## Fluctuations in Rare Earth Prices: Understanding the Dynamics

written by Tracy Weslosky | September 8, 2023
Rare earth elements, a crucial component in our modern technological world, have seen dramatic price fluctuations in recent months. I sat down with Alastair Neill, a Director for the Critical Minerals Institute (CMI), to get a better understanding of these market dynamics.

## China Is Consolidating its Industrial Economy — The Case of the "Medium and Heavy Rare Earths' Industry"

written by Jack Lifton | September 8, 2023

Perhaps the most significant announcement in the commodity space last week, one that was almost completely overlooked by the mainstream press, although it was picked up by some of the the "wire" services, and the New York Times, was the announcement that the Chinese "medium [samarium, europium, and gadolinium] and heavy {mainly terbium, dysprosium, and yttrium] rare earth producers and processors" were consolidating their operations. Those of you who follow the Chinese rare earth industry know

that in the mid-teens [around 2015] China's mandarins reformed the Chinese rare earth industry by consolidating all of its operations under the umbrella of just 6 companies, which each became responsible for the rare earth companies in their geographic areas meeting and not exceeding their government specified quotas for production and processing. The ostensible purpose of this initial consolidation was twofold. It was intended to corral illegal rare earth mining and to address the rampant pollution from all domestic Chinese rare earth mining.

Most of my "in-the-know" colleagues scoffed at both stated purposes. They said that no one could or wanted to control Chinese illegal mining and no one in China really cared about pollution. They were all wrong; they did not understand that these goals were set by China's president, Xi Jinping, and that it would be very unhealthy for any Chinese businessman to scoff at these goals or to impede them.

For most of the last two years the production of heavy rare earths from China's ionic clays has been completely curtailed due to pollution, and China today is importing more than a third of its rare earth bearing ore concentrates including most of its needs for heavy rare earths. This is a result not only of the crackdown on pollution but to continue the ban on working Chinese ionic clays, both to reduce pollution and to conserve a scarce and diminishing resource.

Last week the Chinese government announced the implementation of a second phase of consolidation in its domestic rare earths' industry. Two or three of the six rare earths' production managing companies will merge their medium and heavy rare earths' operations to form just one Chinese manager of all of China's medium and heavy rare earth production centered on the city of Ganzhou, which is the center of the Chinese medium and heavy rare earth industry.

My guess is that before 2025 a third phase, the consolidation of all Chinese rare earths' production and processing, light, medium, and heavy, will be announced and implemented so that there will be then just one Chinese Rare Earths producer and processor. If that happens then there will be no possibility of any non-Chinese company controlling the prices, or supply, of rare earths.

I doubt that any nation or region that has not secured a sufficient supply of rare earths for its critical needs by 2025 will never after that be able to do so. China today has not only a near monopoly on all rare earths production and processing but also has a monopsony of demand for rare earth permanent magnets. The numerical size of the Chinese domestic market is twice that of the USA and Europe combined, and the Chinese Communist Party's plan, also known as Xi Jinping "thought," is for every Chinese to have the world's highest standard of living by 2049. That's going to require a billion EVs, billions of home appliances, and thousands of passenger aircraft, just to name a few large-scale users of rare earth permanent magnets.

Its becoming harder and harder for Western companies to pretend that their fiercest competitor is not China, Inc. Its also harder and harder to believe that Xi's "dual circulation" [in which domestic consumption grows to be greater than export volumes] reformation of the approach to China's economy is not already dominant.

To achieve its goal of being the world's richest nation by 2049 China has already implemented its plan to become the world center of critical metals processing. Its progress is apparent from the graph below.

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In reality, all Chinese businesses are SOEs, state-owned-

companies, because they all take their direction from Beijing.

The centralization of China's critical metals industries is well underway. Rare Earth production and processing is just the beginning.