China Has Learned to Weaponize Rare Earths — and We Handed It the Ammunition

written by Jack Lifton | June 10, 2025

I have spent half a century watching the periodic table morph into an atlas of power politics. Yet even I am struck by how casually policymakers in Washington, Ottawa and Brussels still underestimate what Beijing has just pulled off: the Chinese have figured out how to weaponize the rare earths. They have read *The Art of the Deal* as closely as they have read Sun Tzu, nodded, and declared, *Game on.*

Why does this matter? Because these issues are nowhere near as important to Beijing as they are to us. For China, germanium, gallium and the 17 rare-earth elements are overwhelmingly consumed at home; export revenues are a rounding error on the balance sheet of the world's second-largest economy. If they refuse to sell us these materials, the impact on China's domestic economy is negligible. The impact on ours, by contrast, is enormous. Beijing has deciphered the game, and now it plays it on its own terms.

It's Capacity, Not Capability

Most Western commentary still circles the wrong drain. The issue is not technological capability; it is industrial capacity. We in the United States, Canada and Europe know perfectly well how to mine, separate and alloy rare earths. We know how to press them into permanent magnets and machine them into the electric-motor components that keep an EV spinning or a cruise missile steering. What we lack is the muscle to meet our own demand at a

price the market will bear.

Consider magnets, the single most important end-use for rare earths. China’s factories can roll out roughly 400,000 metric tons of rare-earth permanent magnets every year. Six giant producers—national champions chosen from the chaos of “cowboy capitalism” that marked China’s mining sector in the 1990s—now dominate the field, feeding everything from wind turbines and smartphones to rockets and railcars. North America has exactly none of these vertically integrated giants, and Europe stands in the same vacuum. The result is strategic dependence so severe that a hiccup in Beijing feels like a heart attack in Detroit.

Twenty-Five Lost Years

How did we get here? We chose price over resilience. Two decades ago manufacturers discovered they could outsource every step of the supply chain to China for pennies on the dollar. Shareholders cheered; Wall Street celebrated. In the process we hollowed out our own industry. We have not forgotten how to produce magnets, but we have forgotten how to do so economically. Rebuilding a mine-to-magnet chain from scratch is a 10-to-15-year slog, yet institutional investors typically demand a return in three. No spreadsheet can square that circle without hefty subsidies, punitive tariffs, or both.

Washington’s default remedy is to impose duties on Chinese imports so that domestically produced magnets—certain to be more expensive for years—can gain a foothold. Ottawa and Brussels mouth the same logic. Before anyone cheers, however, ask a basic question: **How many tons of magnets does the civilian market actually need?** No one seems to know. I have repeatedly asked officials and analysts to quantify the tonnage of magnets imported in finished components such as electric motors and washing-machine parts. The most common answer is a shrug.

Two Very Different Markets

That knowledge vacuum matters because the non-Chinese world is really two separate magnet markets. The first is military, and here price is irrelevant. The U.S. Department of Defense recently pieced together its own secure supply chain, quietly acquiring a German magnet maker, buying into a British metal producer and earmarking roughly a billion dollars to feed them non-Chinese raw material. The costs are, naturally, classified. Mission accomplished—for the Pentagon.

The second market—automobiles, consumer electronics, industrial motors—is exquisitely price-sensitive. Tariffs merely shift the inflationary pain to every car buyer and homeowner while we scramble to erect factories that do not yet exist, for demand we cannot quantify, at costs we dare not publish. That is not industrial strategy; it is economic roulette.

Aspirations Versus Reality

Even where companies boast of domestic magnet plans, those announcements represent aspirations more than capability. And capability alone still is not capacity. Without hard numbers on demand, we risk erecting “white-elephant” plants—too small to compete with China’s giants yet too expensive to survive on boutique orders. Meanwhile, politicians in three capitals are drafting three mutually exclusive industrial policies. Far from pooling demand to reach the necessary economies of scale, North America and Europe are busy undercutting one another.

Investors, for their part, focus on profits, not tonnage. Private equity loves a glamorous resource story it can flip before the first shovel hits the ground. Governments claim to care about physical supply, but only so long as projects come wrapped in ribbon-cutting photo opportunities. This misalignment

between capital and policy is precisely what Beijing exploits. Export-license red tape can be tightened or loosened at the whim of a single ministry; it is a “dream tool,” as one consultancy put it, that Xi Jinping can wield at will. While we debate new tariffs, China issues—or withholds—licenses with the stroke of a pen.

The Price of Ignorance

Western industry lurches from scare to scare. Last season it was gallium; this season it is permanent magnets; next season it will be something else. Each crisis is proclaimed existential, but basic questions go unanswered. Near my home outside Detroit, a parking lot brims with unsold electric pickups. They are not sitting there because of magnet shortages; they are sitting there because they are too expensive, too heavy or too early for the market. Before anyone insists magnets are the end of the world, we should clarify what we actually intend to build with them—and at what scale.

What a Real Plan Looks Like

If the West is serious, three steps are non-negotiable.

1. **Quantify demand.** A sector-by-sector audit of magnet usage is the prerequisite for rational capacity planning. Until we know how much metal goes into every car, jet and wind turbine, we are navigating by guesswork.
2. **Pool purchasing power.** North America and Europe must abandon dueling “buy local” mandates and aggregate their orders. Combined demand is the only lever big enough to yield costs comparable to China’s.
3. **Align capital with mission.** Subsidies should be tied to delivered tons, not to press releases. Private investors

> can chase upside; governments must chase security of supply, as the Defense Department already has.

Beijing’s Next Move

Do not assume China will stand still while we reorganize. Export licenses on rare earth magnets proved devastatingly effective; gallium and germanium were trial balloons. Tomorrow Beijing could restrict titanium, magnesium or any other oxide that feeds a Western factory. As one Shanghai-based analyst observes, Beijing’s current controls have been “extremely effective,” and nations cannot simply “open mines and set up refinement operations overnight.”

The Clock Is Ticking

Years ago I warned that we were swinging in the technological trees while Beijing was already refining strategy on the ground. Every quarter we spend drafting tariff schedules is another quarter China spends condensing its own supply chain, driving costs lower and tightening the vise. If we keep confusing capability with capacity, if we continue mistaking PowerPoint slides for industrial scale, we will discover too late that the battlefield has already moved on.

China’s weaponization of rare earths is not a thought experiment; it is unfolding in real time, factory by factory, shipment by delayed shipment. The only question now is whether the West will match Beijing’s strategic clarity with its own—or whether we will once again pay for the privilege of learning the lesson the hard way.