



Current Price - \$47.04, Target - **\$50.76**



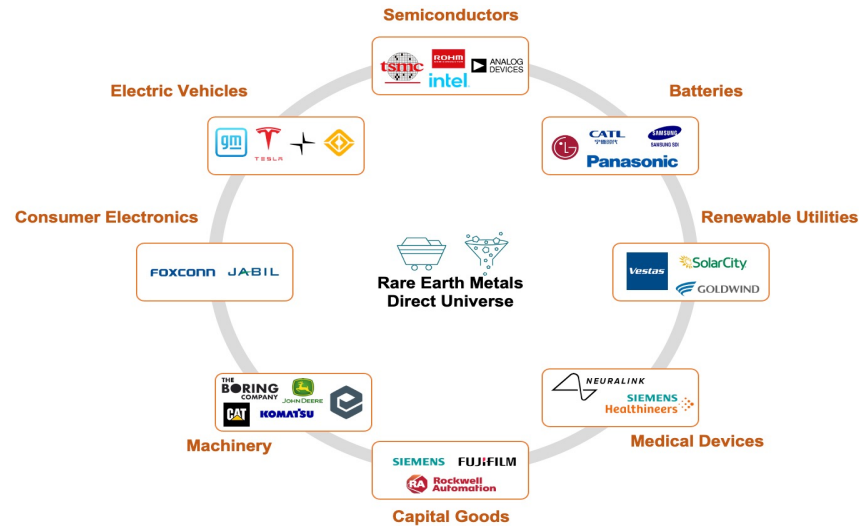
Rajay Pyne
Aviral Jha
Desiree Rubadiri
Luca Trozzo
Laith Sabunchi
Zaryab Chaudhry
Jida Al-Hinnawi
Arsalan Arshad
Roy Han

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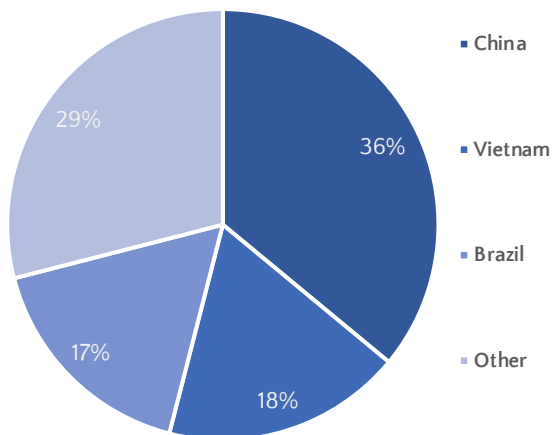
Opening Insights

What are Rare Earth Elements?



- Total global reserve estimated to be 120MMt; China (36%), Vietnam (18%), Brazil (17%), Russia (10%) have the largest share.
- NdPr accounts for 80% of the value. La & Ce account for 60% of the volume but only 2% of the value.
- The aggregate REO market currently stands at 161kt and is projected to grow 6% CAGR 2021-2026 and then 2.4% CAGR 2026-2030.
- In 2012, 95% of supply came from China, currently <70% due to export controls initiated in 2010

Rare Earth Reserves



REO Market Volume (Kt)

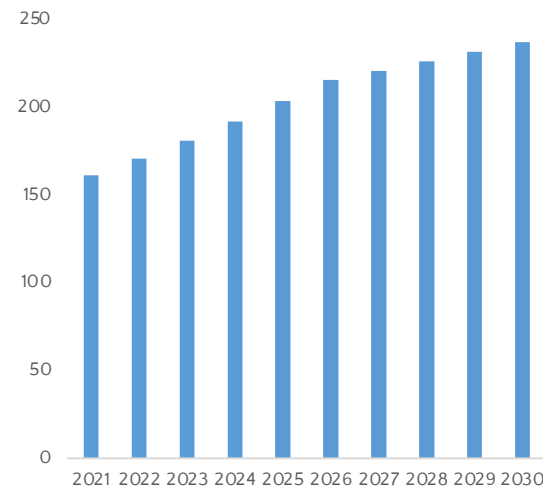


Fig 1 2021 rare earth market share by volume

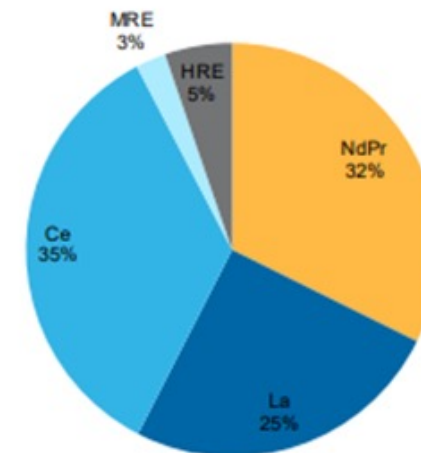
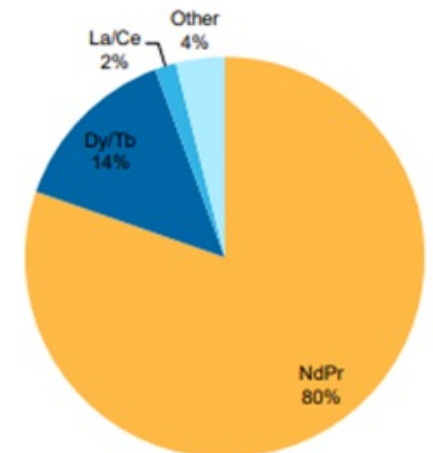


Fig 2 2021 rare earth market share by value (US\$m)



Company Overview

Key Management, History & Highlights



James H. Litinsky is the Founder, Chief Executive Officer, and Chairman of the Board. He is a seasoned executive and board member with experience in banking and alternative investments. Also, Founder/CEO of JHL Capital Group LLC and serves on 2 other boards.



Michael Rosenthal is the Chief Operating Officer and a Partner at QVT Financial LP. At QVT specializing Autos, China & Mining. Previously a Principal high yield focused firm Shenkman Capital Management, Inc.



Ryan Corbett is the Chief Financial Officer. Prior to MP, he was a managing director of JHL Capital Group LLC and focused on the group's investment in MP Materials. He was also a member of various asset managers, where he focused on special situations investments.



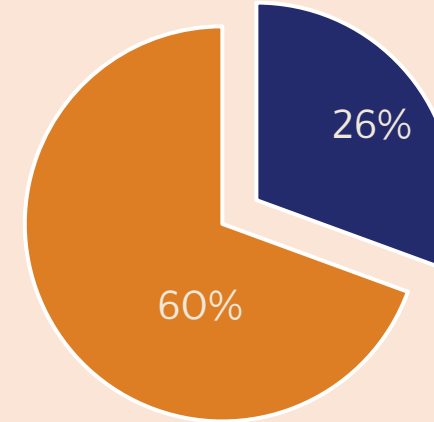
- Founded in 2017 with company mission of restoring full rare earth supply chain to the U.S.A.
- Previous mine owner, Molycorp, invested >\$1.5B into modernizing and vertically integrating the mines operations before going bankrupt
- MP produces ~15% of global rare earth industry (by value) and is the only Rare-Earth Metals mining facility of scale in the western hemisphere.
- Cost-efficient distribution enabled by easy access to transportation infrastructure.
- Recent Financial success fueling investor confidence.



Ownership Summary

■ Institutional
■ Insider / Stakeholder

JHL Capital Group
30.92%



James H. Litinsky
9.46%

Shenghe Resources Holding Co., Ltd.
7.71%

Stock Summary

Key Statistics

Capitalization	7.763B
52 Week Range	23.18 - 53.03
Beta	1.38
P/E	68.8
P/B	7.39
Shares Outstanding	177.52M

Price Performance



Core Business

Fully viable mining operations...

MP Materials operates out of Mountain Pass, California. The mine has Probable reserves of 30.08M ST of dry concentrate at TREO% of 6.33% and 6.72 MY%.

Strip Ratio of 6.1:1

35Y LoM based on 2022 pit optimization study



Process



...with downstream expansion goals

Phase

Details

Expected Launch

I – Mining, Crushing, Milling, Flotation & Selling of Rare-Earth Concentrates.

Reintroduce previously discarded infrastructure from Molycorp, increase plant uptime, and achieve free-cash flow positive status

Completed

II – Adding Infrastructure to Support Leaching, Impurity Removal, Separation & Extraction of Rare-Earth Ores.

Upgrade facility infrastructure, introduce metallurgy production process, and reduce dependance on third-party wholesalers

End of 2022

III – Creating End Products Including Magnets & Alloys

Develop in-house magnet supply chain and become the only vertically integrated Rare-Earth production plant in the western hemisphere

End of 2025

Fig 68 MP Materials REO concentrate output by quarter

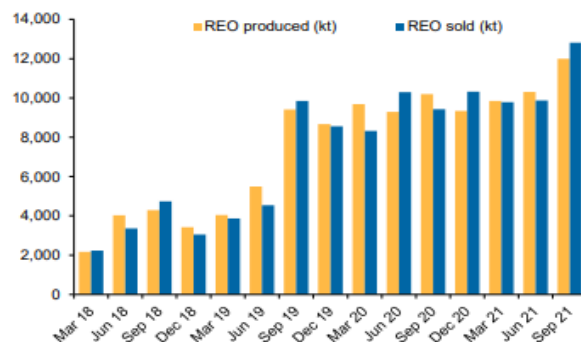
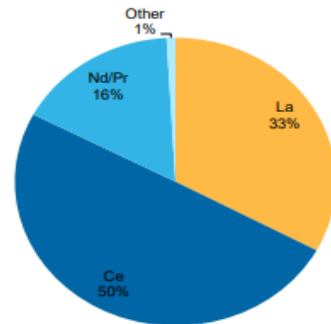


Fig 69 Mountain Pass REO composition



Element Spotlight

Neodymium and Praseodymium (Nd & Pr), jointly referred to as “NdPr”

Cerium and Lanthanum

60%

Combined they represent a large share of the rare earth element industry by volume.

Applications as an automotive catalyst, glass additive, component of LED lighting.

Emerging uses in hydrogen storage technology

- Main end use is as permanent magnets.
- NdPr magnets have a much stronger magnetic field, relative to alternatives, and are more cost effective.
- Unequaled efficiency in converting energy into motion.
- Global demand for NdPr has grown 21% to 69kt in CY21.
- Demand expected to grow 10%-13% CAGR to over 110kt globally by CY26.

Fig 13 NdPr market demand by sector in 2020

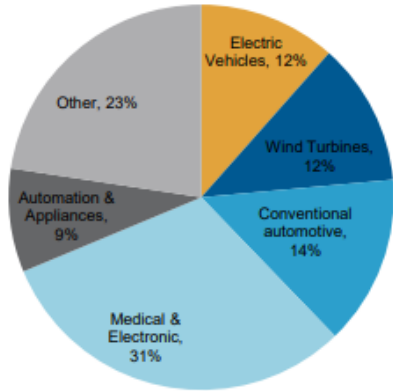


Fig 14 NdPr market demand by sector in 2030

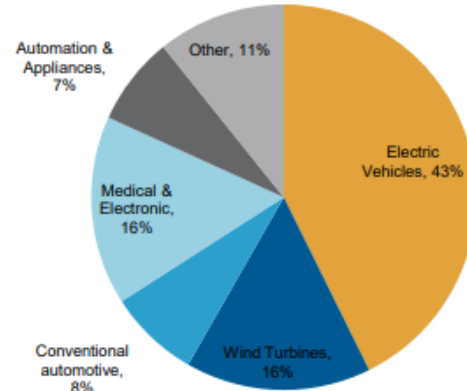


Fig 5 NdPr demand underpinned by growth in EV and wind turbines

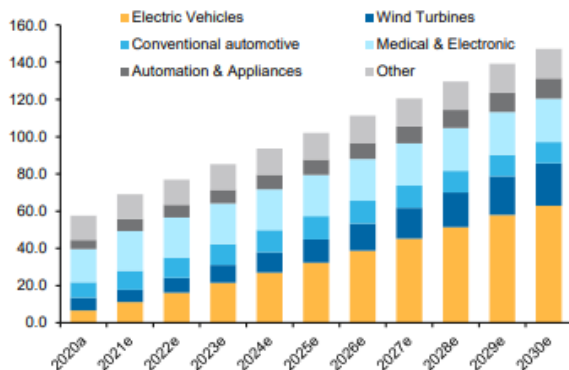
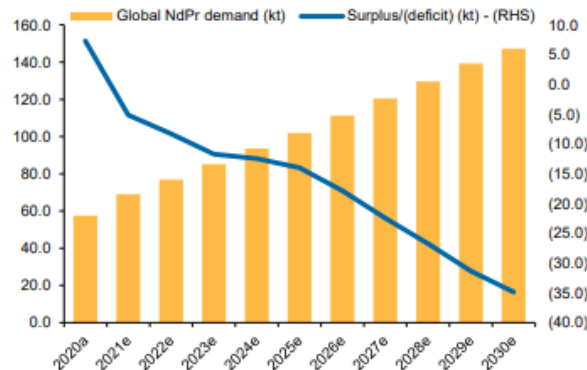
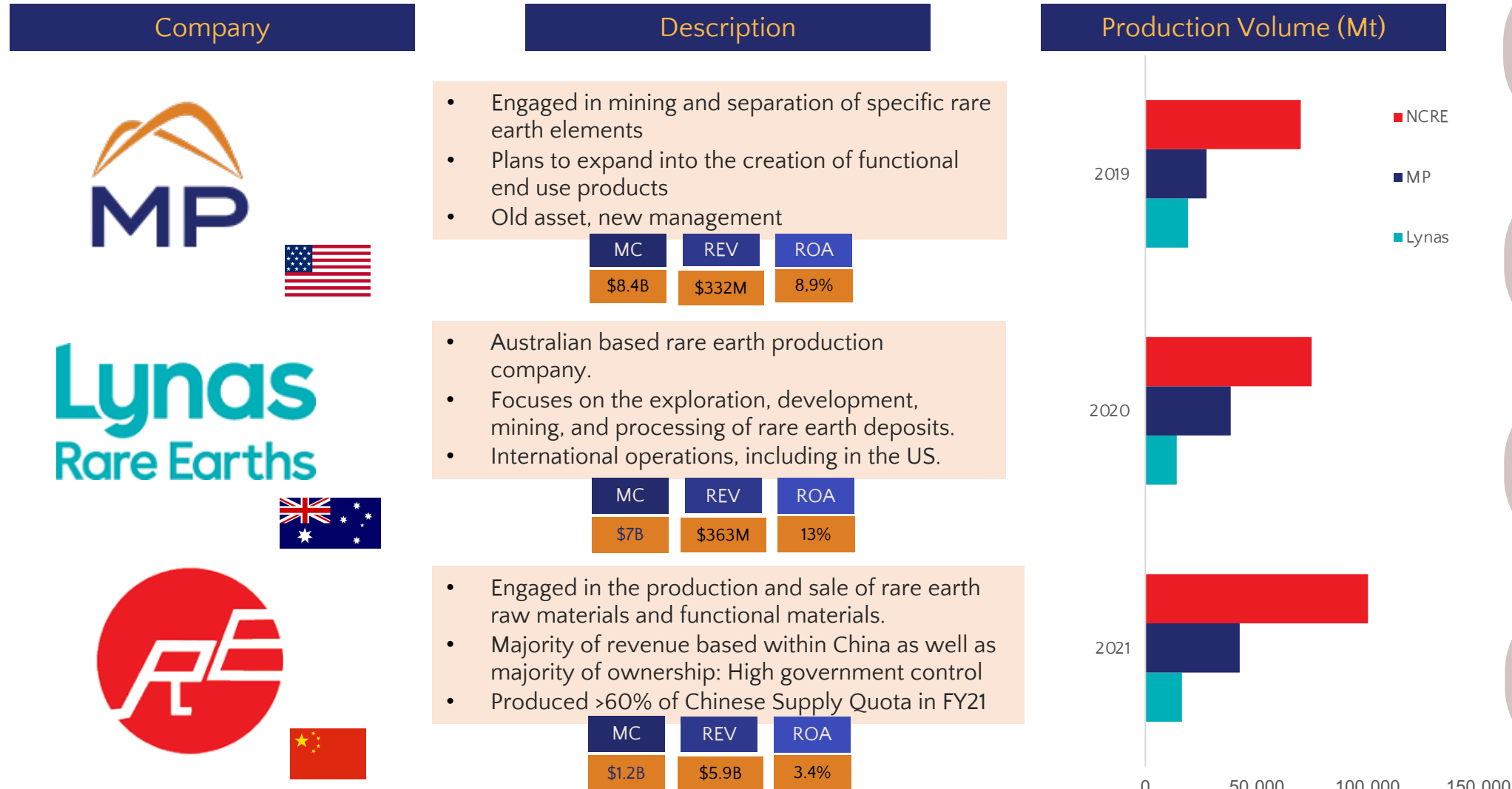


Fig 6 The strong demand growth is expected to see widening deficits in the NdPr market



Competitive Position

ESG



California mine subject to high environmental standards.

Zero-discharge facility equipped with state-of-the-art environmental systems.

Dry tailings facility that recovers and recycles >1 billion liters of water per year.

Recycled water covers 95% of beneficiation process needs.

SWOT Analysis

Strengths

- Location and Facility
- Economies of scale have led to decreases in cost of production

Weaknesses

- The mining industry heavily relies on capital markets due to the capital intensity of projects undertaken.

Opportunities

- “Natural Leverage” and good pricing will continue to benefit margins
- Completion of Stage II & Stage III Expansion

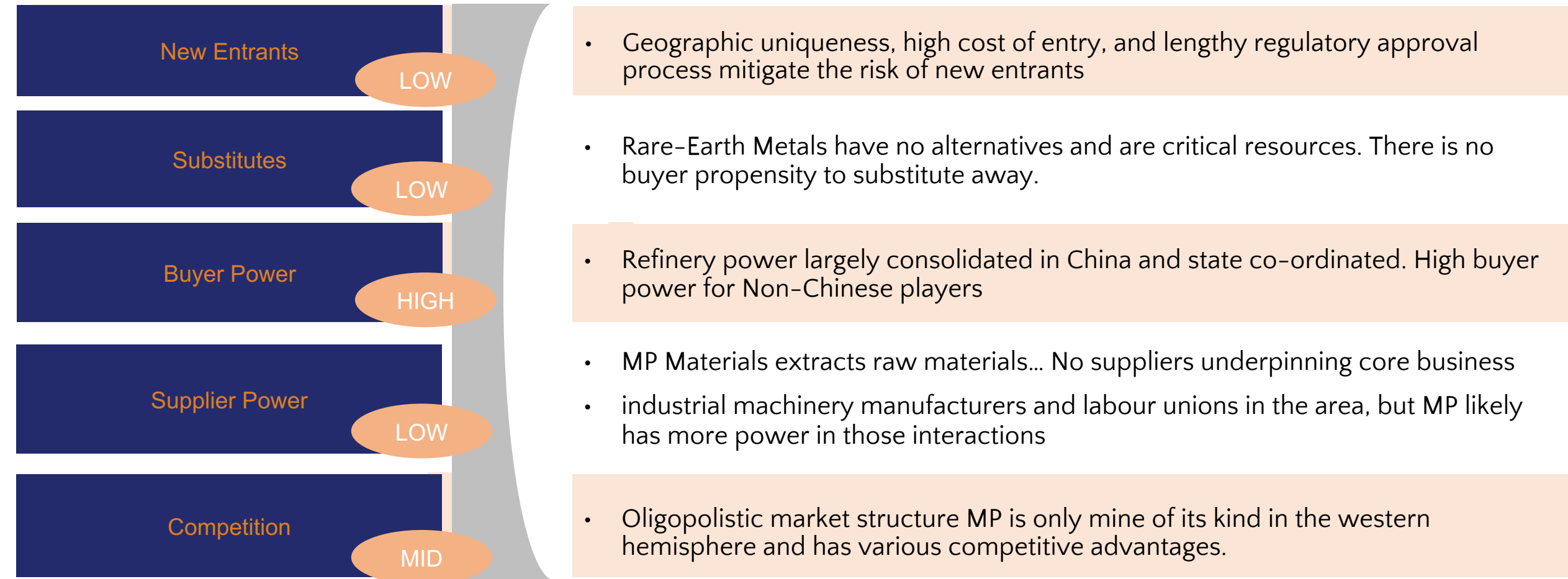
Threats

- Overseas competitors dominate market share, and can influence prices
- Competitors operate in less regulatory and environmental stringent jurisdictions

MP Materials is operating from a position of strong government and industry support, with a strong management team, and sitting on billions of dollars of pre-existing capital resources inherited from previous mine owners. They're in a good position to handle obstacles

Industry Analysis

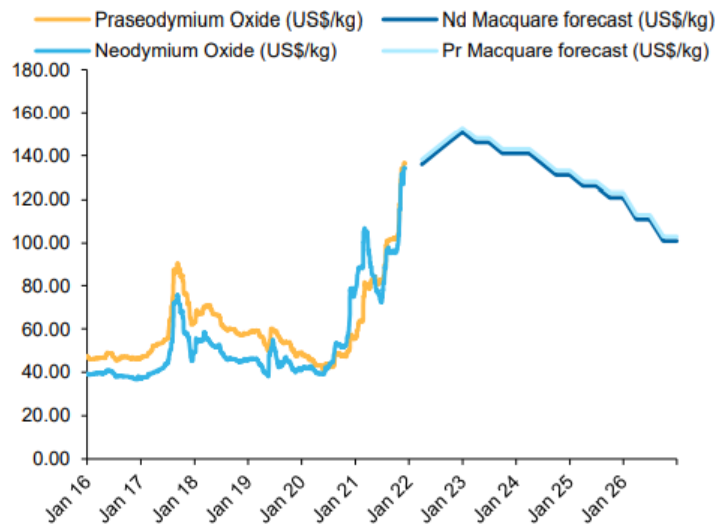
Porter Five Forces Analysis



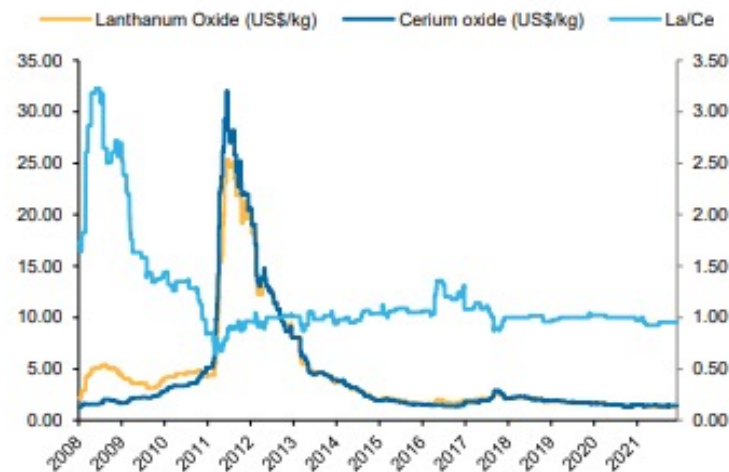
An economically profitable industry and likely to remain that way long term!

Pricing Outlook

High Demand for certain elements creating different Pricing outlooks based on element



- Nd and Pr prices currently sit at \$177.50/kg and \$167/kg respectively, representing a 68% and 115% increase y/y.
- Strong pricing outlook resulting from strong demand and lack of supply side response until CY24.
- Price expected to stabilize long term >\$100/kg; well above pre-covid levels.



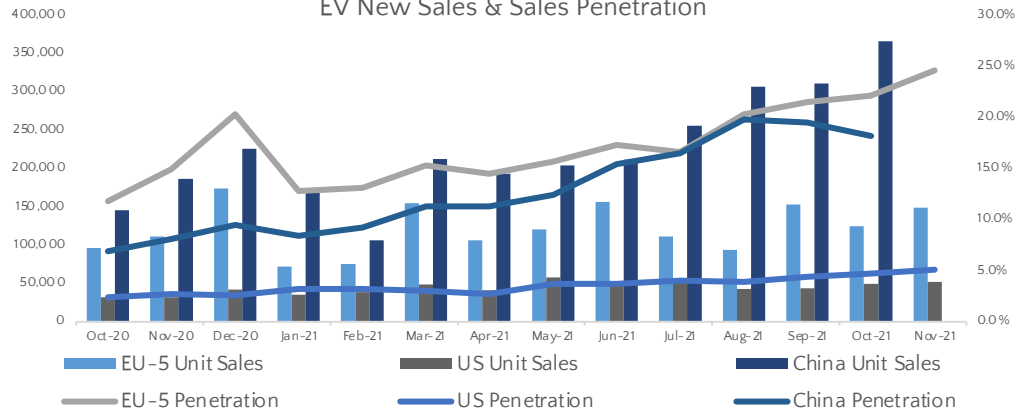
- Strong NdPr demand, combined with high REE volume share is expected to create structural oversupply.
- Poor long term pricing outlook

Necessity in Value Chain of Multiple High Growth Spaces

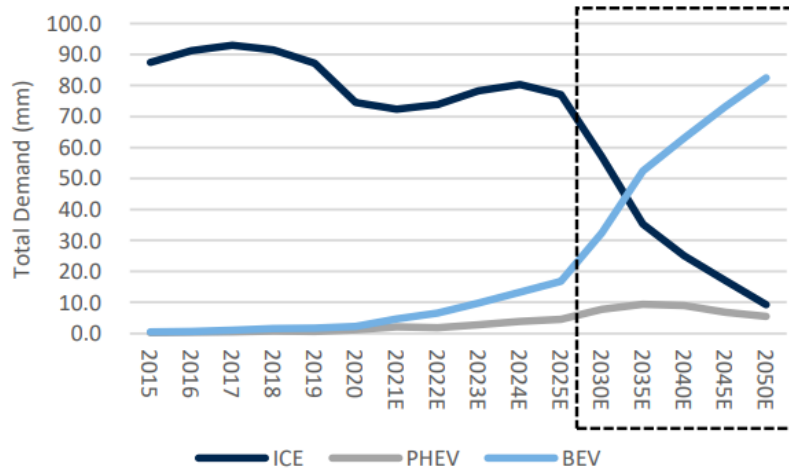
Electric Vehicles

Wind Energy

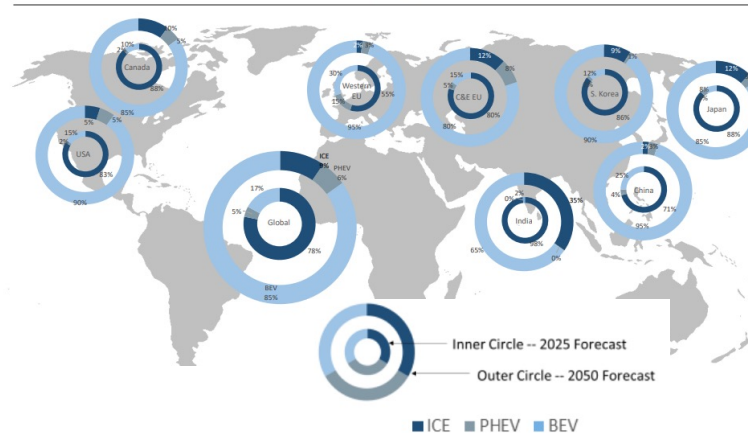
EV New Sales & Sales Penetration





Global Unit Demand by Propulsion



2025 and 2050 Forecast of Global Sales Mix by Region



Key Lithium Ion Battery Technologies

Battery Chemistry	Key Lithium Ion Battery Technologies					Other Technologies	
	LCO	LMO	LFP	NMC	NCA	Solid State Battery	Hydrogen Fuel Cell
Other Primary Materials	Cobalt	Manganese	Iron, Phosphate	Nickel, Manganese Cobalt	Nickel, Cobalt, Aluminum	Lithium	Hydrogen
Dominant Motor Technology	Permanent Magnet	Permanent Magnet	Permanent Magnet	Permanent Magnet	Permanent Magnet	Permanent Magnet	Permanent Magnet
Critical Motor Materials	NdPr	NdPr	NdPr	NdPr	NdPr	NdPr	NdPr
Select OEMs Examples						Most EV OEMs Except Tesla	

NdPr is likely to be in high demand for EVs, regardless of which energy approach wins

Total EV (BEV + PHEV) unit sales increased 97.3% y/y in October to 540k units. Expected to grow from 6% of global demand in 2021 to 33% by 2030.

Rare earth magnets are more efficient at converting energy into motion; better energy-to-weight ratio than all known alternatives

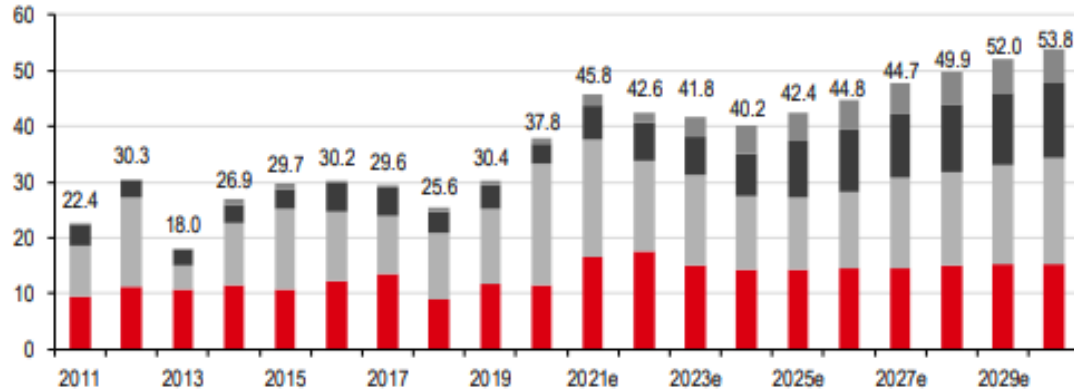
+1 standard passenger PHEV creates 4-6kg of rare earth magnets demand, +1 BEV creates 5-10kg of rare earth magnets demand.

Necessity in Value Chain of Multiple High Growth Spaces

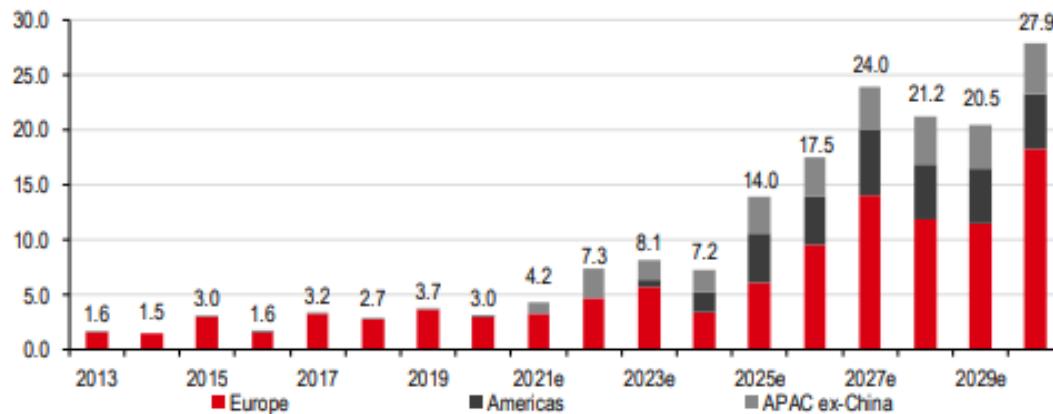
Electric Vehicles

Wind Energy

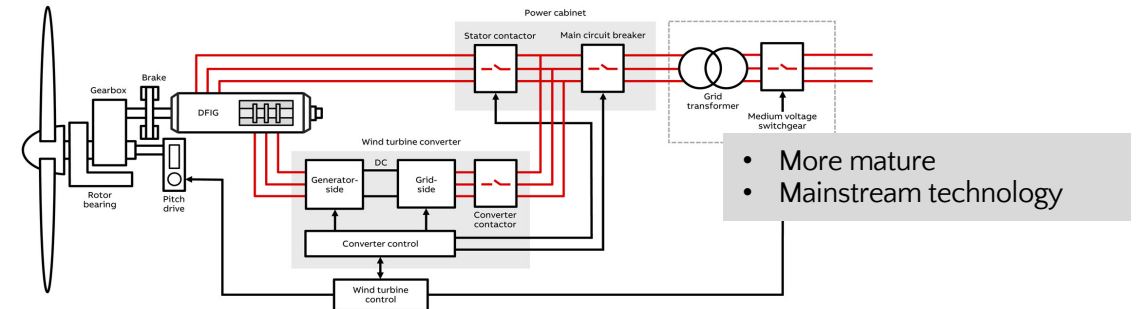
HSBC onshore (ex-China) wind installation forecasts (in GW)



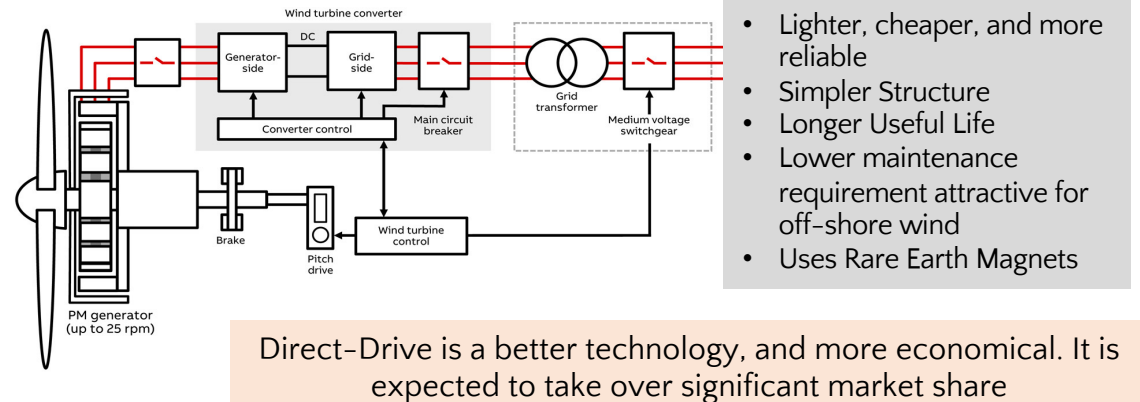
HSBC offshore (ex-China) wind installation forecasts (in GW)



Double-Fed Induction Generator



Direct-Drive Generator



Every MW of direct-drive wind power installed generates approximately 650kg of incremental NdPr demand.

Strategic Importance given Geopolitical Trends

Escaping Chinese REE Dominance

Government & Business Support

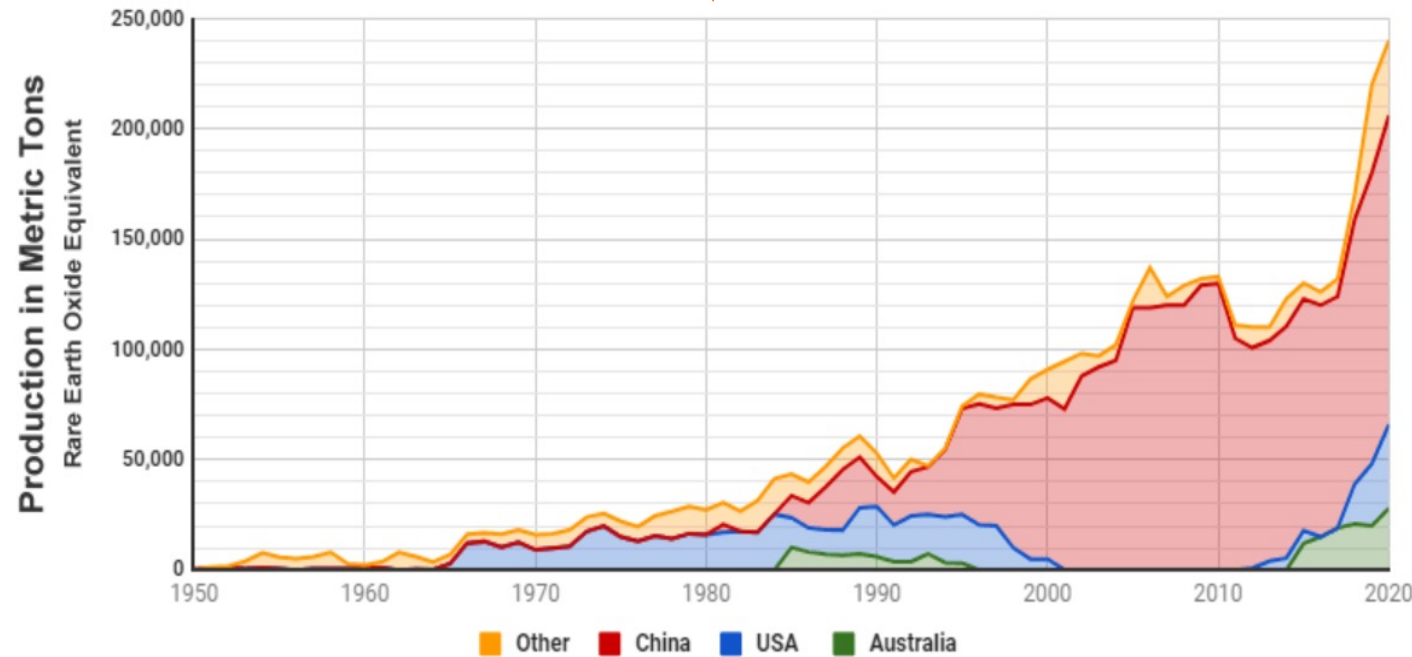
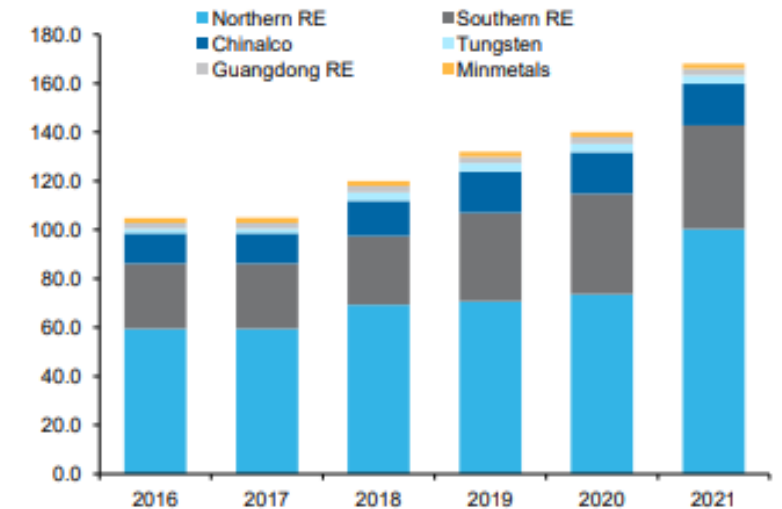


Fig 47 Chinese Production quota since 2016



- China controls 37% of the global Rare Earth reserves and up to 90% of global processing.
- China has rare earth mining and separation capacity of 300ktpa and 307ktpa, respectively. The CY21 quota (168kt for mining and 162kt for smelting/separation) translates to a utilization rate of ~55%.
- They have also consolidated REE mining sector into 3 state-controlled giants to reduce domestic price-based competition (control pricing to protect RE value), while being more impactful filling foreign technology gaps.
- No separation facilities exist in the United States presenting an overreliance on Chinese producing/refining capabilities.

MP is the best solution to this dependence via their expansion plan

Strategic Importance given Geopolitical Trends

Escaping Chinese REE Dominance

Government

\$35M

in DoD Awards

6.34%

3-year avg effective tax rate

- The Covid-19 pandemic have dramatically exposed the vulnerabilities of global supply chains.
- Executive order (Feb '21) made to reduce vulnerabilities from external dependency in critical industries
- American supply chains are a top priority for the US government. Rare earth elements a big area of focus.
- Supportive regulatory environment

Difference in strategic objectives



Huge Economic Consequences due to resource dependency

\$2T

In Green Spending Commitments

- The US Government has made huge green commitments including \$56B in tax incentives,
- Other Nations internationally have also made ambitious green spending goals.
- EVs and Wind energy essential for Net-Zero by 2050 to be realistic ambition.

Government & Business Support

Business



- MP Materials is developing the infrastructure needed to service American industries.
- Recently scored a long-term supply agreement with General Motors.
- MP Materials will supply finished magnets for iconic models including the GMC Hummer, Cadillac Lyriq, and others.



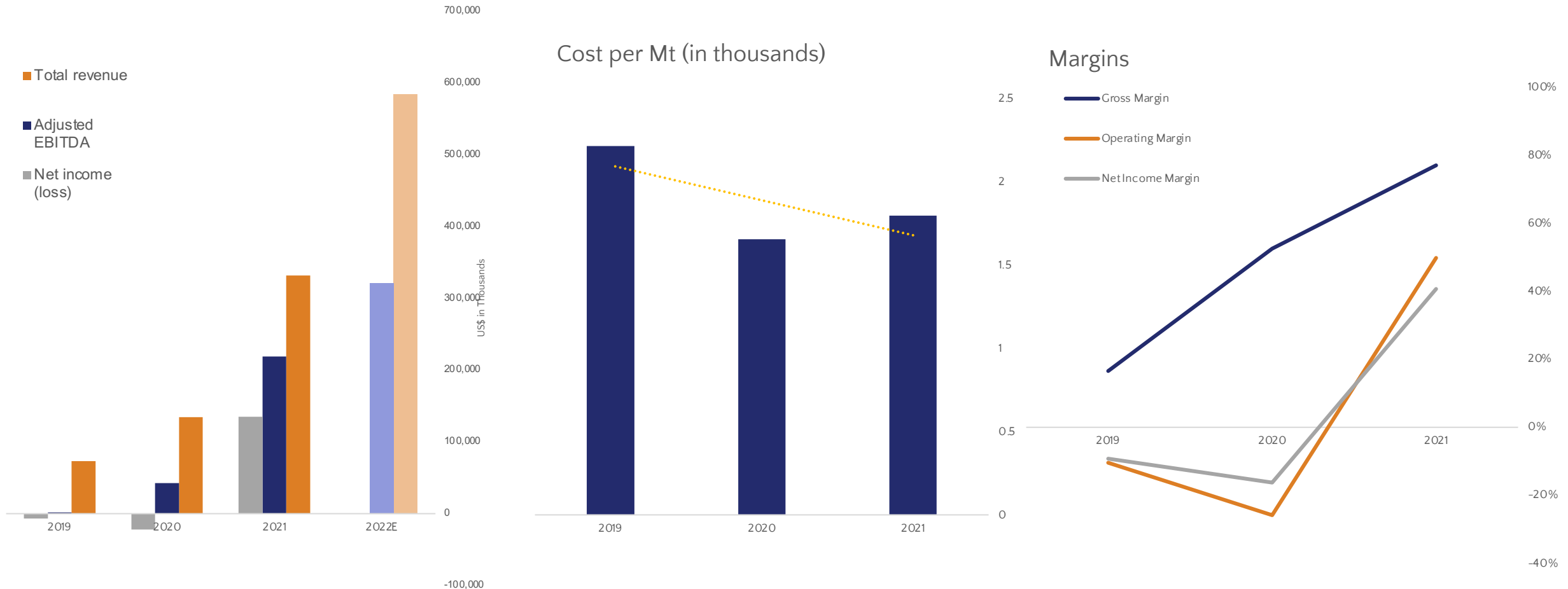
General Motors will be the foundational customer for MP Materials magnet production plant in Fort Worth, Texas (Pictured). Expected launch in 2025.



- Industry partnerships expected to continue as businesses look to reduce supply chain risks.
- Potential to price at a premium to market and lock in long term partnerships.

Everybody's cheering for them!

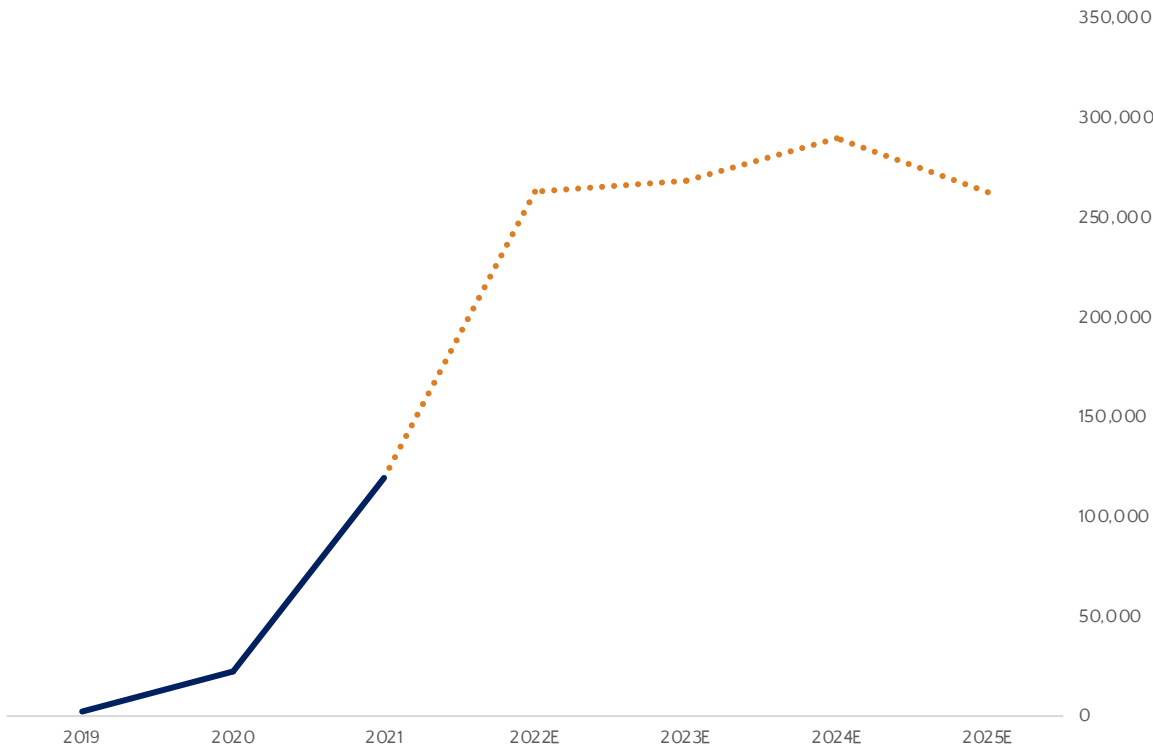
Earnings growth and operational efficiency.



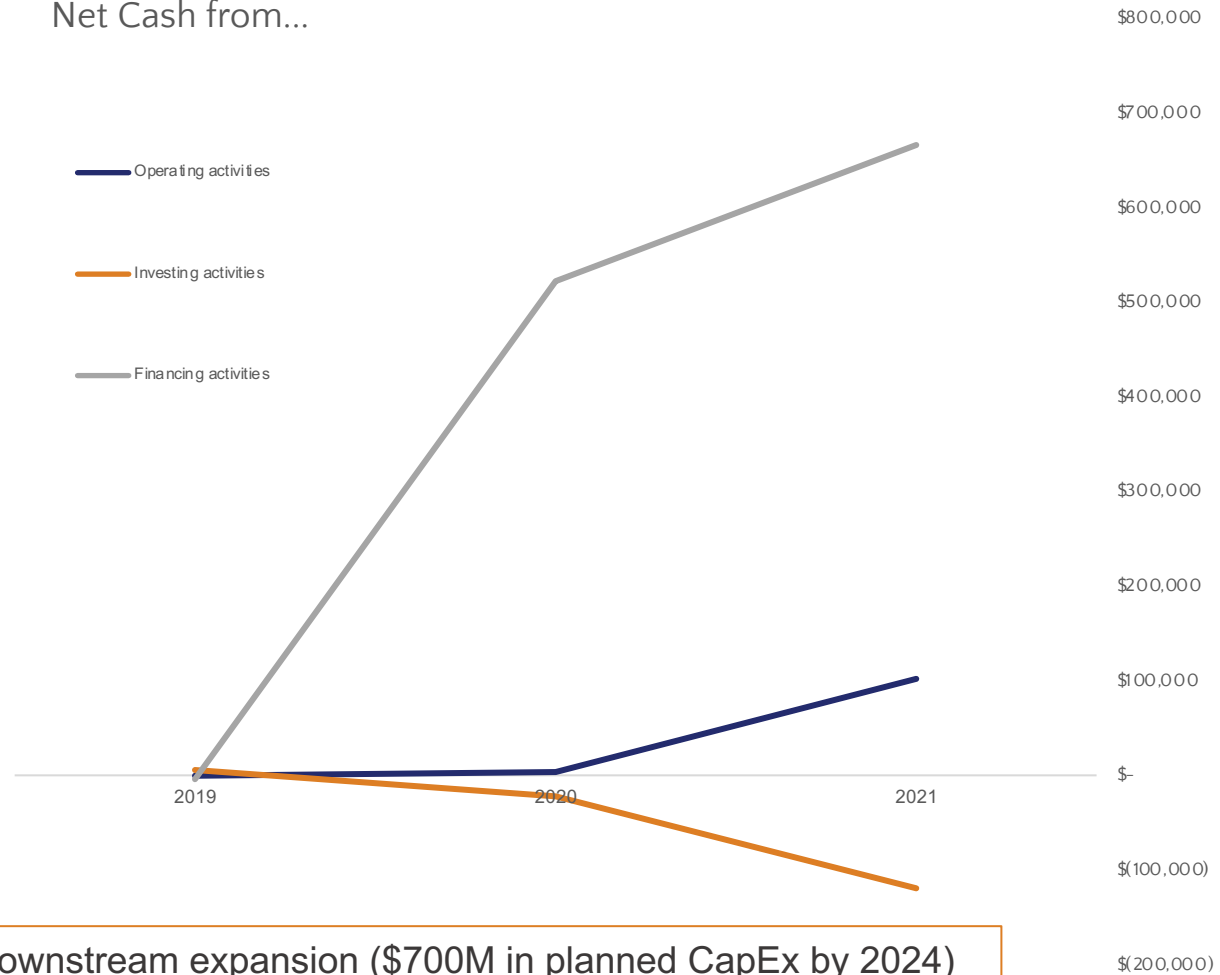
- Revenues and Net Income up 352% and 105%, respectively over the last 2 years. Margins have stretched dramatically over that time period as well as the company grows into itself.
- Mining process becoming more efficient, with costs per average metric ton mined falling

Sustainable growth underpinned by strong operations

Capital Expenditure



Net Cash from...

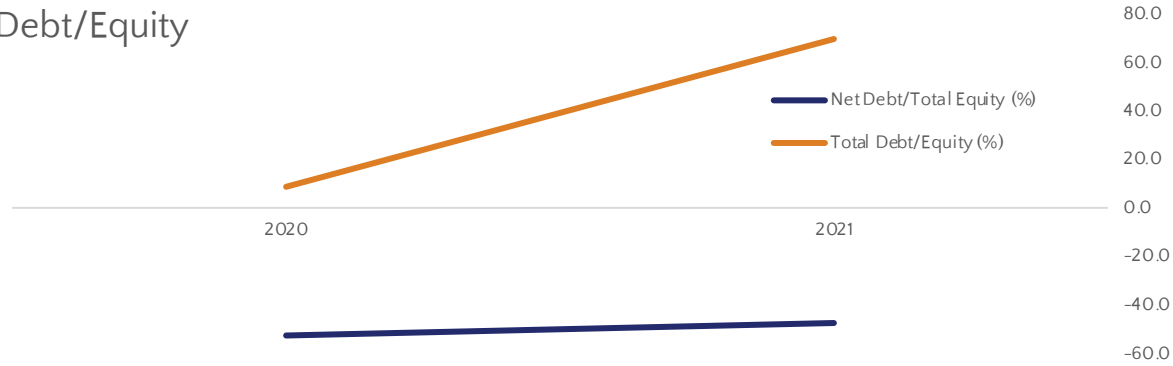


- Expected to increase capital spending as they invest in downstream expansion (\$700M in planned CapEx by 2024)
- Operations generating positive cashflows, with financing activities funding investments and future growth initiatives

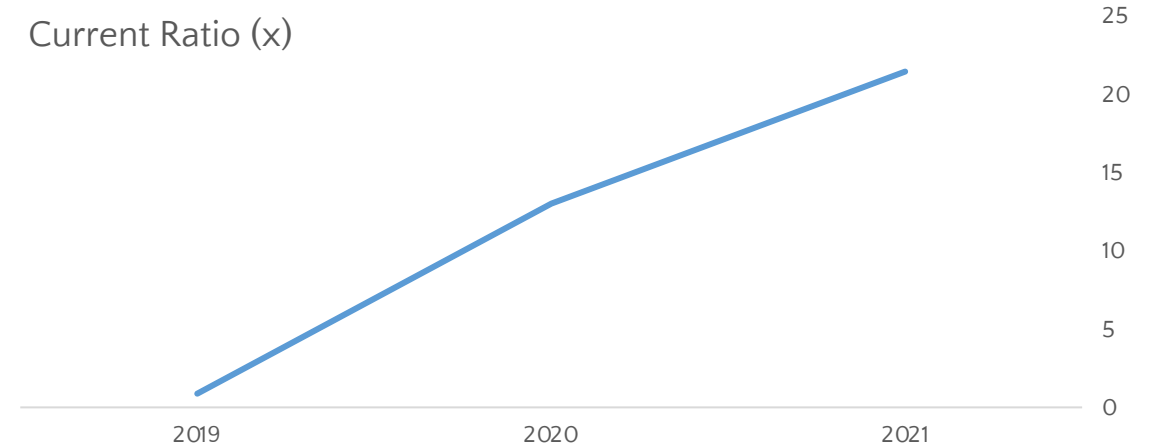
Financial Analysis

Better coverage even as debt growing in share of total capital

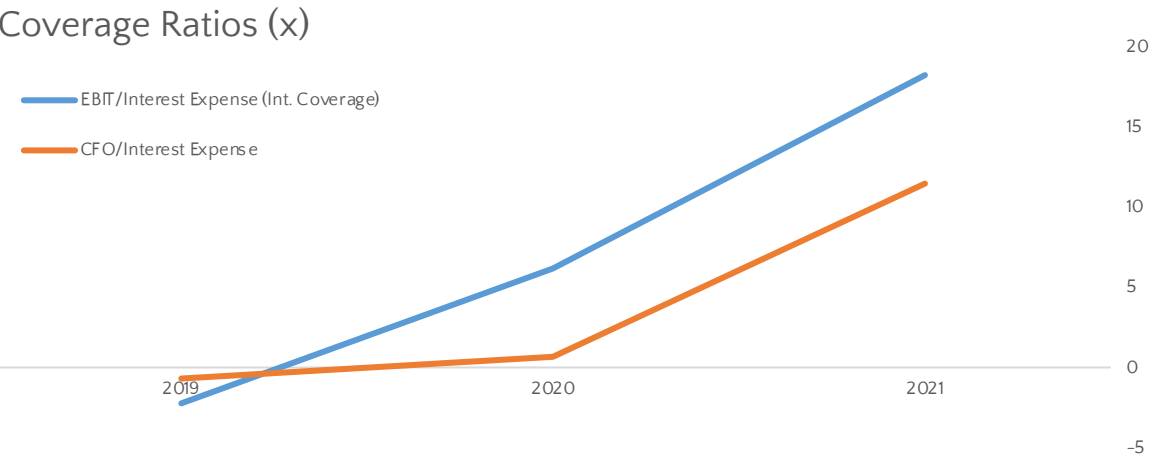
Debt/Equity



Current Ratio (x)



Coverage Ratios (x)



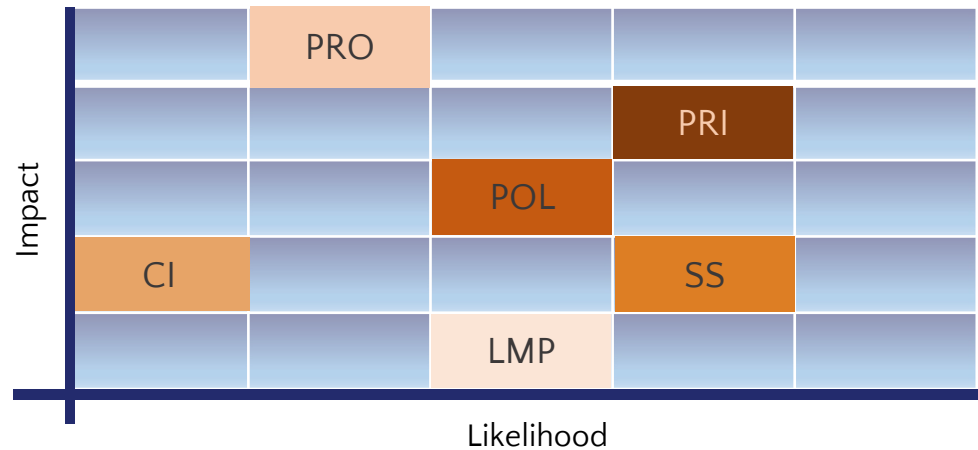
Market Value per Mt



- Significantly more cash than debt, and has remained so even as balance sheet debt increased
- EBIT and CFO growth has led to large improvements to MP's credit profile
- Well positioned to meet short term obligations, well positioned to access capital markets as CapEx requirements grow

Risks and Mitigants

MP presents a robust investment opportunity and is well positioned to mitigate potential risks



Risks	Operational	LMP	Low Market Power; Revenue Concentration, Lack of Price determination
		PRO	Project risk from Stage II & III, and downstream competition
		CI	Conflicting Interests affecting management independence
	Economic	SS	Semiconductor chip shortage messing with near-term EV outlook
		POL	Political risks from tariff policy, environment / labour law disparity
		PRI	Commodity Prices a big determinant of profitability

Mitigants	LMP	Downstream expansion to reduce revenue dependency, and at 15% market share they are a big enough player to be a necessary element.
	PRO	Competent management team, that has been good at hitting targets. They surpassed the mine's 60-year record volume within 3 years, and are 2 years ahead of initial magnet making target.
	CI	Foreign ownership and government stake not expected to pose a threat to management independence in due to the alignment of corporate strategy with national security goals.
	SS	EVs are not the only demand driver
	POL	Downstream expansion to domesticate entire RE supply chain and reduce tariff risks, and China is becoming increasingly more conscious of their environmental footprint: N-Z 2070, wind leader
	PRI	High Pricing environment due to underlying market economics for the near and long term future.

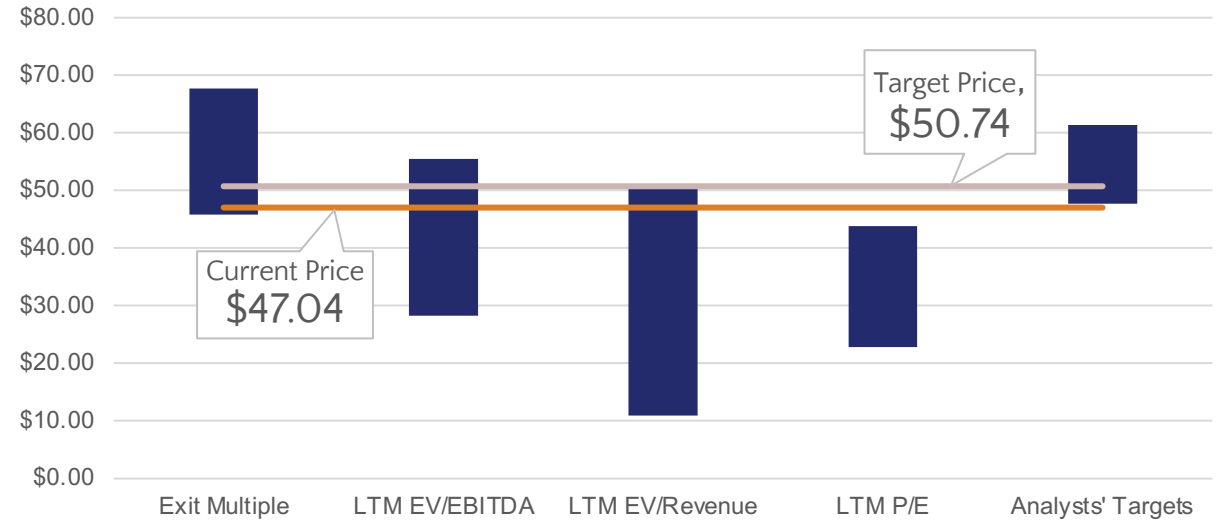
VALUATION

Valuation

Summary

Methodology & Assumptions

- 55% weight on DCF (Exit Multiple Method), 30% Weight on Analysts Targets, 15% split between LTM comp multiples
- Team DCF produces \$55.71 valuation, avg. analyst target of \$54.01. However, the price target is a weighted mix of several methods.
- Margins spread, but production process lengthens as MP expands further downstream... Switch to selling refined products instead to REO concentrate in 2023, and magnets in 2025.
- High CapEx spending until finished expansion plan; \$700M+ in total commitments by 2024. Then modest net PPE growth long term
- 6,075 Mt of NdPr oxide per year upon reaching desired production rates for REO and planned downstream products (Mgmt. guidance)
- Bull Case: Making magnets by 2023, seamless downstream integration, increasing mining volume share through 2022, lower effective tax rate: 6-month price target if \$62.64 (+33.2%)
- Bear Case: Troubled downstream integration leading to slower revenue growth at higher margins: 6-month target of \$47.68 (+1.4%)

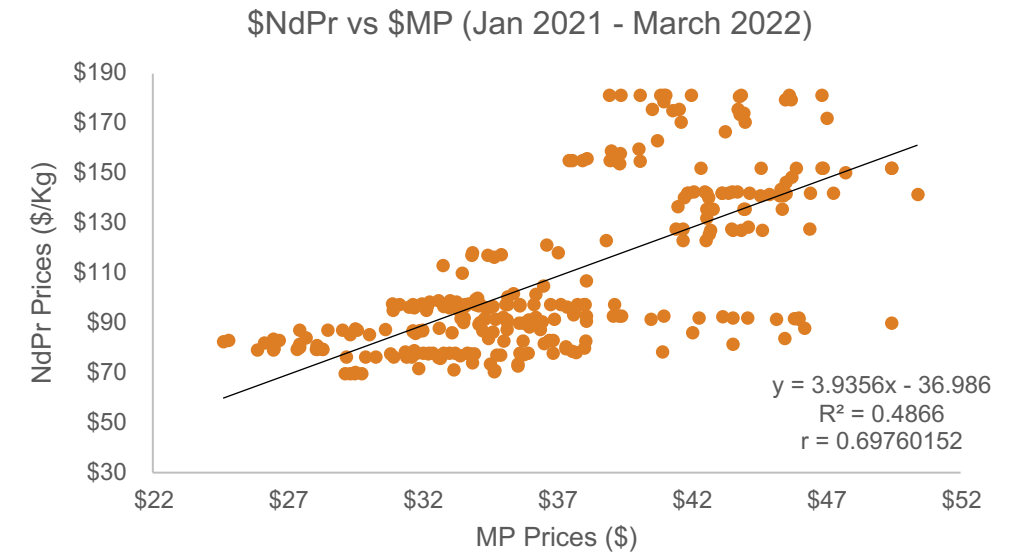
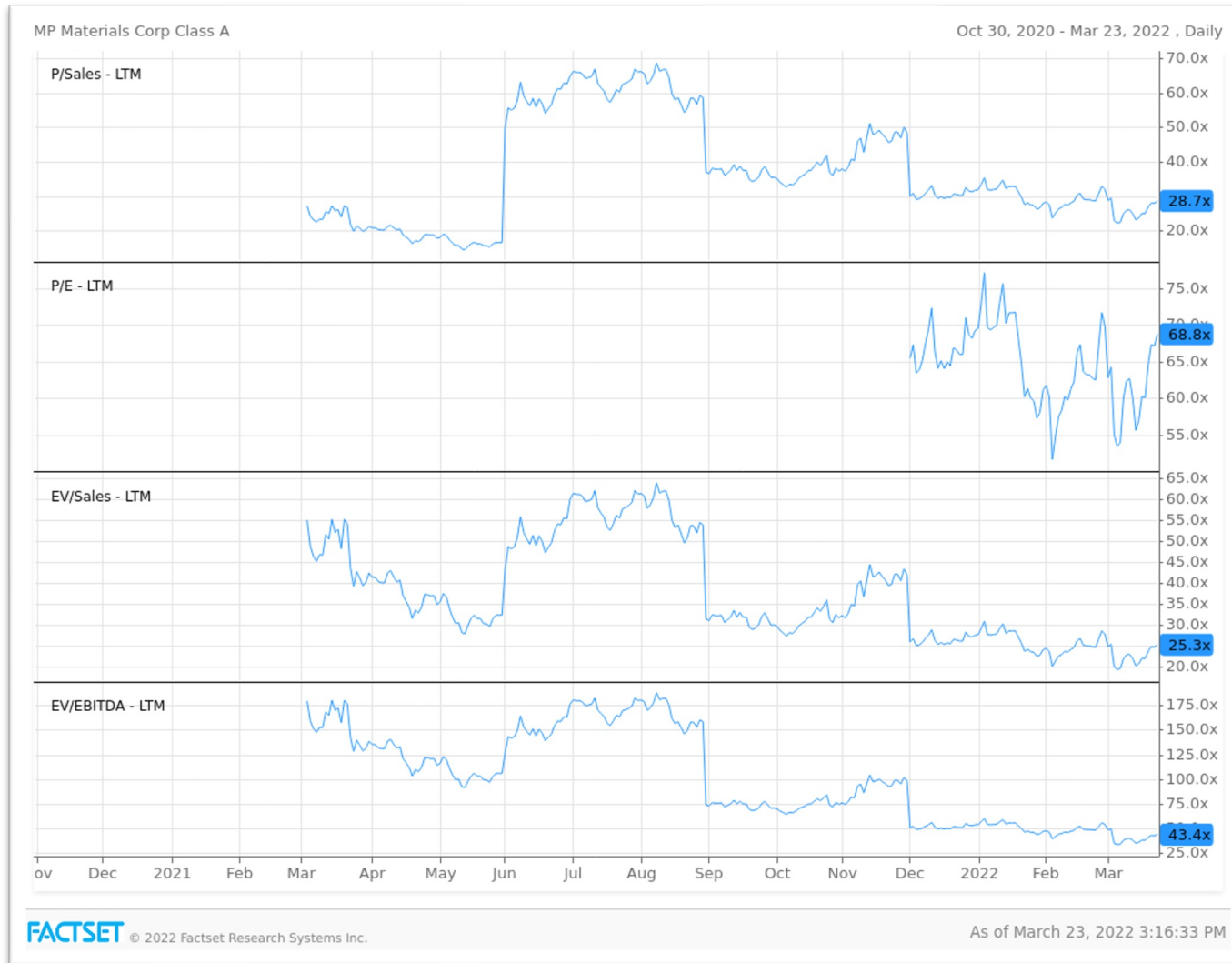


Implied Share Price						
Exit Multiple						
		28.0	29.0	30.0x	31.0	32.0
	7.35%	\$45.74	\$47.28	\$48.82	\$50.36	\$51.91
	6.35%	\$48.81	\$50.46	\$52.10	\$53.75	\$55.40
WACC	5.35%	\$52.12	\$53.88	\$55.64	\$57.40	\$59.16
	4.35%	\$55.70	\$57.58	\$59.46	\$61.34	\$63.22
	3.35%	\$59.55	\$61.56	\$63.58	\$65.59	\$67.60

Recommendation: Buy! 6 month Price Target of \$50.72

Valuation

Pricing History

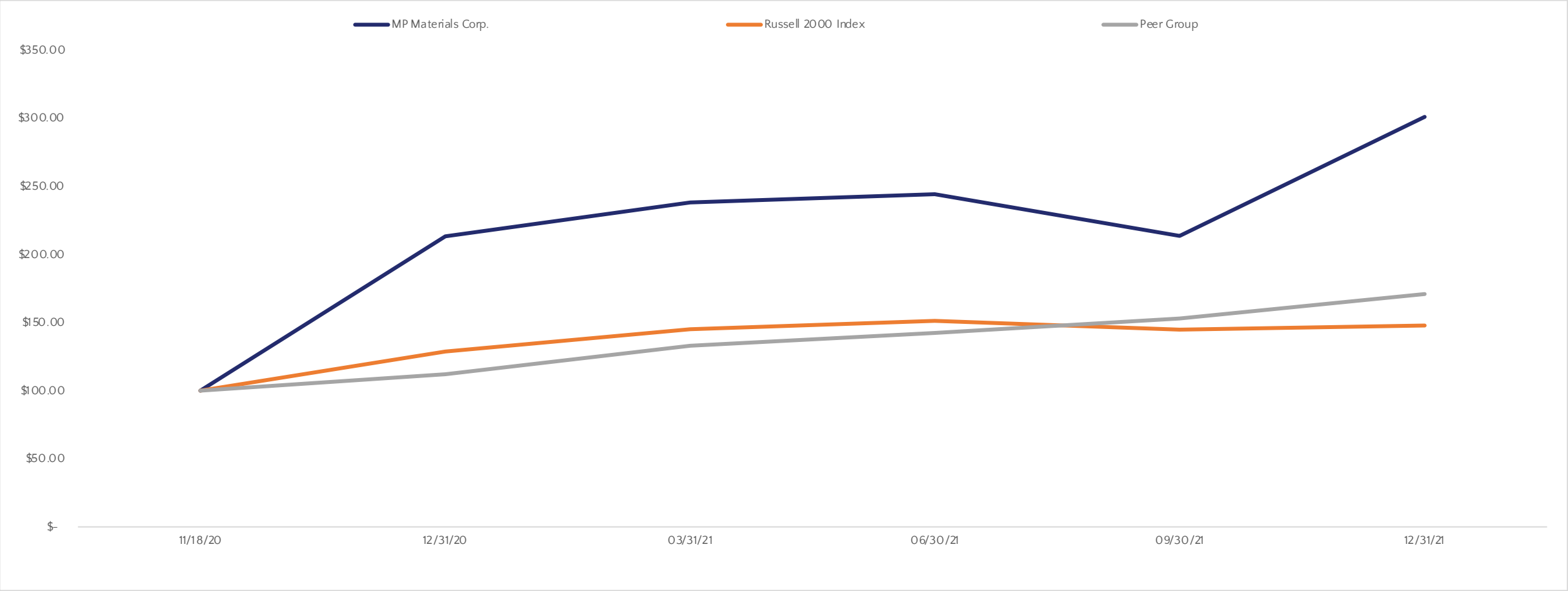


- Multiples have generally compressed through 2021, driven by earnings growth.
- Still trades higher than closest competitors, but is also growing much faster.
- 70% positive correlation between NdPr price and \$MP price. Good sign given pricing outlook.

***Recommendation:
Buy & Hold***

***Thank You for Listening.
Questions?***

Share Performance History



DCF Analysis – Output

MP Materials

Discounted Cash Flow Analysis

(\$ of Thousands)

Calculation of FCFF

Units

Projected

Operating Scenario

1Base

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Revenue	73,411.0	134,310.0	331,952.0	\$584,676	\$537,129	\$579,770	\$584,105	\$576,952	\$634,647	\$698,112
% Growth	#DIV/0!	83.0%	147.2%	76.1%	-8.1%	7.9%	0.7%	-1.2%	10.0%	10.0%
Cost of Goods Sold (Excl. D&A)	61,261.0	63,798.0	76,253.0	146,168.9	118,168.4	127,549.4	116,820.9	115,390.4	126,929.5	118,679.1
Gross Profit	12,150.0	70,512.0	255,699.0	438,506.7	418,960.8	452,220.4	467,283.6	461,561.8	507,717.9	579,433.1
% Margin	16.6%	52.5%	77.0%	75.0%	78.0%	78.0%	80.0%	80.0%	80.0%	83.0%
Selling, General & Administrative	15,083.0	98,284.0	65,972.0	116,935.1	107,425.9	115,954.0	116,820.9	115,390.4	126,929.5	139,622.4
EBITDA	-2,933	-27,772	189,727	321,572	311,535	336,266	350,463	346,171	380,788	439,811
% Margin	-4.0%	-20.7%	57.2%	55.0%	58.0%	58.0%	60.0%	60.0%	60.0%	63.0%
Depreciation & Amortization	4,687.0	6,931.0	24,382.0	40,927.3	37,599.0	40,583.9	40,887.3	40,386.7	44,425.3	48,867.9
EBIT	-7,620	-34,703	165,345	280,644	273,936	295,683	309,575	305,785	336,363	390,943
% Margin	-10.4%	-25.8%	49.8%	48.0%	51.0%	51.0%	53.0%	53.0%	53.0%	56.0%
Income Taxes	0.0	15,512.2	25,959.2	42,096.6	41,090.4	44,352.4	46,436.3	45,867.7	50,454.5	58,641.4
EBIAT	-7,620	-50,215	139,386	238,548	232,846	251,330	263,139	259,917	285,909	332,301
Free Cash Flow Adjustments:										
Plus: Depreciation & Amortization	4,687.0	6,931.0	24,382.0	40,927.3	37,599.0	40,583.9	40,887.3	40,386.7	44,425.3	48,867.9
Less: Capital Expenditures	2,274.0	22,370.0	123,870.0	263,104	268,565	289,885	262,847	201,933	126,929	69,811
Less: Increase in NWC				-35,048	26,773	12,381	-1,083	20,779	-624	-3,338
Free Cash Flow to Firm	-2,711	-19,093	-21,899	-\$18,677.5	\$28,652.6	\$14,409.8	\$40,096.7	\$119,149.8	\$202,780.8	\$308,019.7
Weighted Average Cost of Capital										
Discount Period				1.0	2.0	3.0	4.0	5.0	6.0	7.0
Discount Factor				0.95	0.90	0.85	0.81	0.77	0.73	0.69
Present Value of FCFFs				-\$17,725.9	\$25,807.3	\$12,317.6	\$32,528.6	\$91,735.9	\$148,170.6	\$213,600.8

DCF Analysis – Terminal Value (Exit Multiple Method)

Enterprise Value	
Present Value of Projected FCF	\$506,434.9
Terminal Value	
Terminal Year EBITDA	\$439,810.7
Exit Multiple	30.0x
Terminal Value	\$13,194,320.1
Discount Factor	0.69
Present Value of Terminal Value	\$9,149,796.4
% of Enterprise Value	95%
Enterprise Value	\$9,656,231.3

Implied Equity Value	
Enterprise Value	\$9,656,231.3
Less: Total Debt	\$691.0
Less: Preferred Securities	\$0.0
Less: Non-Controlling Interest	\$0.0
Plus: Cash & Equivalents	\$1,179.3
Implied Equity Value	\$9,656,719.6
Shares Outstanding	173,500.0
Implied Share Price	\$55.66

Implied Share Price						
		Exit Multiple				
		28.0	29.0	30.0x	31.0	32.0
WACC	7.35%	\$45.80	\$47.35	\$48.89	\$50.43	\$51.98
	6.35%	\$48.88	\$50.53	\$52.17	\$53.82	\$55.47
	5.35%	\$52.19	\$53.95	\$55.71	\$57.47	\$59.23
	4.35%	\$55.77	\$57.65	\$59.53	\$61.41	\$63.29
	3.35%	\$59.63	\$61.64	\$63.65	\$65.66	\$67.67

DCF Analysis – Income Statement Assumptions

Assumptions Part 1 - Income Statement and Cash Flow Statement												
	Historical Period					Projection Period						
	Year 1 2017	Year 2 2018	Year 3 2019	Year 4 2020	Year 5 2021	Year 1 2022	Year 2 2023	Year 3 2024	Year 4 2025	Year 5 2026	Year 6 2027	Year 7 2028
Pricing Assumptions (US\$/kg)			2.793	3311	7.745	11.99	142.50	133.75	122.50	110.00	110.00	110.00
Production Assumptions (Mt)												
Production (growth%)				39.40%	10.16%	15.0%	15.0%	15.0%	10.0%	10.0%	10.0%	10.0%
Production Volume			27620	38503	42413	48,775	56,091	64,505	70,955	78,051	85,856	94,442
Mine Yield %		6.72%										
REO Yield						3,278	3,769	4,335	4,768	5,245	5,770	6,346
Realized Value					331,952	584,676	537,129	579,770	584,105	576,952	634,647	698,112
Growth %						76.1%	-8.1%	7.9%	0.7%	-1.2%	10.0%	10.0%
Income Statement Assumptions												
Sales (% growth)	0.0%	#DIV/0!	#DIV/0!	83.0%	147.2%	76.1%	(8.1%)	7.9%	0.7%	(1.2%)	10.0%	10.0%
Base						1 76.1%	(8.1%)	7.9%	0.7%	(1.2%)	10.0%	10.0%
Upside						2 76.1%	3.0%	8.0%	5.0%	7.0%	10.0%	10.0%
Downside						3 76.1%	(10.0%)	3.0%	1.0%	(3.0%)	5.0%	10.0%
Cost of Goods Sold (% sales)	#DIV/0!	#DIV/0!	83.4%	47.5%	23.0%	25.0%	22.0%	22.0%	20.0%	20.0%	20.0%	17.0%
Base						1 25.0%	22.0%	22.0%	20.0%	20.0%	20.0%	17.0%
Upside						2 25.0%	22.0%	22.0%	20.0%	18.0%	16.0%	15.0%
Downside						3 25.0%	25.0%	25.0%	25.0%	22.0%	22.0%	20.0%
SG&A (% sales)	#DIV/0!	#DIV/0!	20.5%	73.2%	19.9%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
Base						1 20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
Upside						2 20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
Downside						3 20.0%	22.0%	22.0%	21.0%	21.0%	21.0%	21.0%
Depreciation & Amortization (% sales)	#DIV/0!	#DIV/0!	6.4%	5.2%	7.3%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
Base						1 7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
Upside						2 7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
Downside						3 7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
Cash Flow Statement Assumptions												
Capital Expenditures (% of sales)	#DIV/0!	#DIV/0!	3.1%	16.7%	37.3%	45.0%	50.0%	50.0%	45.0%	35.0%	20.0%	10.0%
Base						1 45.0%	50.0%	50.0%	45.0%	35.0%	20.0%	10.0%
Upside						2 45.0%	50.0%	50.0%	45.0%	35.0%	20.0%	10.0%
Downside						3 45.0%	50.0%	50.0%	45.0%	35.0%	20.0%	10.0%

DCF Analysis – Balance Sheet Assumptions

Assumptions Part 2 - Balance Sheet												
	Historical Period					Projection Period						
	Year 1 2017	Year 2 2018	Year 3 2019	Year 4 2020	Year 5 2021	Year 1 2022	Year 2 2023	Year 3 2024	Year 4 2025	Year 5 2026	Year 6 2027	Year 7 2028
Current Assets												
Days Sales Outstanding (DSO)	0.0	0.0	0.0	9.8	56.1	60.0	50.0	40.0	40.0	30.0	30.0	30.0
Base						60.0	50.0	40.0	40.0	30.0	30.0	30.0
Upside						60.0	45.0	35.0	30.0	30.0	30.0	30.0
Downside						60.0	50.0	40.0	40.0	30.0	30.0	30.0
Days Inventory Held (DIH)	0.0	0.0	0.0	184.6	169.8	170.0	175.0	175.0	180.0	170.0	165.0	165.0
Base						170.0	175.0	175.0	180.0	170.0	165.0	165.0
Upside						170.0	175.0	175.0	177.0	170.0	165.0	165.0
Downside						170.0	175.0	176.0	182.0	171.0	167.0	165.0
Prepaid and Other Current Assets (% of sales)	0.0%	0.0%	0.0%	4.1%	2.4%	1.0%	- %	- %	- %	- %	-	-
Base						1.0%	- %	- %	- %	- %	- %	- %
Upside						1.0%	- %	- %	- %	- %	- %	- %
Downside						1.0%	- %	- %	- %	- %	- %	- %
Current Liabilities												
Days Payable Outstanding (DPO)	0.0	0.0	0.0	92.4	171.0	170.0	170.0	180.0	180.0	180.0	180.0	180.0
Base						170.0	170.0	180.0	180.0	180.0	180.0	180.0
Upside						170.0	170.0	180.0	180.0	180.0	180.0	180.0
Downside						170.0	170.0	180.0	180.0	180.0	180.0	180.0
Income Tax Payable (% of sales)	0.0%	0.0%	0.0%	0.0%	1.0%	0.5%	0.5%	- %	- %	- %	-	-
Base						0.5%	0.5%	- %	- %	- %	- %	- %
Upside						0.5%	0.5%	- %	- %	- %	- %	- %
Downside						0.5%	0.5%	- %	- %	- %	- %	- %
Other Current Liabilities (% of sales)	0.0%	0.0%	0.0%	1.6%	1.2%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
Base						1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
Upside						1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
Downside						1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%

Net Working Capital Analysis

Price & Volume

	<u>Historical Period</u>					<u>Projection Period</u>						
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Pricing Assumptions (US\$/kg)			2.793	3311	7.745	11.99	→ 142.50	133.75	122.50	110.00	110.00	110.00
Production Assumptions (Mt)												
Production (growth%)				39.40%	10.16%	15.0%	15.0%	15.0%	10.0%	10.0%	10.0%	10.0%
Production Volume			27620	38503	42413	48,775	56,091	64,505	70,955	78,051	85,856	94,442
Mine Yield %		6.72%										
REO Yield						3,278	3,769	4,335	4,768	5,245	5,770	6,346

- After 2022, they switch from selling REO concentrate to refined NdPr: Price per kg increases, but weight decreases to the mine's yield concentration of NdPr per kg mined.
- They will be mining a high concentration of Ce/La, which they will likely sell to 3rd parties. Excluded from revenue growth assumptions as lower value elements not a part of MP's core business
- Constant Market Share → Market expected to be growing at 10% pa
- By end of forecast period they will be mining 6,075 Mt of NdPr pa. Expected to hold that rate long term. Additional growth coming from refining and down stream products
- Small price premium long term

Comps

Comparable Companies Analysis

MP Materials Comparable Companies Analysis		Current	% of			Enterprise Value						Price		
		Share	52-Week	Equity	Enterprise	LTM	2022E	2023E	LTM	2022E	2023E	LTM	2022E	2023E
Company	Ticker	Price	High	Value	Value	Sales	Sales	Sales	EBITDA	EBITDA	EBITDA	Earnings	Earnings	Earnings
MP Materials	MP-US	\$43.80		\$8,351,000.00	\$7,914,000.00	24.3x	18.4x	12.3x	41.1x	25.0x	18.5x	64.5x	38.9x	27.1x
Lynas RE	LYC-AU	\$7.52		\$7,196,000.00	\$8,618,000.00	13.5x	9.3x	7.4x	25.4x	13.5x	10.5x	33.6x	19.8x	15.5x
China Northern RE	600111-CN	\$6.49		\$23,400,000.00	\$24,800,000.00	5.8x	3.8x	3.2x	29.5x	17.3x	11.6x	43.2x	20.2x	15.2x
Pilbara Minerals	PLS-AU	\$2.80		\$8,442,000.00		26.8x	7.5x	4.3x	50.0x	10.5x	5.5x	47.1x	14.9x	8.3x
Mean						17.6x	9.8x	6.8x	36.5x	16.6x	11.5x	47.1x	23.5x	16.5x
Median						18.9x	8.4x	5.9x	35.3x	15.4x	11.1x	45.2x	20.0x	15.4x
High						26.8x	18.4x	12.3x	50.0x	25.0x	18.5x	64.5x	38.9x	27.1x
Low						5.8x	3.8x	3.2x	25.4x	10.5x	5.5x	33.6x	14.9x	8.3x
Implied Enterprise Value														
Mean						\$5,731,950.6	\$4,193,559.8	\$4,375,219.5	\$7,030,706.7	\$5,246,982.0	\$4,930,208.11	\$5,547,854.07	\$4,581,069.02	\$4,633,890.50
Median						\$6,155,333.33	\$3,612,913.0	\$3,763,975.6	\$6,798,565.2	\$4,875,024.0	\$4,727,010.8	\$5,319,392.2	\$3,907,095.1	\$4,304,400.6
High						\$8,728,197.5	\$7,914,000.0	\$7,914,000.0	\$9,624,718.6	\$7,914,000.0	\$7,914,000.0	\$7,599,300.0	\$7,599,300.0	\$7,599,300.0
Low						\$1,888,938.3	\$1,634,413.0	\$2,058,926.8	\$4,900,977.6	\$3,323,880.0	\$2,352,810.8	\$3,953,331.8	\$2,910,785.9	\$2,327,460.9
Implied Equity Value														
Mean						\$5,732,438.9	\$4,194,048.1	\$4,375,707.8	\$7,031,195.0	\$5,247,470.3	\$4,930,696.4	\$5,547,854.1	\$4,581,069.0	\$4,633,890.5
Median						\$6,155,821.6	\$3,613,401.3	\$3,764,463.9	\$6,799,053.5	\$4,875,512.3	\$4,727,499.1	\$5,319,392.2	\$3,907,095.1	\$4,304,400.6
High						\$8,728,685.8	\$7,914,488.3	\$7,914,488.3	\$9,625,206.9	\$7,914,488.3	\$7,914,488.3	\$7,599,300.0	\$7,599,300.0	\$7,599,300.0
Low						\$1,889,426.6	\$1,634,901.3	\$2,059,415.1	\$4,901,465.9	\$3,324,368.3	\$2,353,299.1	\$3,953,331.8	\$2,910,785.9	\$2,327,460.9
Implied Share Price														
Mean						\$33.04	\$24.17	\$25.22	\$40.53	\$30.24	\$28.42	\$31.98	\$26.40	\$26.71
Median						\$35.48	\$20.83	\$21.70	\$39.19	\$28.10	\$27.25	\$30.66	\$22.52	\$24.81
High						\$50.31	\$45.62	\$45.62	\$55.48	\$45.62	\$45.62	\$43.80	\$43.80	\$43.80
Low						\$10.89	\$9.42	\$11.87	\$28.25	\$19.16	\$13.56	\$22.79	\$16.78	\$13.41

MP Materials Metrics

	LTM	2022E	2023E	LTM	2022E	2023E	LTM	2022E	2023E
Company	Sales	Sales	Sales	EBITDA	EBITDA	EBITDA	Earnings	Earnings	Earnings
MP Materials	\$325,679.0	\$430,108.7	\$643,414.6	\$192,648.5	\$316,560.0	\$427,783.8	\$117,763.8	\$195,354.8	\$280,417.0

Capital Structure & WACC

MP Materials	
Capital Structure	
<u>Common Equity</u>	
Share Price	\$47.04
Shares Outstanding (Millions)	173.5
Market Capitalization	\$8,161
<u>Debt</u>	
Short-Term Debt	\$16.1
Long-Term Debt	\$674.9
Total Debt	\$691
<u>Preferred Equity</u>	
Preference Shares (\$ Millions)	\$0
Debt-to-Total Capitalization	7.8%
Common Equity-to-Total Capitalization	92.2%
Preferred Equity-to-Total Capitalization	0.0%

MP Materials	
WACC Calculation	
<u>Cost of Debt</u>	
Pre-Tax Cost of Debt	3.47%
Income Tax Rate	20.00%
After Tax Cost of Debt	2.78%
<u>Cost of Common Equity</u>	
Risk-Free Interest Rate	2.00%
Levered Beta	1.38
Market Risk Premium	2.60%
Cost of Common Equity	5.59%
<u>Cost of Preferred Equity</u>	
Preferred Dividend	\$0.00
Preferred Equity	\$0
Cost of Preferred Equity	0.00%
WACC	5.37%

Pricing

Analyst Targets:		Valuation Method	Base	Build	Top
<u>Price</u>	<u>Firm</u>	Discounted Cash Flow			
		Exit Multiple	\$45.80	\$55.71	\$67.67
		Perpetuity Growth	\$16.33	\$14.56	\$28.21
		LTM EV/EBITDA	\$28.25	\$39.19	\$55.48
\$52.00	JPM	2019E EV/EBITDA	\$19.16	\$28.10	\$45.62
		2020E EV/EBITDA	\$13.56	\$27.25	\$45.62
		LTM EV/Revenue	\$10.89	\$35.48	\$50.31
\$55.00	Cowen	2019E EV/Revenue	\$9.42	\$20.83	\$45.62
		2020E EV/Revenue	\$11.87	\$21.70	\$45.62
		LTM P/E	\$22.79	\$30.66	\$43.80
\$47.72	PriceTarget	2019E P/E	\$16.78	\$22.52	\$43.80
		2020E P/E	\$13.41	\$24.81	\$43.80
\$61.32	Sadif	Analysts' Targets	\$47.72	\$54.01	\$61.32