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SYNOPSIS

In April 2025, China imposed a new export control on selected rare-earth magnets and separation technologies, citing "national security" concerns. This measure, introduced under the Regulations on Rare Earth Administration, marked the country's first major restriction since 2010, which immediately rattled global manufacturers dependent on Chinese materials. The rather delicate timing, merely months after President Donald Trump's return to the White House, added a sharp political edge, suggesting that Beijing's action was more strategic signalling than regulatory enforcement.

COMMENTARY

To analyse China's rare-earth control measures in 2025, the key is to examine the three intertwined thrusts behind them: growing external political pressure, the fleeting "window" of the United States and China's decade of domestic preparation. Together, these dynamics reveal how Beijing converted its rare-earth industry from a defensive resource base into a deliberate instrument of economic statecraft.

The United States' Pressure on China

By early 2025, Washington's semiconductor restrictions against China had reached their peak. Through round after round of bans, from cutting-edge chips, lithography machines, to Artificial Intelligence, the United States was systematically eliminating China from the global advanced semiconductor industry chain.

Technology and science have become the main battlefield of the competition. Beijing was at its wits' end, attempting to find a response strong enough to gain the upper hand. Such a response must also be delicate enough not to sabotage the already sensitive diplomatic relationship between the two, eventually.

The situation is now clear: For every US sanction on chips, China has a countermeasure. Following Washington, Beijing wrapped its decisions in the language of "national security". It was not about attempting to collapse global supply chains but about restoring parity, signalling that China, too, can weaponise an advantage when pushed far enough.

The United States' Vulnerabilities

Despite all the "friendshoring" talk, America still leans on China for most rare-earth refining and nearly all NdFeB magnet production. California and Australia can excavate ore, but the chokepoint lies mid-stream: the difficult separation and metallisation process that turns concentrate into magnet-grade oxides and metals, and then into finished magnets.

A second problem is the time needed. The US faces a capability gap between mining and magnets: refineries, separation plants, and magnet lines require billions in sunk costs and years of permits before they yield a single kilogram of magnet-grade NdPr metal or a single sintered NdFeB magnet. Once those projects begin, reversing or relocating them becomes politically and financially unrealistic.

Trump's return to the White House only widens that gap – diplomatically. His preference for tariffs over coordination has strained partnerships at a time when America most needs them. This makes it harder for Washington to build the coordinated, non-China supply chains it needs, thus increasing its vulnerabilities.

The 2025 rare-earth controls hit where the US is most exposed: high-performance magnets used in electric vehicle motors, wind turbines, and advanced weapons systems. Beijing didn't need a complete embargo; a small, selective licensing measure was enough to remind Washington that independence remains a long way off and that decoupling cuts both ways.

China's Domestic Preparation

Why did Beijing dare to play the "rare-earth card" without worrying too much about the backlash? This confidence stems from a step-by-step consolidation of industrial and strategic power that has lasted nearly ten years.

Since the mid-2010s, China has brought the chaotic rare earth industry under control with an iron fist, cracked down on illegal mining, and strongly promoted private enterprises to move closer to the state-owned structure.

In 2021, China consolidated much of its rare-earth industry through the establishment of the China Rare-Earth Group, bringing a large share of national production capacity under centralised corporate management. By 2024, a regulatory framework integrating production quotas and environmental standards had been thoroughly institutionalised, successfully building a vertical empire from mines to manufacturing terminals.

So far, China has completed the ultimate closed loop of its rare-earth strategy. It can not only tighten export valves for geopolitical considerations but also rely on domestic demand and a highly concentrated industrial system to ensure the domestic economy is not shaken. An industry that was once scattered, chaotic, and dirty has now been completely transformed by Beijing into the cornerstone of industrial security and geopolitical influence.

Intersecting Dynamics in 2025

China's handling of the rare-earth issue is by no means a reckless escalation, but a precisely calculated measure, which is enough to make the opponent feel the sting, but leaves room to turn the tables around for itself. This is in contrast to the sudden embargo in 2010; the means at that time were stiff and more like a sledgehammer. The control in 2025 showed more mature "economic statecraft".

However, there is also a paradox behind the use of power. At the moment, Beijing is also caught in the "trap" of its dominant position: The use of rare-earth levers, no matter how sophisticated the technique, objectively accelerates the process of global "de-Sinicisation". If China takes such action frequently, it is likely to undermine its efforts to avoid a complete hard decoupling of the supply chain.

Therefore, the real challenge for Beijing is to complete a dangerous balance. It must precisely control the level of pressure and maximize the use of its trump card to protect national interests without triggering a system collapse.

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