Myrmikan Update

January 2013

Daniel Oliver
Myrmikan Capital, LLC
doliver@myrmikan.com
(646) 797-3134

Capital Miscoordination

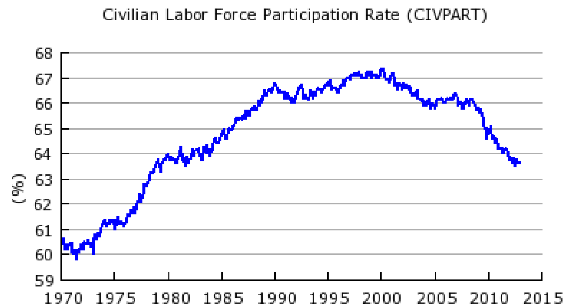
Ludwig von Mises is most renowned for developing the Austrian Business Cycle Theory. Examined in detail in other Myrmikan materials, the theory states that when a central bank artificially lowers interest rates it sends a false signal to businessmen that extra savings exists, ready to be deployed. Because the net present value of distant cash flows are more affected by changes in rates than near-term cash flows, the economy begins to develop assets with distant cash flows, even while completion of those projects is impossible because the real savings required to complete them is illusory.

Friedrich Hayek refined Mises' framework to show that low interest rates stimulate not just businesses with distant cash flows, but also production of higher order goods in earlier stages of production. For example, as a society accumulates savings, it can afford to invest capital in biotech firms that promise medical breakthroughs decades hence. The biotech firms would then stimulate the demand for lower order goods, such as test tubes and microscopes. Artificially falling rates that appear to boost the prospects of biotech would entice test tube manufacturers to expand their plant, even though, in the end, the demand for test tubes will not expand. Artificially low rates result, therefore, not just in the promotion of long-term malinvestments, but also the miscoordination of economic effort. An economy in the grip of economic miscoordination would see some sectors booming while other languished even while savings are destroyed leaving all society poorer.

From 2002 to 2007, many commentators described the U.S. as having a "Goldilocks economy," being neither too cool nor too hot. The data reflected moderate economic growth with low inflation, the ideal state for healthy, stable financial markets. The data in 2012 presents the miscoordination case. Far from moderate data clustered around the mean, data show some sectors to be booming while others remain depressed. The divergent data supports both the extreme bears, who tend to be anti-establishment, and extreme bulls, who tend to be those exploiting the current system.

Nowhere is the establishment more represented than at the World Economic Forum at Davos, where politicians, central bankers, private bankers, and financiers gather to posture and plan for the rest of us. The chatter at Davos was that the economic crisis is over. Bank of America described the mood as "Optimism, but with a sober tone." "I would say my investing self tells me that the worst is over," said Goldman Sachs CEO Lloyd Blankfein. The central banks have saved the private banks, and fiscal stimuli have saved the various economies. Keynesian economics works. Broader markets are roaring higher and gold languishing. Yet, for every positive data point, there seems to be equal and opposite evidence.

For example, the University of Michigan index of consumer sentiment climbed to 73.8 in January from 72.9 in December, against expectations of 71.5. But, according to a Gallup poll published January 21: "Americans are as negative about the state of the country and its prospects going forward as they have been in more than three decades."



The January payroll number missed, coming in at 157,000 versus an expected 165,000, but the December figure was revised from 155,000 to 196,000 and the November figure from 161,000 all the way to 247,000. Yet, not only did the unemployment rate increase to 7.9% as jobless claims rose, but the past upwards revisions suggest a sharp downturn in economic activity. And, the Labor Force Participation Rate continues its downward trajectory as discouraged workers are dropped from the calculations. The employment outlook is improving and worsening simultaneously.

December Durable Goods Orders increased a huge 4.6% m/m, smashing analysts estimates of a 2.0% increase, but backing out Boeing's 183 December orders to look at the Nondefense Capital Goods Excluding Aircraft dataset resulted in a year/year decline of 4.3%. And, Boeing reported that new aircraft orders in January fell to 2, down from 150 last year, suggesting the December headline figure to be an outlier.

December advanced retail sales were up 0.5%, beating expectations of 0.2%, but the Empire State Manufacturing Index was down to -7.78, the sixth consecutive negative print. Despite the weak conditions, the report stated "prices increases steepened, with the indexes for both prices paid and prices received reaching their highest level in several months" even while "employment indexes suggested that labor market conditions remained weak."

America's previous bout with inflation in the 1970s was "demand pull": an over-stimulated economy stressed capacity restraints forcing prices higher. Trained in this era, most mainstream economists dismiss the possibility of inflation without a decline in the unemployment rate. But, in a post-credit bubble contraction, inflation arrives as "cost push" when the central bank devalues the currency to maintain financial asset prices even while capacity utilization falls. As an extreme example, Zimbabwe's 2007 capacity utilization rate fell to 18.9% even as inflation rose to 231 million percent. If prices are rising while unemployment remains high, imagine the inflation if the printing finally does create a recovery.

Most importantly, the fourth quarter GDP number was a disaster at negative 0.1% against an expectation of 1.1% growth. Parts of the report were positive: personal consumption expenditures rose at a 2.2% annual rate, and business spending on equipment and software jumped 12.4%. And, as widely reported in the press, except for a 22.2% annualized drop in defense spending, GDP would have grown a sluggish but positive 1.27%, encouraging economists. But, this analysis ignores the fact that total government spending actually grew 3.5% y/y due to surging entitlement spending.

Keynesian and Austrian economists agree that fiscal and monetary stimuli "work" to expand the economy, the debate being whether such expansion is sustainable. Since it clearly isn't currently, the Austrians claim intellectual victory and the Krugmans argue for greater stimulus. Neither conclusion can be good for the dollar. If Austrians are right, the government will keep stimulating until the economy enters the crack-up boom. Even if the Keynesians are right, it suggests at the very least that much more "stimulus" will be implemented.

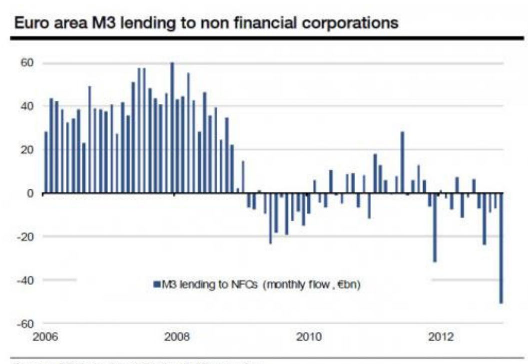
In fact, in Krugman's latest column he writes: "Slashing government spending destroys jobs and causes the economy to shrink. . . . Given the state we're in, it would be irresponsible and destructive not to kick that can down the road." These lines are reminiscent of Krugman's prescient call in 2002: "To fight this recession the Fed needs more than a snapback; it needs soaring household spending to offset moribund business investment. And to do that, as Paul McCulley of Pimco put it, Alan Greenspan needs to create a housing bubble to replace the Nasdaq bubble."

Krugman is correct that the European countries that have tried austerity have seen their economies collapse, so intertwined is government with the private sector. It is no different in the United States. Republicans must protect their constituents from Defense Department cuts and Democrats must protect the handouts to their supporters, both in the name of the economy. But, the European experience has also demonstrated that when tax rates are raised, revenue falls. The continued spending must be financed with debt. The can will be kicked.

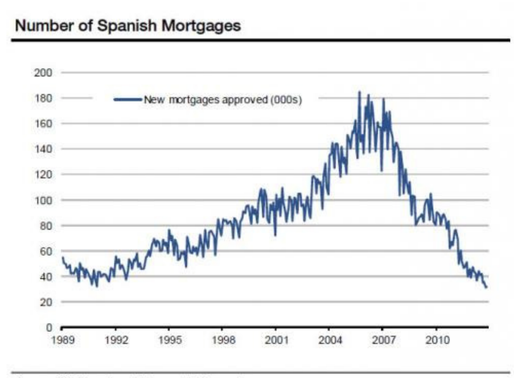
Meanwhile, in Europe, data similarly belies the optimism of policy makers and economists. On January 5th, the ECB announced that European banks had returned €137.2 billion of the original LTRO facility, well above the €84 billion consensus estimate. Optimists argue that the banking system is strengthening as the recovery gains ground. As the Wall Street Journal reported: "The data provide one of the clearest illustrations to date of the surprisingly swift healing of large swaths of the European banking system."

But, the €137.2 billion figure is only 13% of the two LTRO's. The ECB did not reveal who repaid the capital, but presumably it was the healthy banks from the core which took the cheap capital as a prophylactic. That these banks couldn't deploy this capital at a return greater than the 0.75% the ECB is charging suggests the Eurozone is far from recovery.

Consistent with this interpretation, Société Générale reported that Euro area M3 growth slowed sharply in December, falling to 3.3% y/y, while lending to non-financial corporations dropped by €51 billion, the biggest ever one month net repayment of M3 lending, as the upper chart shows.

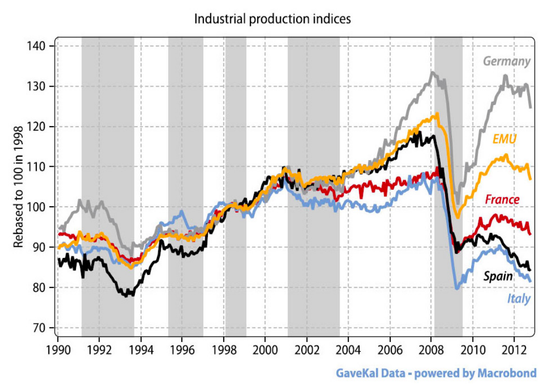


LTRO repayments shrink the ECB's balance sheet and the number of euros in existence, starving the periphery of Europe of money. Consequences include the continuing collapse of the Spanish real estate market (which forms the collateral of the Spanish banking system), as the chart at right demonstrates, and increased pressure on peripheral sovereign debt markets. According to Moody's 2013 outlook: "We believe that many banks, in particular in Spain, Italy, Ireland, and the UK, require material amounts of additional provisions to fully clean up their balance sheets."



As euros are drained, it should not surprise that the euro has climbed from $1.20 in mid-2012 to $1.34 currently. Even more damaging to Europe, a shrinking ECB balance sheet against an increasing BOJ balance sheet has seen the euro surge in terms of Germany's major trading competitor.

Though the Japanese have been widely condemned for instigating the current round of the currency war, the euro/yen chart at right generates sympathy for them. Since 2008, European problems in the periphery have weakened the euro, benefitting German exports. But, since the summer, the euro has surged 33% against the yen. ECB President Draghi claims: "the appreciation is, in a sense, a sign of the return of confidence in the euro." But, he also warned: "the exchange rate is not a policy target, but it is important for growth and price stability, and we will certainly want to see whether the appreciation is sustained and will alter our risk assessment as far as price stability is concerned." In other words, a confidence is driving the euro higher, but this risks undermining confidence.



A stronger euro will not only squeeze debtors, but also price European goods out of the market, the reason French Finance Minister Pierre Moscovici complained: "the euro is strong, perhaps too strong in some regards" shortly after admitting that France is "totally bankrupt." The chart at right shows the gradual decline of industrial production turning into a major rout in mid-2012, just as the euro turned stronger. This chart pre-dates the shrinkage of Eurozone GPD by 0.6% in Q4 2012, the largest drop since Q1 2009.

None of the European countries, including Germany, can fund their social promises if there is a protracted recession. Back in September, Moscovici had presented a budget that was supposed to lower France's public deficit in 2013 to 3% of GDP down from 4.5% in 2012 acknowledging: "I don't want France to get into Spain's situation, in which we would pay very high interest rates to pay our debt, which would stifle growth" But, on February 13, Prime Minister Jean-Marc Ayrault admitted France would miss the 3% target prompting Jörg Asmussen, a German member of the ECB, to snipe that it was "particularly important" for France to meet its target.

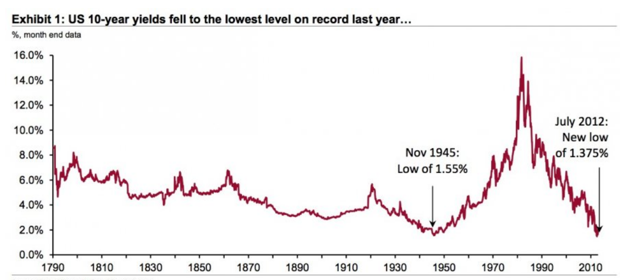
The winds are shifting against Germany as well, however. Over at Zerohedge, the editors quip that Germany must have discovered cold fusion to reconcile the two charts superimposed at right. If German exports become threatened, expect a softening of the Teutonic resistance to the money printing the Latin bloc requires.

Finally, any discussion of the euro would be incomplete without at least mentioning the €3.9 billion bailout of the oldest bank in Europe, the Banca Monte dei Paschi di Siena, its third in three years. Paschi di Siena is controlled by and supports the Italian center-left political party, and the scandal has helped propel anti-euro Berlusconi in the polls. But, the reason for the bailout was worse than straight political corruption: Ignazio Visco, the governor of Italy's central bank, explained that the bank was saved because of its "large portfolio of government bonds." In other words, the government is bailing out itself. Meanwhile, arrests for embezzlement are ongoing.

Other European bailout news includes the Dutch SNS Reaal Group, nationalized at a cost of €3.7 billion, and the crisis in little Cyprus, the Russian mafia's locale of choice for money laundering. Cyprus needs a bailout greater than its GDP, and it may get it. As ECB Board Member Asmussen said: "If we allow a system-relevant country to fall, we risk [last year's] progress."

All these banking and export problems can be solved by devaluation, but only at the cost of wiping out savers and only for those who devalue first. A recent Morgan Stanley report on the competitive depreciations of the 1930s concluded: "From an economic standpoint, the sharp improvement in competitiveness of the early movers stood them in good stead against the gold bloc economies who stuck the regime." Yi Gang, China's foreign-exchange regulator and deputy governor of China's central bank, recently pondered: "If everyone is doing super QE, which currency will depreciate?" The answer is all of them as against real assets, especially those who print the fastest and soonest.

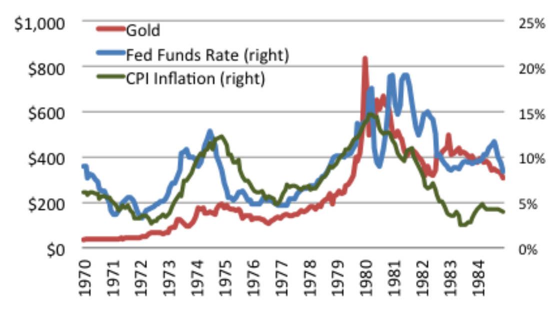
It is against this backdrop that the major banks, bizarrely, have been slashing their gold price forecast. Credit Suisse introduced the chart at right as evidence that interest rates have bottomed, therefore must rise since economic growth is now projected to return, which will increase the opportunity cost of holding gold, lowering its price.



Goldman Sachs has also projected the end of the gold bull market using the same reasoning: "Assuming a linear increase in US real rates back to 2.0% by 2018, as proxied by the 10-year US TIPS yield, we expect that gold prices will continue to trend lower over the coming five years and introduce our long-term gold price of $1,200/oz from 2018 forward."

Aside from the fact that the Federal Reserve is active in the TIPS market, erasing any signalling power those instruments might have, these analysts demonstrate profound ignorance as to what drives the gold price. The chart at right makes frequent appearances in Myrmikan updates because it demonstrates the anti-conventional view that the gold price correlates with interest rates. The bank analysts fail to explain why their models predict the opposite of historical experience.

Inflation and The Price of Gold is correlated with Interest Rates



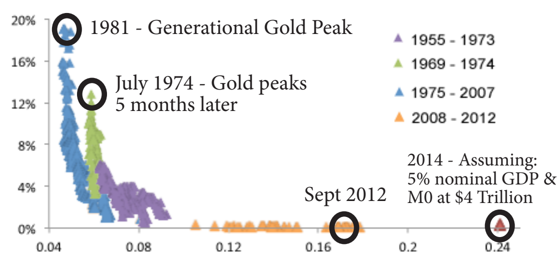
Beyond the historical evidence, there are two related theories as to why gold correlates with interest rates. The first is the theory of cash balance preference as presented by Milton Friedman in *Monetary Mischief* and discussed in detail in the Myrmikan report *Die Flucht in die Sachwerte.* Friedman assumes that every economic agent keeps a certain amount of cash on hand, say six weeks for simplicity. Then he posits: what would happens if everyone suddenly only desired three weeks of cash? Each person would spend half his cash buying something from someone else. But, no cash is created or destroyed in these transactions; cash is merely transferred to someone else. The recipient of the cash must now spend half his own cash along with the newly received cash. Prices would be bid up until they doubled. Once all prices had doubled, now the same amount of cash in society and for each person would be sufficient for everyone to have three weeks of cash.

In fact, no transactions need to occur for the above phenomenon to take place. Just as the bid and ask of a stock can move with no transactions, prices can move higher simply because societal cash balance preference shrinks. In hyperinflating countries, cash balance preference shrinks towards zero as prices race toward infinity.

Back in 2011, John Hussman observed that the amount of cash that economic agents are willing to hold is directly related to the opportunity cost of holding it as against the risk-free interest rate. To gauge cash balance preference, Hussman divides the monetary base by GDP. In normal times, for any unit of economic activity, people hold a certain amount of cash. If the risk-free rate rises, they will use the cash to buy short-term bonds in search of yield, lowering cash preference, which raises nominal prices.

As the chart at right demonstrates, the facts fit the theory. When interest rates are rising, such as in the 1970s, no one wants cash. Inflation and gold spike. Whereas, when interest rates are falling, such as during the panic of 2008, the opportunity cost of holding cash as against the risk-free rate falls, cash balance preferences rise, and prices crash.

Cash Balance Preference at a Generational High Implies Gold Price at a Generational Low



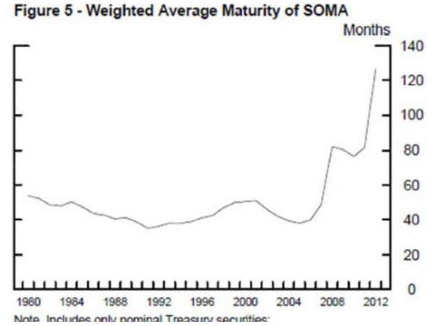
Source: Federal Reserve Bank of St. Louis

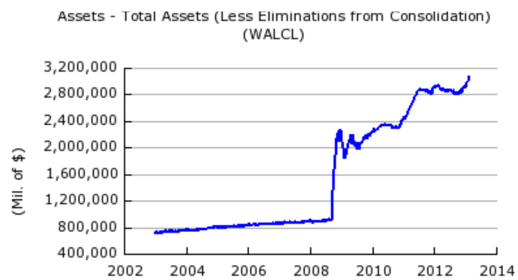
The bank analysts are correct that low real interest rates cause gold to rise and vice-versa, but they do not understand the difference between high rates and *rising* rates. As shown in the previous Myrmikan Update, the rising rates of 1926 and 2004 powered all markets higher as the opportunity cost for cash rose and cash balance preference fell.

If the curve on the chart above revealing cash balance preference holds, then if rates rise a mere 0.25%, nominal GDP would have to more than double. The only way this can occur in a short time is to have prices double. If the Fed increases the monetary base to $4 trillion as projected, then interest rates at 2% would require prices to suddenly quadruple. It is this outcome against which gold protects.

There is a second, related view on why rising rates increase gold prices. It is elementary finance that bonds fall in value when rates rise, and the longer the duration of a bond, the more sensitive its value to rates. As the chart at right shows, starting in 2005, the duration risk of the Fed's assets has exploded both in terms of the number of bonds (lower chart) and in terms of the average duration of those bonds. With continuing QE, the lines for both charts will continue to go vertical (the Fed is currently buying 75% of new 30y Treasury supply). The Fed's duration exposure is rapidly increasing.

Weighted Average Maturity of Treasuries Held at the Fed





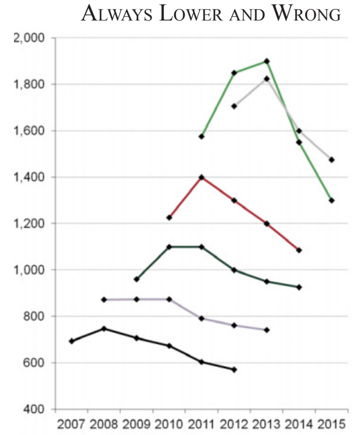
Worse, since 2008 the Fed has been paying interest on all excess reserves held at the Fed by the banks in an effort to keep these reserves from leaking into the economy. Bernanke has stated that one mechanism that the Fed will use to avoid inflation when rates rise is to increase the interest paid on bank reserves to keep them sterile. This means that just as the value of its assets start falling, the Fed's liabilities will start growing.

Its balance sheet destroyed, the Fed will be unable to absorb dollars to prevent inflation. And, as inflation rises, interest rates will rise further in a positive feedback loop. Cash balance preference will plummet sending prices soaring.

The economic data presents no reason to think that the printing will stop any time soon. But, at some point, rates will certainly rise. Indeed, even with the introduction of QE3 and the open-ended printing announced in December, the yield on the 10-year has moved materially higher. No doubt, this is partly to blame for the recent rout in gold prices. Hedge funds are abandoning the trade, having cut exposure by 56% since October, and financial players have the ability to move paper markets with massive leverage, but rising yields despite ongoing money printing is a dire sign.

The banks' faulty models will probably drive gold prices in the short run, but whatever the paper players do, no financial power can undo economic law, and physical buyers are exploiting the low prices: imports to India surged 23 percent in January, the highest level in 18-months, and, more importantly, central bank buying in 2012 reached the highest level since 1964. These physical buyers pay cash. They don't pay attention to projections of Wall Street analysts, which, as the chart at right shows, have been incorrectly calling the end of the gold bull market for years.

Consensus Analyst Gold Price Forecast: Always Lower and Wrong



But, forecasts for a plunging gold price undoubtedly do affect the gold miners. Take, for example, Dundee Securities' NAV model of Kirkland Lake Gold, shown below:

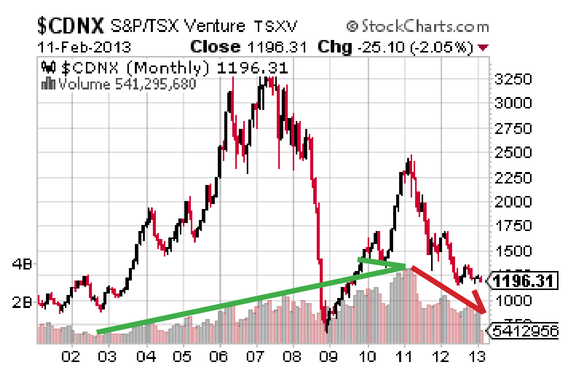
Long Term Gold Price Assumption (US$/oz)						
NAV (C$/share)	$1,180	$1,328	$1,475	$1,625	$1,775	$1,925
0% Discount Rate	-$4.24	$4.97	$15.16	$26.81	$39.91	$54.81
5% Discount Rate	-$1.43	$4.49	$\boxed{\$11.02}$	$18.64	$27.37	$37.52
10% Discount Rate	$0.19	$4.19	$8.59	$13.88	$20.06	$27.47
15% Discount Rate	$1.15	$3.97	$7.08	$10.95	$15.58	$21.32

The stock is currently trading at $6.40, and the firm reaches an NAV of $11.02 by using a 5% discount rate and a long term price assumption of $1475/oz. Using Goldman's long-term price target of $1200 drops the NAV to a negative value.

But, there is another view. As explained in other Myrmikan materials, gold is money precisely because it has virtually constant marginal utility, whereas all other goods have declining marginal utility. This means that over long periods of time the costs of mining gold declines relative to gold itself, meaning a longer mine life increases overall profitability. In financial terms, this suggests the discount rate for a producing gold mine should be not just zero, but slightly negative: the value of the cash flow increases over time. Plugging in $1925 gold in a 0% discount rate into the same Dundee model above generates an NAV eight times the current price instead of $0. This valuation is conservative because a) looking at the Fed's balance sheet, $1925 is a conservative valuation for gold, b) discount rates should be negative not 0%, and c) mine margins are operationally levered to the underlying commodity and therefore equity valuations should contain an embedded call option on the underlying commodity. The sensitivity of Dundee's Kirkland model is typical for gold mines, and smaller operations in general have even greater sensitivities. This is the leverage that gold mining provides.

But, the discount rate on development capital is a very different calculation, even for a gold mine, since it must be enticed away from third parties. Given rising costs and revenues forecast to plummet, the mining sector currently attracts development capital only from financial mavericks. The sector is beyond depressed. Financial institutions in Toronto have been decimated as financings have dried up. Nor can these professionals go in-house, as the development companies themselves are running out of cash.

Worse, the TSX Venture Exchange has not only collapsed over 50%, but volume has dried, unlike in 2008. Institutions discover that the number of days to sell their positions steadily increases, and so redemptions force them to dump shares indiscriminately on the market in a slow-motion 2008-style liquidity squeeze.



Some industry insiders complain that the GLD ETF has cannibalized the capital that should be going to be miners. This complaint is mostly untrue. It was the original value investor Benjamin Graham who said "in the short term, the stock market behaves like a voting machine, but in the long term it acts like a weighing machine." There is no question that illiquid or impatient investors being squeezed out of the sector can lower the value of a publicly traded firm below its economic value and vice-versa. But, once the selling is done, the firm's value remains attracted to the net present value of its assets. There is no need for hoards of speculators to push up prices, merely the absence of distressed sellers.

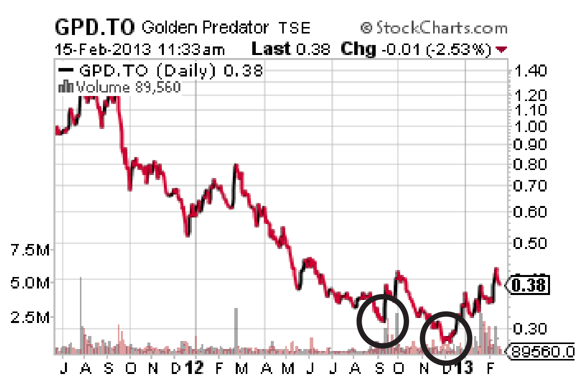
The one exception to this principle is if the price of a firm feeds back into its value, as it does if the firm survives by selling its common equity. Though all gold share prices have suffered along with the market, their long term value will not be affected if they refrain from equity financings.

One example of a company that should survive the current drawdawn is Golden Predator, which worth analyzing as it reveals some current trends in the gold mining market. The company's main asset is a portfolio of royalties assembled by Lyle Campbell, a pioneer prospector in the famed Carlin, NV gold trend, and purchased from his estate. Of the four royalties nearing cash flow, two are on Barrick properties, one is on Midway Gold's Pan project, and one is on Midway's Goldrock project. All four are Gross Smelter Royalties which receive between 1% and 4% of production, payable in bullion. Given Barrick's mine plans and Midway's development plans, cash flow should begin at 1600 ounces in 2014, growing to 14,000 ounces by 2018. There is no offsetting expense except SG&A.

Of course, the Midway royalties are only valuable to the extent that the mines get into production. Midways' economic study on Pan anticipates $99 million in capital expenditure for a nine year mine life, production beginning in 2014. On November 21, Midway announced that Hale Capital had agreed to buy $70 million of preferred equity with a conversion price well above market at $1.85 per share. The balance of the capital will probably be raised through vendor financing from Caterpillar, which currently offers extremely generous terms given slack demand, and, with the asset remaining unencumbered, reasonable bank financing should be available as well should the need arise. The cash flow from Pan will be more than sufficient to fund development of Goldrock. The risk that Golden Predator's royalty fails to start paying is small. And, the fact that they occur in the future adds to their value, contrary to conventional models.

Golden Predator's other asset is a brownfield project in the Yukon. The Brewery Creek mine produced 280,000 ounces from 1996 to 2002, when it shut because gold was trading around $300/oz. The permits never expired and the infrastructure remains in place making it relatively easy to resume production. The development plan calls for a mid-2014 start-up at 30,000 ozs per year at a total estimated cost of $1050 per ounce. Brewery Creek sits on a much larger prospective property, and cash flow from the operation will be used to expand the deposit and operations over time.

In September the company arranged a $35 million facility of straight debt at a 10% coupon from Red Kite to fund the capital expenditure. In this market, debt at such terms is not available to developing gold mines, but Golden Predator was able to use its royalty portfolio as collateral, and no cash payments become due until cash flow from both the mine and royalties is expected.



Having eliminated the concern that the company would dilute the equity at prices 80% less than the stock had traded in mid-2011, the stock jumped over 33% on the news. But, as a measure of the market, within three months the stock was lower than it had been before the financing announcement. In Benjamin Graham terms, it is difficult to imagine a case in which the value of the firm was less in December than it was pre-debt financing in September and pre-Midway financing in November.

On January 18, the company announced it was spinning off the Yukon production assets and changing its name to Gold Bullion Royalty Corp. According to the CEO, fund managers in New York had told him that if he were to sell Brewery Creek for $1, his stock would double. As the chart above shows, their prediction was not unsound, and the asset isn't even gone yet since it will take a few months to arrange the spinout.

It is hard to fathom that a fully financed gold mine a year from production has negative value, but that is the current state of the market. It also represents the incredible opportunity assuming bank analysts continue their losing streak in predicting the top of the gold market.

None of the global economic imbalances have been resolved, even after governments and central banks have expended their capital and credibility on a recovery that remains elusive. Mixed data suggesting widespread economic miscoordination continues to pour in. Just this morning, the updated February Empire Manufacturing data surged from -7.78 to positive 10.04. But, prices paid rose while prices received dropped, not exactly a heathy sign. And, Industrial Production contracted by 0.1% against expectations of 0.2% increase. Addressing the health of retail sales, a leaked email from Wal-Mart's vice president of finance and logistics reads: "In case you haven't seen a sales report these days, February MTD sales are a total disaster." Another executive responded: "Where are all the customers? And where's their money?"

A cheap asset can always get cheaper, as gold mining investors have painfully discovered over the past two years, but insurance is most valuable when it is cheapest. History and math argue that gold mining remains a fantastic speculation to protect capital from the failure of Dr. Bernanke's monetary experiments.

MYRMIKAN CAPITAL LLC