

HALLGARTEN & COMPANY

Portfolio Strategy

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Model Resources Portfolio:

Metal Prices in a Time of War

Performance Review – March 2022

Model Resources Portfolio

Metal Prices in a Time of War

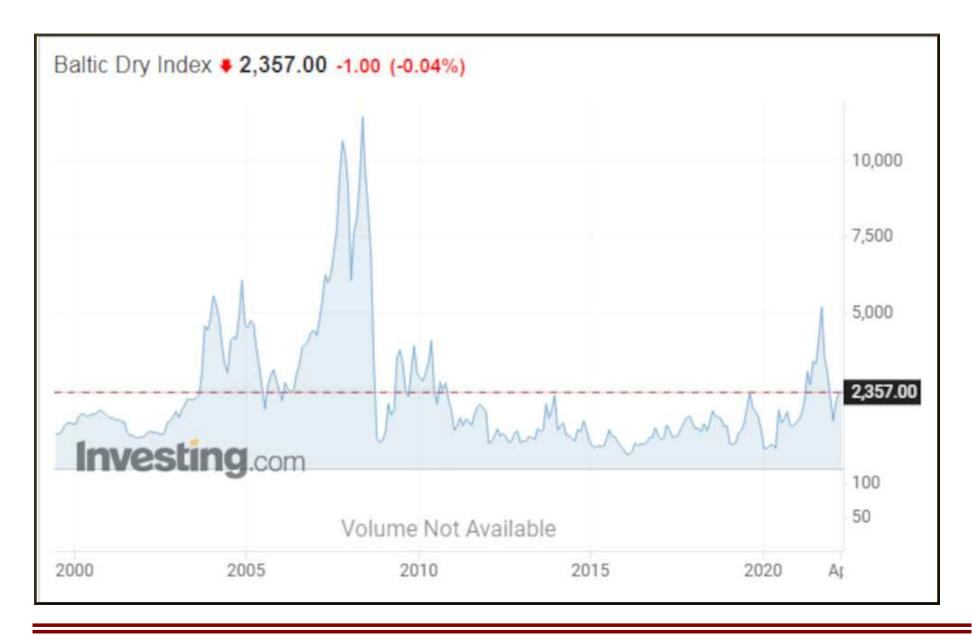
- + Gold surged back to the \$2,000 mark but found it difficult to maintain a toehold
- + Tungsten continues its sure but steady rise and now stands at \$353.50 per MTU
- + The battery metals space is in price pandemonium at the moment which is enabling financings but could ultimately lead to a blow-off
- + Zinc is moving towards the key \$2 per lb mark with little standing in its way
- + Oil performed mightily during the month justifying our belief in the future of (some) fossil fuels
- ✗ Inflation is now clearly out of Pandora's Box and roaming the economic landscape unchallenged by conflicted Central Banks beholden to property interests
- ★ The war in Ukraine is proving to be a (regrettable) fillip to metals prices but it also muddles the waters as to whether the inflationary bull market in metals is wardriven or powered by real deficient supply fundamentals across the board
- ★ China is managing, in the post-Covid era, to be delivering itself massive own goals due to a mindless zero-Covid strategy

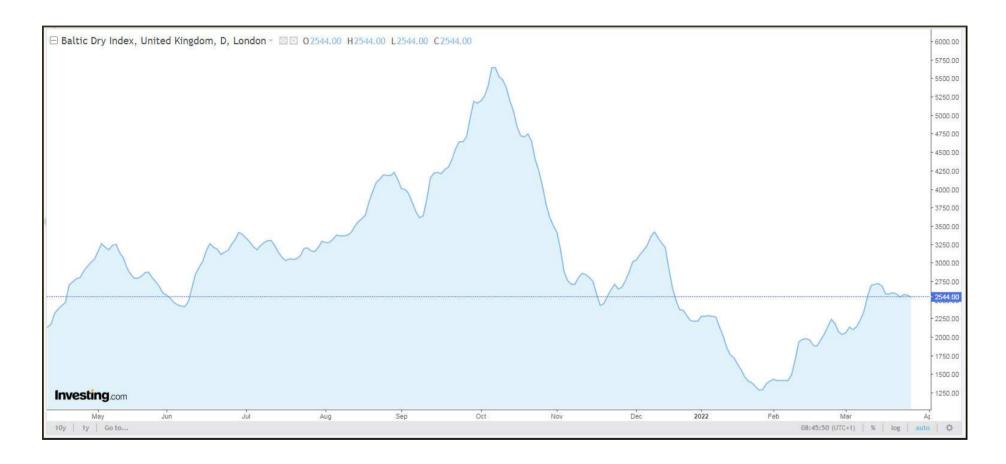
Shipping - Not Going Away as an Issue

The shipping sector has seen the financial equivalent of a Force 10 gale blowing through the channels in which it sails over the past two years. The pandemic brought both the best of times (financially) and the worst of times (logistically). However the latter helped achieve the former. For well over ten years the shipping sector, like much of the mining sector, had been beggared by circumstances. A big overbuild of ships had created a seemingly permanent state of price weakness with little traction for shipping companies hoping to hike lease rates.

As the chart on the following page shows it's a long while since the sector's last "days in the sun" which stretched from 2007 until nearly 2010. The fall from grace was hard and the period of repentance was long. As can be noted the Baltic Dry Index scarcely could get off its back for ten years.

The chart on page 4 shows the more recent history which has given the space reasons to be cheerful even if the peak was much shorter than the previous price rise. However, like which so many other commodities (and space on empty ships is a commodity) those who thought that the pandemic's return to given traction to metals was a false dawn have been disabused of their illusions, and now so must those who think that shipping rates must converge back to some old "new normal". We would sustain that instead the new normal is quite a lot higher than the ten-year (ex-spike) average.





Dynamics in the shipping space are auguring a tighter situation all around.

Portfolio Changes

There were no portfolio changes in March. We feel some changes coming on in April though.

Prospech Resources (PRS.ax) – Into Slovakia

We find ourselves with an evolving relationship with Slovakia, having paid a visit to the country in the last month, our second visit in the last year. We have covered this territory before in our initiation of MetalsTech and farther back with the London-listed Ortac, which owned the asset (Šturec) that MetalsTech are now progressing. We have come to know a junior explorer Prospech Resources and have been watching their progress.

It may be a somewhat glacial process but gradually Europe's old mining districts are coming back the life. In particular the Carpathian Mountains, being the western extremity of the famous Tethyan Belt, are an obvious focus for reexamination. Slovakia proved difficult territory for Ortac with the lessons being learnt that cyanide could not be in consideration, that open-pit mining was not favoured when underground could be pursued and that tailings management had to be a top priority due to legacy issues at many sites (ironically state-owned) that suffer from Acid Mine Drainage.

As a key part of the Tethyan Belt, the Slovakian Carpathians have been major producers of Copper, Gold, Antimony, Silver and other base metals. The main products mined these days are barites, magnesite, talc, gold and some thermal coal (which is being wound down).

Founded in 2014 and listed on the ASX in December of 2020, Prospech is exploring a number of projects across the length of the country. The targets are high-grade silver, gold, and critical element resources.

All the company's licences are held 100% due to a pre-IPO transaction with Atalaya Plc (ATYM.L), a company on which we have written upon here, but for its Spanish mining activities. Until 2017, Atalaya held a 100% interest in two exploration licences; the Hodrusa-Hamre/Banska Stiavnica mining district and the Nova Bana goldfield. These licences cover approximately 115 square kilometres.

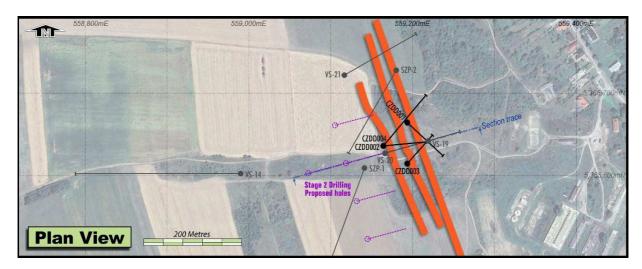
Historical production, from the mineral fields under Prospech's tenure, has been conducted for over a millennium and has totaled over 2.4 million ounces of gold, 120 million ounces of silver, 70,000 tonnes of zinc, 55,000 tonnes of lead and 8,000 tonnes of copper.

The issue at Prospech is really, where does one start? The Slovak targets of Prospech are shown on the following page. Hodrusa-Hamre which adjoins the existing gold producer in Slovakia (a local firm that started production in recent years) would appear the most prospective territory thus far. But recent results from the Zemplin have caught our eye and prompted us to comment on the company this month.



The most recent announcements have emanated from Zemplin in the far east of the country. Dare, we say it, near the border with Ukraine. This is a high-grade, silver-rich epithermal vein system discovered by the Slovak Government and Rio Tinto in the 1990s, which, until recent drilling by Prospech, had never been followed up. This is a more accessible target year-round as it lies in flat agricultural countryside whereas Hodrusa is in the mountainous Low Tatras where winter work is more challenging.

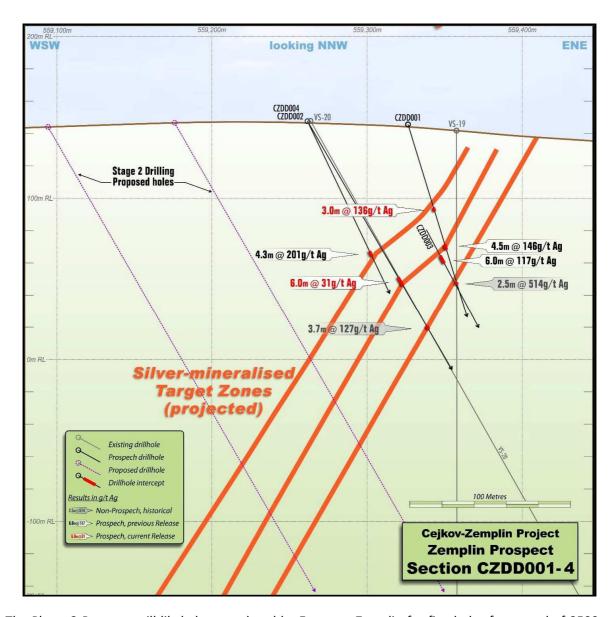
The initial drilling at Zemplin, in April 2021, was deemed to be successful as it intersected over 40 epithermal veins hosted within zones of hydrothermally altered rhyodacitic and andesitic volcanics.



Results from the Phase 1 drilling at Zemplin included:

- CZDD001: 3.0m @ 136 g/t Ag from 59.0m
 - and 4.5m @ 147 g/t Ag from 85.3m
 - including 2.3m @ 240 g/t Ag from 87.5m
- CZDD002: 6.0m @ 30 g/t Ag from 111.0m
- CZDD003: 6.0m @ 117 g/t Ag from 94.0m
 - including 1.8m @ 291 g/t Ag from 97.2m
- CZDD004: 4.4m @ 34 g/t Ag, from 49.6m
 - and 4.3m @ 201 g/t Ag from 92.5m
 - including 0.5m @ 1,220 g/t Ag from 92.5m

The cross-section of these drill-holes at Zemplin can be seen on the following page as well as the Stage 2 drill-holes currently underway at the left.



The Phase 2 Program will likely be completed by Easter at Zemplin for five holes for a total of 2500m. Results wise the company is hoping for at least 200ppm Ag over 10m.

Prospech is not under coverage currently but is definitely something we shall keep an eye on.

Torian Resources – Know Thy Mineralisation!

We were in the throes of writing an *Initiation of Coverage* on a new company, Torian Resources which looked to contain a strange ragbag of assets when it threw us by opening its kimono to reveal a "critical rare earth" discovery. It's a sure sign of a bull market in a mineral when a bit of rummaging in the

bottom drawer can throw up a REE asset that investors had received scarce mention of before. The sheer ubiquity of REE in the mineral world (despite the "rare" word) means one could probably find a REE reading in dirt from one's back garden if one sampled enough, does not daunt a veteran promoter from touting their wares.

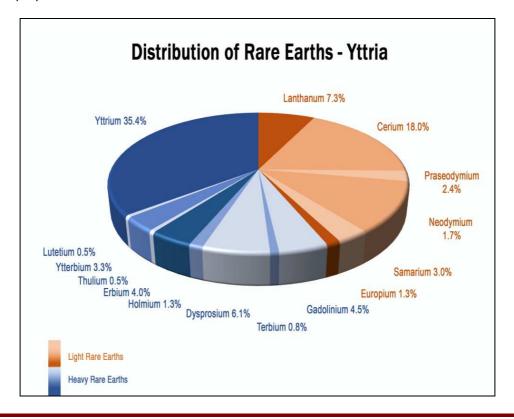
We put the Initiation on hold while we ran our magnifying glass over the subject of the latest release.

In early March the company published a release reconfirming "higher concentrations of Yttrium and associated Critical HREEs" at its Yttria target in Western Australia. The release was focused upon what it claimed were Heavy Rare Earth- (HREE) and Yttrium- (Y) rich sample pulps from Yttria that had been analysed at (MinAnalytical - Perth).

Most eye-catching to us were the following comments:

- HREYO (heavy rare earth oxide + yttrium oxide) concentrations range from 84 to 990 ppm (mean 331±138 ppm) (average ± SD)
- HREYO (heavy rare earth oxide + yttrium oxide) to TREYO (total rare earth + yttrium oxide) ratio
 of 0.65± 0.10 (average ± SD) indicating significant enrichment in the high value and rare HREEs

In fact the eye-catching thing was not the grades (which would not inspire us to get out of bed) but rather the preponderance of Yttrium.



We were intrigued by the reference to "rare HREEs" and wondered whether they were actually rare (Heavy) Rare Earths or just a redundancy created by the raptures of the press release's author.

The distribution pie on the preceding page makes it appear that the "EV REEs" Nd and Pr are actually in rather poor supply in the Yttria mineralisation, though the Dysprosium is worthwhile. The Erbium is also of note (positively). Further examination of the pie (from the company's press release) reveals that it is incorrectly drawn with the Nd being some higher number (??). If the decimal is misplaced and it is supposed to be 17% then the total of the slices adds up to over 100%. Thus the actual EV metal component of the Yttria deposit is anyone's guess.

The initial suspicion we had was that this is actually a Xenotime deposit. As investors well-know we have long been more fondly disposed to Xenotime than any other mineralisation in the REE space. However, we searched the release in vain for a mention of the X-word. That leads us to wonder whether were we mistaken or, perish the thought, the company doesn't know what Xenotime actually is? Time will tell, or maybe not, as the company appears to have a tendency to wandering across minerals "of interest" (and crypto thrown in) like a dog in a minefield (the explosive kind).

Await our Initiation....

Parting Shot

Thinking recently of the DRC it is interesting note how much this country seems to have "come in from the cold" in the last two years. While still seen as China's backyard it is far from being so. The Chinese clearly "pay to play" in the DRC and particularly so with Cobalt. However, we have the sneaking suspicion that the Chinese don't always get their way or else they might start taking liberties. Perish the thought.

One of the relics of the crisis of 2008 was the Dodd-Frank Act and its quaint premise that conflict minerals only happen in Central Africa. The fact that minor wars are going on all around the world at any given time (and were going on at various places other than the DRC - and its neighbours in 2008-2010 when the legislation was concocted) suggests a certain tunnel-vision by US legislators.

For us in particular, Burma is an egregious example of "turning a blind eye" to conflict minerals in their worst manifestation at the current moment. If anything the DRC is "yesterday's news" and a positive oasis compared to Burma these days. However this is not new as the civil wars up-country have raged for decades in Burma and the minerals have continued to pour across the border into China.

Neither is this any sideshow. Burma's contribution *sotto voce* to global supplies of Rare Earths and Antimony (and jade and gemstones) is such that if the conflict minerals were banned or monitored there would be major effects for global supplies and a certain "Emperor has no clothes" effect for China which has long misrepresented smuggled conflict material as being its own production.

Dodd-Frank has had some rewriting under Trump but that was mainly directed towards domestic

aspects of the act with regards to banking. The Biden administration also has some tweaking planned. The EU though has gone quite a ways further in broadening the net.

On the 1st of January 2021 a new law came into full force across the EU – the Conflict Minerals Regulation. Its definition of the countries or areas considered conflict-affected or high-risk are those:

"Whose natural resources include minerals which are in high demand, either locally, regionally of globally and those that are either suffering from armed-conflict, such as civil war, a state of fragile post-conflict, or witnessing weak or non-existing governance and systematic violations of international law, including human rights abuses".

The irony of course is that one needs to identify the source of the material. The conflict metals of Burma are not loaded onto ships at the Rangoon docks, but are rather spirited across the land border into China and then passed off as being "Made in China". It's fairly safe to say that possibly as much of half of China's Heavy Rare Earth oxide production is definable as conflict minerals in origin.

The EU regulation though makes a fatal error in taking Dodd-Frank as its guide with a blinkered approach that focuses on 3TG (Tin, Tungsten, Tantalum and Gold) when for us Rare Earths and Antimony are way more hot topics than Tungsten is, for example.

So Dodd-Frank goes none of the way to being up to date while the EU rules have allowed Dodd-Frank to restrict its metals purview if not its country coverage.

The US needs to create a standalone Conflicts Minerals Act and the EU needs to widen a too-narrow focus. Only then will we start to see the intentions of those trying to stamp out egregious practices associated with Conflicts Minerals being achieved.

MODEL RESOURCES	PORTFOLIO @ END MARCH			•	Change		12-mth
	Security	Ticker	Currency	Price	last 12 mths	last mth	Target
LONG EQUITIES							
	I		l	50.10	40704	1	100.00
Diversified Large/Mid-Cap	Teck Resources	Teck-B.to	CAD	50.48	107%	5%	\$30.00
	Hochschild	HOC.L	GBP	1.301	-35%	22%	£3.40
	Sherritt International	S.to	CAD	0.73	40%	10%	£0.95
Uranium	Sprott Physical Uranium	U.UN.to	CAD	18.83	249%	33%	\$15.00
	GoviEx	GXU.v	CAD	0.44	63%	33%	\$0.45
Zinc/Lead Plays	WisdomTree Zinc ETF	ZINC.L	USD	13	52%	17%	\$9.00
	Altaley Mining	ATLY.v	CAD	0.35	-22%	6%	\$0.90
Silver Explorer	Southern Silver Exploration	SSV.v	CAD	7.91	424%	58%	\$1.80
Silver ETF	IShares Silver ETF	SLV	USD	22.88	0%	9%	\$26.00
Gold Producer	Soma Gold	SOMA.v	CAD	0.31	-3%	-14%	\$1.20
Gold Explorer	Desert Gold	DAU.v	CAD	0.12	-25%	-14%	\$0.35
Metallurgical Coal	Colonial Coal	CAD.v	CAD	2.13	204%	-1%	\$2.45
Project Generator	Altus Strategies	ALS.L	GBP	0.57	-19%	0%	£1.00
Copper Explorers	Panoro Minerals	PML.v	CAD	0.19	-10%	6%	\$0.30
	Phoenix Copper	PXC.L	GBP	0.5701	73%	9%	£0.90
	C3 Metals	CCCM.v	CAD	0.10	-38%	-17%	\$0.44
Tungsten Producer	Almonty Industries	AII.v	CAD	0.98	-3%	10%	\$1.25
Graphite Developer	Blencowe Resources	BRES.L	GBP	0.0464	-42%	3%	£0.22
Vanadium Developer	Vanadium Resources	VRB.ax	AUD	0.10	43%	25%	\$0.08

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	Security				last 12 mths	last mth	Target
LONG EQUITIES			_				
Lithium	Neometals	NMT.ax	AUD	1.95	413%	34%	\$1.50
	Lithium Power Intl	LPI.ax	AUD	0.91	250%	26%	\$0.80
Scandium Developer	Scandium International	SCY.to	CAD	0.14	-30%	0%	\$0.25
Gold Explorer	Cabral Gold	CBR.v	CAD	0.43	-25%	16%	\$0.60
	BTU Metals	BTU.v	CAD	0.08	-43%	-20%	\$0.12
	Gunpoint Exploration	GUN.v	CAD	0.65	0%	12%	\$0.75
	Bold Ventures	BOL.v	CAD	0.09	0%	0%	\$0.18
	MetalsTech	MTC.ax	AUD	0.36	167%	38%	\$0.68
Fertilizers	Verde Agritech	NPK.to	CAD	7.91	424%	58%	\$2.00
Cesium et al.	Essential Metals	EXX.ax	AUD	0.58	427%	14%	\$0.30
Rare Earths	Rainbow Rare Earths	RBW.L	GBP	0.1553	-7%	-6%	£0.30
	Neo Performance Materials	NEO.to	CAD	15.22	-25%	-19%	\$24.00
	Aclara	ARA.to	CAD	0.73	n/a	-48%	n/a
Tin Miners	Alphamin	AFM.v	CAD	1.17	98%	7%	\$0.80
	Metals X	MLX.ax	AUD	0.68	224%	2%	\$0.45
Oil & Gas	Shell	SHEL.L	EURO	21.12	57%	9%	£14.90
Royalties	Elemental Royalties	ELE.v	CAD	1.53	6%	-7%	\$2.30
SHORT EQUITIES							
Shorts	NioCorp	NB.to	CAD	1.08	-16%	-2%	\$0.40
	Aya Gold & Silver	AYA.to	CAD	9.29	82%	-14%	\$8.00
	Galane Gold	GG.v	CAD	0.14	-36%	-3%	\$0.06
	Texas Mineral Resources	TMRC	USD	2.17	-32%	10%	\$0.30

Important disclosures

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