Clamoring About Crypto

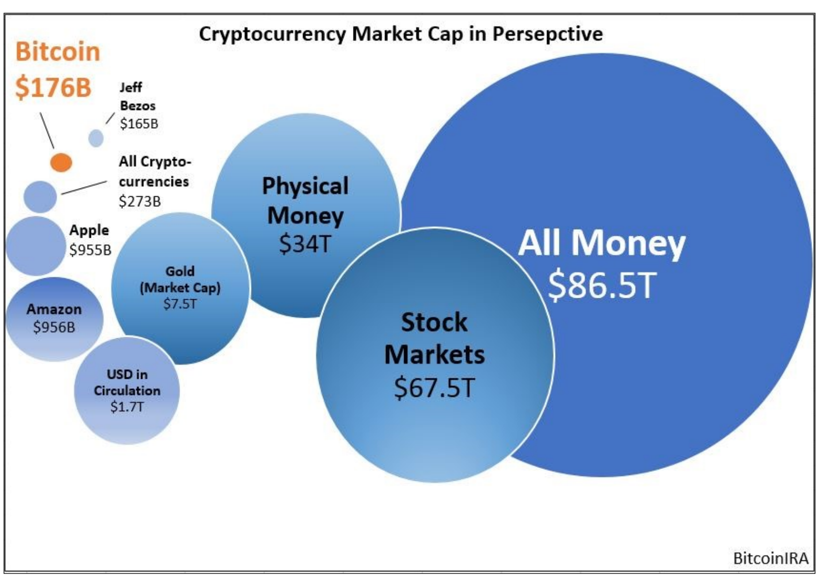
A High Level Overview of Cryptocurrencies and Considerations for Institutional Investors

There are few people who haven't been exposed to the hype and interest surrounding cryptocurrency. While its seemingly everywhere in headlines, few people have a solid understanding of what it is. This paper will attempt to 'demystify' the unknowns around cryptocurrencies and highlight some of the considerations and risks for institutional investors.

Cryptocurrency, or cryptoassets, are a type of digital money that exists virtually (or, digitally) and uses cryptography to secure transactions. Cryptography is a sophisticated form of encryption used to secure and verify transactions, as well as manage the creation of new units (i.e., tokens). Cryptocurrencies do not have a central issuing or regulatory authority, and instead use a decentralized system (i.e., peer to peer) that enables anyone to send and receive payments, independent of financial institutions. More simplistically, cryptocurrency payments exist as digital entries within a database, and those transactions are recorded in a public ledger (i.e., Blockchain) while the cryptocurrency asset is held within a digital wallet, all secured by the encrypted technology. In short, cryptocurrency represents a method of transferring virtual money via the internet behind a veil of privacy, and the value of that virtual money is determined by its supply and demand.

While cryptoassets have been the headline drivers, there are larger underlying secular trends at work, particularly in regards to the concept of decentralized finance ('DeFi'), or providing financial services without the use of traditional intermediaries, such as banks and governments. Further, there has been growing interest in the use of digital currency as a store of value, independent of government-issued currency, as a result of the massive fiscal stimulus and mounting national debt of recent years. This easy money environment has only exacerbated the popularity and speculative nature of cryptocurrencies. Questions remain as to whether governments can or will respond to this growing challenge and lack of confidence in the agendas of Central Banks.

To date, Bitcoin is the most well-known cryptocurrency, in part because it is widely referenced in publications and because it has existed for over 10 years. In recent years many other cryptocurrencies have gained notoriety including Ethereum, Litecoin, Dogecoin, Stablecoins, etc. There are myriad forms of cryptoassets in existence today. However, for the purposes of this paper we will use Bitcoin as a proxy for all cryptocurrencies as it has become eponymous for most generic cryptoassets. Of note, Bitcoin is neither a form of fiat currency nor a store of value, but Bitcoin is an asset that is bought and sold with all of the risks (and then some) of traditional assets.

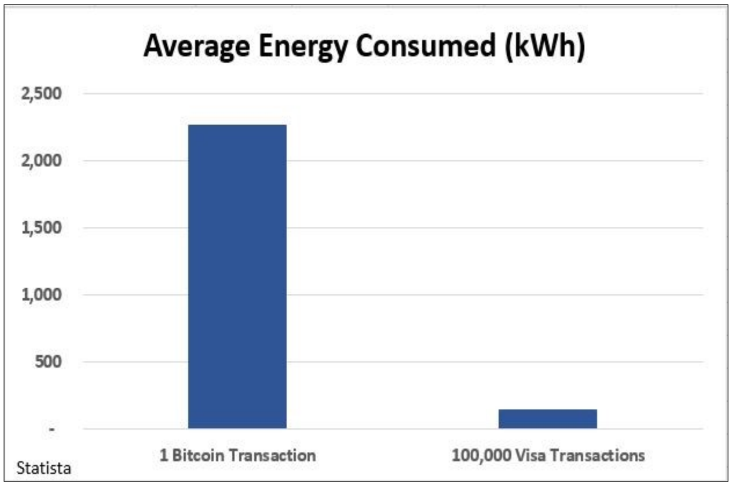


Data surrounding the size of the cryptocurrency market is expectedly fuzzy, with estimates ranging from $1.7 trillion to well over $3 trillion, as of the fourth quarter of 2021. Bitcoin, specifically, comprises between 40 and 50% of the total market, down from nearly 80% before the more recent influx of new cryptoassets. Interestingly, there were 77 'tokens,' or distinct cryptoassets, worth $1BN each in the summer of 2021, and 1,600 worth at least $1MM each. Further, it is projected, based on prior growth rates, that the crypto market will more than triple by the year 2030. It should be noted, however, that the volatility of prices can lead to meaningful swings in the value of these assets. And, while a fashionable focus of late, the total size of the cryptocurrencies market is dwarfed by that of traditional assets.

It was retail investors that fueled the 2017 rally in Bitcoin, which brought cryptocurrencies into the mainstream. And while that interest had cooled for a period of years, the advent of digital exchange platforms during the Covid-19 pandemic has revived the retail investor market. In the first quarter of 2021 retail investor flows exceeded that of institutional investors. As cryptoassets experienced rapid price appreciation early in 2021, online investment platform eToro reported 200K new users within the first week of the new year, with similar uptake reported among other crypto trading venues. Geographically, the largest concentration of cryptoasset investors/users is among developing nations such as Vietnam and Nigeria, where peer-to-peer and mobile payments systems are heavily relied upon relative to traditional banking. That said, akin to traditional assets, it is institutional investors that underpin the cryptocurrency market, including major financial institutions such as Fidelity Investments, hedge funds, as well as large endowments including Harvard, Yale and Stanford. According to the Wall Street Journal, institutional investors traded $1.14T worth of cryptocurrencies on the Coinbase exchange in 2021, more than double that of retail investors.

As the proliferation of cryptocurrencies continue, there are several important areas of considerations for institutional investors:

Investment Infrastructure: While the ability exists for investors to trade on cryptocurrency exchanges and platforms, critical infrastructure improvements are needed for scalability of the asset class. This includes the implementation of regulatory guidance and controls; the installation of a centralized depository and settlement solutions; and, tightening of Know Your Customer (KYC) rules and requirements.



Data Issues: There have been numerous examples of data 'glitches' impacting the perceived prices of cryptoassets, across many trading platforms, which often results in issues processing transactions. A lack of reliable and transparent data calls into question the credibility of these organizations and exposes investors to fraud and market integrity risks.

Safekeeping: Concerns abound for how and where crypto assets are held and the methods in place for safeguarding not only the assets but protecting the key features that make them appealing, such as a privacy, etc. For example, these assets are stored within digital wallets, accessible only by a private key, akin to a complex password. This key can be lost (i.e., a forgotten password) or otherwise compromised, which can permanently prevent access to that digital wallet.

- *Custody*: The institutional custody services available for cryptoassets is still nascent, but more institutional players (i.e., Fidelity, US Bank, PWC, etc.) are entering the space. Most digital wallets involve 'hot storage' which is tied to the internet and susceptible to cyberattacks, whereas 'cold storage' is physical, offline storage and more secure, but does not have the liquidity preferred for ease of transacting.
- *Hacking*: Holders of cryptoassets are frequent victims of cybercrimes and crypto-hacking, to the tune of billions of dollars each year. Common methods of hacking (i.e., infiltrating digital wallets) involve phishing attempts, as well as the use of ransomware. Victims of crypto-crimes often do not have the same legal recourse as with traditional assets.
- *Insurance*: Cryptocurrencies are neither legal tender, nor backed by the government and they are not covered by FDIC protections. Further, most crypto exchanges do not protect investors from losses due to a breach in account login credentials. Forms of crime and/or specie insurance are becoming more widely available for investors; however, this increases the cost of utilizing cryptocurrencies.

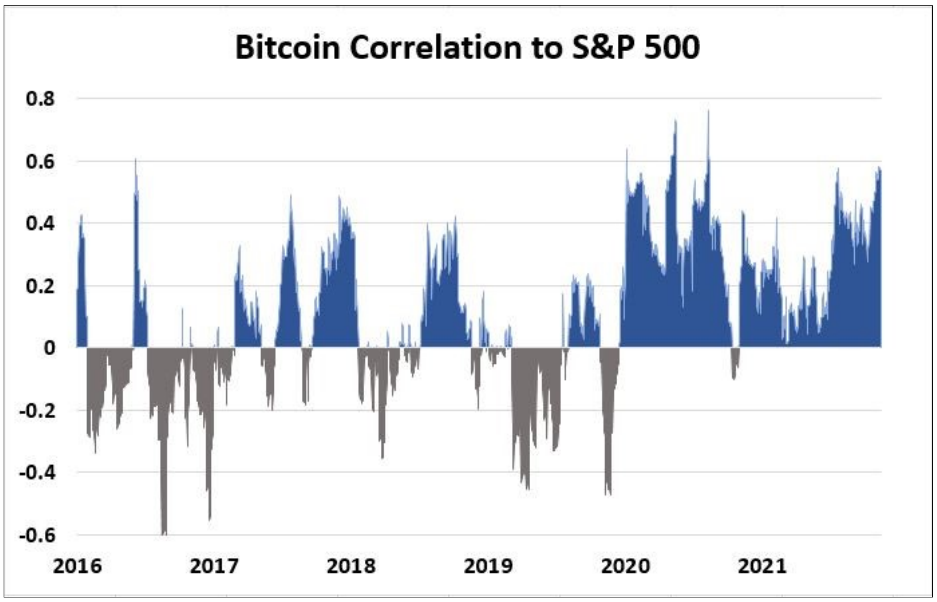
Regulatory: Importantly, the decentralized features of cryptoassets that many find appealing, also heighten the potential for money laundering and fraud. Regulatory agencies, globally, have been playing catch-up to understand the nature and meaning of digital currencies and policies continue to evolve. While some countries have moved to accept Bitcoin as legal tender, other nations have banned all cryptocurrency transactions.

- *Tax*: To date, in the U.S., the IRS has defined cryptocurrencies as property rather than currencies and as such, individual investors are subject to capital gains taxes.
- *Accounting*: Currently, cryptoassets would likely be considered intangible assets under U.S. GAAP but the traditional governing bodies (i.e., FASB, IASB) have not provided specific guidance on how to account for cryptocurrencies within traditional financial reporting standards.

Responsible Investments/ESG: In regards to the social aspect of ESG investing, according to a study conducted by NORC at the University of Chicago, there is a greater percentage of people of color investing in cryptocurrencies relative to traditional assets, allowing for more inclusive access to potential payment networks, though a gender gap remains in place. However, for environmentally conscious investors the carbon footprint of Bitcoin may be problematic. The computing power required to mine Bitcoin, specifically, results in significant greenhouse gas emissions, which have increased substantially as the cryptoasset has become more widely adopted. Further, from a governance standpoint, companies that utilize cryptocurrencies may be unknowingly exposed to their illicit uses such as money laundering, terror financing and cyber-crimes, which is a concern.

Donations: Organizations centered on facilitating donations using cryptocurrencies have made significant headway but often charge hefty fees for the service, which includes the acceptance and conversion of donated cryptoassets into government-issued currency. As many bitcoin holders have large unrealized gains, in-kind transactions should be considered for non-profits, allowing individuals to avoid paying capital gains taxes on the donation. But challenges exists in regards to organizations having the infrastructure to manage account security and custody (as highlighted herein).

Implementation: From an implementation perspective, the availability of institutional quality Bitcoin investment vehicles remains limited. Concerns remain regarding tracking error, liquidity, volatility, and fees. That said, several investment products have been made available for investors to gain exposure, including ETFs, etc. Investors may also gain exposure via publicly-listed equities that are involved with cryptocurrencies or exchanges (i.e., PayPal Holdings, Coinbase Global, Block, Inc.).



Volatility/Risk Profile: In the recent environment of historically accommodative monetary policy, Bitcoin, like most risk assets, has generated stellar returns. However, cryptocurrencies are highly speculative, unregulated and heavily impacted by market sentiment. The volatility profile of cryptoassets is meaningfully higher than equities, and has not decreased with maturation of the asset class. As a safe haven asset or inflation hedge, Bitcoin has proven to be more correlated with broad equities than gold prices. This was affirmed by the recent invasion of Ukraine by Russia, where the price of cryptoassets plunged and gold prices moved higher. Importantly, cryptocurrencies are neither a store of value nor a fiat, or government-backed, currency. The value of Bitcoin is entirely derived from supply/demand dynamics, which most recently has been led by '*Fear of Missing Out*' rather than any fundamental metric.

Conclusion: It is hard to argue that cryptocurrencies have entered the mainstream investment conversation. The technology is both revolutionary and evolving with the potential to disrupt the operations of global economies as we know them. But, while blockchain technology may have brought us on a path towards digital, or virtual, fiat currencies, it is too early to tell whether the next advances in computing may soon render it obsolete, or if Central Banks and governments will have the ability to harness that technology before it alters the foundational institutions of money and finance. That said, the underlying constructs of a 'tokenized' or digital asset-based future seems inevitable. From an institutional investor perspective, cryptocurrencies have many known and unknown risks in their current state. Their value is of a perceived intangible nature, subject to extreme price volatility, lacking any governmental support, and generally not backed by any underlying assets or value. Whether digital assets can retain their momentum over time is an open question. From a fiduciary perspective, meaningful challenges remain that make it difficult to recommend inclusion in client portfolios at this time.

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