

20 Aug 2018

Share Price	\$0.54
Valuation	\$1.01
Price Target (12 month)	\$0.90

**Brief Business Description:**

Australian base metals producer and developer, with a noteworthy record in underground mine rejuvenation and operation.

**Hartleys Brief Investment Conclusion**

Nifty's rehabilitation is nearing completion and increasing copper production is expected in the December 2018 half.

**Chairman & MD**

Peter Newton (Chairman)  
Warren Hallam (Executive Director and CEO)

**Top Shareholders**

Apac Resources Limited	9.2%
BlackRock Group	8.2%
Jinchuan Group Limited	7.2%
IFM Investors	5.0%
Perennial Value Management	5.0%

**Company Address**

Level 5, 197 St Georges Tce  
Perth, WA 6000

<b>Issued Capital</b>	689m
- fully diluted	0m

<b>Market Cap</b>	A\$369m
- fully diluted	A\$0m

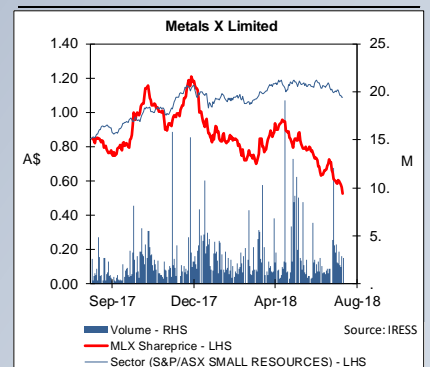
<b>Cash + WC (30 Jun 18)</b>	A\$79m
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<b>Debt (30 Jun 18)</b>	A\$0m
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<b>EV</b>	A\$290m
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	Prelim. (A\$m)	FY17	FY18	FY19e
Prod (kt Cu)	24.8	16.1	32.8	
Prod (t Sn)	3522	3338	4059	
Op Cash Flw (A\$m)	50	6	102	
Norm NPAT (A\$m)	13	-41.2	60	
CF/Share (cps)	7.3	0.8	14.8	
EPS (cps)	1.9	-6.0	8.7	
P/E	27.9	0.0	6.1	

	Cu	Sn
<b>Resources (kt)</b>	1179	157
<b>Reserves (kt)</b>	238	85



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## METALS X LIMITED (MLX)

### Post placement outlook

Metals X (MLX) completed a placement of 77M shares at 65cps to raise \$50M in July 2018. The placement timing and pricing is difficult to reconcile with the brink of delivery at Nifty narrative, except to the extent that 1) we overestimated liquidity and/or 2) the Company has been unable to plan and execute to date, and chose to cover the risk of more delays. MLX cited the need to keep its spending options open – and to maintain reasonable spending levels on regional exploration.

### Nifty forecasts remain in force

With all this in mind we continue to see MLX's plans at Nifty as realisable. At the start of August 2018, the Company reiterated its target of 40ktpa rate by the end of December 2018, which would require significant progress in the September 2018 quarter. Hartleys is looking for 6kt copper production from Nifty in the September 2018 quarter, leading into 8kt in the December 2018 quarter.

### Testing the model at lower commodity prices

Softer copper and tin prices in Australian dollar terms, have helped to drag down the MLX share price subsequent to the raise. At A\$3.68/lb Cu and A\$25600/t Sn, copper is 5% under our long-term AUD price assumption and tin is 2% lower than we assume long term. On our base case forecasts, Nifty and Renison maintain 13-15% forecast pre-tax margins at these current spot commodity prices. At spot prices, and assuming lower nominal (basement?) values for Rentails (A\$16M), Maroochydore (A\$19M), and Wingellina (A\$30M), we estimate a value of 73cps for Metals X (post placement).

### Banking on stronger copper

Our commodity price assumptions are predicated on copper supply deficits in 2020 and 2021. We think a new round of stimuli for the Chinese economy is on the way, marking an end to renminbi devaluation and corresponding metal price falls. Metals X is valued here at \$1.01 per share under our base case metal price assumptions.

The net dilutive effect of the placement under our base case forecasts is 19cps.

### Maintain Accumulate recommendation

A string of ramp up delays, followed by a placement, and a +7% fall in commodity prices – a situation almost guaranteed to create a share price discount to valuation. Most likely a discount will persist now until an extended record of delivery and solid cash flows can be established.

We anticipate copper and tin price recoveries. Also, the geology and development progress at Nifty suggest patience will eventually be rewarded. We drop our 12 month price target to 90cps and retain an Accumulate recommendation.

## SUMMARY MODEL

Metals X MLX							Recommendation Accumulate							
<b>Market Information</b>							<b>Company Information</b>							
Share price		\$0.54					Level 5, 197 St Georges Tce							
Market Capitalisation		\$369m					Perth, WA 6000							
Net cash (debt)		\$85m					+61 8 9220 5700							
Issued Capital (fully paid)		689m					+61 8 9220 5757							
Issued Capital (fully diluted)		704m												
EV		\$284m					www.metalsx.com.au							
Valuation		\$1.01												
12 month price target		\$0.90												
Spot Valuation		\$0.73												
<b>Profit &amp; Loss</b>							<b>Top Shareholders</b>							
	Unit	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22	m shares	%						
Net Revenue	AS\$M	232	399	458	468	464	63	9.2						
Forward sales	AS\$M	-11	-1	0	0	0	56	8.2						
Total Costs	AS\$M	-242	-297	-319	-319	-319	50	7.2						
EBITDA	AS\$M	-22	101	139	149	145	34	5.0						
- margin	AS\$M	-9%	25%	30%	32%	31%	34	5.0						
Depreciation/Amort	AS\$M	-20	-33	-33	-32	-29	34	5.0						
EBIT	AS\$M	-41	68	106	117	116								
Net Interest	AS\$M	0	0	0	0	0								
Pre-Tax Profit	AS\$M	-41	68	106	117	116								
Tax Expense	AS\$M	0	-8	-13	-14	-28								
NPAT	AS\$M	-41	60	93	102	88								
Abnormal Items	AS\$M													
Reported Profit	AS\$M	-41	60	93	102	88								
<b>Balance Sheet</b>							<b>Production Summary</b>							
	Unit	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22	Unit	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22		
Cash	AS\$M	45	86	150	210	279	Nifty throughput	Mt	1.38	2.25	2.50	2.50	2.50	
Other Current Assets	AS\$M	60	60	60	60	60	Mined grade	%Cu	1.33	1.65	1.71	1.71	1.71	
Total Current Assets	AS\$M	105	146	210	270	339	Combined Recovery & Payability		0.88	0.88	0.88	0.88	0.88	
Property, Plant & Equip.	AS\$M	219	213	202	194	177	Copper prodn	(kt)	16	33	38	38	38	
Investments/other	AS\$M	10	10	10	10	10	Mine Life	yr	13.7	7.3	5.5	4.5	3.5	
Tot Non-Curr. Assets	AS\$M	229	223	212	204	187	Renison throughput (whole project)	Mt	0.73	0.92	0.92	0.92	0.92	
Total Assets	AS\$M	334	368	422	474	526	Mined grade	%Sn	1.24	1.30	1.30	1.30	1.30	
Short Term Borrowings	AS\$M	2	2	2	2	2	Met. recovery		0.73	0.68	0.68	0.68	0.68	
Other	AS\$M	32	32	32	32	32	Tin prodn (MLX share)	(kt)	3,338	4,059	4,059	4,059	4,059	
Total Curr. Liabilities	AS\$M	33	33	33	33	33	Mine Life	yr	11.8	8.4	7.4	6.4	5.4	
Long Term Borrowings	AS\$M	6	6	6	6	6	<b>Costs</b>							
Other	AS\$M	40	40	40	40	40		Jan 00	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22	
Total Non-Curr. Liabil.	AS\$M	46	46	46	46	46	Nifty							
Total Liabilities	AS\$M	79	79	79	79	79	Cost / milled tonne	AS\$/t	120	97	95	94	94	
Net Assets	AS\$M	255	289	343	395	446	EBITDA / tonne milled ore	AS\$/t	-21	25	37	40	40	
<b>Cashflow</b>							Cash costs incl. royalty		US\$/lb Cu	4.77	3.21	3.02	3.02	3.01
	Unit	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22	+ deprn & amortn	US\$/lb Cu	3.67	2.41	2.29	2.33	2.37	
Operating Cashflow	AS\$M	6	102	139	149	145	Renison	US\$/lb	4.91	3.34	3.15	3.15	3.12	
Income Tax Paid	AS\$M	0	0	-8	-13	-14	Renison cost / milled tonne	AS\$/t	3.77	2.50	2.39	2.43	2.46	
Hedging	AS\$M	-11	-1	0	0	0	EBITDA / tonne milled ore	AS\$/t	136	125	128	130	132	
Interest & Other	AS\$M	0	0	0	0	0	Cash costs incl. royalty	AS\$/t	46	48	51	51	49	
Operating Activities	AS\$M	-6	101	132	136	130	Cash costs incl. royalty	AS\$/t Sn	16.8	16.1	16.5	16.8	16.9	
Property, Plant & Equip.	AS\$M	-45	-17	-13	-13	-13	+ sust capital	US\$/t Sn	12.9	12.1	12.5	12.9	13.3	
Exploration	AS\$M	0	0	0	0	0	US\$/t	23.6	18.2	18.1	18.4	18.5		
Asset sales	AS\$M	0	0	0	0	0	US\$/t	18.1	13.6	13.7	14.2	14.6		
Investments	AS\$M	0	0	0	0	0	<b>Price Assumptions</b>							
Investment Activities	AS\$M	-45	-17	-13	-13	-13		Unit	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22	
Borrowings	AS\$M	0	0	0	0	0	AUDUSD		0.768	0.749	0.759	0.771	0.788	
Equity/dividend	AS\$M	-4	50	-8	-10	-21	Copper	US\$/lb	3.06	3.00	3.14	3.27	3.32	
Financing Activities	AS\$M	-4	50	-8	-10	-21	US\$/lb	3.99	4.01	4.14	4.24	4.21		
Net Cash Change	AS\$M	-55	134	111	112	96	Tin	US\$/t	20.5	20.0	21.0	21.6	21.7	
<b>Shares</b>							AS\$/t		26.7	26.7	27.7	28.0	27.6	
	Unit	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22	<b>Sensitivity Analysis</b>							
Ordinary Shares - End	M	612	689	696	704	704		Valuation						
Diluted Shares - End	M	627	704	704	704	704	Base Case	1.01						
<b>Ratio Analysis</b>							FY18 NPAT							
	Unit	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22		-41.2						
GCFPS	A¢	0.8	14.8	20.2	21.6	21.0	Sens	-10%	+10%	Sens	-10%	+10%		
CFR	X	64.6	3.6	2.6	2.5	2.5	US Cu price +/-10%	24%	0.76	1.25	19%	-33.4	-49.1	
EPS	A¢	-6.0	8.7	13.5	14.9	12.8	US Sn price +/-10%	11%	0.89	1.12	9%	-37.5	-44.9	
PER	X	0.0	6.1	3.9	3.6	4.2	AUDUSD +/-10%	34%	0.66	1.35	28%	-29.7	-52.8	
DPS	%	1.0	-	2.0	3.0	3.0	Production +/-10%	4%	0.97	1.05	13%	-35.9	-46.6	
Yield	%	1.9	-	3.7	5.6	5.6	Operating Costs +/-10%	22%	0.78	1.23	31%	-28.4	-54.0	
Interest Cover	x	-	-	-	-	-	<b>Unpaid Capital</b>							
ROCE	%	-18%	30%	50%	57%	62%		Expiry year						
ROE	%	-16%	23%	31%	30%	26%	30-Jun-18	No. (M)	\$M	Avg ex.	% ord			
Gearing	%	2.4%	2.1%	1.8%	1.5%	1.3%	30-Jun-19		0.0	0.00	0.0%			
*All values fully diluted unless otherwise stated							<b>Reserves &amp; Resources</b>							
<b>Share Price Valuation (NAV)</b>							Mt		%	kt				
	Est. A\$/share						NIFTY sulphide Cu (Aug 2017)	48.4	1.4	694	Cu			
100% Nifty after tax 7% DR	319	0.46						Measured	25.4	1.7	426			
100% Maroochydore	32	0.05						Indicated	8.1	1.3	106			
50% Renison after tax 7% DR	182	0.26						Inferred	8.1	1.1	90			
Rentails 50%	18	0.03						INCLUDES TOTAL RESERVE	13.9	1.7	238			
Wingellina 100%	30	0.04						MAROOCHYDORE Cu	48.6	1.0	485			
Exploration	75	0.11						Indicated	40.8	0.9	375			
Corporate overheads	-49	-0.07						Inferred	7.8	1.4	110			
Net w/c (Jun 18)	72	0.10						RENISON Sn (MLX 50% June 2017)	39.9	0.8	313	Sn		
Tax benefit	65	0.09						Renison Bell resource	15.0	1.4	202			
Hedging	-1	0.00						Mt Bischoff	1.7	0.5	9			
Option value	-51	-0.07						Rentails resource	23.2	0.4	102			
Total	693	1.01						INCLUDES TOTAL RESERVE	29.1	0.6	170	Sn		
							Renison Bell Sn (MLX 50%)		6.8	1.1	72			
							Rentails Sn (MLX 50%)		22.3	0.4	98			
							<b>Hartleys model June '17</b>							
							Mt		%	kt				
							TOTAL NIFTY INVENTORY		20.0	1.7	335	Cu		
							TOTAL RENISON INVENTORY MLX share		4.7	1.3	60	Sn		

Source: Hartleys Research.

## COMMODITY PRICES

The renminbi has weakened from 6.4 to 6.9 USDCNY since June 2018. The renminbi weakness corresponds to a slide in metals prices, including copper and tin. China consumes about half of the world’s copper and tin. It is not surprising then that China exercises pricing power over metals now, probably with the goal of stabilising domestic prices. This is a new situation brought about by the Chinese economy’s growth and its policy developments.

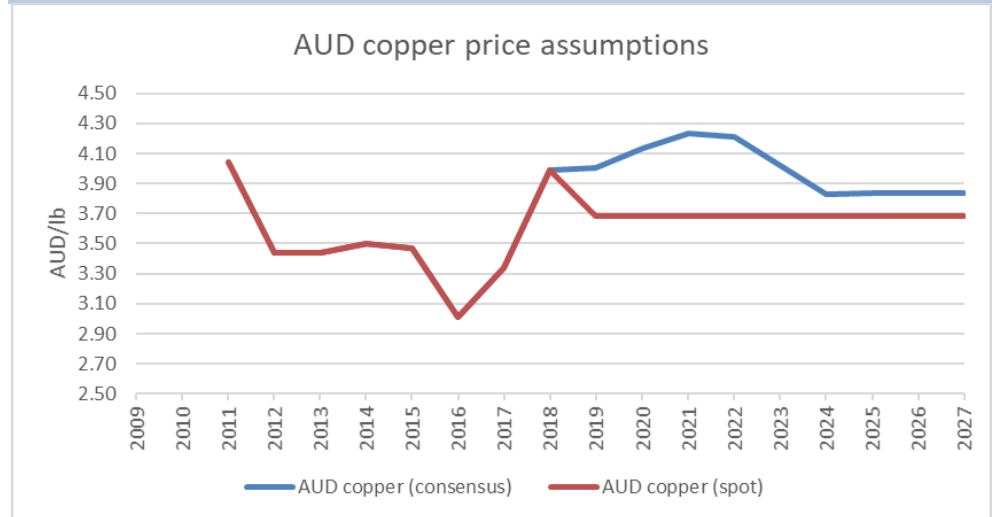
China let its currency weaken as per its strategy since July 2017 of non-intervention. The depreciation has conveniently offset the potential effect of US tariffs.

The PBOC will intervene however to stop a repeat of capital outflows seen in 2015 and 2016 that followed a shock devaluation.

A reversal of the renminbi devaluation against the USD began in December 2016 at 6.95 – policy makers will remember this as a key level.

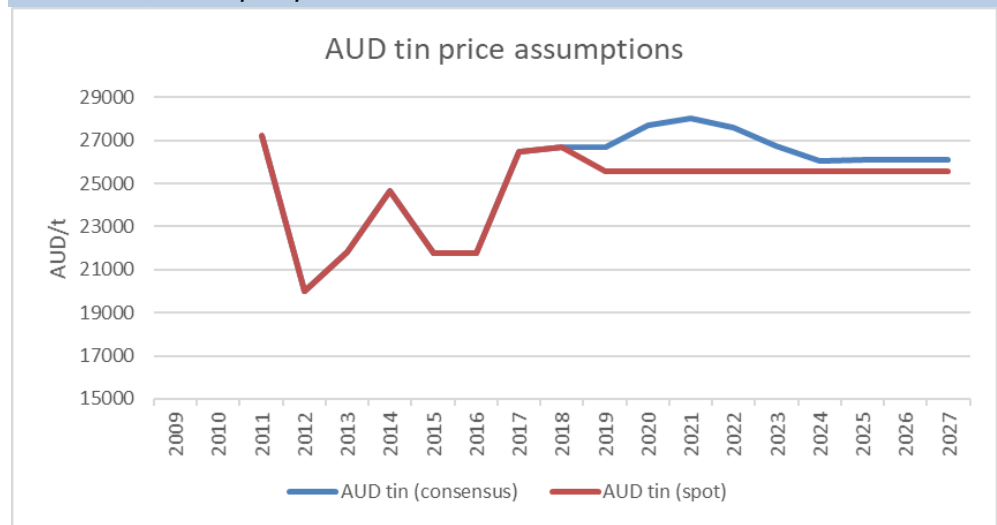
We think a new round of stimuli for the Chinese economy is on the way, marking an end to renminbi devaluation and metal price falls.

**Fig. 1: Hartleys copper price assumptions based on consensus forecasts, and spot prices held flat.**



Source: Hartleys.

**Fig. 2:** *Hartleys tin price assumptions based on consensus forecasts, and spot prices held flat.*



Source: Hartleys.

## PRODUCTION AND COSTS

**Fig. 3:** *Production forecasts.*

Production Summary	Unit	Jun 17	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22
Nifty throughput	Mt	1.54	1.36	2.25	2.50	2.50	2.50
Mined grade	%Cu	1.77	1.33	1.65	1.71	1.71	1.71
Combined Recovery & Payability		90%	88%	88%	88%	88%	88%
Copper prodn	(kt)	25	16	33	38	38	38
Mine Life	yr	13.0	13.7	7.3	5.5	4.5	3.5
Inventory tonnes	Mt	20.0	18.6	16.4	13.9	11.4	8.9
Inventory grade	%Cu	1.68	1.70	1.71	1.71	1.71	1.70
Renison throughput (whole project)	Mt	0.75	0.73	0.92	0.92	0.92	0.92
Mined grade	%Sn	1.29	1.24	1.30	1.30	1.30	1.30
Combined Recovery & Payability		73%	73%	68%	68%	68%	68%
Tin prodn (MLX share)	(kt)	3,522	3,338	4,059	4,059	4,059	4,059
Mine Life	yr	12.6	11.8	8.4	7.4	6.4	5.4
Inventory tonnes	Mt	9.4	8.7	7.7	6.8	5.9	5.0
Inventory grade	%Sn	1.29	1.29	1.29	1.29	1.29	1.28

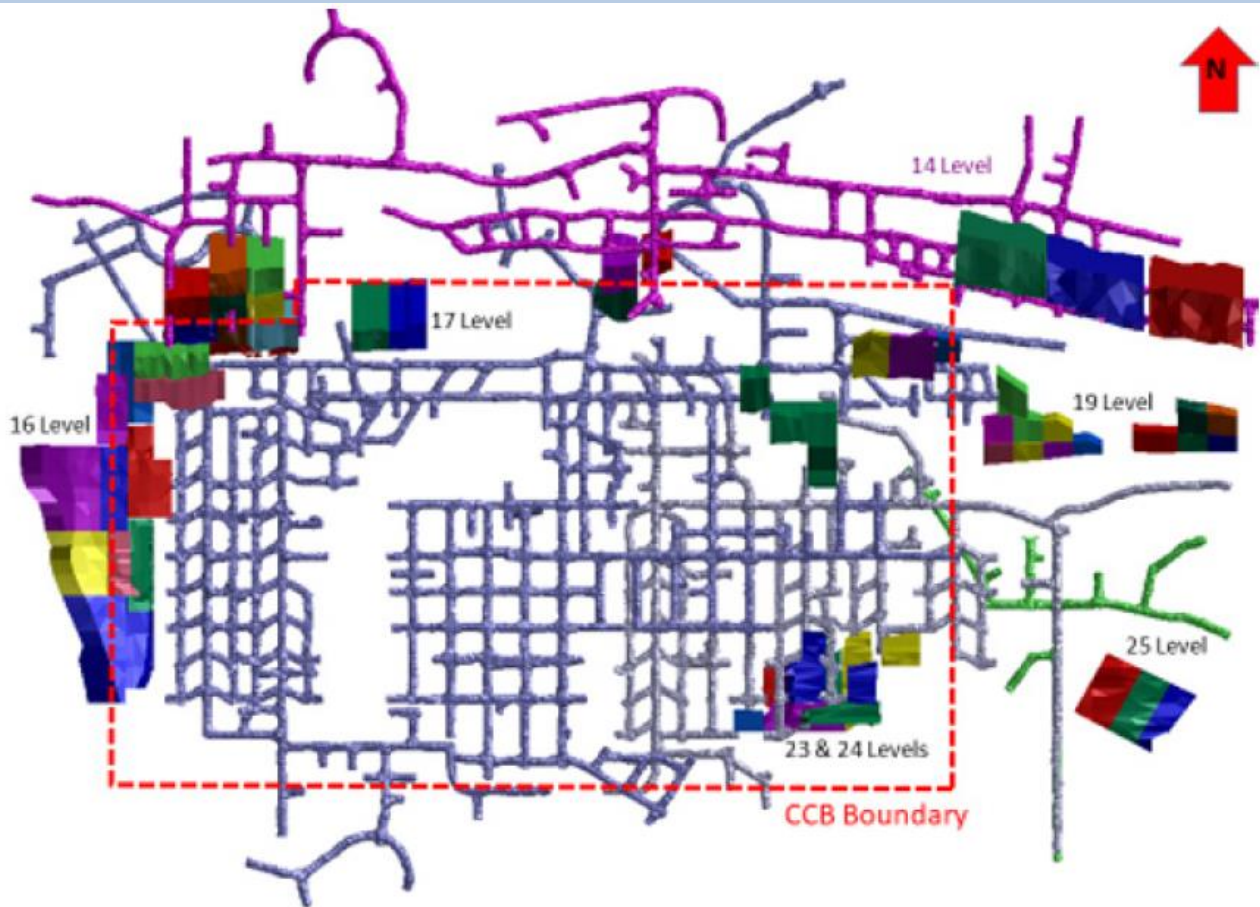
Source: Hartleys Research.

Fig. 4: Cost forecasts.

Costs		Jun 17	Jun 18	Jun 19	Jun 20	Jun 21	Jun 22
<b>Nifty</b>							
Cost / milled tonne	A\$/t	99	120	97	94	94	94
EBITDA / tonne milled ore	A\$/t	14	-21	24	31	30	33
Cash costs incl. royalty	A\$/lb Cu	2.94	4.77	3.20	3.01	3.00	3.00
	US\$/lb	2.22	3.69	2.43	2.30	2.32	2.33
+ deprn & amortn	A\$/lb Cu	3.43	4.91	3.33	3.14	3.13	3.12
	US\$/lb	2.59	3.79	2.53	2.40	2.42	2.42
<b>Renison</b>							
Renison cost / milled tonne	A\$/t	137	136	125	128	130	132
EBITDA / tonne milled ore	A\$/t	24	46	47	46	45	43
Cash costs incl. royalty	A\$/t Sn	16.3	16.8	16.0	16.4	16.6	16.8
	US\$/t	12.3	13.0	12.2	12.5	12.8	13.1
+ sust capital	A\$/t Sn	18.0	23.6	18.1	18.0	18.2	18.4
	US\$/t	13.6	18.2	13.8	13.7	14.1	14.3

Source: Hartleys Research.

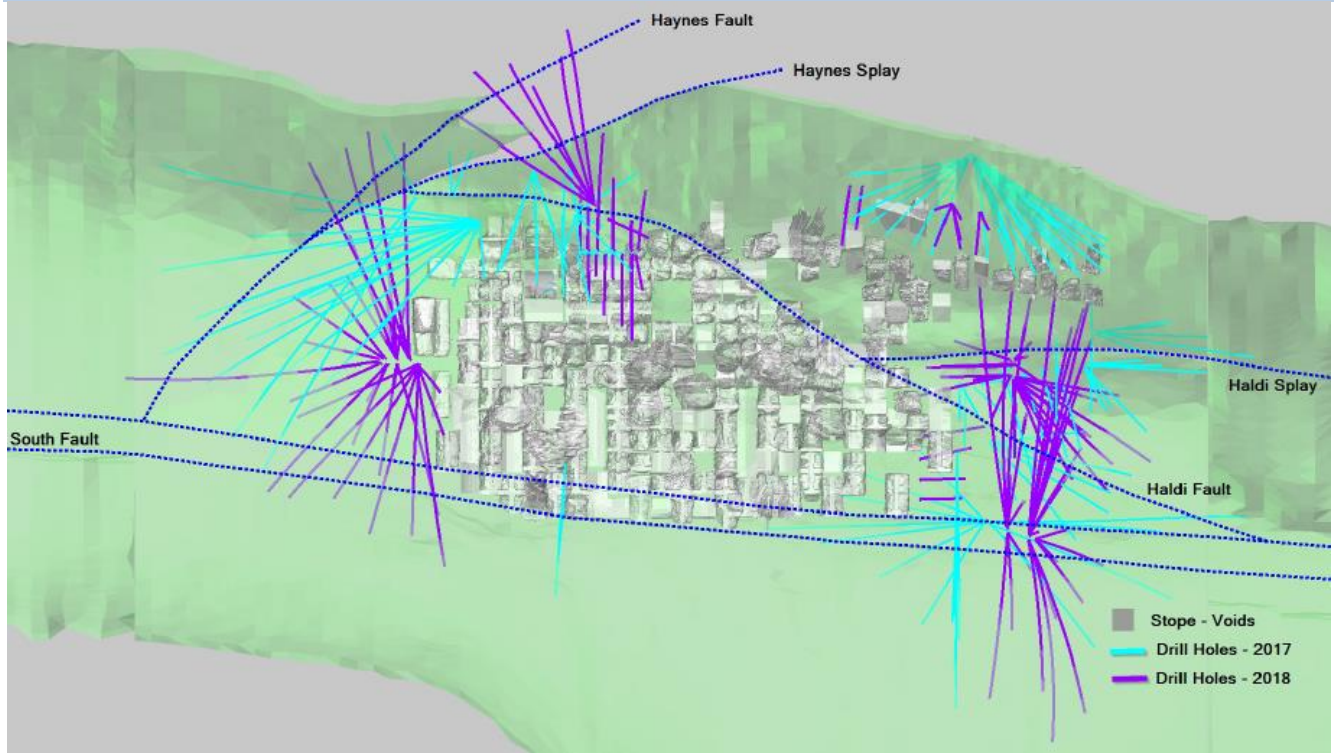
Fig. 5: Plan view of Nifty underground development, showing planned stopes (coloured shapes) for FY2019 and the checkerboard (CCB) outline.



Source: Metals X, July 2018.

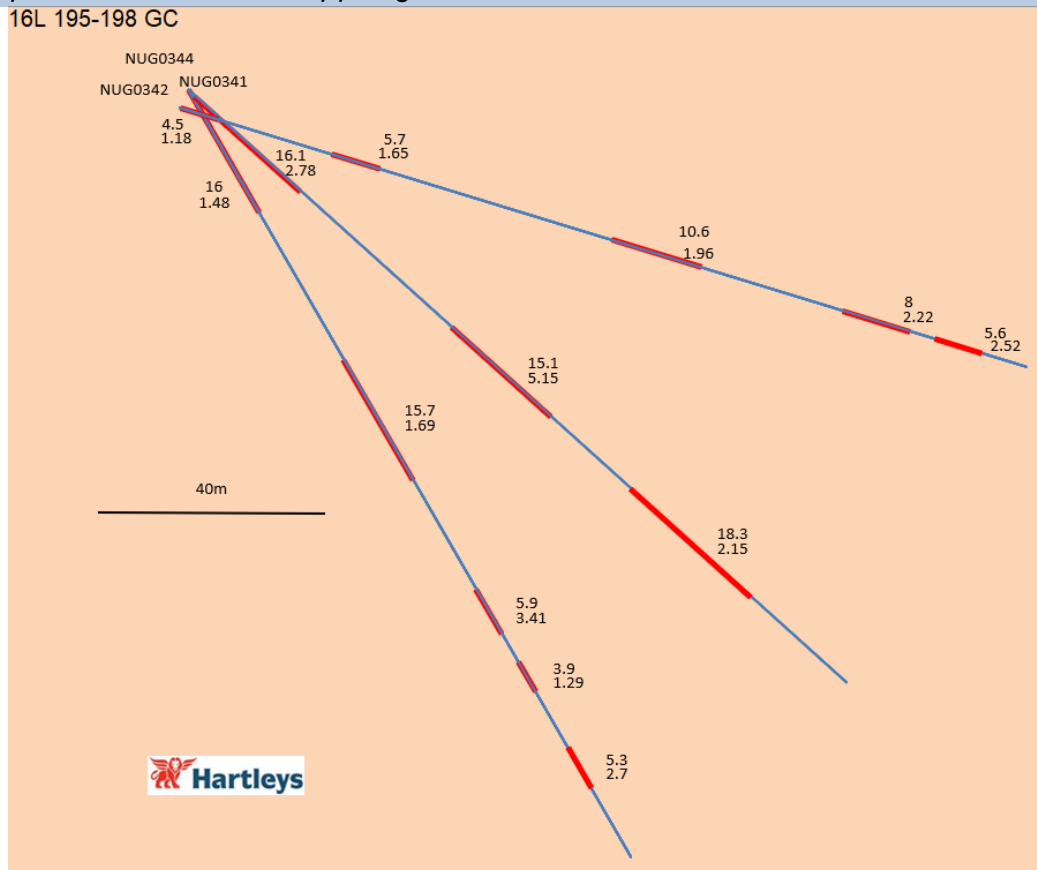


Fig. 6: Plan view of Nifty showing major faults and Metals X drilling to June 2018.



Source: Metals X, July 2018.

Fig. 7: Hartleys plot of three underground holes in the western 16L section of Nifty, reported in the June 2018 quarterly report. Represented here projected to a vertical section, with intercept metres above % copper grade.



Source: Metals X announcement, July 2018, Hartleys Research.

*Hartleys' 12 month price target is \$0.90 per share.*

## VALUATION AND PRICE TARGET

Key model assumptions;

1. Nifty 20.0 Mt inventory at 1.7% Cu, mined at 2.5 Mtpa from January 2019. 91% met/payable recovery.  
The inventory is 1.5 times the August 2017 reserve, in terms of contained copper. 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 0.78).
3. Cu price as per summary table. (US\$3.00/lb long run).
4. Renison 9.4Mt inventory at 1.3% Sn, mined at 920ktpa, 68% sorting/met recovery. The modelled inventory contains 67% more contained tin than the June 2017 reserves. Ore definition at Renison progresses with mining. Capital costs of definition and development are included in the model. The mine life is assumed to extend to 2027.
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\$19,500/t long run.
7. AUDUSD 0.78 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 101 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.

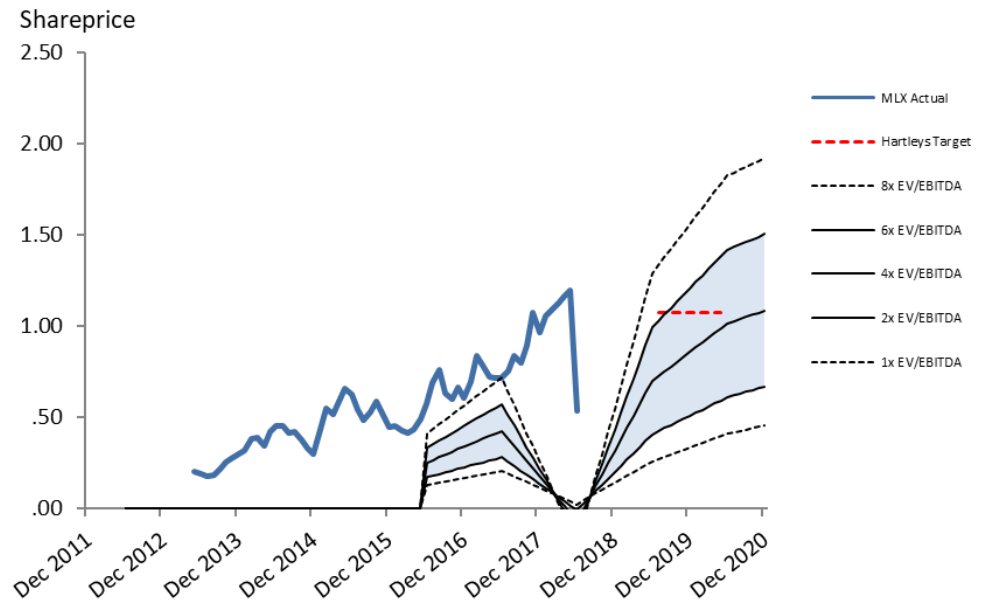
At real spot price assumptions the MLX NAV estimate decreases to 73cps

The 12 month price target for MLX is 10% less than the estimated NAV, or 90 cps.

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

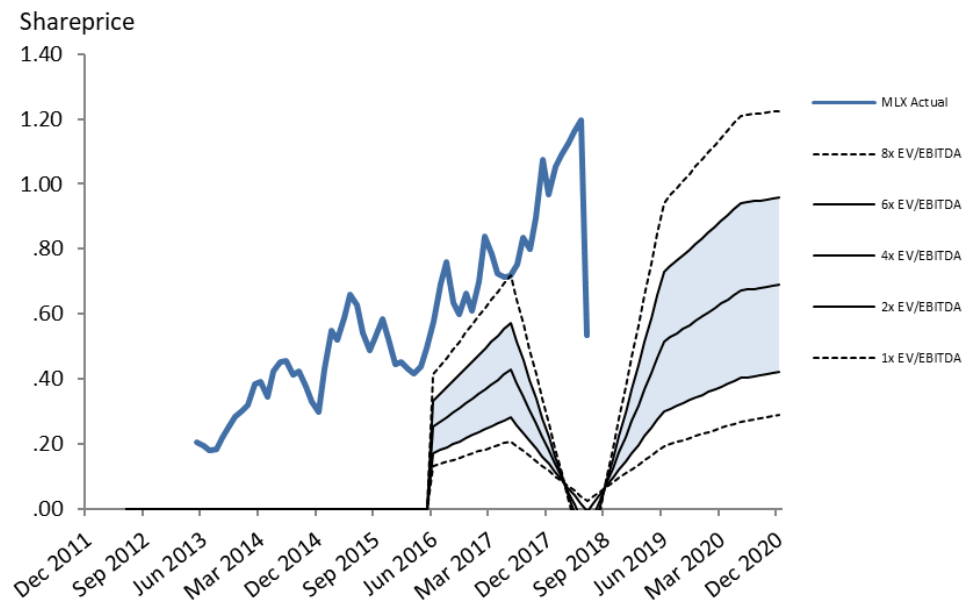
## EV/EBITDA BANDS

**Fig. 8:** EV/EBITDA base case assumptions.



Source: Hartleys.

**Fig. 9:** EV/EBITDA spot price 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 reserve extension	Low	High	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

*Risks are predominantly commodity price and geological, and each has a counter balancing opportunity. Both Nifty and Renison are considered middle to lower cost curve producers in their respective markets, with long term mine life potential.*

Source: Hartleys Research

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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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