

Share Price: A\$0.047

ASX: BSX

Sector: Resources

25 February 2025

Making a critical pivot to the commodity of the 21st century

Blackstone Minerals (ASX: BSX) is pivoting from the Ta Khoa nickel project in northern Vietnam. It has announced the acquisition of IDM International, and (with IDM) the Mankayan Copper-Gold Project in the Philippines.

Gaining exposure to copper and gold

Mankayan is a copper-gold porphyry system in a globally predominant mineral district. Porphyry systems tend to be high-volume but low grade, although drilling to date has shown amongst the highest-grades amongst undeveloped copper-gold porphyry systems globally. The Philippines has a long-standing history of successful mining operations, existing infrastructure and a skilled workforce. The project offers exposure to copper, which in our view will be the most important commodity of the 21st century. It also offers exposure to gold, one of the few positively performing minerals since Russia's invasion of Ukraine, and a hedge against inflation.

Mankayan also offers plenty of near-term catalysts. The most prominent of these include drilling results – including pending assays conducted by IDM – and the potential for strategic mergers and acquisitions in the region. We also see potential for copper prices to re-rate as it becomes increasingly important.

BSX's ambitions with Ta Khoa still exist

BSX does not appear to be divesting Ta Khoa, and is continuing to pursue a Definitive Feasibility Study (DFS) and a Joint Venture Partner for the project. Whatever happens with Ta Khoa, the company's experience with the project was invaluable and arguably why IDM chose BSX to sell the project to. The company has potential deploy and utilise Blackstone's exploration and development equipment from Ta Khoa.

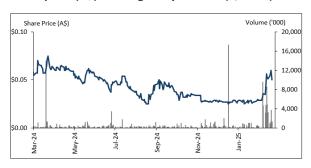
Mankayan is too early to value, but Ta Khoa remains compelling

As an exploration-stage development, it is too early to ascribe a valuation to Mankayan project, but it would not be unreasonable to expect the company to re-rate with exploration success and positive commodity price momentum. We reiterate our previous valuation of Ta Khoa as applicable to Blackstone (which was US\$2bn in our base case and ~\$2.6bn in our bull case) but acknowledge this will only be realised if the company can realise a joint venture for the project. Please see p.11 for the key risks.

Market cap. (A\$ m)	28.7
# shares outstanding (m)	601.0
# shares fully diluted (m)	628.4
Market cap ful. dil. (A\$ m)	29.5
Free float	100%
52-week high/low (A\$)	0.075 / 0.025
Avg. 12M daily volume ('1000)	636.1
Website	www.blackstoneminerals.com.au

Source: Company, Pitt Street Research

Share price (A\$) and avg. daily volume (k, r.h.s.)



Source: Refinitiv Eikon, Pitt Street Research

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Disclosure: Pitt Street Research directors own shares in BSX.



Table of Contents

The Mankayan Copper-Gold Project	
Mankayan's geology	5
The Details of the IDM Deal and BSX's plans post-completion	8
BSX's Plans with Mankayan	9
BSX's Plans with Ta Khoa	9
Our Valuation of Blackstone	10
Risks	11
Appendix I - Analysts' Qualifications	12
General advice warning, Disclaimer & Disclosures	13

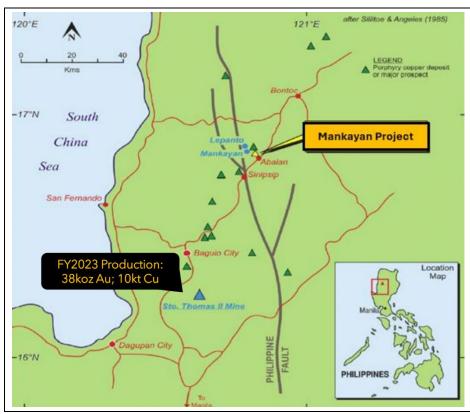


The Mankayan Copper-Gold Project is named after the mineral district in the Philippines it is located in.

The Mankayan Copper-Gold Project

The Mankayan Copper-Gold Project is named after the mineral district in the Philippines it is located in. It is in Northern Luzon, ~340km from Manila (Figure 1). BSX is picking up the project by acquiring IDM International, an unlisted Australian gold and copper explorer which since 2021 has owned a 64% stake in a company caked Crescent Mining & Development Corporation (CMDC) — the balance is owned by local shareholders. CMDC has a Mineral Production Sharing Agreement under a 25-year term that began on 12 November 2021.

Figure 1: Mankayan's location in the Philippines



Source: Company

The Philippines has a longstanding history of successful mining operations and is a top 25 gold producer.

The Philippines is a mining-friendly jurisdiction

The Philippines has a long-standing history of successful mining operations, particularly in the gold sector (Figure 2). In 2023, the Philippines produced nearly 1.1Moz¹² and just cracked the top 25 gold producers on Earth. The country is a democracy and the current government (under President Bongbong Marcos) will be in power until May 2028. The Marcos administration has been particularly pro-mining.

Lying nearby the Mankayan Project is the Santo Tomas II mine that produced 38koz gold and 10kt copper, currently owned by Philex Mining. Other operations include:

¹ The Philippines produced ~31,000kg of gold and 1kg is 35.274oz.

² https://www.planetgold.org/philippines



- The Masbate Gold Project which belongs to B2 Gold (TSE:B2O) and produced 192,096 gold in 2024³;
- The Gold-Copper porphyry Didipio Mine that was built by Oceana Gold (TSE:OGC) more than a decade ago and produces over 100,000oz gold and 10,000oz copper;
- The Lepanto Project which is just 2.5km from Mankayan. This includes both the Lepanto Mine and the Far Southeast Porphyry deposit that is at an exploration stage. Lepanto is owned by the Lepanto Consolidated Mining Company, has been producing since 1948 and produced 1.58bn pounds of copper and 2.9Moz gold over the first 48 years of its operations. It has continued to produce since then⁴, with 22.5koz of gold and 43koz of silver produced in FY23 as well as gold reserves of 270koz and copper-gold reserves of 397koz gold and 96.5kt copper. FSE has a Mineral Resource of 891.7Mt with 0.7g/t gold and 0.5% copper for 19.8Moz gold and 4.5Mt copper; and
- The Runruno Gold Project which is owned by Metals Exploration. It is not yet in production but has a 1.73Moz of gold⁵.

The Philippines has a pro-mining regulatory environment, a skilled workforce and existing infrastructure. The Corporate Tax rate is 25% and its royalties are negotiated with the state on a project-by-project basis (sometimes in conjunction with local Indigenous communities).

Lepanto

Metals

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Figure 2: Other gold projects in the Philippines

Source: Company

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³ https://www.b2gold.com/operations-projects/producing/masbate-mine-the-philippines/default.aspx

⁴ https://www.lepantomining.com/

⁵ https://metalsexploration.com/projects/philippines/runruno/overview/



IDM has a social license to operate at Mankayan, having signed its 25-year Mineral Production Shariong Agreement mining license renewal in March 2022. It also signed a Memorandum of Agreement with local Indigenous People in December 2024 – the latter being the most important milestone to achieving a social license to operate, and IDM is the first miner to obtain such consent in the area. Moreover, Mankayan has been identified as a priority project by the Mines and Geosciences Bureau.

Mankayan's geology

Mankayan is one of the largest high-grade undeveloped copper-gold porphyry projects globally. Mankayan is one of the largest high-grade undeveloped copper-gold porphyry projects globally. Porphyry copper-gold deposits tend to be high-volume disseminations formed by precipitation of copper and gold (and molybdenum) from fluids of magmatic origin. They are the world's major source of copper account, accounting for 60% of annual production and 95% of the US' production⁶.

Mankayan is a large mineralised system which remains open to the north, south and at depth – in other words, it has not been determined hwere the mineralisation ends, at least not in those specific directions where the company has drilled (Figure 3).

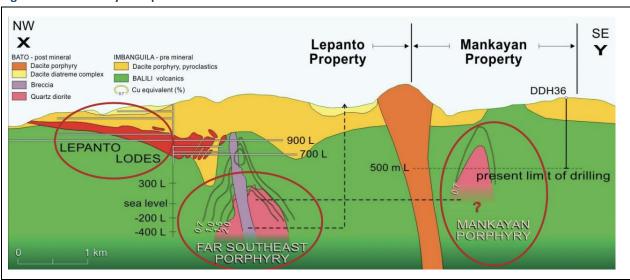


Figure 3: The Mankayan deposit

Source: Company

Porphyry projects often offer the trade-off of being highvolume, but low-grade. This is not the case with Mankayan The trade-off with porphyry projects being high-volume is that they tend to be low-grade, but this is not the case with Mankayan. Mankayan is only at a drilling-stage but over 56,000m has been completed and it has produced significantly high-grade intercepts including:

- 911m @ 1% CuEq⁷ (0.51% copper & 0.63g/t gold) from 156m *including* 253m @ 1.43% copper equivalent (0.73% copper & 0.89% gold);
- 543m @ 1.08% CuEq (0.46% copper & 0.79g/t gold) from 262m including 277m @ 1.43% CuEq (0.50% copper & 1.19g/t gold);

⁶ https://www.costmine.com/2024/01/30/mapping-mining-copper-porphyry-deposits/

⁷ Copper Euivalent



- 754m @ 1.03% CuEq (0.49% copper & 0.79g/t gold) from 254m; including 430m @ 1.21% CuEq (0.58% copper and 0.8g/t gold);
- 1,119m @ 0.86% CuEq (0.42% copper & 0.56g/t gold) from 230m; including 352m @ 1.15% CuEq (0.53% copper and 0.79g/t gold;)
- 972m @ 0.89% CuEq (0.44% copper and 0.58g/t gold) from 247m; including 525m @ 1.09% CuEq (0.52% copper & 0.73g/t gold); and
- 747m @ 0.94% CuEq (0.48% copper and 0.59g/t gold) from 308m; including 243m @ 1.06% CuEq (0.59% copper & 0.6q/t gold).

The adjacent Lepanto project (which includes the Lepanto Gold Mine and the Far Southeast (FSE) porphyry project) has gold Reserves of 1.7Mt @ 4.94g/t gold for 270koz and Copper-Gold Reserves of 5.1Mt @ 2.42g/t gold and 1.89% copper for 397koz and 96.5kt copper. Its grade is rare compared to global undeveloped Copper-Gold porphyry projects (Figure 4). As noted above, porphyry projects usually have a trade-off of being high-volume whilst low grade, yet this is not the case with Mankayan nor its neighbour Lepanto.

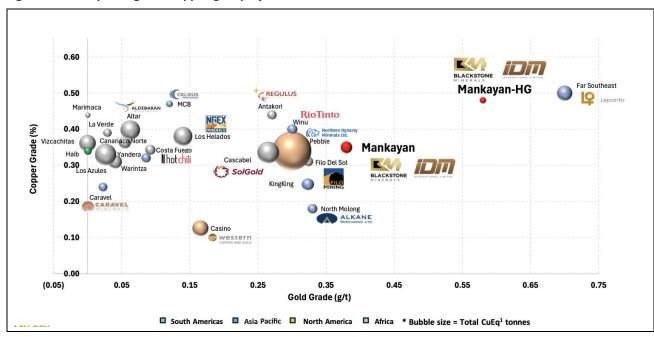


Figure 4: Mankayan vs global copper-gold projects

Source: Company

In our view, copper is the most important commodity of the 21st century.

BSX's new exposure to copper and gold will be significant

In our view, copper is the most important commodity of the 21st century and is destined for a bull run in the next few years as the so-called 'Copper Crunch' emerges where demand will continue outstrip supply. Global copper mine output is 22.4Mt in 2023, yet there will be deficit of 10Mt by 2035⁸. This is why the world's major miners are investing significantly in copper, particularly BHP which bought Oz Minerals for A\$9.6bn in 2023, was willing to offer over US\$70bn for AngloAmerican and in FY24 invested twice the amount in its

⁸ https://www.mining.com/web/bhp-bets-billions-on-chile-mines-to-face-global-copper-crunch/



copper assets (Olympic Dam, Oak Dam, Escondida and a couple of new projects in Argentina) than its iron ore assets.

Copper is a predominant mineral in industrial purposes including electrical equipment, motoring, roofing, renewable energy technologies, and heavy machinery, as it is one of the strongest conductors of all elements in the periodic table. It is an essential ingredient to electric vehicles, with a typical EV needing almost four times the amount of copper that traditional fuel-powered cars do. With electric vehicles on global roads expected to reach 145m by 2030, this will need a significantly higher amount of copper will be needed than is presently being produced. Even though Mankayan is realistically a few years away from production, it could play a role in supplying for the world's electric vehicle market, particularly in the Asia-Pacific.

Continued momentum in gold prices should ensure that any exploration success is not ignored by the market.

BSX's exposure to gold will be important too. Gold is one of the few metals that has increased since Russia's invasion of Ukraine in 2022. It has lived up to its historic expectation as a haven from inflation and geopolitical tensions. Gold prices rose 27% during CY24, and gained another 11% in the first 6 weeks of CY25 amidst the threat of US tariffs. As an early-stage explorer, two things will be crucial for share price momentum of the company – commodity prices and exploration success. Many battery metal explorers can attest to the fact that the former has been far more important in the eyes of many investors over the past couple of years. Continued upward momentum in gold prices will ensure that if the company can achieve the exploration success it envisions, it will not be in vain by virtue of poor momentum in commodity prices.

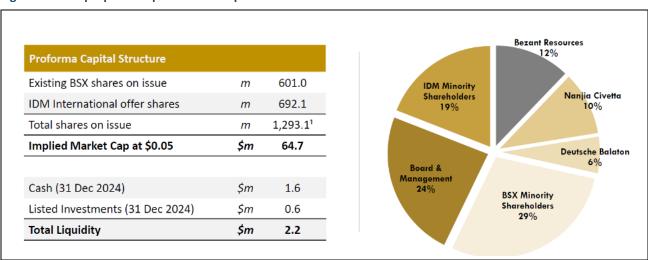


IDM shareholders will receive 7.4 BSX shares for every IDM share they own.

The Details of the IDM Deal and BSX's plans postcompletion

The deal which will see BSX take on the Mankayan Project as its key focus is a formal acquisition of 100% of the shares in IDM (a scheme implementation deed). IDM shareholders will receive 7.4 BSX shares for every IDM share they own. The post-deal shareholder composition will see BSX shareholders own 47% of the merged entity and IDM shareholders owning 53%. The deal is subject to 75% approval of IDM's shareholders at a meeting scheduled to be held on 16 May. If approved, the deal will be implemented on 29 May. It is proposed that there will be 1,293.1m shares on issue post-completion, and at a share price of \$0.029, BSX would have a market capitalisation of \$37.5m (Figure 5).

Figure 5: BSX's proposed capital structure post-deal



Source: Company

BSX will provide IDM with a working capital facility of \$1m to assist with costs incurred by IDM in connection with the proposed merger and working capital during the transaction implementation. BSX has told investors it is considering a range of options to finance its own transaction-related costs and project development activities.

Once the deal is completed, existing IDM Director Geoff Gilmour will join the BSX board as a Non-Executive Director, and existing BSX board members Frank Bierlein, Alison Gaines and Dan Lougher will resign, leaving a 3-member board with Mr Gilmour and existing BSX directors Hamish Halliday and Scott Williamson with Mr Halliday being Non-Executive Chairman and Mr Williamson as Managing Director. Joining the merged entity as a advisors will be Johan Raadsma, the current Chairman of B2Gold's Masbate project that processes 200koz gold, and Greg Cunnold, a geologist with over 25 years' experience in international exploration.

Joining the Executuve Management Team will be Joey Ayson, a geologist with over 40 years' experience, and Ronnie Siapno, a mining engineer with over 35 years experience. The pair will both be based in the Philippines.



Investors can look forward to assay results from drilling activities completed last year, as well potential M&A in the region.

BSX's Plans with Mankayan

Once the deal is complete, BSX will likely continue with the exploration plans that IDM had for the project. Investors can look forward to assay results from drilling activities completed last year, as well potential M&A in the region. This could involve the (new) company increasing its foothold in the region, potentially outright purchasing other projects, perhaps even becoming a target itself if it has exploration success. Positive momentum in gold and copper prices will aid the company's cause as well.

In the longer-term (i.e. 5-6 years), Mankayan could eventually become an operating mine with the potential for both high-grade and bulk-tonnage mining methods. The high-grade core enables the use of selective mining techniques to extract the high grades of the resource, offering lower upfront capital costs and the flexibility to expand plant capacity after initial development. A larger production scenario could focus on extracting the global resource through bulk mining methods which would require higher initial capital investment but benefit from lower operating costs.

BSX's Plans with Ta Khoa

Some investors may perceive BSX's move of acquiring Mankayan as a sign of 'giving up' on Ta Khoa. The company has not indicated that it is parting ways with this project, and seemingly intends to hold onto it for the foreseeable future. As we have noted in previous reports on BSX, the key two catalysts will be: the release of a Definitive Feasibility Study (DFS) for Ta Khoa and the granting of an Investment Certificate – with the latter being an effective 'all clear to mine' from the regulators. Offtake/Investment deals will help as well – the company indicated that an investment partnership could cover a lot of the remaining costs at Ta Khoa. However, it has been more difficult than the company had anticipated with the bear market for nickel.

In any case, BSX's experience with Ta Khoa has not been in vain. The company worked on the project for over 5 years and bought it from an exploration stage to a DFS-stage project. It has built up an established base metals mine development team that can be utilised to unlock the full potential of Mankayan. Its existing relationships and experience in the area, as well as its exploration and development equipment can all be deployed to the project.

Ultimately, BSX will be in better shape as a company once it has been completed the deal to bring Mankayan into its hands offering diversified exposure to projects important for the energy transition, as well as precious minerals.



We reiterate our valuation of Ta Khoa at A\$0.22 per share in a base case scenario and A\$0.28 per share in an optimistic (or bull) case scenario.

Our Valuation of Blackstone

When we initiated coverage on Blackstone, its sole focus was Ta Khoa and our valuation on the company was based on a DCF (Discounted Cash Flow) model of Ta Khoa based on the Preliminary Feasibility Study. Accounting for shareholder dilution reiterate our valuation of Blackstone as outlined in our initiation note from May 2024 - at \$0.22 per share in a base case scenario and \$0.28 per share in an optimistic (or bull) case scenario which was US\$2.08bn in our base case and US\$2.67bn in our bull case (translating to A\$3.08bn and A\$3.96bn respectively). We encourage readers interested in more details about our valuation on Ta Khoa to read our previous reports.

As Blackstone appears to be continuing its ambitions with Ta Khoa, we retain and reiterate our valuation for that project. At this stage we are not ascribing any value to Mankayan as it is only at an exploration stage, but if BSX can realise exploration success at the project, it would not be unreasonable for investors to value Mankayan similarly to other exploration-stage projects.

Figure 6: Our DCF calculation for Ta Khoa

Valuation (A\$m)	Base Case	Bull case
Present Value of FCF	3,084.2	3,962.3
Present Value of Terminal Value	0	0
Enterprise Value (A\$ m)	3,084.2	3,962.3
Net (debt) cash	(23.1)	(23.1)
Provisions	1.2	1.2
Equity value (A\$ m)	3,062.2	3,940.5
Projected Shares outstanding	13,993.2	12,993.2
Implied price (A\$ cents)	0.219	0.282
Current price (A\$ cents)	0.047	0.047
Upside (%)	352.5%	482.3%

Estimates: Pitt Street Research

We foresee the stock being re-rated to our valuation range driven by the following factors:

- The completion of a Definitive Feasibility Study (DFS) for Ta Khoa, which will further highlight the promise of Ta Khoa,
- Strategic Partnerships with parties for investments into the project, concentrate feed, offtake and by-product opportunities,
- Continued regulatory 'go-aheads' for Ta Khoa, particularly an Investment Certificate, and
- Exploration success at Mankayan,



Risks

The key risks to our thesis include:

- Continued commodity price depression: Prices for battery metals have been in a bear market since early 2023. This has impacted investor sentiment towards both upstream and downstream companies, not just equity market investors, but even potential financiers of the project. This will impede the ability of the company to secure finance.
- Exploration risk: Early-stage exploration projects like Mankayan are highrisk. They are capital intensive and have no promise of a return. The
 inability of BSX to achieve exploration success (by which we mean
 successful drilling results, leading to the eventual definition of a
 resource), will be fatal to the company.
- Financing risk: The company will need further finance to bring the project into production. There is the risk that the company may not be able to secure finance on favourable terms, or at all. As we have noted, the company will be likely to rely predominantly on equity financing given it will be easier to bring into Vietnam. It is inevitable that there will be significant shareholder dilution to advance the project.
- Definitive Feasibility Study risk: There is the risk that the upcoming DFS may not be as favourable as the PFS was, and this could impact the company's sentiment with investors, and perhaps even the decision as to whether to proceed further.
- Regulatory risk: There is the risk that the company may not be able to secure the regulatory approvals needed to advance either Ta Khoa or Mankayan. Moreover, as we have noted above, there is the risk the company may need to 'go back a few steps' if the inventory or project plans change.
- Key personnel risk: One of the reasons to invest in the company is its leadership team. There is the risk that key personnel could depart and the company may be unable to replace them and/or their contribution to the business.



Appendix I – Analysts' Qualifications

Stuart Roberts, lead analyst on this report, has been an equities analyst since 2002.

- Stuart obtained a Master of Applied Finance and Investment from the Securities Institute of Australia in 2002. Previously, from the Securities Institute of Australia, he obtained a Certificate of Financial Markets (1994) and a Graduate Diploma in Finance and Investment (1999).
- Stuart joined Southern Cross Equities as an equities analyst in April 2001.
 From February 2002 to July 2013, his research speciality at Southern
 Cross Equities and its acquirer, Bell Potter Securities, was Healthcare and
 Biotechnology. During this time, he covered a variety of established
 healthcare companies, such as CSL, Cochlear and Resmed, as well as
 numerous emerging companies. Stuart was a Healthcare and
 Biotechnology analyst at Baillieu Holst from October 2013 to January
 2015.
- After 15 months over 2015–2016 doing Investor Relations for two ASX-listed cancer drug developers, Stuart founded NDF Research in May 2016 to provide issuer-sponsored equity research on ASX-listed Life Sciences companies.
- In July 2016, with Marc Kennis, Stuart co-founded Pitt Street Research Pty Ltd, which provides issuer-sponsored research on ASX-listed companies across the entire market, including Life Sciences companies.
- Since 2018, Stuart has led Pitt Street Research's Resources Sector franchise, spearheading research on both mining and energy companies.

Nick Sundich is an equities research analyst at Pitt Street Research.

- Nick obtained a Bachelor of Commerce/Bachelor of Arts from the University of Sydney in 2018. He has also completed the CFA Investment Foundations program.
- He joined Pitt Street Research in January 2022. Previously he worked for over three years as a financial journalist at Stockhead.
- While at university, he worked for a handful of corporate advisory firms

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