

25 Jun 2020

Share Price	\$0.08
Valuation	\$0.24
Price Target (12 month)	\$0.18

Brief Business Description:

Australian base metals producer and developer, with copper and tin mines in WA and Tasmania

Hartleys Brief Investment Conclusion

Forward plans laid out appear achievable, given finance and management stability.

Chairman & MD

Patrick O'Connor (Executive Chairman)
Michael Spreadborough (CEO)

Top Shareholders

Apac Resources Limited	14.3%
First Sentier Investors	6.7%
Old Peak Group Ltd	7.3%
Jinchuan Group Limited	4.9%

Company Address

Level 5, 197 St Georges Tce
Perth, WA 6000

Issued Capital 907m

- fully diluted 907m

Market Cap A\$74m

- fully diluted A\$74m

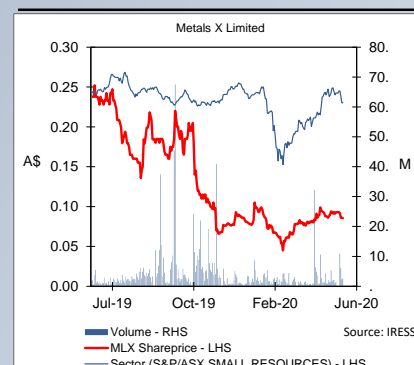
Cash + WC (30 Mar 20) A\$26m

Debt (30 Mar20) A\$34m

EV A\$82m

	Prelim. (A\$m)	FY19	FY20e	FY21e
Prod (kt Cu)		16.3	5.7	0.0
Prod (t Sn)		3560	3694	4053
Op Cash Flw (A\$m)		1	-35	6
Norm NPAT (A\$m)		-109	-38	3
CF/Share (cps)		0.1	-3.8	0.0
EPS (cps)		-12.0	-4.2	0.0
P/E		0.0	0.0	0.0

	Cu	Sn
Resources (kt)	674	198
Reserves (kt)		109



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Hartleys acted as joint adviser to Metals X Limited in relation to the exploration farm-in by IGO Limited for which Hartleys is entitled to a fee linked to the successful completion of the transaction. Hartleys has also completed a capital raising in the past 12 months for Metals X Limited ("MLX"), for which it has earned gross fees.

METALS X LIMITED (MLX)

Strategic tin, swing copper

Metals X (MLX) has increased Renison Bell ore reserves, from 8.1Mt at 1.02% Sn, to 8.6Mt at 1.40% Sn (after depletion); a 46% increase in contained tin. MLX has a 50% share of Renison. The high grade addition comes from Area 5. Metals X estimates it will cost \$50 - \$55M (100% share) over 2 years, funded by operating cashflow, to integrate and optimise Area 5. Under the new LOM plan tin production will be 8.5-9.5ktpa for 2 years and then over 10.0ktpa from FY25, as head grades rise to 1.4-1.5%. The self funding projection is made on the basis of tin prices A\$23,500 - A\$24,500/t (recent spot trading at A\$24,500/t). MLX estimates an NPV (8% discount rate, before tax) of \$185 million for its share of the project.

Nifty, come again?

MLX has scoped the potential for open pit mining at Nifty, predominantly accessing sulphide ore. The starting premise is \$30-50M capex to produce 300kt of copper over 10 years at a cost of about US\$1.70/lb. The resources are measured and indicated, the cost parameters are well understood and the infrastructure is in place – low risk it would seem. Moreover, with drilling, there are good prospects of meaningfully extending the resources available to the pit designers. Subject to funding, the Company plans to spend \$10M on drilling and a feasibility study to firm up plans.

IGO Limited has agreed with MLX to farm into the Paterson Exploration Project, surrounding Nifty and Maroochydore. IGO can earn 70% of the tenure by spending \$32M over 6.5 years. Minimum expenditure before withdrawal is \$11M over 3.5 years. Upon earning 70% IGO will free carry MLX to the completion of a Pre Feasibility Study.

Money required

For Metals X, Renison being self funding rather than in surplus for the next two years means it still needs to fund Nifty, which is on care and maintenance at a cost of \$2.5-\$3M per quarter and in need of \$10M to complete the open pit feasibility study. On the Company's own projections, about A\$25M external capital is needed for FY2021, plus \$30-50M for FY2022 if the Nifty pit is developed in that year.

Looking forward

Hartleys' diluted NPV based valuation range of 18-24cps for MLX, peers across a two year funding gulf to positive cash flows; assuming unchanged to firmer tin and copper prices. It is easy to dismiss the investment case for MLX by emphasising the execution (it's a scoping study) and funding risks as part of an ongoing narrative. On the other hand, it is new management, and the Nifty open pit plan does look to be a straightforward proposal with significant upside. Looking only forward, the Area 5 development potentially will push Renison further down the cost curve into "strategic asset" status, and Nifty is a sizeable swing copper asset in a market with few copper exposed plays.

After all that, we maintain a Neutral recommendation pending the resolution of a current proposal to change the Company's board which could have implications for corporate direction.

SUMMARY MODEL

Metals X MLX						Recommendation Neutral						
Market Information						Company Information						
Share price	\$0.08					Patrick O'Connor (Executive Chairman) Level 5, 197 St Georges Tce						
Market Capitalisation	\$74m					Michael Spreadborough (CEO) Perth, WA 6000						
Net cash	-\$12m					Brett Lambert (Non-Exec Director) +61 8 9220 5700						
Issued Capital (fully paid)	907m					Xingwang Bao (Non-Exec Director) +61 8 9220 5757						
Issued Capital (fully diluted)	907m					Brett Smith (Non-Exec Director)						
EV	\$87m					Tony Polglase (Non-Exec Director)						
Valuation	\$0.24					www.metalsx.com.au						
12 month price target	\$0.18											
Spot Valuation	\$0.18											
Profit & Loss						Top Shareholders						
Net Revenue	ASM	138	105	217	325	m shares		%				
Forward sales	ASM	0	0	0	0	Apac Resources Limited	130	14.3				
Total Costs	ASM	-172	-81	-182	-264	Argyle Street Management	119	13.1				
Cost of receivables	ASM					Old Peak Group Ltd	67	7.3				
EBITDA	ASM	-35	24	35	61	First Sentier Investors	61	6.7				
- margin	ASM	-25%	23%	16%	19%	Jinchuan Group Limited	44	4.9				
Depreciation/Amort	ASM	-8	-35	-45	-22	Production Summary						
EBIT	ASM	-43	-10	-11	39	Nifty throughput	Unit	Jun 19	Jun 20	Jun 21	Jun 22	Jun 23
Net Interest	ASM	-2	-2	-5	-4	Mined grade	%Cu	1.45	1.34	0.00	1.24	1.24
Pre-Tax Profit	ASM	-45	-12	-15	35	Combined Recovery & Payability		0.90	0.89	0.89	0.89	0.89
Tax Expense	ASM	7	2	4	-11	Copper prodn	(kt)	16	6	0	13	25
NPAT	ASM	-38	-10	-11	25	Mine Life	yr	28.2	48.4	0.0	19.0	8.5
Abnormal Items	ASM					Renison mill throughput (whole project)	Mt	0.74	0.69	0.73	0.73	0.73
Reported Profit	ASM	-38	-10	-11	25	Milled grade	%Sn	1.21	1.45	1.50	1.56	1.50
Balance Sheet						Mt. recovery		0.73	0.74	0.74	0.74	0.74
Cash	ASM	18	23	27	62	Tin prodn (MLX share)	(kt)	3,560	3,694	4,053	4,219	4,053
Other Current Assets	ASM	69	69	69	69	Mine Life	yr	12.7	12.4	10.5	9.2	8.0
Total Current Assets	ASM	87	92	96	131	Costs						
Property, Plant & Equip.	ASM	186	185	207	199	Nifty		Jun 19	Jun 20	Jun 21	Jun 22	Jun 23
Investments/other	ASM	11	11	11	11	Cost / milled tonne	AS/t	128	199		83	75
Tot Non-Curr. Assets	ASM	197	195	217	210	EBITDA / tonne milled ore	AS/t	-21	-105		7	16
Total Assets	ASM	284	287	314	340	Cash costs incl. royalty	AS/lb Cu	4.65	7.71		3.59	3.25
Short Term Borrowings	ASM	14	14	14	25	US\$/lb	3.30	5.07		2.54	2.39	
Other	ASM	17	11	37	37	+ deprn & amortn	AS/lb Cu	7.15	7.80		4.82	3.42
Total Curr. Liabilities	ASM	30	25	50	62	US\$/lb	5.08	5.13		3.41	2.51	
Long Term Borrowings	ASM	26	17	58	38	Renison						
Other	ASM	29	25	43	43	Renison cost / milled tonne	AS/t	157	189	187	193	194
Total Non-Curr. Liabil.	ASM	55	42	102	82	EBITDA / tonne milled ore	AS/t	46	28	40	41	39
Total Liabilities	ASM	85	67	152	144	Cash costs incl. royalty	AS\$/t Sn	18.4	19.4	18.7	18.6	19.4
Net Assets	ASM	199	221	162	197	US\$/t Sn	13.1	12.7	12.7	13.1	14.2	
Cashflow						+ sust capital	US\$/t Sn	20.1	21.1	21.5	21.0	20.2
Operating Cashflow	ASM	-35	24	35	61	US\$/t	14.2	13.9	14.6	14.8	14.9	
Decrease in receivables	ASM					Price Assumptions						
Income Tax Paid	ASM					AUDUSD	Unit	Jun 19	Jun 20	Jun 21	Jun 22	Jun 23
Hedging	ASM	0	0	0	0	Copper	US\$/lb	2.8	2.5	2.5	2.7	2.9
Interest & Other	ASM	-2	-2	-5	-4	Copper	US/lb	3.9	3.7	3.7	3.9	3.9
Operating Activities	ASM	-37	23	30	57	Tin	US\$/kt	19.7	15.9	17.4	18.0	19.2
Property, Plant & Equip.	ASM	-33	-33	-67	-14	AS\$/t	27.7	24.2	25.6	25.5	26.2	
Exploration	ASM	-6	0	0	0	Sensitivity Analysis						
Asset sales	ASM					Valuation		FY19 NPAT				
Investments	ASM					Base Case	0.24	-109.0				
Investment Activities	ASM	-39	-33	-67	-14	Sens	-10%	+10%	Sens	-10%	+10%	
Borrowings	ASM	31	-9	41	-9	US Cu price +/-10%	24%	0.18	0.30	19%	-88.3	-129.7
Equity	ASM	33	25	0	0	US Sn price +/-10%	11%	0.21	0.27	9%	-99.2	-118.8
Financing Activities	ASM	63	16	41	-9	AUDUSD +/- 10%	34%	0.16	0.32	28%	-76.5	-139.5
Net Cash Change	ASM	-13	5	4	34	Production +/-10%	4%	0.23	0.25	13%	-94.8	-123.1
Shares						Operating Costs +/-10%	22%	0.19	0.29	31%	-75.2	-142.8
Ordinary Shares - End	M	907	1257	1257	1257	Unpaid Capital (ITM)						
Diluted Shares - End	M	907	1257	1257	1257	Expiry year	No. (M)	\$M	Avg ex.	% ord		
Ratio Analysis						30-Jun-19						
GCFPS	Ae	-3.8	2.7	3.8	6.7	30-Jun-20	0	0	0.00	0.0%		
CFR	X	0.0	0.0	0.0	0.0	30-Jun-21	0	0	0.00	0.0%		
EPS	Ae	-4.2	-1.1	-1.2	2.7	Total	0	0		0.0%		
PER	X	0.0	0.0	0.0	0.0	Reserves & Resources						
DPS	%	na	-	-	-	NIFTY open pit (June 2020)	Mt	%	kt			
Yield	%					Measured	24.9	1.6	400			
Interest Cover	x	-	-	-	-	Indicated	18.3	0.8	148			
ROCE	%	-22%	-5%	-5%	19%	Inferred	10.0	0.9	88			
ROE	%	-23%	-5%	-9%	18%	Nifty oxide	4.3	0.9	37			
Gearing	%	13.0%	7.8%	36.0%	19.5%	Measured	1.4	0.9	13			
Share Price Valuation (NAV)						Indicated	1.2	0.9	10			
Est. A\$/share						Inferred	1.7	0.8	14			
100% Nifty after tax 10% DR		110	0.12			RENISON Sn (MLX 50% Mar 2020)						
50% Renison after tax 7% DR		160	0.18			Renison Bell resource	42.5	0.9	396	Sn		
Rentails 50%		8	0.01			Rentails resource	23.9	0.4	105			
Wingellina 100%		10	0.01			INCLUDES TOTAL RESERVE	30.9	0.7	219	Sn		
Exploration		25	0.03			Renison Bell Sn (MLX 50%)	8.6	1.4	120			
Corporate overheads		-40	-0.04			Rentails Sn (MLX 50%)	22.3	0.4	98			
Cash		22	0.02			Hartleys model Mar '20						
Debt		-33	-0.04			TOTAL NIFTY INVENTORY	Mt	%	kt			
Tax benefit		10	0.01			TOTAL RENISON INVENTORY MLX share	4.3	1.41	285	Cu		
Hedging		0	0.00									
Equity/option dilution		-54	-0.06									
Total		217	0.24									

Source: Hartleys Research.

NIFTY

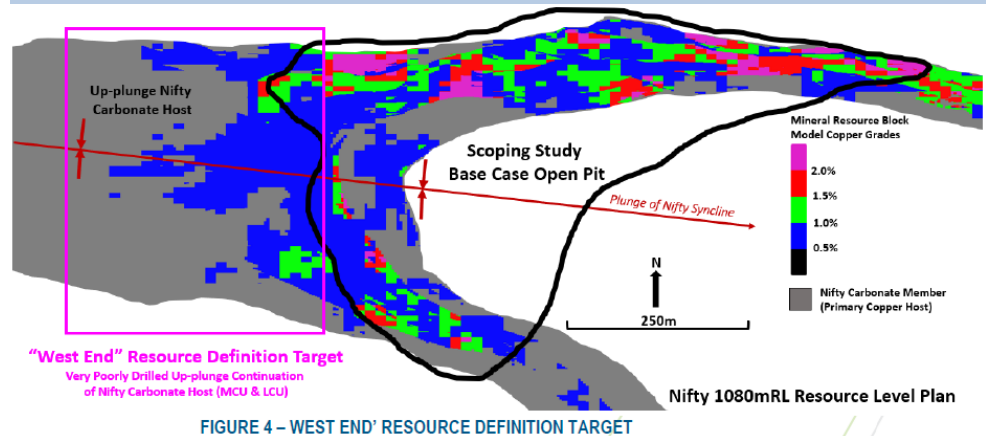
In the scoping study MLX estimated 23Mt at 1.24% Cu in sulphide resources (289kt Cu or 53% of the March 2019 resource) contained within a pit shell, with a strip ratio of 7.6:1. Of the pit resource, 96% is measured or indicated.

- The scoping study parameters were set before 30,000m of underground diamond drilling could be incorporated into a new resource estimate as at December 2019 (published March 2020). The drilling led to a 10% (50kt) increase in contained copper with a “reasonable proportion” of the increase occurring at the western end of the pit shells. MLX suggests optimisations using the later resource estimate will increase the copper in the pit shell.
- Within the same open pit outline MLX estimates 2.6Mt at 0.95% Cu oxide ore (25kt Cu) from which 75% of the copper can be recovered through the SXEW circuit. The SXEW circuit operated until 2009, producing up to 25ktpa of cathode copper. The scoping study contemplated 6.5 ktpa cathode copper output.
- The pit proposal extends onto part of the spent heap leach pads. The scoping study proposed re-stacking and leaching 14 Mt of partially spent leach pad material grading about 0.44% Cu, extracting 40% of the contained copper (2.5kt Cu).

Total proposed copper production is 306kt, in concentrate and cathode. The project would make use of the developed infrastructure on site. Most of the operating parameters estimated in the scoping study are supported by historical production data. The project is permitted for open pit mining. Pre-production capital is estimated at \$40-\$60M. MLX estimates an all-in sustaining cost of A\$5,400-\$5,800/t Cu produced (US\$1.67-US\$1.79/lb).

The Nifty pit proposal is the first study of the potential for open pit mining of sulphide material at the project. Historically, the oxides were developed on the northern limb of the syncline and the sulphides were subsequently mined from a high grade, 600m section of the gently plunging keel of the syncline (the checkerboard). The up plunge, western end of the syncline was drilled for underground mining purposes before mining ceased in December 2019. No drilling has been done specifically for optimising an open pit mine to extract the sulphides. The host carbonate units plunge back up to the west through the proposed pit wall beyond the range of the recent drilling. MLX plans to drill from underground and from surface to follow the syncline keel towards the surface as part of the feasibility study. There is about 300m by 500m of prospective area, up plunge of the preliminary pit design (see figure 1.).

Fig. 1: Nifty plan schematic showing scoping study pit outline and western ‘up-plunge’ drill target area.



Source: Metals X, June 2020.

Fig. 2: Nifty scoping study resource, June 2020. These resources are a subset of the December 2019 estimates.

TABLE 4 – MINERAL RESOURCE CATEGORIES CONTAINED IN WHITTLE OPTIMAL PIT SHELL (PRODUCTION TARGET)¹

Category	Million Tonnes (Mt)	Grade (%Cu)	Contained Copper (tonnes)	Proportion (% of total Cu)
Measured	14.45	1.3	195,000	68%
Indicated	7.65	1.1	82,000	28%
Inferred	1.17	1.1	12,000	4%
Total	23.27	1.2	289,000	100%

Source: Metals X, June 2020.

Fig. 3: Nifty project resources, March 2020 and June 2020.

Reporting date	Category	Mt ³	Grade % Cu	Copper tonnes ⁴
31 March 2019 ¹ (0.75% Cu cut-off)	Measured	23.43	1.66	388,100
	Indicated	7.12	1.32	94,300
	Inferred	5.73	1.10	63,100
	Total	36.28	1.50	545,600
31 December 2019 ² (0.75% Cu cut-off)	Measured	25.09	1.70	426,700
	Indicated	7.46	1.32	98,400
	Inferred	7.10	1.03	73,400
	Total	39.66	1.51	598,500

Source: Metals X, April 2020.

EARNINGS CHANGES

Fig. 4: Hartleys' earnings changes from November 2019.

	30 Jun 19	30 Jun 20			30 Jun 21		
		old	new	% diff	old	new	% diff
Hartleys Production - (t Cu)	16	21	6	-73%	29	0	-100%
- (kt Sn)	3.6	3.6	3.7	3%	4.0	4.1	1%
Cu price (A\$/lb)	3.91	4.31	3.73	-13%	4.46	3.67	-18%
Sn price (A\$/t)	27.7	26.3	24.2	-8%	28.9	25.6	-11%
AISC - A\$/lb Cu	7.15	4.39	7.80	78%	3.88	0.00	-100%
- A\$/kt Sn	20.1	19.8	21.1	6%	19.1	21.5	13%
Net Revenue	240	294	138	-53%	396	105	-73%
Total Cash Costs	-244	-265	-172	-35%	-309	-81	-74%
EBITDA	1	29	-35	-219%	88	24	-72%
- margin	0%	10%	-25%	-352%	22%	23%	6%
Depreciation/Amort	-105	-17	-8	-51%	-24	-35	45%
EBIT	-109	12	-43	-458%	64	-10	-116%
Net Interest	0	-2	-2	17%	-2	-2	-12%
Pre-Tax Profit	-109	10	-45	-553%	62	-12	-120%
Tax Expense	0	0	0	n/a	0	0	n/a
- rate	0%	0%	0%	n/a	0%	0%	n/a
NPAT	-109	8	-38	-579%	53	-10	-119%
Capex + exploration	-52	-26	-33	27%	-11	-33	201%
Net cash at EOP	28	52	18	-66%	98	23	-77%
Dividends Per Share (cents)	0			n/a	0	0	n/a

Source: Hartleys Research.

PRODUCTION AND COSTS

Fig. 5: Hartleys' production forecasts.

Production Summary	Unit	Jun 19	Jun 20	Jun 21	Jun 22	Jun 23
Nifty throughput	Mt	1.25	0.48	0.00	1.15	2.30
Mined grade	%Cu	1.45	1.34	0.00	1.24	1.24
Combined Recovery & Payability		90%	89%	89%	89%	89%
Copper prodn	(kt)	16.3	5.7	0.0	12.7	25.3
Mine Life	yr	28.2	48.4	0.0	19.0	8.5
Inventory tonnes	Mt	35.4	23.0	23.0	21.9	19.6
Inventory grade	%Cu	1.31	1.24	1.24	1.24	1.24
Renison mined ore	Mt	0.80	0.85	0.90	0.90	0.90
Mined grade	%Sn	1.21	1.19	1.25	1.30	1.25
Renison mill throughput (whole project)	Mt	0.74	0.69	0.73	0.73	0.73
Milled grade	%Sn	1.21	1.45	1.50	1.56	1.50
Combined Recovery & Payability		73%	74%	74%	74%	74%
Tin prodn (MLX share)	(kt)	3,560	3,694	4,053	4,219	4,053
Mine Life	yr	12.7	12.4	10.5	9.2	8.0
Inventory tonnes	Mt	9.4	8.6	7.7	6.8	5.9
Inventory grade	%Sn	1.39	1.41	1.43	1.45	1.48

Source: Hartleys Research.

Fig. 6: Hartleys cost forecasts.

Costs		Jun 19	Jun 20	Jun 21	Jun 22	Jun 23
Nifty						
Cost / milled tonne	A\$/t	127	197		83	75
EBITDA / tonne milled ore	A\$/t	-27	-110		6	14
Cash costs incl. royalty	A\$/lb Cu	4.59	7.61		3.60	3.28
	US\$/lb	3.49	5.67		2.50	2.28
+ deprn & amortn	A\$/lb Cu	7.10	7.70		4.83	3.45
	US\$/lb	5.39	5.74		3.36	2.39
Renison						
Renison cost / milled tonne	A\$/t	156	186	186	193	195
EBITDA / tonne milled ore	A\$/t	39	17	35	36	30
Cash costs incl. royalty	A\$/t Sn	18.1	18.9	18.5	18.5	19.4
	US\$/t	13.8	14.1	12.9	12.9	13.4
+ sust capital	A\$/t Sn	19.8	20.6	21.4	20.9	20.2
	US\$/t	15.0	15.3	14.8	14.5	14.0

Source: Hartleys Research.

VALUATION AND PRICE TARGET

Key model assumptions;

- Nifty as per June 2020 scoping study sulphide component only. 23 Mt inventory at 1.24% Cu, at a 7.6:1 strip ratio, mined at 2.3 Mtpa ore from January 2022. 92% met/payable recovery.
Capital costs of definition and development are included in the model. The mine life is assumed to extend to 2032.
- Nifty site cost of \$A62/t of milled ore at full capacity, US\$82/t concs transport, US\$95, 0.09 TCRC, 97% payability.
- Cu price as per summary table. (US\$2.67/lb long run).
- Renison 8.4Mt inventory at 1.4% Sn, mined at 900ktpa, 74% met recovery. Capital costs of definition and development are included in the model. The mine life is assumed to extend to 2029.
- Site cost of A\$100-110/t crushed ore, US\$110 concs transport, 92% net pay. US\$1.9Mpa Cu revenue → A\$18,000/t AISC.
- Sn price as per summary table; US\$19,000/t long run.
- AUDUSD 0.74 long run.
- A corporate overheads liability is included in the valuation to reflect the cost of management over the operational life of the company. Corporate overhead costs are estimated at A\$7Mpa.

Hartleys' estimated NAV for MLX is 24 cps, using price forecasts similar to consensus as set out in the summary model page.

Future equity dilution is presumed as part of funding for Nifty. We assume issue of 350M shares at 7cps in 2021, to raise \$25M.

The 12 month price target for MLX is influenced by our estimated NAV, and by the spot price valuation. The 12 month price target is 18 cps.

RISKS

Fig. 7: Key assumptions and risks for valuation

Assumption	Risk of not realising assumption	Risk to valuation if assumption is incorrect	Comment
Copper price	High	High	The current spot price is lower than our LT assumptions. Current settings are considered insufficient to encourage supply growth and meet future demand.
Tin price	High	Industry	Tin is below our long term forecasts. MLX costs at Renison are lower than industry average and lower than spot.
Nifty production profile	High	High	Nifty production is subject to a feasibility study's success, and project financing. Resources are measured and indicated and unit costs are based on industry standards, plus historical parameters.
Management stability	Medium	Medium	On 23 June 2020 APAC Resources Strategic Holdings proposed removing three Directors.
Renison production profile	Low	Medium	Renison has an established production record within which cost and recovery projections are in line.
<i>Conclusion</i>	<i>Apparent risks are skewed towards commodity prices. Future equity dilution and management stability risks are also current.</i>		

Source: Hartleys Research

HARTLEYS CORPORATE DIRECTORY

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Hartleys Recommendation Categories

Buy	Share price appreciation anticipated.
Accumulate	Share price appreciation anticipated but the risk/reward is not as attractive as a "Buy". Alternatively, for the share price to rise it may be contingent on the outcome of an uncertain or distant event. Analyst will often indicate a price level at which it may become a "Buy".
Neutral	Take no action. Upside & downside risk/reward is evenly balanced.
Reduce / Take profits	It is anticipated to be unlikely that there will be gains over the investment time horizon but there is a possibility of some price weakness over that period.
Sell	Significant price depreciation anticipated.
No Rating	No recommendation.
Speculative Buy	Share price could be volatile. While it is anticipated that, on a risk/reward basis, an investment is attractive, there is at least one identifiable risk that has a meaningful possibility of occurring, which, if it did occur, could lead to significant share price reduction. Consequently, the investment is considered high risk.

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