

## Research on Materials Sector (11/3/18):

Was finally able to get around to this and boy was it a tough one. As many of us are aware, the Materials sector has been struggling - down about 11% YTD and severely underperforming the broader market. Within the Materials sector there are some very popular industries such as:

- Copper: Down 35% YTD
- Paper Packaging: Down 22.65% YTD
- Gold: Down 12.55% YTD
- Steel: Down 3.04% YTD
- Specialty Chemicals: Flat YTD
- Fertilizer & Agricultural Chemicals: Up 7.27% YTD
- Metal & Glass Containers: Up 26% YTD

So as a whole, really not a fan of the sector. There are so many question marks and uncertainties due to global tensions. For example, it is extremely hard to predict what will happen to steel with the tariffs, Gold which was considered the safe haven if markets get wild is down almost 13% YTD, and demand for copper is also a big question mark.

As you know we love high growth areas and that is why out of the entire sector we favor Specialty Chemicals, which is flat YTD at +0.17%. Within this sector of the industry, we really favor companies operating in the Lithium and Cobalt space. You may be wondering why so here are a some reasons:

- In 2000 the demand was at approximately 65,000 tons LCE and reached 184,000 tons LCE by 2015. For 2025, experts are estimating a LCE demand of more than 530,000 tons
- The driving factor will primarily be the demand from the battery and accumulator sector in association with the automotive industry. But also, the energy storage sector will create an immense demand. In 2015, only one third of the lithium demand came from the battery sector; by 2025 it will probably reach 70%

- One reason for solid demand for lithium is Asia and their desire for electronics. We dove a little deeper in this and found that electronics is the biggest single product category in Asian trade. From 2001 to 2016, the value of electronics exports from Asia jumped from US\$537.3 billion to US\$1,758 billion, growing 8.2% each year on average and accounting for about one-third (32% in 2016) of the total exports of Asia

- Another area of rapid growth can come from car manufacturers and (initially) above all Tesla Motors, but also from all other leading car manufacturers as dozens of companies move towards electric vehicles and autonomous driving

- A third area for solid demand is with power banks which are decentralized energy storage units which are used in the private and industrial sector where electricity is produced by photovoltaic cells as well as wind power stations and used for their own needs

- Also, Chinese consumers are on track to buy more than 1 million electric vehicles (EVs) this year after sales grew 53% in 2017. China's leadership is also charting a course to an all-electric future, targeting 2 million annual EV sales by 2020 and a complete ban on internal-combustion engines, which officials predicts will happen before 2040. (edited)

Lithium supply shot up pretty heavy this year and has weighed down lithium stocks but the long term growth story still remains intact in our opinion. Lithium production is still in the hands of a few producers. The worldwide

biggest lithium producer Albemarle (ALB) acquired Rockwood Holdings, the owner of the two largest lithium deposits in Chile at the beginning of 2015. ALB and three other companies, SQM, FMC and Tianqui (i.a. Albemarle's joint venture partner in Australia) share the lithium market mostly between each other.

If you want to play it a little more risky there are a few other names out there include HighPower Inc. (HPJ), which is actually a very risky but interesting play as the company trades at \$33M market cap now since dropping heavy but its profitable and growing very fast and trades around 0.4x sales. They are HQ in Delaware but their operations are out in China as that is the fourth largest lithium producing market behind Chile/Argentina and Australia. The company trades around \$2.20 a share now and the CEO said a couple months ago he plans on buying the company out at \$4.80 but there hasn't been any formal announcement or any news on it since. Other potential but very risky companies include Lithium Americas (LAC) which we traded a couple months ago for a solid gain, Millennium Lithium (MLNLF), and Standard Lithium (STLHF).



If you want you can also just scoop the Lithium ETF (LIT). Enersys (ENS) is another name but not a pure lithium play as they manufacture, market, and distribute industrial batteries and are up 19% YTD.

It's also good to mention that you can see some major consolidation in this space, especially on this year's capitulation. If I'm not mistaken, Tesla is thinking about expanding their supply chain vertically by buying out a lithium producer so they can have better control of their production. It wouldn't surprise us to see them do that as well as other vehicle manufacturer