

## METALS X LIMITED (MLX)

### Reset plan and tin finds steady ship

Metals X (MLX) remains committed to delivering returns at Nifty, confident that it now has the right team and plan in place.

The new Nifty plan targets an initial production rate of 28ktpa Cu in concentrate to be achieved by the March 2020 quarter, and 35ktpa a year later (March 2021). The plan is more ambitious than Hartleys' prior model, which assumed 27ktpa Cu in concentrate from FY2020.

Project capital expense of A\$27M is expected in the first 3 years of the plan. The Company estimates AISC of A\$7500/t Cu in FY2020 and A\$6500-7000t thereafter, equivalent to a A\$225Mpa cost base and consistent with Hartleys existing model assumptions.

The Nifty resource (41Mt at 1.5% Cu) and reserve (14Mt at 1.7% Cu) are to be updated in mid 2019. There remains plenty of exploration to do on Nifty's resource peripheries. A new structural interpretation raises the prospectivity of the south-eastern sector, down plunge of the main workings. Planned drill access is being redirected here.

### Renison ore grades heading up

Metals X has followed up recent drilling success in Area 5 and Leatherwood at Renison, with down plunge drilling extending the known high grade zone at Area 5 by 200m (to 400m). True width intersections of the new target zone, called Bell 50, include 10m at 7.7% Sn and 4m at 6.8% Sn.

Area 5, Leatherwood and Bell 50 are the first of Renison's strata bound deposits interpreted east of the main Federal Basset fault. Together they represent the potential for a new phase of production from high grade, high recovery tin resources in coming years.

The June 2018 Renison reserve grade was 1.0% Sn and head grades averaged 1.2% Sn in 2018. With ore sorting and the new high grade discoveries, Renison head grades have been heading back towards 1.5% (the head grade to the mill was 1.46% in the March 2019 quarter, from a 1.33% mined grade). Area 5 had delivered development ore only to the end of March 2019. A ventilation upgrade is underway in the current June 2019 quarter, to allow full access to Area 5 by December 2019. New Renison reserve and resource estimates, and a life of mine plan are due out soon.

### Debt cover in place

A US\$20M debt facility has been arranged and the Company is seeking additional cover for discretionary capital items. At the end of March 2019 MLX had A\$74M cash and working capital, which is about as low as the Company would like. Two more quarters of net capital investment may be in store, subject to copper and tin prices, prompting the need for debt cover. On Hartleys' forecasts the US\$20M facility will comfortably cover requirements.

### Maintain Speculative Buy recommendation.

Hartleys has restored some Nifty value to the model to be more in line with Company plans. Our Renison model is unchanged for now, despite the discoveries, pending the new mine plan. Resultant valuation and price target are 54cps. Speculative Buy recommendation stays.

15 May 2019

Share Price	\$0.25
Valuation	\$0.54
Price Target (12 month)	\$0.54

#### Brief Business Description:

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

#### Hartleys Brief Investment Conclusion

Nifty's rehabilitation is ongoing. Increasing copper production is a necessary step to a higher share price.

#### Chairman & MD

Peter Newton (Chairman)  
Damian Marantelli (Executive Director and CEO)

#### Top Shareholders

Apac Resources Limited	9.2%
Mitsubishi UFJ Financial Group	8.9%
Perennial Value Management	8.8%
Jinchuan Group Limited	7.2%

#### Company Address

Level 5, 197 St Georges Tce  
Perth, WA 6000

Issued Capital 689m

- fully diluted 701m

Market Cap A\$169m

- fully diluted A\$172m

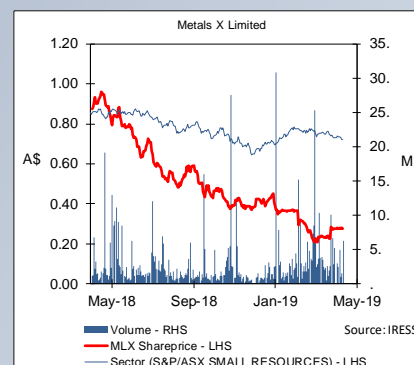
Cash + WC (31 Mar 19) A\$73m

Debt (31 Mar 19) A\$0m

EV A\$96m

	Prelim. (A\$m)	FY18	FY19e	FY20e
Prod (kt Cu)	16.1	19.0	25.9	
Prod (t Sn)	3338	3737	3963	
Op Cash Flw (A\$m)	6	28	91	
Norm NPAT (A\$m)	-44.4	4	47	
CF/Share (cps)	0.8	4.0	13.2	
EPS (cps)	-6.4	0.6	6.8	
P/E	0.0	41.8	3.6	

	Cu	Sn
Resources (kt)	1176	162
Reserves (kt)	238	83



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## SUMMARY MODEL

Metals X MLX						Recommendation Speculative Buy						
<b>Market Information</b>						<b>Directors</b>						
Share price		\$0.25				Peter Newton (Chairman)	Level 5, 197 St Georges Tce					
Market Capitalisation		\$169m				Damian Marantelli (Executive Director and CEO)	Perth, WA 6000					
Net cash		\$70m				Simon Heggen (Non-Exec Director)	+61 8 9220 5700					
Issued Capital (fully paid)		689m				Yimin Zhang (Non-Exec Director)	+61 8 9220 5757					
Issued Capital (fully diluted)		701m				Milan Jerkovich (Non-Exec Director)						
EV		\$99m				<a href="http://www.metalsx.com.au">www.metalsx.com.au</a>						
Valuation		\$0.54				<b>Top Shareholders</b>						
12 month price target		\$0.54				m shares %						
Spot Valuation		\$0.61				Apac Resources Limited	63 9.2					
<b>Profit &amp; Loss</b>						<b>Production Summary</b>						
Net Revenue	Unit	Jun 19	Jun 20	Jun 21	Jun 22	Nifty throughput	Unit	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22
Forward sales	AS\$M	272	363	429	426	Mined grade	Mt	1.36	1.48	1.92	2.40	2.40
Total Costs	AS\$M	-245	-272	-307	-307	Mined grade	%Cu	1.33	1.44	1.50	1.50	1.50
Cost of receivables	AS\$M					Combined Recovery & Payability		0.88	0.90	0.90	0.90	0.90
EBITDA	AS\$M	27	91	122	119	Copper prodn	(kt)	16	19	26	32	32
- margin		10%	25%	28%	28%	Mine Life	yr	11.5	9.5	6.4	4.1	3.1
Depreciation/Amort	AS\$M	-24	-37	-15	-15	Renison throughput (whole project)	Mt	0.73	0.75	0.74	0.74	0.74
EBIT	AS\$M	4	54	107	104	Mined grade	%Sn	1.24	1.37	1.47	1.47	1.47
Net Interest	AS\$M	0	0	0	0	Met. recovery		0.73	0.73	0.73	0.73	0.73
Pre-Tax Profit	AS\$M	4	54	107	104	Tin prodn (MLX share)	(kt)	3,338	3,737	3,963	3,963	3,963
Tax Expense	AS\$M	0	-7	-15	-29	Mine Life	yr	13.2	11.8	10.8	9.5	8.3
NPAT	AS\$M	4	47	92	75	<b>Costs</b>						
Abnormal Items	AS\$M					Jun 18 Jun 19 Jun 20 Jun 21 Jun 22						
Reported Profit	AS\$M	4	47	92	75	Nifty						
<b>Balance Sheet</b>						<b>Renison</b>						
Cash	AS\$M	57	108	203	305	Renison cost / milled tonne	AS\$/t	136	150	160	163	165
Other Current Assets	AS\$M	32	32	32	32	EBITDA / tonne milled ore	AS\$/t	46	57	66	65	62
Total Current Assets	AS\$M	89	140	235	337	Cash costs incl. royalty	AS\$/t Sn	16.8	17.0	17.0	17.2	17.4
Property, Plant & Equip.	AS\$M	111	110	112	113	US\$/t	12.9	12.1	12.3	12.8	13.2	
Investments/other	AS\$M	35	35	35	35	+ sust capital	AS\$/t Sn	20.0	19.1	18.4	18.1	18.2
Tot Non-Curr. Assets	AS\$M	146	145	147	148	US\$/t	15.3	13.7	13.3	13.5	13.9	
Total Assets	AS\$M	235	285	382	486	<b>Price Assumptions</b>						
Short Term Borrowings	AS\$M	5	5	5	5	Unit Jun 18 Jun 19 Jun 20 Jun 21 Jun 22						
Other	AS\$M	39	39	39	39	AUDUSD		0.768	0.714	0.725	0.745	0.760
Total Curr. Liabilities	AS\$M	44	44	44	44	Copper	US\$/lb	3.1	2.8	3.1	3.3	3.3
Long Term Borrowings	AS\$M	6	6	6	6	AS\$/lb	4.0	4.0	4.3	4.4	4.4	
Other	AS\$M	41	41	41	41	Tin	US\$/t	20.5	20.0	21.0	21.6	21.7
Total Non-Curr. Liabil.	AS\$M	47	47	47	47	AS\$/t	26.7	27.9	29.0	29.0	28.6	
Total Liabilities	AS\$M	91	91	91	91	<b>Sensitivity Analysis</b>						
Net Assets	AS\$M	144	194	291	395	Valuation FY19 NPAT						
<b>Cashflow</b>						0.54 3.6						
Operating Cashflow	AS\$M	28	91	122	119	Base Case	Sens	-10%	+10%	Sens	-10%	+10%
Decrease in receivables	AS\$M	-12				US Cu price +/-10%	24%	0.41	0.67	19%	2.9	4.3
Income Tax Paid	AS\$M	0	0	-7	-15	US Sn price +/-10%	11%	0.48	0.60	9%	3.3	3.9
Hedging	AS\$M	0	0	0	0	AUDUSD +/- 10%	34%	0.36	0.73	28%	2.6	4.6
Interest & Other	AS\$M	0	0	0	0	Production +/-10%	4%	0.52	0.57	13%	3.1	4.0
Operating Activities	AS\$M	15	91	115	104	Operating Costs +/-10%	22%	0.42	0.66	31%	2.5	4.7
Property, Plant & Equip.	AS\$M	-31	-36	-17	-17	<b>Unpaid Capital</b>						
Exploration	AS\$M	0	-8	-20	0	Expiry year No. (M) \$M Avg ex. % ord						
Asset sales	AS\$M					30-Jun-19						
Investments	AS\$M					30-Jun-20	5	4	0.76	0.9%		
Investment Activities	AS\$M	-31	-44	-37	-17	30-Jun-21	7	9	1.32	1.2%		
Borrowings	AS\$M	0	0	0	0	Total	12	13	1.08	2.0%		
Equity	AS\$M	50	4	9	0	<b>Reserves &amp; Resources</b>						
Financing Activities	AS\$M	50	4	9	0	Mt % kt						
Net Cash Change	AS\$M	34	51	88	87	NIFTY sulphide Cu (Aug 2017)	48.4	1.4	691	Cu		
<b>Shares</b>						Measured	25.4	1.7	426			
Ordinary Shares - End	M	689	694	701	701	Indicated	8.1	1.3	106			
Diluted Shares - End	M	701	701	701	701	Inferred	8.1	1.1	90			
<b>Ratio Analysis</b>						INCLUDES TOTAL RESERVE	13.9	1.7	238			
GCFPS	Ac	4.0	13.2	17.7	17.3	MAROOCHYDORE Cu	48.6	1.0	485			
CFR	X	6.1	1.9	1.4	1.4	Indicated	40.8	0.9	375			
EPS	Ac	0.6	6.8	13.4	10.9	Inferred	7.8	1.4	110			
PER	X	41.8	3.6	1.8	2.3	RENISON Sn (MLX 50% June 2018)	41.3	0.8	325	Sn		
DPS	%	-	-	-	-	Renison Bell resource	16.4	1.3	213			
Yield	%	-	-	-	-	Mt Bischoff	1.7	0.5	9			
Interest Cover	x	-	-	-	-	Rentails resource	23.2	0.4	102			
ROCE	%	2%	37%	73%	70%	INCLUDES TOTAL RESERVE	29.1	0.6	167	Sn		
ROE	%	2%	28%	37%	26%	Renison Bell Sn (MLX 50%)	6.8	1.0	69			
Gearing	%	3.8%	2.8%	1.9%	1.4%	Rentails Sn (MLX 50%)	22.3	0.4	98			
<b>Share Price Valuation (NAV)</b>						<b>Hartleys model June '18</b>						
100% Nifty after tax 7% DR		118	0.17			Mt % kt						
100% Maroochydore		6	0.01			TOTAL NIFTY INVENTORY	15.6	1.49	233	Cu		
50% Renison after tax 7% DR		154	0.22			TOTAL RENISON INVENTORY MLX share	4.8	1.22	59	Sn		
Rentails 50%		15	0.02									
Wingellina 100%		15	0.02									
Exploration		27	0.04									
Corporate overheads		-49	-0.07									
Net w/c (Mar 18)		51	0.07									
Tax benefit		40	0.06									
Hedging		0	0.00									
Option dilution		-3	0.00									
Total		374	0.54									

Source: Hartleys Research.

## EARNINGS CHANGES

Fig. 1: Hartleys' earnings changes from March 2019.

	30 Jun 18	30 Jun 19			30 Jun 20			30 Jun 21		
		old	new	% diff	old	new	% diff	old	new	% diff
<b>Hartleys Production - (t Cu)</b>	<b>16</b>	<b>19</b>	<b>19</b>	<b>0%</b>	<b>27</b>	<b>26</b>	<b>-4%</b>	<b>27</b>	<b>32</b>	<b>20%</b>
<b>- (kt Sn)</b>	<b>3.3</b>	<b>3.9</b>	<b>3.7</b>	<b>-3%</b>	<b>3.9</b>	<b>4.0</b>	<b>1%</b>	<b>3.9</b>	<b>4.0</b>	<b>1%</b>
Cu price (A\$/lb)	3.99	3.99	3.98	0%	4.33	4.33	0%	4.38	4.38	0%
Sn price (A\$/t)	26.7	27.5	27.9	2%	29.0	29.0	0%	29.0	29.0	0%
AISC - A\$/lb Cu	5.43	4.75	4.74	0%	3.94	4.12	4%	3.66	3.45	-6%
- A\$/kt Sn	20.0	18.4	19.1	4%	18.0	18.4	2%	18.2	18.1	-1%
<b>Net Revenue</b>	<b>221</b>	<b>276</b>	<b>272</b>	<b>-1%</b>	<b>375</b>	<b>363</b>	<b>-3%</b>	<b>373</b>	<b>429</b>	<b>15%</b>
<b>Total Cash Costs</b>	<b>-229</b>	<b>-247</b>	<b>-245</b>	<b>-1%</b>	<b>-277</b>	<b>-272</b>	<b>-2%</b>	<b>-277</b>	<b>-307</b>	<b>11%</b>
EBITDA	-9	29	27	-6%	98	91	-7%	96	122	27%
- margin	-4%	10%	10%	-5%	26%	25%	-4%	26%	28%	9%
Depreciation/Amort	-36	-26	-24	-9%	-34	-37	10%	-13	-15	16%
<b>EBIT</b>	<b>-44</b>	<b>3</b>	<b>4</b>	<b>19%</b>	<b>64</b>	<b>54</b>	<b>-16%</b>	<b>83</b>	<b>107</b>	<b>29%</b>
Net Interest	0	0	0	n/a	0	0	n/a	0	0	n/a
<b>Pre-Tax Profit</b>	<b>-44</b>	<b>3</b>	<b>4</b>	<b>19%</b>	<b>64</b>	<b>54</b>	<b>-16%</b>	<b>83</b>	<b>107</b>	<b>29%</b>
Tax Expense	0	0	0	n/a	0	0	n/a	0	0	n/a
- rate	0%	0%	0%	n/a	0%	0%	n/a	0%	0%	n/a
<b>NPAT</b>	<b>-44</b>	<b>6</b>	<b>4</b>	<b>-33%</b>	<b>58</b>	<b>47</b>	<b>-20%</b>	<b>74</b>	<b>92</b>	<b>25%</b>
Capex + exploration	-33	-27	-31	13%	-27	-36	33%	-27	-17	-37%
Net cash at EOP	29	66	57	-14%	133	108	-19%	192	203	6%
Dividends Per Share (cents)	1	0	0	n/a	0	0	n/a	0	0	n/a

Source: Hartleys Research.

## PRODUCTION AND COSTS

Fig. 2: Production forecasts.

Production Summary		Unit	Jun 19	Jun 20	Jun 21	Jun 22
Nifty throughput		Mt	1.48	1.92	2.40	2.40
Mined grade		%Cu	1.44	1.50	1.50	1.50
Combined Recovery & Payability			90%	90%	90%	90%
Copper prodn		(kt)	19.0	25.9	32.4	32.4
Mine Life		yr	9.5	6.4	4.1	3.1
Inventory tonnes		Mt	14.1	12.2	9.8	7.4
Inventory grade		%Cu	1.50	1.50	1.50	1.50
Renison throughput (whole project)		Mt	0.75	0.74	0.74	0.74
Mined grade		%Sn	1.37	1.47	1.47	1.47
Combined Recovery & Payability			73%	73%	73%	73%
Tin prodn (MLX share)		(kt)	3,737	3,963	3,963	3,963
Mine Life		yr	11.8	10.8	9.5	8.3
Inventory tonnes		Mt	8.8	7.9	7.0	6.1
Inventory grade		%Sn	1.21	1.21	1.21	1.21

Source: Hartleys Research.

Fig. 3: Cost forecasts.

Costs		Jun 19	Jun 20	Jun 21	Jun 22
<b>Nifty</b>					
Cost / milled tonne	A\$/t	117	101	94	93
EBITDA / tonne milled ore	A\$/t	-10	22	31	30
Cash costs incl. royalty	A\$/lb Cu	4.33	3.60	3.35	3.34
	US\$/lb	3.09	2.61	2.50	2.54
+ deprn & amortn	A\$/lb Cu	4.74	4.12	3.45	3.44
	US\$/lb	3.38	2.98	2.57	2.62
<b>Renison</b>					
Renison cost / milled tonne	A\$/t	150	160	163	165
EBITDA / tonne milled ore	A\$/t	57	66	65	62
Cash costs incl. royalty	A\$/t Sn	17.0	17.0	17.2	17.4
	US\$/t	12.1	12.3	12.8	13.2
+ sust capital	A\$/t Sn	19.1	18.4	18.1	18.2
	US\$/t	13.7	13.3	13.5	13.9

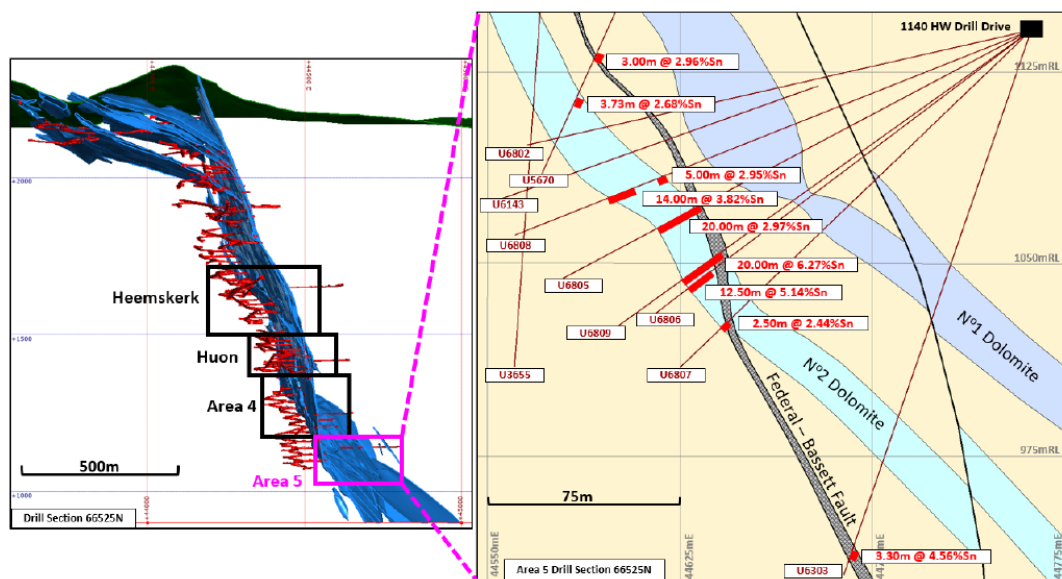
Source: Hartleys Research.

### RENISON (MLX 50%)

Metals X reported exceptional results from drilling at Renison in February 2019. True width intercepts from underground include 20m at 2.8% Sn, 12m at 5.1% Sn, 20m at 6.3% Sn (Area 5) and 17m at 2.4% Sn, 15m at 3.7% Sn (Leatherwood). Both areas are next to existing development. An updated resource estimate will be made in the June 2019 quarter.

The tin price at A\$29.0/t is near its historic 2011 peak of A\$30.0k/t. A key factor in the recent rise has been Indonesia’s official crackdown on illegal tin mining. A ruling in October 2018 effectively blocked private smelter tin exports pending a new product verification route. PT Timah was unaffected. Indonesia is the world’s biggest exporter of the metal (76kt in 2018). The International Tin Association expects Indonesian tin exports will “remain exposed to the risk of periodical regulatory disruption in 2019”.

Fig. 4: Renison schematic sections showing January 2019 drilling at Area 5.



Source: MLX, February 2019.

Fig. 5: LME tin price in A\$, 2000-2019.



Source: Hartleys Research.

*Hartleys' 12 month price target is \$0.53 per share.*

## VALUATION AND PRICE TARGET

Key model assumptions;

1. Nifty 15.0 Mt inventory at 1.49% Cu, mined at 2.0 Mtpa from January 2020. 88% met/payable recovery.  
Capital costs of definition and development are included in the model. The mine life is assumed to extend to 2026.
2. Nifty site cost of \$A74/t of milled ore at full capacity, US\$82/t concs transport, US\$95, 0.09 TCRC, 97% payability → A\$3.12/lb C3 (C1+royalty+deprn, AUDUSD 0.765).
3. Cu price as per summary table. (US\$2.95/lb long run).
4. Renison 8.6Mt inventory at 1.2% Sn, mined at 900ktpa, 68% sorting/met recovery. The modelled inventory contains 50% more contained tin than the June 2018 reserves. Ore definition at Renison progresses with mining and substantial material is mined each year from outside reserves. Capital costs of definition and development are included in the model. The mine life is assumed to extend to 2028.
5. 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.
6. Sn price as per summary table; US\$19,900/t long run.
7. AUDUSD 0.765 long run.
8. 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 54 cps, using price forecasts similar to consensus as set out in the summary model page.

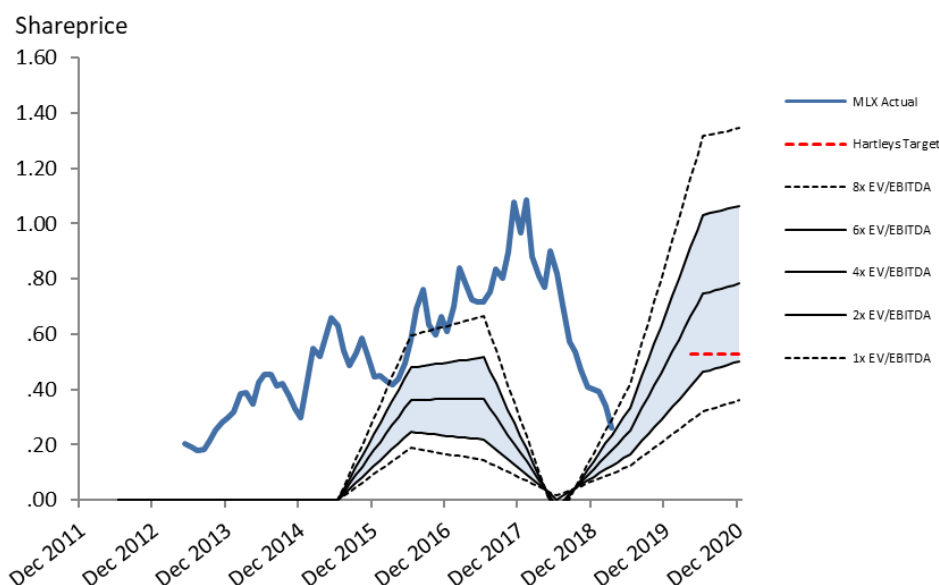
A real, after tax discount rate of 7% is used. At real spot price assumptions as at 15 May 2019, the MLX NAV estimate increases to 61cps.

The 12 month price target for MLX is the estimated NAV, or 54 cps.

*MLX completed a demerger in December 2016, splitting its gold assets into Westgold Resources (WGX.ASX).*

## EV/EBITDA BANDS

**Fig. 6: EV/EBITDA base case assumptions.**



Source: Hartleys.

## RISKS

### Key assumptions and risks for valuation

Assumption	Risk of not realising assumption	Risk to valuation if assumption is incorrect	Comment
Copper price	Medium	Industry	The current spot price is similar to our LT assumptions. Current settings are considered insufficient to encourage supply growth and meet future demand.
Tin price	Medium	Industry	A marginal tin supply response is expected, bringing the tin price down to ~\$19,500/t.
Nifty ramp-up profile	High	Low	MLX plans to increase Nifty's output and is behind schedule. The Company plans to outline a new schedule in April 2019.
Nifty reserves	Medium	Low	Nifty is open down plunge and exploration drilling has begun to scope the project's potential.
Nifty costs	Medium	Medium	MLX has demonstrated unit costs at Nifty over several quarters. Costs are broadly in line with other bulk tonnage underground mines.
Renison reserve extension	Low	Medium	Renison reserves progress with mine development internally and around the margins of the resource.

*Conclusion*

*Apparent risks have risen with Nifty ramp-up delays and the associated financial effects. Establishment of an increasing copper production profile is required to lower the risks.*

Source: Hartleys Research



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*Note: personal email addresses of company employees are structured in the following manner: firstname.lastname@hartleys.com.au*

## 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	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.
Buy	

## Institutional Sales

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