

GLOBAL BUSINESS REPORTS Mining in Africa Country Investment Guide

MACIG 2026



Pre-Release Edition





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Behind the African discount

"If we had 1 million oz at 2.5 g/t in Kalgoorlie, Australia, we wouldn't be discount, prices in a combination of externalities like the general ease an AUD120 million company, but an AUD300 to 400 million in market cap," said Adam Oehlman, the CEO of African Gold, an explorer whose ESG, labour and safety risks. "In any asset valuation, risk is about the 1 million oz gold project in question, Didievi, is located in Côte d'Ivoire.

to think an asset would be worth more if located in a more marketfavoured jurisdiction reflects more than executive bias, but a broader market bias, known as the "African discount." According to Crux Investor, West African gold stocks have historically traded at between 40 to 80% lower EV/EBITDA multiples compared to their North American and Australian peers. A recent BMO Capital report also found that African assets trade at a 30% discount to Australian equivalents, as reported in

The phenomenon of African assets trading at lower valuations compared to peers from other regions is worth examining in detail to help investors discern what goes into the pricing of mining assets on the continent. The following article discusses whether the markdown is proportionate, and how the implied penalty influences mining sector

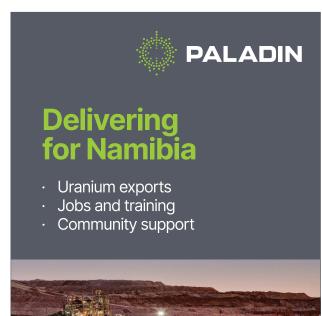
There are two components to the African discount. Part of the discount is purely prejudicial. A clue to this is in the name: the "African" discount, rather than the "Specific Country" discount, which betrays a tendency to lump together all 54 African countries, ignoring that each country carries its own risks. This overgeneralization of risk is what Jeff Quartermaine, the CEO of mid-tier gold producer Perseus Mining, identifies as a major reason behind the company's valuation gap: "While many of our Australian-listed peers have price-to-earnings (P/E) ratios of around 23–24, Perseus trades at approximately 7–7.5. People mistakenly assume that what happens in one part of the continent applies equally to all other countries."

While Perseus operates in Ghana, Côte d'Ivoire and Tanzania, all nations with good overall sovereign risk scoreboards, there have been a lot of negative things happening in other African countries recently, which tend to cast the whole continent in a bad light. It started when one of the world's largest gold complexes, Loulo-Gounkoto, operated by one of the largest gold producers, Barrick Mining, was placed under provisional state control in Mali, one of Africa's largest gold producing nations. In East Africa, post-election unrest in Mozambique led to the closure of several mining operations, including the seven-month halt of Syrah Resources' Balama, the largest graphite mine on the continent.

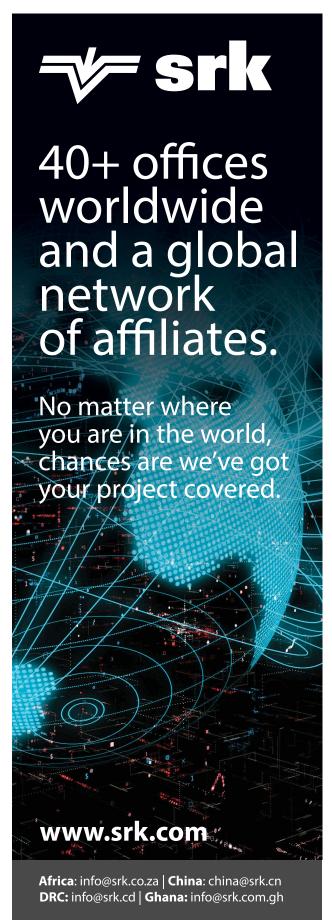
These recent issues show that the discount does not merely reflect sovereign risk or perception risk. The other, warranted part of the

of doing business, as well as politics, permitting, infrastructure, power, certainty of projected cash flows, which depends on the project itself It would go against both the instinct and duty of any mining CEO and all factors that could prevent achieving those forecasts. My view to claim that his company is ever fully valued. In Africa, the inclination is that some of these risks are overstated," explained Sherif Andrawes, Global Natural Resources and Energy Leader, as well as partner for Deal Advisory at global consultancy firm BDO.

> We could preliminarily conclude that the discount captures both a risk reality and a risk fear. Take, for instance, the recent "coup" epidemic in West Africa, and the increased resource nationalism seen in countries



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"There are more high-quality return opportunities in Africa than anywhere else. African countries are trying to make it better for their young populations while also encouraging foreign investment. They don't

Peter Marrone. Chairman and CEO. Allied Gold

want aid: they want

investment."

like Burkina Faso, which recently demanded to increase its stake in West Africa Resources' Kiaka gold mine by 35%, a move that forced the Australian-listed producer into a brief trading halt. The threats of the jihadist insurgency, which the military government has been struggling to contain, make the risk as real as it can get.

Meanwhile in Mali, which has gone through several coups, the ruling junta has jailed several high-level mining executives, imposed a moratorium on licenses and then changed the mining code raising the fiscal burden. It can be difficult to comprehend the government's intentions. Peter Marrone, chairman and CEO of Allied Gold, a gold producer with assets in Mali, Côte d'Ivoire and Ethiopia, provides this perspective for us: "Economic nationalism is not Mali-specific, but a global phenomenon, in the US, Canada, and parts of Europe. African countries are going through the same exercise of reassessing the split of the pie between the owner of the asset, the local community, and the nation at large, and that process gives rise to a different type of dialogue compared to the historical one that has taken place in Africa."

Marrone's comments highlight a clear predisposition to judge Africa by a separate yardstick compared to the rest of the world. In Guinea, for example, a West African country that has experienced a recent coup, the new government has revoked scores of mining permits. Matthew Sharples, CEO of Asara Resources, a junior explorer in Guinea, points out the double standard: "If a clean-up (the license revocations) like this happened in Australia (as it did a few years ago in Western Australia), it would be applauded. But when it happens in Guinea, it causes mass panic. It's like throwing stones from glass houses."

That warped perception of the continent can cause investors to overlook opportunities. Roscan Gold, a Mali-based gold junior which saw its valuation severely hit by the events in Mali, may be one of the most undervalued stories in the market for a company just 12-18 months away from pouring first gold, according to its president and CEO, Nana Sangmuah. Its low share price relative to the distance from cash-flow generation provides a very attractive arbitrage. Allied Gold, the company founded by former Yamana Gold executive Peter Marrone, is looking to fast-track Phase 2 expansion of the Sadiola mine in Mali, which could see it producing up to 400,000 oz/y; the company dubs itself one of the fastest-growing gold producers, and that same growth may not have been possible outside of West Africa.

To settle the debate, Sherif Andrawes, partner at BDO, boils it down to the choice between a high-quality asset in a lower-ranked jurisdiction versus a lower-quality project in a top-rated country: "One must weigh whether a confirmed, easy-to-mine deposit in Mali is better or worse than an uncertain underground prospect in Western Australia. Asset quality needs to be balanced against perceived risk, and each investor

"ESG is not just about reducing Orica's own footprint. We are equally focused on supporting our customers with credible, measurable, low-carbon solutions that align with tightening regulations and stakeholder expectations."

Diego Vallim, VP Europe, Middle East and Central Asia, Orica

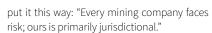
decides which is more important. Every African country is different, posing unique risks and opportunities. Some countries are arguably less risky than traditional Western jurisdictions in certain respects."

Let that be our only risk

The way that the discount works is by distorting the value of both the exploration stage and producing assets. This shows in technical metrics such as a market capitalization lower than the net asset value of its underlying assets (P/NAV < 1), or a low Enterprise Value relative to Free Cash Flow (low EV/FCF). But outside of the impact on individual companies, the systemic undervaluation has structural effects across the African mining sector.

The main impact is the exploration gap. At lower valuations, African operators often struggle to raise equity or secure other forms of financing, which slows down exploration activity and project development. S&P reports that Africa's share of global exploration spending has steadily declined over the past 20 years, reaching just 10.4% in 2024. By comparison, Australia and Canada attracted 15.9% and 19.8% respectively of exploration dollars that same year. Africa's landmass is larger than both countries combined.

Another trend that the discount is contributing to is a longer time to reach final investment decisions (FIDs). Reuben Joseph, who leads the APAC and Africa teams at Ausenco, a global engineering firm, noticed more hesitation ahead of FID decisions. However, he said activity at the project definition stage is intense, with a lot of focus on scoping, feasibility, detailed design, and sometimes even placing long-lead item orders. It appears African developers are particularly motivated to de-risk projects as much as possible before a final commitment to financing and construction, probably as a way to counter-balance lower confidence in the region with increased confidence in the resource and the ability to deliver the project to the market. Phil Russo, the managing director of Mali explorer Toubani Resources,



The efforts to validate a project's appeal are apparent in the high level of detail in technical studies and metallurgical test work undertaken. For example, by the time Deep Yellow finishes its Phase 3 detailed engineering studies at its flagship Tumas project in Namibia, it will have completed up to 70% of engineering work, whereas most companies reach an FID at 30%. Deep Yellow's decision to postpone the FID had less to do with the African discount than with uraniumspecific market conditions, but it still goes to show the level of diligence applied in African project work. Extensive metallurgical testing is another facet of the same drive to risk-proof projects. Junior explorer Roscan Gold has prioritized metallurgical testing, achieving 98% recovery in oxide samples and 93% in fresh rock at its flagship Kandiolé project in Mali

Perhaps one of the best ways to offset the pervasive impacts of African stereotypes is by carving out a standout ESG reputation. For Aya Gold & Silver with projects in Morocco, a strong ESG profile has been key in securing sustainability-linked financing from the European Bank for Reconstruction and Development (EBRD) for its flagship Zgounder mine, which is powered by solar and wind energy. As a green mine, Zgounder also enables Aya to command a premium on the silver sold. Michael Seeger, director at MX Mining Capital Partners, said projects where ESG enhances a business case are easier to fund. The example he offers is the Samancor ferrochrome slag recovery project in South Africa, which uses disruptive technology to recover residual chrome from slag and repurpose the remaining material as construction aggregate

In the prickly road to FID, developers are shifting to low-CapEx, simple build projects



ensure that both our workers and the communities in which we operate are treated fairly and have a better future.

OUR CURRENT PROJECTS:

- Rutongo Mines is the 2nd largest tin deposit in Africa and the 1st largest tin deposit in Rwanda.
- Trinity Nyakabingo Mine is the largest tungsten producer in Africa.
- Trinity Musha Mines is the 2nd largest tin producer with a lithium project.

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that are more digestible and executable. Lindian Resources, the developer of the Kangankunde REE project in Malawi, is looking at a CapEx of US\$40 million dollars and an 8 to 10-month build time. Orion Minerals, a South African copper developer, has a twophased development strategy for its Prieska copper-zinc mine in South Africa, with the first phase of near-surface supergene sulphide ore ("Uppers" phase) requiring only AUD50 million in CapEx. The peak funding requirement for the project, including the second "Deeps Phase", is ten times higher, at AUD568 million. "Accessing the Uppers allows us to stress-test the entire planning environment, a crucial first step in building a reliable and steady operation. (...) The catch cry for Orion today is to get the Prieska Uppers in a position where we can be producing concentrates by the end of 2026," said Anthony Lennox, managing director and CEO at Orion Minerals.

The logic that 'had this project been outside Africa, we'd be much better valued' might be worth recasting into 'had this project been elsewhere, it may not offer the same geology and ROI opportunity.' Or even, that 'this project may not exist at all.' A decade ago, DSTV ran an advertising campaign called

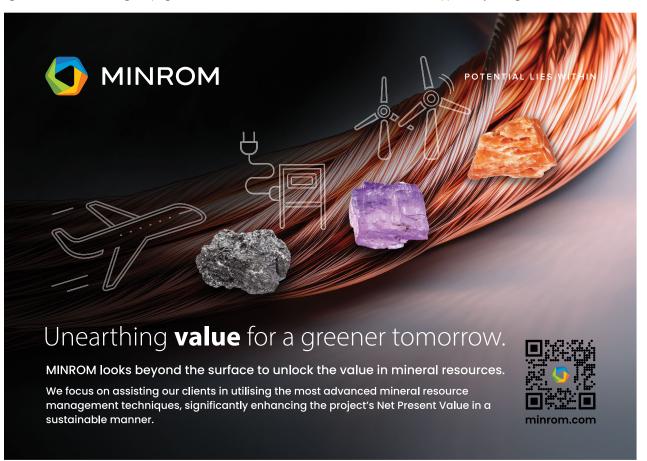
"There is one thing you need to look at, and that is the stability of the government where you operate. If you are not in the right jurisdiction, you could lose the asset or the economic value of your asset."

Benoit La Salle, President and CEO, Aya Gold & Silver

'This is Africa' that acknowledged stereotypes while juxtaposing them with images that both confirmed and contradicted those perceptions. It read: "They say this is a dark, always shooting each other. Of course. They say kids are hungry here. We know... They say we're backwards, so backwards. Yes sir... And that we look to the world for inspiration

There's a lesson in this poetic subversion. Africa has challenges, but these are not as one-dimensional as they are often depicted or understood, which makes the discount

quite often pick up on inexact amounts of real risks and feared risks, while missing out on the elements that make the project particularly derisked. Or, to borrow the dark continent. We agree... They say we're message of the DSTV advert into a mining context: Yes, this is Africa, with all of its challenges. But this is also Africa, with a wide variety of commodities, from native silver in Morocco to critical minerals that can be [Laughs]." The advert ended with: "So yes, mined at costs competitive with China's; with this is Africa – but not as they see it, rather as new countries coming to the fore promising previously untouched grounds, such as Liberia for gold or Botswana for copper; and with assets at such low prices that Africa's undervaluation problem may in fact be an opportunity in disguise.



Investment

Who is financing African projects?

With equities often on the bargain rack and loans carrying high risk premiums, hesitancy to invest in Africa is understandable. Yet a Moody's Analytics study on the risk profile of Africa over the past 14 years found that the rate of loss (the proportion of loans that are uncollectible) Eastern Europe (10%). Perhaps it is the increasing recognition that risks are often overstated when balanced against opportunities, or because Africa's minerals are becoming indispensable, but the continent has been attracting more diverse and innovative capital flows over recent years. According to Khanyisile Tshabalala Moshoeshoe, who heads mining and metals financing at Standard Bank Group, commercial banks, development banks, government-backed agencies, specialist private equity, the large mining houses themselves, as well as largeticket streaming companies are all coming to the table to a greater extent compared to pre-COVID days.

Moshoeshoe's observations are accurate. At a government level, more foreign parties are taking interest in the continent. The US, Europe, the Middle East, Japan, and even India are all crowding in, while China maintains its already well-established presence. mostly by taking leading equity positions in strategic projects. The Institutions like the US Development Finance Corporation (DFC) have most active in recent years is the Industrial Development Corporation become leading actors in critical minerals financing, providing support to companies such as Syrah Resources (graphite), Lifezone Metals (nickel), Trinity Metals (tungsten), Pensana Rare Earths, and Millennial Potash. Freshly NASDAO-listed NexMetals Mining has also announced a letter of interest from the Export-Import Bank of the United States (EXIM) for a potential loan of US\$150 million to finance the redevelopment of Selebi and Selkirk, two past-producing polymetallic mines in Botswana. Syrah Resources was awarded a US\$165 million IRA tax credit directly from the US Department of Defense.

UAE companies like International Holdings Resources (IHR) are also delving into Africa, through the recent acquisitions of the Alphamin mine in the DRC and the Mopani mine in Zambia. Maaden International Investment, owned by a consortium of Omani investors, has acquired a 41% stake in Catoca from sanctioned Russian company Alrosa. Catoca is the largest diamond producer in Angola.

On Japan's behalf, the Japan Organization for Metals and Energy Security (JOGMEC) has now built a presence in over 10 African countries and signed several MoUs focused on metals in South Africa, Zambia, Namibia and Angola. Equity investments by JOGMEC include Platreef (developed by Ivanhoe Mines in South Africa) and the

"Often, the best solution is a hybrid capital stack, combining a strong strategic equity partner with a streaming or royalty agreement and vendor participation. This blended approach creates alignment, reduces funding pressure, and increases the chances of project

Michael Seeger, Director, MX Mining **Capital Partners**

success."

Waterberg project (developed by Platinum Group Metals). Through the Ministry of Foreign Affairs, Japan committed US\$7 billion to develop the Nacala Logistics Corridor, which will support mining projects like Sovereign Metals' rutile-graphite project in Malawi. This type of eyeon the continent is 1.7%, much lower than in South America (13%) or watering investment used to be almost exclusively realised by China as part of its Belt and Road Initiative.

> On the private equity side, interest in African projects shows just as much geographical diversity: Luxembourg-based La Mancha Resource Capital backs companies such as Falcon Energy, operating in Guinea and Morocco; Vancouver-based Fiore Group, led by Frank Giustra, supports firms like NexMetals, active in Botswana; Singapore-based A2MP has taken an equity stake in Mali-based gold developer Toubani Resources, helping it raise AUD29 million; and Australian-based Iluka Resources has signed a US\$20 million funding term sheet and offtake agreement for the Kangankunde REE project in Malawi, developed by

> At the same time, African-based investment funds and state-owned development institutions are also getting more involved in mining, of South Africa Ltd (IDC), which has positioned itself behind some of the most significant developments in the country, including the Prieska copper-zinc project by Orion Minerals; the Qala Shallows gold project by West Wits Mining; and the TGME gold project by Theta



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Gold Mines. A notable development in African mining is the involvement of Ethiopian Investment Holdings (EIH), Africa's largest sovereign wealth fund, in Akobo Minerals, the company behind Ethiopia's first mine in three decades. EIH took a 7.4% stake in Akobo, marking the state-owned investment fund's first international investment (Akobo is listed in Frankfurt).

Meanwhile, notorious absentees from this group are African banks themselves. The US foreign aid cuts announced this year by Donald Trump's administration have reinforced an enduring desire to reduce director at GCB. external dependencies and rely more on Africa-for-Africa capital. Leading African banks such as Standard Bank, United Bank for Africa (UBA), Absa, Ecobank, BCDC, and Nedbank (in no particular order) have been primarily involved in renewable energy projects, as well as mining and infrastructure, yet many locally operating branches are constrained by liquidity limitations, high levels of NPLs, and national policies that have led them to take a more cautious approach.

In Ghana, for instance, UBA is looking to grow its loan portfolio and "take more risk," especially now that interest rates are finally coming down, according to Kweku Awotwi, board chairman at UBA Ghana. Ghana Commercial Bank (GCB), the largest bank by asset value in the country, has traditionally had limited involvement in mining, but this is now changing. That said, their approach is cautious: "We must strike a balance—on one hand, we want to support our clients' survival and growth; on MX Mining Capital Partners and author of the other, we must consider the risk of nonrepayment in a high-interest environment,"

"UBA has traditionally taken a more cautious approach, being quite careful about taking on unknown risks. However, moving forward, we certainly want to build our loan and asset book much more aggressively."

Kweku Awotwi. Board Chairman. United Bank for Africa (UBA) Ghana



financing, is the emergence of hybrid (quasiequity, quasi-debt) financing packages, which can include a mix of royalty and streaming and allow entities to share the burden. Large royalty and streaming companies with predominantly Americas-focused portfolios are increasing their exposure to Africa. This year, First Quantum Minerals secured a US\$1 billion gold streaming deal with Royal Gold, a large streaming and royalty company. This gives the Zambian miner the upfront cash to advance the Kansanshi expansion. Pure streaming company Wheaton Precious Metals has also signed a US\$625 million gold streaming agreement with Montage Gold's Koné gold project in Côte d'Ivoire, as well as a smaller US\$175 million streaming agreement with Allied Gold for the Kurmuk gold project

According to Michael Seeger, director of Mining Capital: Methods, Best Practices, and Case Studies for Financing Mining Projects,

momentum in Africa, since it helps reduce equity dilution, improve project bankability, and unlock capital where traditional financing falls short. These models mean that investors either get a share of future revenue (royalty) or pay upfront for a portion of future production at a discounted price (stream).

Another financing mechanism supported by MX is vendor financing, where vendors, such as mining and civil contractors, take a stake in the project they help develop instead of charging a standard contract fee. This aligns with what Capt. Pappu Sastry, CEO of Adhira Shipping and Logistics (ASL), describes as moving CapEx to OpEx: "Mining projects, especially juniors, struggle because they need huge upfront investments for machines, roads, ports and logistics. So, what we do is take almost everything-trucking, roads, ports, machinery—and move it from CapEx to OpEx. That reduces the financial pressure on the mine and creates an ecosystem where contractors, investors and operators are all tied together. Everyone has a stake in making the project succeed, because if one link in the chain breaks, the whole system suffers."





Latest Insights from the Financiers

"Sub-Saharan Africa represents the largest region within DFC's portfolio, with around US\$13 billion invested across 300 projects in 26 countries. DFC has the ability to invest equity and to support earlier stage opportunity through project development grants, and an expanded mandate enables greater investment that meets US interests. In addition, DFC has been growing its regional presence in Africa, most recently opening a new office in Abidjan in December 2024."



Vibhuti Jain, Regional Head of Africa, US International Development Finance Corporation (DFC)

"AfDB is currently undertaking a continental pre-feasibility study of key countries and sub-regional blocs in Africa to identify their inherent opportunities and challenges in developing capacity for the battery, EV and renewable energy value chains. The study outputs include project proposals in the BEV and related sectors for potential funding activities.

Fred Kabanda, Division Manager, Extractives, African Development Bank (AfDB)



"A good project with clear scalability will find various pockets of capital available these days. Banks have traditionally shied away from straight-up greenfield project financing, but they are now slowly coming back to the party with hybrid financing packages."

Khanyisile Tshabalala Moshoeshoe. Head of Mining and Metals Financing, Standard Bank Group

"Prior to entering into any streaming agreement,

we carry out extensive due diligence, including

third party reviews to complement our risk assessment on several key factors – geological, geopolitical, environmental and social considerations."

Randy Smallwood, President and CEO, Wheaton Precious Metals



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Africa's Diverse Project Basket

MALI - The Kobada Gold Project

"We believe Kobada is the largest oxide gold project in Africa that is not owned by a larger mining company. Now that we have one of the largest oxide inventories in our peer group and a large-tonnage mine plan, we have begun drilling the fresh rock beneath with a diamond rig on site."

Phil Russo, Managing Director, Toubani Resources

CÔTE D'IVOIRE - The Didievi Gold Project

"Following the deal with Montage, who now owns 17.8% of African Gold, we completed a 10,000-meter program and defined a 989,000 oz resource at 2.5 g/t, close to surface and open in all directions, with two additional discoveries made on the tenement. All indicators suggest this is only the tip of the iceberg. We've recently announced our largest drill program to date – 40,000 meters."

Adam Oehlman, CEO, African Gold

ANGOLA - The Tchitengo Diamonds Project

"While our Braúna mine in Brazil is nearing its end of life, with about 140,000 carats per year to be produced over the next three to four years, our future lies in Tchitengo, which offers a production profile ten times higher, at 1.4 million carats per year from open-pit mining over a 14-year life of mine. And that's only from one of the 30 kimberlite pipes on the property."

Ken Johnson, CEO, Lipari Mining

SOUTH AFRICA - The TGME Gold Project

"Once civil works are done, we're just 12 months from first gold, targeting production in Q1 2027. This multi-mine operation will deliver 120koz/year, with clear upside to 200koz/year. With over 6 Moz of gold resources at TGME, we hold one of the largest undeveloped gold assets on the ASX – and that is just the beginning: those numbers come from only 4 of the 43 historic mines we control."

Bill Guy, Executive Chairman, Theta Gold Mines



"After 15 years of hard work, last October we declared first production at Segele, the first new international mine to open in the country since 1994. We are now establishing a vertical shaft to increase mine production from the current 400-500 tons/month to up to 3,000 tons/month (40 to 60 kg/month gold). Ethiopian Investment Holdings, Africa's largest sovereign wealth fund, is taking a 7.5% stake in Akobo."

Jørgen Evjen, CEO, Akobo Minerals

"The binding strategic partnership with Iluka represents 50% of our capital requirement in a US\$20m construction term loan, and an additional offtake agreement for our Stage 1 production, namely 6,000 tonnes per annum. I see Lindian realistically becoming a half-abillion-dollar company in the short term and, once we achieve some further goals, heading well north of \$1 billion."

Robert Martin, Executive Chairman, Lindian Resources

ZIMBABWE -

The How, Mazowe and Redwing Gold Mines
"Namib Minerals became a publicly listed company this year, but for over 23 years, we operated as a private gold producer in Zimbabwe. Our How Mine produced 37koz last year, but we are actively working to ramp up capacity while also advancing exploration. In addition, we own the Mazowe and Redwing gold mines, which hold 1.2 Moz and 2.5 Moz in total resources, respectively."

Ibrahima Sory Tall, CEO, Namib Minerals

BOTSWANA - The Mmamabula Coal Project

"We developed the greenfield license all the way to BFS and mining license stage, and secured full funding from HMS Bergbau AG, a German-based international trading house that has taken a 51% interest. We plan to start production in Q1 2026. Our production target is 100,000 tons/month of high-quality, low-ash (less than 15%), low-sulfur, low-phosphorus branded coal product. Looking ahead, Maatla has a vested interest in the development of a downstream charring and green energy project."

Jacques Badenhorst, CEO, Maatla Resources



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The art of counter-cyclicity

The 'contrarian investor' is one who moves against the grain, buying when assets are priced low and selling during market upswings a defensive play. The same countercyclical game can be played by gold mining companies that invest in growth projects against the prevailing market trend. With gold investment in itself a defensive act, this article will look at how African gold companies can play on the offensive now that gold has breached the US\$3,900/oz mark in order to benefit more from this expansionary phase of the cycle. To do so, we will first look at why some companies benefit more than others and the different growth strategies currently adopted by the industry.



Theta Gold Mines Limited controls and dominates the Eastern Transvaal Gold Fields, where South Africa's gold mining industry began almost 130 years ago. And we're bringing this giant, forgotten historical shallow goldfield back to life.

ASX: TGM Theta Gold Mines Limited www.thetagoldmines.com



About the same time last year, we were writing about gold equities lagging behind the gold price. This is no longer the case. On average, both Australian and Canadian mining stocks, which account for the majority of listings in Africa, are outperforming the gold price. The S&P/ASX All Ordinaries Gold Index, which tracks the performance of Australian-listed gold mining companies, rose 65% in the last year, while gold rose 42% over that same period. In Canada, the S&P/TSX Capped Gold is 79% higher, and the S&P/TSXV is 109% higher over the past year. These indices show that stock performance amplified the gold movement, with a high leverage factor — the sign of a healthy gold-stock market relationship during a bull market.

Nevertheless, the field is uneven, and some companies are left behind. Jurisdictional considerations aside, there are several company-specific factors that make the difference, and that Africa is very well-positioned to accommodate. All-in sustaining costs (AISC), determined by labor costs, project location and logistics, consumables, energy price, mining method, plant capacity, grade, and others factors, determine the level of operational leverage in a highprice environment. Some African companies, like Thor Explorations in Nigeria, are producing at under US\$1,000/oz AISC. West African gold miners are notoriously operating at lower-than-average AISC, thanks to a combination of lower labor costs, closer-to-surface deposits, and higher grades. An SRK study found that a 1 g/t increase in grade reduces the AISC by AUD120/oz, as reported by Discovery Alert.

For producers pouring gold at under US\$2,000/oz AISC, which is the case for most African players, the returns during bull periods are outsized, especially if production is not hedged.

Producers: When boring is good

Gold is more precious than it has ever been: if US\$2,000/oz was the breakthrough point in 2020, now the price is close to US\$4,000. Over this time, mining companies have had the chance to repair and consolidate their balance sheets. According to a report by RBC, every 1% rise in gold prices boosts miner EBITDA by 2-3%. But returning value in line with shareholder expectations involves an artful balance between consolidating financial strength and launching into more aggressive growth strategies — and these decisions can impact share performance as much as fixed items like operational leverage.

Gold miners in Africa have been prioritizing sustainable growth over speculative growth. Thor Explorations, the operator of the only commercial-scale gold mine in Nigeria and with several development and exploration assets in Senegal and Côte d'Ivoire, reported record

"Investors certainly expect capital returns, but they also seek judicious growth. It's about striking the right balance by investing a certain amount of your discretionary capital into growth projects while also allocating capital for

Jeff Quartermaine, **Managing Director** and CEO, Perseus Mining

returns."

when nobody else is, in cheap assets, whereas what traditionally happens is that everybody moves in unison and

"The key is to be counter-cyclical and invest

wants to jump on the growth bandwagon when assets are already expensive."

Jorge Ganoza, President and CEO, Fortuna Mining



revenues in recent quarters: "Like most gold producers today, we're exposed to record-high prices, but it takes more than that. Thor has practiced continuous cost discipline, maintaining AISC under US\$1,000/oz, which allows us to fully reap the benefits of the bull market," said CEO Segun Lawson.

Thor has fully repaid its loan to the Africa Finance Corporation (AFC) as of December 2024, and declared its first dividend. Similar strong performances are provided by the mid-tiers. Perseus Mining has been paying dividends for several years now, and it has also launched its first share buyback program this year. Higher shareholder returns, including dividend policies, have become by reserve updates. This is perhaps why Perseus Mining has released

strong valuation catalysts. According to JP Morgan, miners with >2x net debt/EBITDA underperform peers by 25% YTD (June 2025), showing investors' preference for financial stability.

On the other hand, cash build-ups and fortified balance sheets do create room for more capital deployment. The priority for gold producers is accruing larger reserves. Long-life and quality assets are commanding higher premiums, according to Canaccord's analysis (March 2025): miners that show a 15-year reserve base and over trade at a 0.9x P/NAV versus 0.6x for companies with less than a 10-year reserve base. The valuations of mid-tiers are particularly impacted





NYSE: FSM | TSX: FVI

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We envision. We deliver.

Fortuna Mining Corp. is a Canadian precious metals mining company with three operating mines and a portfolio of exploration projects in Argentina, Côte d'Ivoire, Mexico, and Peru, as well as the Diamba Sud Gold Project in Senegal.

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a five-year gold production outlook to demonstrate that, based on existing reserves alone, the company will recover 2.6–2.7 million ounces of gold at a rate of 535,000 oz/y. "These figures represent the bare minimum that we will produce, providing investors with certainty over the next half-decade. But if anyone thought Perseus would simply sit on our war chest of nearly US\$1 billion in cash and undrawn debt capacity, then they would be ignoring history. In the past five to six years, we have grown significantly through both organic and inorganic means, consistently beating our own production forecasts," said Jeff Quartermaine, Perseus' managing director and CEO.

To build reserves, companies can either acquire ounces or find them themselves. A bull market typically triggers more M&A activity, which in itself adds valuation floors, but with assets already quite pricey, cash-rich producers are highly selective. Peter Marrone, the chairman and CEO of Allied Gold, had the following epiphany: "No transaction at the present time would compel this company to deviate our focus from Sadiola and Kurmuk. I cannot think of another midtier underpinned by not one but two world-class, generational assets, Sadiola with 10 million oz of resources and production of 400,000 oz/y of gold once Phase 2 expansion is complete; and Kurmuk which will produce 240,000 oz/y."

In the same mid-tier peer group, Fortuna Mining is focusing more on resource quality and margins than adding more assets. Jorge Ganoza said the strategic objective of Fortuna is not to grow the company to the proverbial million ounces of annual production but to consolidate it at a half-a-million ounce range at costs well within the middle of the curve. "Rather than chasing ounces, we are focused on value, because we already have the ounces in our pipeline, and

that differentiates us strongly from many peers in the current gold price environment," he emphasized.

Fortuna divested two non-core assets, one in Burkina Faso and one in Mexico, and is left with its flagship Séguéla mine in Côte d'Ivoire, as well as with two other operations in Latin America, and an advanced development project in Senegal. Ganoza is keen on anti-cyclicity: "We expanded our business in West Africa and built our largest mine to date at a time when the markets were risk-averse, and we had to deal with a lot of pressure from investors questioning our capital deployment at a time of downturn. Undoubtedly, we are seeing more M&A already taking shape, but if you speak to CEOs who have lived through many gold cycles, you will note a much more measured approach compared to previous cycles. In the last cycle, not a lot of great things came out of very aggressive transactions, and that cost the heads of some of my peers at the time."

In other words, the capital growth projects for many African producers remain existing assets that they seek to develop into production, like Kurmuk and Sadiola for Allied, Diamba Sud for Fortuna, or expanding the current reserve at Segilola for Thor.

In the spirit of the season, 'Back to School' has become 'Back to Exploration' as African producers have announced higher capital allocations for exploration these last quarters. This is an encouraging change for the continent. According to CSIS, gold exploration plummeted between 2012 and 2024 by 73.7% in Ghana, 89.7% in Burkina Faso, 58.9% in Mali, 74.8% in Tanzania, and 66.7% in South Africa. The current surge in exploration spend is a welcome antidote to the underinvestment of the previous decade, but sustained efforts will be needed to fully reverse the decline.

the middle of the curve. "Rather than chasing ounces, we are focused on value, because we already have the ounces in our pipeline, and to the underinvestment of the previous decade, but sustained efforts will be needed to fully reverse the decline.

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"Financial institutions and mining companies rely on our expertise to understand the strengths and weaknesses of a particular project before launching into a transaction. A lot of projects are not necessarily

are not necessarily found, they are made.
Processing can make or break a project."

Damian Connelly, CEO, METS Engineering



"It is not just about chasing the highest NPV or IRR, it is about what the market will realistically fund. We offer in-house financial modelling to determine the optimal size and scope of a project,

given the company's market cap, commodity, location, and broader market conditions."

Reuben Joseph, President, APAC/ Africa, Ausenco



Explorers and developers: Redoing the numbers

"Junior companies can act as the outsourced geological department of majors," said Michael Seeger, director at MX Mining Capital Partners.

Junior companies are indeed on the frontlines of finding more gold in Africa, and sustained gold prices are finally providing them with the arsenal to do so. The valuation gaps at the explorers' level are steeper, taking into account the size and confidence in the resource, time to market, location, and team, but we could argue that every junior company that has found gold, whether proved reserves (best confidence) or inferred resources (lowest confidence), benefits to some degree from the upswing.

Drilling activity across the continent is intense, supported by oversubscribed equity placements. Companies like Asara Resources are running campaigns of up to 100,000 m/y at their Kada project in Guinea. African Gold is currently conducting a 40,000 m drill program in Mali at the Didivei project. Once the projects are more advanced, the metrics they are judged on are those presented in PFS and DFS studies. The most significant development is the update in the reference price used by engineers in technical studies, from about US\$1,700-1,800/oz to about US\$2,200/oz, reflecting a market consensus of gold's long-term sustained value. Developers have been hurrying to revise older studies and rerun the numbers to reflect the material boosts on the economics of their projects.

For West Wits Mining's Qala Shallows project in South Africa, the change from a US\$1,750/oz to US\$2,850/oz Bloomberg long-term reference price delivers upsides including a reserve base increase of 10%, a shorter payback, a funding requirement lower by US\$10 million, and the ability to decrease the cut-off grade from 2 g/t Au to

1.31 g/t. All of these are trickling into IRR. "This adjustment improved nearly every financial indicator - the project now boasts an after-tax IRR of 81% and an NPV (7.5) of US\$500 million, with a LOM production of 944,000 oz over 16.8 years," said Rudi Deysel, the CEO.

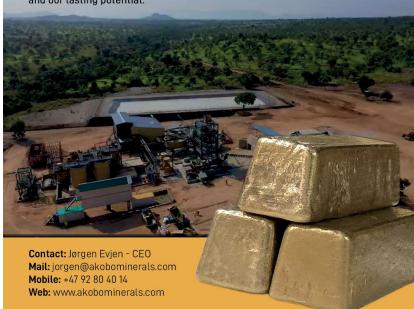
The high-price environment is also a precipitating factor for bringing more ounces quicker into the market. Theta is looking at a modular, plug-and-play plant, with production targeted for Q1 2027. Toubani, which develops the largest oxide project in

Africa that is not owned by a larger mining company, has doubled the throughput in the mine plan in the recent 2024 DFS update. "Market conditions once dictated a 100,000 oz/y, 3 million t/y plan. We have now doubled throughput to 6 million t/y, producing 160,000 oz/y for 9.5 years, with the first seven years fed exclusively from the high-margin oxide resource. Importantly, while annual production increases by 60%, CapEx does not double," said managing director Phil Russo.

FROM DISCOVERY TO HIGH-MARGIN GOLD PRODUCTION



Akobo Minerals delivers high-margin gold at an exceptional grade of more than 20g/t. From pioneering exploration to robust production, our operations are strengthened by the first international investment from EIH, the Ethiopian Sovereign Fund—reflecting both our leadership in Ethiopia's mining industry and our lasting potential.



IPOs: Opening more global windows

2025 has also been a great year for IPOs and secondary listings. Zijin Gold International, a subsidiary of Zijin Mining Group, recently announced it is readying for a listing in Hong Kong, targeting a US\$40 billion in valuation. The company is the 11th largest gold producer, with eight mines in operation, of which one is in Ghana. This would mark the second largest public offering on the Hong Kong exchange, but also a sign that the IPO draught that has characterized recent years might be over.

Guinea-gold producer, Robex Resources, launched an AUD120 million IPO on the ASX earlier this year, with trading started in June. This is a secondary listing to its primary TSX-V. Though secondary issuances usually come with a discount, they remain a popular vehicle especially for miners seeking additional exposure. Ariana Resources, an AIM-listed gold producer with experience in Turkey, recently shifted gears to Africa by acquiring the 1.4 million oz Dokwe gold project in Zimbabwe. Earlier this year, Ariana completed a secondary public listing on the ASX, raising approximately AUD11 million. "We chose Australia because ASX-listed companies generally command better premiums; indeed, some of the top ASX performers and best valuations in the market are Australian-listed companies with African operations," said Kerim Sener, Ariana's managing

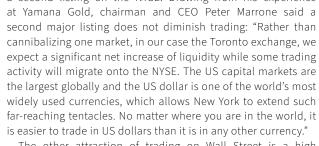
Outside of the usual Toronto and Sydney duo for African listings, New York is increasingly coming into orbit. Just two years since going public via RTO in Canada, Allied Gold completed

a second listing on the NYSE. Drawing from his experience

The other attraction of trading on Wall Street is a high regulatory standard, with NYSE-listed companies abiding by the strictest internal controls under the Sarbanes-Oxley (SOX) Act. "Investors have the certainty that financial and operational disclosures are meticulously compliant," said Marrone.

Times Square headquartered NASDAQ hosted the largest African DeSPAC listing in its history when Namib Minerals, a private gold producer in Zimbabwe, became a public company following a SPAC transaction with Hennessy Capital Investment Corp VI earlier this year. Namib has a history of over two decades of operations in Zimbabwe, with one producing mine (How) and two other gold mines (Mazowe and Redwing) under care and maintenance. Cutting the ribbon on the trading floor has given the company a global platform for growth. "For over 23 years, Namib Minerals operated as a private gold producer in Zimbabwe. Today, as a Nasdag-listed company, we're scaling aggressively," said Ibrahima Sory Tall, the CEO. ■





Critical Minerals

Africa and the new fundamentals of criticality

The concept of 'critical minerals' was first introduced by the US over US\$559 billion in 2025, according to NATO data. This year, NATO during the First World War, when they were called 'war minerals.' That original term still holds truth today, not only referring to minerals essential for the defense sector, but also to minerals entrenched in new types of trade, technological and price wars. Contemporary definitions of critical minerals continue to be written in martial language, describing minerals important for protection and control, interventionism.

In this article, we will examine how the value of 'being critical' interferes with typical supply and demand fundamentals and what these new fundamentals of criticality mean for Africa, which is believed to hold 30% of the world's critical minerals.

Different countries have developed their own critical minerals lists, which are updated regularly. In fact, the US is reviewing and expanding its list right now. This shows that criticality is neither universal nor static, but defined by the nation for which the minerals are deemed critical. This article focuses on minerals critical for Africa - those that are significant within the region's geology and of interest to global markets, whether they are already classified as 'critical' or are in the process of being recognized as such. For this discussion, we also include rare earth elements (REEs). While REEs are technically elements rather than minerals, they occur within minerals such as monazite and are treated under the same broad category for simplicity.

As a general rule, a critical mineral must meet two conditions. One is a condition of demand, namely that it should have an important use, such as in high-tech applications, defense, or the energy transition. The other is a condition of supply scarcity, specifically when supply is dependent on an unreliable or untrustworthy party, often a veiled reference to China and Russia, both important producers and refiners of minerals.

Demand

Demand for critical minerals is tied to various wars, literal and more figurative ones, which augment their demand. First, some critical minerals are war minerals, with tungsten, cobalt, silver, nickel and some REEs used in defense. The invasion of Ukraine, the Gaza conflict, tensions around Iran's nuclear power, millitary buildup in the Chinese seas, among many other strained global relationships, have pushed up military spending. Over the past 10 years, defense spending by NATO nations has risen from US\$279 billion in 2014, to

leaders agreed to ramp up spending to 5% of the GDP of member countries by 2035. That will incrementally drive the demand of minerals like aluminum, graphite, cobalt and tungsten.

The other battlefront that increments demand for critical minerals is the green energy transition (GET), which can be seen as a duel between fossil fuels and renewables, and between the traditional IC framed as matters of national security, and subject to statecraft car and the EV car. Copper, lithium, cobalt, nickel, REEs, manganese and silver are all essential for electrification. The International Energy Agency (IEA) estimates mineral demand for clean energy technologies could quadruple by 2040.



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One more significant 'war' that stimulates demand for critical minerals is AI, with tech giants like Google, Meta and Microsoft rivalling each other to develop and essentially dominate AI technologies crucial for economic power, geopolitical influence and military strength. Al engines consume large amounts of electricity, which require hyperscale data centers, also called AI factories. According to IEA, data centers may account for over 30% of electicity demand in advanced economies by 2030. Energy storage, semiconductors and supercomputing capacity increase demand for critical minerals like REEs, tungsten, silver, copper, nickel, lithium, and others. Al centers could represent between 2 and 3% of global demand for key minerals like copper, estimates Impossible Metals, a technology company.

Supply

There are a few important producers of critical minerals that the world no longer trusts. Russia, for PGMs, nickel, bauxite, titanium, potash and tungsten among the most relevant, has become a no-go 3Ts, through which it can exercise a level of control in pricing. Africa supply source since the beginning of the Ukraine war. Then there is China, which dominates not only the production of REEs, graphite, tungsten and lithium, but also has a near-monopoly on the refining of cobalt, graphite and REEs. According to a 2025 US Geological Survey report, China supplies more than half of US demand for 21 mineral commodities. The two countries from which the US is net import reliant by more than 50% are Canada and China.

Copper, cobalt, nickel, tin, tungsten, tantalum, iron ore, lithium, graphite, REEs, manganese, PGMs, silver, and others all form part of Africa's vast geology, some to a greater extent than others. Africa is a major producer of copper, cobalt, manganese, PGMs, as well as the



"Scandinavian countries, the Gulf States, the US, Canada, and others are ramping up exploration activity to reduce reliance on imports, but many of these countries lack sufficient reserves - which makes Africa's minerals even more strategically important."

Oscar van Antwerpen, Founder and CEO, Minrom Consulting

also holds resources like lithium and REEs, but current production capacity is limited, and processing capacity is negligible. For these materials, Africa is by default a price-taker.

Interventionism

Normally, a supply imbalance is calculated by taking into account total supply minus global demand. But countries have become more isolationist, adopting an 'us versus them' rethoric, which has given rise to more supply fragmentation. Policies have become focused on domestic needs above global ones. For example, the Inflation Reduction Act (IRA) in the US pleads to increase the domestic supply of critical minerals like lithium, nickel and manganese by providing tax credits for domestic manufacturing. The EU has launched the Critical Raw Materials Act to reduce reliance on Chinese processing, with a goal to process 40% of critical minerals domestically. China, meanwhile, has launched its "Made in China" policy this year, prioritizing its own local production.

Of course, those sovereign ambitions cannot be realized without external suppliers. Africa's minerals are at the center of both the West's and East's ambitions. The US extends specific incentives and grants to African partners through government institutions like the DFC. The EU has also signed mineral deals and partnerships with several African countries, including the DRC, Namibia, Rwanda and Zambia, but its actual participation in Africa is underwhelming. China remains to date the most substantial player in Africa's mineral sector, building refineries in Namibia (Xinfeng's US\$32.6 million lithium plant), Zambia (investments in the first large-scale pyro metallurgical copper smelter by Chambishi Copper Smelter Company, a Chineseheld company), and Zimbabwe (Zhejiang Huayou Cobalt's US\$300 million lithium processing plant), to give some recent examples.

The fundamentals of criticality are esentially fundamentals of fear; fear that overdependence can be exploited in the same way that oil was in the 1970s by Arab producers, REEs when China imposed export restrictions in 2010, or gas most recently in 2022 since the Russian sanctions. But using resources in power plays is no longer the domain of the 'other,' but part of the paraphernalia of both the East and West, as seen in the ongoing tariff war between the US and China.

In January this year, the US increased tariffs on Chinese-origin tungsten products by 25% under Section 301 of the Trade Act of 1974. In February, Donald Trump launched an initial round of tariffs on Chinese goods, including steel and aluminum, which provoked China to retaliate with export restrictions of five critical minerals - tungsten, tellurium, bismuth, indium and molybdenum. In April, the US launched

"The industry today is about sweating existing assets: Given the scarcity of new areenfield projects, much of our work today is helping customers extend the life of existing assets. We see many expansions, as well as replacements, upgrades, and rebuilds."

Bernard Kaninda. President for Sales & Services in EMEA, FLS

an investigation under the Trade Expansion Act of 1962 (Section 232) which allows the President to impose tariffs and other trade restrictions on imports if they are found to be a threat to national security. The final decision is expected later this year. China responded with further export controls on REEs and magnets. In July, Trump's administration imposed 50% tariffs on imports of copper products (not raw forms). After ruling US imposed antidumping tariffs of 93.5% on these products. A month later, China introduced strict export controls on graphite.

These actions overlay typical supply-demand fundamentals, inducing more complex price dynamics, sometimes driving prices upward, other times constraining them.

New price dynamics

Copper

Tariff shocks tinkered with copper prices this year, with prices rising as buyers built up inventories in anticipation of US policies, only to fall sharply after the Trump administration announced that raw copper would be exempt from import tariffs. Nevertheless, the world's third most widely used metal has a diversified production base, headed by Chile, followed by the DRC, Peru, China and the US as the top five producers, which makes prices more resilient to single-country policies. Long-term demand projections, driven primarily by China (60% of demand) place copper in a supply deficit of over 30% by 2050, estimates the IEA. While the US imports most of its copper from South American producers, China remains the largest buyer of African copper. Copper production in Africa has major Chinese shareholders, including Zijin Mining, which holds 39.6% of the Kamoa-Kakula Complex, the continent's largest operation, as well as CMOC, with an 80% stake in the Tenke Fungurume mine, and others.

At the time of writing, copper prices are sitting at US\$5.09/Lbs, 11% higher compared to last year.

Cobalt prices soared this year when the DRC, the world's largest cobalt that China is dumping graphite and anode material on US markets, the producer and second-largest copper producer, announced an export ban on cobalt hydroxide in February, citing oversupply. Prices have stayed elevated since, at US\$33,335/t in September. This showed that Africa too can play the big cards on its most critical minerals. The initial four-month ban announced in February was extended by another three months.



Lithium

Lithium spodumene prices have gone through a boom and bust in recent years, peaking at US\$6,000/t in 2022, and collapsing since to US\$600/t. According to Keith Muller, CEO of Atlantic Lithium, a sustainable price that offers good margins for both hard rock miners and converters is somewhere between US\$1,200 and US\$1,500/t of spodumene concentrate. But the current lithium winter is not only a result of market forces, despite lower-than-expected EV sales, which are the main driver for prices and the cause of the 2022 price flare-up. "There's no doubt in my mind that what we see today is more than conventional supply-demand dynamics. The lithium market is dominated by China—this is a matter of fact. China is very good at taking long-term views on securing its position in critical minerals. Pricing interference through controlling inventory has led all base chemical prices, on which variants of hard rock material containing lithium (spodumene, lepidolite, DSO, etc.) trade, to levels well below the incentive pricing needed for any new production to commence or for existing operators to expand. At these levels, I'd go as far as to say that there is probably only one operation that makes a margin, and that is the Greenbushes lithium mine in Western Australia."

Muller expects the price to correct by around 2028, the year Atlantic's Ewoyaa lithium mine is earmarked to enter production. There are currently no incentivizing tariffs for lithium, and the low price itself acts as a demotivator for developers. Nevertheless, a supply shortage is still in sight, and the number of shovel-ready projects is limited.

"In the 15 years of running our office in Lubumbashi, we have experienced various mining cycles, two attempted coups, and at least three elections. We now have a strong on-the-ground understanding of local

conditions and a strategic position to work across the Copperbelt."

Vis Reddy, Chairman, South Africa & **Regional Coordinator** (Africa), SRK Global



Atlantic Lithium negotiated fiscal terms with the Ghanaian government when spodumene prices were at US\$3,800/t, more than six times their current level, so the Australian developer is now revising the terms with Ghana's new government (elected last year).

Ghana's previous government imposed a ban on the export of unprocessed lithium during the boom, but during a downcycle, a more incentivizing approach should be considered. This is one small but important way African governments can influence not prices directly, but the future of a more balanced supply. Australia, however, does have more sway, and is currently looking at potentially introducing a floor price for its critical minerals, including lithium.



"We believe in a world that thrives on cooperation, REES not polarization and isolationism. Right now, people discount us because we work with Chinese partners, but this is the only realistic way to get to the finish line."

Matthieu Bos. President and CEO. Falcon Energy **Materials**



Graphite

Much of graphite trade transactions are negotiated directly between buyers and sellers, with China dominating 77% of graphite production and 97% of global anode output, according to S&P. However, it is fair to say the price of graphite is primarily influenced by supply limitations: Some are interventionist in nature, like China's introduction of specific licensing requirements for the export of certain high-purity and dual-use graphite products in a titfor-tat on the US's own restrictions on Chinese technology imports. Other supply pressures are unintended: Though China is the largest graphite producer, it is followed by Madagascar and Mozambique, making Africa a key source of non-Chinese graphite. Nevertheless, post-election national unrest in Mozambique led to the imposition of a force majeure at the Balama mine, Africa's largest graphite mine. Syrah Resources, its operator, resumed production campaigns in June this year, after a seven-month stall. The restart of the mine was supported by a US\$6.5 million loan from the US Development Finance Corporation (DFC).

Tungsten

China holds over 50% of global tungsten reserves and has declared tungsten a 'strategically advantageous mineral' since 1991. In February this year, Beijing also introduced quotas on exports in a bid to encourage more in-country processing and restrict the export of raw materials and intermediates. By May, the price of tungsten in Europe surged to its highest since 2013. In Q2 this year, tungsten prices were US\$88,805/t in the US, much higher than prices in China during the same period (US\$52,510/t), according to IMARC Group, a market research company.

After China, Vietnam, Russia, North Korea and Bolivia, Rwanda is the sixth-largest tungsten producer. The largest mine is Nyakabingo, operated by Trinity Metals. Trinity recently announced an agreement with Global Tungsten and Powders (GTP), America's largest tungsten manufacturer, to supply four to seven containers per quarter of tungsten for two years. "This marks the first time that tungsten flows from the Great Lakes region into the US. The partnership opens the door for further US investments into our operations. Earlier this year, we also signed a letter of intent with Nathan Trotter, an American tin smelter, to supply them with tin concentrate once they have completed the construction of their facility in late 2026/early 2027," said Peter Geleta, CEO of Trinity Metals.

The prices of neodymium (Nd) and praseodymium (Pr) surged by over 40% compared to the same time last year, after MP Materials, an American REE producer, sealed a deal with the US government to stop supplying China. This came after China announced a 125% import tariff on all US goods, along with special licenses for the export of seven out of the 17 REEs in April. Nd and Pr are not on that list. MP Materials accounts for about 10% of global supply, but China controls about 70% of production and most processing.

By 2027, the US Department of Defense wants to completely remove Chinese REE material from weapon systems, as part of an update to The Defense Federal Acquisition Regulation Supplement (DFARS). China has also increased imports of REEs, especially from Myanmar, to feed its own downstream industries, like the EV sector and high-tech manufacturing. Both hegemoths are hungry for more REEs.

Several African projects preparing to come online could help tilt the power balance for either of the two mega-players, as well as other regions eager for the material, including Australia, itself a major producer, or the EU. Iluka Resources, an AUD2.7 billion market-cap ASX-listed company, has signed a funding term sheet and offtake agreement for US\$20 million for REE concentrate from Kangankunde, a REE project developed by Lindian Resources in Malawi. REE concentrates from Malawi will be processed at Iluka's Eneabba refinery, currently under construction in Western Australia. Following the deal with Iluka, Lindian raised a further AUD91.5 million and reached a final investment decision, with first production expected in Q4 2026. "Kangankunde is set to become one of only a



"China currently holds the upper hand because it leads in rare earth separation technology, but the West is catching up. Once the West unlocks

this technology, the balance of power will shift from the holders of technology to the holders of resources."

Quinn Li, Executive Chairwoman, Aldoro Resources



handful of rare earth mines built outside of China. Few producers globally can operate at costs below US\$40–50/kg NdPr, and Lindian is one of them. The capital intensity is remarkably low: just US\$40 million in CapEx, split evenly between the plant and supporting infrastructure such as roads and construction. This is virtually unheard of in the rare earth sector, where comparable projects, such as ionic clay developments, often require a half-billion-dollar ticket," said Robert Martin, executive chairman at Lindian Resources.

Kameelburg REE project in Namibia, estimated at 500 million t of resources by its developers, Australian company Aldoro Resources. The current mineral resource is 280 million t at 2.9% TREO, but a Phase 2 drilling campaign underway could lead to a 40% resource expansion, including 100 million t at 1% niobium. The current drilling campaign focuses on heavy rare earth elements at a secondary permit, Omuronga. Kameelburg is dominated by light REEs. "If Omuronga proves similar in size to Kameelburg but richer in heavy rare earths and niobium, combining the two would make Aldoro's project the largest rare earths plus niobium project in the world," said Stephen Tomsic, Aldoro's CEO.

Quinn Li, the company's executive chairwoman, sees Kameelburg at the center of the geopolitical spectrum; a highly valuable asset for both—or either—Western and Chinese companies. "Whoever ends

up with this project gains a significant volume and pricing advantage in global critical mineral supply chains. China currently holds the upper hand because it leads in rare earth separation technology, but the West is catching up. Once the West unlocks this technology, the balance of power will shift from the holders of technology to the holders of resources," she said.

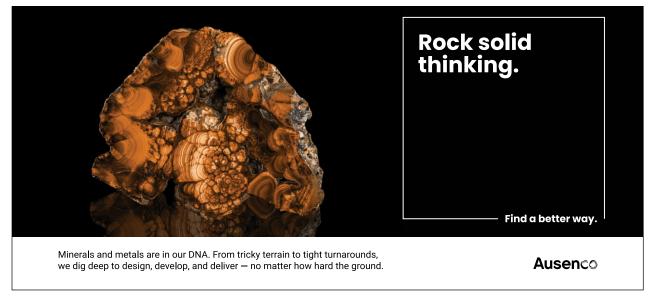
Several other REE projects across the continent, including Pensana Rare Earths' Longonjo project in Angola, Peak Rare Earths' Ngualla project in Namibia, Harena Resources' Ampasindava deposit, Ionic Rare Earths' Makuutu project in Uganda, as well as Rainbow Rare Earths' Phalaborwa and Steenkampskraal Holdings' Steenkampskraal historical REE mine, both in South Africa, each at different stages of development, create a potentially game-changing assortment of future supply.

Manganese

Manganese is one of the metals in which Africa is a price-setter, with South Africa as the largest producer by far, at 7.4 million t/y out of the total 20 million t/v produced in 2024. Gabon follows second with 4.6 million t/y. South32 and Jupiter Mines in South Africa, as well as Eramet in Gabon, are among the biggest producers. The market is currently balanced. According to Brad Rogers, the CEO of Jupiter Mines: "The average freight on board (FOB) price for Another large project of potential geopolitical significance is the our grade of manganese over the past four years has been about US\$3.34/kg, and today it is at US\$3.15/kg, reflecting a balanced market. This is because steel demand, driven largely by China, has been moving sideways in recent years and manganese supply has been sufficient to meet it."

> With manganese prices trading flat in 2025, producers are careful not to oversupply the market. Jupiter's Tshipi mine in the Kalahari Manganese Field in South Africa represents the fourth-largest manganese producing mine globally, with another 100 years of life of mine remaining.

> Manganese is not yet subject to interventionist policies, but its emerging role in battery chemistries may change this further down the line. While raw manganese is not currently in scarcity, refined materials and battery precursors remain heavily dominated by China.



Investing in battery precursors: With or without China?

Even the best cooking pot will not produce food, says an African proverb. The continent is an excellent cooking pot for battery minerals considering the richness of natural resources available. More than that, Africa's geology and cost structures allow producers on the continent to supply battery minerals at high purities and low costs, even competitive with China's. For example, the Tshipi manganese mine in South Africa produces at US\$2.20 to US\$2.30 per dry metric ton unit of manganese FOB, which allows it to stay competitive even in a low-price environment, according to CEO Brad Rogers. Lindian Resources' Kangankunde project in Malawi is also expected to stay competitive even against Chinese prices.

These advantages are key for African companies providing the feedstocks for battery precursors (lithium and manganese for cathode chemistries, graphite for anode). However, beating the Chinese in terms of processing costs is much harder than competing in raw material extraction. To return to our African proverb, the cooking of midstream materials involves many steps, and much more than a great pot and ingredients: it needs the capital for a hob (the facilities and infrastructure), and great chefs (the skills).

One developer thinks some of these items do not need to be started from scratch, since they already exist in China. Falcon Energy Materials owns the 42 million t @ 4.2% Cg Lola graphite project in Guinea, but its vision is to produce CSPG (Coated Spherical Purified Graphite), a battery anode material. "There are two main approaches to producing CSPG, a market dominated by China, which controls close to 90% of it. One is to try to crack the code yourself, an approach that has been pursued by the majority in our industry. The other is to leverage existing Chinese expertise instead of reinventing the wheel," said Matthieu Bos, Falcon's president and CEO.

Falcon chose to partner with a Chinese company, Hensen Graphite & Carbon Corporation, and use existing Chinese technology to produce CSPG for the Western markets at its plant in Morocco. According to Bos, trying to develop CSPG independently of China is futile, since the Chinese have likely invested around US\$1 trillion in current technologies that are used in everyday brands like Tesla. In fact, Tesla itself submitted a letter to the US administration to oppose the tariffs imposed on graphite and anode materials, saying US graphite producers were yet to show they have the technical ability to produce commercial quantities of the mineral at the quality and purity required by Tesla and other battery cell manufacturers.

Falcon has recently moved its headquarters from Canada to the UAE after the Canadian government did not approve its deal with the Chinese. "There are currently a lot of government grants to incentivize Western production, but you cannot build a business that is reliant on free money and trade barriers because these tools come and go, depending on the political sentiment. Our business model is built to endure without those crutches," he said.

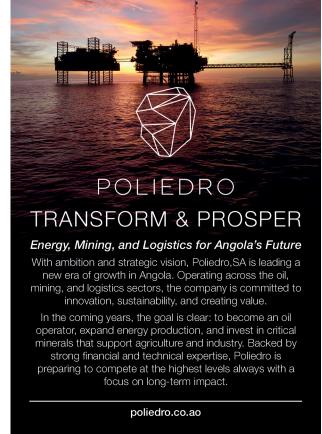
Taking a different approach is graphite producer Syrah Resources. 80% of shipments from Syrah's Balama mine in Mozambique go to the battery anode industry, mostly to China, but the company has also invested in an active anode material (AAM) plant in Louisiana, USA, due to start commerical sales this year. The Vidalia AAM plant has a capacity of 11,250 t/y and counts on an offtake agreement with Tesla. The Vidalia plant will be of strategic significance in the context of serving primarily domestic US demand, and it is benefiting from a US\$165 million IRA Tax Credit that could serve as an option for a future expansion.

On the cathode side, another leading African producer is also evaluation midstream opportunities. Jupiter Mines, one of the largest manganese producers globally, is currently in the process of a PFS to produce high-purity manganese sulfate monohydrate (HPMSM), an input for lithium-ion batteries. Manganese's role is emerging in both LFP (Lithium Iron Phosphate) and NMC (Nickel, Manganese and Cobalt) chemistries: "Automakers, cathode manufacturers and battery producers are increasingly exploring ways to increase manganese content in their chemistries. Manganese is more abundant, more chemically stable, and cheaper than many other cathode minerals, making it an attractive option for improving EV batteries," according to Brad Rogers, Jupiter's CEO.

However, Jupiter does not want to race ahead of the market. Before moving into a DFS, the company needs more customer certainty around volumes.

In 'war minerals,' to use the original term, African players must use all the resources they have available, whether we talk about resources on the ground that allow them to move downstream, technological resources (Chinese or not), and financial resources (coming from US grants or other sources). Uncertainties are many, again ranging from technological developments to geopolitical shifts, but it is clear that critical miners are no longer moved by natural causes only.

The competition for supply security has also given rise to a potential price premium or green premium, but that is yet to materialize, currently only the US Defense Department believed to be ready to foot the bill on a premium, according to GBR sources.



Pricing Outlook for Critical Minerals

Uranium Players on the "Trigger" Price

Copper:

"We are reaching a fulcrum point where investment has focused on the top of the pyramid (end products like electronics) while neglecting the base (raw materials). On the demand side, there is a lot of talk about the longterm, but I believe the market is more focused on short-

Morgan Lekstrom, CEO, NexMetals Mining

term gains, the same

speculative investing."

multiples principle that drives crypto and

"The source of tungsten supply becomes a by Russia and North Korea. Our Nyakabingo mine is number four on that list, and, through the required capital injection, our production will more than double in the next

Peter Geleta, CEO, **Trinity Metals**

Tungsten:

particular talking point when one considers the biggest producer in the world is China, followed five years."

Manganese:

"Tshipi is the fourth-largest manganese-producing mine globally. The opportunity to increase production is certainly there – the real question is when to do it. The most logical timing would be when some of the major manganeseproducing mines elsewhere in the world reach the end of their mine life."

Brad Rogers, CEO, Jupiter Mines "The decision not to proceed with the FID at Tumas was not due to any project weakness, but based purely on market conditions, particularly the mismatch between supply and demand: Utilities need to realize that the uranium industry can only be recapitalized and exploration can only

"Across the industry, we have seen challenges

issues, and simply the practical realities of how

timelines of around 17 years between inception

long it takes to develop a mine, with average

and production. At Kayelekera, we

were able to move a lot faster

since we did not face those

hurdles."

Greg Bittar,

Managing Director,

with restarts, regulatory delays, permitting

John Borshoff, CEO, Deep Yellow

"The consistent message from greenfield project developers is that they need the right price environment before they proceed. Recent sorts of problems, particularly with brownfield restarts. The result is a delayed supply curve alongside a rising

"The uranium price over the past decade has not encouraged additional supply capacity from miners, which has left the supply side of our sector a long way behind demand. Paladin will be part of more capacity coming online, as long as the price signals allow for it. Langer Heinrich Mine (LHM) is a long-life operation supported by

Paul Hemburrow.

77.6 million pounds in

reserves."

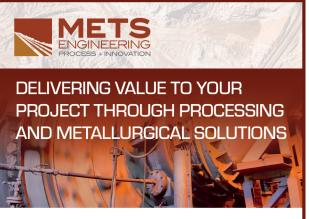
Lotus Resources MD and CEO, Paladin Energy

be incentivized when uranium prices rise."

announcements around restarts and ISR (in-situ recovery) projects have come with delays and all

demand curve."

Gavin Chamberlain, CEO, Bannerman Energy



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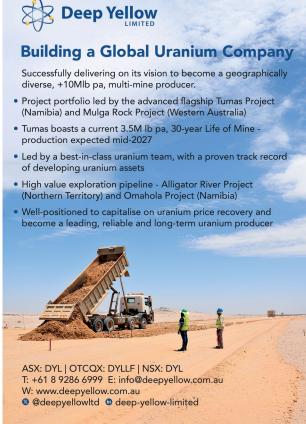


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"While demand for ex-China feedstock is growing, the number of non-Chinese or non-Chinese-owned suppliers capable of providing high-quality, highvolume feedstock remains relatively limited. As a result, we see a

stronger pricing outlook for feedstock supplying the ex-China anode market."

Shaun Verner. Managing Director and CEO, Syrah Resources





The fast lane for growth

"It might sound very bullish, but I can see Thor operating three mines in five years," said Segun Lawson, the CEO of Thor Explorations. With one gold mine in production in Nigeria, a project in development in Senegal, and exploration prospects in Côte d'Ivoire, Segun's ambitions are appropriately bold for West Africa, the world's fastestgrowing gold-producing region. Gold output in West Africa has risen by 127% since 2010, seeing many daring CEOs' goals fulfilled over

in West Africa, is one successfully employed by some of the fastest

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growing intermediate gold producers in the region. Perseus Mining is a classic example: The ASX-listed mid-tier producer started with one mine in Ghana (Edikan) and proceeded to bring into production two more operations in just five years, both of them in Côte d'Ivoire (Sissingué and Yaouré).

A more recent example is Allied Gold, a company that, just two years since listing in Canada, built a production platform of about 400,000 oz/v across Mali and Côte d'Ivoire. Allied is led by gold The formula adopted by Thor, which has projects layered across mining veteran Peter Marrone, who built Yamana Gold into a 1 different stages of development and across different jurisdictions million oz/y company with operations in the Americas. For its new venture, the former Yamana management chose Africa because it provides a faster lane for growth. Another player that crossed the Atlantic to seize opportunities in West Africa is Fortuna Mining; the traditionally Latin American focused gold and silver producer now calls the Séguéla mine in Côte d'Ivoire its flagship.

> The biggest gold mining companies in the world run tier-one operations in West Africa. After all, this is where Randgold Resources, now merged into Barrick Mining, started off. Other heavyweights in the region are Newmont, Gold Fields and AngloGold Ashanti in Ghana, as well as Kinross in Mauritania. Endeavour, the largest pureplay West African gold player, is demonstrating that you can also build world-class scale from West Africa alone. Currently producing at 1.1 million oz/y, Endeavour is aiming at 1.5 million oz/y by 2030. Meanwhile, mid-tiers like Perseus and Allied are springboarding off their West African sizeable platforms into East Africa. Perseus is preparing to bring the Nyanzaga gold project in Tanzania into production by January 2027. This will be its fourth mine and only mine in East Africa; Allied works against a similar timeline to see its third operation, the Kurmuk project in Ethiopia, coming online by 2027. Kurmuk will tip the company's guidance to 600,000 oz/y.

> Crossed by the 4.5 million km2 Birimian greenstone belt, which dates back to the Paleoproterozoic era some 2.2 billion years ago, West Africa has become a central hub for gold discoveries. 95 million oz of gold were discovered across the Birimian since 2004, outpacing Canada (61 million oz), Colombia (59 million oz), and Australia (29 million oz), according to Crux Investor. Important recent discoveries include Montage Gold's Koné, Turaco Gold's Afema, Centamin' Doropo, Tietto's Abujar, Aurum Resources' Boundiali, Awale Resources's Odienné, all in Côte d'Ivoire. In Guinea, Predictive Discovery's Bankan, Hummingbird Resources' Kouroussa, Robex Resources' Kiniero; In Burkina Faso, West Africa Resources' Kiaka and Orezone's Bomboré. In Ghana, Newmont's Ahafo North, Cardinal Resources' Namdini, and Newcore's Enchi; in Mali, Managem's Boto,



TWO GOLD PROJECTS in Côte d'Ivoire

- 3.3Moz Gold Mineral Resource (MRE) in Côte d'Ivoire, West Africa
- Self-owned 12 diamond drill rigs drilling on two gold projects
- 2,757 km² highly auriferous ground to be explored.

1) Boundiali Gold Project – 2.41Moz

- Significant upside: only 3 out of 7 tenements drilled to date
- 1,470 km² landholding with multiple undrilled targets
- 10 diamond drill rigs drilling day and night
- 2nd MRE update: Early Q1 2026
- Pre-Feasibility Study (PFS): Q1 2026
- Definitive Feasibility Study (DFS): H2 2026

2) Napié Gold Project – 0.87Moz

- Two diamond drill rigs drilling day and night
- MRE update: Early Q1 2026



Caigen Wang, Managing Director caigen.wang@aurumres.com.au

ASX: AUE

"Successfully expediting construction requires understanding regional nuances—delivery settings, labour laws, licence-to-operate, and local capacity. This understanding is what enables us

to consistently provide clients with confidence of outcome, delivering projects on budget and on schedule."

Peter De Leo, MD and CEO, Lycopodium Limited



Toubani Resources' Kobada, Cora Gold's Sanankoro, Roscan Gold's Kandiolé; in Liberia, Pasofino Gold's Dugbe. And In Senegal, Thor Explorations' Douta.

Many of these discoveries, like Abujar, Kiaka, Kiniero, Namdini and Kouroussa, have since become operational mines, while most others are at advanced stages of development. At 15 million oz produced in 2025, West Africa now accounts for approximately 10% of the annual gold output worldwide and more than half of the gold produced on the African continent. Beyond its geology, West Africa's climb in gold production is also owed to record timelines to production as competing governments over a similar geology are generally eager to fast-track developments. Based on an analysis of 44 gold projects

"We see an opportunity to expand by following clients with multi-jurisdictional operations. Companies like Allied Gold have assets in Côte d'Ivoire, Mali, and even Ethiopia. This crossregional platform is common among players in West Africa, and

Federico de Simone, Director, De Simone Group

we aim to mirror that

growth trajectory."



built in the past 15 years, West Africa has the shortest construction timeline at 1.7 years, whereas North America comes at 2.3 years, according to 3L Capital, an equity firm.

Costs represent another important allure of West Africa. Lower exploration costs create lower entry barriers and allow budgets to stretch over more meters drilled, which in turn improves result outcomes. Once at the construction stage, upfront CapEx costs sit at a competitive US\$93 per resource ounce, lower than in South America, where they are US\$119, according to Crux Investor. Moving on to production, mining companies can also yield better margins thanks to generally lower AISC averages. The World Gold Council warned that West Africa was the region with the highest AISC increase in O3 of last

THOR explorations LTD **NIGERIA'S FIRST AND ONLY** COMMERCIAL SCALE GOLD MINE Thor Explorations Ltd. is a West Africa focused gold exploration, development and production company with projects located in Nigeria, and Senegal, as well as a portfolio of exploration licences in Côte d'Ivoire. Thor holds a 100% interest in its flagship Segilola Gold roject in Nigeria. Mining and production commenced legilola in 2021, with an average annual production of approximately 89,000 Oz in its first three years of oduction. The Company's exploration portfolio in the region covers over 1,300 km2 of prospective gold bearing ground. In Senegal, Thor recently increased its stake from 70% to 100% at its Douta project, at which the company working towards the completion of a Pre-Feasibility Study. In Côte d'Ivoire, Thor recently acquired a 100% nterest of the Guitry Gold Project in addition to ences in the Boundiali and Boundoukou areas, which are held in joint venture partnerships with local partners. Thor has the option to acquire up to an 80% stake in each of these Joint Ventures. TSX.V: THX | AIM: THX Website: www.thorexpl.com LinkedIn: Thor Explorations Ltd. Information: info@thorexpl.com Investors: investor.relations@thorexpl.com year, but this may also be a result of moving into deeper mining. Only 30% of West African mines have an underground component, which is half the global average. In mature jurisdictions like Canada and Australia, most mines are underground (89% and 79%, respectively).

In Côte d'Ivoire, the President has just authorized the underground development at the CMA project within the Yaouré mine, owned by Perseus Mining. This will be the country's first underground gold mine. Coming next may be Fortuna Mining, which is evaluating an underground operation at Sunbird, a satellite deposit within its Séguéla mine. According to Fortuna's CEO, Jorge Ganoza, this is one of those situations when it is better to be second than first so that the regulatory field is already evened out by predecessors.

While current producers are starting to dig deeper underground, the current pipeline of West African greenfield gold projects is a unique peer group of mostly oxide deposits with excellent economics. Toubani Resources, for example, is developing the largest oxide gold project on the continent that is not owned by a larger mining company. "The DFS delivers a post tax IRR of 50%, a post tax NPV of US\$500 million, and a 1.75 year payback at US\$2,200/oz gold. At over 150,000 oz/y over approximately 10 years, Kobada is in the 'big league' of development projects not already owned by a major," said managing director Phil Russo.

A similar example, also in Mali, is Roscan Gold's Kandiolé, with a resource of 1.2 million oz. Most of the resource is defined in the oxides, at about 200 m and above, yet geophysics show extensions down to 1 km on undrilled structures. A 1-2 million oz deposit is a solid start for a West African growth story: "Randgold (now Barrick) started operations at Loulo three decades ago with 1.4 million oz as their

"Covering 34% of the Birimian Greenstone Belt and still largely underexplored, Côte d'Ivoire is one of best gold investment destinations in West Africa. Our experience at

Tietto showed us what can be achieved - and how quickly - giving us confidence to replicate that success at Aurum."

Caigen Wang, Managing Director, Aurum Resources



maiden resource, about the same we currently have at Kandiolé, with similar geology (surface deposits with underground extensions). Fast forward thirty years, and the Loulo-Gounkoto complex has become Barrick's largest African mine, producing nearly 20 million oz," said Nana Sangmuah, President and CEO of Roscan Gold.

Côte d'Ivoire: A cluster within a cluster

The original West African 'hub' is Ghana, a country with a long gold mining tradition and populated by the largest mining houses in the world. Accra, Tema, Takoradi, Tarkwa, and other cities in Ghana have acted as focal points for mining supply and services serving the entire subregion. While Ghana continues to be a brain hub for mining



"West Africa has proven its prospectivity for discoveries, as well as its attractiveness in terms of short development timelines.

Côte d'Ivoire, in particular, has repeatedly proven itself with probably the most success stories in recent years."

Segun Lawson, CEO, **Thor Explorations**

services, order books are filled with requests from elsewhere. And the most exciting of all in the past 10 years has been the northern neighbor along the Atlantic coast, Côte d'Ivoire. Here is where Ghanaian-based contractors like De Simone are moving. "De Simone is currently working on six different mine sites for various clients in Côte d'Ivoire, including the likes of Allied Gold, Endeavour Mining, Perseus Mining and Fortuna Mining. Our Ivorian operation has become the second largest after Ghana, which remains our home-base and where we serve every single sector (residential, retail, mining, oil and gas, power, industrial, as well as embassies)," in Côte d'Ivoire. said Federico de Simone, director at De Simone Group.

Côte d'Ivoire is also where most of the new mining developments have shifted to, with newcomers continuing to arrive, including,

most recently, Thor through its recent license acquisitions from Endeavour Mining, as well as Atlantic Lithium, the developer of the first lithium mine in Ghana. Côte d'Ivoire holds the largest share of the Birimian belt, at 34%, a geological concentration that may also explain the concentration of exploration and mining successes. Côte d'Ivoire is textbook for rapid gold development, a signature of West Africa itself: Mining permits have tripled over the past decade, according to Africa Energy Portal. The number of mines is almost on par with the number of active explorers, and that is for the simple reason that explorers very quickly evolve into production.

Though it has been popular for larger West African companies to take equity positions in smaller peers, like we see with Kinross (operating in Mauritania) in Asante Gold (operating in Ghana), or Perseus Mining (operating in Ghana and Côte d'Ivoire) in Predictive Discovery (operating in Guinea), Ivorian players have been more loyal to investments within the country. Montage Gold, backed by shareholders like Lundin Group and Zijin Mining, and led by a former Endeavour Mining executive, has become the largest shareholder in two Ivorian explorers, namely African Gold (at 17.5%) and Aurum Resources (at 9.5%).

"Montage has been quite outspoken about wanting to become a multi-asset producer, so naturally, they want access into what could be the next company to go into production," said Adam Oehlman, the CEO of African Gold, which is developing the Didievi gold project

Oehlman shared some of the potential advantages of this partnership: "Scaling exploration isn't linear. For example, if we wanted to add five rigs, we'd need around 30 people, and the more

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"The African discount is real and that is because not many people take the pains to get on the ground in Africa. I have spent months in Mali during times when the news was

overwhelmingly negative, and I can say that the reality is very different from the perception."

Nana Sangmuah, President and CEO. Roscan Gold



people you have, the more support you need (HR, payroll, logistics). It compounds fast. Montage is in a similar spot: They're drilling a lot of meters, but programs are cyclical, so when they're not going full active site. That kind of flexibility works well for both sides."

Allied Gold, Didievi is also exposed to multiple optionality paths down the line. The same goes for Aurum, whose Boundiali project is smaller in size (for now) but higher grade compared to neighboring Koné. Future toll processing opportunities, by trucking ore to the neighbour's processing plant, could be explored.

More than operational synergies and the prestige of having a multi-billion-dollar market cap investor like Montage on your register, these neighborly investments also drive a migration of shareholders from one opportunity to the next, with investors crossing over from Montage to African Gold too.

Another cornerstone shareholder for Aurum is Zhaojin Mining, the company that bought Tietto Minerals and its Abujar gold mine in Côte d'Ivoire. Tietto was founded by Caigen Wang, now managing director of Aurum. He built the Abujar gold project from scratch, as one of the first explorers in the country following the end of the civil war. It took about five years to bring Abujar to a 3 million oz + deposit. At Aurum, things are moving a lot faster. "It took us more than four years to move from one diamond drill (DD) rig to eight at Tietto, but at Aurum, we grew that same fleet within 12 months."

Aurum is preparing to release an updated MRE for Boundiali, hoping to increase the resource from the current 2.41 million oz to over 3 million oz. The current resource is based on only three of the seven tenements that make up the project, leaving significant upside potential in completely untouched areas across a 1,470km2 landholding. Between Boundiali and Napié, a project acquired last year with the takeover of Mako Gold, Aurum is planning 130,000 m of drilling for this financial year, leveraging its in-house fleet of DD rigs. That kind of drilling intensity shows the speed at which the explorer is moving, much faster than Wang's first rodeo.

Crossover investments within Côte d'Ivoire create an important nucleus within the broader West African capital network. The success stories within the country also help channel more investment into the region and the synergies created between operators sitting in close proximity to one another create opportunities for consolidation and operational efficiencies. This rapid scale of development further pulls in more service providers into the country. All of these forces are turning Côte d'Ivoire into the new gold mining capital of West Africa. Given Ghana's stagnation in exploration and the turbulent politics

in leading gold producers Burkina Faso and Mali, the region needs a positive reference like Côte d'Ivoire. Now the Ivorian government is to decide whether the country will maintain its good reputation through the new mining code currently underway.

Where the gold belt meets the coup belt

Perhaps not unrelated to the gold boom, West Africa has also seen a boom in political instability and insurgent violence since 2020. A wave of coup d'etats, in Mali, Guinea, Niger, and Gabon, as well as failed coup attempts in Sierra Leone and Guinea Bissau, all happening between 2020 and 2024, has wrapped the affected Birimian belt into a "coup belt."

Mali

In Mali, Général d'Armée Assimi Goïta launched a coup in 2021. By the following year, the military government started an audit of the mining sector, which resulted in a new mining code (2023) demanding increased state participation and higher royalties. In throttle, it makes sense for them to shift staff temporarily to another October that same year, Mali started a review of all existing mining contracts. This is when the saga with its largest operator, Barrick With neighboring tenements owned by Montage, Perseus and Mining, began. In November last year, four of Barrick's employees were detained, leading to Barrick initiating ICSID arbitration against the state. In January 2024, Barrick was forced to halt operations after the government denied export authorizations, essentially blocking the gold at the site. According to Barrick's official timeline, in February 2024, the government filed a request before the Bamako Tribunal of Commerce to place the massive Loulo-Gounkoto complex under provisional administration, which the tribunal dutyfully did in June



DEVELOPING WEST AFRICA'S PREMIER OXIDE GOLD PROJECT

Kobada is an advanced stage near-surface gold project that has a global resource base of 2.2Moz of gold. Toubani has recently completed a Definitive Feasibility Study, confirming Kobada as a significant gold project, underpinned by its large scale, predominantly free-dig and open pittable oxide resource.



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the same year. "On July 10, 2025, Government helicopters landed unannounced at Loulo-Gounkoto and took over one tonne of gold potentially for sale by the provisional administrator. As of July 24, our request to the provisional administrator for information about the whereabouts of the gold and its intended fate has remained unanswered," informed Barrick.

in custody. The mining and exploration sector in the country has suffered both the direct consequences of these events, and indirectly from the negative image Mali projected to the broader investor community. For Roscan Gold, a junior developing the 1.2 million oz Kandiolé project, the moratorium imposed in November 2022 put most things on hold. "We were just about to process our exploitation permit when this happened, but we had to wait for the new code to be published before we could move forward. During this interim period, security was one of our top priorities. After the partial lifting of sanctions, we re-engaged in the permitting process. The environmental permits were obtained in record time (just three months)," said Nana Sangmuah, President and CEO, Roscan Gold.

Roscan's larger peer in the country, explorer Toubani Resources, sees a silver lining in the fact that the new code provides clarity. Its DFS was developed in line with the new regulations. According to Toubani's managing director, Phil Russo, the main issues had to do with historical tax liabilities and therefore concerned previous operators, whereas new companies not yet in production can start from a clean slate, without any backlog issues. "The recent change in the code offers stability compared to jurisdictions that haven't yet modernised their mining laws - and who may, eventually," said Russo.

The worst coming out of this coup season is Burkina Faso, where Al-Qaeda and Islamic State-affiliated insurgents control large swathes of the country, territories which the junta government is seeking and failing to recapture. Confrontations have been on the rise. According to Africa Center, fatalities linked to militant violence have almost The dispute continues, and the four Barrick employees remain tripled in the last three years since Captain Ibrahim Traoré took

> Traoré's crusade also extends to the mining sector. Burkina rattled investors when it made a solicitation to acquire an additional 35% of West African Resources' Kiaka gold mine this year. The government has since come forth to say this is an option, not a demand, seeking to reassure investors. Burkina has also enforced a mandatory dividend rule under its new 2024 mining code. The country's newly created state owned company SOPAMIB (Société de Participation Minière du Burkina) now controls multiple mines previously owned by subsidiaries of Endeavour and Lilium. Among them are Wahgnion Gold, SEMAFO Boungou, Ressources Ferké, Gryphon Minerals Burkina Faso SARL, and Lilium Mining Services. The main publicly listed mining companies remaining in the country are West African Resources and Orezone. West African Resources is a producer trading at significant discounts to peers. Orezone is on track to pour first gold by the end of this year at its Bomboré gold mine, which will produce between 170-185,000 oz in 2026, and up to 250,000 oz/y once Stage 2 hard rock expansion is complete. Both companies temporarily halted trading following the government's "option, not demand" to acquire more interest in their respective mines. They have both resumed trading since.



Niger's climate has also been very fragile. The junta seized control of Orano's uranium mine this year in escalation of a dispute with the French giant. The mine will now be nationalized.

Gabon

The 2023 coup d'état in Gabon ended the Bongo family's six decades-long hold on power. Coup mastermind and leader, Gen Brice Oligui Nguema, won the elections held earlier this year with an absolute majority. Nguema has made promises that Gabon is an ally to the West and assured foreign investors of political stability. The government aims to increase mining's contribution to GDP from the current 6% to 25% by 2030. It also wants to see more industrialization: this year Gabon announced plans to ban the export of raw manganese ore, its main mineral output, by 2027.

Comilog, a subsidiary of French giant Eramet, is Gabon's largest manganese operation. The country ranks third globally in manganese production and second in reserves, after South Africa. Beyond manganese, Gabon could become a significant iron ore producer, with the Belinga project potentially rivaling Guinea's Simandou. Australian company Genmin, together with China's Sinohydro, is advancing the Baniaka iron ore project, while South Africa's Menar has signed an MoU to explore both manganese and iron ore in the country.

Potash provides another source of diversification for Gabon's oil-dominated economy. The Banio potash project, developed by Canadian company Millennial Potash, could become the first potash operation in the country.

Guinea

Several missed elections deadlines later and three years since the junta leaders have taken power, Guinea has announced that elections will be held in December this year. The elections are unlikely to set the country on the course of democratic rule - in fact, Guinea launched a referendum to allow current leader, General Mamadi Doumbouya, to stand in the election, a similar mechanism to what Gabon has done to allow its junta leader to be elected.

The country's economy has accelerated in 2024 on account of huge FDI flowing for the Simandou iron ore project, and is expected to grow further as Simandou enters production from 2026 onwards. Rio Tinto, which leads the consortium behind Simandou, estimates GDP could grow by 26-55%. At 1.5

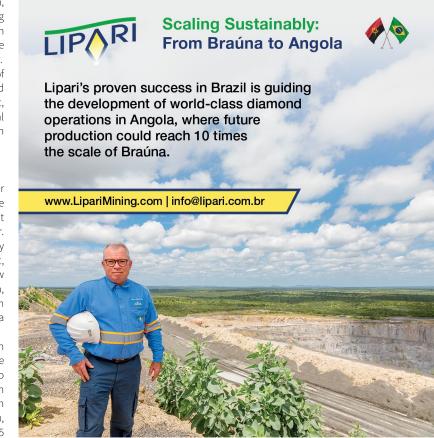
billion tons in ore reserves, Simandou is the world's largest known untapped reserve. Its development is similarly impressive, deemed as the largest mining and related infrastructure on the continent, according to Rio Tinto. It will include a 600 km trans-Guinean rail line connecting the project to the port, and the construction of the port itself on the Matakong island, near the border with Sierra Leone. The entire country is 500 km (north to south) and 800 km (east to west).

Rio Tinto and its partners have announced this year that the project secured corporate tax concessions at more than half off the standard rate for key parts of the US\$23.5 billion development. Guinea usually has a 35% corporate tax rate, but it approved a slashed, 15% rate for the first 17 years of operations at the railway and port transporting the ore to global markets. This is an important win for the developers.

At the same time, Guinea has cancelled the licenses of over 53 mining companies across bauxite, gold, diamonds and graphite this year. Those familiar with the jurisdiction, however, insist that Guinea is a country where it is possible to operate as long as you respect the rules. "I keep telling people: The

rules in Guinea are straightforward. If you comply with the mining code, submit your quarterly reports on time, and pay your taxes, you have nothing to worry about. The issue is that many came in thinking they could bypass the system. More than 90% of the licenses that were revoked were bogus to begin with," said Matthew Sharples, the CEO of Asara Resources.

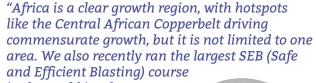
Sharples was formerly involved in developing the Kiniero project (acquired in 2022 by Robex Resources), also in Guinea. When looking for projects back in 2018. his team narrowed their search to Mali and Guinea, but settled on Guinea for two reasons, which both stand true today: "First, Mali, along with Côte d'Ivoire and Burkina Faso, have been heavily explored, while Guinea remains an elephant country with big deposits and far fewer holes in the ground. This makes it much easier to make discoveries and add ounces. Second, safety. If I wouldn't go to a country myself, I can't ask anyone else to go either. Over the past eight years, I've been to Guinea 34 times. I've never had a problem, and I still feel completely comfortable walking around in the bush. I can't say I've ever felt that way in Mali."



"Mining companies must approach risk in a holistic way: you cannot look at the guards, security, systems, or community engagement in isolation. Good communication between the mine operator and the

various service providers is fundamental."

Oliver Westmacott, President & COO. **GardaWorld Security** (Africa)



in the world in Ghana and see great appetite for more such training opportunities."

Laurence Goodacre. VP Africa, ORICA



Shifting sands

For a tropical region, West Africa has seen a lot of shifting sands in recent years.

The rules of selection in West Africa have changed. While Côte d'Ivoire has become a developing the 5.8 million oz JORC Baomahun gold project, set to become the country's first large-scale commercial mine. Guinea considered with caution.

has, of course, taken center stage since the breakthrough agreement for the development of the Simandou iron ore project, which will surely pave the way for developments in other minerals, including gold. In Liberia, Pasofino's and Liberia are garnering increased attention. million oz gold at 1.30 g/t Au average grade, is In Sierra Leone, private company FG Gold is also opening the curtain on the extremities of the Birimian. Meanwhile, the traditional main gold producers, Mali and Burkina Faso, are



Jorge Ganoza, the CEO of Fortuna Mining, which has recently divested its Yaramoko mine in Burkina Faso, said the company does not necessarily follow a logic of diversifying geographically to spread the risk, though first pick, less explored Guinea, Sierra Leone Dugbe gold project, with a reserve of 2.76 there are places that they would not go today: "One of the reasons we decided to divest our asset in Burkina Faso was the security aspect, with all the red portions within our risk matrix populated with the Yaramoko mine. There are places where we would not go today, like the Sahel countries, but we remain curious about Guinea. Sierra Leone and Liberia. and we are more than happy with Côte d'Ivoire and Senegal, which remain our main hunting ground. If you want to be a force in gold mining, West Africa is the place to be."

West Africa is also the place to be for other commodities: Outside of gold, the West African craton offers iron ore, particularly in Guinea, Liberia and Sierra Leone; manganese and potash in Gabon; bauxite in Guinea, Sierra Leone, and Ghana; and lithium in Ghana, Mali, Nigeria and Côte d'Ivoire.

Capital IQ places West Africa as a higher risk across all categories compared to South America, its counterpart for high-risk and high-opportunity. But M&A in West Africa defied these risks. The total value of West African gold M&A reached over US\$4 billion in 2024, compared to approximately US\$300 million in 2023, according to Crux Investor. Considering the pipeline of projects available and the success of first-movers in countries like Sierra Leone, we expect activity to pick up in coming years. New investors will need to tread carefully as they step onto these shifting sands. History shows that some emerging frontiers could become the next Côte d'Ivoire - or the next Burkina Faso within a decade. In a region that transforms so rapidly, the West Africa we write about in a few editions' time may look very different.

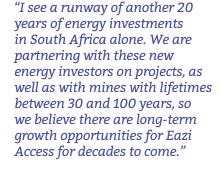
Choosing the Right Geographies for Growth

"The recent contract with a large Rwandan power generation company is not only a springboard into East Africa's power sector but also into the manufacturing, mining, and logistics sectors of the region. Dutylex now represents Petro Canada Lubricants in close to 40 countries."

Peter Quarm, CEO, Dutylex

"Positioned between South Africa (the region's industrial hub) and the DRC (the most significant emerging consumer market), Angola's geographic location offers a strategic advantage. We aim to facilitate trade between these two markets by building a robust logistics platform."

Ulanga Gaspar Martins, Chairman, Poliedro



Brett Kimber. CEO, Eazi Access























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Mining in Africa Country Investment Guide

MACIG 2026

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