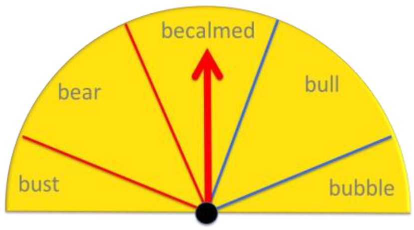
No.55 – March 2017 @AtlasPulse

Atlas Pulse Gold Report

See the facts, trade the action and ignore the noise



The Atlas Pulse Gold Dial

Jan 2013	downgrade to bull market at $1,675
Feb 2013	downgrade to becalmed at $1,663
May 2013	downgrade to bear market at $1,476
Feb 2016	upgrade to becalmed at $1,175

In this issue…

- **Real yields rise –** ***it was all going so well***
- **Little faith in the miners –** ***they're cheap, but there's little faith***
- **A look at silver –** ***there's no shortage***
- **No to the bitcoin ETF –** ***but does it matter?***

Since late February, the gold price has fallen by just under 5%, something that can be fully attributed to shifts in the US treasury market. Having turned tactically bullish this year, I'm not happy about that, but at least 5% isn't much in the grand scheme of things. In this issue, I'll be revisiting the US bond market to see what has changed.

For the gold miners, it's a different story as they have slumped by around 18% over the same period – and 30% since the Brexit euphoria. The miners, as represented by the Blackrock Gold and General Fund, are at roughly at the same price today as they were back in January 2006. Yet back then, the gold price was $517 and today, it is more than twice that. I'll be looking at why the miners now follow earnings rather than optionality.

Silver has also taken a dent and has fallen by 8% over the past fortnight and 20% since Brexit. Recently, I haven't written much on silver but given it's a frequently asked question, I'll have a look at that too.

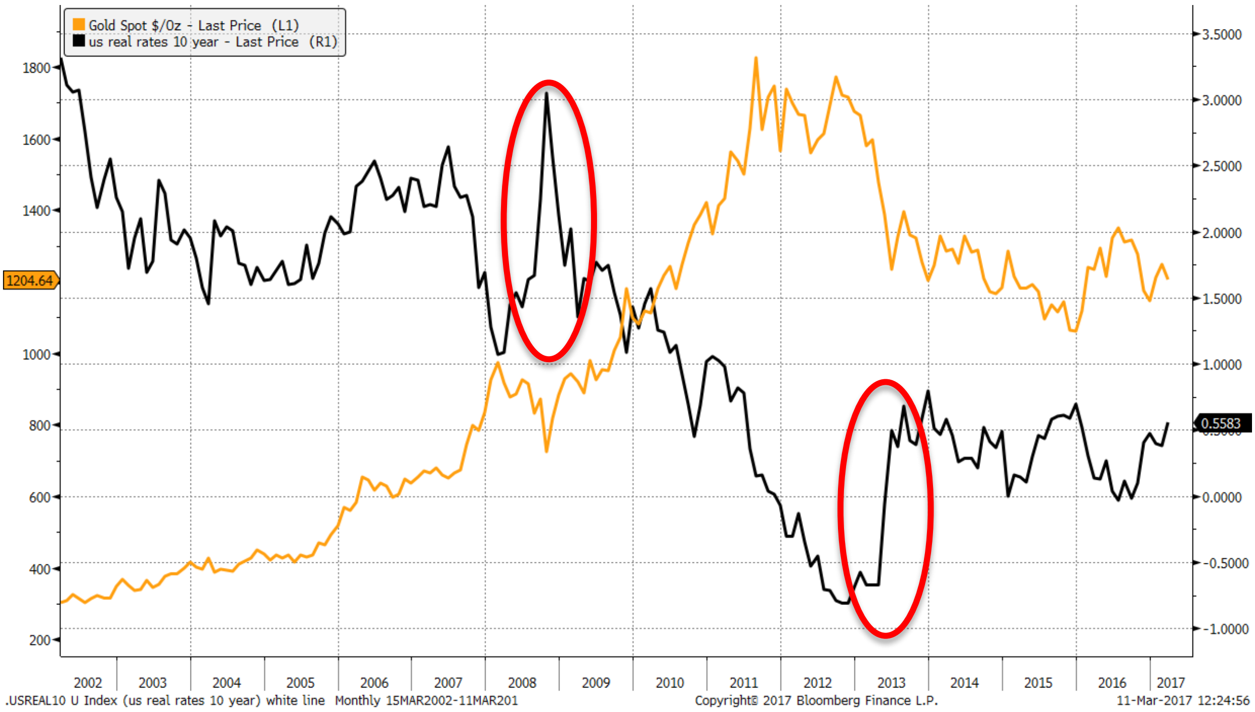
Both the miners and silver are racy alternatives to gold and do well in a rising market. Silver has been beating the miners since 1993, but in 2016 that all changed. The main issue for silver is that it lacks tightness. Or put simply, there's too much of it.

There's no ETF for bitcoin I'm afraid to say, and that's probably a good thing. With the bitcoin network running at full capacity, this isn't the time to be courting a surge in demand. Better to resolve the scalability debate first and then see it power ahead to dizzy new heights. The SEC made the right decision, but an ETF (or more likely a note) will come in good time – and probably in Europe first.

Real yields rise

The gold market doesn't like a surge in real yields (the bond yield less inflation). There have been two spectacular shifts in recent years. The first was during the credit crisis in 2008, and the other in the spring of 2013 during the taper tantrum. They saw gold fall by 27% and 31% respectively. Let's hope another one hasn't begun.

Gold hates a spike in real rates



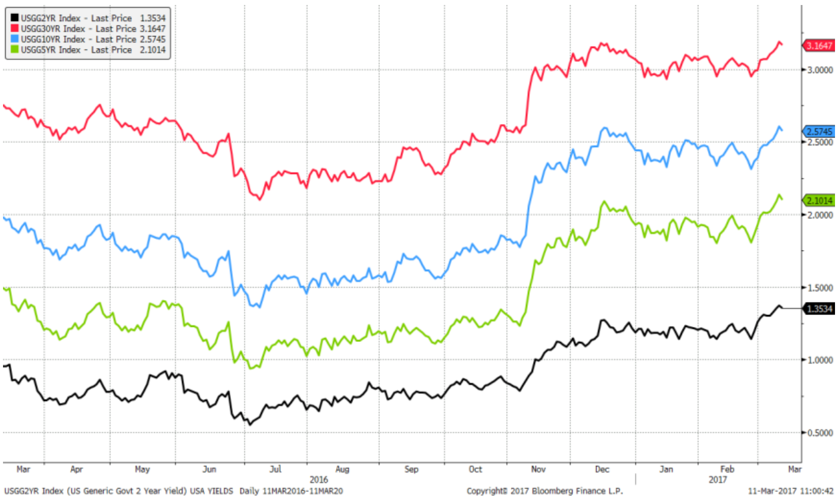
Source: Bloomberg US 10 year treasury yield less the ten year breakeven rate (inflation expectation) – since 1999

Those two events happened quickly and to catastrophic effect. Some believe that gold's fall during the credit crisis was irrational and was a liquidity event. They believe that gold was sold to settle losses elsewhere. But that is to deny what is a strong and tested relationship. Gold is buoyed by easy money and supressed by tightening.

Some would argue that 2005 and 2006, which saw gold rise by 18% and 23%, should have been bad years for gold but they weren't. My retort would be that gold was significantly undervalued at that time – by around 50%. The surge from $450 to $650 was a catch up to a fair value that was around $850.

I will flick through a few charts of the US treasury market to show you what has happened over the past few weeks. Gold has been hit from both sides. Yields have risen as the Fed has signalled rate rises. Yet at the same time, inflation expectations have reversed. The Trump reflation trade has become a strong narrative, yet recently, it has been unwinding.

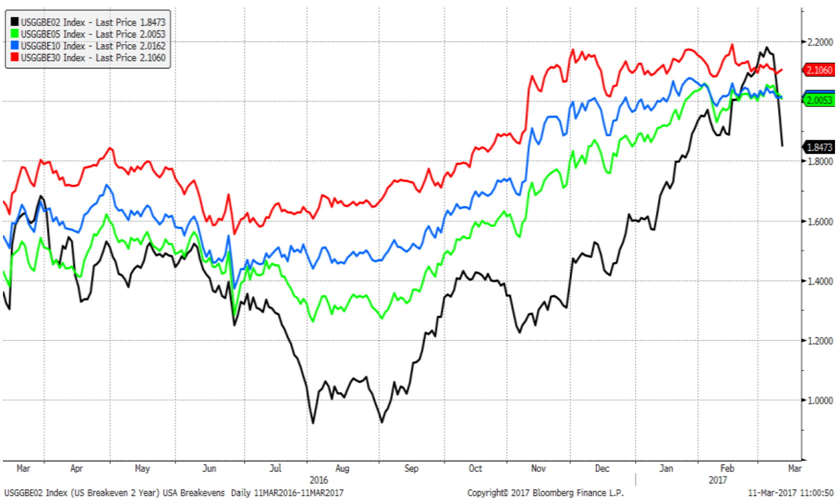
US Treasury yields



US bond yields have been rising since Brexit. They all surged after the election in anticipation of a strong economy and monetary tightening.

Source: Bloomberg
US treasury yields past year
2 year (black), 5 year (green), 10 year (blue), 30 year (red)

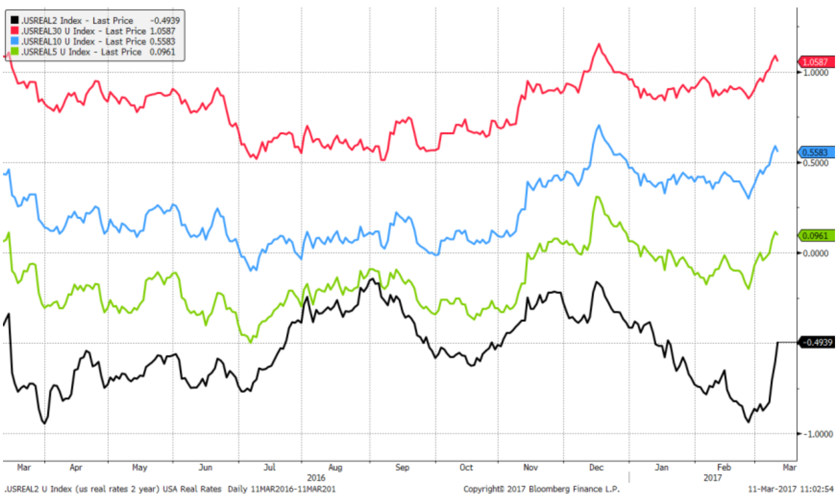
US breakeven rates (inflation expectations)



Inflation expectations have risen since the summer. The twos, in particular, have surged. The problem for gold is that this has reversed. The 30s haven't risen since November and the twos are now falling. The bond market believes that higher inflation will be temporary.

Source: Bloomberg
US inflation expectations past year
2 year (black), 5 year (green), 10 year (blue), 30 year (red)

US real yields

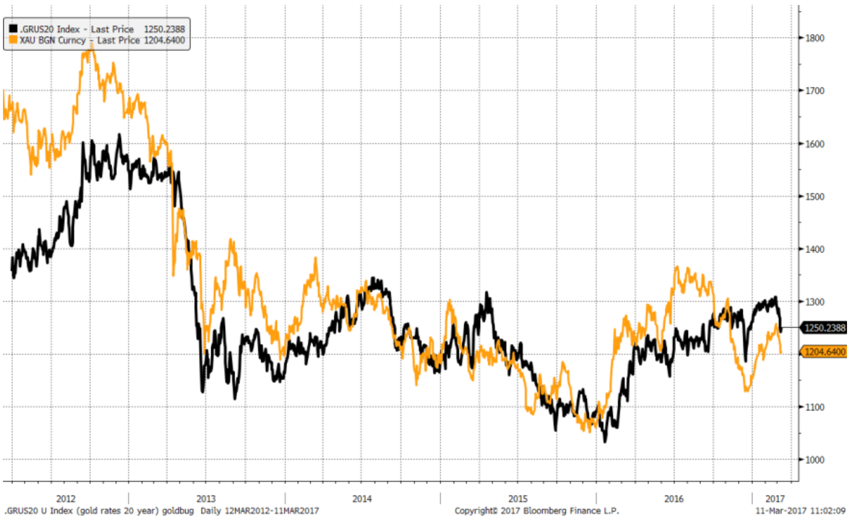


Real yields (bond yields less inflation) have fallen since December, which was initially supportive for gold. However in recent weeks, that trend has reversed and put downward pressure on the gold price.

Source: Bloomberg
US treasury real yields (yields less inflation expectations) past year
2 year (black), 5 year (green), 10 year (blue), 30 year (red)

The big moves thus far have been at the short-end of the yield curve. This has been a rational response to the widely anticipated rate hikes. But those shouldn't matter too much as the important link is with the long-end. Of course, if rates rose and the long-end held, that would see the yield curve "flatten" – something that would normally forecast an economic slowdown.

No surprises - theoretical gold and actual gold are in line



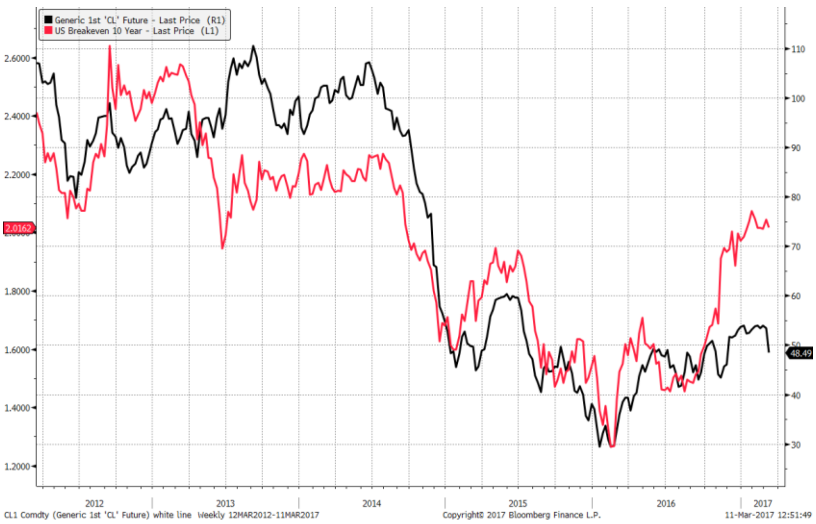
Gold was ahead of itself after Brexit, but has now eased back to being slightly undervalued. The erosion of the premium has reduced risk for gold investors.

Source: Bloomberg
US treasury real yields (yields less inflation expectations) past year
2 year (black), 5 year (green), 10 year (blue), 30 year (red)

New readers, *The Atlas Pulse Bond Model (theoretical gold)* is explained in detail on the last three pages of this letter.

But it could be that the bond market is being lazy again. Historically, inflation expectations have tended to move in sync with the oil price. Oil slumped last week to close at a three month low at $48; a move mirrored by the two year breakevens shown on the previous page.

Inflation expectations look to oil



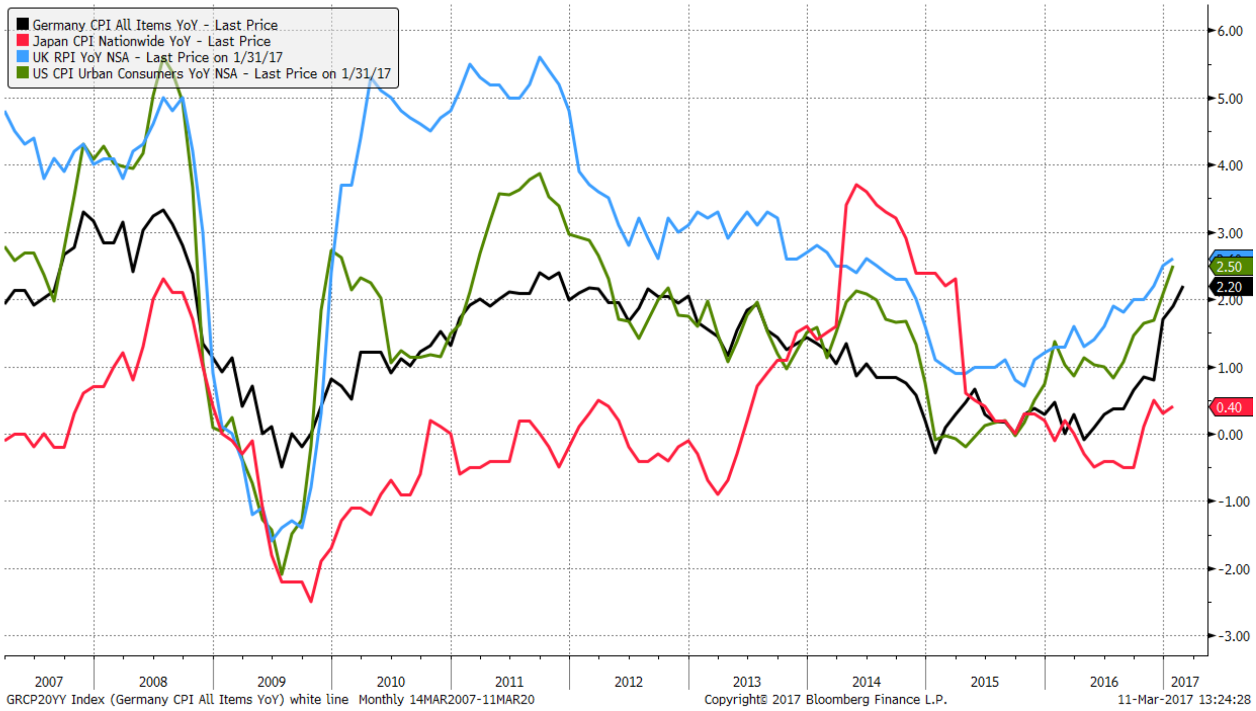
Over the past five years, oil and inflation have been closely linked - a relationship that comes and goes. When the bond market accepts that oil is weak for supply reasons rather than demand, inflation expectations should rise which will be bullish for gold.

Source: Bloomberg
US 10 year breakeven rate (red) and WTI Crude (black)

In recent months, I have been a sceptic on the oil market. Speculation is at an all-time high, as are inventories which sit at 28 days (the super spike in 2008 saw inventories at 13 days). US production is rising and OPEC will inevitably break their production cuts. I do not see a bullish case for oil, and in my fund, have been running a modest short position for several weeks.

Looking at CPI trends, inflationary pressures are rising as full employment gets ever closer. If that wasn't true, the Fed wouldn't be tightening. If US treasuries changed tack and looked to wages rather than oil, breakeven rates would rise from 2% to 2.8%. That would see gold's fair value rise to $1,731. And even if the 20 year yield matched that rise, you'd still see a fair value of $1,418.

Inflation is rising



Source: Bloomberg US CPI (green), UK RPI (blue), Germany CPI (black), Japan CPI (red) – past decade

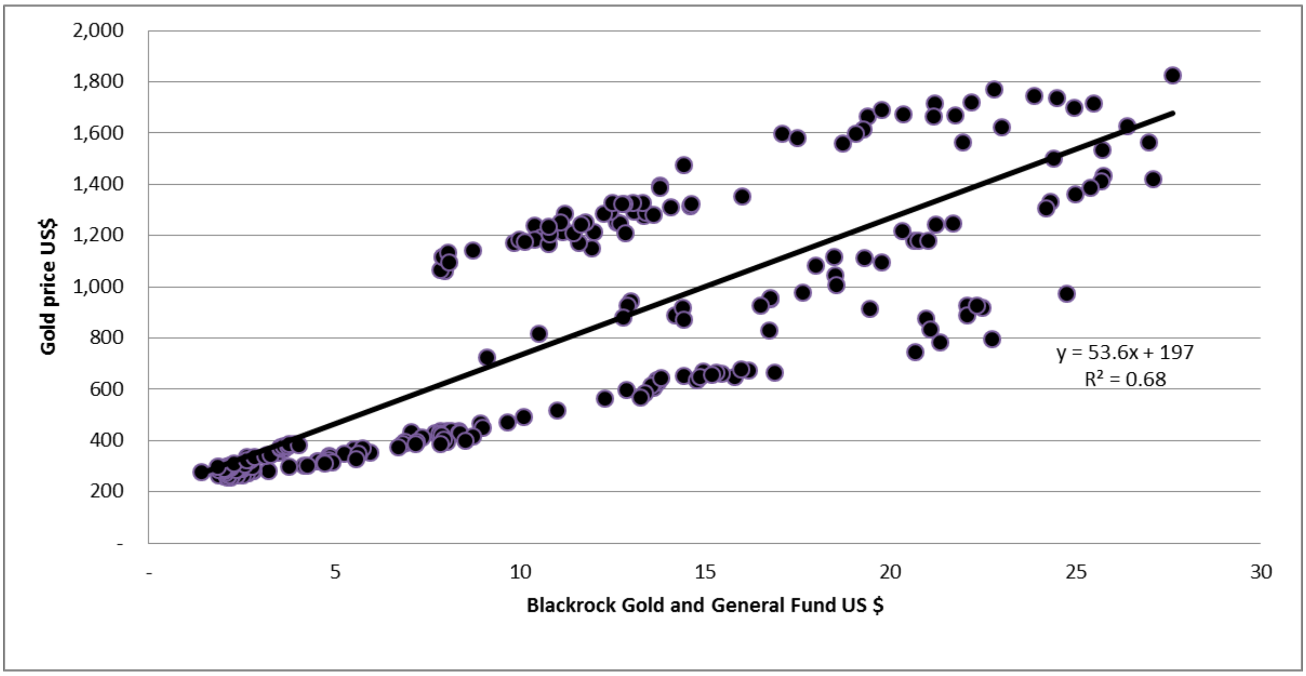
The bottom line is that if you believe inflation is on the rise, then gold is a buy. Furthermore, there's significant upside in both silver and the miners.

Little faith in the miners

For this piece, I've used the Blackrock Gold and General fund (BGAG) in US dollars to represent the miners. Most gold mining indices aren't particularly well constructed. This fund has a long history and has followed a relatively consistent process. Personally, I feel it is a better representation of real events in the gold mining industry.

Looking at BGAG versus the gold price since 1994, we get a scatter plot which suggests that the gold price should be 53 times a unit of BGAG plus an adjustment. Gold mining shares have always been correlated to the gold price, but regimes have shifted over the years.

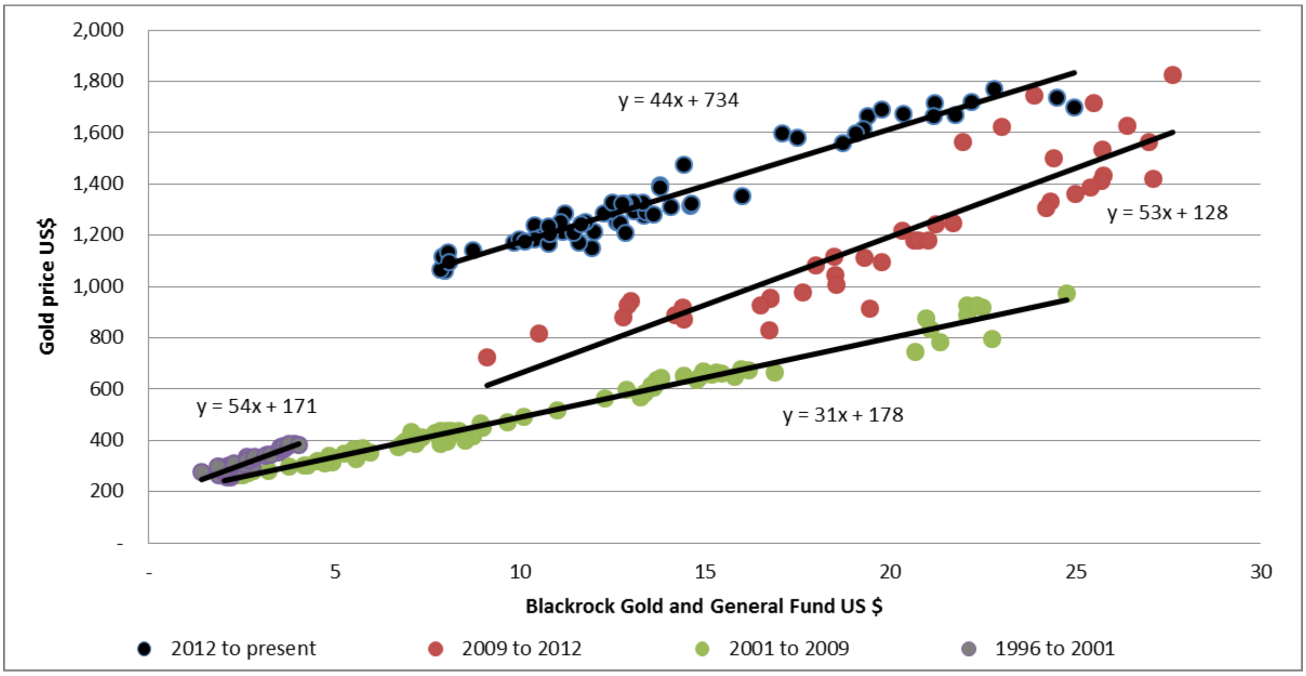
Messy, but correlated



Source: Bloomberg BGAG in USD versus gold USD since 1996

By separating the times, we can observe periods where the behaviour changes.

Regime change - gold versus the miners



Source: Bloomberg BGAG in USD versus gold USD since 1994 monthly

The different regimes have been split over various time periods. Gold shares had a lower sensitivity to gold before the bull market (54x) and after the credit crisis (53x). Between 2001 and

2009, this relationship was stronger (31x). Today (44x), the relationship is average yet the constant is extreme at 734. That implies that the mining sector would be worth zero if gold fell to $734!

The current regime is out of kilter with the past. BGAG trades at $11.86. For that price to rise to $20, you'd need to see gold touch $1,614. Between 2001 and 2009, this link only required a gold price of $798, and over all periods, around $1,200. In other words, if gold mining shares were trading in line with historic averages, they'd be 70% higher than they currently are. What's wrong?

Gold miners trade at undemanding valuations

Gold mining shares have fallen to 2.3 times sales and 1.3 times book. Consider that gross profit margins peak at 50% at the top of the cycle. If the price of gold recovers, the miners will be revalued significantly.

Source: Bloomberg Philadelphia Gold Mining Index Price to book (blue) and price to sales (orange) past 20 years

The problem is not related so much to value, but to earnings. The miners have performed poorly because they don't make very much money. In recent years, the miners have been valued in line with their profits, rather than their potential. A higher gold price will not only see profits rise quickly, but also investor demand for leverage.

Profits would be nice

Gold mining shares are following earnings – something that is quite normal in stocks. However, that fails to value the "option". You cannot escape the fact that gold mines are a leveraged bet on the gold price. **That option is currently being offered for free.**

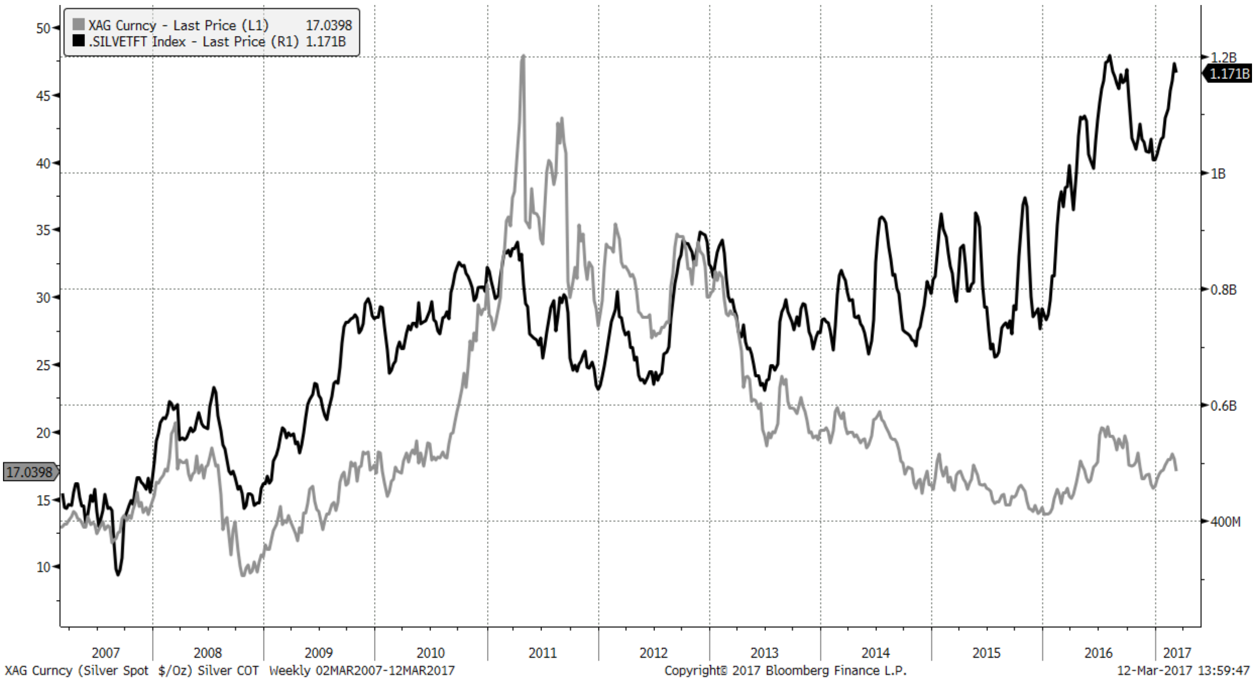
Source: Bloomberg Philadelphia Gold Mining Index Price (grey) and earnings (purple) past ten years

To put it another way, if the gold miners are currently fair value versus gold, then they must have been 5x overvalued in 1996, 4x in 2007 and 70% dear at the depths of the credit crisis. This does seem rather unlikely and so they must be undervalued.

A look at silver

What is the difference between silver and gold from a financial perspective? It's a good question to ask. Obviously gold is 70 times more expensive per ounce, a ratio that fluctuates, but what else? Every time I come back to the silver market, I see the same old thing. The investors keep on buying, yet the price rarely responds. Put simply, the silver market lacks tightness.

There's no shortage



Source: Bloomberg Silver price USD (LHS silver). Silver ETF holdings plus longs futures less short futures in million ounces (RHS black)– ten years

The black line combines the level of interest in the silver market from financial buyers. Silver had a severe bear market from $50 to $14 in recent years, yet there were no net redemptions. Silver investors keep on buying whatever the weather. If that continuous stream of buyers were able to push up the price, that would be bullish, but sadly they can't. However much they buy, the market fails to tighten.

2010 was a notable exception as demand from the solar industry really did squeeze the market. The problem is that the next generation of solar just found alternatives. The anticipated demand never followed through.

That said, silver and gold are highly correlated. The gold to silver ratio has a 20 year average of 61. When gold is 61 times the silver price or higher, silver is better value and vice versa. The gold to silver ratio is currently 71, so silver offers better value. However, when you compare silver to the opportunity offered by the miners, the trend has turned against it.

The miners fight back

Source: Bloomberg Gold Mines Index relative to the silver price – since 1993

Remarkably, the gold mines have lagged silver by 80% over the past 25 years and the mines have only retaliated twice: first in 2001/2 and second, last year. Both of those periods of higher returns from the miners occurred when they were trading cheaply in absolute terms. Given that is the case today, they offer considerable upside over and above silver.

In summary, both the miners and silver are undervalued, yet it seems likely that the miners will out-perform in the next phase of gold's rally. Once the miners become hot property, it will be time to revisit silver.

No to the bitcoin ETF

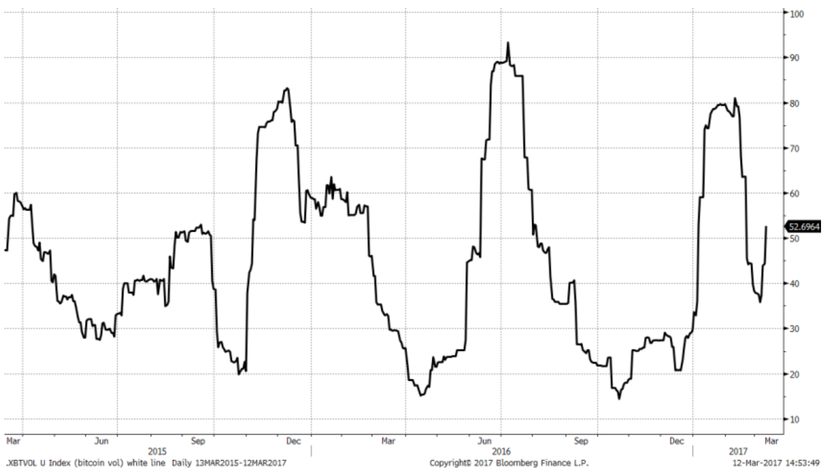
Thank you to those that wrote in asking for Atlas Pulse to continue to cover bitcoin. I won't stop, it's just that when the Crypto Composite project launches, coverage will move while AP will stick with gold. There's been almighty progress over the past month, but we're not there yet.

Lots has been thrown at bitcoin in recent months. China banned bitcoin in January. Then they banned it again and now they are clamping down. More recently, the widely anticipated announcement from the SEC about the launch of the bitcoin ETF was denied. Despite all of this, the price has managed to touch an all-time high just a week ago and the trend remains strong. That's not withstanding a hugely volatile day last Friday (ETF day) with a $400 range.

Onwards and upwards

All's well with the trend but I'm not enjoying the volatility. When the wind blows, reduce your sails. And I suggest traders do the same.

Volatility rises again



Bitcoin volatility is 52% and on the rise. Given events, that's no surprise. Recall that the big gains have tended to come from the calm. This bull continues, but traders should recall, "There are old traders and there are bold traders, but there are no old, bold traders"

Source: Bloomberg bitcoin realised volatility past 2 years

The link I established three years ago was that the price of bitcoin is proportional to the size of the network (within reason). The issue today is that the network is running at full capacity. There's no room for transaction growth as each block is capped at 1 MB. There are politics at work and I don't pretend to understand them.

I remain bullish – massively so as demand growth will inevitably rise. However, until a scaling solution is resolved, I feel the price rise will come from animal spirits and greater fool rather than network growth. And with excessive speculation, comes higher volatility. When the price is rising and the market is calm, that's the fundamentals at work. Right now, it is the speculators that are in control. That's rarely a good thing.

I know that demand will grow as a friend's teenage daughter recently asked me about bitcoin. Why? I asked, as she'd never shown interest before. Was it drugs, guns, a fake ID that she wanted? No, it was for a fake handbag. The bottom line is that if teenagers are onto it, demand growth will only surge. And you don't even need to visit Bangkok.

A scaling solution please!

Summary

Gold has taken a nasty knock. With a strong dollar, there's not much need to hedge against the end of the world or prepare for hyperinflation. Instead it's stocks where the fun is. I believe this won't last and inflation will continue to surprise to the upside. And when it does, the gold price will follow.

There are cheap miners to consider. They are volatile but I believe that a basket of miners has little downside and enormous potential upside. Just recall how well Glencore, Anglo American and so on performed last year – the same could be true for gold. Buy the miners, stay diversified and tuck them away. I doubt you'll be disappointed.

Thank you for reading *Atlas Pulse*.

Charlie Morris

Twitter: @AtlasPulse
Email: atlaspulse@gmail.com

After a career as an officer in the Grenadier Guards, Charlie spent 17 years as the Head of Absolute Return at HSBC Global Asset Management, managing more than $3 billion in client funds. Between 2003 and 2015 his fund made a cumulative return of more than 100%. He is widely known and respected for his specialist interest in gold, crypto-currencies and momentum investing. As well as his Atlas Pulse newsletter, he has made over 200 appearances as a guest expert on financial television programmes and was recently appointed the editor of the Fleet Street Letter.

The Atlas Pulse Gold Bond Model Explained *(written June 2016)*

There's much confusion about the link between interest rates, bonds, inflation and the gold price. Everyone knows that rate hikes are 'bad for gold' even though it's not always the case. It depends on other factors. There's also confusion about gold as an inflation hedge. Fear not. Atlas Pulse is here to help. I'll show you the link between gold and the bond market.

The link between gold and bonds is REAL

Chart note: Inflation can rise or fall and gold could respond either way. Similarly, rates could rise or fall and gold surprise the uninformed.

What's consistent is the inverse relationship between real interest rates and the gold price. That is rates less inflation. If you use 20 or 30 year yields and inflation expectations, the results are excellent. Let me show you.

Atlas Pulse readers already know my line on gold the bond. If gold were a bond, what kind of bond would it be?

Gold is a zero coupon, long-dated, credit risk-free, inflation-linked bond that was issued by god.

Breaking that down.

Zero coupon is obvious as there are no dividends. Revenues from lending and so on don't count.

Credit risk-free is also obvious. A piece of metal that can't rust and lasts forever, can't default. An ounce will always be an ounce. That's it.

Long-dated it lasts forever.

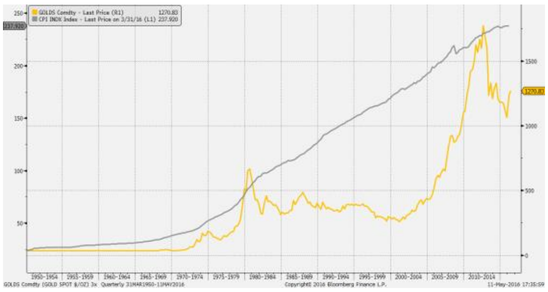
Inflation-linked holds true provided you believe that gold is a long-term store of value - along the lines of 'The Golden Constant'. That's simply the idea that gold doesn't make you money, nor does it lose it over the course of history. Obviously the cycles are very long indeed. The controversy comes from the inflation data which many believe to be manipulated. Personally I believe it is a true and fair estimate – at least in OECD countries. You are welcome to disagree.

Issued by god because who else could possibly construct an element that is universally admired by all?

Modelling gold as a bond in six easy steps

I'm going through this in detail because it's important to understand why you might want to own gold when inflation is low and falling. Bear with me – it's actually quite simple.

Inflation is the long-term tail wind



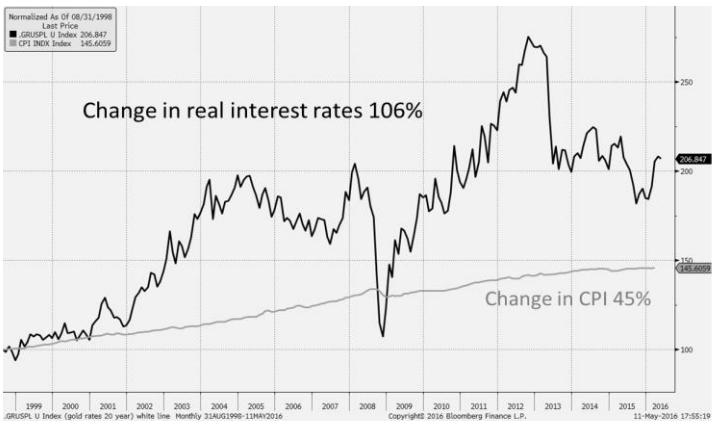
We start by taking historic CPI. There's some sort of link but it's questionable at this stage. Inflation drives the long-term return for gold. Next we need to add a discount rate, which is easy to understand. If cash on deposit earned 10% when inflation was 5%, that would make a bank deposit attractive at 5% real. Clearly that's bad for gold. However, if rates were zero and inflation was high, that would be good for gold.

Determining real yields

The blue line shows you the 10 year US bond yield. The red line shows you the 10 year inflation expectations. The difference between them is shown in black – the 10 year real yield.

As they fall, the price of gold rises. Notice the spikes in 2008 and 2013. Real rates rose. What did gold do? It fell.

Inflation and rates have boosted the price

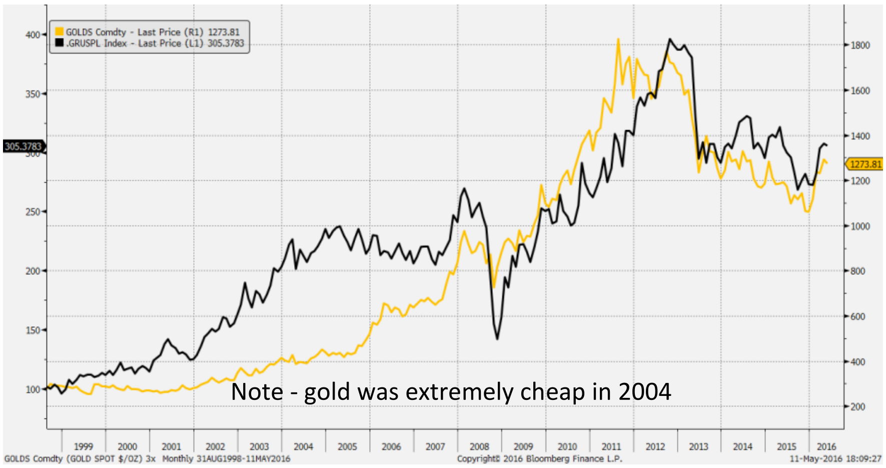


Using 20 year real rates (they work best), just add a discount rate and you'll see the impact of changes in bond prices. The discount rate is:

$(20\ year\ inflation\ expectations)^{20}$ /
$(20\ year\ real\ rates)^{20}$

The chart is starting to resemble gold. Then we need to add on historic inflation as that's historic return in the bank. If real rates rise, gold will fall. However, the only negative from historic inflation comes when it actually goes into reverse. That's rare as governments print even more when it happens.

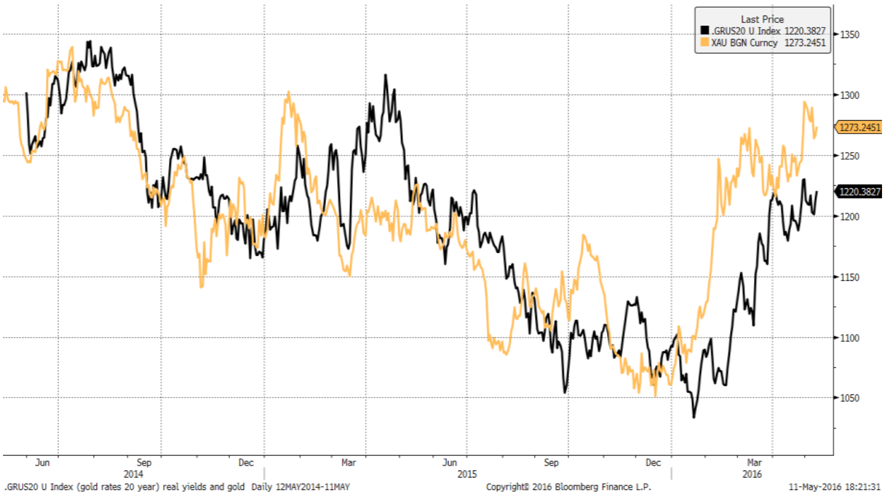
Calibrating the model



The Atlas Pulse bond model is starting to resemble gold. However, now it needs to be calibrated and this is the tricky bit. Gold is shown on the right axis at $1,273. The left is 305. Now the debate begins. What's the adjustment factor and the implied fair value for gold?

Average = 3.3. FV $1,006
Regression = 4.1. FV $1,250
30% cheap in 1998 = 4. FV $1,220
(Atlas Pulse choice)

The Atlas Pulse bond model works like a treat



These past two years have seen extraordinarily high correlation between the workings of the Atlas Pulse bond model and the price of gold in dollar terms.

Even better is that gold leads bonds. People who think gold is irrelevant should consider that it **has displayed leading and predictive** behavior over the bond market.

That's not even the best bit. It gets better. We now have a framework that can predict the gold price under different macro-economic scenarios. To forecast the gold price, all you need now, is an opinion.

$$\text{Atlas Pulse gold bond model} = \text{CPI Index} \times 4 \times \frac{(20\ year\ breakeven\ rate)^{20}}{(20\ year\ real\ rate)^{20}}$$

Please remember the name - the Atlas Pulse Gold Bond Model (APB).