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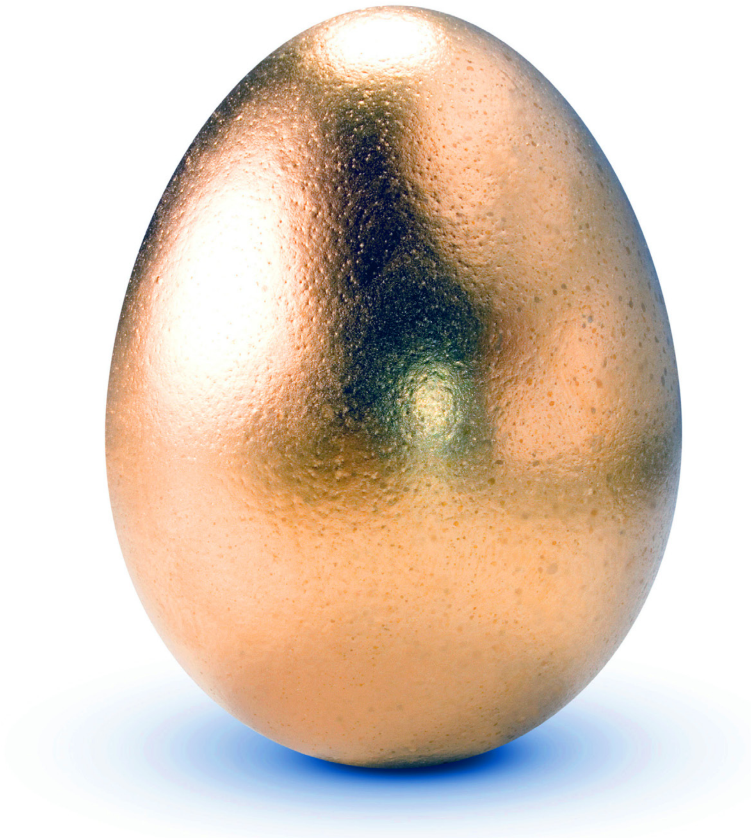
Insights

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 Buffett, Chairman of Berkshire Hathaway, legendary investor

Despite its lustre, gold sits uncomfortably in investment portfolios. If you think about why you might own it, it's hard 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' 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[1] – 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 nor 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.'

Many investors seem enamoured with gold and its fabled properties. In this note, we will take a brief look at whether the claims that 'gold bugs' make, 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 3,600 B.C. The first gold coins were minted in about 550 B.C., 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 metric tons[2], 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 remains below ground[3], such that, 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[3]. The estimated value of all the gold in the world is roughly around 10% of the total capitalisation of stock and bond markets.

1. Fortune (2012). Why stocks beat gold and bonds, Fortune, February 9.
2. World Gold Council (2017), About Gold.
3. United States Geological Survey (2011), Gold: Mineral Commodity Summaries.
4. 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

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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.

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

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 green line in Figure 1).

Reviewing the investment case for including gold in a portfolio

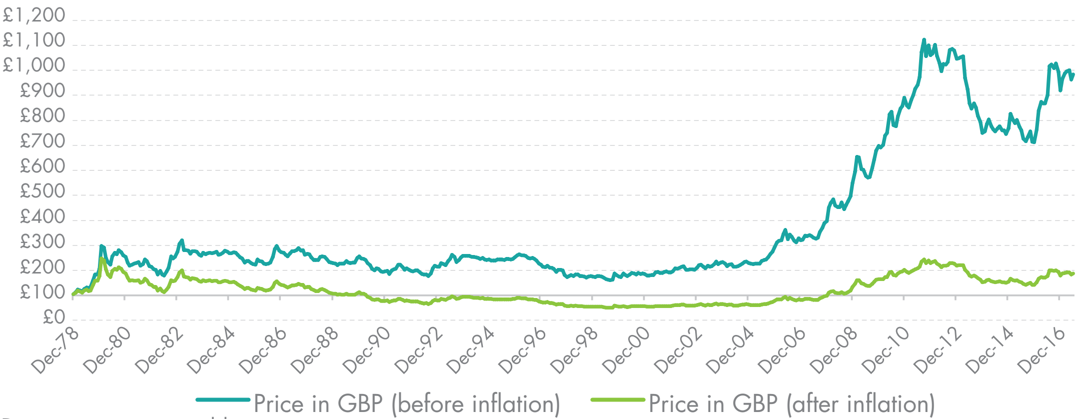
Investor interest in gold – like most assets – tends to grow when the price is rising or has risen dramatically. There is considerable discussion around the merits of owning gold and yet no real consensus exists on its investment value. As with any investment, it is important to look at the evidence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

Gold compared to equities

The table below provides an insight into its after inflation return characteristics, 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% pa lower than equities, yet with comparable volatility. Gold prices are uncorrelated to equity markets over the period.

The bottom two lines of of the table Figure 2 compare a global equity/cash portfolio to a similar portfolio with gold in it[5]. The data reveals that the diversification benefit, which is somewhat marginal, comes at the expense of returns forgone of over 0.5% pa over the period (which would compound to make a significant difference to portfolio returns over time).

Figure 1: The price of gold in GBP from 1/1979 to 6/2017



Data source: www.gold.org

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Figure 2: Risk and return characteristics 1/1979 to 6/2017

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%

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

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, as outlined in Figure 3 below. 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 – although you can see from Figure 2 above that the real price of gold dropped by around a third 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.

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."

- See below for some timeless wisdom from Warren Buffett about gold, from back in 2012.

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. However, without the luxury of hindsight, market timing is exceptionally hard to do and the long-term data suggests that holding gold as a strategic diversifier in a portfolio must carry with it a punitive, long-run zero real return assumption, so while gold may well be a good hedge against fear, it is very hard to exploit in practice.

Figure 3: Gold as a defensive asset from 1/1978 to 6/2017

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%**

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

5. 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.

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 and 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, and between a centurion and that of a captain was -0.02%[6] per annum.

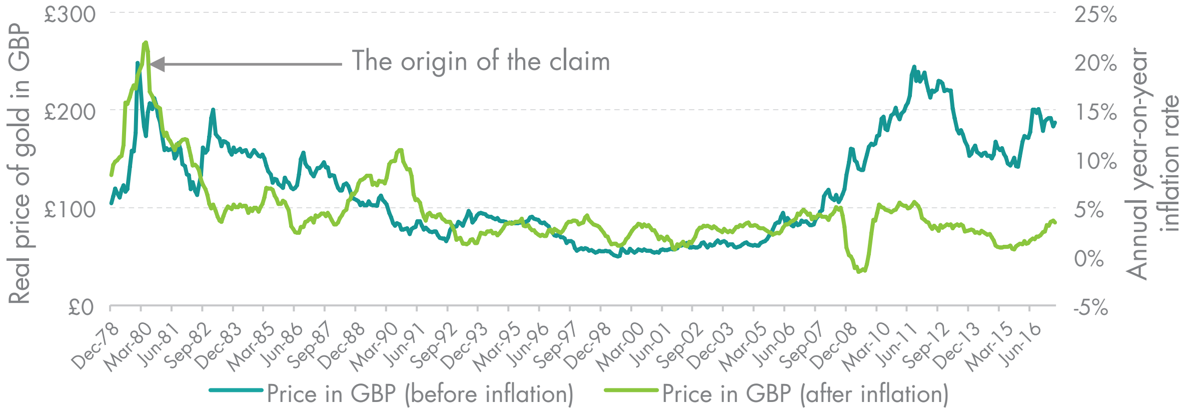
Certainly over the past two millennia, gold delivered a constant store of value, but that is not very helpful to most investors!

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 price rises and high inflation occurred in tandem (see Figure 4 below).

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[7]. This conclusion was also drawn by academics Erb & Harvey, who 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 4: The real price of gold and underlying annual inflation 1/1979 to 6/2017



Data source: www.gold.org. UK Retail Price Index – Bank of England

6. See Erb and Harvey (2013) above.
7. Montier, J., (2013) No Silver Bullets in Investing (just old snake oil in new bottles), GMO White Paper, December 2013

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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 an 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 (also, 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 Roman gold coins, buried and lost two thousand years ago!)

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.

Gold may have provided strong defensive returns in some periods of market crisis, but without the ability to time markets (and often, for an investor, the ability to control one's behaviour in times of emotional stress, such as during a period of severe market trauma) this property is very hard to exploit. By comparison, high quality fixed income assets do a reasonable defensive job, with considerably lower volatility.

With regard to inflation, over the sort of investment horizons of most investors, gold provides poor protection, with equities and index-linked gilts providing better strategic options to preserve the purchasing power of portfolios.

By all means, 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.

Photo: Peter Yang

Some thoughts to leave you with: timeless wisdom from Warren Buffett

Taken from Warren Buffett's 2012 shareholder letter, the following is well worth revisiting in the context of this article, because there is so much straightforward wisdom about gold specifically, as well as investing more generally, that it can never be revisited too often:

Investing is often described as the process of laying out money now in the expectation of receiving more money in the future. At Berkshire Hathaway, we take a more demanding approach, defining investing as the transfer to others of purchasing power now with the reasoned expectation of receiving more purchasing power in the future. More succinctly, investing is forgoing consumption now in order to have the ability to consume more at a later date.

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From our definition there flows an important corollary: the riskiness of an investment is not only measured by beta (an investment term encompassing volatility and often used in measuring risk) but in addition by the probability – the reasoned probability – of that investment causing its owner a loss of purchasing power over their contemplated holding period. Assets can fluctuate greatly in price and not be 'risky' in the conventional sense, as long as they are reasonably certain to deliver maintained or increased purchasing power over their holding period.

...Today the world's gold stock is about 170,000 metric tons. At $1,750 per ounce, its value would be about $9.6 trillion. Call this cube pile A.

Let's now create a pile B costing an equal amount. For that, we could buy all U.S. cropland (400 million acres with output of about $200 billion annually), plus 16 Exxon Mobils (the world's most profitable company, one earning more than $40 billion annually). After these purchases, we would have about $1 trillion left over for walking-around money (no sense feeling strapped after this buying binge). Can you imagine an investor with $9.6 trillion selecting pile A over pile B?

Beyond the staggering valuation given to the existing stock of gold, current prices make today's annual production of gold command about $160 billion. Buyers, whether jewellery and industrial users, frightened individuals or speculators, must continually absorb this additional supply to merely maintain equilibrium at present prices.

A century from now the 400 million acres of farmland will have produced staggering amounts of corn, wheat, cotton and other crops – and will continue to produce that valuable bounty, whatever may be going on in the world and whatever the means of currency is. Exxon Mobil will probably have delivered trillions of dollars in dividends to its owners and will also hold assets worth many more trillions (and remember, you get 16 Exxon's). The 170,000 tons of gold will be unchanged in size and still incapable of producing anything. You can fondle the cube, but it will not respond.

… My own preference – and you knew this was coming – is the third category: investment in productive assets, whether businesses, farms, or real estate. Ideally, these assets should have the ability in inflationary times to deliver output that will retain its purchasing-power value while requiring a minimum of new capital investment. Farms, real estate, and many businesses such as Coca-Cola, IBM, and our own See's Candy meet that double-barrelled test.

Whether the currency a century from now is based on gold, seashells, shark teeth, or a piece of paper (as today), people will be willing to exchange a couple of minutes of their daily labour for a Coca-Cola or some See's peanut brittle. In the future the U.S. population will move more goods, consume more food and require more living space than it does now. People will forever exchange what they produce for what others produce.

Our country's businesses will continue to efficiently deliver goods and services wanted by our citizens. Metaphorically, these commercial 'cows' will live for centuries and give ever greater quantities of 'milk' to boot. Their value will be determined not by the medium of exchange but rather by their capacity to deliver milk. Proceeds from the sale of the milk will compound for the owners of the cows, just as they did during the 20th century when the Dow increased from 66 to 11,497 (and paid lots of dividends as well).

Berkshire's goal will be to increase its ownership of first-class businesses… I believe that over any extended period of time this category of investing will prove to be the runaway winner... More importantly, in certain key respects, it will be the safest.

Best regards

Michael

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Michael Smith *CEO*

In addition to being a Chartered Wealth Manager, Michael is a Chartered Financial Planner and holds the globally recognised Certified Financial Planner qualification. He is also a Fellow of both the Personal Finance Society and the Chartered Institute for Securities & Investment and as such, is one of the most highly qualified financial planning professionals in the UK. Michael also sits on Chamberlyns' Investment Committee and helps to produce the firm's regular series of in-depth 'Insights' articles, which explore, explain and demystify often complex wealth planning issues.

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