Lithium: A contradictory element at the heart of the battery metals revolution

Baker Steel Capital Managers LLP

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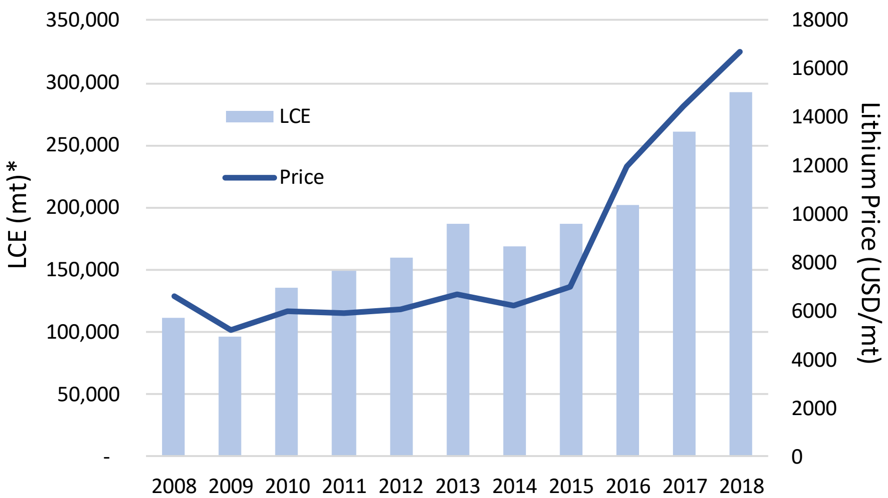
A little over a decade ago the inaugural lithium industry conference was held in Santiago. It was an eclectic collection of people. Curious investors lured by the future promise of electric vehicles ("EV"). Established producers telling anyone who would listen that producing a quality product was a job for experienced professionals (and best left to them). Hopeful junior mining companies often promoting a dream as much as a resource and Japanese trading houses looking to secure supplies in one of the metals of the future.

Fast forward to today and it has been an interesting and at times wild ride thus far. Most importantly the promise of EVs has continued to grow, and lithium demand has been strong, indeed stronger than most predicted it would be. The incumbent producers were right that producing a saleable quality lithium product is hard and many of those junior companies that tried failed painfully. The producers also proved to be misplaced in their belief that end users need not worry about additional supply as they could meet all possible future requirements. Political and operational issues in Chile and Argentina left them unable to ramp up production and the market sought alternative solutions to a looming shortage. Moreover, it was the Chinese lithium conversion companies (which were nascent in 2009) not the Japanese trading houses that came to be instrumental in the industry's growth and found innovative supply solutions.

Rising demand has fuelled lithium prices in recent years



Source: Benchmark Minerals Intelligence, Battery Metals Review, Baker Steel Capital Managers LLP.
*Lithium carbonate equivalent

Battery demand for lithium was around 20kt in 2008, last year it was estimated to exceed 125kt and in another 10 years assuming the EV market develops as many expect then demand should exceed 1 million tonnes. Lithium's reactivity and volatility make it a highly effective transporter of electrons in the battery which enables the current to move through both the cathode and anode effectively. Other technologies can theoretically deliver better power and energy output, but none has been successfully commercialized to date. When you consider the lithium battery was developed in the 1980's and commercialized in 1991 the timeline from lab to manufacturing plant comes into sharper focus. Additionally, the sheer scale of investment into the development of lithium ion batteries makes it, in our view, the primary technology of choice for the EV sector at least the next 10 years.

The other most famous use of lithium is a mood stabilizing drug where its reactivity is thought to help some bipolar patients by preferentially binding with certain proteins in our brains. The original 7up contained lithium citrate until 1948 and many lithium bearing waters have age-old reputations as places of calm. However, despite its long association in helping people find tranquillity investing in some of the equities over the past decade has often had the opposite effect!

The rapid development of the lithium sector offers promises and pitfalls for investors

As experienced investors in such markets we believe in following a few simple rules. The first rule is to know what you are looking for and looking at – with reference to lithium this can be as simple as knowing what each of the lithium reference prices (there are more than 20) is telling you about the health of the overall market. The second rule is to understand what drives your demand assumptions and learn to effectively track the key indicators. The third rule is you must understand what additional supply can be brought to market over what timeframe and for what cost. The fourth rule is the most important: be humble, learn as much as you can at the outset and continue to keep an open mind as to where you might be wrong! Our team builds a degree of conservatism into everything we do, accepting we are making decisions with many unknowns. Minor metal markets like lithium are concentrated, opaque and volatile.

Underpinning all we do is an absolute focus is on investing in stable and healthy businesses. We do not seek to invest in a company's promising commodity price 'leverage' or 'torque'. We invest to purchase a share of future cash flows and we focus on three main areas of enquiry in our due diligence:

1. What is the quality of a company's resource base?

For a resource to be robust in the context of the current lithium market it must a) be in the lower half of the cost curve, b) have clear expansion potential and c) have the necessary environmental certifications and controls in place to produce safely and sustainably.

2. Does the company have the knowledge base to produce and then market its product?

Preferably we aim to invest in companies with a proven operational history which means that the company has demonstrated it can produce and sell material to the required standards and at an industrial scale. Failing that, and as a minimum, the process route should be tried and trusted with experienced technical people working at all levels of the operations.

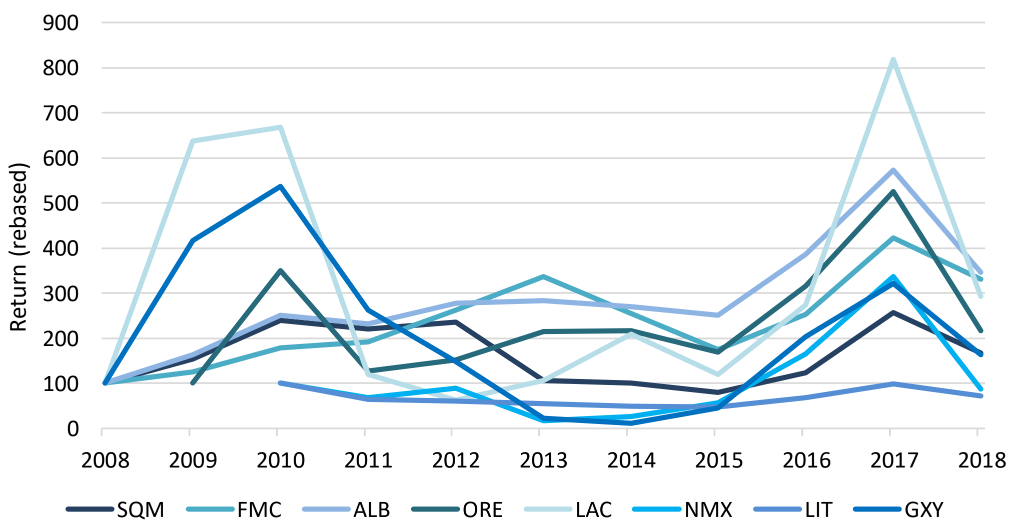
3. Does the company have a progressive attitude towards shareholder returns?

Our third key investment criteria is ensuring the alignment of shareholder interests. Whilst we accept the need for companies to reinvest to capture market growth, we look for a clear shareholder return policy that rewards our patience and treats us as partners. We like our returns to come 'above the line' in much the same way that a royalty is paid, this way we can see a clear correlation between the expansion plans of the producers and our future cash flows.

After a year of consolidation, the economic environment for lithium equities is increasingly supportive

The latest period of hype for lithium equities has abated with the sky-high spot prices also falling. The eye watering equity valuations of late-2017 and early-2018 have come down by around 50% on average. While the physical market for lithium remains a little soft, we are starting to see some opportunities in the equities again.

Lithium equities have undergone a correction since the highs of early-2018

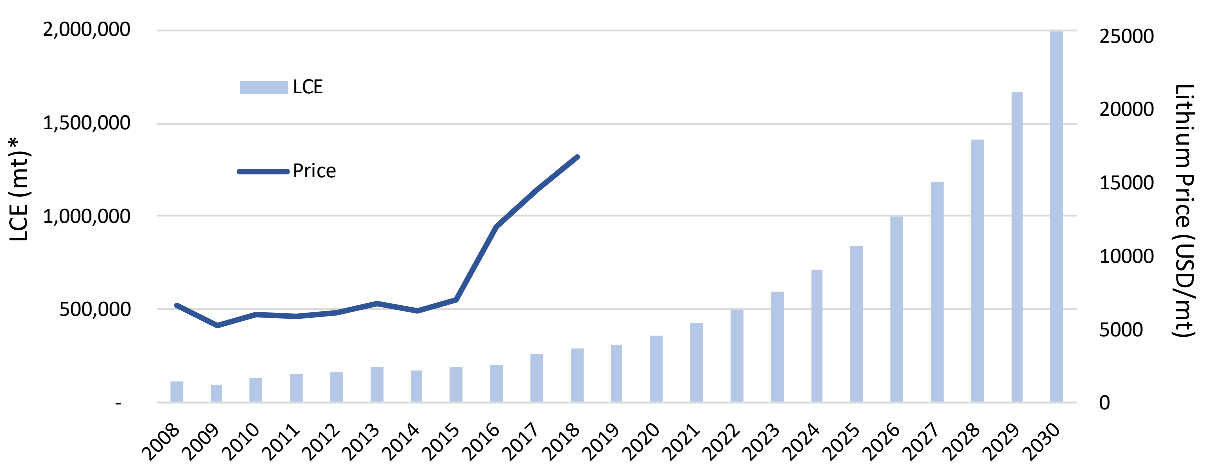


Source: Bloomberg. Data at 31 December 2018.

Because established producers have successfully negotiated longer term sales contracts they have largely made the 'spot market' price irrelevant to their financial performance. We feel they should now adopt a revenue-based dividend policy believing that this would help their businesses trade more in line with the longer-term market fundamentals and attract more investors into the sector. A recent proposed takeover in Australia for a substantial premium to market shows the strategic value of good deposits but the companies themselves must work harder at demonstrating the cash generation potential of those deposits to shareholders to get full value for them.

If government targets for EV adoption (most notably in China) are to be met, then we are only at the very start of a sustained period of growth and regard the longer-term demand picture for most 'technology metals' (lithium, cobalt, graphite, nickel, copper etc.) to be positive. We also believe that a value-based investment approach and actively managed stock selection across a broad range of commodities is key to generating superior returns for investors in this rapidly growing sector. We value companies using propriety modelling tools which allied with a patient, disciplined and methodical approach enables us to wait for the right opportunities in the right sector at the right time.

Projected lithium demand is supportive of rising prices



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Baker Steel Capital Managers LLP ("BSCM") is a specialist investment manager focused on the natural resources sector. BSCM manages the BAKERSTEEL Electrum Fund (UCITS speciality and precious metals equities) and the BAKERSTEEL Precious Metals Fund (UCITS long-only gold equities), as well as the Baker Steel Resources Trust (LSE: BSRT), an LSE-listed investment company which invests in pre-IPO opportunities within the mining sector.

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