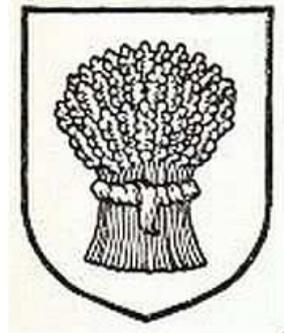


Saturday, September 7, 2019



HALLGARTEN & COMPANY

Portfolio Strategy

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Model Mining Portfolio: China's "Growth" – The Big Lie?

Performance Review – August 2019

Model Mining Portfolio

China's "Growth" – The Big Lie?

- + Nickel price showing one of its best moves in many years being up nearly 70% in 2019
- + Silver catching a strong tailwind and nearly getting to \$20 per ounce
- + Platinum's price soared from US\$840 to US\$980 during the month
- + Financings, at least for precious metals stories, seem to be strongly received
- ✗ Potentially false Chinese growth statistics undermine the thesis for demand from that country for many minerals
- ✗ Gold somewhat becalmed (certainly in comparison to Silver)
- ✗ The "trade war" between China and the US was notched up further via new rounds of tariffs on both sides
- ✗ European GDP growth has gone into reverse with little sign of a turnaround
- ✗ Base metals (excepting Nickel) continue in the doldrums

Lie, Damn Lies & (Chinese) Statistics

Imagine yourself as a Chinese economist or statistician. Instead of believing the official story that GDP growth is north of 6%, you actually think it's closer to 2%, or zero, or negative. Would you dare speak out? What would be for fate for committing the "economic crime" of saying what you truly believe? Involuntary organ-donor?

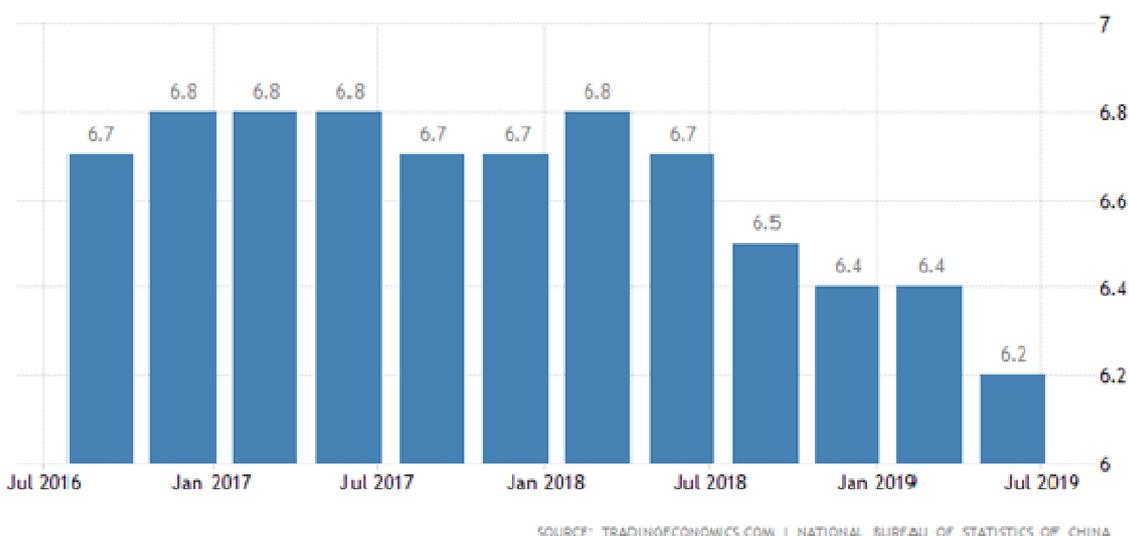
Curiously, Western economists and pundits are not within the reach of the long arm of the Chinese "law" but still parrot the official Chinese statistics as if they were written down in stone and passed down to mere mortals on a mountain top by some higher being. The fact that many of these Western pundits roll up to conferences in China or are in the pay in some way or another of big banks that dare not rock the boat goes some way to explaining their passivity.

The thing that has never rung true for us about Chinese growth is that, after having watched it for most of the last two decades, it seems that a good year in China is 7-8% growth and a "bad" year is 6% growth. Curiously range-bound... As Henry Ford once commented you could have the Model T in any colour as long as it is black, the same thing holds for Chinese growth at 6.5%.

Ever the iconoclasts we can't help thinking that if Chinese numbers can be false for so many other things (think copper warehouse stocks) then why shouldn't top-line "big" numbers like GDP be falsified. After all GDP per capita is a prime feel good factor for ruling parties and especially useful (indeed, vital) if one

is starting to tout oneself as biggest “kid on the block”. The relevance for mining investors is that if one believes the official numbers then cognitive dissonance sets in.

As the chart below shows, official numbers show growth scarcely dimmed despite all the economic headwinds that China is sailing into. Credibility is strained.



How can growth be so strong and yet the prices of copper, zinc et al. are so weak? If one believes that fluctuations in Chinese growth are much wider and wilder than officially reported then the movements in metals prices and stocks over the period since 2011, in particular, make much more sense. At the moment the disjuncture is even more telling with the growth rate supposedly at 6% (despite the swingeing effects of the trade war) while copper and zinc are lying like fish on the dock, gasping for air. If Chinese GDP was really rollicking then these metals would not be so torpid. Reports that have reached us are of dramatic declines in economic activity in China and substantial tightness in US dollar availability (which are, of course, used to buy imported metals and to fund stockpiles).

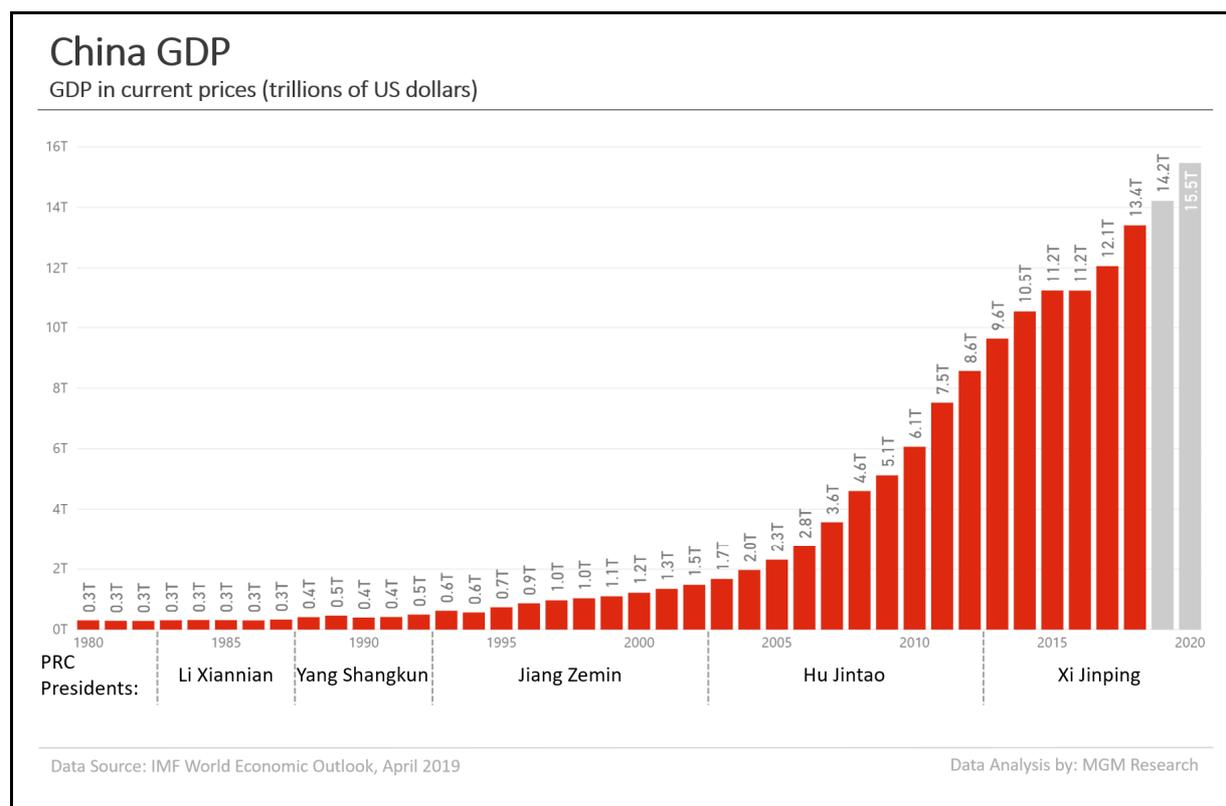
There are however some feisty figures out there. In December of 2018, Xiang Songzuo, an outspoken professor from the Renmin University of China, who previously served as chief economist for Agricultural Bank of China, cited unidentified internal reports as saying that said China’s GDP growth for 2018 could be 1.67 per cent or even negative.

China has overestimated its nominal and real growth rates by about 2 full percentage points on average between 2008 to 2016, with the miscalculation increasing each year, according to a study published by Chen Wei, Chen Xilu and Michael Song from the Chinese University of Hong Kong and Chang-Tai Hsieh from the University of Chicago.

The results indicate that the actual size of China’s economy at the end of 2018 was well below the government’s official estimate, which corresponds with our scepticism.

The venerable South China Morning Post used the study’s findings and applied them to government figures starting with the level of nominal GDP at the end of 2007 and the growth rate for 2008. These recalculations showed that the current nominal size of the Chinese economy is about 18% cent lower than the official level of 90 trillion yuan (US\$13.4 trillion) at the end of 2018.

Below are the IMF numbers (which dare not challenge the Chinese view) and taking the SCMP’s recalculation into consideration one could see a much smaller Chinese economy than this chart implies.



For too long many in the mining industry have cared to believe the truisms of the Commodities Supercycle and China’s role in it because it suited their promotional aims. If the statistics underlying those premises are bogus then this might be termed self-delusion on a grand scale. If China is not the axe in the various metals that it is supposed to dominate, then the whole thesis falls apart and mining company managements need to go back to their drawing boards and find other motors for growth.

Beyond the travails of Copper and Zinc at the current time, one should look further at the battery metals where slack Chinese growth could signal a major undershoot on expectations of EV production and sales in the country and thus the knock-on demand for the likes of Lithium and Cobalt. This may indeed already becoming evident. (Metal) seller beware..

Portfolio Changes

There were no portfolio changes during the month.

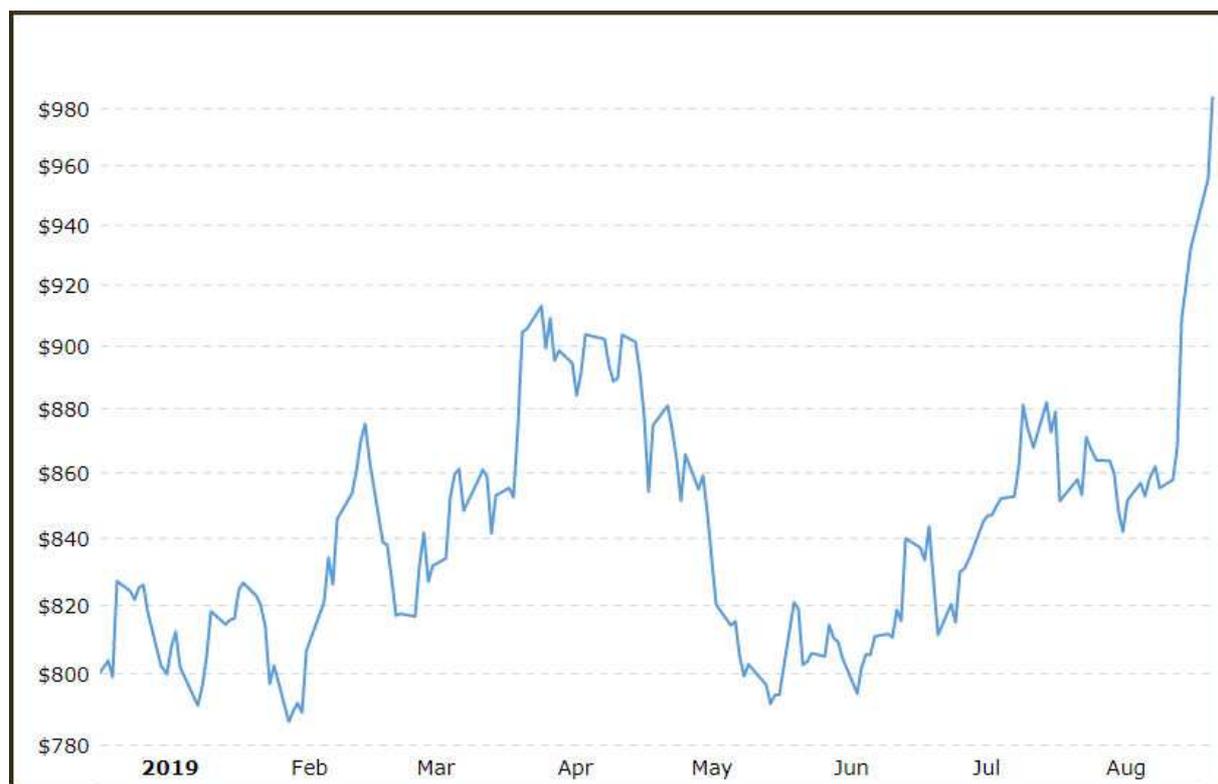
The Portfolio Move

The cash balance remained unchanged at \$129,000. The Model Mining Portfolio fell to \$3.996mn from \$4.17mn over the course of August.

During the past month we published coverage updates on Southern Silver Exploration (TSX-v:SSV) and Colonial Coal (TSX-v:CAD).

Platinum in Passing

It's worth mentioning we have no Platinum exposure (except if Platina revive their secondary project) and yet this metal has been a stellar performer in the last month.



Metals X – What Ails It?

We can make no bones about it that Metal-X is one of the most disappointing stocks in the Model Mining Portfolio. Its performance has been nothing short of diabolical. With a strategic position in Tin and the nickel price hitting new (recent) highs, Metals X seems to be mired in its own very special and

personal slough of despond. Why should this be so? Unfortunately we can point the finger at only one guilty party and that is management.

The strategic errors of management and the accumulated financial miseries have produced a diabolical chart tendency that bears little relationship to the state of the Tin market or the metal's price.



Firstly Tin. In theory Metals X is one of the largest listed non-Chinese tin producers around through its 50% ownership of the Renison mine in Tasmania. This storied mine has been operating since 1908 and was our fundamental reason for favouring Metals X over the years. The current Mineral Resource is 15 million tonnes at a tin (Sn) grade of 1.35% Sn for 203,000 tonnes of contained tin. The Ore Reserve is 6.8 million tonnes at a grade of 1.06% Sn for 72,000 tonnes of tin (approximately 8 years). Renison is currently producing approximately 7,000 tonne of contained tin in tin concentrate per year.

The JV is currently expanding production through the construction of a new crusher plant and ore sorter to increase underground ore production to approximately 920,000 tonnes per annum, while maintaining the processing plant at approximately 720,000 tonnes per annum. The ore is sorted with the rejection of an estimated 200,000 tonnes per annum of waste by the ore sorter, upgrading the mill feed grade with a resulting increase in tin production by an estimated 15-20% and yet.....

It's no wonder that investors are disenchanted as the consolidated total loss after income tax was AUD\$26,297,186 in FY18 (the company has a June financial year) which was a massive reverse from the FY2017 profit of \$134,012,244 (which admittedly was related to the spinout of Westgold). Some AUD\$32mn of that loss was coming from the operations of the ill-fated Nifty copper mine acquired via the controversial Aditya Birla takeover. All in sustaining costs per tonne of Copper soared by 50% in

FY18. That takes some doing....

Meanwhile the Tin division was strongly profitable and showed itself to be the real and only revenue engine of the company.

Then things got worse in FY2019... with the bottom line plunging to an AUD\$117mn loss, largely driven down by Nifty's operating "results" and a writedown of AUD\$75.6mn.

A side effect of the distraction with Aditya Birla was that the company missed the entirety of the Cobalt boom of 2017 and early 2018, meaning that it was not able to promote or fund its nickel/cobalt attractions at Wingellina. The Central Musgrave Project encompasses approximately 2,000 km² of prospective exploration tenure that includes Wingellina, the Claude Hills nickel deposit, and the Mt Davies exploration prospects.



The Central Musgrave Project has a Mineral Resource containing approximately 2 million tonnes of nickel and 154,000 tonnes of cobalt, within which Wingellina hosts an Ore Reserve of approximately 1.56 million tonnes of nickel and 123,000 tonnes of cobalt. As such it is the largest undeveloped nickel-cobalt project in Australia and yet it is totally becalmed even as the nickel price springs back to life.

We had to chuckle (graveyard humour) at the latest Nifty press release when it said "Mine planning has been overhauled and now provides well-considered, meaningful and deliverable plans" which prompted the thought, were they not those considerations or inherent before?

The 2016 acquisition of the Nifty Copper Operation was largely based on the geological upside potential. To assess this potential, Metals-X has been undertaking substantial underground drilling programs with

a massive 83,000m of drilling completed to date. This work has contributed to considerable improvements to the Nifty geological model and the identification of extensive new copper resources both east and west of the historical Central Zone. However, this leaves us wondering that if it cannot be produced profitably then what is the point of an ever larger resource.

The Nifty Mineral Resource estimate (as at 31 March 2019) is comprised of 36.28mn tonnes at 1.5% Cu (for 545,600 tonnes of contained copper) of which, 30.55mn tonnes at 1.58% Cu is in the Measured and Indicated categories (for 482,500 tonnes of contained copper).

This resource is large enough and the grade is good enough to be very attractive, so why can Metals-X not make money?

At this stage we are despondent about getting access to Tin via this vehicle. Management has been epically incompetent. A few directors have been thrown under bus, or shortly will be, but what is needed here is a changed corporate structure. Tin and nickel should be set free... But the intriguing question is whether the Nifty copper asset would survive on its own.

There is clearly a task of corporate doctoring (more like amputation without anaesthetic) here and yet management refuses to wield the scalpel and bone saw because success requires self-decapitation. With the market cap slipping into oblivion (AUD\$145mn and falling) it might be time for a corporate raider to turn their attentions to this semi-moribund case. We live (and hold) in hope...

Parting Shot

Argentina always surprises. The recent ill-fated “primaries” for the upcoming Presidential elections in October came out with a result that was widely regarded as shocking with the ticket of the current President, Mauricio Macri being massively repudiated by the public. This in turn has created an economic crisis of confidence that has sent the peso plunging and put most decision making on hold in the private sector. It also spurred a series of knee-jerk manouevres from the Macri administration that many regarded as too little too late.

The irony of the latest debacle is that a “primary” was not necessary on the government side because Macri’s ticket was decided. Why fate was tempted by engaging in this process is somewhat boggling. The score achieved by the supposed Kirchnerite ticket was so high that many regarded a victory by that team in October as now an inevitable outcome (with possibly no second round).

Still it isn’t over until the fat lady sings. There are several intriguing aspects to the whole matter. Cristina Kirchner is not the Presidential candidate but rather the running mate of Alberto Fernandez, who heads the ticket and was once CFdeK’s head of Cabinet before he resigned earlier this decade in a flaming row with Cristina. Some have likened this to the Turkish and Russian situations where the “real” leader runs as Vice (or Prime Minister) only to end up on top anyway. The difference here though is that the “real” leader is not a continuity candidate as she has been out of power for four years and it is not a constitutional switcheroo like in Turkey where the Prime Minister lost powers and the President gained

them.

The Argentine VP becomes the head of the Senate (as the Argentine constitution was a direct copy of the US model) and thus has few powers. That is unless the President falls under a bus.... Such things can be arranged. With their flair for the dramatic this is what Argentines are now foreseeing. Those with long memories hark back to a similar move in the 1970s when the banned former President Juan Peron sashayed back from exile in Spain and into power via the use of a factotum, Hector Campora, in a Presidential election.

Foreign investors have gone into a tailspin over all this. Once again it's a case of "careful what you wish for because you might just get it". The investors loved Macri because he gave them what they wanted (e.g. unified exchange rate, no retentions). The problem was that his austerity campaign and his regularization of utility tariffs and fuel prices (highly subsidized under Cristina) ground the lower middle class to dust. They are/were the non-dollarised (and non-indexed) section of the population. They were pauperized and pulverized by a soaring cost of living with no remediation from higher incomes or dollar-sourced funding. All the foreign investors cared for was their remittances being liberated. Now the boot is back on the other foot and its happy campers, no more.

But is it all trouble in paradise? The Vaca Muerta gas discovery is now producing and promises to be truly massive with the second largest unconventional gas resource after Algeria. Meanwhile the soybean crop is at record levels just as the Chinese are scouring the planet for non-US sources of this product. The agricultural sector is in fine fettle. The rest of the economy is not doing badly either. The whole issue behind voter disgruntlement is cost-of-living and income based.

Some votes will migrate back to Macri, some who did not vote in the primary will raise themselves up from their *chaise longue* and get out to vote but that still will probably not be enough. We may yet be surprised on another front as there is a movement to get Macri to stand aside and let the third-placed Roberto Lavagna run as the candidate for an anti-Kirchnerite ticket. This idea has quite a number of attractions by depersonalizing the campaign and losing the baggage of Macri's association with excessive austerity. The time for some machinations is running thin though and a political triple backflip will need to be exercised soon. Argentine politics is again proving that there is a never a dull moment in Buenos Aires. Meanwhile investors are holding their breath.

As they say in the classics, it's not the despair that gets you, it's the hope. .

Mining Model Portfolio as at: 1st September 2019

Security	Initiated	Currency	Avg. Price Current	Price Current	Portfolio Weighting	Change in Value	12-mth Target
Long Equities							
Various Large/Mid-Cap	Teck Resources (TECK.B)	5/29/2009	CAD	22.46	22.67	6.00%	\$38.00
	Sherritt International (S.to)	7/11/2013	CAD	1.28	0.31	2.10%	\$1.00
	Metals X (MLX.ax)	5/29/2014	AUD	0.67	0.16	1.30%	\$0.80
Uranium	Uranium Participation Corp (U.to)	10/20/2010	CAD	5.36	4.25	6.50%	\$6.00
	GoviEx (GXU.v)	6/29/2015	CAD	0.08	0.17	4.10%	\$0.50
Zinc/Lead Plays	Zinc ETF (Zinc.L)	6/2/2010	USD	7.63	7.21	6.70%	\$11.00
	NorZinc (NZC.to)	12/9/2011	CAD	0.82	0.10	0.20%	\$0.22
	Myanmar Metals (MYL.ax)	11/29/2018	AUD	0.06	0.05	1.80%	\$0.13
	Ascendant Resources (ASND.v)	10/31/2016	CAD	0.49	1.00	5.50%	\$1.70
	Telson Mining (TSN.V)	3/19/2018	CAD	0.79	0.22	1.50%	\$1.10
Silver	Excellon Resources (EXN.to)	11/8/2018	CAD	0.74	1.12	4.50%	\$1.35
	Southern Silver Exploration (SSV.v)	8/25/2016	CAD	0.49	0.27	1.40%	\$0.35
Silver ETF	IShares Silver ETF (SLV)	7/12/2019	USD	14.17	17.15	7.90%	\$18.00
Gold Producers	Para Resources (PBR.v)	2/17/2017	CAD	0.23	0.12	1.20%	\$0.58
	Westgold (WGX.ax)	12/6/2016	AUD	2.01	2.34	4.30%	\$1.50
Coking Coal	Colonial Coal (CAD.v)	6/4/2018	CAD	0.35	0.31	2.50%	\$1.10
Project Generator	Altus Strategies (ALTS.v)	6/28/2019	CAD	0.09	0.09	2.40%	\$0.24
Metals Processor	IBC Advanced Alloys (IB.v)	4/29/2016	CAD	0.3	0.13	0.30%	\$0.35
Tungsten Producer	Almonty Industries (AII.v)	7/31/2015	CAD	0.19	0.79	4.80%	\$1.00
Copper Explorers	Panoro Minerals (PML.v)	1/22/2018	CAD	0.37	0.13	0.80%	\$0.65
	Argonaut Resources (ARE.ax)	11/22/2018	AUD	0.02	0.01	0.90%	\$0.05
	Western Copper & Gold (WRN.to)	4/25/2017	CAD	1.57	0.95	1.90%	\$2.74
Vanadium Developer	Vanadium Resources (VR8.ax)	11/23/2018	AUD	0.11	0.06	1.40%	\$0.50
Lithium	Neometals (NMT.ax)	7/31/2014	AUD	0.3	0.18	3.10%	\$0.45
	Lithium Power Intl (LPI.ax)	10/25/2017	AUD	0.44	0.35	1.90%	\$1.38
Scandium Explorer	Scandium International (SCY.to)	8/23/2016	CAD	0.14	0.14	1.70%	\$0.50
	Platina Resources (PGM.ax)	10/25/2018	AUD	0.07	0.03	1.10%	\$0.18
Gold Explorer	Banyan Gold (BYN.v)	11/14/2017	CAD	0.06	0.05	2.30%	\$0.15
	Cabral Gold (CBR.v)	3/27/2019	CAD	0.21	0.14	6.50%	\$0.45
	Gunpoint Exploration (GUN.v)	11/9/2018	CAD	0.5	0.55	2.20%	\$0.75
Cesium et al.	Pioneer Resources (PIO.ax)	7/26/2019	AUD	0.017	0.02	1.80%	\$0.06
Rare Earths	Northern Minerals (NTU.ax)	6/9/2011	AUD	0.14	0.06	1.80%	\$0.28
	Neo Performance Materials (NEO.to)	10/25/2018	CAD	17.32	10.15	3.10%	\$23.00
Mining Media/Events	Aspermont (ASP.ax)	3/1/2019	AUD	0.009	0.01	3.70%	\$0.02
Unlisted	New Noble Group	15/11/2017	SGD	0.2	n/a	n/a	n/a
Suspended/RTO	Cabo Drilling (CBE.v)	9/28/2016	CAD	0.025	0.02	n/a	\$-40.00%
NET CASH					129,449		
Short Equities							
Shorts	NioCorp (NIO.to)	9/28/2018	CAD	0.61	0.52	68.80%	\$0.40
	Galane Gold (GG.v)	4/28/2016	CAD	0.06	0.07	31.20%	\$0.03

Current Cash Position	129,449
Current Liability on Shorts Not Covered	184,292
Net Cash	313,741
Bonds	0
Current Value of Long Equities	3,682,539
TOTAL VALUE OF PORTFOLIO	3,996,280

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