

# Global Free Trade vs National Strategic Autonomy in Critical Mineral Supply Chains: Is Open Strategic Autonomy the answer?



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With increased reliance on critical minerals in everyday life, supply chains are being diversified to withstand global demand. Concurrently, an effective critical mineral supply chain around the world will be needed for the net zero emissions policies of the future. However, these supply chains have been disrupted with monopolies, geopolitical disruptions, tariffs and environmental, social and governance (ESG) risks. The tension between protectionism and laissez faire trade principles in terms of national strategy is a paradox: free trade principles offer lower inflation pressures, at the mercy of nations being exposed to disruptive dependence, while protectionism grants autonomy, at increased inflationary risk and often nationalistic tendencies.

The structural risks associated with free trade policies is that it will solidify Chinese dominance of critical mineral supply chains. China already mines about 60% of rare earth metals and holds about 90% control of processing key critical minerals such as rare earth elements globally, effectively solidifying it as a global monopoly in terms of manufacturing output (Reuters, 2025; CSIS, 2025). In case of a geopolitical rupture such as the South China Sea dispute, or US-China relations, the world will be extremely vulnerable to these trade disruptions. China can also coerce nations in global politics to prevent any supply chain disruptions, such as China restricting exports of Gallium, germanium and Antimony to the

US in response of the Trump tariffs in early 2025 or China supporting the Myanmar civil war's rebels and military junta at the same time while building a new pipeline to the bay of Benegal.

On the other extreme end, protectionism offers greater autonomy to nations, shielding industries from foreign leverage and sudden disruptions, at the same time creates incentives for domestic production and additional industrialization. However, this security comes with heavy costs. Developing a mine takes an average of 15 years, while refining and producing ready-made materials require a substantial up-front capital and operational support. Protectionism when pursued unilaterally, risks raising inflation and undermines global cooperation for climate goals. Neither end of the spectrums of absolute free trade to rigid protectionist policies can be realized without triggering severe vulnerabilities.

Protectionism can be justifiable in the case of national security vulnerability and geopolitical threats. If a country holds a monopolized share of materials necessary for defense and critical infrastructure and uses it as a political tool or leverage in politics, then targeted protectionist policies can be justified. The paradox, therefore, is not choosing between two extremes of free trade and protectionism, but calibrating a middle path to secure economic resilience without wrecking the global trade order. The EU for example has issued partnerships with non-EU-nations called "Minerals Security Partnership" (MSP), designed as a direct response to rising geopolitical tensions, strategic supply vulnerabilities and resource diversification through multilateral trade agreements. The MSP goes beyond diversification, aiming to catalyze both public and private investment across the supply chain. From responsible mining and refining to promoting ESG standards (White & Case, 2024). This model of "open strategic autonomy" blends market mechanisms with strategy, as well as setting ceilings of dependence of one country while at the same time ensuring resilience of entire value chains.

To conclude, free trade maximizes efficiency but requires a divided market for competition, which is not found here as many nations are relying on a single country. While protectionism enhances autonomy at the risk of global fragmentation and inflation. A calibrated regime path with mixing market dynamics and state interventions in highly-needed strategic industries such as defense, and critical infrastructure, with strategic stockpiles, bilateral relationships, and dependence ceilings is the most strategic economically sound policies at hand. Yet, as highlighted in recent global forums such as the World Resources Forum in 2025, the future of critical mineral supply chains will deeply involve fair trade and ethical mining practices. Ensuring transparency, equitable benefit sharing with producing nations, adherence to labor and environmental standards and securing a moral but resilient supply chain (World Resources Forum, 2025; White & Case, 2024).

## Sources

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