ShawandPartners
Financial Services

Boab Metals Ltd (BML)

Rating: Buy | Risk: High | Price Target: $0.52

31 May 2023

Lead – the original and most reliable battery metal and it comes with a silver lining

Key Information	
Current Price ($ps)	0.20
12m Target Price ($ps)	0.52
52 Week Range ($ps)	0.17 - 0.37
Target Price Upside (%)	169.0%
TSR (%)	169.0%
Reporting Currency	AUD
Market Cap ($m)	34
Sector	Materials
Avg Daily Volume (m)	0.1
ASX 200 Weight (%)	0%

Fundamentals

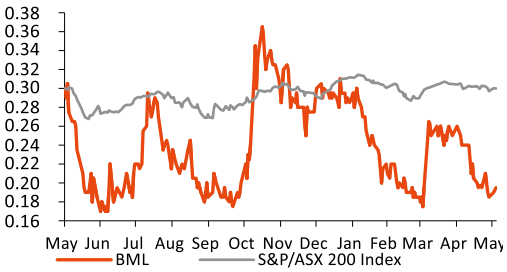
YE 30 Jun (AUD)	FY22A	FY23E	FY24E	FY25E
Sales ($m)	0	0	0	241
NPAT ($m)	(7)	(6)	(3)	36
EPS (cps)	(4.5)	(3.9)	(0.9)	6.7
EPS Growth (%)	nm	13.0%	76.0%	818.1%
DPS (cps) (AUD)	0.0	0.0	0.0	0.0
Franking (%)	0%	0%	0%	0%

Ratios

YE 30 Jun	FY22A	FY23E	FY24E	FY25E
P/E (x)	(3.8)	(5.0)	(21.0)	2.9
EV/EBITDA (x)	(4.1)	(4.3)	(5.6)	0.3
Div Yield (%)	0.0%	0.0%	0.0%	0.0%
Payout Ratio (%)	0.0%	0.0%	0.0%	0.0%

Price Performance

YE 30 Jun	1 Mth	2 Mth	3 Mth	1 Yr
Relative (%)	(23.6%)	(0.4%)	(6.4%)	(35.0%)
Absolute (%)	(25.0%)	0.0%	(7.1%)	(35.0%)
Benchmark (%)	(1.4%)	0.4%	(0.7%)	(0.0%)



Price performance indexed to 100 *Source: FactSet*

Major Shareholders

Villiers Queensland	10.6%
Zero Nominees	8.4%
Board and Management	4.0%
Citicorp Nominees	3.5%
Brent Connolly	2.9%

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Event

Boab Metals is developing the Sorby Hills Lead-Silver Project in WA. The demand outlook for lead is robust with lead-acid batteries still the go-to technology for reliable energy storage. We expect Boab to release details of its offtake agreements in coming weeks ahead of details on the debt financing package (including NAIF) and a Final Investment Decision (FID). In this note we outline the demand drivers and price outlook for Boab's two key commodities lead and silver.

Highlights

- Boab Metals is developing the Sorby Hills Lead-Silver Project in the Kimberley Region of Western Australia. In January 2023, Boab released the results of a DFS outlining a A$245m project processing 2.25Mtpa of ore and producing 103ktpa of a lead/silver concentrate over a 10 year mine-life. The annual production of contained metals is expected to be ~67ktpa of lead and 2.2Mozpa of silver. The DFS resulted in an estimated pre-tax NPV of A$370M (at an 8% discount rate), an IRR of 35%, and an average annualised EBITDA of A$119m.

- It is a common misperception that demand for lead is falling as lead-acid batteries are replaced by lithium-ion batteries and the usage of lead in industrial applications reduces due to its toxicity. Lead consumption has actually increased by an average 3.2% per annum from 2004-2022 and we conservatively forecast further annual growth of 2.2% to 2030. Global lead usage is expected to increase from 11.7Mt in 2020 to 14.6Mt in 2030.

- It is certainly true that lithium-ion batteries have become the dominant battery technology, but the reliability of lead-acid batteries will result in demand growth for telecommunication, uninterruptable power supply (UPS) and for starter/lighting/ignition (SLI) batteries in both internal combustion and electric vehicles. Most electric vehicles include a lead-acid battery to power critical functions in the vehicle.

- Demand for silver in the production of solar panels has driven the silver market into a supply deficit in 2022. Total annual silver demand has grown from a relatively steady 1,000Mozpa over the past decade to over 1,200Moz in 2022 with further growth expected. Demand for solar panels has increased from around 5% of total demand in 2015 to around 14% in 2023. Silver is the most conductive metal and has excellent reflective properties which make it ideal for solar panels.

- The strong demand outlook for lead is not matched by the supply outlook and we expect the Sorby Hills lead/silver concentrate to be highly sought after by global smelters. Boab Metal's Chinese partner Henan Yuguang will take its 25% share, and Boab Metals is now finalising the binding offtake agreements for the remaining 75%. We do not believe offtake is a significant risk but an announcement in coming weeks that Sorby Hills is fully sold is likely to be a positive catalyst.

- Boab is advancing its financing plans, including funding from the Northern Australia Infrastructure Facility (NAIF). NAIF debt provides significant financing flexibility for the project and allows the asset to be geared more highly than usual. Boab finished the March quarter with A$6.1m cash which leaves Boab fully funded to FID.

Recommendation

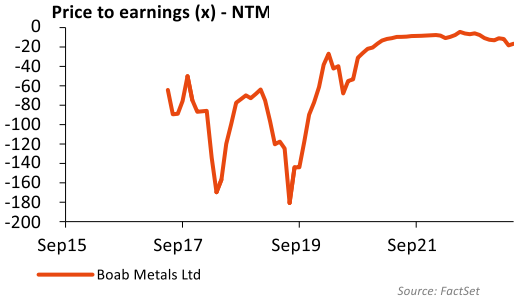
We maintain our BUY recommendation and price target of A$0.52ps. Our price target is based on our fully diluted DCF valuation. Boab has a number of positive upcoming catalysts we expect to see released over the coming months, including the offtake agreements, a NAIF funding package, a commercial debt tranche to sit alongside NAIF and a Final Investment Decision, which could see equity for construction raised at a significantly higher price than our assumed $0.20.

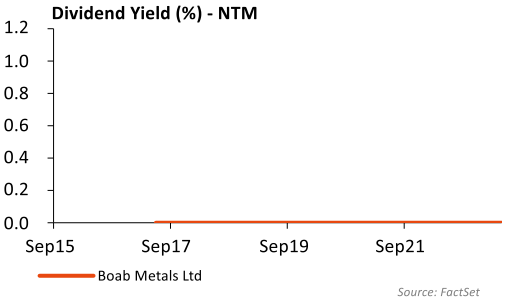
Boab Metals Ltd
Materials
Materials
FactSet: BML-AU / Bloomberg: BML AU

Key Items	Data
Recommendation	BUY
Risk	HIGH
Price ($ps)	0.20
Target Price ($ps)	0.52
52 Week Range ($ps)	0.17 - 0.37
Shares on Issue (m)	174
Market Cap ($m)	34
Enterprise Value ($m)	28
TSR (%)	169.0%
Valuation per share (cps) (AUD)	0.52
Valuation ($m)	288.25

Company Description

Boab Metals is a base metal exploration and development company, primarily focused on its flagship Sorby Hills Project in Kununurra, Western Australia. The flagship Project is the largest undeveloped, near surface lead-silver-zinc deposit in Australia. Sorby Hills is 75%-owned by Boab Metals and 25% owned by Henan-Yuguang - China's largest lead smelting / silver producer.





Financial Year End: 30 June

Investment Summary (AUD)	FY21A	FY22A	FY23E	FY24E	FY25E
EPS (Reported) (cps)	**(0.3)**	**(4.5)**	**(3.9)**	**(0.9)**	**6.7**
EPS (Underlying) (cps)	**(0.3)**	**(4.5)**	**(3.9)**	**(0.9)**	**6.7**
EPS (Underlying) Growth (%)	nm	nm	13.0%	76.0%	818.1%
PE (Underlying) (x)	**nm**	**(3.8)**	**(5.0)**	**(21.0)**	**2.9**
EV / EBIT (x)	**(5.5)**	**(4.1)**	**(4.3)**	**(5.6)**	**0.4**
EV / EBITDA (x)	**(5.5)**	**(4.1)**	**(4.3)**	**(5.6)**	**0.3**
DPS (cps) (AUD)	0.0	0.0	0.0	0.0	0.0
Dividend Yield (%)	0.0%	0.0%	0.0%	0.0%	0.0%
Franking (%)	0%	0%	0%	0%	0%
Payout Ratio (%)	0.0%	0.0%	0.0%	0.0%	0.0%
Free Cash Flow Yield (%)	(0.7%)	(25.1%)	(19.9%)	(259.4%)	(13.2%)

Profit and Loss (AUD) (m)	FY21A	FY22A	FY23E	FY24E	FY25E
Sales	0	0	0	0	241
Other Operating Income	0	0	0	0	0
EBITDA	**(5)**	**(7)**	**(7)**	**(5)**	**81**
EBITDA Margin (%)	*nm*	*nm*	*nm*	*nm*	*33.8%*
Depreciation & Amortisation	(0)	(0)	0	0	(9)
EBIT	**(5.1)**	**(6.8)**	**(6.5)**	**(5.0)**	**72.6**
EBIT Margin (%)	*nm*	*nm*	*nm*	*nm*	*30.1%*
Net Interest	0	0	0	(1)	(3)
Pretax Profit	(5)	(7)	(6)	(6)	70
Minorities	0	0	0	(1)	12
NPAT Underlying	**(5)**	**(7)**	**(6)**	**(3)**	**36**
Significant Items	0	0	0	0	0
NPAT Reported	**(5)**	**(7)**	**(6)**	**(3)**	**36**

Cashflow (AUD) (m)	FY21A	FY22A	FY23E	FY24E	FY25E
EBIT	(5)	(7)	(7)	(5)	73
Tax Paid	0	0	0	0	2
Net Interest	0	0	0	(1)	(3)
Change in Working Capital	0	0	0	(0)	(27)
Depreciation & Amortisation	(0)	(0)	0	0	(9)
Other	0	0	0	2	4
Operating Cashflow	**(5)**	**(6)**	**(6)**	**(5)**	**57**
Capex	0	0	0	(177)	(71)
Acquisitions and Investments	(0)	0	(1)	(3)	(3)
Disposal of Fixed Assets/Investments	0	0	0	0	0
Other	0	0	0	44	18
Investing Cashflow	**(0)**	**0**	**(1)**	**(135)**	**(56)**
Free Cashflow	**(5)**	**(7)**	**(6)**	**(182)**	**(14)**
Equity Raised / Bought Back	14	0	5	75	0
Dividends Paid	0	0	0	0	0
Change in Debt	0	0	0	80	30
Other	(0)	(0)	0	(2)	(4)
Financing Cashflow	**14**	**(0)**	**5**	**154**	**26**
Net Change in Cash	**10**	**(7)**	**(2)**	**13**	**28**

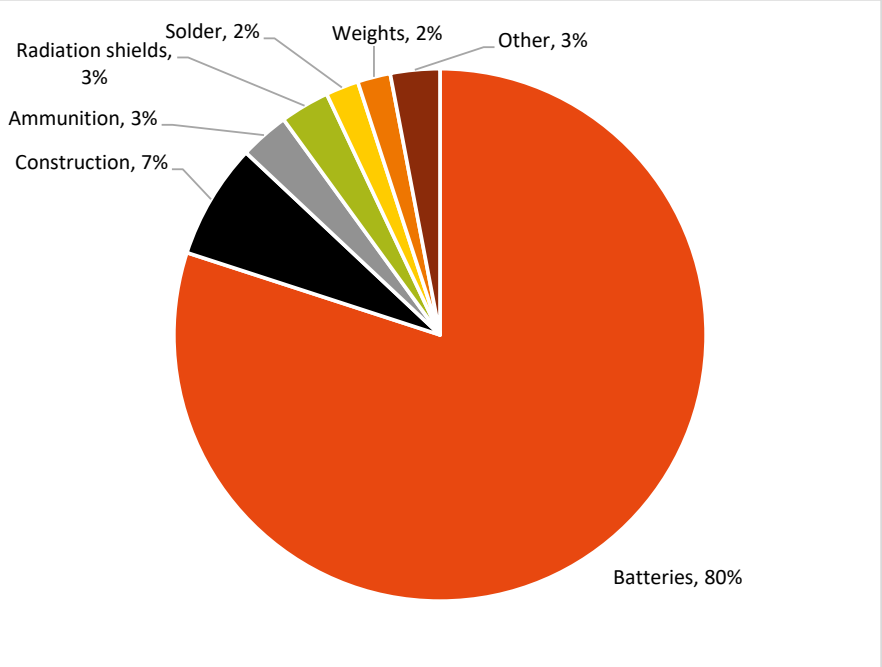
Balance Sheet (AUD) (m)	FY21A	FY22A	FY23E	FY24E	FY25E
Cash	13	6	5	18	45
Accounts Receivable	0	0	0	0	20
Inventory	0	0	0	0	20
Other Current Assets	0	0	0	0	0
PPE	5	5	6	185	250
Total Assets	**19**	**12**	**11**	**203**	**335**
Accounts Payable	1	1	1	0	13
Short Term Debt	0	0	0	0	0
Long Term Debt	0	0	0	80	110
Total Liabilities	**2**	**1**	**1**	**79**	**144**

Ratios	FY21A	FY22A	FY23E	FY24E	FY25E
ROE (%)	(41.0%)	(49.4%)	(62.6%)	(7.4%)	36.7%
Gearing (%)	(311.2%)	(144.2%)	(86.5%)	43.4%	35.5%
Net Debt / EBITDA (x)	2.6	0.9	0.7	(12.5)	0.8

Lead – the original and reliable battery metal

Lead is a versatile metal that has been used for centuries due to its unique properties. It is soft, dense, and heavy, making it ideal for various applications such as batteries, construction, and radiation shielding. Approximately 80% of all lead is consumed in the production of lead-acid batteries.

Figure 1: Lead usage 2023

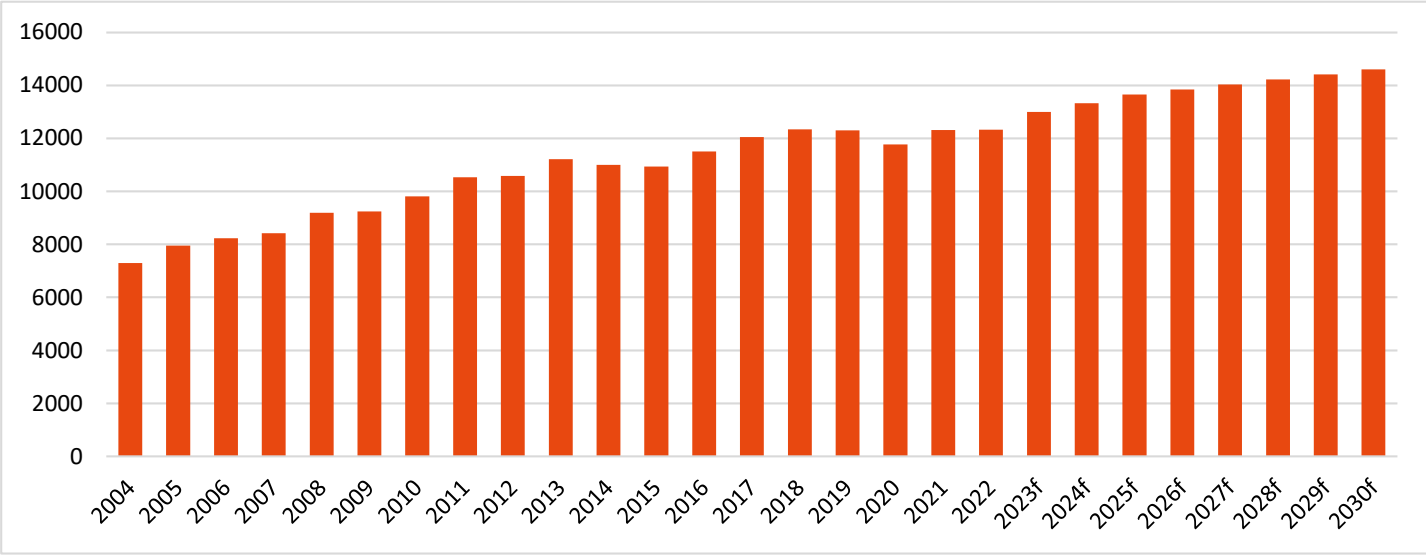


Source: ILZSG, ILA, Shaw and Partners

It is a common misperception that demand for lead is falling as lead-acid batteries are replaced by lithium-ion batteries and the usage of lead in industrial applications reduces due to its toxicity. In reality, lead consumption has increased by an average 3.2% per annum from 2004-2022 and we forecast further annual growth of 2.2% to 2030.

It is certainly true that lithium-ion batteries have become the dominant battery technology, but the reliability of lead-acid batteries will continue to result in demand growth for telecommunication, uninterruptable power supply (UPS) and for starter/lighting/ignition (SLI) batteries in both internal combustion and electric vehicles. Most electric vehicles include a lead-acid battery to power critical functions in the vehicle.

Figure 2: Annual Lead Consumption (kt)



Source: ILZSG, Statista, Shaw and Partners forecasts

Figure 3: Lead usage

Use	Description
Batteries	Lead has good electrical conductivity and resistance to corrosion. The major use for lead is in lead-acid batteries to store power in cars, wheelchairs, lift trucks, baggage loaders, even golf carts and submarines. Batteries are important in hospitals and communication centres needing a back-up supply in case of power failures and in solar and wind power systems (to store the energy). Non-nuclear submarines rely on a bank of lead-acid batteries for extra power and for ballast to keep them upright. These batteries provide as much power in five hours as the average home uses in a year.
Health	As lead is very dense and highly absorbent, it is used as a radiation shield around X-ray, radiotherapy treatment, and nuclear equipment. It is also in computer screens and TV tubes to absorb radiation.
Sound and vibration insulation	Lead's density and softness also makes it an excellent absorber of sound, so thin lead sheets are laminated onto building materials such as plywood, aluminium or steel to provide sound insulation. Even whole buildings can be mounted on lead to reduce vibration problems.
Cables	Lead's ductility and resistance to corrosion makes it an excellent sheath around electrical cables, especially under the sea.
Chemical industry	Lead's corrosion resistance makes it ideal to line containers and pipes for storing and carrying corrosive chemicals.
Housing	Lead flashings (where roofs meet walls or chimneys) stop leaks, resist wind lift and do not corrode.
Weights	Lead's density makes it useful as a weight, such as for curtains, SCUBA divers and yacht keels (fishing sinkers tend not to be made from lead these days).
Solders	Lead's low melting point makes it an excellent solder, often alloyed with tin. However, due to lead's toxicity, this usage is decreasing.
Lead oxide	In producing high-quality crystal glassware, stained-glass window 'frames', colour lenses, pottery glazes and as a 'red lead' undercoat on bridges and other exposed steel structures.
Other	Ammunition, ceramics, UV barrier in PVC products, and to minimise sulphur gas emissions by industry.

Source: Geoscience Australia

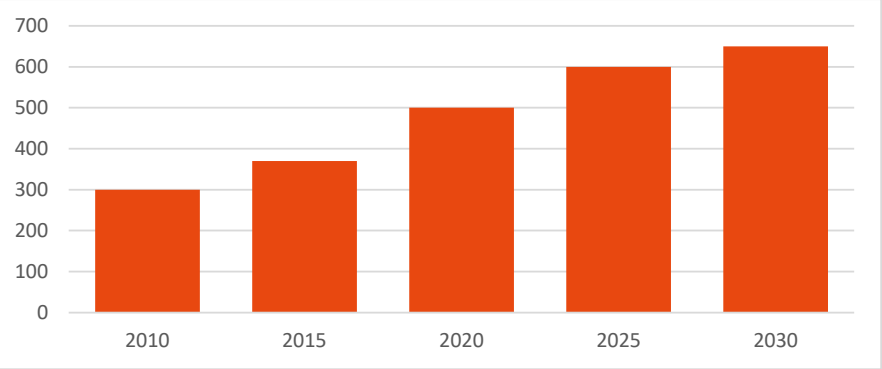
Lead-Acid Batteries

The primary use of lead is in lead-acid batteries, which are used in a wide range of applications. Lead-acid batteries account for approximately 80% of global lead consumption. These batteries are used in automobiles, trucks, boats, motorcycles, and other vehicles, as well as in backup power systems for critical infrastructure such as hospitals, data centres, and telecommunication towers.

The Consortium for Battery Innovation commissions independent market analysis of the lead battery market from Avicenne Energy. Avicenne is a market research and consulting firm who publish an annual report called "The Worldwide Rechargable Battery Market"

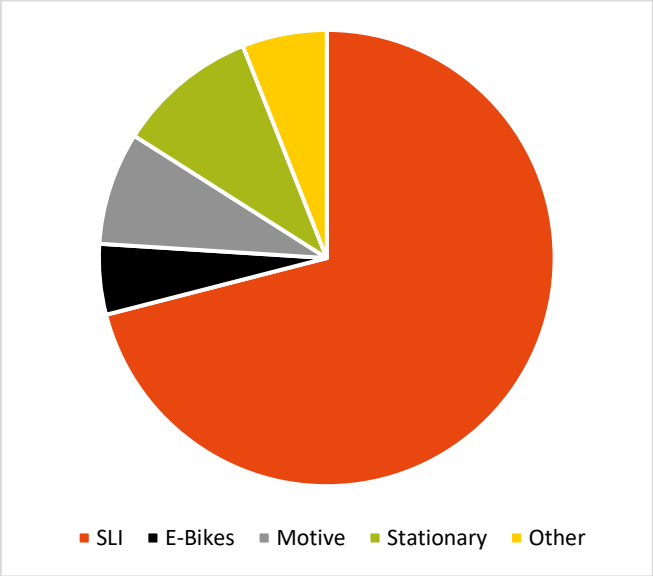
Avicenne is forecasting global demand for lead-acid batteries to increase from 500GWh in 2020 to 650GWh in 2030.

Figure 4: Lead-acid battery demand (GWh)



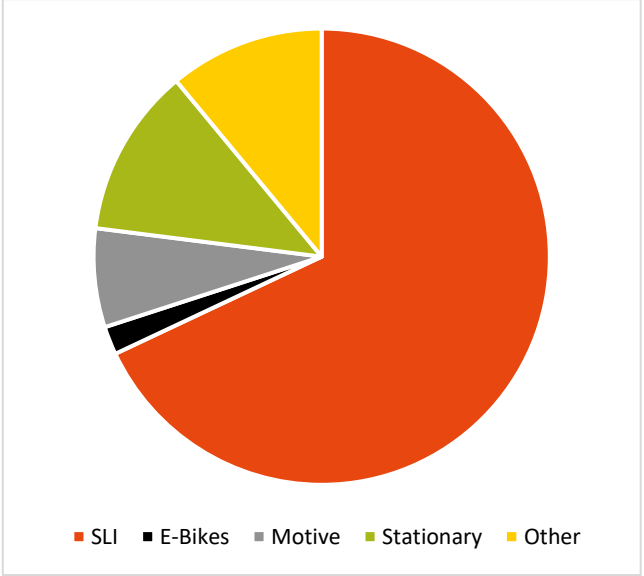
Source: Consortium for Battery Innovation, Avicenne

Figure 5: Lead-acid battery demand 2020 (500GWh)



Source: Consortium for Battery Innovation, Avicenne

Figure 6: Lead-acid battery demand 2030 (650GWh)



Source: Consortium for Battery Innovation, Avicenne

Avicenne separate their demand forecasts into four categories and 'other':

SLI (Starter/Lighting/Ignition). This includes the traditional SLI battery in an Internal Combustion Engine (ICE) vehicle, but also the newer start/stop batteries, and batteries used in electric vehicles which power essential and safety functions. Most electric vehicles include a lead-acid battery.

E-bikes. Avicenne is expecting E-bike demand for lead-acid-batteries to decline over the next decade, presumably because the non-critical nature of the application means that E-bike lead-acid batteries can be replaced by lithium-ion batteries.

Motive – These are lead-acid batteries used to power vehicles like forklifts. Modest demand growth of 1%pa is expected as usage is gradually replaced by lithium-ion batteries as their cost falls.

Stationary. Applications include telecommunications and uninterruptable power systems (UPS). These applications must provide back-up power in emergency situations and lead-acid batteries are preferred over lithium-ion batteries which have yet to proven over the time frames required for long term storage.

The advantages of lead-acid batteries

Current commercial 12V battery technology relies heavily on lead-based chemistries. Globally, over 400 million 12V lead-based batteries are produced every year to supply OEMs and aftermarket light-duty vehicle applications. Enhanced Flooded Batteries (EFB) and Absorbent Glass Mat (AGM) batteries provide significant improvements compared to conventional lead-based flooded batteries, in charge acceptance and cyclic durability, and have been deployed for micro-hybrid applications.

Lead-based batteries, especially EFB and AGM batteries, are extremely stable and durable in comparison to competing technologies; failure modes, and safety of lead batteries, are well understood by the battery supply chain. Lead-based batteries for SLI applications are covered by established international standards including battery testing procedures and service requirements.

For SLI applications, 12V batteries will need to continue to enable stop/start operations, support critical safety applications, and support Advanced Driver Assistance Systems and autonomy deployment. These applications require always-on' functionality and these batteries must not only meet rising power consumption demands, but also be 100% dependable. Battery health is a critical attribute.

Lithium-ion batteries being commercialised for 12V applications have high energy density, high cycle life, and high calendar life but currently have higher self-discharge rates compared to lead-based batteries. Standardisation is still in progress.

One of the advantages of lead-acid batteries is their performance in cold conditions. The low-temperature performance and durability of Lithium-ion batteries has improved significantly in the past few years; Lithium-ion battery manufacturers now report parity with lead batteries in terms of cold cranking (albeit only within standard industry limits). However, use of new electrode materials to ensure lithium batteries can meet cold cranking requirements, has resulted in a trade-offs in high-temperature performance and safety. Moreover, the charging performance of the batteries at low temperatures also requires further investigation.

A further advantage of lead-acid batteries is the ability to recycle them. Recycling processes for Lithium-ion batteries are relatively complex and immature; development is expected through 2030 but may never be as efficient as the closed loop recycling processes seen for lead. Moreover, 12v Lithium-ion batteries are typically based upon lithium iron phosphate chemistry that contains no economically valuable metals and thus have very low incentive for recycling.

Silver – growing demand from solar power

Silver is a soft and lustrous metallic element that is unique as a commodity and currency. Of all metals, it has the highest electrical and thermal conductance and optical reflectivity. Throughout history it has been used as a white metal in jewellery or coins; as with other precious metals, a protection against inflation. More recently it is being used for industrial purposes. Solar panels are now ~11-14% of total silver demand. Its extensive industrial use is somewhat regulated by silver's higher relative cost to other metals.

The photovoltaic cells used in solar panels extensively rely on silver due to its exceptional electrical conductivity and thermal properties. According to industry estimates, approximately 20 grams of silver is required per kilowatt of solar panel capacity. With the increasing installation of solar panels worldwide, the demand for silver in the solar industry has experienced substantial growth. In 2020 solar energy installations reached a record-high 139 gigawatts (GW), contributing to a demand for around 8,000 metric tons of silver.

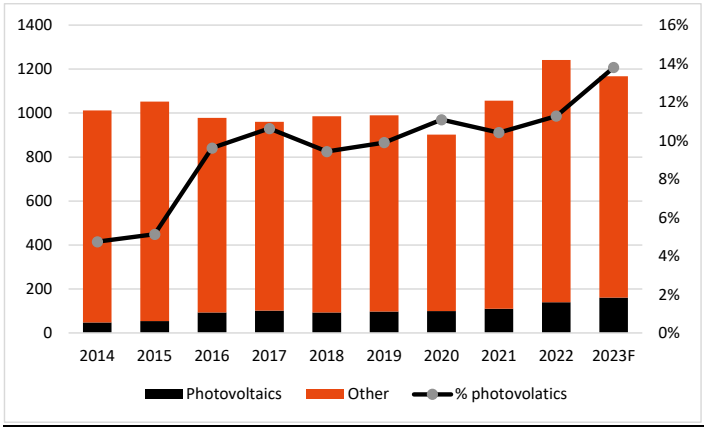
Silver's excellent light reflection properties are another significant driver of its demand in solar applications. By coating the back surface of solar cells with silver, it can effectively enhance the efficiency of the panels. Studies indicate that silver back contacts can improve the conversion efficiency of solar cells by up to 5%.

The durability and corrosion resistance of silver in solar panels have quantifiable benefits as well. The use of silver coatings ensures the longevity and reliability of solar cells, reducing maintenance costs and increasing the lifespan of panels.

In terms of affordability and cost-effectiveness, silver is an attractive option for solar panel manufacturers. The cost of silver accounts for a relatively small portion (<5%) of the total solar panel production expenses.

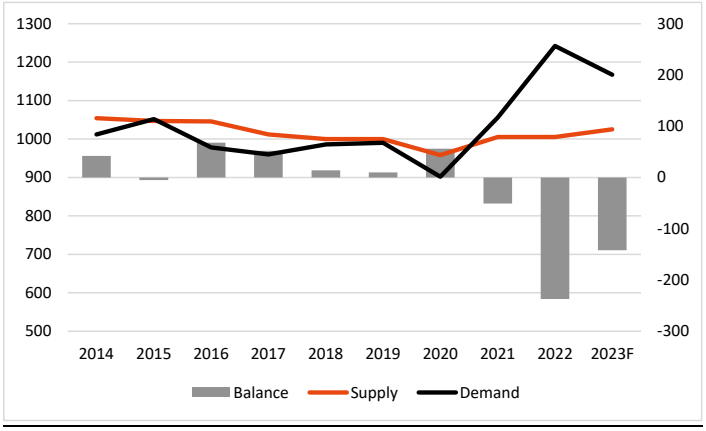
According to The Silver Institute, the silver market moved into a substantial supply deficit in 2022 due to strong demand from net physical investment. The market is expected to remain in deficit in 2023 with the negative balance being made up by drawdowns from exchange traded products.

Figure 7: Silver demand/usage (Moz)



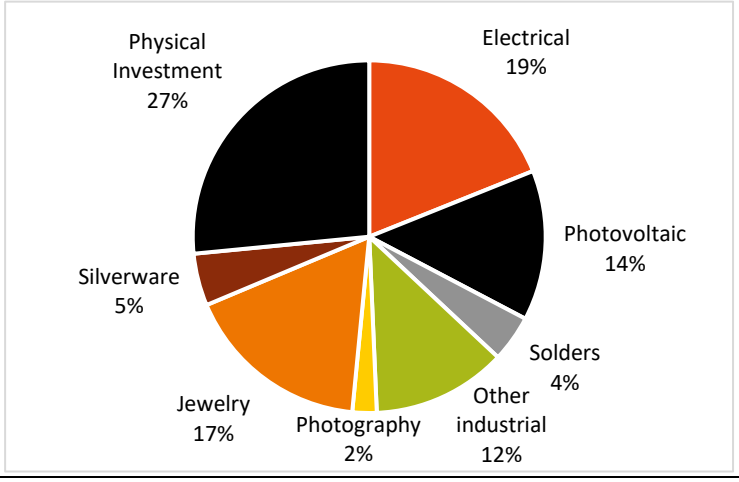
Source: The Silver Institute

Figure 8: Silver supply v demand (Moz)



Source: The Silver Institute

Figure 9: Silver usage 2023



Source: The Silver Institute

Lead and Silver price forecasts

Our commodity price forecasts/assumptions are set out in the table and charts below. We have assumed that lead prices remain relatively constant in real terms and model lead averaging US$2,308/t (real $2023) which is in-line with the last 10-year average.

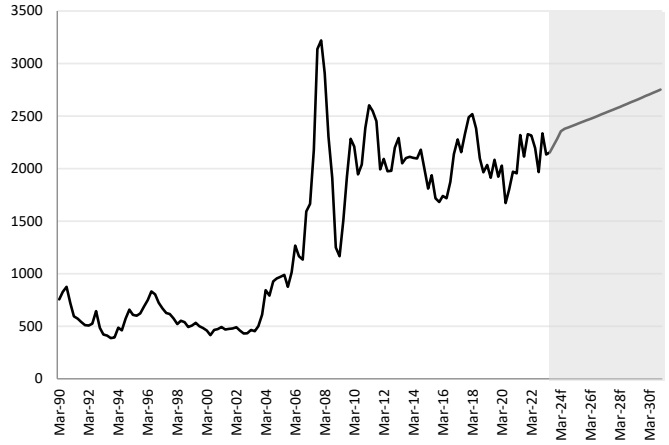
We expect silver to trade at an average real price of US$25.7/oz (spot US$23.15/oz) as demand for solar panels tightens the market. This implies a long term gold/silver ratio of 62x compared to the long term average 68x.

Figure 10: Commodity price forecasts

Assumptions	2021	2022	2023f	2024f	2025f	2026f	2027f	2028f	2029f	2030f	LT Real
Silver price (US$/oz)	25.0	22.8	22.6	25.5	26.7	27.5	28.1	28.8	29.4	30.1	25.7
Lead price (US$/t)	1,927	2,012	2,238	2,148	2,310	2,412	2,467	2,523	2,579	2,637	2,308
AUD/USD	0.75	0.72	0.68	0.72	0.74	0.75	0.75	0.75	0.75	0.75	0.75

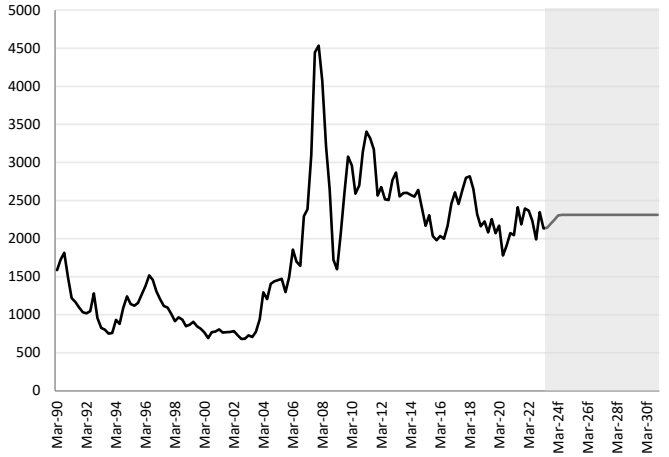
Source: Factset, Shaw and Partners

Figure 11: Lead-price (US$/t nominal)



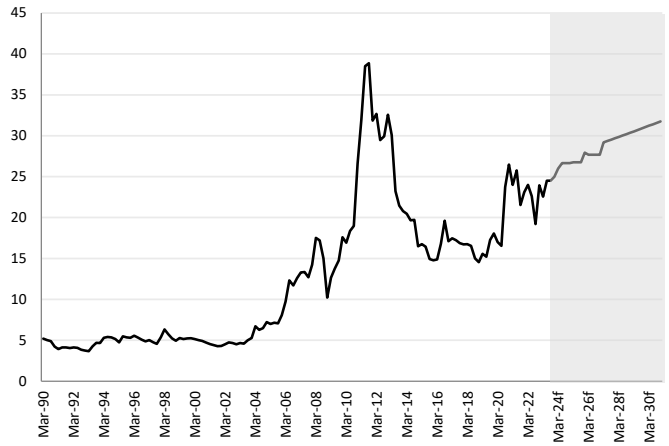
Source: Bloomberg, Factset, Shaw and Partners

Figure 12: Lead-price (US$/t real $2023)



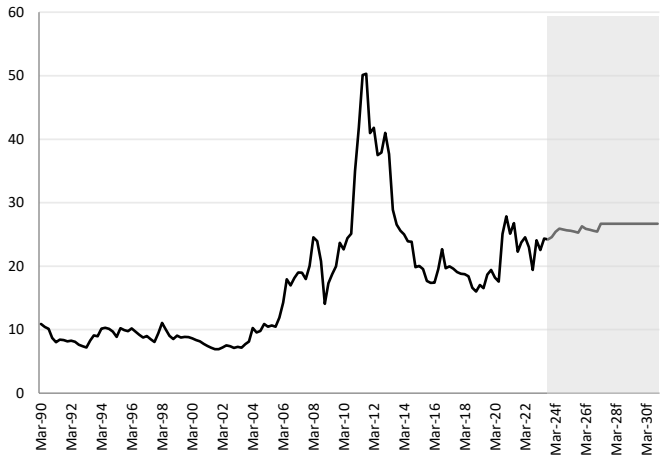
Source: Bloomberg, Factset, Shaw and Partners

Figure 13: Silver price (US$/oz nominal)



Source: Bloomberg, Factset, Shaw and Partners

Figure 14: Silver-price (US$/oz real $2023)



Source: Bloomberg, Factset, Shaw and Partners

Figure 15: Gold / Silver price ratio (x)

Source: Bloomberg, Factset, Shaw and Partners

Boab Metals valuation sensitivity to lead and silver

Our preferred valuation technique is a discounted cash flow (DCF) valuation with post-tax operational cash flows discounted at our assumed Boab Metal's weighted average cost of capital of 10%. Our undiluted DCF valuation is $1.19ps. In our base case forecast we assume that Boab Metals will raise A$75m of equity at a share price of A$0.20ps. The valuation drops to A$0.52ps due to the dilution, but this is highly dependent on the price the additional equity is issued at.

Figure 16: DCF valuation - undiluted

Boab Metals Valuation	A$m	A$ps
Sorby Hills (75%)	194	1.11
Net cash	13	0.07
Exploration	16	0.09
Corporate costs	-15	-0.09
Total Valuation	**208**	**1.19**

Source: Company reports, Shaw and Partners analysis

Figure 17: DCF valuation - diluted for A$75m equity raising

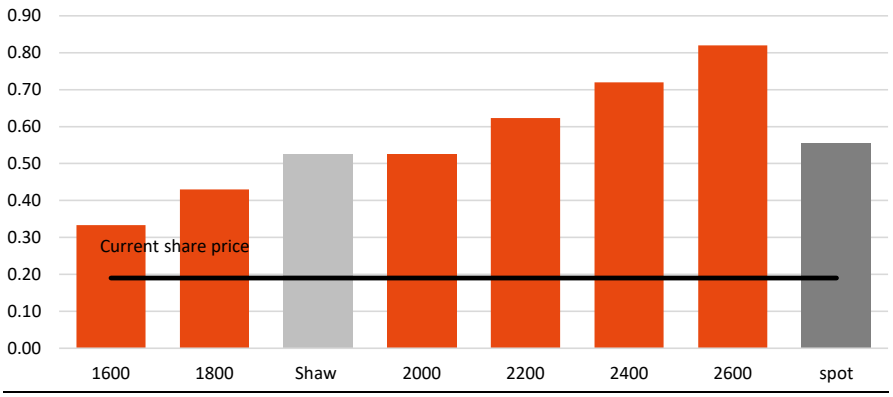
Boab Metals Valuation - diluted	A$m	A$ps
Sorby Hills (75%)	194	0.35
Net cash	6	0.01
Exploration	28	0.05
Cash from options + raise	75	0.14
Corporate costs	-15	-0.03
Total Valuation	**288**	**0.52**

Source: Company reports, Shaw and Partners analysis

It is interesting to note that although the Boab Metals share price seems to trade with a closer correlation to the silver price than the lead price, the valuation is more driven by lead. Approximately 75% of the revenue of the project is derived from lead.

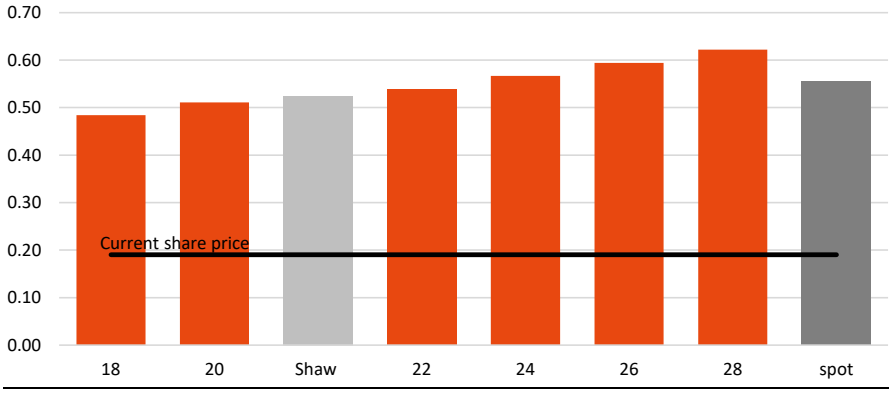
On our analysis, a US$200/t move in the lead price (approximately 10%) impacts our DCF valuation by 10cps whereas a US$2/oz move in the silver price (approximately 10% impacts our DCF valuation by 3cps.

Figure 18: Boab valuation sensitivity to lead price (A$ps v US$/t)



Source: Shaw and Partners

Figure 19: Boab valuation sensitivity to silver price (A$ps v US$/oz)



Source: Bloomberg, Factset, Shaw and Partners

Figure 20: Sorby Hills financials

Sorby Hills (100%)	2021	2022	2023f	2024f	2025f	2026f	2027f	2028f	2029f	2030f
Ore processed (kt)	0	0	0	0	1,150	2,120	2,250	2,250	2,250	2,250
Lead grade (%)	0.0%	0.0%	0.0%	5.0%	5.6%	3.6%	3.6%	2.9%	2.9%	3.6%
Silver grade (g/t)	0	0	0	0	46	34	39	25	25	41
Lead concentrate (kt)	0	0	0	0	92	110	116	94	94	116
Payable lead (kt)	0	0.0	0.0	0.0	60.1	71.2	75.6	60.9	60.9	75.6
Payable silver (Moz)	0	0.0	0.0	0.0	1.4	1.9	2.3	1.5	1.5	2.4
Revenue	0	0	0	0	241	291	322	252	257	349
- lead revenue	0	0	0	0	186	223	241	199	203	258
- silver revenue	0	0	0	0	47	65	81	53	54	91
Expenses	0	0	0	0	155	170	184	184	188	196
EBITDA	0	0	0	0	86	122	138	68	69	153
D&A	0	0	0	0	9	16	17	17	17	7
EBIT	0	0	0	0	78	105	121	50	52	146
Net Operating Assets	2	2	2	179	241	227	213	199	185	181
Capex	0	0	0	177	71	3	3	3	3	3
EBITDA Margin (%)	0%	0%	0%	0%	36%	42%	43%	27%	27%	44%
EBIT / Assets (%)	0%	0%	0%	0%	32%	46%	57%	25%	28%	81%
Silver (US$/oz)	25.0	22.8	22.6	25.5	26.7	27.5	28.1	28.8	29.4	30.1
Lead (USc/lb)	91	102	97	105	109	112	114	117	120	122
AUD/USD	0.75	0.72	0.68	0.72	0.74	0.75	0.75	0.75	0.75	0.75
Revenue (A$/t)	0	0	0	0	4,012	4,091	4,264	4,137	4,230	4,617
Expenses (A$/t)	0	0	0	0	2,573	2,384	2,436	3,028	3,089	2,589
EBITDA (A$/t)	0	0	0	0	1,439	1,706	1,828	1,109	1,141	2,027
D&A (A$/t)	0	0	0	0	148	231	231	287	287	92
EBIT (A$/t)	0	0	0	0	1,291	1,476	1,597	822	854	1,935
Nominal Tax @ 30%	0	0	0	0	-23	-32	-36	-15	-16	-44
Cash Flow	0	0	0	-177	-8	87	99	49	51	106

Source: Company reports, Shaw and Partners

Key risks

- The prices of silver and lead are volatile and difficult to forecast. The actual prices may differ substantially from our forecasts.
- The Sorby Hills project is not yet producing and there is a risk that Boab is unable to bring the operation in to production. The project may cost more than expected to build and may not operate as expected.
- Boab requires around $185m of new capital to finance its 75% share of the Sorby Hills Project. There is a risk that capital markets are not willing to fund the project.
- Forecasting future operating costs has considerable uncertainty. Our forecasts may prove to be too optimistic. If Boab's costs are higher than we expect then our cash flow forecasts will be too high.
- Smaller companies carry more significant 'key personnel' risk than larger organisations. If senior management depart the company, then it could delay projects or exacerbate operational risks.

Core drivers and catalyst

- In January 2023, Boab released the results of a Sorby Hills Definitive Feasibility Study (DFS). The DFS outlined a A$245m project processing 2.25Mtpa of ore and producing 103ktpa of a lead/silver concentrate over a 10 year mine life. The annual production of contained metals is expected to be ~67ktpa of lead and 2.2Mozpa of silver.
- The DFS resulted in an estimated pre-tax NPV of A$370M (at an 8% discount rate), an IRR of 35%, and an average annualised EBITDA of A$119m.
- Boab is now progressing the offtake agreements and debt financing and we expect a Final Investment Decision in 1H23. There will be a 12-18-month construction period and first production in FY25.
- The Sorby Hills Measured and Indicated Resources is 23.6Mt at 4.6% Pb Eq (3.5% Pb, 39g/t Ag) and 0.4% Zn containing 0.8Mt Pb, 0.1kt Zn and 30Moz Ag. The resource is likely to increase as further drilling and regional exploration is completed
- We model a further A$185m of capital requirements to fund Boab's 75% share of pre-production capex, working capital and ongoing exploration. We expect BML to split the funding roughly A$75m/A$110m equity/debt

Rating Classification

Buy	Expected to outperform the overall market
Hold	Expected to perform in line with the overall market
Sell	Expected to underperform the overall market
Not Rated	Shaw has issued a factual note on the company but does not have a recommendation

Risk Rating

High	Higher risk than the overall market – investors should be aware this stock may be speculative
Medium	Risk broadly in line with the overall market
Low	Lower risk than the overall market

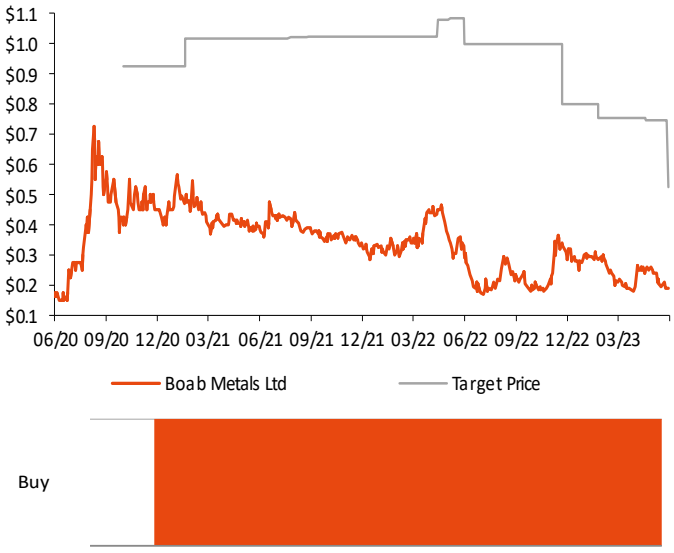
RISK STATEMENT: Where a company is designated as 'High' risk, this means that the analyst has determined that the risk profile for this company is significantly higher than for the market as a whole, and so may not suit all investors. Clients should make an assessment as to whether this stock and its potential price volatility is compatible with their financial objectives. Clients should discuss this stock with their Shaw adviser before making any investment decision.

Distribution of Investment Ratings

Rating	Count	Recommendation Universe
Buy	101	90%
Hold	10	9%
Sell	1	1%

History of Investment Rating and Target Price - Boab Metals Ltd

Date	Closing Price ($)	Target Price ($)	Rating
29-May-23	0.19	0.52	Buy
19-Apr-23	0.25	0.75	Buy
24-Jan-23	0.29	0.75	Buy
20-Nov-22	0.33	0.80	Buy
31-May-22	0.30	1.00	Buy
2-May-22	0.37	1.08	Buy
14-Apr-22	0.45	1.08	Buy
25-Aug-21	0.40	1.02	Buy
21-Jul-21	0.41	1.02	Buy
19-Jan-21	0.47	1.02	Buy
1-Oct-20	0.40	0.92	Buy



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