Volume 39 //

Acuity

The greatest wealth is **your peace of mind...**

All that glistens...

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"Gold gets dug out of the ground in Africa, or someplace. Then we melt it down, dig another hole, bury it again and pay people to stand around guarding it. It has no utility. Anyone watching from Mars would be scratching their head."

Warren Buffet, Chairman of Berkshire Hathaway, legendary investor

Despite its lustre, gold sits uncomfortably in investment portfolios. If you think hard about why you might own it, it becomes harder to make a case for its inclusion.

Worth its weight in gold?

At today's prices, a person weighing 12 stone would be worth over $3.3 million if made of gold, equivalent to around six 'Good Delivery'[1] bars weighing 400 troy-ounces, such as those you might see in the vaults of the Bank of England. Its lustre, due to a lack of oxidation, makes it pleasing to look at and to handle. Yet, it is simply a lump of metal that generates no income and will only be worth what someone else wants to pay for it at any point in time. Given the lack of cash flow, common valuation models are not useful. Warren Buffett [2] - the legendary investor and CEO of Berkshire Hathaway - is not a big fan:

'This type of investment requires an expanding pool of buyers, who, in turn, are enticed because they believe that the buying pool will expand still further. Owners are not inspired by what the asset itself can produce - it will remain lifeless forever - but rather by the belief that others will desire it more avidly in the future... Gold, however, has two significant shortcomings, being neither of much use or procreative. True, gold has some industrial and decorative utility, but the demand for these purposes is both limited and incapable of soaking up new production. Meanwhile, if you own one ounce of gold for eternity, you will still only own one ounce at its end.'

Yet many investors seem enamoured with gold and its fabled properties. In this volume of Acuity, we take a brief look at whether the claims made by 'gold bugs' stand up to scrutiny. Amongst these are that it provides downside protection against periods of financial market trauma, helps to maintain purchasing power at times of inflation and hyperinflation, and provides an Armageddon safe haven.

A quick look at gold

Gold has attracted people's attention across the millennia and was probably first mined around 3600 BC. The first gold coins were minted in about 550 BC under King Croesus of Lydia. When Christopher Columbus sailed to America, it is estimated that less than 13,000 tons had been extracted in total. Today, the stock of above-ground gold is around 175,000 tonnes[3] which, if melted down into one block, would form a cube around 68 feet along each side (that is 10 feet shorter than a tennis court). It has been estimated that only around 50,000 metric tons remain below ground[4]. Given gold production of around 2,500 tons a year, there is an estimated 20 years of below-ground gold left.

Who owns it?

Perhaps surprisingly, jewellery accounts for around 50% of all above-ground gold. Central banks and private individuals each hold around 20%, and about 10% is used in making items such as electrical components[5]. The estimated value of all the gold in the world is roughly around 10% of the total capitalisation of stock and bond markets.

The historical price of gold

The data series for gold is long; some studies take it back as far as the 1790s. Over the years, however, different jurisdictions have placed restrictions on the personal ownership of gold, as was the case in the US from 1935 to 1975. Some countries - such as the UK and the US - backed their paper money with gold at different periods in their history. In 1925, for example, Winston Churchill, then Chancellor of the Exchequer, reintroduced the gold standard, set the Sterling-Dollar rate too high, crippled the economy and lost his job in the process. Care thus needs to be taken in interpreting the longer-term data. The chart in Figure 1 illustrates the gold price in GBP from 1979 to the present, a period over which the price of gold has floated freely. Note the difference between before inflation (nominal) and after inflation (real) prices.

Figure 1: The price of gold in GBP from 1/1979 to 6/2017
Source: www.gold.org

The price of gold before inflation may tempt the naive investor into believing that gold has been a great investment over this period. In fact, after the effects of inflation, gold has been a pretty weak performing asset class. From its high in February 1980 it took until 2011 to get back to its former level of purchasing power (the blue line in Figure 1).

Reviewing the investment case for including gold in a portfolio

Investor interest in gold, like most assets, tends to grow when the price is rising or has risen dramatically. There is considerable discussion around the merits of owning gold and yet no real consensus exists on its investment value. As with any investment, it is important to look at the evidence when testing a claim such as 'gold is a good inflation hedge' or 'a good diversifier when equities fall'. A number of such claims are explored.

Gold compared to equities

Table 1 provides an insight into the after-inflation return characteristics of gold, compared to global equities and bonds. It is evident that gold has suffered prolonged negative real returns over periods as long as 20 years and delivered an annualised return around 5% lower than equities, per annum, yet with comparable volatility. Gold prices are uncorrelated to equity markets over the period.

Asset class	Real Return % p.a.	Risk %	Worst 1 year	Worst 5 years % p.a.	Worst 10 years % p.a.	Worst 20 years % p.a.
Gold	1.5%	17%	-33%	-15%	-9%	-7%
Global equities	6.3%	16%	-39%	-8%	-4%	1%
Cash	2.2%	2%	-5%	-3%	-2%	0%
Portfolio - no gold	4.6%	8%	-17%	-3%	-1%	2%
Portfolio - with gold	4.0%	8%	-20%	-5%	1%	2%

Table 1: Risk and return characteristics 1/1979 to 6/2017

Source: MSCI UK Index (net div.), MSCI World Index (net div.) from Morningstar © All rights reserved.
Gold process from www.gold.org

The bottom two lines of the table compare a global equity/cash portfolio to a similar portfolio with gold in it[6]. The data reveals that the diversification benefit, which is somewhat marginal, comes at the expense of returns forgone of over 0.5% per annum over the period.

Below we look at a number of claims made about gold and see if they hold water.

Claim 1: gold is a good defensive asset at times of global equity market crisis

In the period under review, there were three substantial equity market crashes. In the first, it helped, but no more so than high quality, short-dated bonds. During the credit crisis it would have been a very useful portfolio holding, delivering a 90% return during the period of equity market falls. You can see from Figure 1 that the real price of gold dropped by around 35% once the worst of the crisis was past. Finally, during the short-lived 1987 crash, it delivered a negative return, compared to a positive return for bonds.

Peak date	Global Equity Fall	Trough date	Gold	Short-dated bonds
Jan-00	-48%	Jan-03	-18%	17%
Nov-07	-41%	Feb-09	90%	12%
Oct-87	-29%	Nov-87	-7%	2.5%

Table 2: Gold as a defensive asset from 1/1978 to 6/2017

Source: MSCI World Index (net div.), Citi WGBI (1-5) hedged GBP from Morningstar © All rights reserved.

The spectacular return of gold during the credit crisis was perhaps driven by fear, pushing up the price of gold. Warren Buffett explains the process succinctly:

"Gold is a way of going long on fear, and it has been a pretty good way of going long on fear from time to time. But you really have to hope people become more afraid in a year or two years than they are now. And if they become more afraid you make money, if they become less afraid you lose money, but the gold itself doesn't produce anything."

If you are able to guess how others are going to behave in the future, you would be able to take advantage of gold's hedge against fear, buying and selling it at appropriate times. Market timing is exceptionally hard to do, without the luxury of hindsight. Holding gold as a strategic diversifier in a portfolio carries with it a punitive, long-run zero real return assumption. Gold may be a good hedge against fear, but it is hard to exploit in practice.

Claim 2: gold is a good inflation hedge

Perhaps one of the most quoted properties of gold is its supposed ability to provide a hedge against inflation. The evidence does not support the assertion, at least over normal investment horizons.

Over the long term (e.g. 2,000 years) gold keeps up with inflation

A school of thought exists that gold is a store of value and prices of goods such as loaves of bread, tailored suits and barrels of oil should be constant across time in terms of the amount of gold required to purchase them. This seems to apply only over very long time frames. Some gold investors attempt to use variations from the constant as a means of valuing gold. If one compares the salary – in gold terms - of a Roman legionary and a Roman centurion against those of a US army private and captain today (the Roman and current ranks are broadly equivalent) they are paid about the same. The annual inflation rise over the past 2,000 years of a US army private compared to that of a Roman legionary was 0.08% per annum. Between that of a centurion and a captain was -0.02%[7]. Certainly over the past two millennia gold delivered a constant store of value, but that is not very helpful to most investors!

Over the shorter term it is not a good inflation hedge

It is evident from the return data series that the commonly held belief that gold is a good inflation hedge is anchored on its performance during the late 1970s, when gold prices and high inflation rose in tandem (see Figure 2). James Montier of GMO undertook an analysis that demonstrated the 10-year inflation for each decade and the gold price returns were uncorrelated except for the 1970s[8]. This conclusion was also drawn by academics Erb & Harvey, who also showed that gold has been a pretty poor store of value at times of hyperinflation. They looked at Brazil during the period 1980 to 2000, estimating that when nominal bonds and cash lost almost 100% of their real value, gold lost 70% of its real value during this period (although 30% of value retained was better than nothing). In terms of an inflation hedge, stocks and index-linked gilts provide better opportunities to achieve this objective.

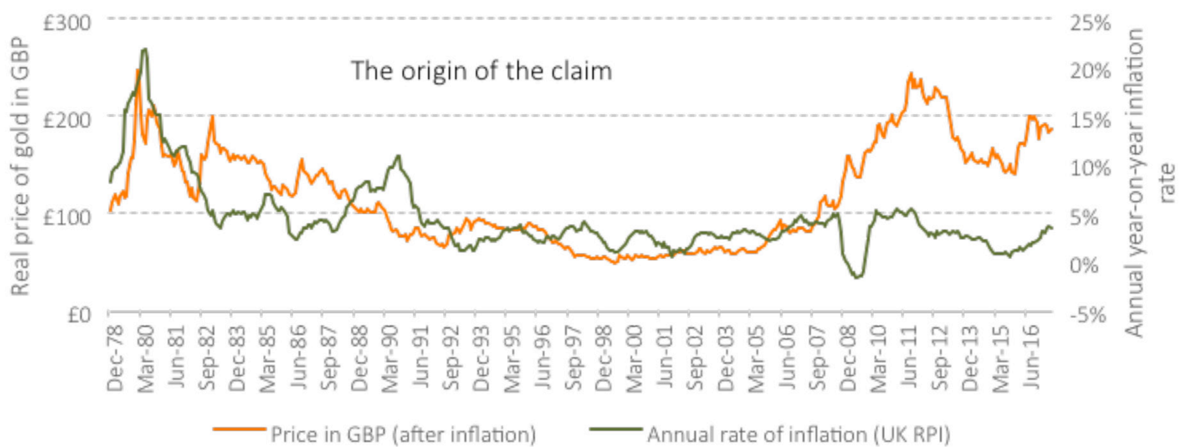

Figure 2: The real price of gold and underlying annual inflation 1/1979 to 6/2017
Source: www.gold.org. UK Retail Price Index – Bank of England

Claim 3: gold is useful store of wealth in an Armageddon scenario

A case can perhaps be made for holding some physical gold in the form of coins or ingots, in the liquidity reserves of those who fear the breakdown of fiat (paper) currencies at times of extreme market events, such as those surrounding the collapse of Lehman Brothers or even greater global calamity, such as another world war. In the extreme collapse of the financial system, paper gold (e.g. via a gold fund or ETF) would be less favourable given the risk of counterparty failure and the potential inability to access the underlying gold when it is truly needed. Don't forget that gold is very heavy and if you bury it, you need to be able to find it again; our museums are full of gold Roman coins, buried and lost two thousand years ago!

In conclusion

It would not be unreasonable to hold a base case zero real return assumption for gold given its long-term history and lack of income. It is, as a consequence, a costly strategic addition to any portfolio and comes with equity-like volatility. It may have provided strong defensive returns in some periods of market crisis, but without the ability to time markets (and people's behaviour) this property is hard to exploit. High quality fixed income assets do a reasonable job, with considerably lower volatility. Over the sort of investment horizons of most investors, it is a poor hedge against inflation with equities and index-linked gilts providing better strategic options to preserve the purchasing power of portfolios.

Enjoy your gold jewellery, perhaps hide a few Krugerands in the airing cupboard, but don't believe that owning gold will improve the structure of your portfolio. From an investment perspective, all that glistens is not gold.

End notes

1. https://en.wikipedia.org/wiki/Good_Delivery
2. Fortune (2012). Why stocks beat gold and bonds, Fortune, February 9.
3. World Gold Council (2017), About Gold.
4. United States Geological Survey (2011), Gold: Mineral Commodity Summaries
5. Erb, Claude B. and Harvey, Campbell R., The Golden Dilemma (May 4, 2013).
   Available at SSRN: http://ssrn.com/abstract=2078535 or http://dx.doi.org/10.2139/ssrn.2078535
6. Portfolio – no gold = 50% MSCI World Index (net div.) and 50% UK 1-month T-bills. Portfolio – no gold = 33% MSCI World Index (net div.) and 34% UK 1-month T-bills and 33% gold. Rebalanced annually. No costs of any kind deducted.
7. See Erb and Harvey (2013) above.
8. Montier, J., (2013) No Silver Bullets in Investing (just old snake oil in new bottles), GMO White Paper, December 2013

Other notes and risk warnings

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