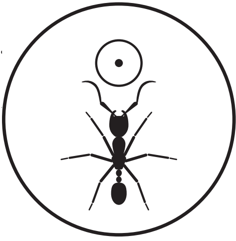

Myrmikan Research Report

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Clearly Crooked

Markets are supposed to provide for price discovery to allocate goods and capital efficiently. Every economic actor pursuing his own self-interest pushes prices toward an equilibrium. Since a price can only approach an equilibrium, and because shifting conditions constantly change the equilibrium point, there is no fixed point from which to judge a price incorrect in a free market.

But, are markets free? A foundational tenet of modern finance theory is that individual price movements are distributed normally and randomly; for, otherwise, if price movements were at all predicable, then there would be arbitrage opportunities offering free profits. As traders moved to exploit the profits, the profits would disappear along with any non-radomness in prices. With huge amounts of capital driven by supercomputers to seek out the tiniest of arbitrage, no price patterns should exist at all.

Strange it is, then, that gold prices are ordered: the graph below by Nick Laird shows gold's cumulative average intraday price change during 2013. If prices were random, there should be no pattern to the line: it should be nearly flat. But there is a pattern. At midnight EST (the very left of the chart) prices slowly creep up during Asian trading hours. As trading shifts to the West, the price, on average, plummets. The green lines are the London AM and PM daily fixes, prices set twice daily by a combination of bullion banks and used to calculate gold contracts and derivatives. The gold price, on average, collapses for these fixes: these are the fingerprints of the bullion banks picking the pockets of their customers.

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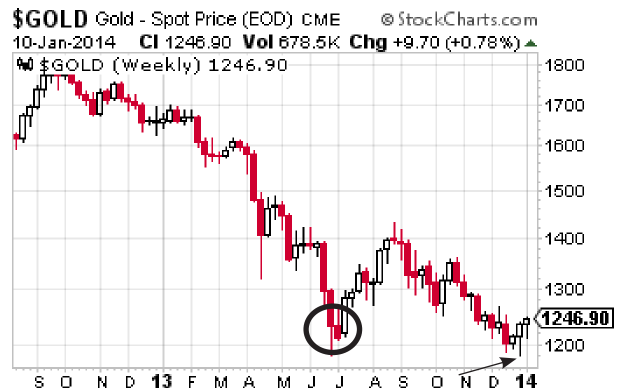
Zooming in on just two of the trading days that comprise the average movement shown on the previous graph, the green lines on the charts below show the price movement for the last day of Q2 and Q4 of 2013.

It is obvious there is nothing random about these price movements: the gold price at 10:00 AM EST is very different than prices both before and after, defying the demands of a normal distribution. Bullion banks are not the only parties playing with prices. Hedge fund performance, upon which fees and bonuses are generated, is based on quarter-end figures. This creates a huge incentive to mark up those positions in which they are long and push down those they are short. Adding normal tax loss selling, exacerbated by the huge gains in other markets, December was another tough month for gold and gold shares.

It is worth noting, however, that the December low, marked on the last day of trading, occurred in the middle of a three solid weeks of increasing prices, exhibited by the hollow candles. The last time prices rose three weeks in a row was immediately following the 2013 Q2 close, which also occurred in the midst of suspiciously non-random price movements.



Manipulating a price against market takes continuous effort, with increasing magnitude required the further the price strays from equilibrium. It is likely that whatever entities benefitted by having gold low have now realized their gains and must cover their shorts. Indeed, gold is now higher than it was when the taper was announced, in a major setback to sell-side research targets. With the bullion banks now long, and the weak hands levered on the short side, a buying panic to push gold prices back toward equilibrium becomes a real possibility.

If the operators in markets are clearly crooked, the useful idiots who give intellectual cover to price fixing are more dangerous. In a farewell speech, Bernanke explained:

> The immediate trigger of the crisis, as you know, was a sharp decline in house prices, which reversed a previous run-up that had been fueled by irresponsible mortgage lending and securitization practices.

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No mention made he of artificially low interest rates, which, when negative, encourage the rational actor to engage in negative amortizing loans and other credit monstrosities. Hilariously, Bernanke then asserted:

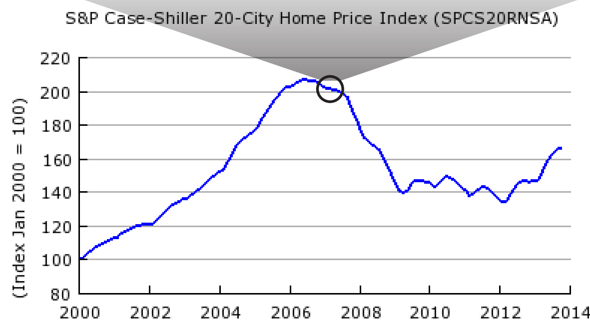
> Policymakers at the time, including myself, certainly appreciated that house prices might decline, although we disagreed about how much decline was likely.

Down the memory hole goes this gem, broadcast in July of 2005:

> INTERVIEWER: Tell me, what is the worst-case scenario? We have so many economists coming on our air saying 'Oh, this is a bubble, and it's going to burst, and this is going to be a real issue for the economy.' Some say it could even cause a recession at some point. What is the worst-case scenario if in fact we were to see prices come down substantially across the country?
>
> BERNANKE: Well, I guess I don't buy your premise. It's a pretty unlikely possibility. We've never had a decline in house prices on a nationwide basis. So, what I think what is more likely is that house prices will slow, maybe stabilize, might slow consumption spending a bit. I don't think it's gonna drive the economy too far from its full employment path, though.

Is he lying now, or was he lying then? And do the other policy makers he references include new Federal Reserve Chairman Janet Yellen? In January 2007, when housing prices were already falling as a factual matter, she opined:

> While the decline in housing activity has been significant and will probably continue for a while longer, I think the concerns we used to hear about the possibility of a devastating collapse — one that might be big enough to cause a recession in the U.S. economy — have been largely allayed.



And for this the New York Editorial Board lauded: "as president of the Federal Reserve Bank of San Francisco from 2004 to 2010, she sounded the warning about housing bubbles, even as others praised the boom." The absurdity! and intellectual crookedness.

Bernanke continued:

> The Federal Reserve responded forcefully to the liquidity pressures during the crisis in a manner consistent with the lessons that central banks had learned from financial panics over more than 150 years and summarized in

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> the writings of the 19th century British journalist Walter Bagehot: Lend early and freely to solvent institutions.

Here we have the lie by omission. Paul Tucker recently summarized Bagehot's dictum as: "[T]o avert panic, central banks should lend early and freely (ie without limit), to solvent firms, against good collateral, and at 'high rates.'" Bernanke certainly lent early and freely. But, the institutions were insolvent then and may still be so if forced to mark their assets to market instead of model. Moreover, the collateral offered was not good, and the operation was undertaken at ridiculously low rates.

Most who discuss Bagehot's dictum reference a summary by someone else, as the original is rather wordy. But part of the prescription merits the original text:

> The rate should be raised early in the panic, so that the fine may be paid early; that no one may borrow out of idle precaution without paying well for it; that the Banking reserve may be protected as far as possible . . . No advances indeed need be made by which the Bank will ultimately lose.

Now even Fed governors are beginning to worry about Bernanke's reckless bastardization of Bagehot's rule. As recorded in the minutes of the most recent FOMC meeting: "Participants also expressed some concern that additional asset purchases increase the likelihood that the Federal Reserve might at some point suffer capital losses."

Capital losses are not a likelihood to be increased, but a certainty to be prepared for. The Fed has lent $1 trillion into the bond market since October 2012 and is still monetizing debt at $75 billion per month. The oval on the chart shows what has happened to bond prices during this time. Once the 10-year note breaches 115, the Fed will be showing a capital loss on the entire $3.2 trillion, thus far, quantitative easing program.

Nor will the Fed's income save it. First, the very intention of QE is to lower interest rates, so the Fed's yield is small. Second, under statute the Fed must hand over its income to Treasury. The Fed plans to reserve future income against capital loss, and so it might. But, income reserved is revenue to the U.S. Treasury denied, increasing the deficit, which will then require additional monetization.

Bernanke proclaimed "The crisis has passed." Perhaps he is correct. Perhaps the deflationary crisis has, indeed, passed. But, given the Fed's balance sheet, falling bond prices and rising rates set the stage for a more intense, inflationary crisis. For rising rates mean big losses at the Fed and, as Thomas Sargent showed in a 1982 paper, it is persistent losses on a central bank's balance sheet that causes hyperinflation:

> We have further seen that it was not simply the increasing quantity of central bank notes that caused the hyperinflation, since in each case the note circulation continued to grow rapidly after the exchange rate and price level had been stabilized. Rather, it was the growth of fiat currency which was unbacked, or backed only by government bills, which there never was a prospect to retire through taxation.

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The dollar is but a liability of the Fed, and a liability cannot over time be worth any more than the assets backing it. When the Fed's bonds are seen to be worth far less than what the Fed paid to acquire them, the dollar must fall; inflation and gold must rise, by a lot.

Let us not overstate the case for gold, however. Hyperinflation requires not just losses at the Fed, but persistent and growing losses, achievable only if the Fed attempts to stem mounting losses by buying ever more bonds. And few doubt that a nation's currency can be broader and more flexible than gold coins falling through pocket holes. The British pound survived hundreds of years with a bullion backing often less than 35%, the balance comprising mostly of short-term commercial bills. Yet, against the bullionist straw man rides Paul Krugman:

> [Adam] Smith is often treated as a conservative patron saint, and he did indeed make the original case for free markets. It's less often mentioned, however, that he also argued strongly for bank regulation — and that he offered a classic paean to the virtues of paper currency. Money, he understood, was a way to facilitate commerce, not a source of national prosperity — and paper money, he argued, allowed commerce to proceed without tying up much of a nation's wealth in a "dead stock" of silver and gold.

Indeed Smith so said. But, like Bernanke's distortion of Bagehot, Krugman lies by omission, as revealed by the paragraph following the one he cites:

> The commerce and industry of the country however it must be acknowledged though they may be somewhat augmented [by the judicious operation of banking], cannot be altogether so secure when they are thus as it were suspended upon the Daedalian wings of paper money as when they travel about upon the solid ground of gold and silver. Over and above the accidents to which they are exposed from the unskilfulness of the conductors of this paper money they are liable to several others from which no prudence or skill of those conductors can guard them.

The intellectual dishonesty of the academy echoed by the press has licensed the perversion of central banking enabling predatory trading by banks to the manipulation of prices to the corruption of markets to the detriment of the economy. Hayek called Keynes a brilliant man, but a terrible economist; for Keynesianism is not economics at all, but leftist politics in disguise.

The chain of economic repression ruptures when prices snap loose, and prices cannot be controlled beyond a short period. As central planners must always discover, substituting their judgements for the markets' results in economic miscoordination that causes activity to halt and goods to vanish until prices break free. The failure of central planning is most obvious where all prices are controlled, such as in the Soviet Union. In the West, only one price is directly controlled by the state, but it is the most important: the price of capital.

By depressing yields, the Fed creates a false signal that the supply of savings has increased and sets in motion the boom described by Austrian Business Cycle Theory. The prices of yielding assets rise artificially as against gold. There is no means to avoid the bust, which brings the opposite conditions, and the greater the credit expansion, the more dramatic the repricing of other assets against gold. It is this reversion that Myrmikan was founded to capture.

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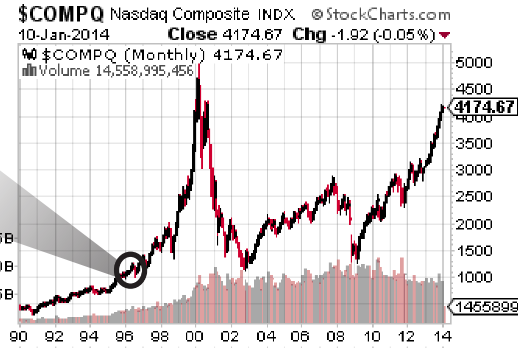
The problem is timing. Bubbles can reach far higher than the imagination can project. For example, in a PBS Frontline special broadcast in 1997, Jim Grant opined: "The 1996 model stock market is the most overwrought overexcited thyroid case we've ever seen in this country." As the chart of the NASDAQ shows, in fact, the craziness was just getting started.

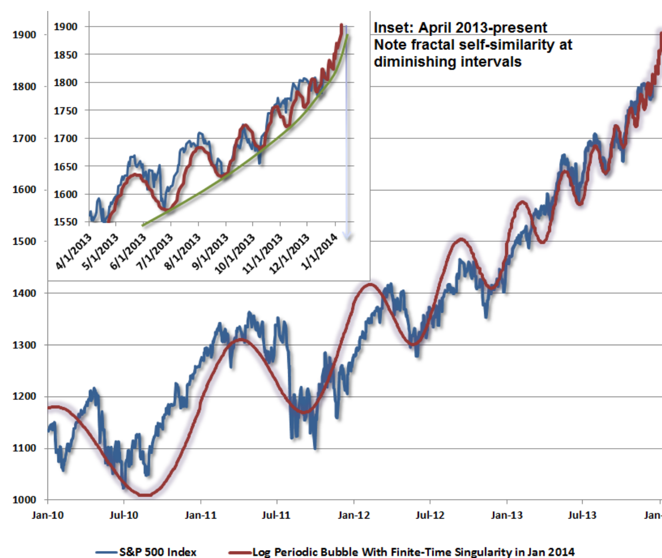


It should be no surprise, then, to discover that Grant thinks that current credit conditions, even if obviously distorted, could persist for years if not decades before resolving. This advice seems to validate the sufferings of humbled gold investors, perhaps adding to current despair.

There are at least two available responses. First, it is well known that the gold mining sector over time on average destroys large amounts of capital. It entices new capital only because it has moments, such as the 1930s, the 1970s, when the relative performance is dramatic. In this sense, gold mining investment is insurance against the crash of traditional assets, which sometime expires worthless. But, unusually, given the current credit imbalances, the payoff event is certain to arrive at some point soon, arguing that one should retain a topped up position.

Second, it is in the nature of bubbles that they must accelerate to survive. This may leave the potential peak price nearly unlimited, but also restricts potential life in terms of time. The richer the market valuation, the less that cash flow is able to support it, and the more the edifice must be held aloft by increasing asset prices. But, these increased prices reduce cash flow support still further, which makes the bubble even more unstable.

A recent update discussed the work of John Hussman applying the analysis of Didier Sornette to the current market by modeling the S&P 500 with a log-periodic function. Not only has the market continued to track the model with eerie precision, but, as the inset of the chart shows, the market is turning fractal, with intervals of the market performance being indistinguishable from the whole move: the singularity point is at hand.



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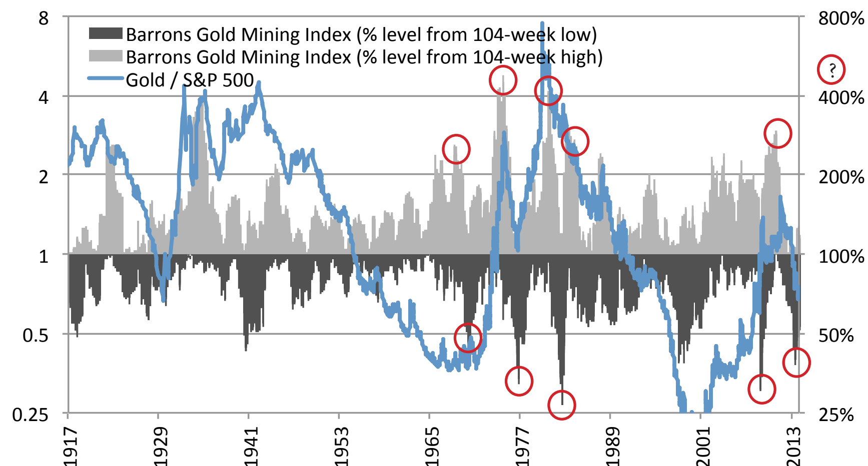
According to Sornette's formulation, even if market participants know they are in a bubble, the rational investor will not sell if the projected percentage gain from the next period of market performance exceeds the anticipated loss in a crash multiplied by the percentage chance that the crash occurs in the next period. As prices travel higher in the bubble, both the magnitude of the crash and the chances that it occurs in the following period increase, which means that the anticipated gain necessary to keep participants in the market increases at an accelerating pace, which limits potential life in terms of time.

The top chart on the previous page shows that the NASDAQ is currently accelerating at a rate that is comparable only to the blow-off top in 2000. It may be impossible to predict the exact top in terms of prices, but in terms of timing the end is near. In fact, since the beginning of the year, markets have been soft, defying the required vertical lift higher. Without the huge gains necessary, at this point, to compensate for the downside risk, participants are likely to exit the market at an accelerating pace. It is not coincidence that gold's bull market began in 2000 as stocks crashed, and it is likely that gold's next leg higher, much higher, will begin when stocks collapse out of their current bubble.

How fast can gold shares rise? The chart below shows the ratio of gold to the S&P 500 as well as the level of the Barrons Gold Mining Index compared to its 104-week high and low. A few things stand out on the graph. First, not surprisingly, the gold mining index is highly correlated to the ratio of gold to stocks. Second, gold stocks frequently double within two years, and have occasionally quadrupled in the same time frame. These spectacular runs generally occur after large drawdowns.



The current drawdown bottomed at 39.9% of the 104-week high, the fourth largest such drawdown in a century. In fact, the current dynamics of the gold market are similar to that of the 1970s. With gold fixed by statute, it sank as against the S&P 500 throughout the 1960s. Once gold was released, the ratio raced higher, bringing gold stocks along on a spectacular run. Then, even though none of the monetary problems had been fixed, there was a mid-cycle correction wherein the gold stock index plunged to only 32% of its 104-week high. Once the correction completed, gold stocks raced into the 1980 spike high.

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Given that the Fed's solution to the 2008 panic was to exacerbate the debt and monetary problems that caused it, the overwhelming chances are that the current drawdown is similar to the one in the mid-1970s. It is not impossible that gold stocks could go lower before turning, but the previous chart suggests the risk is to the upside. Moreover, if the senior gold stocks in this index can quadruple in a year, the junior stocks can rise a multiple of that. This potential performance may require some monetary mischief, but it is well within historical norms without requiring Weimar conditions.

Many junior stocks do not survive the drawdown because they are acquired. This fate has struck Osisko Mining Corp, which is the target of a hostile bid launched by Goldcorp on Monday. Osisko, like Detour Gold discussed in these pages recently, is a low-grade, high throughput mining operation in Canada. Given the capital requirements, the project would never be financed in today's market. But, since the capital is a sunk cost, it remains a viable operation that is very levered to gold on an operating basis.

It is notable, first, that Goldcorp wishes to increase its operating leverage given the sell-side projections of gold falling much further. Second, upon the announcement of the bid, Osisko's shares leapt to an 11% premium over the bid price, anticipating a superior offer. This usually happens only in a hot market, and signals that the gold mining sector may not be as dead as everyone seems to assume. It should not surprise that Detour Gold, a comparable company, rallied 10% on the news.

Given its operational leverage, Osisko would do far better than Goldcorp when the next gold rally comes. Still, investors are able to recycle their capital into other levered stories of similar merit, and so should welcome this aggressive move by Goldcorp. No doubt, other majors will want to snap up cheap juniors before they get away, and Goldcorp may have just started the race.

The largest credit bubble in history popped in 2008. Miraculously, Bernanke was able to stuff enough credit back into the system through quantitative easing to arrest the decline and send credit levels even higher. But, now the markets are bubbly, and the Fed is trapped. It needs to taper to keep the markets within bounds, but tapering will cause rates to spike and the economy to unravel. When the market falls, so will tax revenue; deficits and gold will once again explode. Gold bears have been unable to keep gold below $1200 for more than a few hours at a time. Gold likely senses that time has run out for the Fed, and gold stocks are responding.

Gold mining shares have rebounded sharply in the first days of 2014 on a percentage basis, yet still persist near record low levels on a real basis, allowing vastly further room to rise. They currently offer better value than at the bottom in early 2009: the banking sector may be in marginally better shape (though hard to assess given mark-to-model accounting), but at the cost of central banks that are in incomparably worse positions. Given the richness of the broader markets, the depressed valuations of the gold miners, and the scary state of Fed policy, it is hard to imagine a better time to hold gold mining shares.

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