Will the magnet rare earths prices rise in 2024?

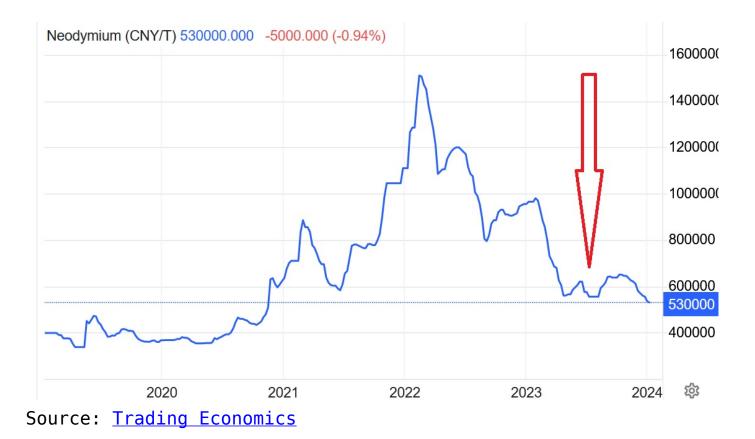
written by Matt Bohlsen | January 12, 2024

Today we take a look at the magnetic rare earths sector and two leading rare earth companies and what we can expect in 2024 and beyond.

The magnet rare earths prices have fallen in 2022 and 2023

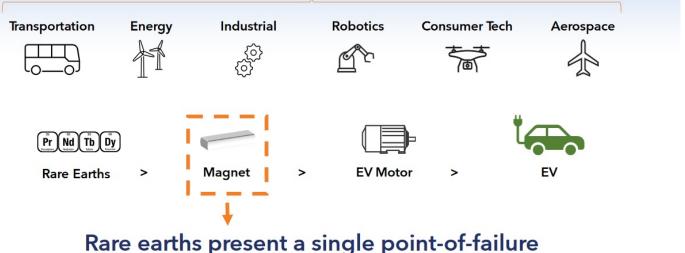
The magnet rare earths sector was hit hard in 2023 with China's Neodymium (Nd), Praseodymium (Pr), and Dysprosium (Dy) prices falling as the global economy and EV demand slowed.

Neodymium prices came crashing down in 2022 and 2023 as demand slowed after the 2021 growth rate boom in EV sales – Now at CNY 530,000/t



Global plugin electric car sales <u>grew by 108%</u> in 2021 causing a huge spike in EV metal prices. Then in 2022, the growth rate slowed to 56% at a time when supply of most EV metals surged. Finally in 2023, the growth rate slowed further to an estimated 28%, resulting in further price decline for the magnet metals such as neodymium.

Demand for the magnet rare earths in electric motors is driven by multiple sources with electric vehicle sales being a key driver. (90% of EV motors use rare earth magnets)



threat to industries that drive prosperity and security.



Source: MP Materials company presentation

Will the magnet rare earths prices rise in 2024?

The answer to this question will largely depend on recovery in China and the global economy driving increased demand for EVs, wind turbines, and other magnets used in various industrial applications. Given the most recent trend globally has been towards future interest rate decreases (notably in the USA and China), it bodes well for a recovering consumer and hence demand. This may take a good part of 2024 to flow through with excess inventories across many sectors still needing to be worked off. If we get a strong pickup in EV demand (>40% YoY increase) in 2024, then the magnet rare earths sector woes could soon disappear.

China's December 2023 EV sales give some hope as they jumped to a record <u>945,000 units</u>, achieving a superb 47% YoY growth rate.

Lynas Rare Earths Ltd. (ASX: LYC) ("Lynas") update

The big recent Lynas news (announced December 7, 2023) is that the first feed of material from the Mt Weld Mine has been introduced into the new Kalgoorlie Rare Earths Processing Facility in Western Australia, leading to first production and ramp-up of the Facility. A great achievement for Lynas, especially given that the Kalgoorlie Rare Earths Processing Facility is Australia's first value-added rare earths processing facility. Lynas <u>stated</u>:

The Lynas Malaysia plant is currently shutdown as works to increase downstream processing capacity are completed. Production will recommence in January 2024. Mixed Rare Earth Carbonate (MREC) from the Kalgoorlie Rare Earth Processing Facility will be progressively introduced to the Lynas Malaysia plant commencing late in the March quarter and increasing as the controlled ramp up of the Kalgoorlie facility is progressed...."

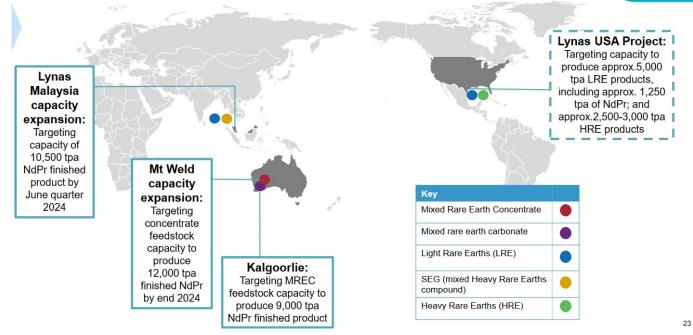
Once their expansions are completed, Lynas intend to increase their production capacity to <u>10,500tpa NdPr</u> (Neodymium-Praseodymium). Lynas produced <u>6,142t of NdPr</u> in FY 2023.

2024 will see the Mt Weld Mine expansion and further work on Lynas' US Rare Earths Processing Facility Project targeted to be operational by <u>July 2025 – June 2026</u>.

Lynas is expanding its rare earths mining and processing capabilities through to 2025/26

Growing scale and increasing capacity to meet forecast demand growth





Source: Lynas company presentation

MP Materials Corp. (NYSE: MP) ("MP Materials") update

MP Materials owns and operates the Mountain Pass Rare Earth Mine and Processing Facility in California, USA. In the past MP Materials had to ship their concentrate to China for processing; however, they have a target to bring this back to the USA.

Their target is to grow their mine output by 50% over the next four years and to build separation capacity in the USA with annual production of 6,000 tpa NdPr oxide. The third stage of their plan is to build a greenfield production facility in Texas targeting ~1,000tpa of finished NdFeB (Neodymium Iron Boron) magnets. They already have General Motors (NYSE: GM) as a foundational customer.

MP Materials is working towards Stage II and Stage III of their plan to bring rare earths processing and magnets production to

the USA



- Largest ex-China producer
- ~15% global market share in 2022
 "Upstream 60K" strategy to grow output 50%
- over the next four years
- Stage II: RE Separations • Separation, refining and finishing capabilities to convert RE concentrate into separated REOs • >6k mt NdPr oxide annual production target • Lanthanum, Cerium and SEG+ production
- ~1k mtpa of finished NdFeB magnets • General Motors as foundational customer • To deliver intermediate product ahead of magnet completion

Greenfield production facility in Texas targeting

• Buy, build and/or JV

Source: MP Materials company presentation

Closing remarks

2024 should see a year of consolidation for the rare earths sector as some experts are telling me. Some <u>forecasts</u> are for NdPr supply deficit to begin as early as 2024; however, this will largely depend on China demand, the global economy, EV sales, and new NdPr supply hitting the market.

The two Western magnet rare earths leaders Lynas and MP Materials (and some other key players) are progressing their plans to further build a western supply chain and should be largely complete within the next 2-4 years if it goes to plan. This all supports the building of an end-to-end Western rare earths and magnets sector this decade. Stay tuned.

Catching the world with our rare earths contingency pants down

written by InvestorNews | January 12, 2024 The rare earths market has had its ups and downs the past few years. In particular, the US-China <u>trade war</u> brought a new focus to the sector highlighting the world's dependency on China for rare earths supply.

Then in early 2020 with much of China closed down by the coronavirus the Chinese <u>rare earths supply</u> was put to test. While the Chinese market is often quite opaque, market pricing for key rare earths such as neodymium give an indication of the supply and demand dynamics.

Key rare earths price movements in 2020 as the China disruption was taking place

Neodymium (Nd) prices are up 4.28% so far in 2020, despite the slowdown in industrial production of goods that contain neodymium. Asian Metal reports praseodymium (Pr) prices are slightly down in 2020, and dysprosium (Dy) prices are up ~5% over the past 2 months.

Neodymium 5 year price chart

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<u>Source</u>

All of this suggests that despite the coronavirus chaos in China the key rare earths market remained very stable. It would appear from this that China's inventory was adequate to cover any mining disruptions; however, demand was also lower due to the industrial slowdown.

Experts view

In this <u>exclusive February 18, 2020 InvestorIntel video</u>, rare earths expert Jack Lifton discussed with Tracy Weslosky the impact the coronavirus is having on critical metals:

Jack Lifton states:

"(China) Shipments could stop at anytime.....logistics are compromised.....**The coronavirus has caught the West with its contingency pants down**......this is a warning bell for everyone in the world."

Jack also revealed that we do not even know if the Chinese possess enough stockpiles of rare earths to handle their own demand, never mind the needs of Americans.

Rare earths are vital ingredients for modern technology and the world relies largely on China

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<u>Source</u>

Lynas Corporation Limited

Outside of China, the rare earths supply chain is completely reliant on one company. That company is Lynas Corporation Limited (ASX: LYC). Lynas is the world's second largest supplier of rare earth materials, and the only significant rare earths producer outside of China. Most of Lynas' rare earths go to long term contracts mostly with Japan. This means if we get a rare earths supply disruption from China and higher NdPr prices, then Lynas Corporation will be the key global company to benefit. This is worth keeping in mind in case we get a second wave of the coronavirus outbreak in China.

The latest news with Lynas Corporation

- February 3, 2020 Australian government awards major project status to new Lynas WA plant. The Lynas Kalgoorlie plant will undertake cracking & leaching of rare earth concentrate from Lynas' Mt Weld mine, which is also located in Western Australia's Goldfields region. Lynas will also explore opportunities for additional processing in Kalgoorlie.
- February 27, 2020 Lynas Malaysia operating license renewed for three years.

The good news here for investors is that Lynas has achieved good progress towards their new cracking & leaching (C&L) facility planned for completion by 2023. This will tie in nicely with the 3-year Malaysian license renewal given the relocation of the C&L facility to Australia should be able to be done in the 3 year time frame. This clears the cloud over the stock from 2019 when they had uncertainties over their Malaysian license renewal due to environmental concerns. This is good for Lynas and good for security of rare earths supply ex-China.

Lynas Corporation to diversify its rare earths operations under their 2025 plan

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A summary of Lynas' progress towards their 2025 plan

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<u>Source</u>

Closing remarks

Japan recently <u>announced</u> they plan to stockpile rare metals as

part of an effort to reduce dependence on China. Let's hope the US and others finally get their act together to financially support the critical materials miners. This includes not only rare earths, but also the key EV metals cobalt and lithium.

The 2020s will be a decade of enormous technological advancements with AI, IoTs, robotics, electrification of transportation, renewable energy, and energy storage. All of these need a secure supply of the <u>35 critical materials as</u> <u>identified by the U.S. Government</u>, including rare earths.

For now, the West is lucky to have <u>Lynas Corporation</u>, but clearly we need many more great critical materials miners and processors to help build up our severely damaged local supply chains.

As Jack said: "this is a warning bell for everyone in the world." Western leaders please listen and let's not get caught with our pants down!