FINANCIAL TIMES

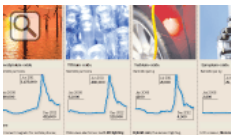
December 30, 2012 3:54 pm

Miners ready to take punt on rare earths

By Helen Thomas

Rare earth elements, as every commodities nerd knows, are in fact not very rare at all. Some, such as cerium and lanthanum, are among the more abundant elements in the earth's crust.

But it is unusual to find the 17 elements that are classified as rare earths in sufficient quantities for economic extraction.



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In 2011, however, concerns over the scarcity of these elements – which are now used in everything from mobile phones and lightbulbs to weapons systems – sent prices skyrocketing.

"There was a bubble in 2011, after demand for rare earths had rebounded from the financial crisis and the Chinese cut export quotas, reducing supply," explains Carolyn Dennis, analyst at Dundee Securities. "Fears of a shortage caused stockpiling, driving prices to unsustainable levels."

Since then they have plunged, with prices for some rare earths falling as much as 90 per cent in international markets. This year alone, prices for the most important elements have fallen between 50 and 70 per cent, according to Industrial Minerals, a specialist publication that monitors rare earths trading.

Nevertheless, a number of mining companies are still hoping to capitalise on the strategic importance of these rare raw materials.

China currently accounts for more than 90 per cent of global supply – partly because their production can be a messy and environmentally problematic business – but some miners are trying to develop rare earths projects to meet demand for production outside China, particularly from countries such as Japan and Korea.

It has not been an easy 12 months for the sector's leading companies, though.

Molycorp and Lynas – the most advanced in terms of developing commercially producing mines – have had a torrid year.

Molycorp's share price has fallen nearly 60 per cent this year and, earlier this month, its chief executive resigned, following a range of operational and financial difficulties.

Australia's Lynas, shares in which have lost more than 40 per cent of their value, has been hit by delays to its processing plant in Malaysia, which faces local opposition.

Analysts suggest that they will not be the only companies to run into problems.

"The supply chain does not need the several hundred companies that are vying to bring projects along," says Gareth Hatch, the founding principal of Technology Metals Research. "At present, we are tracking 45 projects that are at a more advanced stage of development but I doubt that more than seven or eight will be standing in a few years time."

The relatively small market for rare earths is one constraint for would-be miners, with the elements used in only small quantities in end products. Global demand of 115,000 tonnes this year is forecast to rise to 200,000-240,000 tonnes by 2020, according to rare earths consultancy Imcoa.

Depressed equity markets have also put pressure on so-called resources juniors – the exploration and early stage development companies – across the sector.

"For resources juniors, the belief is that as many as 500 small-cap exploration companies will disappear over the next 12 months, unless there is an improvement in their ability to raise equity capital," says Peter Cashin, chief executive of Quest Rare Minerals.

In trying to pick rare-earth miners with better long-term prospects, investors and analysts are increasingly focusing on projects that target production of the so-called "heavies" – a rarer subset of the elements.

In particular, the US Department of Energy has designated five of the 17 rare earths as "critical", with supply deficits expected until 2018.

Neodymium, a light rare earth, and dysprosium, a heavy, are used in permanent magnets for wind turbines or electric vehicles.

Europium, terbium and yttrium, all heavies, are used in flatscreen electronics and energy-saving lightbulbs, areas projected to have strong demand growth.

Molycorp and Lynas look set to satisfy demand for light elements, with room for a third operator, such as Canada's Iamgold, which could quickly start up byproduct production at an existing mine.

But analysts point to Quest's Strange Lake project in Quebec, as well as projects run by Tasman Metals in Sweden, Matamec Explorations and Avalon Rare Metals in Canada and Alkane Resources in Australia, as those nearest to going in to production of heavy rare earths.

"Most of the deposits that are richer in the heavy rare earths contain rare-earth-bearing minerals that have never been processed before," notes Mr Hatch at Technology Metals Research. "With enough time and money, companies can eventually find a technical solution. For some of these projects, however, the cost of production could outweigh the value of the material that you produce."

Also of concern is the extent to which new technology or alternative materials will reduce manufacturers' usage of rare earths – especially if their prices start to rise again.

Investors will therefore be looking for companies that can crack the metallurgy of processing heavy rare earths and secure investment or offtake agreements with end users.

"The difference this time round is that there is increased investor knowledge about the lights versus the heavies and which elements are really critical," says Ms Dennis at Dundee Securities.

"Investors understand that the end markets for these elements are small and there are more companies available for investment than will be needed by the market at the end of the day."