Our View: China's Successful Monopolization of Rare Earth Minerals

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Visiting Inner Mongolia in 1992, Deng Xiaoping advised an audience that "the Middle East has its oil, China has rare earths."[1] In April 2025, ABC News Australia's chief business correspondent, Ian Verrender, noted that "Deng envisioned a China with a dominance in rare earths that would transcend the Organization of the Petroleum Exporting Countries' (OPEC) power over oil." Deng's idea, according to Verrender, was for the then-agrarian nation to transform itself past the simple extraction of minerals, which, despite their name, can be found in many countries, into a country that "incorporated the refining of rare earths, research into their use and, in more recent years, their deployment in highly specialized applications."

China has realized Deng Xiaoping's vision. I doubt, however, that he would ever have imagined the level of success his country has achieved.

Today, China accounts for 78 percent of the world's rare earth mineral supply, according to Argus Media. However, it is China's control of rare earth processing capacity, more than its control of supply, that is the key to the country's market dominance. In value terms, it is China's control of rare earth magnet production that counts the most. Today, Argus estimates, the country accounts for over 90 percent of global output.

China's dominance is not accidental. The country has repeatedly flooded markets with various products to undermine its competitors. One of the few US producers of rare earth minerals, the Mountain Pass mine in California, fell victim to China when the latter dumped rare earths into the global supply chain in 2015, driving prices down and forcing Mountain Pass's owner, Molycorp, into bankruptcy.[2]

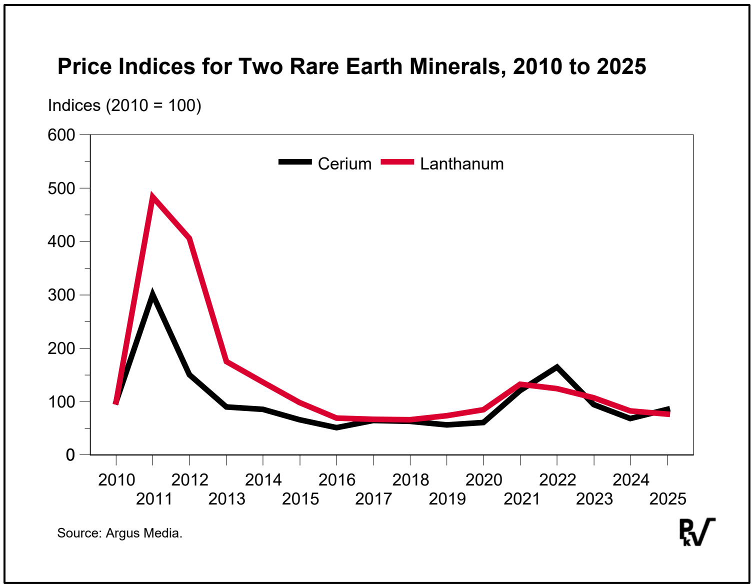
China has learned how to use its dominance of rare earth mineral production and refining capacity to suppress competition and the development of alternatives to rare earth magnets. In particular, it has learned that it must moderate rare earth price increases to achieve those ends.

Perhaps the primary incident that taught it this lesson occurred in September 2010. At the time, China imposed a temporary embargo on rare earth exports to Japan, one of its primary customers, in response to Japan's seizure of a Chinese fishing boat. While China lifted the ban after two months, it then imposed an export quota on the minerals that caused five to tenfold price increases (see the figure below).

[1] Ian Verrender, "China's dominance leaves US vulnerable, as critical minerals become political," ABC News Australia, April 24, 2025 [https://tinyurl.com/yu4scbz7].

[2] Sangita Gayatri Kannan, Brad Handler, and Ian Lange, "MP Materials Corporation-Department of Defense Partnership," The Payne Institute for Public Policy, Colorado School of Mines, July 30, 2025 [https://tinyurl.com/2jh9k4dt].

The surge in prices prompted Japanese firms to seek ways to reduce the country's consumption of rare earth minerals. In 2023, Tatsuya Terazawa, CEO of Japan's Institute of Energy Economics, noted that Japan relied on China for 90 percent of rare earth materials at the time of the 2010 embargo.[3]



Thirteen years later, he reported that Japan had succeeded in reducing its dependence on Chinese rare earths from 90 percent to 60 percent by 2023, in part due to a 50 percent reduction in its consumption of rare earths. Specifically, the limited statistics available suggest that Japanese use declined from 28,500 tons in 2010 to 17,400 tons in 2020, representing a 40 percent decline. This implies that its rare earth purchases from China decreased from around 25,000 tons to 10,000 tons.

Japan's reaction to the 2010 embargo and subsequent price increase taught the Chinese that efforts to push prices "sky high" risk losing sales by forcing buyers to seek or create alternatives. The prices of rare earth minerals since 2012, as illustrated by the graph, suggest that while China works to boost the consumption of rare earth metals and rare earth magnets, it is also working to keep prices low enough to prevent competitors from entering and buyers from exiting.

China's exercise of its monopoly power differs significantly from the practices followed by oil-exporting nations, as it focuses on maintaining its market share rather than reducing supply to raise prices and boost revenue. It also helps ensure the world's continuing dependence on China for rare earth minerals and magnets.

[3] Tatsuya Terazawa, "How Japan solved its rare earth minerals dependency issue," World Economic Forum, October 13, 2023 [https://tinyurl.com/4r2v6xaf].