

The Shadow Fleet's Role in Global Energy Markets and Sanctions Evasion

Introduction

The maritime shipping industry is a cornerstone of the global energy trade, with oil tankers transporting millions of barrels of crude and refined petroleum across international waters daily. However, a growing segment of this trade operates beyond conventional regulatory frameworks, forming what is commonly referred to as the "shadow fleet." These vessels, often linked to sanctioned states such as Russia, Iran, and Venezuela, engage in covert operations to bypass restrictions imposed by the United States, European Union, and other Western nations.

An analysis of this clandestine network reveals its influence on global energy markets, geopolitical implications, and the risks associated with its expanding presence. A recent case study highlights the scale and significance of these developments.

Understanding the Shadow Fleet



<https://www.politico.eu/article/eu-agrees-to-tackle-russias-shadow-oil-fleet-sweden-says/>

This unofficial network consists of oil tankers that evade major regulatory oversight by employing tactics designed to obscure their ownership, cargo, and destinations. These ships frequently alter their names, registration flags, and ownership records, making tracking their movements exceptionally difficult. Many operate under 'flags of convenience' from jurisdictions with lenient oversight, such as Panama, Liberia, or the Marshall Islands.

A key tactic employed by these vessels is the manipulation of Automatic Identification Systems (AIS), which enable satellite tracking. Many tankers engaged in sanctions evasion disable their AIS transponders at critical points during their routes, particularly when transferring cargo between ships in open waters. This practice, commonly known as "going dark," makes it challenging for authorities to monitor illicit shipments.

Impact on Global Energy Markets

The presence of the shadow fleet significantly affects global oil prices and market dynamics. By enabling restricted countries to continue exporting oil, these surreptitious operations help maintain

supply levels, preventing extreme price fluctuations. According to industry estimates, Russia alone is utilizing over 600 unauthorized tankers to transport approximately 70% of its crude oil exports.

While this unregulated trade helps stabilize global prices to some extent, it also creates an uneven playing field for compliant shipping operators. Legitimate tanker companies must adhere to stringent environmental and safety regulations, pay higher insurance premiums, and comply with transparency requirements. In contrast, illegal operators exploit regulatory loopholes, offering lower-cost alternatives without meeting the same safety and environmental standards.

Geopolitical Implications

The rise of these covert shipping networks is deeply intertwined with global political tensions, particularly in the realms of energy security and economic sanctions. The United States and European Union have imposed restrictions on oil exports from Russia, Iran, and Venezuela as part of broader foreign policy objectives. Nevertheless, these measures have seen limited success due to the adaptability of unlawful transport operations.

Following the European ban on seaborne Russian crude oil in 2023, Moscow increasingly relied on disguised tanker operations. Russia redirected much of its oil trade toward China, India, and other non-Western markets, frequently utilizing STS (ship-to-ship) transfers to obscure the origin of its cargo. Iran and Venezuela have long relied on similar tactics to sustain their economies despite decades of trade restrictions and embargoes.

Western authorities have sought to curb these activities through tighter financial restrictions and regulatory measures. The EU has extended its emissions trading scheme to include maritime transport, while the US Treasury has introduced stricter guidelines for insurers covering oil shipments linked to prohibited entities. However, enforcement remains a formidable challenge due to the evolving tactics employed by these operators.

Recent Case Study: Russia's Expansion of the Shadow Fleet

One of the most significant recent developments in undercover oil transport is Russia's expansion of its tanker network to circumvent Western oil sanctions. Following the EU's embargo on Russian crude, Russian oil traders acquired hundreds of aging tankers, many previously owned by Western shipping companies.

Reports indicate that in 2024 alone, European and US shipowners sold over 230 tankers to undisclosed buyers linked to Russian oil traders, generating an estimated \$6 billion in revenue. These vessels often operate under third-party management and complex financial arrangements, making it difficult for authorities to determine their true ownership and shipping routes.

The long-term implications of this expansion are considerable. As Russia continues leveraging these covert operations to sustain oil exports, Western efforts to impose price caps and trade restrictions may become increasingly ineffective, raising questions about the future viability of economic sanctions as a geopolitical tool.

Risks and Future Outlook

While unregulated tanker fleet enables sanctioned nations to maintain oil exports, it also presents significant risks to global shipping and environmental safety. Many of these vessels are over 20 years old and lack proper maintenance, increasing the likelihood of accidents and oil spills. The 2024 explosion of the shadow fleet tanker *Pablo* off the coast of Malaysia underscored the dangers posed by these aging ships.

From a regulatory standpoint, authorities struggle with detecting and curbing these operations due to their evolving tactics. The International Maritime Organization (IMO) and national governments are exploring new monitoring technologies, including satellite tracking and AI-based ship profiling, to improve oversight. However, without stronger international cooperation and stricter enforcement mechanisms, these unauthorized shipping networks are likely to continue expanding.

Conclusion

The rise of the shadow fleet has reshaped global energy markets, allowing sanctioned nations to sustain their oil exports while challenging the effectiveness of Western-imposed economic restrictions. While these covert shipping operations help stabilize oil prices, they also distort competition, undermine regulatory frameworks, and pose significant environmental and safety risks.

As geopolitical tensions persist, the shadow fleet is likely to expand, testing the limits of sanctions enforcement. Addressing this challenge requires more than financial penalties; it demands enhanced international cooperation, improved satellite tracking technologies, and stricter regulatory oversight to curb illicit transport activities. Without decisive action, these unauthorized shipping networks will continue to exploit legal loopholes, further complicating efforts to regulate global energy trade.

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References

- "Carbon Pricing on Shipping." *Wikipedia*, en.wikipedia.org/wiki/Carbon_pricing_on_shipping.
- "Maersk to Buy Bio-Methanol Shipping Fuel from China's LONGi." *Reuters*, 30 Oct. 2024, www.reuters.com/markets/commodities/maersk-buy-bio-methanol-shipping-fuel-chinas-longi-2024-10-30/.
- "Risks of Unregulated Tanker Fleet Rising, UN Shipping Chief Says." *Reuters*, 14 Jan. 2025, www.reuters.com/markets/commodities/risks-unregulated-tanker-fleet-rising-un-shipping-chief-says-2025-01-14/.
- "Shadow Fleet of Tankers Keeps Russia's Oil Money Flowing Despite Western Sanctions." *Associated Press*, apnews.com/article/russia-sanctions-shadow-fleet-oil-baltic-ukraine-76b66900d599d6e49692643674907fc0.
- "Shadow Fleet." *Wikipedia*, en.wikipedia.org/wiki/Shadow_fleet.
- "Shipowners Have Made £4.8bn Selling Tankers to Russian 'Shadow Fleet.'" *The Guardian*, 4 Feb. 2025, www.theguardian.com/world/2025/feb/04/us-and-european-shipowners-sold-230-ageing-tankers-to-russian-shadow-fleet.
- "Taiwan Blacklists Chinese-Owned 'Shadow Fleet' Ships." *Financial Times*, www.ft.com/content/bb6b6a16-bbeb-4b04-9445-7f47fc78663b.