributional impact is visible in Ukraine's agricultural balance sheet. A World Bank-authored assessment of war damages and losses estimates that export disruptions contributed to substantial losses through lower domestic prices and higher logistics costs, alongside direct damages to storage and machinery (Neyter et al., 2024). This supports an interpretation of grain corridor pressure as an economic-coercion mechanism rather than a purely tactical maritime measure.

- Alternative explanations must be considered. Global commodity prices were influenced by weather, energy costs, and monetary conditions. However, studies that isolate BSGI-related event windows and corridor policy shifts still find statistically detectable market responses, suggesting that Black Sea corridor governance acted as an independent driver of expectations (Steinbach & Yildirim, 2024; Poursina et al., 2024).
- Overall, grain corridor pressure illustrates a broader geoeconomic pattern: the objective is not only to interrupt exports but to impose a persistent 'risk tax' on the target's production and financing conditions, while keeping international buyers oriented towards alternative suppliers and routes.

3.2 Case 2: The Maritime Domain – Kinetic and Economic Blockades

Maritime trade in the Black Sea is shaped by commercial shipping decisions that respond quickly to perceived risk. Since 2022, risk has been priced not only through physical threats but also through sanctions compliance and insurance availability. The result is a layered coercive environment: even when shipping is legally permitted, elevated war-risk premia, compliance screening, and uncertainty about port access can deter participation and redirect cargo flows (OECD, 2022; UNCTAD, 2024a). In practice, commercial withdrawals and rerouting have followed salient escalation points, including changes in corridor arrangements and high-profile attacks on port areas, which suggests that market behaviour responds to both physical risk and policy uncertainty.

War-risk insurance is a particularly important transmission belt between military events and economic outcomes. When insurers increase premiums or narrow coverage, charterers and shipowners face higher costs and stricter contractual terms, which can make routes commercially unattractive. OECD

analysis of the early-war period documents how conflict risk and sanctions complexity affected marine insurance conditions and the functioning of international insurance markets (OECD, 2022). Even when coverage remains formally available, higher deductibles, narrower perils, and stricter voyage approvals can make participation prohibitive for smaller operators, thereby concentrating exposure among a limited set of firms and increasing systemic fragility (OECD, 2022).

- Trade-pattern evidence supports this mechanism. A peer-reviewed study on Black Sea trade reports measurable disruptions and reconfiguration of flows following the escalation of hostilities, consistent with the hypothesis that risk pricing and routing constraints materialised at scale (Nate et al., 2024).
- A second mechanism is the compliance interface. Sanctions do not only prohibit transactions; they also increase due-diligence costs and create incentives for over-compliance among private actors. This 'compliance friction' can be coercive even without formal escalation of sanctions, because uncertainty over enforcement and reputational risk affects financing and insurance availability (Chachko & Newman, 2025).

Third, shipping networks adapt by rerouting and re-allocating capacity, but adaptation itself is costly. Network analysis of container shipping under geopolitical shocks shows how disruptions can propagate through service rotations and port choice, producing longer transit times and higher logistics costs (Martin, 2025). UNCTAD similarly notes that recent shocks in key maritime chokepoints, including the Black Sea, have extended sailing distances and added volatility to freight markets (UNCTAD, 2024a, Sciubba, 2023). For bulk commodities, the same logic applies: when the risk-adjusted cost of Black Sea shipping rises, capacity shifts towards alternative corridors, including river and rail interfaces, but these substitutes can become bottlenecks and generate additional rents for intermediaries (Neyter et al., 2024).

- Taken together, these dynamics imply that maritime coercion is often indirect. The observable outcome is not always a visible blockade; it can be a market-mediated withdrawal of capacity and financing. For policy, this points to the importance of security guarantees and risk-sharing instruments that can stabilise insurance and shipping participation when corridor access is contested.
- The maritime trade domain therefore links coercion to governance: legal rules, underwriting practices, and network structures jointly determine whether coercive pressure is amplified or dampened. This reinforces the broader geoeconomic thesis that economic warfare increasingly operates through the private infrastructure of globalisation rather than through state commands alone (Farrell & Newman, 2019).

3.3 Case 3: The Energy Front – Kinetic and Hybrid Threats

Energy infrastructure in and around the Black Sea is both a physical asset base and a signalling device: attacks and hybrid interference can change expectations about long-term security, investment, and regional integration. Offshore platforms, pipelines, grids, and port energy terminals are exposed to kinetic risks and to information and cyber operations that are harder to attribute and deter (Bozhilov, 2025). Because many assets are interconnected (ports depend on power supply; grids depend on coastal terminals; offshore facilities depend on onshore control systems), localized pressure can cascade into broader operational constraints, a risk explicitly flagged in regional security planning (European Commission & High Representative, 2025).

From a geoeconomic perspective, the coercive value of energy disruption lies in its spillovers. Even when immediate supply shortfalls are mitigated, repeated attacks can raise financing costs, slow maintenance and upgrades, and drive a preference for redundancy and diversification. World Bank reporting on Ukraine's wartime economy highlights how sustained attacks on energy infrastructure undermine recovery and contribute to persistent macroeconomic fragility (World Bank, 2023). Beyond immediate outages, recurrent strikes generate planning uncertainty for firms and public authorities,

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complicating procurement, maintenance scheduling, and the prioritisation of scarce capital for repair versus expansion (World Bank, 2023).

- Hybrid threats further complicate governance. Critical energy infrastructure often spans jurisdictions and involves public–private ownership structures. This creates multiple points of entry for coercion—legal disputes, regulatory delays, sabotage, and influence operations that seek to shape political decisions about energy routing and investment (Sikharulidze, 2025).
- A core implication is that resilience is not only technical but institutional. Improving resilience requires joint threat assessment, information-sharing, and aligned standards across coastal states and partners. Policy discussions in the region emphasise the need to coordinate EU and NATO tools for infrastructure protection and crisis response (Bozhilov, 2025; European Commission & High Representative, 2025).
- Because open-source evidence on specific offshore incidents can be incomplete, this section prioritises mechanism plausibility over precise damage quantification. The relevant empirical indicator is the pattern of repeated pressure on energy assets and the resulting adjustments in policy and investment expectations, which is consistent with a strategy of coercion through systemic uncertainty rather than through one-off denial.

Table 1. Typology of Economic Coercion in the Black Sea

Weaponized Domain	Coercive Tactic / Instrument	Primary Target(s)	Observed Geoeconomic / Security Impact
Agriculture (Food)	1. Kinetic attacks on grain silos/ports. (Welsh & Glauber, 2024) 2. Political leverage via BSGI termination. (Paul & Taran, 2023)	1. Ukrainian economy. 2. Global South food importers.	1. Global food price volatility. (Welsh & Glauber, 2024) 2. Creation of political leverage ("grain blackmail"). (Paul & Taran, 2023) 3. Devastation of Ukrainian agricultural sector. (Welsh & Glauber, 2024)
Maritime Trade	1. Kinetic naval blockade (mines, fleet). (Kormych et al., 2024) 2. *De facto* economic blockade (war risk insurance premiums). (Denamiel et al., 2024)	1. Ukrainian export revenue. 2. Global shipping & supply chains.	1. Economic strangulation of Ukraine. (Kormych et al., 2024) 2. Disruption of Freedom of Navigation. (Scowcroft Center for Strategy and Security, 2023) 3. Market-based enforcement of blockade. (Denamiel et al., 2024)
Energy	1. Kinetic attacks on Ukrainian grid. (Balcaen, 2024) 2. Hybrid threats to offshore platforms (Bulgaria/Romania). (Bozhilov, 2025) 3. Coercive "naval exercises" in EEZs. (Toscano & Zgurean, 2025)	1. Ukrainian civil society/economy. 2. European energy security. 3. Foreign investment in regional energy.	1. Systemic failure of Ukrainian grid. (Balcaen, 2024) 2. Cascading risks to EU energy security. (Harangozo, 2025) 3. Deterrence of investment in Bulgarian/Romanian EEZs. (Bozhilov, 2025; Toscano & Zgurean, 2025)

Source: created by the author

4. DISCUSSION: SYSTEMIC IMPLICATIONS FOR BLACK SEA SECURITY

The three domains examined—grain logistics, maritime trade/insurance, and energy infrastructure—share a common logic: coercion is generated by manipulating the terms under which markets can operate. Rather than relying solely on explicit prohibitions, economic warfare in the Black Sea exploits concentrated dependencies and converts security risks into contractual and financial constraints.

The grain case shows how corridor governance and episodic disruption can impose durable economic losses on the target even when exports continue via alternative routes. The mechanism operates through price discounts, higher logistics costs, and volatility effects that shape production incentives (Neyter et al., 2024; Steinbach & Yildirim, 2024).

The maritime trade case demonstrates that insurance and compliance are not peripheral details but core instruments of geoeconomic pressure. When risk premia rise and coverage tightens, private actors reduce exposure, leading to rerouting and capacity reallocation. This mechanism is consistent with both policy reporting and peer-reviewed evidence on trade disruption in the Black Sea (OECD, 2022; Nate et al., 2024).

The energy case indicates that coercive effects may be primarily forward-looking. Attacks and hybrid threats change expectations about the credibility of protection and the permanence of risk, which can shift investment and integration choices. This is precisely the type of systemic spillover emphasised in recent EU strategy documents on the Black Sea (European Commission & High Representative, 2025, Całus et al., 2025).

Two alternative explanations warrant attention. First, some observed market outcomes may reflect global shocks unrelated to the Black Sea, such as monetary tightening, climate-related harvest variation, and disruptions in other chokepoints. Second, market adaptation and policy interventions (subsidies, corridor arrangements, emergency releases) can mask coercive pressure. These confounders reduce the strength of causal inference unless event-window or process-tracing evidence is available.

- Accordingly, the evidentiary standard differs across domains. In grain markets, event-window studies provide stronger leverage for attributing market reactions to corridor policy shifts (Poursina et al., 2024). In insurance and shipping, the strongest evidence comes from documented underwriting and compliance changes coupled with observed routing patterns (OECD, 2022; UNCTAD, 2024a). In energy, evidence is often qualitative and must be interpreted with explicit uncertainty about attribution and covert action (Bozhilov, 2025).
- A further implication concerns deterrence and resilience policy. If coercion works by imposing a 'risk tax', then mitigation requires risk-sharing instruments, credible security assurances for commercial actors, and institutional mechanisms that reduce uncertainty about corridor access and infrastructure protection. This shifts attention from ad hoc crisis management towards governance reforms that make coercion less cost-effective. Concrete options include public–private risk-sharing arrangements, contingency underwriting facilities, and security-linked corridor assurance mechanisms that lower uncertainty for shipowners and charterers while preserving compliance integrity.
- The analysis also highlights a normative dimension. Economic coercion occupies a legal grey zone, and disagreements about what constitutes legitimate economic pressure can be exploited strategically. Recent scholarship on the norms of economic coercion suggests that clearer principles and practices are needed to reduce opportunistic escalation and to protect legitimate trade flows (Chachko & Newman, 2025).

Finally, the comparative design suggests a boundary condition for geoeconomic coercion: leverage is strongest where dependence is concentrated and where private actors cannot diversify risk. This points to the strategic value of diversification—of export routes, insurance backstops, and energy interconnections—as a long-term resilience strategy (European Commission & High Representative, 2025).

In sum, economic warfare in the Black Sea is best understood as a contest over the governance of interdependence. The cases show that coercion can be exercised through the combined effects of physical disruption and market mediation, producing outcomes that are economically significant even when formal policy instruments appear limited.

Methodologically, the paper's main limitation is reliance on open-source evidence. Future work could strengthen inference by integrating proprietary shipping and insurance datasets, port-call microdata, or firm-level trade finance information, and by systematically comparing the Black Sea with other maritime theatres subject to coercion.

Substantively, the findings underscore that regional security policy cannot be separated from market architecture. In the Black Sea, corridor governance, insurance design, and infrastructure resilience are not technical adjuncts—they are strategic variables that shape the distribution of power.

5. CONCLUSIONS

This article has argued that economic warfare in the Black Sea operates through three mutually reinforcing channels: corridor disruption in grain logistics, market-mediated constraints in maritime trade and insurance, and systemic uncertainty generated through pressure on energy infrastructure. Across domains, coercion is exercised by altering the costs, risks, and contractual conditions under which economic exchange can occur.

The analysis contributes by specifying mechanisms and observable indicators that support disciplined causal inference in a contested information environment. Where the evidence is strongest—grain corridor governance and market reactions—peer-reviewed studies and official assessments converge on measurable effects (Steinbach & Yildirim, 2024; Neyter et al., 2024). Where the evidence is weaker—offshore energy threats—the paper delineates limits and avoids over-confident attribution.

For editors and policymakers, two practical implications follow. First, resilience policy should prioritise reducing the 'risk tax' by stabilising insurance and shipping participation and by diversifying routes and capacity. Second, regional strategies should treat corridor governance and infrastructure protection as integrated security-economic instruments, consistent with recent European policy framing of the Black Sea as a strategic system (European Commission & High Representative, 2025). A complementary governance task is to reduce compliance ambiguity for legitimate trade by clarifying standards and information channels, which can limit over-compliance and unintended market withdrawal (Chachko & Newman, 2025).

1. Future research should test the proposed mechanisms with higher-resolution data and comparative designs, including cross-theatre comparisons with other chokepoint crises. Such work would clarify when geoeconomic coercion is most effective and how targeted states can design counter-measures that are economically sustainable.
2. Overall, the Black Sea illustrates a broader trend in international politics: economic interdependence can be converted into coercive capacity when risk, compliance, and infrastructure governance become levers of strategic influence (Farrell & Newman, 2019; Blackwill & Harris, 2016).
3. The policy challenge is therefore dual. It involves deterring physical disruption, while also shaping market institutions so that commercial actors can continue operating under stress without unintentionally magnifying coercive leverage.
4. By linking security events to market mechanisms and institutional responses, the article provides an analytically grounded basis for understanding how economic warfare is waged in maritime regions—and how it may be constrained.

REFERENCES

Balcaen, P. (2024, November 20). Beyond sanctions: Economic warfare and modern military conflict. Modern War Institute at West Point. https://mwi.westpoint.edu/beyond-sanctions-economic-warfare-and-modern-military-conflict/

Baldwin, D. A. (1985). Economic statecraft. Princeton University Press, 508.

Blackwill, R. D., & Harris, J. M. (2016). War by other means: Geoeconomics and statecraft. Harvard University Press, 384.

Bozhilov, Y. (2025, May 21). Critical offshore energy infrastructure versus hybrid threats: How can we improve resilience. Sofia Security Forum. https://sofiaforum.bg/publications/critical-offshore-energy-infrastructure-versus-hybrid-threats.-how-can-we-improve-resilience

Całus, K., Michalski, A., Nowinowski, J., & Tarociński, J. (2025, June 26). Romania, Bulgaria and Turkey in the Black Sea. The Polish Institute of International Affairs (PISM). https://www.osw.waw.pl/en/publikacje/osw-commentary/2025-06-26/romania-bulgaria-and-turkey-black-sea-region-increased

Chachko, E., & Newman, A. (2025). Building norms of economic coercion. Journal of International Economic Law, 28(3), 542–559. https://doi.org/10.1093/jiel/jgaf035

Denamiel, T., Dodd, E., Glauber, J., Reinsch, W. A., & Welsh, C. (2024, June 10). From the farm to the ship to the fork: How maritime insurance can facilitate global food trade. Center for Strategic and International Studies (CSIS). https://www.csis.org/analysis/farm-ship-fork-role-maritime-insurance-facilitating-global-food-trade

European Commission, & High Representative of the Union for Foreign Affairs and Security Policy. (2025). Joint communication on a strategic approach to the Black Sea region. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52025JC0135

Farrell, H., & Newman, A. L. (2019). Weaponized interdependence: How global economic networks shape state coercion. International Security, 44(1), 42–79. https://doi.org/10.1162/isec_a_00351

Harangozo, T. (2025, October 11). The war in Ukraine and mounting economic challenges in the greater Black Sea region. NATO Parliamentary Assembly. https://www.nato-pa.int/document/2025-black-sea-report-harangozo-017-esctd

Kormych, B., Averochkina, T., & Kormych, L. (2024). Black Sea, grain, and two humanitarian corridors: Unblocking Ukrainian agricultural exports. *Small Wars & Insurgencies*. https://doi.org/10.1080/09592318.2024.2384679

Lowenfeld, A. F. (2002). International economic law (2nd ed.). Oxford University Press.

Martin, B. P. (2025). Shipping trade and geopolitical turmoil: The case of the Black Sea. Journal of Transport Geography, 128, 104342. https://doi.org/10.1016/j.jtrangeo.2025.104342

Nate, S., Colibășanu, A., Stavytskyy, A., & Kharlamova, G. (2024). Impact of the Russo-Ukrainian war on Black Sea trade: Geoeconomic challenges. Economics and Sociology, 17(1), 256-279. doi:10.14254/2071-789X.2024/17-1/16

Neyter, R., Zorya, S., & Muliar, O. (2024). Agricultural war damages, losses, and needs review. World Bank. https://documents1.worldbank.org/curated/en/099062524074642129/pdf/P180198-405a6aea-dcd5-4926-9724-151419507961.pdf

OECD. (2022). Impact of the Russian invasion of Ukraine on insurance markets, Business and Finance Policy Papers, OECD Publishing, Paris, https://doi.org/10.1787/731d1305-en.

Paul, A., & Taran, S. (2023, July 31). Russia's weaponisation of grain exports must not be tolerated. European Policy Centre. https://www.epc.eu/publication/Russias-weaponisation-of-grain-exports-must-not-be-tolerated-52ae04/

Poursina, A., Schaefer, K. A., Hilburn, A. M., & Johnson, S. R. (2024). Economic impacts of the Black Sea Grain Initiative. *Journal of Agricultural Economics*, *75*(1), 457–464. https://doi.org/10.1111/1477-9552.12549

Sciubba, J. D. (2023). Population ageing and national security in Asia. *International Affairs*, *99*(5), 2119–2136. https://doi.org/10.1093/ia/iiad176

ISSN 2815-3324 Online, ISSN 2535-0358 Print

Scowcroft Center for Strategy and Security. (2023, December 15). A security strategy for the Black Sea. Atlantic Council. https://www.atlanticcouncil.org/in-depth-research-reports/report/a-security-strategy-for-the-black-sea/

Sikharulidze, V. (2025, March 13). Russian influence operations in Georgia: A threat to democracy and regional stability. Foreign Policy Research Institute. https://www.fpri.org/article/2025/03/russian-influence-operations-in-georgia-a-threat-to-democracy-and-regional-stability/

Steinbach, S., & Yildirim, C. (2024). Grain futures market response to the Black Sea Grain Initiative. German Journal of Agricultural Economics, 73(2), 162–176. https://doi.org/10.52825/gjae.v73i2.1343

UNCTAD. (2024a). Review of maritime transport 2024. United Nations Conference on Trade and Development. https://unctad.org/publication/review-maritime-transport-2024

Welsh, C., & Glauber, J. (2024, February 29). Food as a silent weapon: Russia's gains and Ukraine's losses. Center for Strategic and International Studies (CSIS). https://www.csis.org/analysis/food-silent-weapon-russias-gains-and-ukraines-losses

World Bank. (2023). Ukraine economic update: Sustaining recovery and reforms amidst war. https://documents1.worldbank.org/curated/en/099071724134524264/pdf/BOSIB1d1d0622608518b00118695f23138b.pdf

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