Mercer

cryptoassets update

worth buying?

welcome to brighter

[Bitcoin is] “an extremely inefficient way of conducting transactions. And the amount of energy that’s consumed in processing those transactions is staggering. But it is a highly speculative asset, and I think people should beware. It can be extremely volatile, and I do worry about potential losses that investors in it could suffer.”

– Janet Yellen, interview with DealBook, 23 February 2021

Introduction

As Bitcoin reached $1 trillion in value for the first time, the total market value of cryptocurrencies stood at circa $1.5 trillion (see figure 1 for the split of the top 10 projects). This is about the same size as the market cap of US small cap stocks as represented by the Russell 2000.

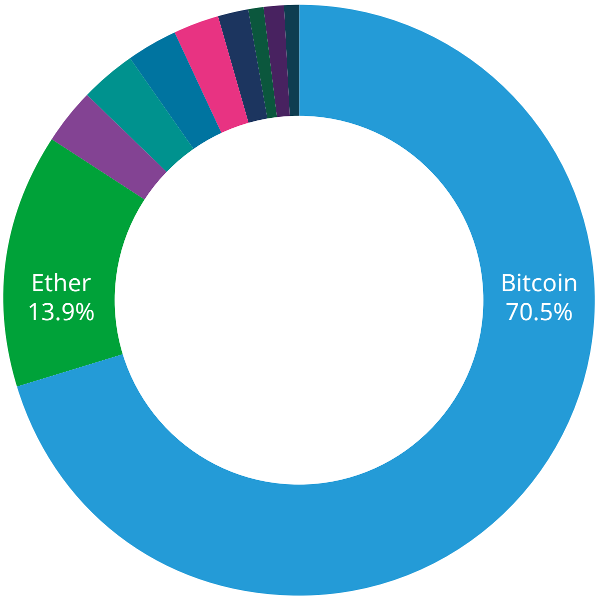
Today, the interest in cryptoassets is considerable and, as a result, many institutions are questioning whether an investment in Bitcoin is for them. This paper provides Mercer's perspective on what we believe are the reasons for the recent rise of Bitcoin. We also examine possible motives for considering purchases of the cryptoasset.

As highlighted in our previous papers, Cryptocurrencies – on the cusp of Mainstream? and Cryptocurrencies – Fool's Gold or The Future? Mercer does not view cryptocurrencies in their current form as an investable proposition or store of value (either directly, via futures or via hedge funds set up to speculate on cryptocurrency price movements) as they offer no income and assessing fair value is close to impossible.

Mercer sees the risks of cryptocurrencies outweighing their potential benefits and cautions investors against investing in them. Cryptocurrencies may be of interest to certain investors but should be accompanied by risk warnings of sufficient gravity. We believe cryptocurrencies are an order of magnitude riskier than traditional investments. Cryptocurrencies are largely unregulated investments and should be presented as such. Investors wanting to invest in cryptocurrencies should obtain legal advice regarding investment suitability and avoid their use in countries where cryptocurrencies are banned.

Figure 1. Size of cryptocurrency markets

Market size and share



Bitcoin	70.5%	Polkadot	2.6%
Ether	13.9%	Ripple	1.6%
Cardano	3.1%	Chainlink	0.9%
Binance Coin	3.0%	Litecoin	0.9%
Tether	2.8%	Bitcoin Cash	0.8%

Source: Coinmarketcap, 2 March 2021

In this paper, we update our findings for market and regulatory developments to March 2021 and consider both the strategic and shorter-term trading (tactical) perspective.

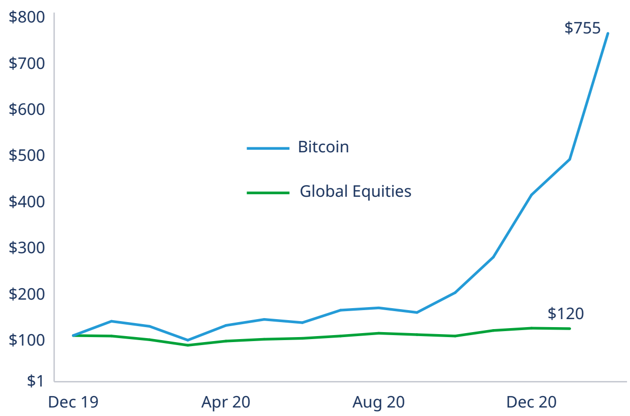
Origins of Bitcoin's rise in value

A sense of societal unease and reduced trust in the global financial system was seeded during the Global Financial Crisis and heightened by the COVID-19 pandemic as governments and central banks pursued expansionary policies and inequality increased[1], just as it had a decade previously.

The combination of various beliefs about the dangers of currency debasement, a forthcoming economic system reset and technological take-over has been a powerful tail wind for cryptoassets. The story of Bitcoin's rise is expressed by some as a narrative combining dissatisfaction with authority, a need for community belonging and a desire for financial freedom.

Figure 2. Growth of Bitcoin

Bitcoin vs global equities growth of $100



Source: Thomson Reuters Datastream and Coindesk to 22 Feb 2021.
Global equities represented by MSCI World (Net Index) USD returns.

Robert J. Shiller, a 2013 Nobel laureate in economics and Professor of Economics at Yale University, describes this narrative as a prime example of a contagious popular story[2] that spreads virally by word of mouth and social media. Bitcoin, the first cryptoasset, is as much of a cultural project as it is a technological one. As a technology, it is a decentralized and distributed ledger system with its own currency. As a cultural project what this means is cutting out the authorities and creating a club. Indeed, the social media element attached to the project has been utterly critical to its success, creating a community of motivated individuals urging one another on.

The celebrity factor has also been a tailwind for the "Crypto Mania" phenomenon that has propelled Bitcoin and its competitors forward. Stars have been widely associated with cryptoassets, including sporting legends like Lionel Messi and Floyd Mayweather, actors like Jamie Foxx and Gwyneth Paltrow and billionaires Elon Musk and the Winklevoss twins. Celebrity was also a key ingredient behind the multi-billion dollar OneCoin scam, with the charismatic "cryptoqueen" Ruja Ignatova providing much glitz and glamor, appearing at her massive rallies in ball gowns and precious stones. In an age where many believe inequality is an issue, there is a desire by some to take more ownership of their financial lives, and cryptoassets offer a potentially appealing fast-track mechanism.

At the opposite end of the spectrum, regulatory concern has increased, although there is also reluctance to curb financial innovation. Governments are working with central banks and banking and securities regulators on how to implement an effective regulatory framework for these and other fintech innovations. In some countries, like China, governments have decided to effectively issue their own digital currency (like the Digital Yuan), which is backed and controlled by the government, rather than private individuals/firms.

[1] From March 18 to the end of 2020, the billionaire class had an increase in wealth of $3.9 trillion, whilst worker income decreased by $3.7 trillion in 2020. Source, Oxfam and ILO, https://inequality.org/facts/global-inequality/

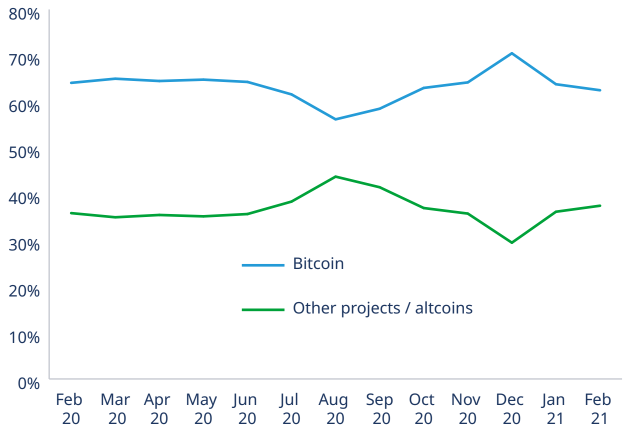
[2] Robert Shiller (New Jersey: 2019), 'Narrative Economics', pp. 3 – 11

Bitcoin - Points in favour

In the current environment, we focus on possible motives why an investor would consider cryptoassets. We focus specifically on bitcoin, which dominates the market.

- **Bitcoin is predominant amongst cryptoassets**, accounting for over 50% of the market since it began in 2009, apart from a period of Initial Coin Offering (ICO) mania around 2017-2018.
- **Increased acceptance by some of Bitcoin as a digital "store of value"**, or "digital gold". Although we caution that Bitcoin has become more correlated with risk markets.
- **Bitcoin inflation is low and total supply fixed** (bitcoin inflation is c. 2.3% based on estimates from bitcoin.com). Only 21 million coins can be created under the current protocol. As of February 24, 2021, 18.6 million Bitcoin coins have been mined based on data from Blockchain.com. It should be noted that the limit is purely theoretical: there are no physical restrictions (like gold) or governmental regulations, and any changes to bitcoin have to be approved by half the miners. It is also possible the bitcoin protocol is used in amended forms. The supply of alternative crypto currencies to bitcoin is unlimited, around 8,000 cryptocurrencies exist at the moment.
- **Hedge against debasement**. There is no central authority to tamper with the supply, and cryptocurrencies could therefore benefit when authorities print more money.
- **Incipient institutionalization**. Various investment banks and influential investment managers have talked about stratospheric upside targets if Bitcoin is more widely adopted due to the potential weight of institutional money. Some investment managers have used Bitcoin as part of big picture thematics[3].
- **Positive "fundamentals"**: an increase in the number of wallets, transactions and processing power. Networks become more valuable the more they are used and the larger they get. For example bitcoin acceptance by Paypal, Microsoft, etc. However payments in Bitcoin would only ever amount for a tiny fraction of transactions as blockchain is not a scaleable payments processing solution.

Figure 3. Dominance of Bitcoin



Source: https://coincodex.com/market-overview/ 1 year to Feb 28 2021, top line represents bitcoin as share of total market capitalization, bottom line is all other projects.

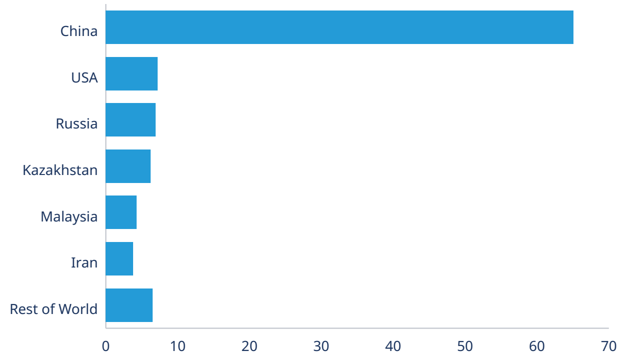
[3] For example: https://research.ark-invest.com/hubfs/1_Download_Files_ARK-Invest/White_Papers/ARK%E2%80%93Invest_BigIdeas_2021.pdf

Bitcoin - Points against

- **Mining power is unevenly distributed.** Bitcoin is not as decentralized as one might think, refer Figure 4, with the bulk of mining power located in China.
- **Signs of a speculative bubble and market manipulation.** The recent price rise is attributable in part to FOMO/mania. Bitcoin has a history of extreme volatility and remains hard to value. Wash trading is common, essentially trading to artificially boost volumes.
- **Likely to become more correlated** as money increasingly flows between crypto and traditional markets.
- **Cryptoassets have higher theft risk than traditional financial assets.** Although storage options are rapidly professionalizing.
- **Cryptoasset markets have patchy and thin regulation depending on territory and type of activity.** Governments may regulate away cryptocurrencies.
- **Environmental, Social and Governance (ESG) issues.** While the use of cryptoassets for crime has decreased, with one major study estimating that in 2020 only 0.34% of transactions were used for criminal purposes (source: Chainanalysis 2021), criminals can, and do, use alternatives such as "privacy coins", which offer truer anonymity. Law enforcement and regulators are catching up.
- **Energy demand.** Processing one bitcoin transaction requires the same energy as processing 696,909 VISA transactions (source: Digiconomist, 23 Feb 2021). An estimated 39% of power comes from renewables (source: University of Cambridge, Sept 2020, based on survey responses from miners).
- **Short track record compared to gold.** Whilst Bitcoin begins in 2009, gold coins were first minted in modern day Turkey in 600 BCE. This quality of "historicity" is an important part of any claim to be a store of value.

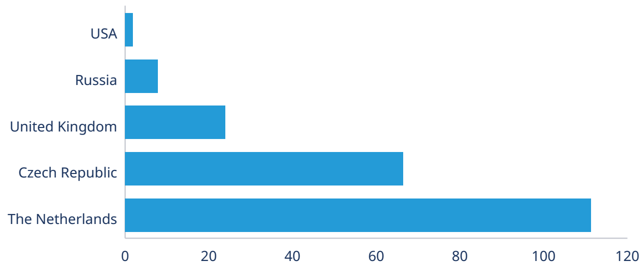
Figure 4. Geographic distribution of network

Percentage of hashrate (mining power)



Source: Cambridge University https://cbeci.org/mining_map April 2020

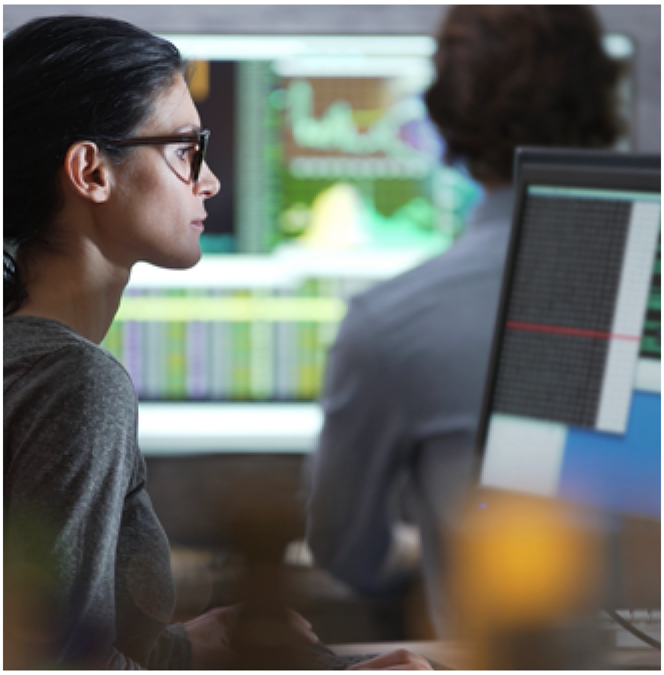
Figure 5. Bitcoin energy consumption relative to nations (percentage)



Source: Digiconomist, https://digiconomist.net/bitcoin-energy-consumption, Feb 2021

So is Bitcoin good for anything?

Looking beyond the bubble dynamics, Bitcoin is an ingenious original technology, and the reserve currency for the entire cryptoasset network, which it still dominates. Many network fundamentals have been good, for example a stable and steady increase in the number of users, wallets and capacity as well as a swell in transaction volume and size. Bitcoin has also understandably benefitted from large increases in dollar money supply, and an artificial money system, which leaves savers with no incentive to hold cash in the bank. Despite the scepticism of many, it has found a certain niche as a form of "digital gold". Yet only the foolhardy could claim that it has been immune from the speculative hijinks that have, for example, taken Dogecoin "to the moon!"[4].



Because of the apparent mania, we are reluctant to suggest now as a good entry point. We also find many of the motives to buy Bitcoin, possibly better matched by other assets, and note that it continues to have problems with sustainability[5]. In our opinion the strategic case for purchasing Bitcoin is therefore currently weak, as explained in Figure 6.

Figure 6. Barriers to a strategic allocation to Bitcoin

Conclusions: Cryptoassets

Valid strategic long term assets? Considerable barriers still exist

Store of value

- Only plausible case for bitcoin is a form of digital gold/digital store of value
- **Gold already performs that function**, and has a track record circa 200 times longer of maintaining value (2009 for bitcoin vs 600 BCE for the first gold coins)[6,7]

Hedge against fiat currencies

- Prospect of currency **debasement** is a legitimate concern
- The more attractive response is to strategically manage currency exposures and potentially utilise gold
- Cryptoassets themselves are subject to substitution

Source of asymmetry

- Potential for investment to return multiple times the amount invested is attractive to some investors
- **Prefer other transformational assets that generate revenue** and can benefit from the way we know the world will change

Payments replacement

- Hugely **inefficient** and **impractical** for day-to-day transactions (not a replacement for dollars), although this may be changing

[4] "To the moon is" the motto of the crypto-enthusiast community, a reference to a collective will to buy rather than sell cryptoassets in order to increase the price astronomically. Dogceoin is a "memecoin", made deliberately as a joke by its creators, but nonetheless it returned c. 1000% year-to-date in 2021 (based on prices of $0.05 as at 4 March and $0.0047 as at 31 December 2020. Source: Coindesk)

[5] One bitcoin transaction uses the same amount of energy as a US household does in c. 24 days. Source: https://digiconomist.net/bitcoin-energy-consumption/ 23 March 2021.

[6] https://www.investopedia.com/articles/forex/121815/bitcoins-price-history.asp

[7] https://www.royalmint.com/invest/bullion/discover-bullion/a-brief-history-of-gold/

Bitcoin does however crop up as a line item under the hood of some strategic allocations, for example some multi-asset funds have made use of Bitcoin as a source of return. As it is inherently speculative in nature, and also subject to substitution by newer projects we are more sanguine about its use as a portion of an actively managed fund, where the risks may be easier to manage. We are also more comfortable if the investment manager has sufficient non-traditional research capability to judge their purchases well. However, it is still a mixed bag, as per Figure 7.

Figure 7. Cryptoassets for shorter term trading/alpha generation

Metric	Comment
Volatility	Volatility commonly cited as positive by hedge fund managers
Income/yield	It's possible to lend cryptoassets (often for quite high interest rates), but there's usually no underlying business
Momentum	Prices have a tendency to rise if they've been rising recently, and fall if they've been falling recently
Correlation	Low unstable correlation in the past, but increasingly likely to correlate to other assets. 13-week correlation went to 0.9 during COVID crash
Spot dislocation	Prices on different exchanges can differ markedly
Ease of valuing	Common valuation models tend to rely on cashflow modelling, no intrinsic value
Competitive landscape	Large proportion of unsophisticated retail money

Overall, we think that the level-headed view is that either fixed and large allocations to Bitcoin are inappropriate at this time and instead recommend uptake of broader transformational/thematic investing programmes and guidelines for those with a futuristic view.

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Mercer