

Rare Earth Elements: A glance to their past, a gaze into their prospects.

The past few months in the rare earth industry are filled with talks between the EU and China, along with Japan and the US about China's export quota on various Rare Earth Materials. But the talks had been fruitless, as BBC reports that the EU, Japan, and the US had asked the World Trade Organization to arbitrate in a row about China's export quota.

Glance to the past

Despite nicknamed the Rare Earth Elements (REEs), these elements are abundant in quantity but their geochemical properties make the REEs extremely scattered in the Earth crust. Rare earth companies would often extract the Rare Earth Oxides (REOs) from the ground before refining them to REEs. Based on their electron configuration, the Rare Earth elements are further divided into the Light Rare Earth Elements (LREEs) and the Heavy Rare Earth Elements (HREEs).

Many products that people use today could not be achieved without these REEs, as they are used in magnets, lasers, lens, etc.

REEs can be found in China (currently holding a speculated 23% to 36% of the global REE reserves), Australia, US, South Africa, Russia etc. Recently a rich source of REE in the Pacific Ocean but production will not start due to various constraints.

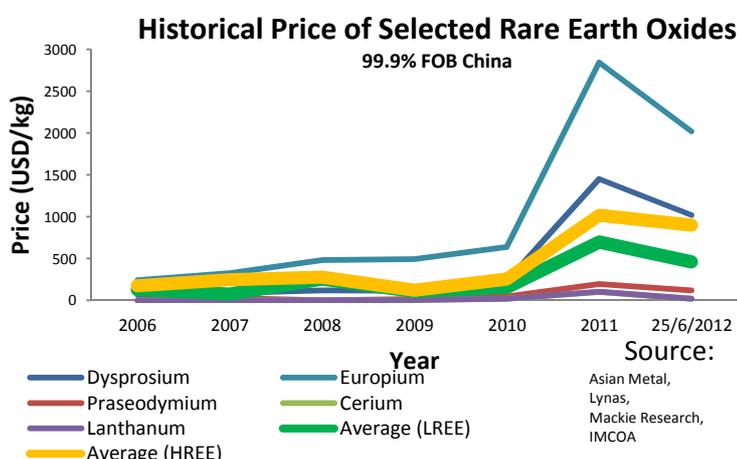
China currently produces 97% of the global REEs. Its dominant role of rare earth production began in the 1990s, around the time when the US decided to stop producing rare earth from Mount Pass.

The prices of REEs are often difficult to track (as they are traded only in private markets) and vary in

prices by their purity. Prices have started to explode since 2009, when China started to slash its export quota, citing environmental concerns. Prices went to a peak in mid-2011 due to increased speculation but soon plummeted when weak demand was shown. One area worth noticing is the price drop for the LREEs is more severe than that for the HREEs. This can be explained by the insane increase in price during 2009 and 2011 as China's slash in export quota primarily focuses on the LREEs.

Gaze to the future

While the percentage of reserves may not change rapidly, the percentage of REEs produced by China is speculated to soon drop to around 80%, as the projects in Mount Pass of USA,



Mount Weld of Australia, and projects in South Africa are to commence and/or increase production in the next 24-36 months. This in turn would make the prospects of Rare Earth Mining Companies (which can be classified by companies that only have land and have yet to start production, companies that will start production soon, and companies that are producing REEs) radically different. On the other hand, the prices of the REEs will continue to fall and stabilize.

For the majority of companies that have land but have yet to start production (which represent 90-95% of the rare earth companies), REE trading expert Jack Lifton have predicted that the continued drop in prices of the REEs will force these

often small-scaled companies to shut down or be merged with those in the latter two stages. Companies that will start production soon, despite facing competition from the last group of companies, will generate substantial amounts of revenue. Given that these companies usually operate outside of China, so their growth may look promising. Companies that are already producing rare earth, typically found in China, will see increasing competition. Unless China's appetite for Rare Earth increases drastically, this increased global competition would generally have adverse effects to the company's revenue and growth.

The prices of the REEs, following their crash from 2011, will continue to fall and stabilize. However, the

price of the LREEs may fall steeper as the upcoming mines from US, Australia, and South Africa primarily generate the LREEs. On the other hand, the prices of the HREEs will probably stabilize as there are no new mining facilities that can excavate large amounts of HREEs.

Conclusion: The price of Rare Earth minerals is likely to continue to fall, given with the general increase in global supply and weak demand. The future of the companies differs. Chinese companies listed in Hong Kong and China may be prone to lower revenues and weaker growth due to increased global competition. Listed companies elsewhere may see a bright future as they would start production soon.

