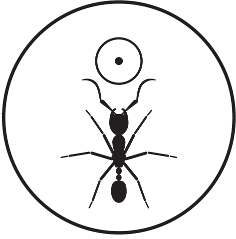

Myrmikan Research

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Gold Mining Valuations Ridiculous Again

Gold shares had another jarring month in June, with the GDXJ gold miners ETF losing 18.39%, down 28% year-to-date, putting its price well below where it was at the start of the COVID panic in March 2020. Though unpleasant, such enormous swings in value are not threats to our investment strategy in the same way that extreme losses might be to a trading strategy, for example, for which recovery from such losses would be nearly impossible. The market can mark gold lower, the value of gold mining assets then go lower, and the companies that own them sink lower still. But the assets themselves remain physically unchanged, usually improving through development, in fact. When the gold price recovers, so do the value of the assets, and the values of the companies that own them.

This played out in 2015 when mining companies lived in fear that the accountants would impair officially the values of the projects on their balance sheets. The market had done that already, of course, and, unlike a typical impairment, which recognizes permanent loss (the collapse of a building or loss of patent or fraud or other such things), gold resource impairments get reversed as soon as the gold price recovers.

The ongoing panic in junior gold shares have moved valuations toward ridiculous levels again. As examples, three of our favorite companies in sector include:

- A company spending $200 million to construct a gold mine in West Africa. The first year of operations, expected to commence by year end, should produce 260,000 ounces at an all-in-sustaining-cost (AISC) of $800/oz. At $1,700/oz gold the company should cash flow nearly its market cap in just the first year. The company does need another $10 million to complete construction, which perhaps has contributed to the 50% decline in share price since February. Given the value of the project and the fact that the company currently has no debt, financing costs should have minimal impact on the overall economics. West Africa may give some investors pause, but the project is in one of the better areas, and jurisdiction is a diversifiable risk.

- An exploration project in the Western U.S. with a million ounce open-pittable gold resource of over 1 gram/tonne (twice the grade of most operations in the Western U.S.). The deposit is located on private land, so the state (not the federal government) will be the lead permitting agency, a major advantage given the current administration. The company has already secured water rights to support 100,000 ounces per year of production and recently made a nearby discovery that should add a significant number of ounces to the project.

  A company with an analogous project, roughly 25% larger but on federal land, was recently purchased for $185 million. Our portfolio company's market capitalization is $30 million, and it holds $10 million in cash. There is no risk of short-term financing and management has been clear they intend to double the

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resource, further derisk the project, and sell the company before another financing would be required. This company's share price has also been cut in half since April, yet the only material news item since then has been the acquisition of the water rights. We think it is unlikely the 10% decline in the gold price could justify a 50% decline in the value of the asset; the cash position means the company has no need to raise cash in the near future; we conclude the performance probably has been driven by the liquidity position of the investors.

- A company with an operating mine in South America. The mine produced $170 million EBITDA in 2021; reserve replacement is running faster than mining, with Measured & Indicated ore supporting eight years of mining and Inferred another eight years. The company currently trades at an Enterprise Value to 2021 EBITDA multiple of 1.5x (and Q1 2022 performance was better than 2021).

  The company also owns a development project in a different South American country, diversifying jurisdiction risk. This open-pit deposit contains 7.8 million ounces of gold and 5.9 million ounces of silver. The Preliminary Economic Assessment, prepared in 2022 and thus reflecting recent cost increases, projects initial capital expenditures of $355 million, AISC of $916/oz, a mine life of 24 years, and an after-tax NPV(5%) of $794 million assuming a $1,700/oz price of gold. The company has $319 million in cash plus an undrawn stream facility of $138 million, meaning the project is fully funded for construction, scheduled to begin this year with production in 2024. Given that the production asset values the company at 1.5x EBITDA, investors get this project for free.

  In addition, the company maintains equity interest in two other public companies, with a current market value of $95 million. Applying that against enterprise value for illustrative purposes, the EV/EBITDA falls to 1.0x (ignoring the development project). The shares are some of the better performing in the sector, down only 34% year-to-date.

If one or even a few of our names had gone down between a third or a half in such a short period, we would fear the emergence of detrimental non-public information, such as production misses, cost overruns, grade reconciliation issues, permit failings, jurisdictional instabilities, etc. We do make our share of errors, of course, which is why we generally keep position sizes small. The fact that nearly all our forty names are down similar amounts along with other shares in the sector gives us confidence that the declines are due to market liquidity and not errors in investment analysis.

The question of performance then turns to when gold will reverse its recent downtrend. Myrmikan's macro thesis begins with an analysis of the credit cycle: Private banks create credit by lending deposits against assets. Borrowers redeposit loan proceeds back into the banking system, which (from the banks' perspective) become new deposits ready to be lent out again. Asset prices soar, and the quantity of credit grows much faster than the quantity of cash available to settle the debts.

In an unfettered market, increasing price signals scarcity; entrepreneurs respond rationally to the high asset prices by investing in additional capacity. The scramble for resources sends input prices shooting higher. The Fed tightens monetary conditions to control inflation, as it is now doing. The problem is that the enormous amount of credit, over $100 trillion in nominal value currently, which increases continually through compounding interest, must be supported by the $8 trillion of base dollars that the Fed has issued and which it has pledged to reduce through QT. In addition, the increase in asset

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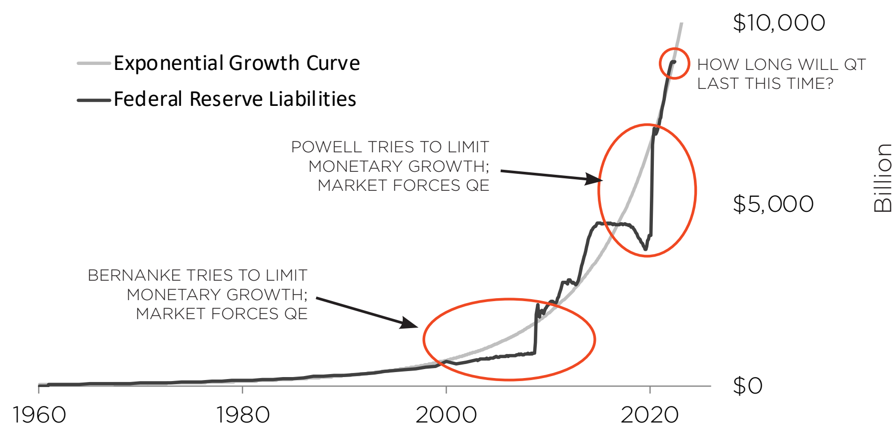
prices, being driven by bank financing, does not reflect consumer demand: the additional capacity lowers prices. Lower revenues combined with a scarcity of dollars causes the malinvestments to default and the financial system to teeter.

Marginal borrowers default first, and as they fail they bring down their creditors, and so on (recall that the housing collapse was “contained” in the subprime market until it wasn’t). As a form of collateral, gold gets sold to meet margin calls along with gold mining investments (this is the reason Myrmikan is always net cash positive and never carries margin debt). Faced with the implosion of the economy and the banking sector (which funds the state), the Fed has no choice but to create more credit against an ever growing pile of deeply impaired government bonds.

The chart below shows what happened the last two times the Fed tried to hop off the exponential growth curve. This time will be no different.

FEDERAL RESERVE LIABILITIES MUST GROW EXPONENTIALLY
TO AVOID A FINANCIAL CRASH



Gold mining investors will recall that the late-2000s were not a happy time. Gold had increased from $282/oz in 2000 to $1,000/oz by 2008. The HUI mining index soared from $70 to over $500. But then input costs went up faster than gold, operating margins compressed, the asset markets collapsed, and the HUI sank all the way back to $150.

The Fed’s QE program sent gold up first and fastest: the HUI index—the senior miners—rocketed up to $650 by 2011. The junior miners did much better. Then the new credit stimulated general asset investment, costs rose relative to gold, and by 2015 the HUI was back to $100.

Gold and gold stocks bounced around at slightly higher levels as the Chinese asset markets crashed and were bailed out. The period following the COVID crash then exactly mimicked earlier periods. Gold and gold miners were sold off during the crash, but the QE response sent both up first and fastest: the HUI more than doubled within six months of the crash (the juniors performed much better).

We are now seeing the familiar pattern playing out again: costs are increasing, operating margins are tightening, gold and the miners are being sold off as the world heads into the next liquidity crunch. We know what comes next. The Fed must print, and gold and gold miners will respond first and fastest.

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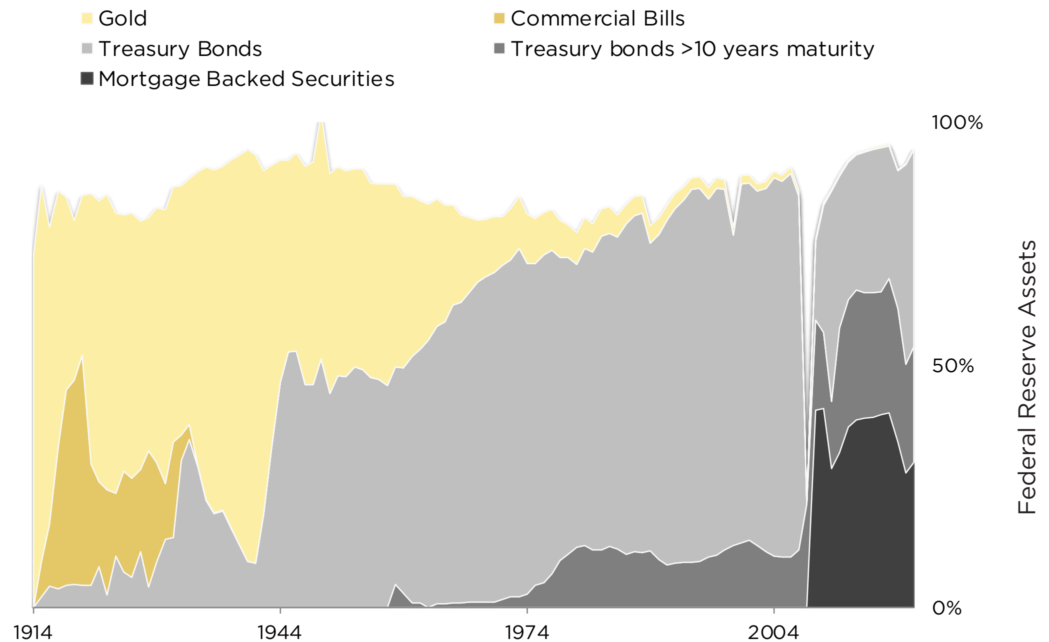
What if it does not print? Then the solvency of the Fed and the banks and the government come into question, and gold price projections of $10,000/oz become conservative.

Every banking system begins as a liquidity provider: issuing notes and deposits against current assets such as gold bullion and short-term commercial bills. They all end as credit creators: issuing legal tender notes against long-term government bonds and mortgages on fixed assets. Liquidity providing banks never face runs: their current assets can be sold or mature within weeks to meet redemption demands. Credit creating banks cannot withstand a panic: the mortgages are not salable in a panic and mature over years, even assuming no defaults: the banks fail, unless the state transfers the losses to its own balance sheet.

THE FEDERAL RESERVE ISSUES LIABILITIES AGAINST ASSETS THAT ARE EVER MORE ILLIQUID[1]



The chart above shows that over time the Fed has taken ever worse and more illiquid assets onto its balance sheet to bail out the private banks. The next innovation will be to buy stocks, as Janet Yellen has proposed and as the Bank of Japan does already. The currency is no longer backed by market values, as when the Fed held gold and commercial bills, but by illiquid assets that are non-salable in a crisis.

Modern economists assume that a central bank's asset value and cash flow position have no bearing on the value of its currency. Myrmikan disagrees. Pre-1933, central banks could and did experience runs: institutions and individuals could go to the central banks and demand redemption of currency into gold. They can no longer do that, but they still can run to the coin shop and convert currency in gold. That is what happened in 1980: as gold ran past $650/oz, the gold on the Fed's balance sheet completely backed its liabilities.

1 Note: the chart values the Fed's bond portfolio at face value, and the Fed holds gold at $42.22/oz, the final official price under Bretton Woods. At the current market price, gold comprises 5.3% of the Fed's assets.

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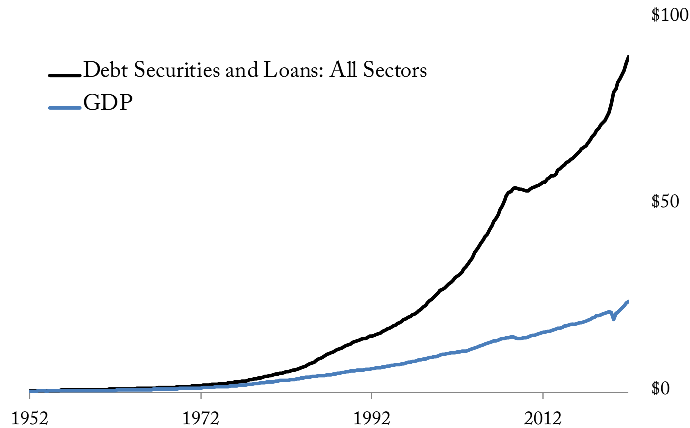
This phenomenon is going to happen again. The chart below demonstrates that our system of economy and finance are unsustainable. It's actually worse than the chart suggests because GDP is a measure of activity not wealth, and much activity in a bubble economy is non-productive; sometimes it even destroys value.

DEBT COMPARED TO GDP HAS SOARED SINCE THE U.S. DEFAULTED ON ITS GOLD REDEMPTION OBLIGATIONS IN 1971



The manic growth of credit compared to wealth has occurred only because the Fed has been willing to impair its own balance sheet, as shown by the two previous charts. In 1958, economist Melchior Palyi, advisor to the post-hyperinflation Reichsbank, warned Americans not to follow the German path: "When the national credit and the national currency are 'tapped' in order to maintain 'full employment,' full employment might be maintained. The money market can be kept liquid indefinitely if the Treasury prints certificates and the Federal Reserve monetizes them. But what happens to the liquidity of the monetizer?"

The army of Louis XIV reached Utrecht in 1672, and depositors to the Bank of Amsterdam (a mere twenty miles away) rushed to redeem their money into bullion. The bank's assets being bullion, there was no trouble meeting all of the redemption requests. The banks of New Orleans, backed one-third by gold and two-thirds by commercial bills, were making gold payments even as the Union army shelled the city. Such is the nature of banks that provide liquidity.

When the world losses confidence in the Western banking system, perhaps as soon as this winter when Europe will face economic and political collapse because of the conflict with Russia, the Fed will be forced to print more and faster, and there will be runs on central banks. There are no liquid assets on these balance sheets that can be sold to support the currency.

Gold will trade at a price that balances central bank balance sheets. In order for gold to back the Fed's liabilities by a modest one third, it would currently require a price above $11,000/oz. Since markets always overshoot, $17,000, or half-backing, is a more reasonable target (the peak price in 1980 resulted in an absurd 133% backing, which today would translate to $45,000/oz). This assumes no growth in the Fed's balance sheet.

The same forces that will drive gold to those prices will also drive interest rates to a level that disallows continued deficit spending. Like third-world countries and the Soviet

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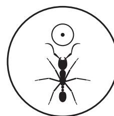
Union before it, the United States (and other Western powers) will be forced suddenly to balance its budget, with catastrophic effects for those dependent upon the state: the poor and the government parasites both. The economy will have to adjust radically as overcapacity liquidates, which will drive gold higher in real terms as well as nominal and cause gold mining margins to explode. Gold mining companies, such as the ones described above, ought to be the primary beneficiaries.

The $100 trillion of debt (and growing) demanding $8 trillion of cash (and shrinking) has launched the dollar higher through a short squeeze. The assets most sensitive to currency have fared the worst. We are reminded that the NASDAQ bubble bust when the last short covered. We suspect the dollar bubble may do the same thing.



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