Gold, Bitcoin and the Elon effect



Executive summary

- The recent surge in the bitcoin price above USD 50,000 per coin and the news Tesla has invested USD 1.5 billion into the cryptocurrency, has made it front page news again, with some forecasters suggesting it will replace gold in investor portfolios.
- While bitcoin could continue to rise, there are multiple warning signs of a bubble, from the parabolic price move itself, to the euphoria that has followed the world's richest man investing company money in this nascent asset class.
- Gold is likely to remain the preferred investment option for risk conscious investors looking to protect capital in the years ahead.
- Bitcoin beats gold hands down from the perspective of generating speculative returns in rapid fashion but it is 12 times more volatile than the precious metal.
- The gold market is significantly larger in terms of overall value, with a market capitalisation that is more than 10 times the bitcoin market.
- The gold market is substantially more liquid, with about 90 times the daily turnover of the bitcoin market in 2020.
- Free storage options for gold carry lower risk than free bitcoin storage options, given the counterparty risk inherent in the latter.
- Gold is a lower-cost investment than bitcoin, with gold ETFs like Perth Mint Gold (ASX:PMGOLD) offering gold exposure for 0.15% p.a., versus 1-2% p.a. for existing bitcoin products.

- Gold has a more diverse set of use cases for investment, as a reserve asset for central banks, as a display (and store) of wealth in jewellery form, and in industry. Bitcoin on the other hand is almost exclusively used for speculation, with payment volumes across the cryptocurrency network declining in the last three years.
- Gold has a multi-millennia track record as a store of value and has been the best performing asset in equity market corrections over the past 50 years. In contrast, it is far too early to say that bitcoin is a store of wealth, given it has only existed in an era of low inflation, economic expansion (up until COVID-19), and a record bull market run in equities.
- Gold's network effect is far stronger than that of bitcoin, best evidenced by the perpetual marketing of bitcoin itself as digital gold. Gold is not marketed as analogue bitcoin.
- Bitcoin remains under threat, both from hard forks of the bitcoin network itself, as well as thousands of other cryptocurrencies, whereas gold's status remains rock solid (pun intended).
- The gold market is far more decentralized, with the precious metal mined, refined, and owned by central banks, households and investors the world over. Bitcoin on the other hand is predominately held by a small group of owners, while mining is overwhelmingly concentrated in one country.



Introduction



Jordan Eliseo Manager – Listed Products and Investment Research The Perth Mint No one should be surprised that bitcoin is back on the front page of the news, with prices recently rising to more than USD 55,000 per coin, driven by the Tesla announcement on 8 February that it had invested USD 1.5 billion into the cryptocurrency.

Bitcoin bulls understandably cheered this news on, believing it will kickstart a wave of buying from corporations and institutional wealth managers.

The Tesla investment followed some cryptic (no pun intended) activity on Twitter from CEO Elon Musk, who in late January temporarily changed his Twitter profile to the word 'Bitcoin', and tweeted, "In retrospect, it was inevitable".

That tweet followed one on 27 January from the Tesla CEO, which simply stated, "Gamestonk," in reference to shares in Game Stop (GME) — a share that captured the market's attention in late January as part of the Wall Street Bets short squeeze phenomenon.

For reference, GME shares rose 135% that day to close at USD 347.51 (their highest daily close during the short-lived mania), and have since fallen 88%, closing at USD 40.59 on 19 February.

Musk's twitter activity, and Tesla's bitcoin purchase have coincided with a bitcoin price rally of almost 90% in the last three weeks alone. From the lows seen in March 2020, it is now up more than 1000%, with bitcoin's market capitalisation now topping USD 1 trillion.



Gold and bitcoin prices – Dec 2019 to Feb 2021



Source: World Gold Council, LBMA, Coinmetrics, Coindesk, data to Sunday 21st February

Tesla's decision to invest in bitcoin, its desire to soon accept the cryptocurrency as a form of payment, and its decision to look at a range of alternative assets it might hold on its balance sheet can be read in full here, with an extract below:

In January 2021, we updated our investment policy to provide us with more flexibility to further diversify and maximise returns on our cash that is not required to maintain adequate operating liquidity.

As part of the policy, which was duly approved by the Audit Committee of our Board of Directors, we may invest a portion of such cash in certain alternative reserve assets including digital assets, gold bullion, gold exchange-traded funds and other assets as specified in the future.

Thereafter, we invested an aggregate \$1.50 billion in bitcoin under this policy and may acquire and hold digital assets from time to time or long-term.

The prices of digital assets have been in the past and may continue to be highly volatile, including as a result of various associated risks and uncertainties. For example, the prevalence of such assets is a relatively recent trend, and their long-term adoption by investors, consumers and businesses is unpredictable. Moreover, their lack of a physical form, their reliance on technology for their creation, existence and transactional validation and their decentralisation may subject their integrity to the threat of malicious attacks and technological obsolescence.

While all the attention has been directed toward Tesla's purchase of bitcoin, little note has been made of their decision to also look at including physical gold bullion on the list of assets they may wish to invest in going forward.

Indeed, given the rally in bitcoin, and the pullback in gold that we have seen since early August 2020 (bitcoin +384%, gold -14%), there is no shortage of commentators stating that the precious metal is being usurped by its digital counterpart, with some going so far as to encourage investors to drop gold, and reallocate to bitcoin instead.

This report questions this narrative, looking at the various metrics by which investors can, and indeed should compare these two very different asset classes.

As it makes clear, gold still has many advantages over bitcoin.



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Liquidity

The physical gold market is one of the most liquid markets available to investors, with daily turnover more than USD 175 billion, the vast majority of which takes place over-the-counter and on regulated futures market exchanges.

That is more than the average daily turnover in most fixed income and equity markets and helps explain why gold is one of the most efficient asset classes to trade. As an example of this, gold ETFs including Perth Mint Gold (ASX:PMGOLD) have the lowest average trading spreads of all asset classes on the ASX bar cash ETFs.

By contrast, liquidity in the bitcoin market, despite recent increases as the price has rallied, averaged less than USD 2 billion per day in 2020. For most of its roughly 12-year life, total liquidity has been comfortably less than USD 1 billion per day.

Research published by <u>Glassnode</u> in December 2020, and data published by <u>Chainalysis</u>, also suggests that approximately 80% of the bitcoin supply remains illiquid today.



NUMBER OF BITCOIN AS CATEGORISED BY LIQUIDITY PROFILE

This might be fine for retail investors, but the lack of turnover, and its liquidity profile suggest bitcoin is simply not large enough to absorb meaningful institutional money at this stage.



Market size

At the end of 2020, best estimates suggest there were 171,848 tonnes of physical gold that were held by investors, households and central banks around the world, with another 29,448 tonnes of gold used in industry.

At the end of January 2021, this gold stockpile was worth just over USD 12 trillion.

By contrast, the market value of all the bitcoins ever mined, even after its tremendous price rally, has only just now crossed USD 1 trillion, with the chart below highlighting the size of the respective markets at the end of January 2020 and January 2021.



SIZE OF BITCOIN AND GOLD MARKETS (USD MILLION) – JAN 2020 VS JAN 2021

While the ratio between the two suggests the gold market is now just 12 times larger than the bitcoin market, it was 60 times larger just a year ago.

Given gold's much lower relative volatility, investors can have more confidence that its multi trillion-dollar market size will endure in the years ahead.



Holding cryptocurrency via an exchange, to take advantage of 'free' storage is risky.

In most cases the investor is an unsecured creditor, as they don't actually own the cryptocurrency, the exchange does.

Cost to invest

One of the stranger claims made by the "bitcoin is better than gold" advocates is the idea that bitcoin has a lower cost to hold and store compared to physical gold. This would appear to be based on the idea that bitcoins can be held in either cold wallets for minimal cost, or indeed on a cryptocurrency exchange, typically for no cost.

Whilst that is no doubt true, there is nothing to stop an investor holding gold in a vault at minimal cost, or at home, where there will be zero ongoing storage cost.

In both cases, whilst the investor can save on storage fees, sacrifices are required in terms of liquidity and ease of trade. The investor takes on the risk that comes with self-storage, noting that both gold and bitcoin (or cash under your mattress for that matter) can be lost.

Holding cryptocurrency via an exchange, to take advantage of 'free' storage is risky. In most cases the investor is an unsecured creditor, as they don't actually own the cryptocurrency, the exchange does.

As such, the exchange in effect has an IOU with the investor. To the best of our knowledge, there are absolutely no guarantees that most cryptocurrency exchanges hold or own enough bitcoin to meet in full the IOUs they have with all their customers.

In some ways, 'owning' cryptocurrency via an exchange is similar to the money people keep in the bank — with the enormous caveat that an IOU from the cryptocurrency exchange doesn't have the depository protection offered by the Federal Government. Nor is the exchange regulated by the Australian Prudential Regulation Authority.

If something happens to the exchange — it gets hacked, for example — or it goes bust with creditors to pay, or it proves to be run by dishonest operators, then the investor is likely to be out of pocket. There have been frequent examples of these incidents in the past decade.

Compare this to gold held with free storage. As an example, if you buy a Perth Mint gold bar and it is physically shipped to your home, then, by definition, you own it and have clear title to it. The fact you have it in your hand proves it hasn't been sold to someone else. Alternatively, you can buy unallocated gold, stored in the Government Guaranteed Perth Mint Depository.

If we look at the 'cost' of owning gold or bitcoin via regulated investment vehicles, gold would appear to win hands down, with gold ETFs like ASX:PMGOLD charging as little as 0.15% p.a., while very few gold ETFs charge more than 0.40% p.a.

By contrast ,the largest bitcoin investment vehicle by market value charges 2% p.a., while a just listed Canadian Bitcoin ETF, the first one to come to market in North America, is charging a fee of 1% p.a.

Governance and regulation

Gold trades in a well-regulated market, with some of the largest commercial and central banks in the world including the Bank of England playing active roles as market makers and custodians.

The LBMA daily gold price (previously the Gold Fix), still acts as the global reference point for gold pricing. It is a regulated benchmark, with accredited price participants including organisations such as Citibank, Bank of China, Morgan Stanley, Standard Chartered Bank, Toronto Dominion Bank, and JP Morgan.

By contrast, many, though by no means all, cryptocurrency exchanges, still operate out of regulation-lite jurisdictions.

Given this backdrop, it should be no surprise that there are continued question marks over the integrity of the data reported by some exchanges. A 2019 report by Bitwise Asset Management suggested that up to 95% of reported trading volume in cryptocurrency markets was fake.

Furthermore, according to a January 2021 Research Affiliates report titled <u>"Bitcoin:</u> <u>Magic Internet Money,"</u> the most high-profile stablecoin in the cryptocurrency market, Tether (USDT), which is supposed to trade at parity with the USD, appears to be under investigation for fraud by the New York Attorney General, and has already admitted that it is not fully backed.

The Tether situation may or may not prove to be a big deal for cryptocurrency markets, given most reported (note the word, reported) bitcoin trading happens against USDT. In fairness, it is worth noting some <u>crypto-advocates</u> make the point that bitcoin/USDT volumes are likely overstated by exchanges whose liquidity data is questionable in the first place. Their argument is that USDT isn't all that important to cryptocurrency markets.

No doubt some progress has been made in the last two years to improve cryptocurrency market transparency, and many decent people who work in these markets are advocates for that greater transparency.

Despite this, bitcoin markets fall well short of precious metal markets when it comes to governance and regulation.



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Volatility and drawdowns

Given its stratospheric rise, it is unsurprising that bitcoin has proved to be far more volatile than gold, and suffers much larger drawdowns than the precious metal.

From 2010 to 2020, gold's worst monthly pullback was -15%, while its annualised volatility was 17%. Bitcoin's worst month saw it fall -39%, and its annualised volatility was more than 200%.

Peak to trough, gold fell by just over 40% in the four-year bear market between August 2011 and December 2015. Bitcoin fell by more than 80% in just over a year between December 2017 and January 2019.



Market maturity and role in a portfolio

The role that gold can play in an investment portfolio is well understood. Bitcoin's role is less clear.

This is no fault of bitcoin per se; it is simply an immature market. Bitcoin has only just turned 12, and the average market value of all the bitcoin that has been mined has only exceeded USD 100 billion since 2018.

Furthermore, while bitcoin is often advertised as the 'ultimate crisis hedge', its 12-year existence has been largely crisis-free. It coincides with an economic and financial market environment characterised by:

- A profound bull market in equities, with the S&P 500 rising from around 1,250 points at the end of 2010 to more than 3,750 points by the end of 2020.
- Record low levels of official consumer price inflation, which averaged less than 1.75% per annum in the past decade.
- The longest economic expansion in history, up until the COVID-19 recession.

With this backdrop, it can't yet be said that bitcoin is a hedge against inflation, as there has been very little inflation in the past decade, central bank balance sheet and earnings multiple expansion notwithstanding.

Gold, on the other hand has a rich history of outperforming in environments of high inflation, with analysis by the World Gold Council (studying the period from 1971 to 2019) finding the precious metal generated average returns of more than 15% in years where CPI was higher than 3%.

Bitcoin's ability to hedge stock market drawdowns is mixed at best. The table below highlights this, showing the performance for both gold and bitcoin during periods the S&P 500 has gone through corrective pullbacks since 2011.

Start Date	End Date	S&P 500 % move	BTC % move	Gold % move
29/4/11	3/10/11	-19%	76%	8%
3/11/15	11/2/16	-13%	-6%	10%
26/1/18	8/2/18	-10%	-26%	-3%
20/9/18	24/12/18	-20%	-38%	4%
19/2/20	23/3/20	-34%	-33%	-5%
Average	e return	-19%	-5%	3%

Source: World Gold Council, Coinmetrics, A Wealth of Common Sense



Only once has bitcoin recorded a positive return during these corrections — back in 2011. In the subsequent four corrections for equities, not only did bitcoin fall, but on average it fell by more than the equity market.

Gold, by contrast, has seen three price increases and two declines during these periods, outperforming equities every time and beating bitcoin in all periods except for 2011.

Given this, it is hard to make a case that bitcoin has proved to be a hedge at all, let alone one that is superior to gold.

It's also worth noting that while the 76% return for bitcoin in 2011 is an impressive result, in practice this represented an increase in the bitcoin price from \$2.85 to \$5.03. It is unlikely to have much to do with what was transpiring in equity markets, or a desire by investors to seek a safe haven, since the entire bitcoin network was worth less than USD 50m at the time.

To that end, much of the statistical analysis claiming to show that a bitcoin allocation could have improved risk-adjusted returns in a diversified portfolio, should come with a big asterisk.

That's not because the math or calculations are wrong — but because the market capitalisation and daily liquidity of bitcoin has been so small for most of its existence that it simply has not been investable, especially for HNW investors and institutional wealth managers.

Gold's beneficial role in a portfolio becomes even clearer when we look at its interplay with the equity market over a longer time-frame than the 12 years bitcoin has existed.

This can be seen in the table below, which highlights the average monthly, quarterly and annual performance for gold in periods where equities rise, and when they fall.

AVERAGE GOLD AND EQUITY RETURNS WHEN EQUITIES FALL AND WHEN EQUITIES RISE (%) – 1971 TO 2020

Equity Market	Time period	Equity move (%)	Gold move (%)
Equities Rising	Months	3.9%	0.8%
	Quarters	7.9%	2.2%
	Years	22.2%	10.5%
Equities Falling	Months	-3.6%	1.0%
	Quarters	-6.7%	3.8%
	Years	-14.7%	15.7%

Source: World Gold Council, Reuters, The Perth Mint.

Decades of market data tells us that gold is positively correlated to rising equity markets, and negatively correlated to falling equity markets, helping protect portfolios when that protection is needed most.

This is not to say the bitcoin price can't continue to climb — and it in no way detracts from its incredible rise in the last 10 years.

Nevertheless, from a risk management perspective at least, the precious metal would still appear to be the more reliable safe haven.





The hyperbitcoinisation narrative can be distilled into the argument that bitcoin must first become valuable, before it becomes useful. We remain unconvinced by this hypothesis.

Use cases

A look at the fundamental use cases for both assets highlights why the precious metal has more diverse, and more enduring sources of demand.

Gold is used for four primary purposes:

- in jewellery form, where it is both a display and store of wealth
- in portfolios, where it is used as an investment/speculation/store of wealth
- in industry, for uses such as electronics, medicine, dentistry and aerospace
- as a monetary reserve by central banks.

Bitcoin, on the other hand, has only two potential sources of demand.

It can be used as an investment/speculation. For reasons we've explained, we think it's far too early in its lifespan, and has proved far too volatile to yet call it a store of wealth, though we acknowledge bitcoin-believers will disagree with this assertion.

Alternatively, it can be used as a mechanism to make unregulated payments across a 24/7 monetary pipeline that lacks the oversight of a sovereign state.

The data suggests that most bitcoin users are almost exclusively focused on the investment/speculation angle. As Ark Invest's "Big Ideas 2021" report states, roughly 60% of bitcoin's supply hasn't moved in a year, which they claim is *"testament to the market's longer-term focus and a holder base with stronger conviction"*.

The costs and slow speed of the cryptocurrency network, plus the implicit price risk, are also deterrents to using bitcoin as a payment pipeline, which is why this function has so far proved to be of so little use. Indeed, data from <u>Chainalysis</u> suggests the total USD value of bitcoin received by merchants was less than USD 4 billion last year, having fallen by almost 50% in the last three years.

The payment pipeline component also brings heightened regulatory risk to cryptocurrencies, given their obvious appeal for those looking to engage in criminal activity, with some countries already looking to ban bitcoin.

Bitcoin-believers often use the phrase HODL (*hold on for dear life*) to describe the longterm perspective of those who own the cryptocurrency. In this world view, the reason so few people use bitcoin for payments is there is no point using it in daily commerce until the price skyrockets, though how high it must go to be practical remains unclear.

At this yet-to-be determined price, the argument goes, *hyperbitcoinisation* will have occurred, with bitcoin acting as the default value system of the world. Its market value will be in the tens of trillions, its volatility will have died down, and central banks themselves will adopt it as a reserve currency.

Once this occurs — but not until then — it will make sense to use it in daily commerce, with consumers happy to spend it, and merchants happy to price their wares in it.

The hyperbitcoinisation narrative can be distilled into the argument that bitcoin must first become valuable, before it becomes useful. We remain unconvinced by this hypothesis.



Centralisation

The argument that bitcoin is decentralised is a core component of the narrative used to promote the cryptocurrency.

There are two elements to this debate worth considering.

The first is whether decentralisation, and a system lacking trusted counterparties and transactional reversibility, is actually superior to a centralised system that does use trusted counterparties.

There are after all many benefits to centralisation, the most obvious of which is greater efficiency. Centralisation also allows for built in consumer protections — such as if someone accesses your bank account or you lose your password, or you accidentally send money to the wrong recipient in payment for a good or service.

Given these factors, it's not a clear-cut case that decentralised systems are superior.

The second part of the argument is more fundamental. Is bitcoin actually decentralised and gold centralised?

Consider that gold is mined on every continent except Antarctica, with no one continent making up more than 24% of total annual production. It is also owned by every major central bank or national treasury on behalf of their respective nations and, as per the following chart, is owned directly by citizens the world over.

PRIVATE SECTOR PER CAPITA GOLD DEMAND IN GRAMS – MAJOR COUNTRIES AND REGIONS





Independently of each other, most societies eventually chose gold over other options as its physical properties (scarcity, durability, malleability etc) made it a superior choice. The very process by which gold became humanity's longest-serving form of money was a decentralised one. It did not occur via decree, but as a process of elimination over time, as not-so-primitive people all over the globe worked out the need for a monetary unit that could facilitate market-based economies. Independently of each other, most societies eventually chose gold over other options as its physical properties (scarcity, durability, malleability etc) made it a superior choice.

Today, from bullion dealers to mints, to banks, souks or jewellery stores, you can buy gold almost anywhere, and your transactions will remain private between you and the vendor.

Yes, there are elements of the precious metal market that are centralised, including OTC and futures market trading, as well as custody solutions offered by organisations like The Perth Mint. Rather than a weakness, this is a strength, reflecting the market infrastructure that makes gold cost-efficient for investors to buy, sell and store.

Bitcoin, we are led to believe by its creation story, was designed by one person, who decided both the total amount that could ever be mined (though there is no proof the supply can't change, despite the economic disincentive to do so), and the speed at which it would be supplied into the market.

This person also decided that all transactions would forever be recorded in a globally accessible ledger, and estimates suggest they effectively rewarded themselves with more than <u>one million</u> bitcoin (almost 5% of the total supply).

By the end of 2015, more than 70% of all the bitcoin that will ever supposedly be issued had already been mined, and was held by a small group of people, before 99.9% of the world had ever heard of it.

How is that decentralised? It is more like the <u>Cantillon</u> effect on steroids, with some estimates suggesting the Gini co-efficient is higher in bitcoin than in any real-world economy.

Today, estimates from the Cambridge Centre for Alternative Finance state that almost 65% of <u>bitcoin mining</u> happens in one country (China). Ownership remains incredibly concentrated, with a <u>Bloomberg</u> article from November 2020 suggesting close to 95% of all the bitcoin that has been mined is held by just 2% of the people who own bitcoin.

In fairness, this no doubt overstates ownership concentration to a degree, given some bitcoin addresses, like those controlled by exchanges and investment vehicles, effectively hold the asset on behalf of multiple investors. Research published by **Glassnode** in early 2021 suggest just 71% of bitcoin is controlled by the largest 2.1% of bitcoin network entities.

Nevertheless, it is clear that gold remains far more widely distributed from an ownership perspective than bitcoin is today.



Supply

Gold's overall supply is incredibly stable, as witnessed by the growth in total above-ground stock over the past decade, which (as per the table below) has averaged just 1.80% p.a.

Expressed another way, the existing stock of gold, which is now more than 200,000 tonnes is 59 times larger than the flow, or annual production.

Year	Total above ground stock (tonnes)	Annual change in above ground gold stock (%)	
2010	168,350		
2011	171,213	1.7%	
2012	174,152	1.7%	
2013	177,280	1.8%	
2014	180,522	1.8%	
2015	183,858	1.8%	
2016	187,317	1.9%	
2017	190,809	1.9%	
2018	194,363	1.9%	
2019	197,895	1.8%	
2020	201,296	1.7%	
Average	184,278	1.8%	

Source: World Gold Council

The stable supply profile of gold is a permanent and effectively unalterable feature of the market, as the precious metal is never truly consumed. Thousands of years of history, combined with the laws of nature, give great confidence to investors that this will not change in the years ahead.

Bitcoin, on the other hand, has been designed by humans, and its total supply is subject to the whims of humanity— just as is the case for fiat currency.

Cryptocurrency advocates state that the fact the total bitcoin supply is fixed (at present) to 21 million coins makes it superior to gold. After all, if stable supply (gold) is better than potentially unlimited supply (fiat currency), then surely fixed supply (bitcoin) is better still.



While the argument has basic appeal, it's worth revisiting why humans saw the need to develop money in the first place: to facilitate trade and allow for economic specialisation.

As the population and economic output grows over time, the idea we'd want a fixed amount of money is no more logical than saying we should have a fixed amount of coffee or a cap on the number of mobile phones.

And although many investors worry about inflation eating away the purchasing power of money, it doesn't naturally follow that deflation is a cure. It's no better than starving oneself as a cure for gluttony — a pyrrhic victory at best.

Indeed, the idea that money is meant to 'go up' in value fails a basic test. If people could just park excess savings in bitcoin (or gold or fiat currency for that matter) and sit back and watch prices rise, why bother to work and engage in productive enterprise at all?

And even imagining this specious argument is true, if a fixed supply of money really is preferable, then what's to stop a better cryptocurrency than bitcoin coming along with fewer than 21 million coins on offer?

The argument bitcoin bulls tend to proffer to this question is that it's not the total number of *currency units* that matter (side note; this is what Modern Monetary Theory advocates also say) it's the **network effect** of the currency.

As we explain in the next section, even on that metric, gold has a clear edge.

If a fixed supply of money really is preferable, then what's to stop a better cryptocurrency than bitcoin coming along with fewer than 21 million coins on offer?

Competition and the network effect

From a competition perspective, gold has not only survived but thrived for millennia.

Despite its inertia, humans have never stopped valuing it, wanting to wear it, or turning to it as a refuge in times of heightened political, economic, or financial market uncertainty.

Gold's network effect is so profound that around the world, irrespective of race, religion or creed, the precious metal is globally recognised as an item and symbol of the highest value.

This isn't an automatic reason to be bullish on the gold price, but it is impossible not to acknowledge the status that humans ascribe to the precious metal. Put simply, gold has an economic moat, built over thousands of years, that is yet to be breached.

If nothing has rendered the precious metal obsolete over that timeframe, what is the real likelihood that this time is different?

Very little, we suggest.

Consider the chart below highlighting total central bank gold holdings since 2000 (which have increased by more than 5,000 tonnes since the GFC struck) — just one of many data points that highlight the precious metal's enduring position as a trusted safe haven.

CENTRAL BANK GOLD HOLDINGS (TONNES) - 2000 TO 2020



Gold's network effect is so profound that around the world, irrespective of race, religion or creed, the precious metal is globally recognised as an item and symbol of the highest value. By contrast bitcoin as a currency, and the Bitcoin network itself, which are only now entering their teenage years, are already under threat. The challenges include:

- The hard forks that have spawned alternative versions of the Bitcoin network, the highest profile of which is Bitcoin Cash, which processes transactions more quickly than the Bitcoin network can. By contrast, there are no alternative versions of gold.
- Corruptions and or degradation of the Bitcoin network itself (for example, in 2010, someone altered the network and temporarily created more than <u>180 billion</u> <u>bitcoin</u>, while there have been at least 40 bugs detected in its short lifespan). Gold on the other hand is not a piece of software. It is an inert physical metal. It will never evolve the way the Bitcoin network can and has. It will also never degrade.
- The thousands of cryptocurrencies that have been created in the past few years, many of which are competing with bitcoin for investor attention.

Granted, most of these cryptocurrencies are likely to end up being worthless, and bitcoin is by some margin the most widely known and valuable cryptocurrency today — but can investors really be confident this will still be true 10, 20 or 50 years from now?

Even Tesla warns of the potential for *technological obsolescence* in this nascent asset class.

Indeed of all the beliefs bitcoin bulls appear to hold true, there is nothing harder to reconcile than the notion that bitcoin is such a giant leap forward for money that it will simultaneously render decades of fiat currency, and millennia of precious metal dominance obsolete, while also being so innately perfect that it will never be disrupted by a superior digital currency.

For further evidence of the superiority of gold's network effect, simply look for an image of bitcoin using your favourite search engine. You will see something that looks very much like a gold coin. There are also hundreds if not thousands of articles that attempt to convince the reader that bitcoin is digital gold.

By comparison, you don't find people promoting gold investments with images of the precious metal made to look like a string of computer code, nor is gold promoted as analogue bitcoin. For further evidence of the superiority of gold's network effect, simply look for an image of bitcoin using your favourite search engine.

You will see something that looks very much like a gold coin. There are also hundreds if not thousands of articles that attempt to convince the reader that bitcoin is digital gold.



Summary of characteristics

The table below summarises some of the key characteristics which investors can use to compare gold vs bitcoin.

With the exception of speculative return potential — for which bitcoin seemingly has no peer—gold comes out ahead, making it the safer long-term investment choice for the majority of investors.

Characteristics	Gold	Bitcoin
Speculative return potential	×	~
Liquidity	 ✓ 	×
Market size	v	×
Governance and regulation	v	×
Volatility and drawdowns	v	×
Market maturity and portfolio role	v	×
Spread of use cases	v	×
Economic moat	v	×
Decentralization	v	×
Stability of supply	v	×
Network effect	~	×

So what happens next?

What happens next with bitcoin, gold and other asset classes remains to be seen. Some people believe it is inevitable that other corporates will follow Tesla and invest in bitcoin. But we are not so sure widespread adoption is either imminent or likely.

This is not to say prices can't continue to rise, but one could argue the fact that bitcoin remains so volatile — and so illiquid that it can move 50% off the back of a tweet and \$1.5 billion investment — would make most Treasury Heads, CFOs, CEOs and board members nervous about incorporating such an asset on their own balance sheet.

What if Elon sells?

This seems particularly relevant given the warning signs of a bitcoin bubble today, the most obvious of which is the parabolic move in the price itself. The number of active addresses in the bitcoin network has also spiked, as it did in the run up the 2017 peak and subsequent crash, while the number of subscribers to crypto <u>subreddits</u> is four times higher today than it was at the height of the last cycle.

If that weren't enough, pay attention to outdoor advertising, plastered with promises like, "if you're seeing bitcoin on a bus, it's time to buy."

As a final comment on the risk in bitcoin market today, how much more euphoric can it get than the richest man in the world, using the balance sheet of the company he leads, (which incidentally trades at more than <u>1200 times trailing earnings</u>), to invest in the asset class?

Even if you were tempted, is now really the time?

It's also not immediately clear why a company wouldn't just choose to repatriate excess cash to shareholders, either in the form of higher dividends or a stock buy-back, and remain focused on its core operations, rather than turning itself into quasi assetmanagement business.



If large swathes of listed corporates do feel the need to turn to bitcoin, we can't help but feel that would represent a massive vote of no confidence in monetary policy settings. As a side note, if large swathes of listed corporates do feel the need to turn to bitcoin, we can't help but feel that would represent a massive vote of no confidence in monetary policy settings. It would also almost by definition represent a headwind for productivity growth given the resources said corporates would need to redirect from core operations to asset management. So much for low rates encouraging higher levels of capital investment.

For institutional investors, it is a different story, if for no other reason than asset management is their core business. Given continued economic uncertainty, negative real yields across most sovereign debt markets, and richly priced equities, especially in the United States, there seems little doubt that the appetite for assets that are reliable stores of wealth, and inflows into these assets, will grow in the years ahead.

For all the reasons laid out in this report, we'd expect physical gold to be a major beneficiary of that trend.

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Manager – Listed Products an Investment Research 22nd February 2021



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Past performance does not guarantee future results.

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