

Pan African Resources

Buy, Hold, or Sell?

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Pan African Resources (Pan African) is a South African and LSE-listed small cap gold miner. Interestingly, it also has a sponsored American Depositary Receipt (ADR) in the United States, which allows investors to buy or sell the share directly in US dollars. For a smallish South African company, it is therefore well represented in well-heeled international markets.

Pan African is currently trading at R3.68 on the JSE, with a 52-week high of R4.76 (7 March 2022) and a 52-week low of R3.07 (26 October 2022). As always, the question is whether its attractive at these levels. I think it is, and in what follows I aim to show why.

But before we dig in, the structure of the article. In Part 1, I introduce Pan African briefly. In Part 2, I turn to what I take be the company's key value drivers. In Part 3, I stack up its financials against its share price. And finally, in Part 4, I bring the exercise full circle by reiterating my buy recommendation – with a few caveats.

Part 1: Introducing Pan African

The Big Picture

It's estimated that about 205 000 tons of gold has been recovered since humans started taking a liking to the yellow metal - 2/3 thirds since the 1950's. This includes the 3000-odd tons gold producers added to the total in 2021. Of this 205 000-ton grand total, about 95 000 tons (46%) is in the form of jewelry, 45 000 (22%) tons in gold bars, coins, and ETFs, and 35 000 tons (17%) is held by central banks. I don't know where the rest is. Finally, it's thought that another 53 000 tons or so can be mined profitably at 2021 prices (\$1600-plus). (Incidentally, the well-known Fort Knox holds about 4600 tons.)

On a per-company basis, the world's largest gold producer is US-listed Newmont Goldcorp. In 2021, it delivered roughly 187 tons or 6 million ounces of gold. By comparison, Pan African is rather less of a mover and shaker; its latest production figures indicate that it's picking away at the worlds estimated reserves at about 6.4 tons per year (205 000 ounces or so).

Pan African

Pan African's operations are mostly located in South Africa; Mpumalanga at present, and soon to be Gauteng. They are also exploring in Sudan. I'm not sure which of Gauteng or Sudan frighten me more; both are probably matters of prayer. And guns.

The current operations consist of 4 underground mines – 3 in Barberton, and 1 in Evander – and 2 tailings operations – 1 in Barberton and 1 in Evander. A tailings operation is where a miner reprocesses old mine dumps, extracting minerals that couldn't be economically recovered the first time around. In Pan African's case, the relevant mineral is naturally gold - and a sprinkling of silver.

In its most recent financial year, Pan African produced just north of 205 000 ounces of gold at an all-in-sustainable cost (AISC) of \$1284 dollars per ounce. Of the 205 000-ounce total, the 4 underground mines

produced about 124 600 ounces (60%) at an AISC of \$1436 per ounce. The 2 tailings operations added the balance (81 100 ounces) at an AISC of \$1051. As you can see, the tailing operations are a gold mine. Literally. More on the economics of these operations in a little bit.

Part 2: The Pan African Key Value Drivers and Numbers.

As far as I can see, five factors drive the bulk of Pan African's value. These are: the gold price, the rand/dollar exchange rate, the quantity of gold the company sells, its costs of production, and the life of its mines.

1. The Gold Price

All else equal, the higher the gold price, the more valuable Pan African becomes. And vice versa. The only problem: it's very difficult to say where gold is going, because it's very difficult to say what it's worth. And it's very difficult to say what it's worth because it seemingly cannot be valued using traditional valuation methods. The reason: these methods require cash flow inputs to work, but gold doesn't produce any.

Experts have responded to this dilemma in several ways. They note that whatever gold's *investment* value may be, its special physical properties – beauty, conductivity, malleability, and resistance to corrosion – means that it at least has *commodity* value. Sum the commodity and investment values, and you have an estimate of gold's intrinsic value.

The commodity value part is driven by the supply and real-economy demand for gold. On the supply side, mining accounts for the bulk of global supply – 76%. Recycling accounts for the rest. Demand for the yellow metal is driven largely by its beauty – jewelry typically accounts for 80% of global demand. Although estimating the commodity value of gold can't be easy, and it's probably interesting in its own way, I found the arguments supporting the investment value of the yellow metal particularly fascinating.

The most interesting of these gold "investment-value" arguments runs roughly as follows: although gold doesn't produce *explicit* cash flows, it does produce *implicit* ones, which means that it *can* be valued using traditional discounted cash flow methods after all. The basic idea is that gold will continue to be exchangeable – via paper money – for 'presumably higher-priced goods and services tomorrow' - as it is exchangeable today. If its commodity value doesn't change markedly - and it's hard to see that it will given gold's illustrious physical properties and history – then the gold price should increase as goods and services prices trend higher. In other words, gold should at least act as an inflation hedge – an 'inflation-indexed, infinite maturity, zero-coupon bond' as the experts put it (BCA research, August 2011).

I say 'at least' because, according to these same experts, there's more. Gold's history has not only demonstrated its undeniable physical appeal, but also its value in troubled times. And this they think can best be thought of as the metal's option value – a 'peace of mind' call option if you will.

However, since gold doesn't produce any explicit cash flows, its investment appeal would be diminished by any other asset that promises the same inflation and credit protection it does but adds some cash on the side. An asset like treasury inflation-protected securities for example. To be fair, treasury inflation-protected securities only provide such gold-beating cash flows when real interest rates are positive, which, as the most recent decade has shown, isn't always the case.

Having said that, the fact is that these rates *are* rising, which isn't good for gold. And given the forward-looking nature of markets, and the current down-trending gold price, you can be sure that gold is pricing

in some level of positive expected real interest rates. What that level is, and what that means for future gold prices, I don't know. Morgan Stanley to the rescue.

As of May 2022 (the latest Morgan Stanley data I have access to) – their base case scenario sees gold averaging \$1675 per ounce in 2023, \$1538 in 2024, \$1400 in 2025, 2026, and 2027, and \$1363 thereafter. On the downside, they estimate that gold could decline steadily from current levels to a post-2027 long-run of \$1226, briefly loitering in the \$1500's and \$1300's along the way.

2. The Rand/Dollar Exchange Rate

Gold may be priced in dollars, but Pan African sells it in rands. In other words, the *dollar* gold price is one thing, but it's ultimately the *rand* gold price that earns the company's bacon. The resultant economics are quite simple - the weaker the rand, and the higher the dollar gold price, the brighter Pan African's prospects become.

We've made our peace with the gold price. That leaves the exchange rate. The problem: I have no idea where the rand/dollar is going. If I had to guess, I would say down, but by how much and when, I can't say. As with the gold price, expert opinion will have to do.

And here I readily defer to Professor Brian Kantor of Investec – 'How to improve the outlook for the Rand' (Investec, 31 August 2022). If I follow his reasoning correctly, the market (currently) expects the rand to weaken against the dollar by about 5% per year over the next 5 years (US 5-year Treasury yield (4.14%) *minus* RSA 5-year Government Bond Yield (9.18%)). If this is right, the rand should trade somewhere around R24.40 per dollar towards the end of 2027, with significant turbulence along the way no doubt.

Anchor Capital argues that the current fair value of the rand/dollar is most likely somewhere between R16.50 and R17.00 per US dollar (Nolan Wapenaar, Anchor Capital, 24 August 2022). If we then assume that the rand depreciates against the dollar at its long run US-versus-SA inflation differentials - as a standard PPP model requires – the local currency should approach R22 to the dollar in 2027.

(P.S Remember that the stronger the rand, the bleaker Pan African's fortunes, and vice versa. Hence, the more optimistic the rand/dollar forecast, the bigger the margin of safety.)

3. Pan African's Production and Sales Figures

All else equal, the more gold Pan African mines and sells, the higher its revenue. In its 2022 financial year – to 30 June 2022 - the company sold about 205 700 ounces of the yellow metal. And its guiding for much the same in 2023. But, as with all forecasts, I like to be pleasantly surprised, so I assume their 2023 production target will not be met. As they say, the key to happiness is low expectations. I'll settle for 200 000 ounces.

My skepticism is not without warrant, not because these guys aren't exceptional operators, they are, but because mining is not an easy - and easily predictable - business. For example, in 2021/2022, unexpected geological difficulties at two of Pan African's underground mines meant that gold production at these operations were 10 000 ounces lower in 2021/2022 than in 2020/2021. The result was R277 million in foregone revenue and a 19% jump in production costs as fewer ounces were produced on a largely fixed-cost base.

Pan African's production profile should remain relatively unchanged in the next two years but then pick up materially as new projects come on stream at Evander and the recently acquired Mintails. If the

brownfields Evander project delivers as promised, Pan African should produce 220 000-plus ounces in 2024. Add a successful Mintails, and the total should rise to 275 000 ounces in 2025.

4. Pan African's Production Costs

In 2021/2022, Pan African's all-in-sustainable-costs (AISC) of production were \$1284 per ounce – at an average ZAR/\$ exchange rate of R15.22. The corresponding 2020/2021 number was \$1261 at R15.40. All-in-sustainable-cost is a gold industry convention which allows one to compare different gold miners' production costs across time and jurisdiction. And the name is particularly suggestive; it's the total costs required to keep the relevant mining operation going at its *current* production run.

The specific Pan African-costs that were included in this \$1284 AISC number were – from highest to lowest: salaries and wages (22.8% of the total); processing and metallurgy (22.4%); mining (16.1%); electricity (13.5%); sustaining capital expenditure (9.3%); engineering and technical services (8.6%); administration (3.6%); security (3.3%); and realisation costs (0.4%).

At \$1284 per ounce, Pan African's 2021/2021 all-in-sustainable-costs were just north of the \$1248 global average - West African Resources was the global cost leader at \$796, while our own Sibanye Stillwater didn't quite make ends meet at \$1749. While the US dollar AISC numbers allow us to make useful global cost comparisons, Pan African pays the relevant bills in rands. The economically important Pan African AISC number is therefore the one quoted in our local currency. An example will be illustrative.

Suppose the average ZAR/\$ exchange rate in 2021/2022 was R17/\$ instead of the actual R15.22/\$. At R15.22, Pan African's dollar AISC was \$1284; at R17/\$ it would have been \$1150, or 10.5% less. Multiply this \$134 cost difference (\$1284 - \$1150) by the 205 700 ounces Pan African produced in 2021/2022. The result would have been a very material \$26.7 million bump in Pan African's bottom line – or 36.8%. As you can see, Pan African really appreciates a weakening rand. Of course, the reverse also holds.

5. Life of Mines

Naturally, a mining company needs stuff (reserves) to mine if it aims to be a going concern. And the more it has – the longer the life of its mines – the better. In Pan African's case, there is nothing to worry about here – there is plenty of gold to go around for a very long time.

Part 3: What is Pan African Worth?

Pan African's economics isn't rocket science; very good things will happen if, the gold price rises, the ZAR/\$ weakens, and the company's produces more gold, more cheaply, and for longer. Naturally, the future will be far less appealing if the opposite occurs. As far, and as best I can tell, I think that the most likely short to medium term Pan African future will look something like this:

1. The gold price will follow the Morgan Stanley base-case script – \$1675 per ounce in 2023, \$1538 in 2024, \$1400 in 2025, 2026, and 2027, and \$1363 thereafter.
2. The ZAR/\$ will (mostly) weaken – R17.40/\$ in 2023, R18.40/\$ in 2024, R19.40/\$ in 2025, R20.50/\$ in 2026, and R21.70 in 2027.
3. Pan African will produce at least 200 000 ounces of gold in 2023 and 2024, rising to 220 000 in 2025, and 275 000 shortly thereafter.

4. Pan African's production costs will increase by an *average* 6% per year for the next 5 years. I'm assuming that Eskom Tariff increases – and load availability – will lead to sharper cost increases in the near term but be ameliorated in due course as the company's renewable energy interventions accumulate cost savings.

4. I don't want to tempt fate, but I sincerely hope that Pan African's Sudanese adventures don't lead to misfortune.

If I run the relevant calculations with the above assumptions, I get to an intrinsic value per Pan African share of R4.11 per share – or 11.6% above the current R3.68 per share.

Part 4: Buy, Hold, or Sell

We've covered a lot of ground - the gold price in both dollars and rands, Pan African's mining and operational prowess, and what I hope was a few interesting digressions here and there. The result was what I take to be a reasonable estimate of the company's fundamental value – a very conservative R4.11 a share. If I'm right, Pan African is a comfortable buy.

However, always keep in mind that two of the important factors driving Pan African's value are the gold price and the rand/dollar exchange rate. And although forecasts of these may be a dime a dozen, they could easily turn out to be worth a lot less.