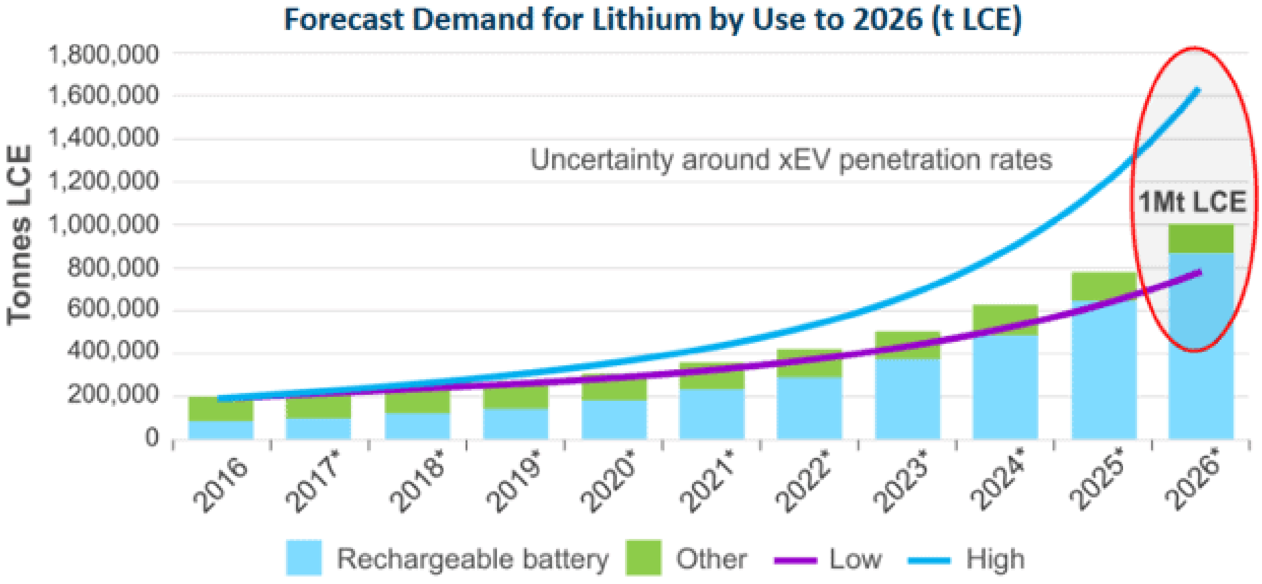
Lithium demand is surging but soon supply should catch up

The first wave of the lithium boom has come and gone. This saw tremendous gains for early investors who got in before 2016 and rode the wave all the way through to the end of 2017. Then in 2018 we have had endless negative reports on the sector, many of which seem miss-informed or plain wrong. The underlying theme is that many groups are totally underestimating the speed of change towards electric vehicles, and hence the surging lithium demand.

By way of example many see the EV sector as growing slowly, when in reality global electric car sales grew by 58% last year, and by 59% in Q1 2018. The number of EV models available is set to jump from 155 at the end of 2017 to 289 by 2022. Another sign demand there is the 30 new lithium-ion gigafactories on the way.

Lithium demand

My lithium demand model based on some reasonable assumptions such as 15% EV penetration by the end of 2025 (China already hit 3.7% in April 2018, and global EV penetration should exceed 2% in 2018), forecasts Lithium Carbonate Equivalent (LCE) from Electric Vehicles (EVs) to reach 1.1mtpa by the end of 2025. By way of a comparison in May last year Roskill tripled their forecast for LCE demand to ~1mtpa by 2026.



"The impact of automotive electrification on lithium: 1TWh and 1Mt LCE in 10 years"

Roskill lithium demand forecast ~1Mt LCE by 2026

The key to understand is that demand is not just from booming electric car sales. There is plenty more demand from other EVs – e-buses, e-trucks, e-ships and e-boats, e-bikes, soon e-planes, the energy storage and electronics sectors.

For now e-buses especially in China have been a huge demand driver for lithium. Soon we will have e-semis and all kinds of electric trucks. Just this last week Daimler announced two new electric trucks for the US market to take on the Tesla semi that was slated for 2019 production. A full size electric semi-truck will need about 10-16 times more batteries (and hence lithium) than an electric car.

Daimler’s new electric semi truck set to go into production by 2021

Lithium supply

Meanwhile lithium supply at the mining level is responding to the surging demand picture described above. In 2018 we will see four new lithium miners become producers – Tawana Resources NL, AMG Advanced Metallurgical Group, Altura Mining Limited and Pilbara Minerals Limited. This will certainly boost lithium spodumene supply; however most industry experts see a shortage of converting capacity.

In any event the boosted 2018 lithium supply should bring the lithium demand/supply situation back to a more balanced level, and some moderation in lithium prices (especially China lithium spot prices). In 2019 we are likely to see some expansion from existing lithium miners to meet the demand surge, and by 2020/2021 some new lithium juniors such as Lithium Americas Corp., Bacanora Minerals Ltd. and some others like Nemaska Lithium Inc., A.I.S. Resources Limited, Neo

Lithium reach production.

We may also see further consolidation in the sector such as the SQM/Kidman joint venture deal. New lithium processing plants are also on the way, such as the Tianqi/Albemarle Kwinana facility in Western Australia currently under construction. SQM/Kidman also recently announced plans for a new Kwinana lithium processing facility.

In conclusion, EV uptake and lithium demand will be a lot stronger than what many currently think. Due to surging lithium demand the supply response has been very strong. This should mean that new lithium supply should be able to keep up with demand from now to 2020. We may see periods of small over or under-supply, and the LCE contract price range between US$12,000 and US$20,000/tonne. Currently it is at US $16,400/tonne. For investors this will mean the lithium miners that can expand production, and the juniors that can make it to production should still reward investors very well. As we move further into the new EV and energy storage world the lithium miners sector should have an excellent one to two decades ahead.

Analyst directs investors south for the Latin American Mining Round-Up 2017

The grim years from 2011 to early 2016 produced a wholesale retreat to “close to home” locations in the mining sector. Stories that were in either Canada or Australia fared better than those in edgy locations, like Africa or Latin America. We had predicted that when the turn came there would be some feelers go out to these areas but that capital would not flow in substantial amounts until the recovery was robust. This has proven to be the case. However the one exception is the Lithium boom which sent companies scurrying to locations they had hitherto eschewed and produced somewhat of a staking boom, particularly in Argentina.

The countries that miners retreated from in 2011 are not necessarily the same territory when they return in 2017. Politics have changed, attitudes have changed, metals have come into or gone out of fashion and domestic priorities/needs have altered. This makes it an ideal time to revisit Latin America which had become a strong preserve of Canadian players from 2005 to 2011 and now is experiencing somewhat of a thaw in investors frosty outlook to the region.

Argentina

For many years Argentina had a paradoxically self-declared pro-mining government that miners loved to hate. The Kirchner regime did not make things easy. It was happy for miners to mine but then seemingly didn't want the miners taking the profits back to their mothership (wherever that might be). All that ended with the overthrow of Kirchner by Mauricio Macri in late 2016 and the arrival of a pro-business government. Frankly Argentina didn't miss all that much in the 2011-15 period as not much was happening in pro-mining OR anti-mining jurisdictions in Latin America. Indeed the timing of Macri's appearance with the revived mining sector around the same time (particularly the Lithium boom) was very timely. Deals are starting to be done like the Golden Arrow Resources (TSXV: GRG | OTCQB: GARWF)/Silver Standard combination. We would expect to see more deals, or at least fluidity in the ownership of assets that have long been in the freezer.

A weather eye should be kept upon the upcoming elections for the Congress where Cristina Kirchner is putting herself forward as a wannabe legislator. This will be a litmus test of where things might be heading in the next Presidential elections, which nevertheless are still a long way away in 2020.

Brazil

The country that is always “promising” but never delivers may not be true anymore but Brazil’s attempts to move into the global big leagues have been hampered by repeat own goals. It wants to be a Permanent Member of the UN Security Council but has had two Presidents indicted for corruption in the space of one year!

The most positive side effect of the political wobbles and moreover the economic slowdown, now that easy money has ended, is the decline in the Real against the dollar which has been a healthy kicker to those already producing or looking at kickstarting projects in Brazil.

The political environment has not harmed mining though as much as metals prices have, with large scale projects (most dependent upon iron ore) no longer dominating the airwaves (which is probably a good thing). Smaller projects in niche metals seem to be getting more of an airing with developers of Manganese and Nickel projects having crossed our desk in recent times. This trend will continue as metals prices trend back up and indeed we suspect that we will hear Brazil linked to more and more minerals with which it has not been traditionally associated. As for gold in Brazil, pretty blah..

Ecuador

This country has been the inevitable beneficiary of cycles and a dose of reality. The falling oil price also focused minds in government(s) that had believed that oil would always provide and mining was an unnecessary evil. As we have observed before, oil provides way less jobs than mining and does not necessarily move the broader economy forward in the way that mining can.

The shift of Fruta del Norte out of the deathly grip of Kinross has electrified the local scene. It caused us to dig out and dust off our Intierra map for Ecuador circa 2008 and review the long lost names and their concessions. This country is enormously prospective and if it can get its act together it might actually be what Colombia promised to be and did not deliver.

Watch this space..

Mexico

This country chugs along as the t*ried and true* investment country of choice in LatAm. The main difference in recent times is that miners are finally 'fessing up that cartels and crime are a problem. For years investors asked the question and were told "that's another part of the state" now the truth (as much as can be) is being told. However from what we have seen it hasn't precluded any investment in the country.

Otherwise Mexico is still very much open for business and is riddled with great projects waiting to be sparked into action by either metals prices or financings. The likes of Chesapeake Gold's (TSXV: CKG | OTCQX: CHPGF) Metates project, Southern

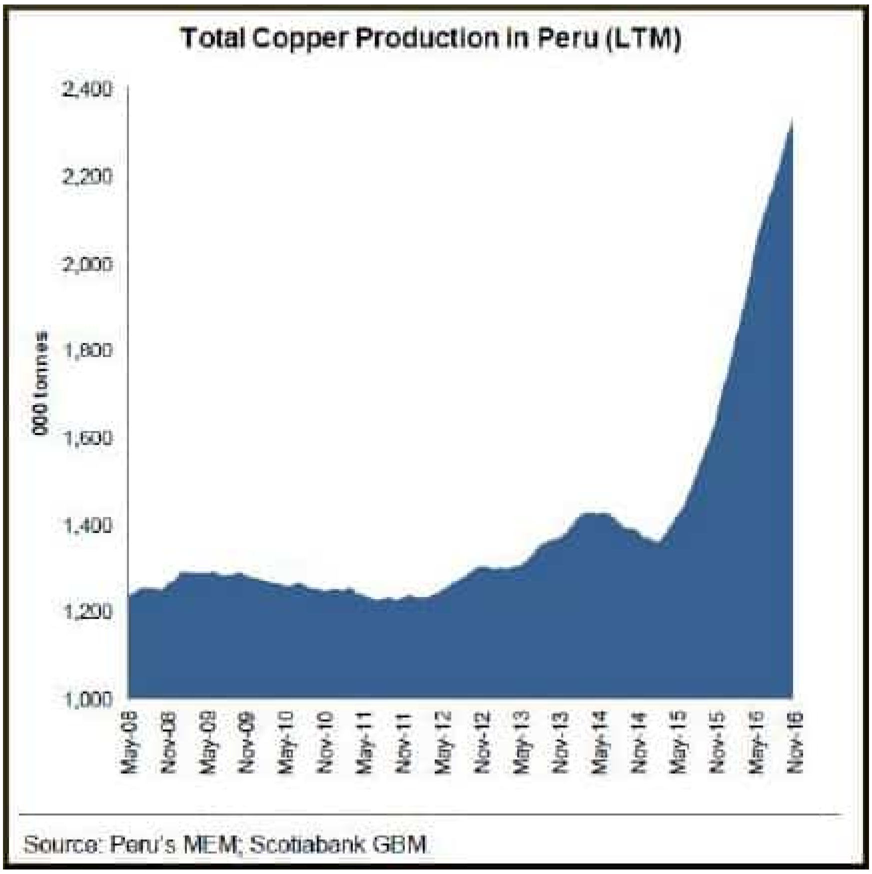
Silver’s Cerro la Minitas and Azure Minerals’ Alacran project spring to mind as some awaiting the appropriate trigger.

The problem for us is the producing companies that investors stuck with through the grim days who still aren’t giving up a dividend. We have a special part of hell reserved for these companies (you know who you are). Ironically that makes the Mexican-owned and -listed companies (e.g. Peñoles, Frisco) more attractive than many of the TSX-listed ones. To the offenders…. must try harder..

Peru

Peru has, in some ways, become the new Chile. As Chile gets tougher to do business, Peru in comparison starts to look less complicated. One should not dismiss the potential for NGOs to stir up a roadblock by “locals” faster than you can say “rent-a-crowd” but generally most areas of the country are mining-friendly and out to get the jobs and trickle down that having a major operation in their vicinity brings.

The campaign to grab Chile’s crown has been slow and steady, but it’s getting there, particularly in the copper space. We were surprised at a recent lunch by Panoro Resources to hear of Peru’s stealth advance in Copper. Below can be seen the progress made.



If it keeps on at this pace the baton of copper leadership will shift from Chile to Peru before 2030.

Chile

One can never really know but I have the suspicion that somewhere in the Chilean Ministry of Mining there is a type of "Bat Phone" that connects the Powers That Be to the heavies of the Lithium Cartel and this phone has been ringing hot over the last year.

As Argentina has been advancing with somewhat of a Lithium "gold rush" Chile is scarcely mentioned despite its importance in the Lithium space. Why? Well, maybe the cartel makes the call and say "no interlopers" and the Ministry gets the message. The result Chile is the word on nobodies' lips.

The first question any investors ask at presentations by miners operating in Chile is the water issue. This has become, probably rightly, an investor obsession. At higher levels (pardon the pun) the issue becomes Pascua Lama and a number of other dents in Chile's reputation of being miner-friendly.

Codelco meanwhile sits as the omnipotent master of all it surveys and we would hazard a projection that as long as Codelco exists there will probably not be another major copper mine developed by any other major. Codelco needs to own all the big projects to ensure its ongoing status as 800lb gorilla. We might also mention that the military have a special royalty off its mines.

Chile going forward will mainly be small-scale plays and that is why we find Coro, Amerigo and their ilk as the most interesting players to watch.

Colombia

We have long been in two minds on this country and been justified in that view. Too many spoilers in the form of local "entrepreneurs" got into the listed plays and the presence of artisanal miners also muddied the waters. While we have one favorite that is running a small mine and upgrading it (as well as tolling for artisanals on its patch) the rest of Colombian "big" deposits will most likely stay as deposits and nothing more.

Nicaragua

The country shows how do it. From Sandinistas and Contras in the 1980s to a mining hotspot in the current decade. Let it be a lesson to those countries still in the Dog House (see anon). This is a country to watch and should certainly be a model for the others around it (Guatemala being a good case) that have yet to turn themselves into mining friendly destinations. Until they do this, Nicaragua will be the sexiest place in Central America to mine gold, in particular.

The Dog House

Venezuela and Bolivia remain in the dog house. The former staggers from bad to worse and the cataclysmic final scene may be playing out in the next few weeks. This is however a “death scene” that has been forecast before and perpetually forestalled. This country has to have the definitive shift in government that produces that moment where “the blood runs in the streets” that signals the turn. Nothing can be achieved as long as the remnants of *Chavismo* cling on.

Bolivia is also not on the beaten path but at least is not as idiosyncratic as Venezuela. The country is doing its own thing and just as well, as miners have good memories that this place has been the graveyard of more than a few Canadian players. Interesting though was to see the Bolivian ambassador to the UK at a recent Neometals event in London, apparently scoping out the potential of that company’s *salar* extraction technology for its own Lithium riches.

Conclusion

Mining executives, particularly in Canada, always had a soft spot for Latin America (if only for the weather being great when it is frosty north of the border) but also for its proximity and its enormous potential. The first wave of players were rewarded in spades with a frenzy of takeovers that “made” certain Canadian players as they shuffled assets and piles of cash. There were debacles, (Venezuela, Bolivia and Ecuador) but the successes (particularly in Mexico) far outweighed those mishaps.

It’s a new cycle and things have changed both down in Latin America and in the major capital markets. Priorities are different but one cannot take one’s eye off the best prospects and Latin America has more than its fair share of those. As long as the US dollar remains so “expensive” the best thing TSX denizens should do is regard Nevada etc as “flyover” territory and just keep heading more to the south.