



House Mountain Partners

October 11, 2021

The Wall of Worry in Battery Metals

Should investors be focusing on cost inflation along the supply chain rather stretched valuations?

With some lithium prices up over 200% in 2021, is it time to start to worry about an overextended run? Lithium pricing as per Benchmark Mineral Intelligence is at an all-time high on a nominal basis. The last time lithium prices were this high (2018), the adage of “taking the stairway up and the elevator down” became all too real and reminded us of just how violently cyclical and unforgiving dynamic markets such as lithium can be.

Deal flow in the lithium sector is just starting to gain steam with NeoLithium agreeing to an all-cash takeout offer of US \$737M from Zijin Mining and Millennial Lithium agreeing to a US \$297M all-stock cash deal with CATL, after a brief bidding war with Ganfeng. Lilac Solutions raising US \$150M to advance its direct lithium extraction (DLE) tech, AVZ raising US \$240M from CATH, Albemarle buying lithium

conversion capacity in China, and Sigma Lithium locking in a six year lithium concentrate off-take deal with LG Energy Solution encompass the notable recent deals in lithium. The takeaway here is that consolidation in the lithium supply chain is just getting underway and we have yet to see “the deal” that top ticks this market and sends a signal (typically seen in hindsight) that sentiment has turned.

THE MACRO VERSUS THE MICRO IN LITHIUM

Despite all the positive momentum, what is happening in lithium should be part of a larger debate around the transitory versus structural nature of inflation throughout the economy. The Bloomberg CRB Index is up 56% over the last twelve months which trails natural gas (up 97%) and WTI (up 98%) but leads copper (up 42%). While some commodities such as lumber or iron ore have mean reverted, giving credence to those who think the inflationary winds in the economy are transitory, when input costs and energy prices are up as strongly as they are, the focus shifts from growth at all costs to maintaining margins in an energy transition with rapidly increasing costs.

What we may be witnessing is “Greenflation” a term I first heard coined by Ruchir Sharma, the Chief Global Strategist at Morgan Stanley Investment Management. In this scenario, as commodity prices such as oil or coal rise due to government mandates around phasing them out as energy sources, the transition to a cleaner economy becomes more expensive as the infrastructure around renewables coupled with battery storage is not sufficient to compensate for the lack of availability of fossil fuels. Additionally, as governments send signals to companies to decarbonize supply chains, this puts upward pricing pressure on those materials necessary for decarbonization which is why lithium and cobalt have rallied as strongly as they have in recent

months. All of this pushes the goal of a cleaner type of growth out further into the future as traditional hydrocarbons, with infrastructure already in place and superior energy density, are necessary to feed the transition. Decarbonization goals are thus delayed, and this perfectly demonstrates what I have often referred to in recent years as the Paradox of Green Growth. We will need more, not less, raw materials to urgently decarbonize the economy, and fossil fuels will play a larger part in this than many would prefer. The kicker is that just as we're trying to wean ourselves from fossil fuel usage, pricing has spiked, challenging the economics around cleaner sources of energy.

Fortunately, high lithium prices alone aren't enough to singlehandedly delay lithium-ion battery price declines or the broader electrification thesis. However, structurally higher battery metals prices including lithium, cobalt, copper, nickel, and aluminum (all of which are up year-to-date and aluminum, in particular, just hit a 13-year high) could do exactly that. Add sclerotic supply chains reeling from a post-COVID consumer demand boom and it appears likely that goals such as EV cost parity with a traditional ICE car may be pushed out into the future. Any structural change in the rate of inflation and expectations is exactly what Central Bank officials around the world are worried about.

With respect to battery metals, massive global fiscal stimulus, historically low interest rates, an economic re-opening, and a lagging supply response thanks to power availability in China may lead to higher sustained pricing. This is, *prima facie*, a good thing as higher battery metals pricing should lead to strong cashflow generation. The wall of worry isn't yet a wall as pricing continues to accelerate, and while lithium pricing will mean revert eventually it is difficult at this point to find compelling reasons for any imminent correction. The focus needs to be on input costs which appear to be rising rapidly.

THINKING ABOUT COMPANY EARNINGS

The tension between the macro economy and battery metals supply chains continues to build as we head into company earnings season. We should learn a lot about how producers are handling any cost pressures in the next few weeks and in that vein, here are six questions for metals or chemicals producers as Q2 earnings season begins shortly:

1. Where are you seeing cost pressures along your supply chain?
2. How are you handling the cost pressures? Can you pass them along to your customers?
3. Is labor availability a concern as you scale your output?
4. If your input cost increases are permanent, how are you handling this? Hedging can get expensive.
5. How do you see higher pricing affecting overall battery prices and EV demand?
6. What do higher prices along your supply chain mean for M&A in the sector?

As I discussed at length during my presentation at the recent FastMarkets Lithium conference in Las Vegas, I remain in the disinflation/deflation camp longer term as I think that demographics, technological cost deflation, excess capacity, and excessive debt will weigh on growth prospects and outweigh any near-term stimulus-induced price increases for commodities. I could certainly be off here, but time will tell. The onus is on the CEOs of companies along the battery metals supply chain to build businesses against the backdrop of increased ESG scrutiny, input cost inflation, and clogged supply chains (to name a few issues). Their success in navigating these challenges will be the true determinant of success and whether investors will have to climb the wall of worry or not.

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