

## How China messes around with the rare earths market

### *Detailed Study on China and Rare Earths*

Back in May 2023, a paper was released with the title *China's Rare Earth Subsidies and Structural Advantages; A Comprehensive List of China's Advantages That Must Be Overcome*. There were 17 authors, including George Baulk, previously CEO of Northern Minerals, the company with the Browns Rare Earth Project in the Kimberley district of WA. Getting through this 77 page document is a hard slog, so I have tried to pick out the more pertinent points in the following summary.

It is generally accepted that China manipulates rare earth prices (amongst others) and there is a continuing expectation that the CCP will intervene in the pricing of these materials from time to time. One frequent comment is that the sector goes through a cycle of rising prices that cause Western world companies to pile into rare earth projects, and just when everyone gets excited, the Chinese shut the gate and rare earth prices fall heavily. We saw this a decade ago and we have just seen it happen again.

The popular narrative tells us that the Chinese are happy to foster an oversupply of new projects only to pull the rug out from under their feet by crunching the rare earth prices. This causes financial stress for new producers and potential failure, meaning the Chinese can swoop in and buy any of these facilities at knock-down prices. There is legislation in countries like Australia and the USA to punish such predatory pricing manipulation by corporations, but so far there is nothing to stop individual countries from using their muscle in this way. Our private enterprise companies have not yet figured out how to combat this type of behaviour. Investors seem to accept that it happens and traders make the most of the fluctuations it causes in the markets and share prices.

A high level analysis of the rare earth sector will conclude that these are the parameters according to which it works, but there is a lot more to it when you look closer. A deeper dive reveals that this is not just about economics. It is deeply political. The Western world's general acceptance of laissez-faire economic principles is its Achilles Heel when there is deep and sinister intervention in free market economics by politically motivated forces that are working the long game. Until countries like the USA acknowledge what is going on, and adopts more paternalistic policies towards critical industries like rare earths, that Achilles Heel will be an increasing source of vulnerability.

### *China's monopolistic advantages in rare earths*

China currently enjoys monopolistic advantages in the separation and metallic conversion of REEs based on at least three levels; hard subsidies, soft subsidies, and structural advantages. These advantages are embedded into China's 40-year program of National Industrial and

Defence Policy. They are geopolitical in nature, not economic. This is critical to understanding the issues.

- the hard subsidy is a 13% VAT which acts as a rebate for shipping finished magnets i.e. a subsidy for the preferential export of Chinese post-metallic REE magnets whilst it is also a tax for shipping REE oxides, metals or alloy.
- it creates an incentive for oxides to remain in China until converted to magnets and it provides an incentive for upstream non-Chinese producers of REE concentrates to sell in to China. It assures a fixed cost disadvantage for all non-Chinese producers of REE metallics and/or magnets produced from Chinese oxides. The VAT is adopted by non-Chinese REE producers and passed on to downstream consumers, making them less price competitive.
- Raw materials are ring-fenced in China to keep domestic industry oversupplied with cheap resources, so that the value-added products, downstream, have a cost advantage vis-à-vis foreign markets.
- the true market price for oxides (and all pre-magnetic materials) are overstated (probably by around 17-18% once Provincial subsidies are added to the Chinese VAT rebates). Then all China needs to do, at the opportune time, is manipulate market price downward (e.g. eliminate the VAT premium and provincial subsidies) and all the non-Chinese upstream projects go under.

China controls more than 85% of the world's REE separation capabilities and approximately 90% of the world's NdFeB magnet alloy production from virgin REE material. All of this is managed through four coordinated State Owned Enterprises ("SOE") and a dozen or more State controlled administrative bodies.

### *Other advantages China experiences*

Without necessarily being able to attribute them to government intervention, Chinese operators experience a number of other advantages that include low wages, depth of experience and advanced training, lower environmental, mine and factory permitting costs. Additionally, Chinese companies that import REE are not subject to the quota system on the production and distribution of the REEs. This provides a strong incentive to Chinese companies who are then able to sell below the official market price.

### *Structural advantages*

The four SOEs that lead the sector behave like a "Federal Reserve of Rare Earths" having had the ability to influence the price of REEs through centralised supply decisions and public statements. They provide leadership and direction not normally seen in private enterprise markets.

By operating multiple SOEs against each other, they create a sort of faux-free-market capitalism resulting in hyper-

competitive productivity. Rather than keep supply low and prices high, as with Western monopolies, the Chinese method China pits the SOEs into fierce competition against each other, resulting in high efficiency, oversupply, and low prices. It is not about profit maximisation. It is about political objectives.

China maintains a massive overcapacity in refining and metallic conversion. When combined with its hard and soft subsidies, it can produce REE metallic and pre-magnetic material far below the cost of what is possible outside of China. In so doing, it suppresses competition from the Western world.

China’s commercial mining, refining, and metalics industry remains directly or indirectly funded by the government, based on zero cost of capital and zero investor return requirements. Profits are secondary to geopolitical goals.

China can disrupt any competitors’ access or production of finished metals, alloys or fabricated magnets. China holds a credible threat against competitive producers of REE metals, alloys, and fabricated magnets.

**Resource advantages**

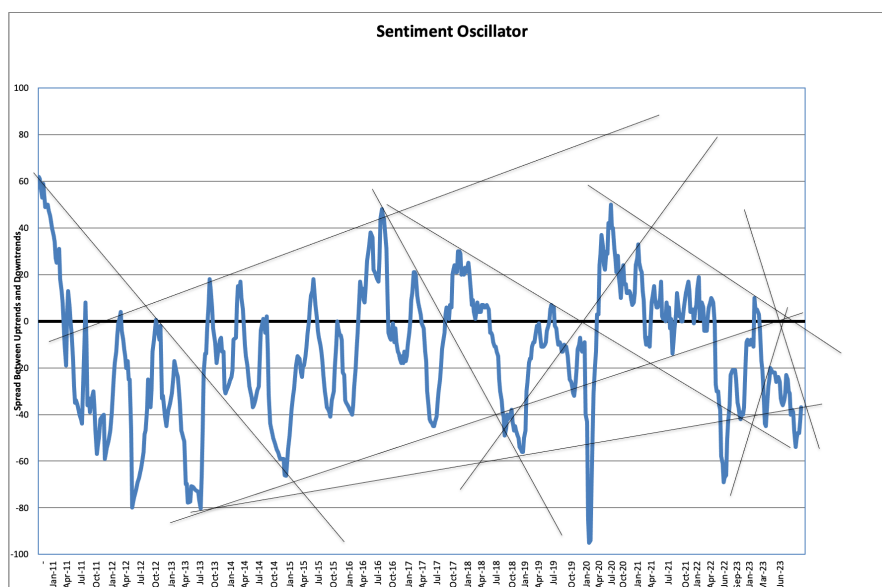
Over 50% of China’s REEs are the by-product of a single iron ore mine located at the Chinese owned Bayan Obo

Mine near Baotou. This provides China with a significant production cost advantage.

China’s current resource policy has shifted from internal production to external production, with the goal of preserving national resources, controlling internal production levels, and preserving its environment. Active engagement in foreign jurisdictions gives China coercive power in managing new projects that are compatible with its long term strategy of control of supply.

**Implications for Western producers**

The U.S. and Western systems rely on financial self-interests of free enterprise, using market signals to drive investments, but this is no match for the Chinese methodology. Until the US gets down to the nitty gritty of doing what needs to be done to counter the Chinese interventional approach, confidence needed to bring on new projects will be sparse. The road map will be opaque, confirming what we already know; the rare earths sector is struggling to advance all but the best of projects. Even then the economics are not transparent. Rare earths are essential for future industry, but merely having a resource falls a long way short of being able to make money.



**Sentiment Oscillator:** No change to the Sentiment figures this week as the charts have not been updated. WG is currently on a field trip in Colombia, looking at high grade gold projects.

**Detailed Chart Comments**

*NB. Only the bold comments have been updated. Comments in grey type are from previous weeks and will be less relevant. Please note that this list is a cross section of the market. It IS NOT a list of recommendations.*

Indices	Code	Trend Comment
All Ordinaries	XAO	bouncing from lows
Metals and Mining	XMM	rallying

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Energy	XEJ		breached uptrend	
Information Technology	XIJ		bouncing from lows	
<b>Stocks</b>	<b>Code</b>		<b>Trend Comment (updated comments in bold)</b>	<b>Main Interest</b>
5EA Advanced Materials	5EA		recovery uptrend	boron
92 Energy	92E		breached downtrend	uranium
Alpha HPA	A4N		strong recovery	HPA
Adriatic Resources	ADT		new high	zinc, polymetallic
Advance Metals (was Pacific American)	AVM		back to lows	coal, gold exploration
Agua Resources	AGR		at lows	phosphate, copper exploration
Alkane Resources	ALK		down	gold
Alicanto Minerals	AQI		new uptrend	base metals, silver, gold
Almonty Industries	All		weaker	tungsten
Altech Chemical	ATC		sideways	HPA, anodes
Anteotech	ADO		new low on placement	silicon anodes, biotech
Alto Metals	AME		at lows with a placement	gold exploration
American Rare Earths	ARR		sideways	rare earths
Antilles Gold	AAU		new low	gold and copper expl.
Anax Metals	ANX		new low	copper
Arafura Resources	ARU		new low	rare earths
Ardea Resources	ARL		secondary downtrend	nickel
Aurelia Metals	AMI		hitting final resistance	gold + base metals
Australian Rare Earths	AR3		down	rare earths
Australian Strategic Materials	ASM		strong rally	rare earths
Arizona Lithium	AZL		breached downtrend	lithium
Astral Resources	AAR		rising	gold
Azure Minerals	AZS		another surge higher then pullback	nickel exploration
BHP	BHP		testing downtrend	diversified, iron ore
Barton Gold	BGD		testing downtrend	gold exploration
Beach Energy	BPT		breached uptrend	oil and gas
Bellevue Gold	BGL		off its high	gold exploration
Black Cat Syndicate	BC8		breached steepest downtrend	gold
BMG Resources	BMG		down	gold exploration
Boab Metals	BML		recovering from lows	silver/lead
Calidus Resources	CAI		new low	gold
Caravel Minerals	CVV		still down	copper
Carnaby Resources	CNB		new low	copper
Castile Resources	CST		back to lows	gold/copper/cobalt
Cazaly Resources	CAZ		down	rare earths
Celsius Resources	CLA		sideways	copper
Cobalt Blue	COB		down again	cobalt
Cyprium Metals	CYM		forming a base	copper
Dateline	DTR		down	rare earths
Ecograf	EGR		rising, but approaching resistance line	graphite

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Emerald Resources	EMR		rising, new high	gold
Empire Energy	EEG		risen to resistance line	gas
EQ Resources	EQR		testing uptrend	tungsten
Euro Manganese	EMN		new low	manganese
Evolution Energy	EV1		new low	graphite
Evolution Mining	EVN		breeched uptrend	gold
First Graphene	FGR		breeched uptrend	graphene
Fortescue Metals	FMG		rising	iron ore
FYI Resources	FYI		testing steepest downtrend	HPA
Galena Mining	G1A		new low	lead
Genesis Minerals	GMD		testing support	gold
Genmin	GEN		suspended	iron ore
Gold 50	G50		down	gold exploration + gallium
Great Boulder Resources	GBR		new low	gold exploration
Group 6 Metals	G6M		down	tungsten
Hamelin Gold	HMG		testing downtrend	gold exploration
Hastings Technology Metals	HAS		bounced off lows	rare earths
Hazer Group	HZR		breeched steepest downtrend	hydrogen
Heavy Minerals	HVY		down	garnet
Highfield Resources	HFR		new low	potash
Hillgrove Resources	HGO		rising gently	copper
Iluka Resources	ILU		heavy fall	mineral sands
ioneer (was Global Geoscience)	INR		down	lithium
Ionic Rare Earths	IXR		breeched downtrend	rare earths
Jervois Mining	JVR		through downtrend	nickel/cobalt
Jindalee Resources	JRL		new low	lithium
Kaiser Reef	KAU		sideways through downtrend	gold
Kalina Power	KPO		testing downtrend	power station additive
Krakatoa Resources	KTA		surge on lithium drilling	rare earths
Kingfisher Mining	KFM		testing downtrend	rare earths
Lepidico	LPD		improving	lithium
Lindian Resources	LIN		down	rare earths + bauxite
Lion One Metals	LLO		surge out of downtrend	gold
Li-S Energy	LIS		new low	Lithium sulphur battery technology
LCL Resources	LCL		back to lows	gold exploration
Lotus Resources	LOT		rising	uranium
Lucapa Diamond	LOM		sideways	diamonds
Lunnon Metals	LM8		new low	nickel
Lynas Corp.	LYC		still down	rare earths
Marmota	MEU		surged higher	gold exploration
Matador Mining	MZZ		down	gold exploration
Mayur Resources	MRL		back in uptrend	renewables, cement
Meeka Gold	MEK		down	gold
Megado Minerals	MEG		down	rare earths, gold exploration

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MetalsX	MLX	<span style="color: red;">■</span>	down	tin, nickel
Meteoric Resources	MEI	<span style="color: green;">■</span>	off its high	rare earths
Metro Mining	MMI	<span style="color: orange;">■</span>	sideways	bauxite
Midas Minerals	MM1	<span style="color: red;">■</span>	slump	lithium
Nagambie Resources	NAG	<span style="color: orange;">■</span>	breached downtrend	gold, antimony
Neometals	NMT	<span style="color: red;">■</span>	new low	lithium
Newfield Resources	NWF	<span style="color: red;">■</span>	down	diamonds
Northern Star Res.	NST	<span style="color: green;">■</span>	rising	gold
Nova Minerals	NVA	<span style="color: red;">■</span>	spiked higher	gold exploration
Pacific Gold	PGO	<span style="color: red;">■</span>	breached short term uptrend	gold exploration
Pantoro	PNR	<span style="color: orange;">■</span>	breached downtrend	gold
Panoramic Res	PAN	<span style="color: red;">■</span>	bounced from lows	nickel
Parabellum Resources	PBL	<span style="color: red;">■</span>	down - suspended	rare earths
Patriot Battery Metals	PMT	<span style="color: red;">■</span>	breached uptrend	lithium
Peak Resources	PEK	<span style="color: red;">■</span>	new low	rare earths
Peninsula Energy	PEN	<span style="color: red;">■</span>	collapse	uranium
Perseus Mining	PRU	<span style="color: orange;">■</span>	breached downtrend	gold
Poseidon Nickel	POS	<span style="color: red;">■</span>	collapse	nickel
Provaris Energy	PV1	<span style="color: orange;">■</span>	turning down	hydrogen
QMines	QML	<span style="color: red;">■</span>	new low	copper
Queensland Pacific Metals	QPM	<span style="color: red;">■</span>	long term down	nickel/cobalt/HPA
RareX	REE	<span style="color: orange;">■</span>	breached downtrend	rare earths, phosphate
Regis Resources	RRL	<span style="color: orange;">■</span>	breached steepest downtrend	gold
Regergen	RLT	<span style="color: red;">■</span>	strong bounce from lows	gas, helium
Richmond Vanadium	RVT	<span style="color: red;">■</span>	gently lower	vanadium
RIO	RIO	<span style="color: green;">■</span>	rising again	diversified, iron ore
Rumble Resources	RTR	<span style="color: red;">■</span>	secondary downtrend	gold exploration
S2 Resources	S2R	<span style="color: orange;">■</span>	sideways	gold exploration
Sandfire Resources	SFR	<span style="color: red;">■</span>	down	copper
Santos	STO	<span style="color: green;">■</span>	rising	oil/gas
Sarama Resources	SRR	<span style="color: red;">■</span>	at rock bottom	gold exploration
Sarytogan Graphite	SGA	<span style="color: red;">■</span>	new low	graphite
Siren Gold	SNG	<span style="color: red;">■</span>	new low	gold exploration
South Harz Potash	SHP	<span style="color: orange;">■</span>	testing downtrend	potash
Southern Cross Gold	SXG	<span style="color: green;">■</span>	surge higher	gold exploration
Southern Palladium	SPD	<span style="color: orange;">■</span>	breached downtrend	PGMs
Stanmore Coal	SMR	<span style="color: green;">■</span>	new high	coal
Strandline Resources	STA	<span style="color: red;">■</span>	new low	mineral sands
Sunstone Metals	STM	<span style="color: red;">■</span>	meeting resistance line	gold/copper exploration
Suvo Strategic Minerals	SUV	<span style="color: orange;">■</span>	sideways	kaolin
Talga Resources	TLG	<span style="color: red;">■</span>	down	graphite
Tamboran Resources	TBN	<span style="color: orange;">■</span>	improving	gas
Technology Metals	TMT	<span style="color: red;">■</span>	down	vanadium
Theta Gold Mines	TGM	<span style="color: green;">■</span>	strong rise	gold

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Thor Energy	THR	<span style="color: red;">■</span>	back into downtrend	uranium
Tietto Minerals	TIE	<span style="color: green;">■</span>	surge on takeover approach	gold
Vanadium Resources	VR8	<span style="color: red;">■</span>	drifting lower	vanadium
Venture Minerals	VMS	<span style="color: red;">■</span>	down	tin, tungsten
Vintage Energy	VEN	<span style="color: orange;">■</span>	breached downtrend	gas
Voltaic Strategic Resources	VSR	<span style="color: red;">■</span>	new low	REO + lithium
West Cobar	WC1	<span style="color: red;">■</span>	down	rare earth + lithium
Westgold Resources	WGX	<span style="color: green;">■</span>	new high	gold
West Wits Mining	WWI	<span style="color: orange;">■</span>	sideways	gold
Whitehaven Coal	WHC	<span style="color: orange;">■</span>	testing downtrend	coal
Xantippe Resources	XTC	<span style="color: red;">■</span>	down	lithium
Zenith Minerals	ZNC	<span style="color: orange;">■</span>	strong rise	gold exploration
Totals	20%	28	Uptrend	
	57%	78	Downtrend	
		138	Total	

### Guides to Chart Interpretations

- Charts usually go pass from one trend (up or down) into the other via a period of indecision and uncertainty during which the trend can either recover or change. This period is signified by the orange colour. The orange represent both the greatest risk and greatest reward possibilities.
- Once a chart is in confirmed up or downtrends it is not uncommon for 10-20% of that trend to have already transpired.
- There are trends within trends. The focus of this chart review is the immediate trend that affects the sentiment i.e. it can be a downtrend within a long-term uptrend.
- Not every chart warrants a new comment every week. The new comments are in bold type. Grey type comments may be dated.
- Individual charts provide a single view. It is valuable to look at charts of other companies in similar commodities, and the overall sentiment is also very valuable. Not many stocks can swim against the tide.
- We periodically add or delete charts, some times for obscure reasons. If a chart consistent gives poor signals or is very erratic, we may delete it. Sometimes we add a chart because we want to see what all the fuss is about. We do have a preference for charting stocks that we cover in our research as well.
- Errors and omissions may occur from time to time, especially in fast moving markets.

Amber Lights in Tables: Just a reminder if when the amber light is used in the table – it is when the charts are ambiguous or when there is a change of trend taking place. If a chart is breaching a downtrend it can either be a positive sign or a trap. Only once it has done more work can it be confirmed as a new uptrend. Maybe it is a new uptrend (or conversely a new downtrend); the risk takers can decide to jump on board early (or sell). They will maximise their profits (or minimise their losses if indeed it is the start of the new uptrend (downtrend). More risk-averse investors should wait a little longer, being prepared to give up some of the gains in return for greater certainty.

### Weightings of Sectors Represented in the Company Charts

Sector	No. of Companies	Weighting
Gold Exploration	18	13.0%
Gold	18	13.0%
Rare Earths	17	12.3%
Lithium	10	7.2%
Oil/Gas	8	5.8%
Copper	9	6.5%

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Nickel	7	5.1%	
Iron Ore/Manganese	5	3.6%	
Graphite/graphene	5	3.6%	
Uranium	5	3.6%	
Silver	4	40.0%	
Tungsten	3	2.2%	
Mineral Sands	2	1.4%	
Vanadium	3	30.0%	
Zinc/Lead	2	1.4%	
Coal	2	1.4%	
Potash/Phosphate	3	2.2%	
Bauxite	2	1.4%	
Tin	2	1.4%	
Cobalt	1	0.7%	
Diamonds	2	1.4%	
Other	10		
Total	138		

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