Supply Chains, National Security, and the Limits of Industrial Policy

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Free Trade Works When Its Assumptions Hold

Free trade theory is correct. Its assumptions don't apply here

- Trading partners are assumed not to weaponize supply chains. China has demonstrated it will.
- Comparative advantage assumes market competition, but China's rare earth dominance was built through state subsidies and below-cost pricing that drove out Western producers.
- The framework assumes disrupted supply chains can be rebuilt. U.S. mine-to-production presently takes *29 years*.

The Resulting Numbers are Stark

Govini, Numbers Matter (2024), From Rock to Rocket: Critical Minerals and the Trade War for National Security (2025), National Security Scorecard (2025)

40+%

Of DoD semiconductors are dependent on Chinese suppliers

78%

Of U.S. weapon systems at risk from China's 2024-25 mineral export controls

~10%

Of Tier 1 defense subcontractors are Chinese firms

4x

Growth in Chinese defense suppliers since 2005

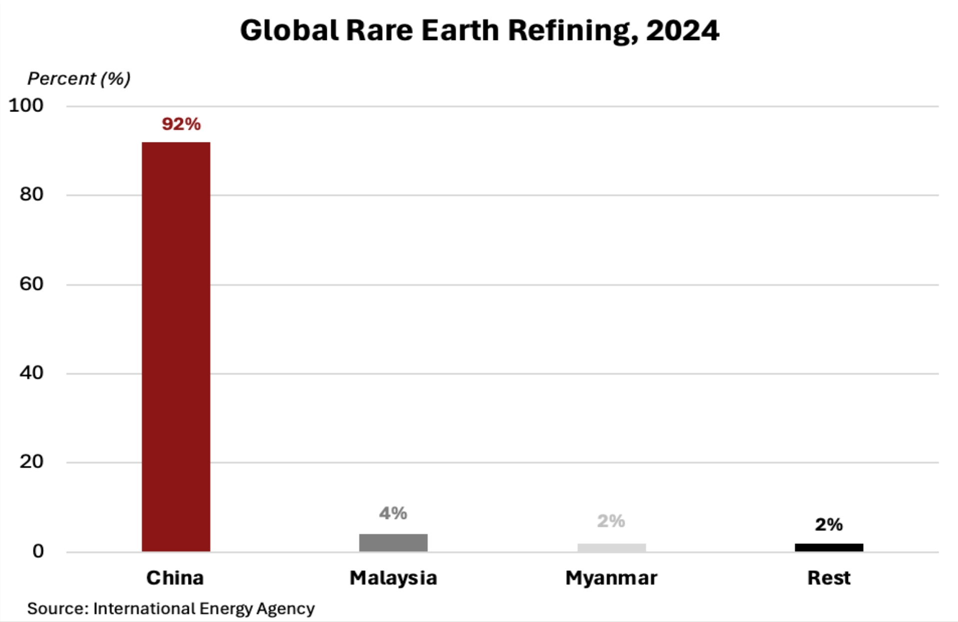
Chinese semiconductor suppliers linked to:

B-2 Spirit Stealth Bomber · Patriot Missile Defense System

We Can Mine It. We Can't Refine It

The bottleneck is regulatory, not geological or financial

- The U.S. is #2 in rare earth mining
- But the U.S. exports 95%+ of that ore to China for processing
- In 2024, the U.S. had just *one* operating refinery with 1.3 kt in total output
- China produced 240 kt of finished magnets that same year



The U.S. had zero rare earth refining capacity from 2002-2023. China used those 21 years to build 92% of global refining capacity.

Not Everything Is a National Security Issue

Once everything is national security, nothing is

Passes the Test

- Defense-grade semiconductors
- Rare earth magnets for guidance systems
- Gallium & germanium for radar electronics
- Antimony for military ammunition

Genuine Tradeoffs

- Semiconductor fabrication (CHIPS Act)
- Pharmaceutical APIs from China & India
- Advanced battery supply chain
- Steel for direct DoD use (~3% of output)

Fails the Test

- Upholstered furniture and kitchen cabinets
- Softwood lumber
- Passenger vehicles
- Patio chairs and other outdoor furniture

Getting the Policy Right

Policy avenues ordered by cost

01

COSTS NOTHING

Permitting reform for critical mineral refining

Streamline the NEPA review process and consolidate the federal process. Neither of these actions requires legislation.

02

COSTS NOTHING

Extend supply chain audits through tiers

Country-of-origin certification must reach 3 and 4. This is where B-2 and Patriot missile exposure exists.

03

TARGETED SPEND

DoD offtake commitments under DPA Title III

Long-term purchase commitments give private refiners the demand certainty to justify billion-dollar investments.

Necessary Condition: Require DoD certification of a direct security linkage for any Section 232 national security tariff claim