

# Bitcoin: This is the Hedge.

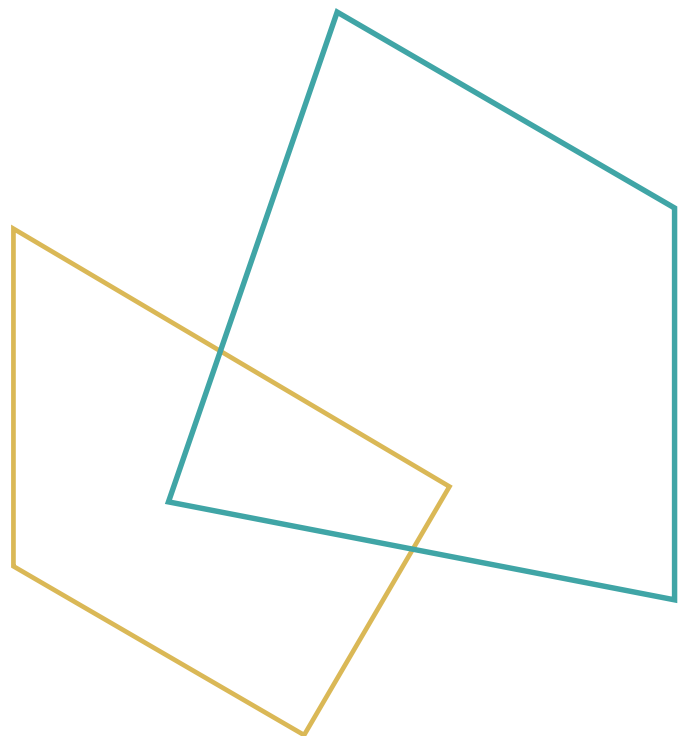
Why bitcoin makes sense in  
traditional investment portfolios.

September 2020

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# Bitcoin Primer

## **Bitcoin has become a force to be reckoned with.**

Born in 2008 from a crew of tech-savvy 'cypherpunks' as a response to the Global Financial Crisis, Bitcoin's purpose was to escape the prospect of quantitative easing and wealth erosion. A store of value; a wealth platform that is owned by no-one, governed by participants in its network.

Originally the asset was only useful to technology geeks and hardcore libertarians. Notoriety came with the infamous Silk Road. As word spread of this weird and wonderful alternative to money and value, so did its participants and use-cases. Transfers to anywhere in the world at speeds banks only dreamt of (at the time), a scarce asset with a limited supply providing an aspirational alternative to a fairly radical form of monetary policy from central banks. Bitcoin is immutable, non-sovereign, has a fixed, finite supply (21M), and ultimately provides you with the ability to be your own bank.

The next decade brought booms and busts for bitcoin, and constantly shifting correlations to safe-havens and risk assets, which has become part of its allure in portfolios. The barriers to real-world adoption of this asset have been centred on its ease of access and use, and protections for these users. The infrastructure to bridge the gap between the crypto and traditional finance world has matured at a timely point in history, during the uncertainty of unprecedented stimulus triggered by COVID-19.

Its price has risen from under US\$0.01 in 2009 to a high of nearly US\$20,000 in 2017 – and we believe the journey has only just begun. Although, **of more value than its sheer speculative alpha, is its value to a diversified portfolio.**

This report digs deeper into one of the most interesting and asymmetric assets in finance.

### **Bitcoin Market Cap**



Data Sources: [CoinMarketCap](https://coinmarketcap.com)



# The Digital Commodity

Bitcoin shares many of the qualities of gold, and has had varying degrees of positive and negative correlation over the past decade. Both assets share these properties:

- Limited production and supply (inflation hedge)
- Non-sovereign and borderless
- Indestructible and counterfeit resistant

Bitcoin has some key advantages over gold. The asset is truly liquid, easily accessible from anywhere in the world, and weighs nothing. Like money in your online transaction account, bitcoin can be accessed and transferred with the click of a button. Although unlike bank money, bitcoin has no authority or central bank making decisions on its supply. Its power is in its network, and the network of users and miners is now so diversified, that bitcoin is virtually indestructible.

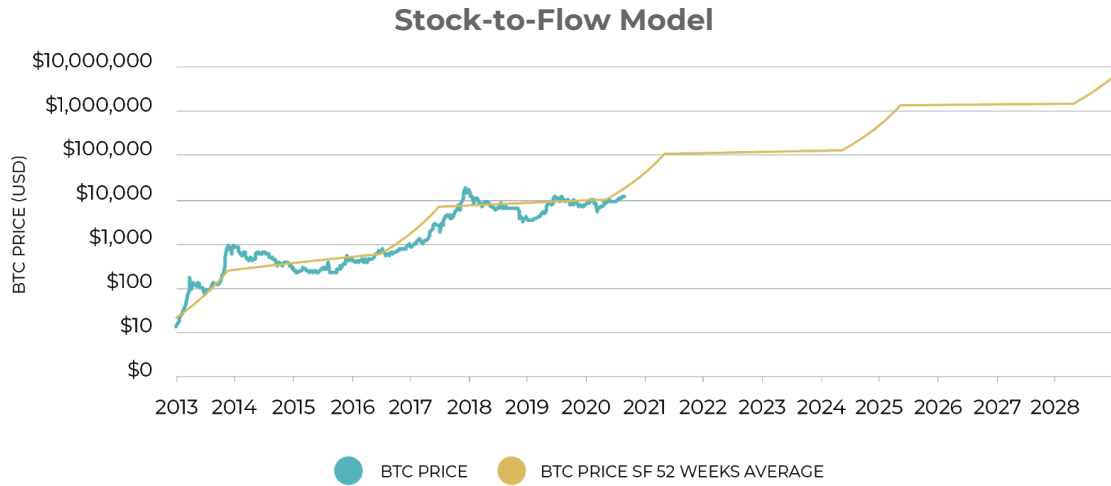
At the moment there are approximately 18.5M bitcoin in circulation. The asset is designed to eventually have a total circulation of 21M coins, due to hit this point in the year 2140. Bitcoin's supply curve reduces every 4 years - known as the "halving" - which slows the production of bitcoin. Think of it akin to the current circulation of gold, compared to the gold that is yet to be mined out of the ground. As more gold is taken out of the ground, it gets increasingly difficult to mine every year. Its production slows.

Bitcoin has been mathematically designed to slow its production curve over the course of a century. These properties of gold and bitcoin form a hedge against the devaluation of fiat money, which accelerated after the 2008 Global Financial Crisis, and is currently advancing at an unprecedented rate during the COVID-19 pandemic.



## The Stock-to-Flow Model

Defined as the amount of a commodity in circulation divided by the amount produced annually, higher stock-to-flow ratios indicate increased scarcity of an asset. With every halving, bitcoin's stock-to-flow ratio increases through a decreasing supply curve. Bitcoin's current stock-to-flow ratio (55.92) is just below that of that of gold (62). After the next halving in 2024, bitcoin's stock-to-flow ratio will surpass that of gold, at 121.4.



Data Sources: [TradingView](#), [digitalik.net](#)



# Why Now: Inflation Is Coming

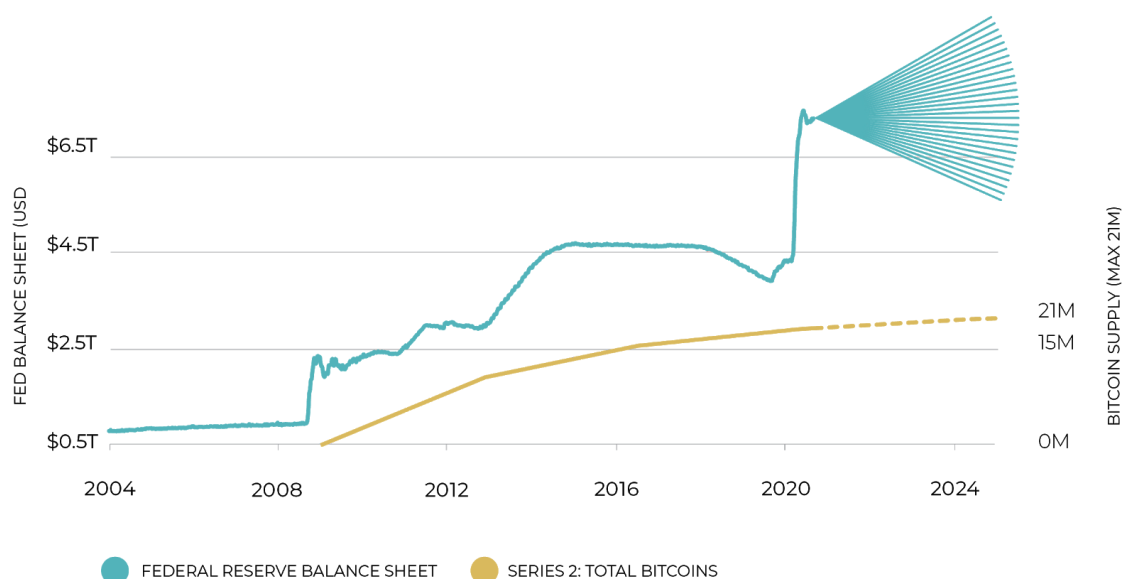
We are at a unique juncture in economic history. Since the COVID-19 crisis began, the Federal Reserve has spent over twice the amount of its balance sheet and has distributed three times the amount in federal stimulus compared to the 2008 Global Financial Crisis. The expansionary policies are not unique to the United States: the aggregate G6 balance sheet has ballooned to over US\$24T. This is a different crisis to 2008's, and there are a confluence of factors that could trigger inflation on this occasion:

- Supply chain disruptions during and post-COVID-19
- Increased supply chain costs from deglobalisation
- Erosion of purchasing power and the value of fiat currencies
- Increasing focus on fiscal deficit spending
- Demand driven inflation in essential goods

The structural factors for unexpected inflation in the economy were already there: ballooning debt, global power dynamics shifting between the US and China, protectionist trade policies, and a growing wealth divide. The COVID-19 pandemic has the potential to accelerate these issues, and the markets are underpricing the risk that we see inflation beyond equities.

Bitcoin is not tied to any country or region and its supply cap cannot be manipulated, providing unique advantages in this environment.

## Money Supply vs. Bitcoin Supply



Data Sources: [Federal Reserve Board](#)



# Why Now: The Commodity Cycle

There are many factors that affect the short and medium-term price moves in commodities, from supply dynamics to global growth and demand curves. Beyond the near-term market noise, commodity prices tend to move in big supercycles, through multi-year booms to dramatic busts. In the past 227 years, there have been six commodity peaks.

The most recent cycle peaked in 2008. This cycle was largely driven by emerging market demand and slow supply-growth. Since 2008 we have essentially been in a commodity bear market. Global growth has slowed in GDP terms since 2010, emerging markets have struggled with structural challenges and China's economy has shifted from manufacturing to services driven.

Commodities are now at attractive valuations compared to equities (EV/EBITDA). COVID-19 could be the trigger for a turn in this supercycle.

In the near-term, we expect volatility. As the subsequent stimulus and fiscal spending effects begin to take hold, we could see a low growth environment with the market focusing on deep value assets that hedge against currency devaluation, and subsequent inflation in goods and services. Longer-term, we see the structural shift from growth stocks (leveraged, often VC-backed, tech) to deep value (hard assets, income-producing; mining, agriculture, solid balance sheets; inflation hedges and yield generating instruments).

## **Key short-term assets**

- Gold
- Bitcoin
- USD

## **Key long-term assets**

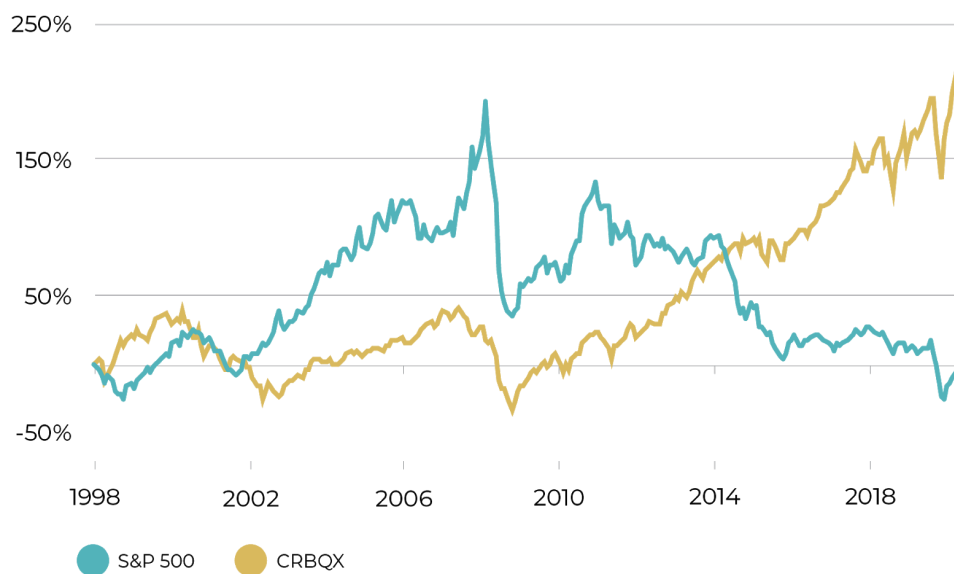
- Gold
- Bitcoin
- Ethereum (yield generating)
- Hard assets and commodities
- Property (nuanced based on region, leverage and employment sector recovery)
- Select equities with limited leverage and strong balance sheets



**Short-term:** gold and bitcoin as protection against Quantitative Easing (QE), USD as a liquidity haven. Given the early liquidity event across markets in March 2020, holding USD is not as necessary as liquidity conditions have improved, however things can shift.

**Long-term:** COVID-19 and subsequent inflation could be the spark to transition to the next supercycle. When this happens, borderless and liquid stores of wealth will be king, alongside hard commodities. The current supercycle is seeing a huge divergence between equities and commodities.

### Stock & Commodity Cycle



Data Sources: [TradingView](#)





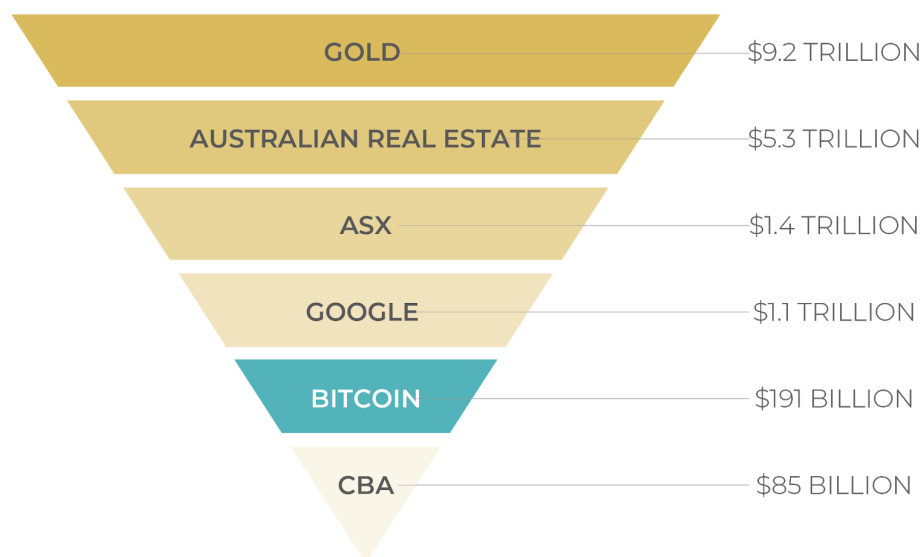
# This Is Just the Beginning

The early bitcoin days were the Wild West: booms and busts, exchange hacks, nefarious activities. Only recently have we begun to see the true institutionalisation of the space. Fidelity (US\$3.3T AUM) came into the space with an institutional-grade custodial solution and has recently launched Fidelity Digital Funds, providing a familiar fund umbrella for traditional investors. Another NASDAQ-listed business intelligence company, MicroStrategy (US\$1.35B market cap), has recently become the first publicly listed company to buy bitcoin as part of its capital allocation plan, with a publicised investment of US\$250M.

Institutional adoption has only been possible with the advance of institutional-level protections. Wallet and custody technology has become increasingly robust and easier to use. Established insurance from large underwriters provides comfort to larger allocations. This intersection of institutional adoption, the infrastructure to serve this segment, and current macro-economic factors, has ensured a growing depth of participation in the asset class. CME futures are a great gauge for this participation, and volumes have been spiking with the basis trade.

Given the adoption and infrastructure curve, bitcoin's market cap still pales in comparison to other asset classes. Its market capitalisation is similar (relatively) to that of the Commonwealth Bank of Australia, yet bitcoin provides an entire global and borderless financial platform for an ever-growing audience. Bitcoin is still 50% below its previous highs from 2017. This is only the beginning.

## Market Capitalisation Relative to Bitcoin



Data Sources: [Macro Trends](#), [CoinDesk](#), [ABS](#), [PSL](#), [ASX](#), [TradingView](#)



# Portfolio Theory: Risk-Adjusted Returns

There are two key benefits when adding bitcoin to a portfolio:

## Key Benefit 1: improved risk-adjusted returns

Given its very low correlation levels, holding a small to moderate percentage of bitcoin within a portfolio improves risk-adjusted returns in a balanced portfolio. Furthermore, credit markets can provide additional annual returns on the underlying holdings, further increasing the YoY value of the position.

**Bitcoin Correlation With Other Assets**

BTC	1.00										
ETH	-0.01	1.00									
GOLD	-0.17	0.28	1.00								
AUD	-0.12	0.07	0.26	1.00							
CRBQX	0.01	-0.02	0.17	0.51	1.00						
BNDX	-0.06	0.21	0.32	-0.02	-0.06	1.00					
SPX	0.06	0.05	0.02	0.53	0.50	0.19	1.00				
FTSE 100	-0.20	0.14	0.14	0.04	0.07	0.06	-0.03	1.00			
XJO	-0.06	0.11	0.01	0.25	0.42	0.34	-0.03	-0.22	1.00		
REAL ESTATE	0.06	0.05	-0.16	-0.16	-0.19	-0.19	-0.07	-0.05	-0.23	1.00	
COR	BTC	ETH	GOLD	AUD	CRBQX	BNDX	SPX	FTSE 100	XJO	REAL ESTATE	

Data Sources: [ABS](#), [TradingView](#)



## Key Benefit 2: leverage without leverage

Bitcoin’s annualised volatility is notably greater than US stocks and gold, providing (free) leverage. Therefore, a relative portfolio allocation to bitcoin has a greater effect on alpha than most other asset classes. Ramping up exposure is less costly and capital intensive than other asset classes, and easily achieved with its 24/7 liquidity.

We’ve modelled this below using a 60/40 Australian equity and bond mix as an example.

- The risk of the portfolio, measured by standard deviation (volatility of returns) actually decreases when adding 1% of bitcoin, whilst improving returns by over 35%
- At higher levels of bitcoin (2%, 5% or 10%) the returns drastically improve, whilst only slightly increasing the volatility profiles

We have also modelled this against global equities and global bonds, producing similar findings. Overall, adding bitcoin to the portfolio vastly improved risk-adjusted returns.

	CUMULATIVE RETURN	ANNUALIZED RETURN	STD. DEV.	BETA
ASX 200	25.54%	3.37%	14.68%	1.00
60% XJO / 40% VGB	18.50%	2.44%	8.95%	0.70
59% XJO / 40% VGB / 1% BTC	25.07%	3.32%	8.91%	0.59
59% XJO / 39 % VGB / 2% BTC	31.64%	4.21%	8.97%	0.59
57% XJO / 38% VGB / 5% BTC	51.35%	6.92%	9.70%	0.57
54% XJO / 36% VGB / 10% BTC	84.19%	11.58%	12.28%	0.55

Data Sources: [TradingView](#)



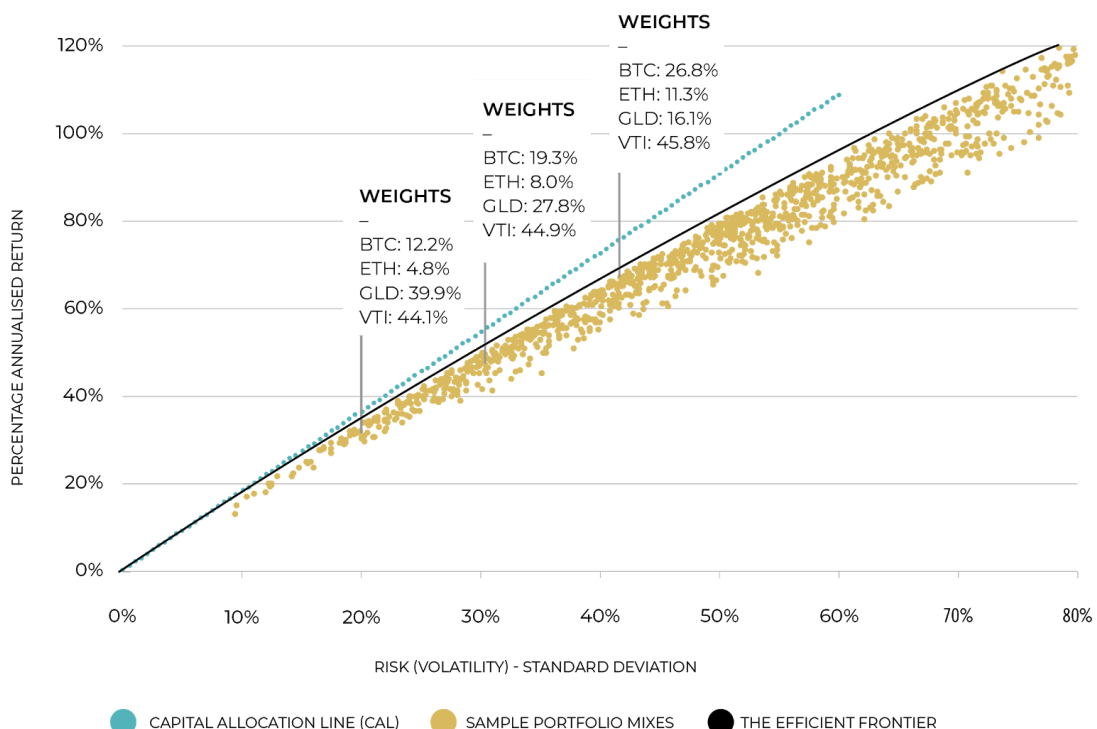
# Portfolio Theory: The Efficient Frontier

The efficient frontier is a Markowitz portfolio model, that defines the optimal mix of assets for defined levels of risk (volatility). The model has been used in the traditional portfolio space and provides useful insights for determining portfolio weightings for bitcoin and ethereum.

We've taken a portfolio of assets - global equities (VTI), bonds (BND), gold (GLD), bitcoin (BTC) and ethereum (ETH) - and mapped them into portfolio simulations from 2015 (the birth year of ethereum). Each dot represents one portfolio simulation, and each portfolio has a different weighting of assets. The upper curvature of the efficient frontier represents the optimal portfolio weighting to minimise volatility (risk: x-axis) for any given level of performance (return: y-axis).

As we increase risk and return, the optimal weightings shift across the efficient frontier. The advantage of this model is that it allows us to look at various risk appetites, and identify allocation weightings that add value to investor portfolios.

**The Efficient Frontier: Optimal Portfolio Mix**



Data Sources: [TradingView](#), [S&P Capital IQ](#); Risk-Free Rate 5Y US Bond (0.27%), 2015-07-31 to 2020-07-31



# Ethereum: A Play on “DeFi”

Think of Ethereum as smart-money. You can program it, attach rulesets and governance models, and applications (DApps) on its technology.

Decentralised Finance, otherwise known as “DeFi”, is poised to eventually reach into all aspects of wealth. Blockchains will support trading, lending and credit markets, providing instantaneous loan collateralization, simplifying complex relationships between assets, ultimately improving access whilst reducing systemic risk. DeFi projects that have had their heads down building since the Initial Coin Offering (ICO) boom and bust in 2017 are now beginning to launch some amazing, albeit nascent, technology.

## What are the advantages of DeFi?

- Allows you to have total control over your assets – to be your own bank, without centralised intermediaries
- Removes the friction of banking and settlements, allowing instant transactions and access to global credit markets
- Removes costly layers that reduce your earn rates in yield products
- Transparency around the total supply dynamics of assets you are holding

The lowest risk exposure point to DeFi right now is ethereum. Of the top 15 DeFi market cap projects (over US\$10B aggregate market cap), all are built on the ethereum protocol. In this way, ethereum essentially acts as an ETF of DeFi projects and is itself a DeFi asset, particularly with its 2.0 release that will turn its token into an intrinsic yield instrument.

## Total Value Locked (USD) in DeFi



Data Sources: [DeFi Pulse](#)



# Conclusion: This Is the Hedge

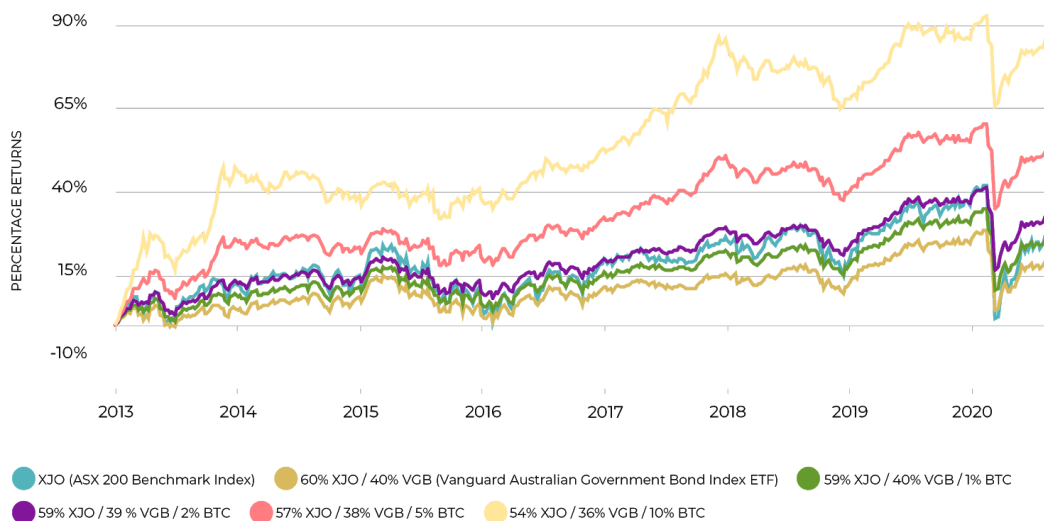
The intrinsic value of any asset is a function of its utility combined with the market's perception of its value. A significant aspect to the value of gold, silver and diamonds are the longstanding relationships that civilisation has built around these assets. Money is similarly based on this notion of market perception - a trust-based system of exchange. Any asset needs to obtain a critical mass of trust and participation before intrinsic value is truly embedded. We believe that bitcoin and ethereum have reached this point.

There are some big cyclical intermarket shifts brewing. The current macro picture makes sense for bitcoin as a frictionless and liquid store of wealth, and Ethereum as the future of finance. It's never going to be a straight line up, and we all need to approach the abstract noise and dislocation in markets right now with forward-thinking poise.

Paul Tudor Jones, one of the world's most renowned hedge fund managers, recently referred to the COVID-19 pandemic as the 'Great Monetary Inflation', and referred to the potential best performing hedge: "if I am forced to forecast, my bet is it will be Bitcoin."

Our focus as a firm is to think beyond the noise and provide robust execution, custody and yield opportunities for our clients. Best of luck with the journey, we are only just getting started.

## Portfolio Performance With Varying BTC Allocation



Data Sources: [TradingView](#)



# How to Buy Digital Assets

Zerocap is an Australian-founded firm with a global presence providing digital asset trading, insured custody and yield products to forward-thinking investors and institutions globally.

**We make it safe and easy to add digital assets to your portfolio.**

If you would like to learn more or are ready to purchase digital assets, contact us at:

[www.zerocap.io](http://www.zerocap.io)

[hello@zerocap.io](mailto:hello@zerocap.io)

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### **OTC Trading**

Frictionless trading with deep liquidity for our clients looking to move seamlessly between fiat and digital assets. We take a principal trading model approach which facilitates optimal pricing and fast settlement in all major currencies and digital assets.

### **Insured Custody**

Institutional-grade custody of digital assets, that's covered by insurance. Our custody solution allows you to set up a governance model and quorum for operations, business continuity and estate planning.

### **Generate Yield**

We generate yield by allocating a portion of assets to credit markets and market-neutral strategies across the digital asset space. Our proprietary approach hedges across diversified counterparties and execution venues to capture unique and sustainable alpha.



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[www.zerocap.io](http://www.zerocap.io)

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