Wednesday, January 3, 2018

HALLGARTEN & COMPANY

Portfolio Strategy

Christopher Ecclestone
cecclestone@hallgartenco.com

Model Mining Portfolio:

Toppling the Golden Calf

Performance Review – December 2017

Model Mining Portfolio

Toppling the Golden Calf

- + **Metals prices stormed forward on a broad front in December, with only Uranium being left out**
- + **Our Model Mining Portfolio ended the year on a high point**
- + **Vanadium returned to an upswing and is viewed as our metal to watch in 2018**
- + **The base metals are poised to make further advances into 2018**
- ✘ **Gold and silver appeared to be part of ramping operation in December to "fix" the closing prices for the year with no real underpinnings**
- ✘ **Bitcoin and other cryptocurrencies continue to tempt "store of value" investors away from precious metals**
- ✘ **Despite this, gold company financings have deprived base metals stories of their fair share of the "new" investment dollar**
- ✘ **M&A activities remain largely absent from the scene**
- ✘ **The number of majors from the last boom that still wallow in misery (e.g. Eldorado Gold) is surprising**

Polishing the Crystal Ball

We formulated our revised estimates for year-end prices for 2018-20 in early December and had cause to compare how our previous estimates for 2017 had performed. These were surprisingly close to the mark with a few exceptions such as Platinum and Uranium, the big two disappointments of the year.

However the last three weeks of the year (usually typified by low volumes and unreal prices) provided fertile ground for speculators to window-dress their favorite metals' closing prices for the year. The precious metals in particular rose strongly on little more than Bitcoin having a one-day stumble. A gold rally must be built of sterner stuff than that. We suspect the stronger risers of recent weeks shall give back their gains early in the New Year. It's somewhat ironic that when gold and silver longs manipulate the price up it goes without notice but when shorts or other perceived conspiratorial forces "make it" go lower then the gold bugs and silver nuts see red.

While virtually everything, except Uranium, made gains in the last month of the year, the big base metals were more muted in their rise which raised the suspicion that they were harder to move, pricewise, by the market's "fixers". Some of the less transited metals like Tin, Cobalt (the year's superstar), Moly and Tungsten did little in December. Therefore the revival in interest in Vanadium would also seem to be real because it bucks that trend.

Below can be seen our estimates for last year the closing prices and the divergence between our estimate and what actually happened. We also have our estimates out for the next three years which will bring little joy to gold bugs and dampen the ardour of silver's fans.

Hallgarten & Company - Commodity Estimates

	Unit	End 2017 Estimate	End 2017 Actual	Undershoot/ Overshoot	End 2018	End 2019	End 2020
Lead	lb	$1.10	$1.120	1.8%	$1.15	$1.02	$1.02
	tonne	$2,424	$2,468	1.8%	$2,535	$2,248	$2,248
Zinc	lb	$1.33	$1.500	12.8%	$2.10	$2.30	$1.90
	tonne	$2,931	$3,306	12.8%	$4,628	$5,069	$4,188
Copper	lb	$3.05	$3.260	6.9%	$3.50	$3.70	$3.50
	tonne	$6,722	$7,185	6.9%	$7,714	$8,155	$7,714
Gold	oz	$1,270	$1,300	2.4%	$1,250	$1,200	$1,190
Silver	oz	$17.00	$16.95	-0.3%	$17.50	$18.00	$18.00
Platinum	oz	$1,250	$928	-25.8%	$1,000	$1,100	$950
Palladium	oz	$1,050	$1,053	0.3%	$1,080	$1,150	$1,150
Uranium (spot)	lb	$36.00	$23.75	-34.0%	$44.00	$55.00	$55.00
Antimony	tonne	$8,700	$8,226	-5.4%	$9,400	$9,700	$9,700
Tungsten APT	MTU	$260	$301	15.8%	$350	$380	$410
Tin	tonne	$22,000	$19,850	-9.8%	$21,000	$22,200	$22,800
Cobalt	lb	$16.00	$34.03	112.7%	$38.00	$32.00	$25.00
Vanadium	lb		$9.50		$13.20	$15.00	$18.00
Nickel	lb	$4.60	$5.67	23.3%	$5.50	$5.40	$5.00
	tonne	$10,138	$12,497	23.3%	$12,122	$11,902	$11,020
Moly	lb	$8.50	$7.15	-15.9%	$9.00	$10.50	$11.80

We have added Vanadium to our suite of metals with estimates although we have followed it since 2010. As we couldn't get anyone enthused (until this year) it seemed futile to talk about Vanadium (though the same could be said for Moly, Antimony or Tin). We feel that 2018 will be the year of the specialty metals and that Vanadium is the metal to watch from this universe.

As for base metals we are in a very good place for almost all of them, which is a very infrequent moment for commodity strategists. Lead is a dog and shall remain that way, particularly as the realization grows that the switch to EVs and HEVs removes all incremental demand and much of the recycling demand for this metal. Zinc's shortage will worsen bringing two more years of rising prices before any amelioration from new(ish) projects appears. Nickel is a metal on which we remain a lot less bullish than the flock. We suspect majors will be able to ramp up production from their mega-mines, most of which have never operated at capacity due to woeful prices for much of the last decade.

In short things look good in 2018 for just about everything in the metals spaces, except gold.

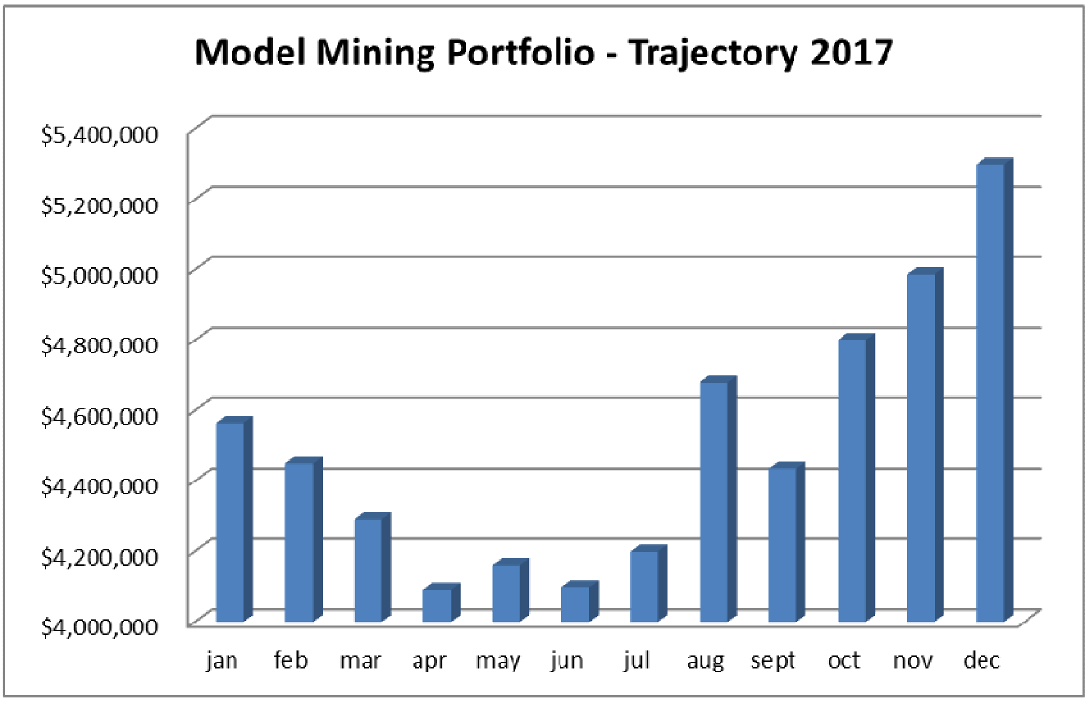
Portfolio Changes

There were no portfolio changes during the month of December.

The Portfolio Move

December proved to be a stellar month recording the highest levels of the year at $5,296,791 compared with $4,985,937 at the end of November. Cash remained unchanged at $880k due to the absence of transactions.

The chart below shows the progress of the Model Mining Portfolio during the year



V is for reViVal

The recent upsurge in Vanadium prices sent investors (and promoters) scrambling to find primary Vanadium mines or projects into which they could sink their teeth. The choice on offer was poor indeed. Back in the more balmy days of the turn of the decade the potential names to conjure with were only five or six companies, with only two being advanced. The ranks were thinned further with ASX-listed producer Atlantic Ltd going bust and some of the assets of others moving on to new owners.

The Word Was Given

Last decade Vanadium surfaced as a subject of interest primarily tied to the fortunes of the thenbooming steel industry. It is now over five years since we did our Vanadium Review, covering the then most likely players in the future of Vanadium production. Now Vanadium is coming back with a vengeance for its potential in mass electricity storage devices, namely the Vanadium Redox Battery (or VRB). At a recent Natural Resources Forum event at the London Stock Exchange, the guest speaker was Robert Friedland in nothing short of a Vanadium-induced ecstasy. Never could we have imagined the metal having such a euphoric effect.

In any case it gave the Friedland imprimatur to a metal which most metals watchers have rarely paid any attention to due to it (largely) being a by-product of the mining of other metals and, curiously, of the petroleum refining industry.

It was not just Friedland though that has latched onto this bandwagon as we have heard Vanadium name-checked at a number of events during 2017 as the next best thing now that Lithium has somewhat done its dash with promoters overcooking the soufflé.

Prices – a Wild Ride

After a long period of somnolence the Vanadium price quite literally rocketed in the second half of 2017. This surge in the third quarter was a combination of perceptions of changing Chinese policies on Vanadium content in steel alloys and the fervour relating to alternative battery metals.

Source: Bloomberg

Both perceptions were justified, but the latter only in the long term. There was no demand currently, or even short term, that could justify storming into Vanadium (even for stockpiling) on the VRB potential because these batteries are currently using so little of the global supply. The China story however was real, but reversible.

The prime motor was a mooted change in Chinese specifications for Vanadium use in steel alloys for construction use. This had been a prospect dangled over the market five years ago after a series of devastating Chinese earthquakes, but had then retreated. The background music was the far more sexy mass adoption of Vanadium Redox Battery technologies for storage of electricity (particularly from solar and wind generation).

In a case of easy come/easy go, the price then tumbled back to earth though still comfortably 30% above its long-term average during this decade. We had warned at the time of the surge that any Chinese decision was revocable if prices went too high and that may have been the impetus for the decline. At current levels though there is no need for the Chinese to shift from their original decision to adopt a higher Vanadium component in construction steels.

More conspiratorial minds suggested that the price tumble was due to Glencore not liking the price rise. In theory as a trader Glencore makes money on the spread and in theory the same percentage spread on a higher price means more income. However it could also be the case that Glencore (which admitted, during its 2015 travails, that it could not hedge Vanadium) did not have guaranteed supplies for sales contracts written at lower prices and was thus caught short.

Additionally the rise of new producers or changing trading arrangements at existing producers might have threatened Glencore's dominance of the Vanadium trading space. Glencore's own production of Vanadium had been negatively impacted in the first half of 2017 when it announced that it had produced 10% less Vanadium owing to lower kiln availability and maintenance on their evaporation plant. So Glencore wins if prices are up or down but it potentially loses out long term if dominance of the trading space escapes it.

Players

By some estimates there are around 16 listed Vanadium companies worldwide, which makes the metal potentially a Vancouver promoters' delight. However as the promotorial class are sheep-like they won't want to be interested (mind you, a good thing) until the price is significantly higher and the air is full of buzz. They are so high on Lithium they need little else to stimulate their imaginations these days. At least so far all the players we know of in the space are serious, which makes this metal a rarity in mining circles.

The recent revival has thrown focus back onto the space and Bushveld Minerals stands out (with Largo Resources) as the most prominent producers that are accessible. Amongst others with serious short-term potential there is Western Uranium, which has become somewhat of a misnomer due to its

Vanadium content being worth more than its potential uranium output at current prices. .

We are regarding Vanadium as the metal to watch in 2018.

Parting Shot

With the Supercycle boom fading gradually into the mists of time and the slump years having focused minds we have found in recent months that many boards are now juggling other listing options than the ones that they are currently bound by. We have spoken with TSX (and TSX-v) listed names pondering London listings, ASX-listed pondering TSX listings and AIM-listed names pondering TSX listings. There is no traffic for the concept of TSX- or AIM-listed seeking Australian listings. The most obvious move is for companies with African projects to consider London not only as a secondary listing, but as a primary (or exclusive) listing. We fell seriously out of love with Teranga when it abandoned its ASX-listing in favour of TSX-only recently despite the fact that Canada just does NOT understand Africa any more. At least Australia grasps Africa better than Bay Street. But London investors go for Africa more than any other market and being listed elsewhere (and ignored) is quite often the source of "why don't investors love us" plaints from aggrieved Canadian CEOs with African projects.

That the ASX is not getting much currency is not too surprising in view of the onerous printing/mailing costs of maintaining a listing. The TSX- (and TSX-) listed have the advantage of the lowest costs by far and anyone who says elsewise does not know what they are talking about (and we hear many of these uninformed mining industry players doing the rounds). The problem in Canada is the lack of either an entrenched institutional investment constituency for mining stocks (which London has in spades and Australia also has to a lesser degree) while the ASX has the massive tsunami of Super Fund money held by individual investors which comes and goes from the mining stocks but is largely sticky. Canada has a small speculative investor class who, as we have noted before, seem to be viscerally connected to the insane residential property markets in that country. If (when) that market corrects, the collateral damage to miners is not going to be pretty.

The AIM though is its own worst enemy with the London Stock Exchange having handed the shylockian NOMADs a license to extract pounds (and pounds and pounds) of flesh from the hapless companies that fall into their grasp. We are bemused by UK managements claiming the NOMADs do so much for them and yet when they iterate what these benefits are they are not much more than a Canadian company achieves through innate skills, native cunning and the occasional phone call to a lawyer. It is certainly not a skillset that one would pay forty thousand pounds a year for.

The rigidity of the AIM was exemplified to us in the week between Christmas and New Year when a company of our acquaintance made a major (positive) announcement. Boggled as to why anyone would bury such news in the 'graveyard week" when Canadians announce they are going under or the board have all been locked up for fraud, the reply was that "our NOMAD forced us to announce". Frankly such a NOMAD should be taken out behind the barn and given a merciful bullet.

London should be the premier market for raising mining finance but the closed-shop nature of the relationship between the LSE and its NOMAD “member firms” is nothing short of a scandal some 30 years after Margaret Thatcher broke the old LSE’s restrictive practices with Big Bang. A new bevy of back-scratching and company-unfriendly practices have arisen to take their place. To this we say “Broker, heal thyself”.

Mining Model Portfolio as at: 1-Jan-18

	Security	Initiated	Currency	Price Avg.	Current	Portfolio Weighting	Increase in Value	Target
Long Equities								
Various Large/Mid-Cap	Capstone Mining (CS.to)	5/29/2009	CAD	2.32	1.44	1.30%	-37.90%	$2.00
	Teck Resources (TECK.B)	5/29/2009	CAD	22.46	32.87	8.20%	46.30%	$30.00
	NevSun (NSU)	3/23/2012	CAD	3.45	3.06	2.90%	-11.30%	$5.00
	Sherritt International (S.to)	7/11/2013	CAD	1.78	1.72	4.90%	-3.40%	$2.50
	Metals X (MLX.ax)	29/5/2014	AUD	0.98	1.04	2.60%	6.30%	$1.00
Trading House	Noble Group (CGP.SG)	15/11/2017	SGD	0.2	0.14	1.80%	-29.60%	$1.35
Uranium	Uranium Participation Corp (U.to)	10/20/2010	CAD	7.01	4.23	2.00%	-39.70%	$6.00
	Western Uranium (WUC.cx)	7/5/2016	CAD	2.25	1	1.10%	-55.60%	$4.80
	GoviEx (GXU.v)	6/29/2015	CAD	0.08	0.27	6.20%	228.50%	$0.50
Zinc/Lead Plays	Zinc ETF (Zinc.L)	1/15/2010	USD	7.04	9.52	2.30%	35.20%	£11.00
	Canadian Zinc (CZN.to)	12/9/2011	CAD	0.82	0.17	0.40%	-79.30%	$0.70
	Ascendant Resources (ASND.v)	10/31/2016	CAD	0.48	0.72	2.70%	51.60%	$1.70
	Nyrstar (NYR:BR)	9/28/2009	Euros	65.1	6.71	3.50%	-89.70%	€ 11.00
	Southern Silver Exploration (SSV.v)	8/25/2016	CAD	0.38	0.485	2.30%	27.60%	$0.94
Gold Producers	Patagonia Gold (PGD.L)	10/2/2013	GBP	3.6	1.13	0.70%	-68.60%	£4.00
	Komet Resources (KMT.v)	11/25/2016	CAD	0.47	0.32	1.20%	-31.90%	$1.28
	Para Resources (PBR.v)	2/17/2017	CAD	0.23	0.18	1.70%	-21.70%	$0.58
	Westgold (WGX.ax)	12/6/2016	AUD	2.01	1.77	2.90%	-11.90%	$2.40
	Eldorado Gold (EGO)	6/21/2012	USD	9.12	1.82	1.30%	-80.00%	$5.50
	Teranga Gold (TGZ.to)	6/21/2012	CAD	1.57	2.99	6.80%	90.40%	$3.80
Copper Producer	Coro Mining (COP.to)	2/23/2015	CAD	0.03	0.12	2.30%	300.00%	$0.30
	RNC Minerals (RNX.to)	11/17/2016	CAD	0.33	0.17	1.00%	-48.50%	$0.60
Royalty Trust	Abitibi Royalty (RZZ.v)	5/31/2017	CAD	9.1	9.2	1.90%	1.10%	$18.00
Processor	IBC Advanced Alloys (IB.v)	4/29/2016	CAD	0.3	0.34	0.60%	13.30%	$1.40
Driller	Cabo Drilling (CBE.v)	9/28/2016	CAD	0.025	0.01	0.40%	-60.00%	$0.08
Tungsten Producer	Almonty Industries (AII.v)	7/31/2015	CAD	0.36	0.55	5.20%	51.80%	$1.00
Copper Explorer	Asiamet Resources (ARS.v)	4/28/2016	CAD	0.05	0.1	2.90%	99.60%	$0.12
	Western Copper & Gold (WRN.to)	4/25/2017	CAD	1.57	1.26	2.40%	-19.70%	$2.74
Nickel Explorer	Sama Resources (SME.V)	23/2/2015	CAD	0.16	0.47	7.20%	193.80%	$0.30
Lithium	Neometals (NMT.ax)	7/31/2014	AUD	0.04	0.44	4.10%	1089.20%	$0.45
	Lithium Power Intl (LPI.ax)	10/25/2017	AUD	0.44	0.57	3.20%	29.50%	$1.10
Scandium Explorer	Scandium International (SCY.to)	8/23/2016	CAD	0.14	0.23	2.60%	64.30%	$1.00
Gold Explorer	Banyan Gold (BYN.v)	11/14/2017	CAD	0.07	0.09	2.20%	28.60%	$0.25
Graphite Producer	Elcora Resources (ERA.v)	29/5/2014	CAD	0.2	0.42	4.00%	110.00%	$0.64
Graphite Developer	Talga Resources (TLG.ax)	8/25/2016	AUD	0.27	0.56	2.60%	111.30%	$0.90
REE Explorer	Northern Minerals (NTU.ax)	6/9/2011	AUD	0.73	0.08	0.20%	-89.00%	$0.28
	NET CASH					**880,522**		
Short Equities								
						Weighting		
Shorts	Bacanora (BCN.v)	12/4/2015	CAD	1.53	1.9	35.00%	-24.20%	$0.80
	Lithium Americas (LAC.to)	10/25/2017	CAD	10.1	11.18	48.10%	-10.70%	$5.00
	Galane Gold (GG.v)	4/28/2016	CAD	0.06	0.05	16.90%	16.70%	$0.03

Current Cash Position	**880,522**
Current Liability on Shorts Not Covered	**258,349**
Net Cash	**1,138,871**
Current Value of Bonds	**0**
Current Value of Long Equities	**4,157,920**
TOTAL VALUE OF PORTFOLIO	**5,296,791**

Important disclosures

I, Christopher Ecclestone, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

Hallgarten's Equity Research rating system consists of LONG, SHORT and NEUTRAL recommendations. LONG suggests capital appreciation to our target price during the next twelve months, while SHORT suggests capital depreciation to our target price during the next twelve months. NEUTRAL denotes a stock that is not likely to provide outstanding performance in either direction during the next twelve months, or it is a stock that we do not wish to place a rating on at the present time. Information contained herein is based on sources that we believe to be reliable, but we do not guarantee their accuracy. Prices and opinions concerning the composition of market sectors included in this report reflect the judgments of this date and are subject to change without notice. This report is for information purposes only and is not intended as an offer to sell or as a solicitation to buy securities.

Hallgarten & Company or persons associated do not own securities of the securities described herein and may not make purchases or sales within one month, before or after, the publication of this report. Hallgarten policy does not permit any analyst to own shares in any company that he/she covers. Additional information is available upon request.

Web access at:

Research: www.hallgartenco.com