The New Resource Order

Energy, commodities, and the remaking of global power.

FOR MOST OF THE PAST CENTURY, global energy and commodity flows followed a relatively simple logic: resources moved from where they were extracted to where they were consumed, intermediated by a network of traders, shippers, and financiers operating under a broadly liberal economic order. Oil flowed from the Persian Gulf to refineries in Houston and Rotterdam. Iron ore moved from the Pilbara to blast furnaces in Tangshan. Grain traversed the Black Sea to feed North Africa and the Levant. The system was imperfect, cyclical, and occasionally disrupted—but it was, at its core, predictable.

That predictability is over.

We have entered a fundamentally different era for global energy and commodity flows—one defined not by the mechanics of supply and demand, but by the deliberate exercise of state power over the physical materials that underpin industrial civilization. The rules of the game have changed, and the players who haven't noticed are already losing.

The Old Architecture

To understand what's breaking, it helps to understand what was built.

The post-war commodity architecture rested on three implicit assumptions: that markets would remain broadly open, that comparative advantage would drive specialization, and that no single nation would accumulate enough control over any critical input to weaponize it against others. For decades, these assumptions held—not because they were guaranteed, but because the United States and its allies maintained sufficient economic, military, and institutional leverage to enforce them.

Energy markets were the most visible expression of this architecture. The petrodollar system, OPEC's production discipline, the U.S. Strategic Petroleum Reserve, and the sheer scale of American refining capacity created a framework where disruptions were painful but manageable. When oil shocks hit—1973, 1979, 1990, 2008, and more recently resulting from conflicts in Ukraine and Iran—they were absorbed through a

combination of strategic reserves, demand destruction, substitution, and diplomatic intervention. The system bent but didn't break.

Commodity markets more broadly operated under similar conditions. Bulk materials like coal, iron ore, copper, and aluminum were traded on deep, liquid exchanges with transparent pricing, diversified supply, and well-understood logistics. Even when individual producers attempted to exert market power—as OPEC did repeatedly—the breadth of global supply and the depth of capital markets provided structural resilience. But this architecture was built for a world of bulk commodities. It was not designed for the narrow, highly-specialized, and geographically-concentrated materials that now sit at the foundation of 21st century industry.

And that distinction makes all the difference.

THE OLD ARCHITECTURE	THE NEW REALITY
Deep, liquid exchanges — transparent pricing	Thin, opaque markets — limited price discovery
Diversified supply across dozens of nations	Supply concentrated in a single state actor
Strategic reserves and refining buffer capacity	Virtually no strategic reserves of critical minerals
Substitution possible; logistics well understood	Few or no viable substitutes for key applications
Disruptions painful but absorbable	Export controls used as instruments of statecraft

The New Chokepoints

The global economy's center of gravity has shifted—from energy fuels to energy materials. From the commodities that power combustion to the elements that enable electrification, computation, and advanced manufacturing. This is not merely a transition from one fuel source to another. It is a structural transformation in what matters most at the base of the value chain.

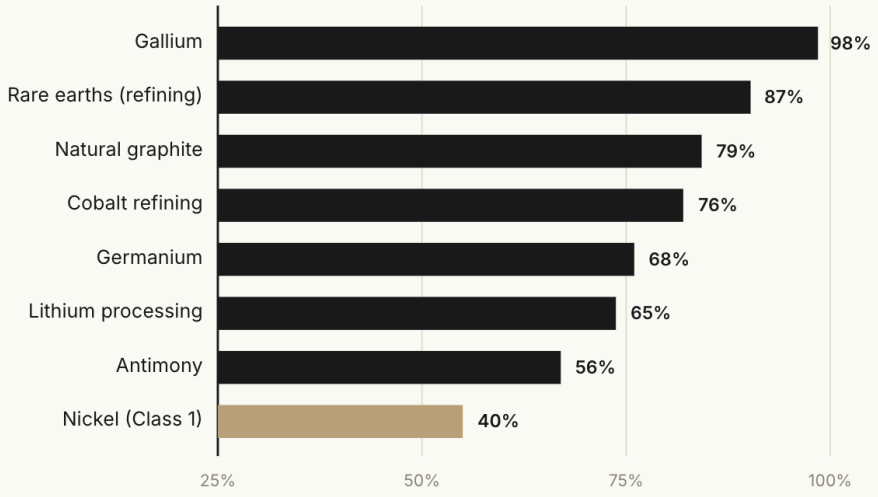
Consider the scale of this shift. Oil and natural gas remain indispensable—and will for decades—but the locus of strategic competition has migrated upstream into a far narrower set of critical minerals and processed materials: lithium, cobalt, nickel, rare earth elements, gallium, germanium, graphite, copper, and dozens more. These are the materials without which electric vehicles cannot be built, semiconductors cannot be fabricated, advanced weapons systems cannot be deployed, and AI data centers cannot be powered.

Unlike traditional bulk commodities, these materials share a set of characteristics that make them uniquely dangerous from a supply security standpoint. They are geologically concentrated in a small number of countries. They require complex, capital-intensive, and environmentally sensitive processing—often controlled by a single nation. They have few or no viable substitutes for their most critical applications. And they are traded on thin, opaque markets with limited price transparency and virtually no strategic reserves.

FIGURE 1 · MIDSTREAM CONCENTRATION

One country, the chokepoint for a continent of supply chains

China's estimated share of global midstream processing for selected critical minerals.



SOURCES

- U.S. Geological Survey, *Mineral Commodity Summaries 2025.*
- International Energy Agency, *Global Critical Minerals Outlook 2024.*
- Center for Strategic & International Studies, *Tracking China's Control of Critical Mineral Supply Chains* (2024).
- Benchmark Mineral Intelligence, processing-capacity datasets (2025).

Illustrative figures, rounded. Nickel (lighter bar) reflects Chinese-controlled Class 1 processing, including Indonesian joint ventures.

The result is a global commodity landscape that is more fragile, more concentrated, and more susceptible to geopolitical manipulation than at any point in modern history.

Energy Flows in an Era of Fragmentation

The energy transition—however unevenly it proceeds—is not reducing geopolitical risk. It is redistributing it. In the hydrocarbon era, energy security meant ensuring the reliable flow of oil and gas from producing regions to consuming markets. The risks were well-understood: OPEC production cuts, transit chokepoints like the Strait of Hormuz, pipeline politics in Europe, and the ever-present threat of conflict in the Middle East. Nations built institutions, alliances, and strategic reserves around these risks.

In the emerging era, energy security increasingly means securing the physical materials required to build the infrastructure of a modern grid—solar panels, wind turbines, battery storage, transmission lines, EV charging networks, and the power-dense computing facilities that underpin artificial intelligence. Each of these systems is extraordinarily mineral-intensive.

FIGURE 2 · MINERAL INTENSITY

What the new grid is actually made of

Approximate critical-material content per unit of clean-energy and computing infrastructure.

Offshore Wind Turbine

Copper	~8 t
Rare earths	~2 t
Zinc, manganese	100s of kg

Electric Vehicle Battery

Lithium	8–12 kg
Cobalt	~14 kg
Nickel	30+ kg

AI Hyperscale Data Center

Copper	10× conventional
Specialty metals	Orders of magnitude
Power-dense load	100s of MW

SOURCES

- International Energy Agency, *The Role of Critical Minerals in Clean Energy Transitions* (2022, updated 2024).
- S&P Global Commodity Insights, *Copper's Role in the Energy Transition* (2024).
- Goldman Sachs Equity Research, *Generational Growth: AI & Data Center Power Demand* (2024).

Per-unit values are directional. Specific intensity varies with turbine size, battery chemistry, and data-center cooling architecture.

The irony is stark: the technologies designed to reduce dependence on fossil fuels are creating an entirely new—and in many respects more acute—form of resource dependence. And unlike oil, where supply is diversified across dozens of producing nations and supported by deep capital markets and strategic reserves, the supply chains for these new critical inputs are overwhelmingly concentrated in the hands of a single state actor.

The Weaponization Accelerates

China's dominance over critical mineral processing is not an accident of geography or market forces. It is the product of a deliberate, multi-decade, state-directed strategy to capture control of the midstream layer of the global commodity value chain—the stage where raw ores are transformed into the application-ready materials that industry actually consumes.

This strategy has been extraordinarily effective. And over the past two years, China has demonstrated an increasing willingness to use that dominance as an instrument of statecraft.

FIGURE 3 · ESCALATION

From precision strike to broad-spectrum coercion

Successive rounds of Chinese export controls on critical minerals, 2023–2026.

2023

Opening salvo

Targeted export controls on *gallium* and *germanium*.

2024

Widening aperture

Restrictions extend to *graphite*, *antimony*, and rare earth processing *technologies*.

2025

Systemic posture

Controls broaden across additional minerals; downstream industries scramble.

2026

Cold-war scale

20+ critical minerals now subject to active export controls.

SOURCES

- PRC Ministry of Commerce (MOFCOM), export-control announcements, 2023–2026.
- Center for Strategic & International Studies, *China's Critical Minerals Export Restrictions Tracker* (2025).
- Reuters and Bloomberg news reporting, 2023–2026.

The pattern is now unmistakable: targeted export controls on gallium and germanium in 2023, expanded restrictions on graphite, antimony, and rare earth processing technologies in 2024, and a further broadening of controls across 20+ critical minerals through 2025 and into 2026. Each successive round has been more aggressive, more precisely targeted, and more difficult for downstream industries to absorb.

The market effects have been immediate and severe. Prices for certain rare earth elements have surged by multiples in non-Chinese markets—with some, like yttrium, experiencing increases that would be dismissed as typographical errors if they weren't so well-documented.

FIGURE 4 · PRICE AFTERMATH

When the spigot tightens, the squeeze is brutal

Ex-China spot price changes for selected critical minerals following Chinese export-control actions, 2023–2025.

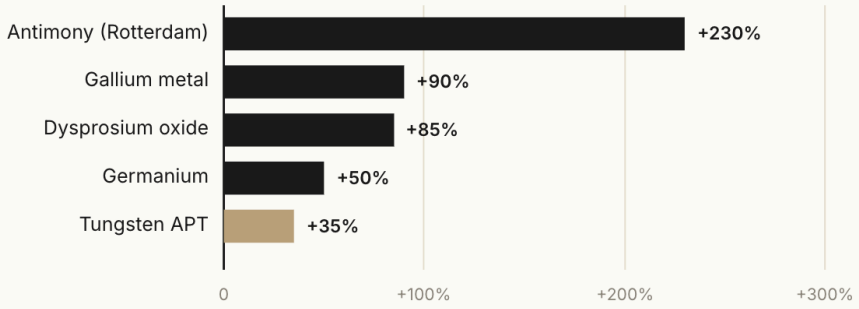
+14,000%

Yttrium oxide

Ex-China heavy rare earth spot market

AUG 2023 CONTROLS → Q4 2025

THE RUNNERS-UP — STILL EXTRAORDINARY, ON A NORMALIZED SCALE



SOURCES

- S&P Global Commodity Insights / Platts, minor metals & rare earth assessments (2023–2025).
- Argus Media, *Argus Metals International* price benchmarks, heavy rare earths and minor metals (2023–2025).
- Fastmarkets, antimony, tungsten APT, and rare earth oxide price reporting (2024–2025).
- Adamas Intelligence, *Rare Earth Market Outlook* (Q4 2025).
- Bloomberg, commodity terminal data and reporting on Chinese export-control responses (2023–2025).

Percent changes compare pre-restriction baseline pricing to peak ex-China spot levels. Yttrium oxide shown separately due to scale; the heavy rare earth ex-China market is thinly traded and exhibits extreme price discovery during supply shocks.

Downstream manufacturers—from defense primes to EV producers to semiconductor fabricators—are scrambling to identify alternative supply, and in most cases, finding that alternatives either don't exist at scale or require years of investment to develop.

This is not a temporary disruption. It is a structural reordering of global commodity flows, driven by a nation that has concluded—correctly—that control over the physical layer of the value chain confers more durable strategic advantage than control over any single technology built on top of it.

"The nation that depends on its adversaries for critical inputs is neither truly sovereign nor truly prosperous."

SCOTT BESSENT, U.S. SECRETARY OF THE TREASURY · JUNE 2026

The Commodity Cold War

What we are witnessing is the early stages of what can only be described as a commodity cold war—a sustained, multi-front competition for control over the physical inputs to 21st century industrial capacity.

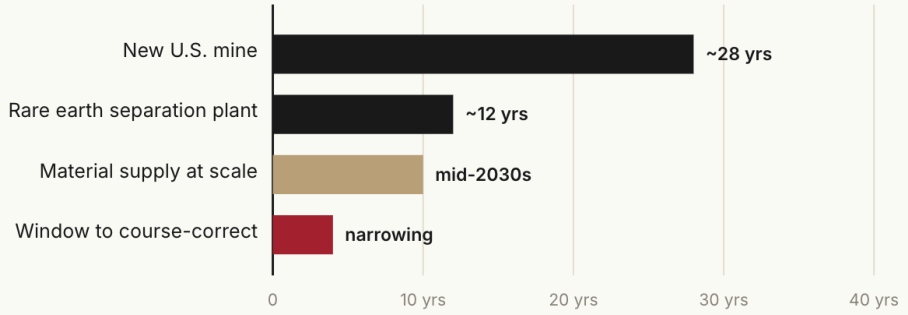
This competition is playing out across several dimensions simultaneously. Nations are racing to secure upstream supply through bilateral agreements, equity investments, and diplomatic engagement with mineral-rich countries across Africa, Latin America, and Central Asia. They are attempting to build—or rebuild—domestic midstream processing capacity, though this effort is constrained by environmental regulations, permitting timelines, capital requirements, and the sheer technical complexity of replicating integrated processing ecosystems that took China decades to build. And they are increasingly turning to trade policy—tariffs, export controls, procurement restrictions, and strategic stockpiling—as instruments of both defense and offense.

The United States, for its part, has responded with a flurry of executive orders, investment commitments, and multilateral agreements. These are necessary steps. But they are also insufficient in isolation, and the gap between announcement and execution remains vast.

FIGURE 5 · THE BUILD-TIME PROBLEM

The arithmetic of catching up

Indicative U.S. timelines to bring new critical-minerals capacity online.



SOURCES

- S&P Global Market Intelligence, *Mine Development Times in the United States* (2023).
- U.S. Department of Energy, Office of Manufacturing & Energy Supply Chains, *Critical Minerals Supply Chain Review* (2024).
- National Mining Association, *Permitting, Economic Competitiveness & National Security* (2024).

"Window to course-correct" is a qualitative reflection of the note's framing that exposure compounds with each passing quarter; not a quantitative interval.

Bringing a new mine online in the U.S., from discovery and permitting through to production, still takes the better part of three decades. Building a rare earth separation facility from greenfield takes a decade or more—assuming you can find the specialized talent, navigate the regulatory environment, and withstand the inevitable litigation. And even if these efforts succeed, they will not produce material supply before the mid-2030s at the earliest.

In the meantime, the exposure grows.

Rethinking the Flow

The old model of commodity flows—resource extraction in the periphery, consumption in the industrial core, intermediated by markets—is giving way to something more fragmented, more politicized, and more dangerous. Commodity flows are no longer just economic transactions. They are expressions of geopolitical alignment, instruments of coercive diplomacy, and—increasingly—vectors of strategic competition between great powers.

This reality demands a fundamentally different approach to how nations, corporations, and investors think about physical commodities.

For **nations**, it means treating critical mineral supply security with the same urgency and institutional rigor that was once reserved for energy security—including the development of strategic reserves, diversified processing capacity, and robust alliance frameworks for supply chain resilience.

For **corporations**, it means moving beyond just-in-time procurement models and building supply chain depth—which includes backward integration into raw material sourcing, long-term offtake agreements, and serious investment in materials science and substitution research.

For **investors**, it means recognizing that the critical minerals value chain represents one of the most significant structural investment opportunities—and risks—of the next two decades. The companies, technologies, and infrastructure that solve the processing bottleneck will capture enormous value. Those that ignore the problem will find themselves on the wrong side of a supply constraint that no amount of financial engineering can overcome.

The Defining Question

The 20th century was shaped by who controlled oil. The 21st century will be shaped by who controls the materials that make everything else possible—from the batteries in our cars to the chips in our phones to the alloys in our fighter jets.

The United States spent the better part of five decades outsourcing the most critical layer of its industrial supply chain. We are now living with the consequences of that decision, and the window to course-correct is narrowing with each passing quarter. The operative question is not whether this problem is real—the data is unambiguous. The question is whether we have the strategic clarity, the institutional will, and the capital discipline to solve it before the exposure becomes irreversible.

History suggests that nations which fail to secure the resources underpinning their industrial base do not remain dominant for long. And history, on this point, has been remarkably consistent.

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