

What Wall Street Gets Wrong About Bitcoin

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We are not surprised that Wall Street sometimes misses fundamental pieces of the bitcoin story and value proposition; established legacy players can be resistant or slow to react to paradigm shifts. As it relates to bitcoin, it is challenging for some on the Street to understand and accept what is effectively a hedge on the system, when in many ways the Street *is* the system. This dynamic amplifies the responsibility of the digital assets community to educate investors about bitcoin. We continue that mission with this paper.

Here we dispel ten misconceptions about bitcoin and attempt to present a more balanced perspective. In doing so, we aim to empower institutional investors, financial advisors, and individual investors alike with a set of facts—unmarred by the inherent biases of some legacy players—for them to come to their own conclusions.

Misconception #1: Is Not Investable Because It Does Not Generate Cash Flow

The yield argument is a common refrain, but there is no yield anymore, anywhere. If you give the US government \$1,000 today, they agree to give it back to you a decade later with a nice \$72 dollar tip—and that's before you account for the trillions of dilutive new money they've issued. You could turn to high quality corporates, but here you are met with a similar situation: it is very difficult to argue that current bond yields are appropriately reflective of the risk of the underlying fundamentals of these companies, given the expansive support programs from the Fed that have artificially pushed yields lower and distorted the true cost of capital. COVID-19 has had a materially adverse impact on the outlook for many large corporates, but the expansive lending programs, federal bailouts, and secondary market buying has led to mispriced cost of capital and distorted yield-risk balance. The same is true, and magnified, as you travel down the “junk” curve in search of a fair return for the use of your capital. There is arguably nowhere to go to achieve reasonable, positive, risk- and inflation-adjusted yields.

The bottom line: Cash flow generation is not the only metric by which society and investors view value.

Misconception #2: Is Not Investable Because It Does Not Generate Earnings Through Exposure to Global Economic Growth

Bitcoin does not generate earnings through exposure to Global Economic Growth, but it is important to note that bitcoin also does not generate negative earnings during periods of Global Economic Contraction. We'd venture that several large companies affected by recent conditions wish, in hindsight, that they'd had more exposure to bitcoin and less exposure to Global Economic Growth in 2020.

We believe this is a limited and myopic lens through which to assess which assets are appropriate for investor portfolios. History (both distant and very recent) has proven this time and again. Assets that

generate earnings through periods of global economic growth are also generally cyclical, and will therefore perform poorly during downturns in global growth when earnings and the present value of future earnings decline. Put simply, investors may demand protection for a slightly less bumpy journey through cyclical markets, especially when there are considerable macro uncertainties.

The bottom line: Earnings during the good times should not be the only lens through which investors identify attractive assets to own.

Misconception #3: Does Not Provide Consistent Diversification Given Unstable Correlations

Cross-asset pairings that provide stable correlation are extremely rare, and bitcoin remains uncorrelated to traditional assets in the long term.

The correlation between US stocks and bonds is not consistent at all. Since 2015, 30d correlations have ranged from -0.81 to +0.65, with multiple periods of huge swings. In 2020 alone, it went from -0.81 on February 20 to +0.46 on March 13. In comparison, over the same five years, the correlation between US stocks and bitcoin has ranged from -0.72 to 0.67.

Correlations break down during periods of market instability, where risky asset correlations (including stock-bond correlations) trend towards 1. But, importantly, bitcoin's long term correlation is approximately 0 and fairly stable during most time periods between -0.2 and 0.2. Under the logic presented by some on Wall Street of consistent diversification as a threshold requirement, one would never own more than a single asset in a portfolio.

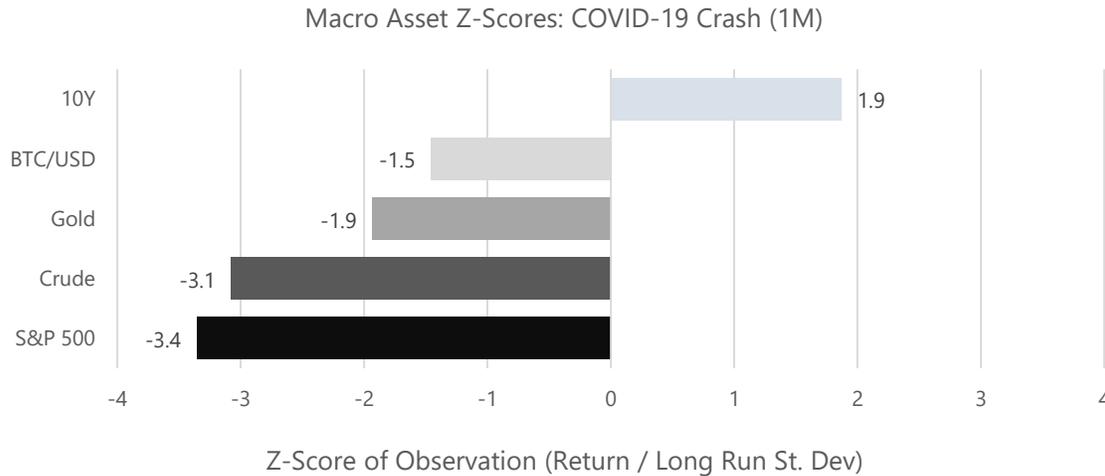
The bottom line: Consistent stable correlation is a moot point. Long term correlation is what counts, and over the vast majority of periods bitcoin is uncorrelated.

Misconception #4: Is Not Investable Because It Does Not Dampen Volatility

It is true that bitcoin has higher volatility than other risky assets. However, focusing solely on the denominator, volatility, without considering expected returns, the numerator, misses a critical, seminal financial concept: risk-adjusted returns, or Sharpe. While some investors seek to minimize volatility, most aim to maximize returns or Sharpe. Adding bitcoin to an investment portfolio has historically increased overall expected returns and Sharpe, and even decreased overall portfolio volatility in some cases. Under the same logic, one would never diversify an all bond portfolio into equities, but investors do because it increases overall expected returns. The same applies to bitcoin.

Moreover, pointing toward bitcoin's volatility (which is a function of its small market cap and maturing

investor base) during a recent period of extreme volatility in traditional assets is selection bias. Other risky assets saw huge levels of volatility this year, as the S&P 500 hit annualized volatility of 88% on April 7, crude 283% on May 6, and junk bonds 47% on April 14. Our research on the 30 days after February 19 illustrates just how poorly macro assets performed, adjusted for volatility, versus bitcoin during the COVID-19 Crash:



Equities had a -3.4 standard deviation event during the crash, nearly two full standard deviations worse than bitcoin's performance. Gold and crude did not fare much better with worse volatility-adjusted returns during the period. In other words, bitcoin outperformed other risk-on macro assets during the crash, adjusted for volatility. Moreover, as of writing, bitcoin has recovered faster than any other global macro asset amidst the COVID sell-off. It has the highest absolute returns on a 3M, YTD, and 3Y basis:

RETURNS	3M	YTD	3Y
Bitcoin/USD	9.0%	32.0%	316.6%
S&P 500 Total Return Index	3.3%	-5.3%	33.4%
Nikkei 225 Total Return Index	4.6%	-6.4%	18.5%
Euro Stoxx 50 Total Return Index	-6.2%	-16.4%	-7.0%
US 10Y Govt Bond Total Return Index	4.1%	10.9%	21.4%
US IG Bond Total Return Index	-1.1%	2.5%	18.2%
US HY Bond Total Return Index	-3.8%	-5.2%	9.0%
Gold/USD	8.1%	13.0%	35.3%
Crude Oil (WTI)	-24.0%	-44.3%	-31.7%

The bottom line: High volatility cannot be assessed in isolation; expected and absolute return are critical components of asset allocation.

Misconception #5: Does Not Show Evidence of Hedging Inflation

Bitcoin is 11 years old. Since the Global Financial Crisis (which coincidentally was the catalyst for its creation), real economy inflation has been practically nonexistent. Bitcoin has not lived through any period of sustained inflation in developed market countries (though it appears to be thriving in emerging market countries where confidence in the currency is weak). Arguing that bitcoin is not an inflation hedge when it has not had the opportunity to exist through an inflationary cycle (though one could argue that we are in a financial asset bubble at the moment in which bitcoin is doing quite well) is similar to arguing that a student won't do well on their SAT when he/she hasn't had the opportunity to take it (even though the student has great grades). We believe that all stores of value, by definition, hedge against inflation. We also believe that bitcoin exhibits a range of characteristics—limited supply, high stock to flow ratio, and stock to flow assurances that flow cannot change unexpectedly—that are requisite for a store of value. Therefore, our conviction in bitcoin deepens as foundations of future inflation are being installed.

One should not assume that printing trillion-dollar coins and monetizing trillions of dollars of debt will not result in some inflation, at the minimum. The real question is how much, and what happens if the US experiences non-trivial real economy and financial asset inflation. Given its low market cap, any reasonable flow into bitcoin for inflation hedge purposes could result in outsized returns. Adjusting for the probability of this occurrence (which in our view is substantial), the expected return of a small position in bitcoin is favorable.

The bottom line: Bitcoin has not had the opportunity to exist during periods of high, sustained inflation, so it is inaccurate to state that it cannot hedge inflation.

Misconception #6: Is Not Investable Because Appreciation Depends on Others' Willingness to Pay

Primary residences make up ~25% of the average American's net worth, are the main retirement vehicle for many Americans, and are a cornerstone profit center for much of Wall Street. They're also a key example of assets whose value is purely based on others' willingness to pay for them. Billions of dollars of these assets get sold, financed, packaged, re-packaged, traded, and sometimes even restructured on a daily basis—and yet the underlying generates no cash flow and is dependent upon the next buyer offering a price that is at least as high as the cumulative asset carrying cost. Growth equities are also examples of securities whose value is based on whether someone might pay a higher price for them in the future: today's fundamentals and earnings might not justify the stock price, but investors will purchase growth stocks on future expectations of growth and earnings to sell the stocks to others at a higher price.

To limit oneself to only assets that generate cash would severely restrict an investor's investment

opportunities to only two asset classes, equity and debt, and investors would miss key opportunities for returns and diversification in real estate, commodities, and other non-cash generative assets.

The bottom line: Vast amounts of value, including primary residences, commodities, and even equities, are dependent on what others are willing to pay for them.

Misconception #7: Is Not Scarce Because of Forks

There is only one Bitcoin blockchain. “Forks” are different blockchains that are copies of an original code base. The Bitcoin blockchain has main two forks, Bitcoin Cash and Bitcoin SV, which forked off Bitcoin in the past few years in attempts to create a better version of it.

These “duplicates” are incompatible and not fungible with the Bitcoin blockchain, and therefore do not inflate or change the supply of bitcoin. These minority blockchains collectively make up less than 4.5% of bitcoin’s value, and holders of bitcoin who held during these fork periods also received assets on these different blockchains. These forks did not affect bitcoin’s value: they did not trade “ex-dividend” and social acceptance determines what is and is not bitcoin.

If one were to create an identical copy of every dollar in the world (“cUSD”), give out 1:1 cUSD to USD, and state that they are running a new financial system, would we consider that the supply of USD has doubled? How many individuals would use the alternative financial system? Some might, and cUSD might even have some negligible value. But overall, the social acceptance of what is the USD would be maintained, and the money supply of USD would not be inflated.

The bottom line: Forks do not inflate, change the scarcity, or impact the value of bitcoin.

Misconception #8: Is Not Investable Because It Is a Conduit for Illicit Activity

This view is outdated and inaccurate.

Just 1.1% of the estimated \$1.02t of digital asset on-chain transaction volume in 2019 was from illicit activities. The illicit economy represents an estimated 8-15% of the global GDP (roughly \$88t), of which virtually 100% is driven by fiat.

Looking at trade, Chainalysis indicated that digital assets (bitcoin, Bitcoin Cash, Litecoin, and Tether) account for \$790m of darknet market activity. The total illicit international trade is estimated to be around \$650b according to the World Economic Forum. That means that digital asset darknet activity represents just

0.12% of global illicit trade, while the other 99.88% is fiat.

The bottom line: Illicit activity is driven by fiat, and a much smaller portion of bitcoin transaction volume is driven by illicit activity in comparison to the global economy.

Misconception #9: Its Infrastructure Is Susceptible to Hacking or Inadvertent Loss

Wall Street often highlights hacks that have occurred on unsecured, unregulated exchanges over the years. The industry has matured rapidly in the three years post-2017 bubble: tech-native companies such as Coinbase, BitGo, and Gemini paved the way for Wall Street names such as CME, Fidelity, and ICE (Bakkt) to enter the digital asset space. Custody, trading, and settlement have solidified into institutional-grade infrastructure with traditional oversight (SEC, CFTC, FINRA, SOC reports, audits from Big Four firms, etc.). While further optimization, efficiency, and innovation remains, we'd argue that investor assets at regulated custodians and exchanges with regulatory oversight are at least as secure as those at other similar financial institutions. The days of inadvertent loss and stolen coins are largely behind us with none of the major exchanges with proper oversight experiencing hacks in recent years.

The bottom line: The industry and infrastructure has matured into an institutional landscape considerably over the recent years, with new entrants from household names providing services to the industry.

Misconception #10: It is a Bubble

Bitcoin has been around 11 years. The time for debating whether bitcoin is a bubble is long gone.

Today, the world moves at a breathtaking pace, and bitcoin has withstood the test of time through a tremendous amount of scrutiny and criticism. For the most part, large bubbles occur around powerful ideas and innovation when the future is bright but still a bit foggy. The internet bubble and railroad bubble came when new technology had society extremely excited about future possibilities. Human nature and overinvestment got the best of us and our predecessors, but over the long term these pivotal technologies gave rise to societal progress that no one predicted. There are no guarantees with groundbreaking innovations, but the alternative economic system and scarce asset that is bitcoin is certainly one of the most compelling paradigm shifts in modern history.

The bottom line: Bubbles form around powerful ideas when the future is bright but unclear. No other historical bubble has lasted 11 years. Bitcoin is here to stay.

Conclusion

We now live in a world with staggering and unprecedented expansionary fiscal and monetary policy. For Wall Street to claim that the US dollar will not be debased and, in some cases, assign a zero probability to bitcoin performing well in investment portfolios is nearsighted in our view.

History has shown time and time again that there are consequences to such continued policy, and unless concrete steps are taken to rectify expansionary policy, confidence in the currency and sovereign can be lost. Once that confidence is lost, it will be nearly impossible to earn it back. The adage that there are no certainties in this world is particularly true in the spheres of economics and investing. Not broadening one's perspective is a dangerous prospect; very few could have imagined in December that the world's population would be forced to quarantine in our homes for months as a result of a new pandemic. But it happened, and those ill-prepared for the event (governments included) have suffered and will suffer far worse than those with hedges and contingency plans.

Digital assets are designed to be democratizing and disintermediating. Entire market structures and information rails can be reshaped around peer-to-peer assets such as bitcoin and other digital asset commodities—not institutions. Innovations that inherently disrupt the status quo will naturally meet skepticism from incumbents. Still, every investor should be able to seek a balanced set of facts about large-scale paradigm shifts. We believe the investment community deserves to be educated about the potential of this asset class, and we hope this paper supports that effort.

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