The Disruptive Discoveries Journal

Weekly analysis of how disruption in commodities, geopolitics, and macroeconomics converge to create opportunities

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Are We Headed for a Lithium Bubble?

Recent moves in the lithium and EV space have conspired to light a fire (pun intended) in this corner of the metals market. To wit:

Apple's (AAPL:NASDAQ) recent public announcement of its intent to have their own EV ready by 2019 is a strong indication that EVs and a redefinition of transport are here to stay. While not a surprise, this announcement is good news as AAPL, a company with a history of innovative product development and extraordinarily deep pockets, is intent on making its mark in the EV business. While details are sketchy at this point (autonomous? Fully electric?), having a company of AAPL's stature enter this space can only help accelerate adoption and interest – not to mention shine a light on raw material access and supply chains.

Regarding raw materials, the general trend of increasing prices for lithium compounds is intact with FMC Corp's (FMC:NYSE) announced intention to raise prices for their lithium products by 15% starting October 1st. We weren't able to find any commodities with the same pricing power as lithium in the current market environment (See below for YTD metals performance). How much this additional pricing contributes to FMC's bottom line and cash flow is likely marginal, but the price increase is an important signal.

Precious	2Day	Price	Net Chg	%Chg	Time	%YTD	%YTDCur
1) Spot Gold		1132.55	-0.89	-0.08%	19:49	-4.38%	-4.38%
2) Spot Silver		15.20	+0.00	-0.01%	19:49	-3.25%	-3.25%
3) Spot Platinum		970.80	+0.05	+0.01%	19:49	-19.64%	-19.64%
4) Spot Palladium		614.95	-0.65	-0.11%	19:42	-22.90%	-22.90%
5) COMEX Gold	d	1132.00	-0.80	-0.07%	19:39	-4.31%	-4.31%
6) COMEX Silver	d	15.19	-0.03	-0.20%	19:38	-2.44%	-2.44%
7) COMEX Platinum	d	972.40	-1.30	-0.13%	19:31	-19.56%	-19.56%
8) COMEX Palladium	d	614.45	-1.65	-0.27%	19:35	-22.83%	-22.83%
Base							
9) LME 3mth Aluminium	d	1616.00y	-8.00	-0.49%	9/21	-12.77%	-12.77%
10) LME 3mth Copper	d	5269.00y	+15.00	+0.29%	9/21	-16.37%	-16.37%
11) LME 3mth Zinc	d	1657.00y	-31.00	-1.84%	9/21	-23.92%	-23.92%
12) LME 3mth Nickel	d	9865.00y	+190.00	+1.96%	9/21	-34.88%	-34.88%
13) LME 3mth Lead	d	1706.00y	+13.50	+0.80%	9/21	-8.18%	-8.18%
14) LME 3mth Tin	d	15145.00y	-30.00	-0.20%	9/21	-21.93%	-21.93%
15) COMEX Copper	d	238.75	-0.10	-0.04%	19:35	-15.11%	-15.11%
16) Shanghai Copper	d	40270.00	+120.00	+0.30%	13:00	-13.36%	-15.58%
17) Shanghai Zinc	d	13675.00	-160.00	-1.16%	12:59	-18.05%	-20.15%
18) Shanghai Aluminium	d	11800.00	-150.00	-1.26%	12:59	-8.88%	-11.22%
19) Shanghai Steel Rebar	d	1902.00	-6.00	-0.31%	12:59	-24.89%	-26.82%

Source: Bloomberg

Finally, though light on detail, Albemarle Corp's (ALB:NYSE) announced expansion for up to 50,000 tonnes of lithium conversion production capacity with an eye on battery grade material by 2020 is a sign that a major producer is trying to get ahead of incipient demand.

These bullish moves suggest more scrutiny of investment opportunities along the supply chain is in order and also gives us pause to consider another idea which is the threat of a bubble emerging in lithium. While we don't see any hard evidence of this yet – approaching the space with this in mind is constructive.

We found ALB's news puzzling. If you're already one of the top lithium compounds producers in the world and set to benefit from a bullish pricing environment, why expand capacity so aggressively? If the market for lithium compounds is 180,000 tonnes globally, why add capacity at an undetermined cap ex number, when you can sit back and expand your operating margins through higher prices and a stable cost structure?

Should the rosy projections for EVs and energy storage demand come true, more raw material supply – specifically of lithium, cobalt, graphite, nickel, etc. is a must and this must be why ALB is planning such an aggressive capacity expansion.

With the looming ramp up of the Gigafactory beginning next year, TSLA still needs long term supply (not to mention other battery and EV manufacturers who seem to get lost in the TSLA-dominated headlines). Recent deals with juniors speak, we think, to TSLA's inability to establish lithium supply deals at below market pricing. Though this is just a theory, you do have to ask yourself why any of the lithium majors (FMC, SQM, ALB, Chinese producers) would give price concessions on lithium supply. This is a textbook example of an oligopoly leveraging its pricing power.

The upward trend in lithium pricing has potential to put TSLA and other OEMs in a bind. We find it interesting that the two recent lithium off-take agreements announced by TSLA were non-binding deals with junior mining plays and not with established producers. Either there is no excess lithium capacity available to supply the Gigafactory or the majors won't budge on pricing discounts. Our belief is that the latter is more likely.

So TSLA has lent their name (and no money!) to junior mining companies in order to facilitate capital raising and a long and arduous push towards production. This is a risky bet: the junior miner gets to be "associated" with TSLA through an agreement; and as lithium prices rise, TSLA (and other battery manufacturers) hope that lithium producers will be forced back to the bargaining table for fear of losing market share to incipient junior producers.

Which Matters More: Price or Cost?

Though lithium prices are on the rise, we would offer a thesis that is likely anti-thetical to traditional resource company evaluation: A focus on higher lithium prices is misplaced. While higher prices may harm battery manufacturers (marginally), we don't see the higher prices providing leverage to miner share prices. What matters most is cost of production – especially when competing with an oligopoly. Given that we firmly believe in the thesis of electrification of transportation, it doesn't matter to us whether the price of lithium hydroxide goes to $12,000 or $2,000 per tonne. It's arguably detrimental to investment analysis. What *is* important are the production costs of a project. In an oligopoly, if you can't beat the established producers on cost, you won't last.

This isn't a bubble. Not yet. Nevertheless, it looks like current and aspiring raw material producers are about to get their day in the sun as costs for technology necessary for electrification (batteries and solar panels, for instance) continue to crash. This is the "good" deflation we have spoken about so frequently. In an otherwise horrendous year for hard commodities, lithium has, and should continue to, outperform.

It would appear that those companies that can demonstrate lowest cost production coupled with strong strategic partnerships are best positioned to move higher as the electrification thesis plays out. We think it is early, but the lessons learned from past bubbles (uranium or rare earths, for instance) shouldn't be forgotten.