Q4 OUTLOOK REPORT: IN THE MIDST OF WINTER

NOVEMBER 2022

CryptoCompare

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About This Report

The bear market has continued into the third quarter of 2022 as economic and political conditions worsen. Bitcoin's narrative as an inflation hedge has been put into question as Bitcoin's price continues to plummet and its property as a risky asset becomes prevalent. Despite price declines and expectations of further bottoms, a deep dive into certain bear market metrics highlights the differences with bear markets and the sustained innovation of the industry. In this report we aim to give an overview of the macro environment, analyse the current bear market in relation to other bear markets, and shed light on major innovations and developments happening in the DeFi sector, all done retrospectively and in the context of future paths for the industry.

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Executive Summary

The third quarter of the year has been led by a macroeconomic narrative of high inflation and increasing interest rates that have encouraged reduced risk-taking among market participants. As a result of this, digital assets have failed to act as an inflation hedge, seeing negative returns that are heavily reactive to macroeconomic data.

However, the fragile global financial system means that digital assets remain a viable alternative within investment portfolios. Particularly, the continued interventive nature of central banks, the fall in value in global reserve currencies, and a global debt crisis puts the financial system at risk of another major stress test, giving digital assets an opportunity to succeed. Furthermore, comparing the current bear market to previous cycles highlights the improved maturity of the industry, with changes to the way volumes have behaved, as well as BTC market dominance and correlations with traditional asset classes.

Q3 2022 saw DeFi make a slight recovery in total value locked as markets attempt to recapture some of the losses suffered following the collapse of the Terra ecosystem and centralised crypto lending products. However, in anticipation of a prolonged period of drawdown mainly caused by macroeconomic risks, many projects are likely to struggle to sustain their operations amid a bear market environment with dwindling capital investments and access to funding. On the positive side, this will lead to many of the DeFi projects adopting more sustainable, revenue-generating tokenomics.

One of the major highlights of Q3 was the long-awaited Ethereum Merge and other scaling solutions like Layer-2 projects. These scaling solutions have already been effective in reducing the transaction fees on Ethereum, undermining the value proposition of many alt-layer 1 blockchains. However, innovations continue to rise in the crypto space, with heterogenous blockchains like Avalanche, Cosmos, and Polkadot offering a unique solution to scalability, while upcoming projects such as Aptos, Sui, and Sei garner investor interest.

Recent developments including the failure of central governments to restrict inflation, and the pitfalls of using centralized products such as Celsius and PayPal, emphasize the need for decentralised solutions that crypto strives to offer. These events also highlight the need to introduce regulations without hindering the advancement and adoption of blockchain technology.

Macroeconomics

Short-Term Reactions to Macro Events

The digital asset space experienced high-profile idiosyncratic events in May, which saw the collapse of the Terra ecosystem and Three Arrows Capital - key points of discussion during the end of Q2. In Q3, it has become clear that the macroeconomic environment is of the utmost importance for the direction of crypto markets, rather than any digital asset specific event. This is evident when examining short-term reactions to regular macro events, as showcased in Table 1.

In 2022, ETH and BTC have had absolute returns of 6.5% and 4.5% on Consumer Price Index (CPI) print days, notably above the yearly average. This is also significantly above market reactions to CPI prints in 2019 – 2021. The same can be said for the market's reaction to Federal Open Market Committee (FOMC) meetings, albeit the returns are parallel to those seen in 2020 when the Federal Reserve was in the spotlight for market interventions due to the COVID-19 pandemic. Of course, a limitation of such analysis is the fact that markets tend to price in interest rate hikes and expected inflation.

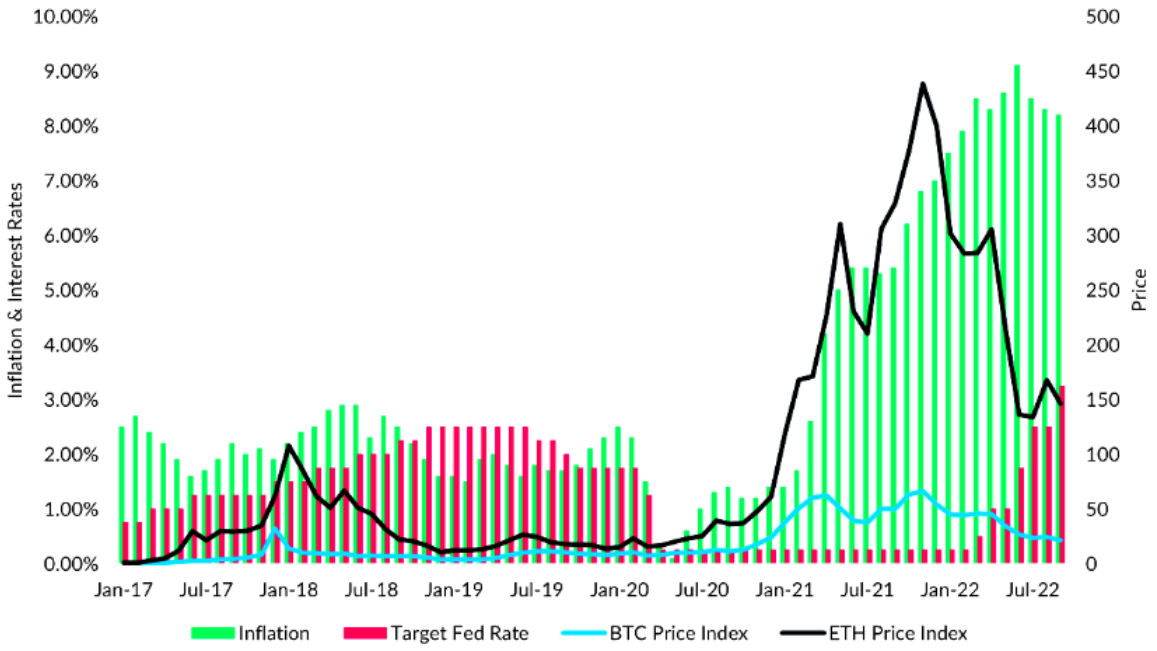
Figure 1 – Average Daily Returns of BTC and ETH following CPI Prints and FOMC Meetings

Year	Event	BTC Daily Return	BTC Absolute Return	ETH Daily Return	ETH Absolute Return
2022	Yearly Average	-0.24%	2.47%	-0.25%	3.49%
	CPI Average	-1.71%	4.46%	-1.60%	6.50%
	FOMC Average	2.88%	3.74%	3.58%	5.51%
2021	Yearly Average	0.18%	3.13%	0.52%	4.11%
	CPI Average	0.14%	4.02%	-0.65%	4.61%
	FOMC Average	0.13%	3.09%	0.47%	4.52%
2020	Yearly Average	0.50%	2.46%	0.69%	3.53%
	CPI Average	0.85%	2.42%	0.85%	3.20%
	FOMC Average	4.87%	5.34%	3.72%	4.15%
2019	Yearly Average	0.24%	2.42%	0.06%	2.94%
	CPI Average	-0.03%	1.95%	0.00%	1.93%
	FOMC Average	0.86%	1.72%	0.56%	2.40%

Long-Term Relationship with Inflation & Interest Rates

The above information assesses short-term market reactions to macroeconomic data, however, long-term trends also showcase the importance of the macro environment in 2022, as BTC and ETH have performed inversely to inflation and nominal interest rates, as highlighted by the following figure.

Figure 2 – BTC & ETH vs. Inflation & Interest Rates, 2017 – 2022



The chart above indicates what many of us know already – that **Bitcoin and cryptocurrencies have so far failed to act as an inflation hedge**, a long-proposed narrative by digital asset natives.

Instead, what has occurred is the acting of a long-rooted principle in finance; when interest rates increase to positive and non-zero, it means the present value of a risky asset declines given the opportunity cost presented by positive interest rates. The relationship is presented below:

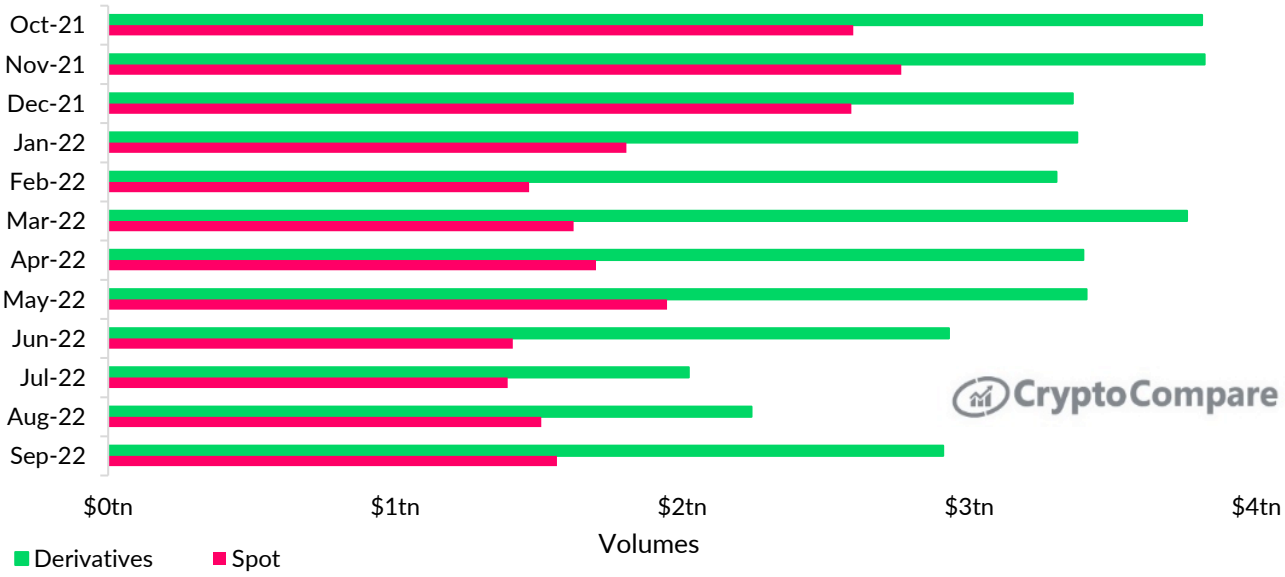
$$PV = \frac{FV}{(1+r)^n}$$

$\boldsymbol{PV} = Present\ Value\ of\ an\ asset, \quad \boldsymbol{FV} = Future\ Value\ of\ an\ asset, \quad \boldsymbol{r} = Risk - Free\ Interest\ Rate, \quad \boldsymbol{n} = Years$

Essentially, holders of cryptocurrencies have placed increasing importance on their characteristics as a risk-asset over their property as a finite-supply asset that could act as a hedge against inflation.

This is unsurprising, given the high amount of speculation in digital asset markets. Speculation is the primary reason why derivative futures volumes have not seen as much of a decline as spot volumes across markets during this bear market – futures volumes have fallen 23.8% to $2.91tn since peak volumes in November 2021, compared to a 43.4% decline in spot markets to $1.56tn. The data below is featured in CryptoCompare's monthly Exchange Review.

Figure 3 – Spot and Derivatives Trading Volumes, Oct 2021 – Sep 2022



If the 'crypto is an inflation hedge' narrative has not succeeded and the current stringent macroeconomic environment puts risk-assets under pressure, it may be difficult to idealise how crypto assets might succeed under an environment of high-interest rates. As the well-regarded crypto Twitter account @Cobie somewhat ironically stated…

For crypto skeptics, it is logical to believe that digital assets may fall out of favour as the period of 0% interest rates and immense liquidity support from central banks ends – with many arguing that digital assets are a massive bubble merely caused by excessive liquidity.

However, whether this period is truly over remains up to question, and the weak performance of reserve fiat currencies may suggest that digital assets are still a valuable alternative amid a vulnerable financial system, which is likely to see further stress tests in the coming year. We dive deeper into this below.

Global Financial System at a Breaking Point

Over the last year, the consequences of irresponsible monetary and fiscal policy from centralised entities have come to light, leading to the significant devaluation of fiat monies and further highlighting the unique value proposition of digital assets.

Rampant inflation is a major sign that the Quantitative Easing (QE) carried out by central banks over the last decade, exacerbated by the COVID-19 pandemic, has had a long-term negative effect on the world economy. However, other, less-discussed observations highlight the dire situation of the current financial system:

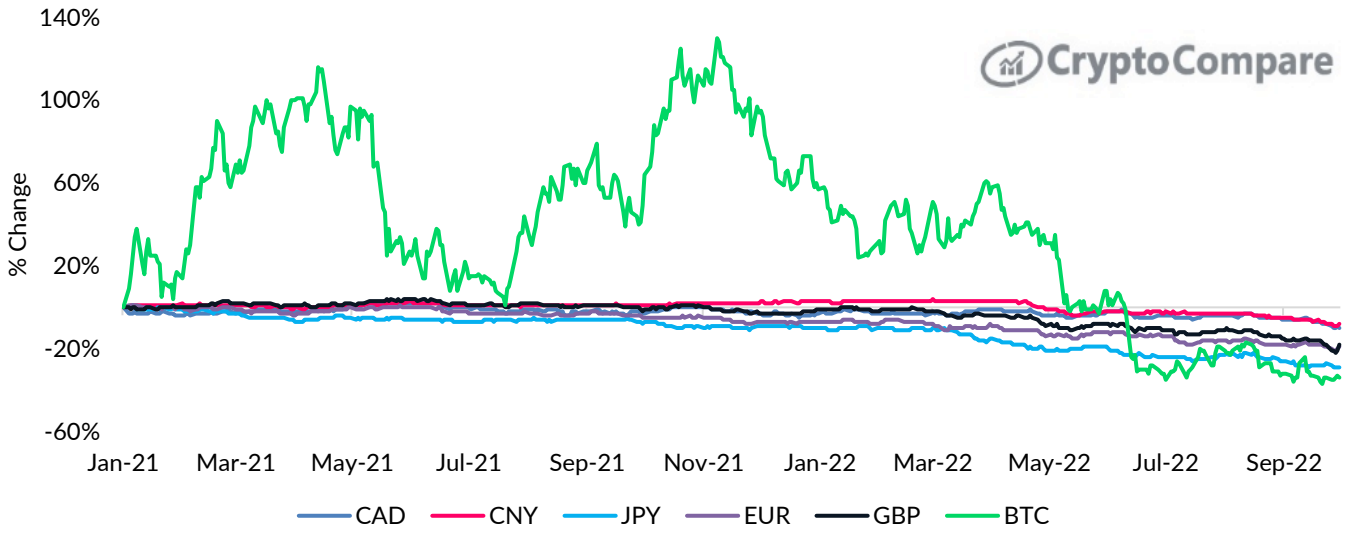
First, idiosyncratic market events over the last few weeks have highlighted the continued interventive nature of central banks. Most recently, the Bank of England restarted QE after rising gilt yields nearly put the UK pensions industry at liquidation risk, as many pensions were close to being margin called on leveraged fixed-income instruments.

While the central bank avoided a catastrophic collapse of the pensions industry, it has highlighted the fragility of the financial system. The restarting of QE will hinder the minimal efforts made to backstop rising inflation, thereby worsening the cost-of-living crisis and putting further long-term economic pressure on consumers.

Second, major fiat currencies have seen significant devaluation against the US Dollar over the last two years, driven by low-interest rates and the artificial support of economies. While previously such devaluations seemed to take place in developing economies, 'stable' currency regimes are now also suffering against the dominance of the US Dollar, which typically performs well in stress periods due to its status as the global reserve currency.

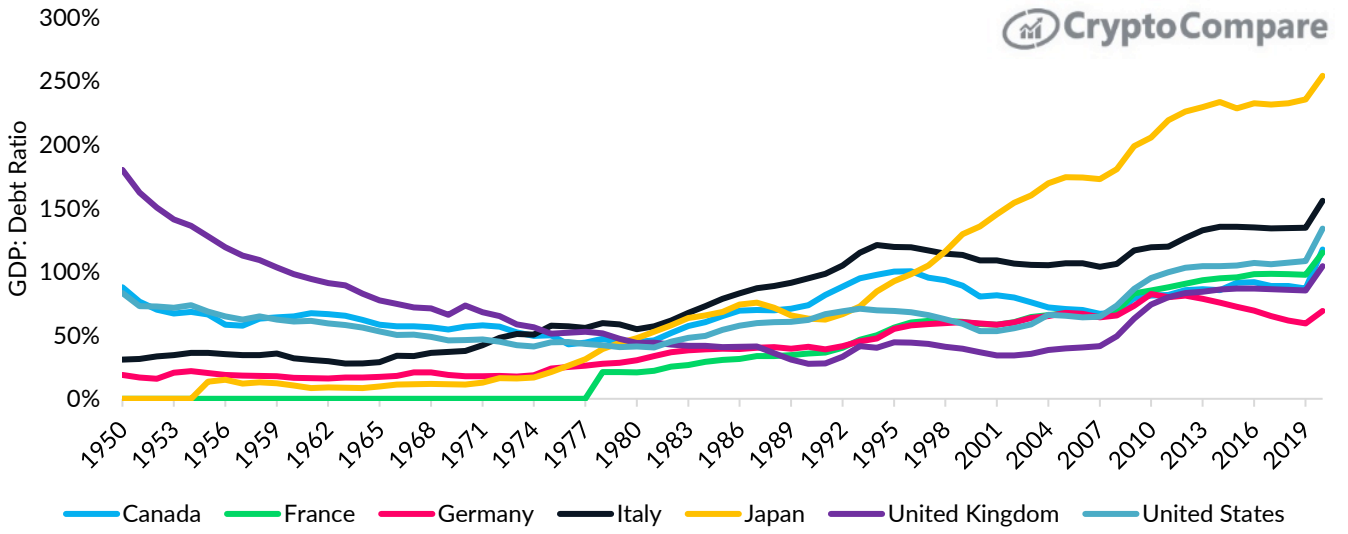
On average, the five largest reserve currencies (after USD) have fallen in value by 16.8% since the start of 2021 as a result of excessive monetary actions and a looming global recession. The Japanese government recently intervened in FX markets to support the falling JPY.

Figure 4 – Performance of Reserve Currencies, 2021 – Present



Third, governments across the world have continually borrowed money to fuel economic growth, which will lead to unsustainable interest payments for governments and eventual austerity. In the UK, this is already expected to worsen due to the recent tax breaks provided by the new government - a recent study by the Institute of Fiscal Studies suggested debt interest spending will be £103bn in 2023-24, compared to the £51bn that was forecasted by the OBR in March. Of course, the only way to reduce this debt in real terms is to have consistent periods of high inflation - arguably the only benefit of the soaring prices we have seen over the last year.

Figure 5 – G7 Government GDP/Debt Ratio, 1950 – 2020



Thus, for many, the risk associated with fiat monies revolves around the continued manipulation of their value via excessive printing or spending, which is unavoidable by central banks and governments given the inherent fragility of the financial system. All these factors suggest that a global recession is imminent if we are not there already.

While this includes a bear market for cryptocurrencies, digital assets have the advantage of being decentralised and thus sit outside the fragile financial system. Of course, it is important to note that if a major global stress event were to take place, it is likely that all financial assets become heavily correlated and further downside in digital assets should be expected. Second, not all cryptocurrencies may benefit from the above - strong tokenomics are an indispensable value proposition held only by a certain group of digital assets.

Bear Market Analysis

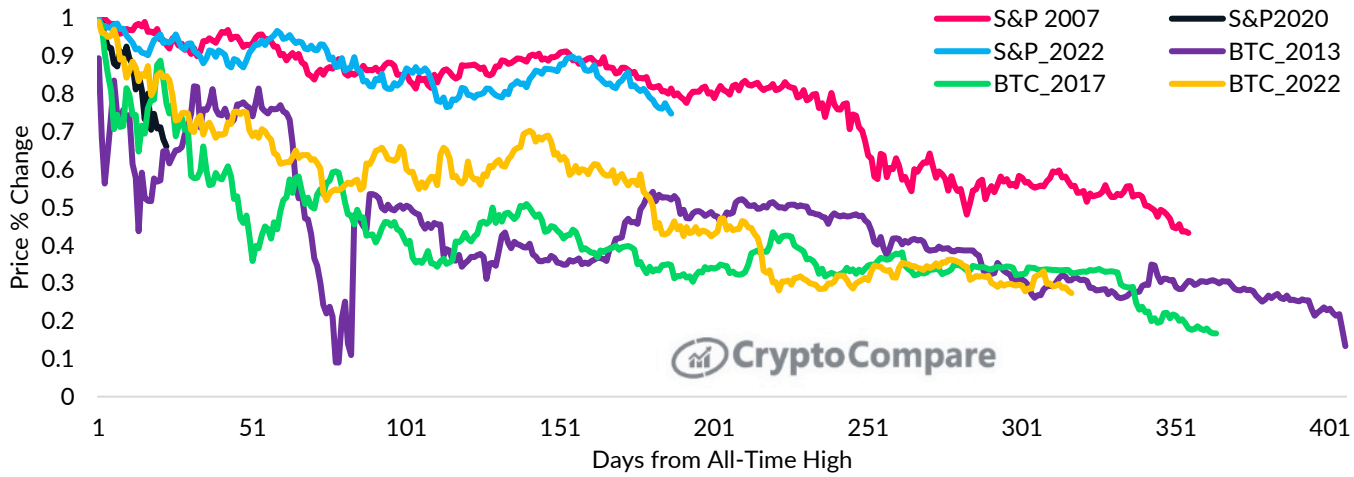
Bear markets are often defined as sustained periods of price drops, usually triggered by a 30% decline. In this section, we will compare the current bear market to 2017 and 2013 and dive deeper into the transformation of Bitcoin between these time periods.

Price Action

The bear market has continued into the third quarter of 2022 as economic and political conditions worsen. The overall market capitalization of digital assets has dropped 60.3% year-to-date, with Bitcoin's price falling from a high of $68,978 on the 10th of November 2021 to a yearly low of $18,468 on the 21st of September; a 73.2% drawdown. Despite the significant drop, it is possible that we have not yet seen this cycle's bottom given worsening macroeconomic conditions that will impact risk assets.

The 2013 and 2017 bear cycles that digital assets experienced suggest we could still experience a further decline. In those cycles, Bitcoin's price saw an 83.3% and 86.7% drawdown which lasted 364 days and 406 days, respectively. This cycle currently stands at 357 days as of the 31st of October, however, the drawdown has not been as acute as it was in 2013 and 2017 in terms of time frame and severity, potentially leaving room for 2022 to become the worst drawdown in Bitcoin's history. Of course, it is important to note that past cycles and events are not reflective of current cycles, and there are inherent limitations to carrying out such comparisons.

Figure 6 – Price % and Days of Historical Bear Market

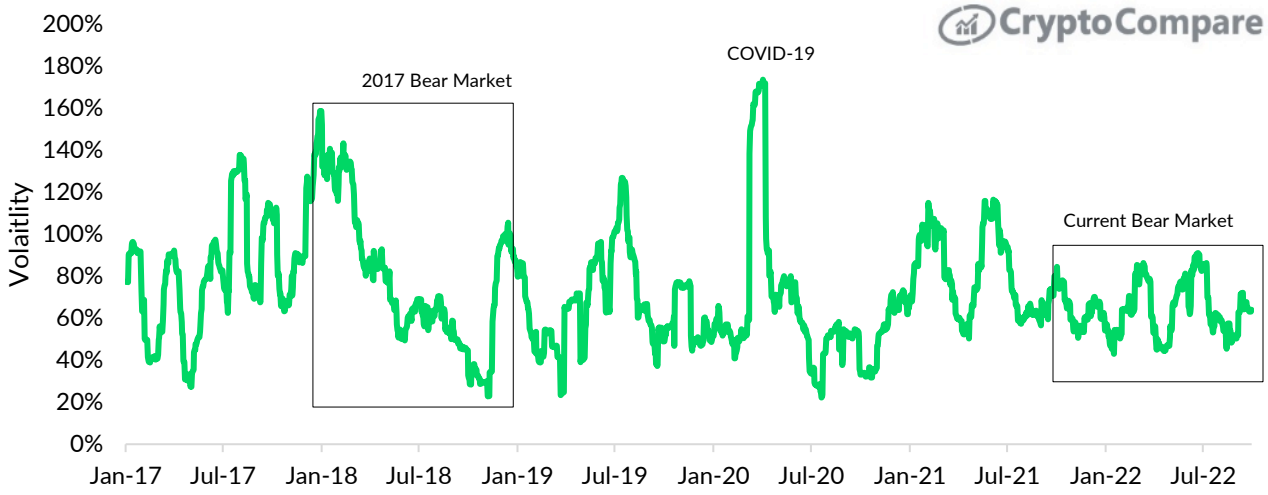


Volatility

Bitcoin's volatility has been steadily stabilising in a bounded range compared to the last bear market. While this may suggest cryptocurrencies are maturing as an asset class, such patterns also typically precede a large spike in volatility - such as in November 2017.

During the last bear market, average annualised volatility for BTC was 79% while current average volatility is 63%. Under the context of the current market, we believe it's possible for a high-stress event to take place in the traditional financial system, which would cause sell-side pressure across major asset classes, leading to a spike in volatility and a potential move downwards.

Figure 7 – Bitcoin Volatility Across Bear Markets, 2017 – Present

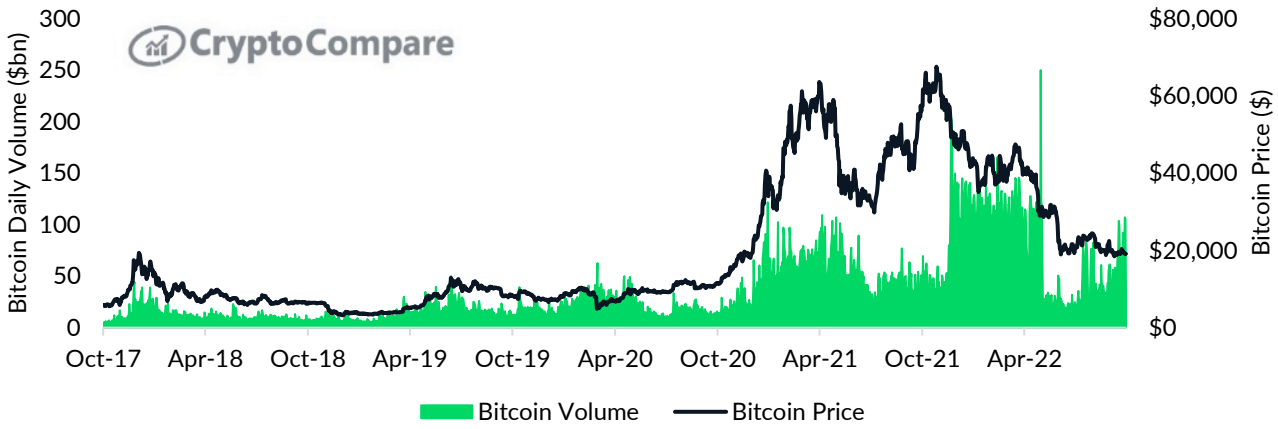


Volumes

Lower volumes were a prevailing narrative in previous bear markets, with the future of the industry being put into question due to low activity. The average daily volume during the last bear market was $12bn, while current average daily volumes sit at $78bn, an increase of 546%.

In addition, volumes have not experienced as severe a drawdown as in 2017 - when volumes dropped 63% from the beginning of the 2017 bear market to the bottom. Currently, volumes have only seen a drop of around 35% since its peak in 2021. This may suggest volumes have become stickier despite the downturns - or we are due for further decline in activity. Despite the collapse of several institutions (3AC) and centralised service providers (Voyager Digital, Celsius), institutional adoption was pivotal in the success of the last bull market and continues to influence the current bear market.

Figure 8 – Bitcoin Volumes vs. Price, 2017 – Present



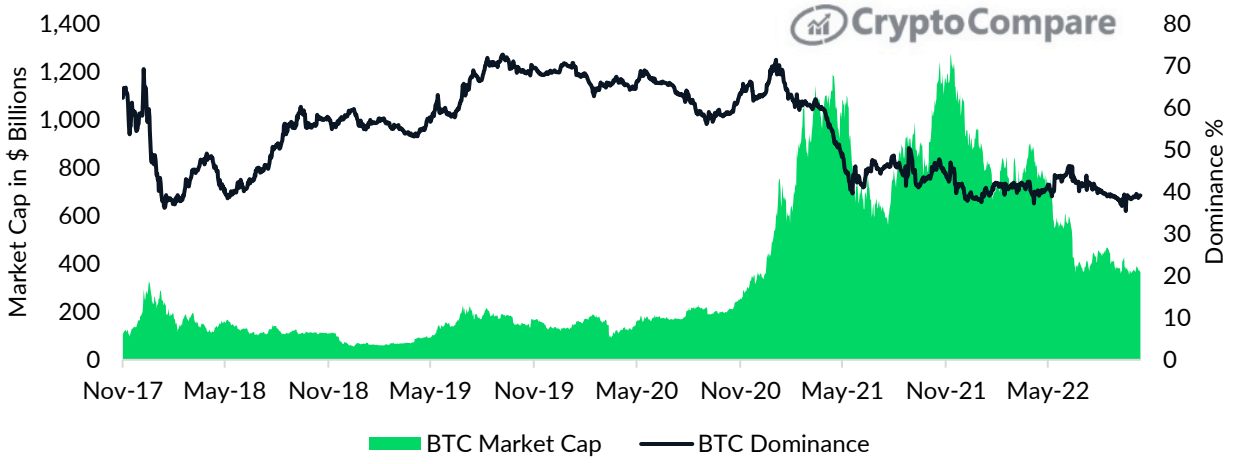
BTC Dominance

Bitcoin's market dominance has historically been used as an approach to assess the stage of a market cycle. In the past, the consensus was that Bitcoin's dominance would decline during a bull market, as smaller projects grow at a faster pace and are subject to more mania. During a bear market, however, many of these smaller projects fail and see significant declines, leading to a rise of Bitcoin's dominance. This current bear market has interestingly not led to an increase in Bitcoin's dominance.

In our view, there are two, non-mutually exclusive reasons for this:

- First, it is possible that we are not yet in the final stages of the bear market, suggesting smaller projects will continue to lose value and may lead to a rise in Bitcoin's dominance in the short to medium-term.
- Second, and more importantly, while Bitcoin's dominance may rise in the near future, many crypto natives have turned their attention to newer innovative projects. Indeed, Bitcoin has been heavily criticised for its lack of innovation over the last years - it has not been exposed to many of the new trends in digital assets such as DeFi or NFTs. For this reason, Bitcoin's dominance will likely see a declining trend over the long-term, with newer projects and ecosystems adapting to user demands and creating new, distinct value propositions.

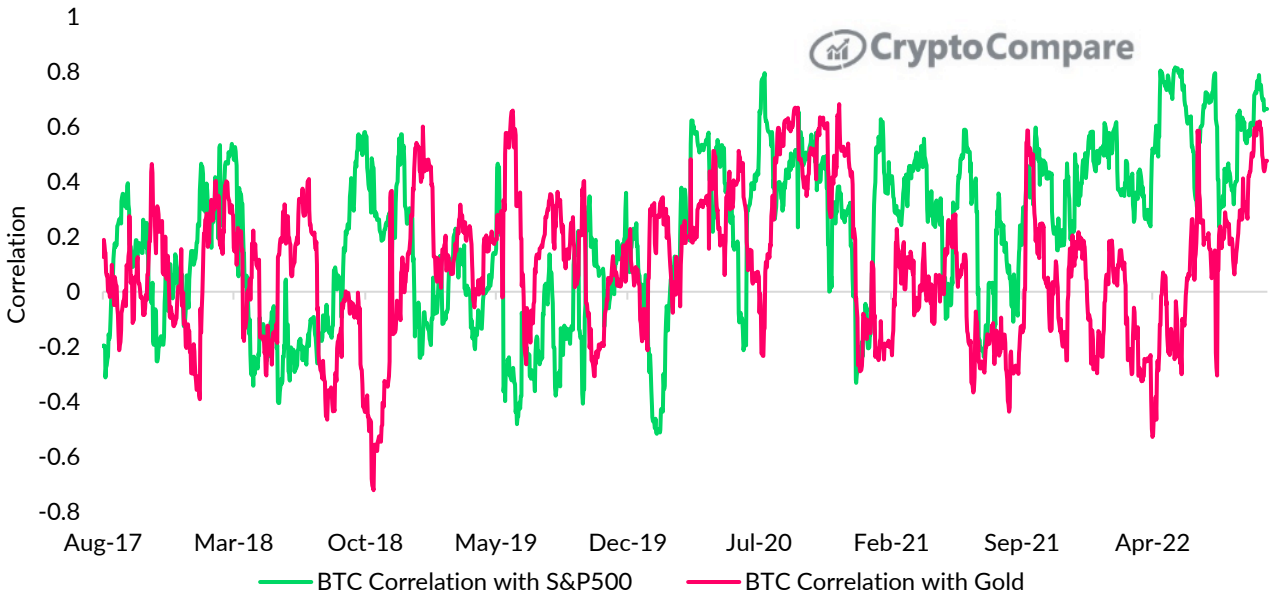
Figure 9 – Bitcoin Market Dominance, November 2017 – Present



Gold and S&P 500 Correlation

In this cycle, the institutionalisation of the digital asset industry has led to increased correlation between BTC and traditional assets. In past bear markets, Bitcoin exhibited negative correlations with traditional asset classes like gold and equities, as there seemed to be a complete disconnect between crypto and traditional finance. The particular importance of macroeconomic activity for risk-assets has, however, led to a rise in BTC correlation with these assets over the last few months.

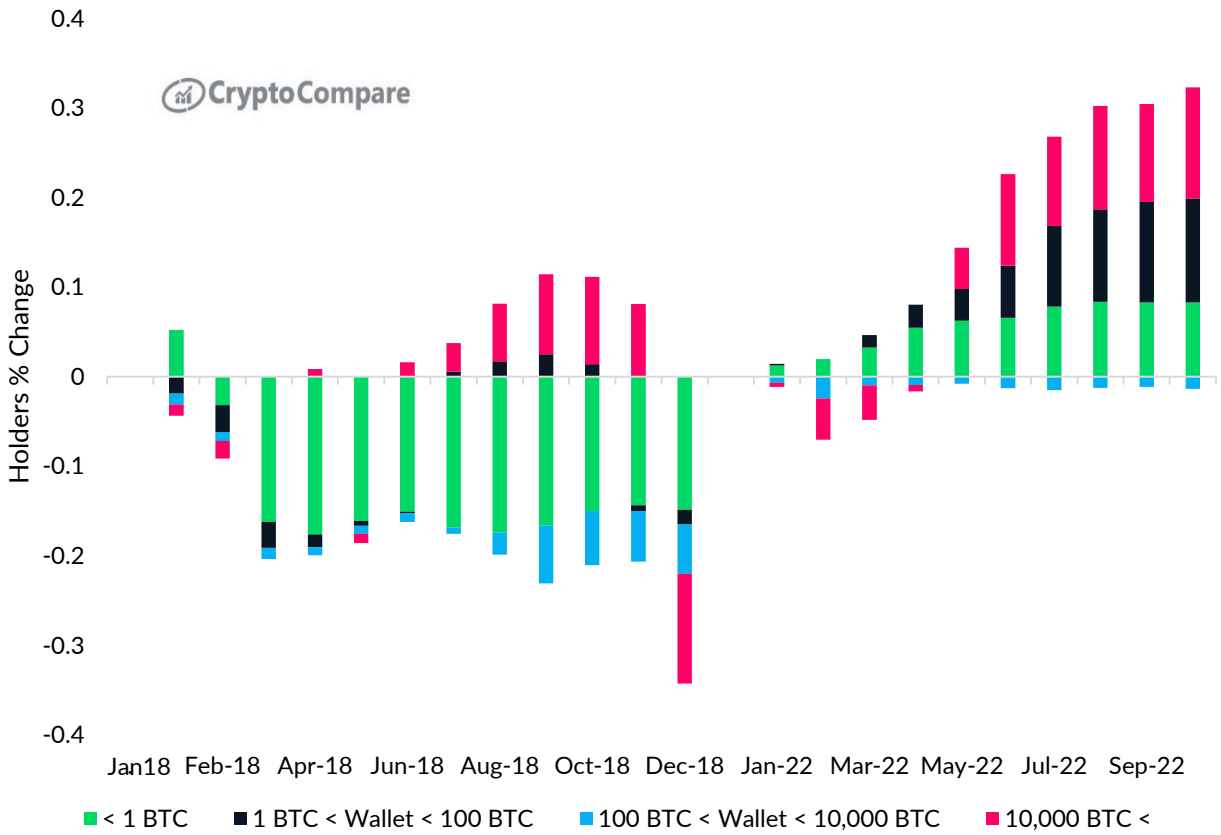
Figure 10 – Bitcoin Correlation with S&P500 and Gold, August 2017 – Present



Holders Accounts: Accumulating in The Bear Market

As opposed to the last Bear Market, where holders across different wallet sizes were panic selling, this bear market we have seen consistent accumulation in almost all accounts. During the current bear market, we can see that addresses with more than 10k Bitcoin in their wallets have increased from 87 Address in Jan 2022 to 99 Address on October the 10th, a 13.8% increase. Similarly, wallets with 1 BTC up to 100 BTC has seen a decent increase while wallets with 100 to 10K BTC have slightly declined.

Figure 11 – Bitcoin Holder Wallets January 18 – October 22



Source: IntoTheBlock

Fundamentals Win

Bear markets are arguably the most interesting times to build products in crypto. The 2017 crash, for instance, was a good period for crypto companies to build great products, achieve growth and increase their market share. Some of those assets include BNB, LINK, MATIC and AAVE, which saw outsized returns during the bear market compared to Bitcoin.

Similarly, during this period of declining prices, we have witnessed continued innovation. The leading narrative for this bear market was the Ethereum Merge, which wasn't only significant on a technological level, taking one step towards increasing the throughput of Ethereum, reducing its issuance, and enhancing digital asset infrastructure, but also in changing the perception of the industry via a transition to a significantly lower energy consumption consensus mechanism, creating a more environmentally friendly chain and industry.

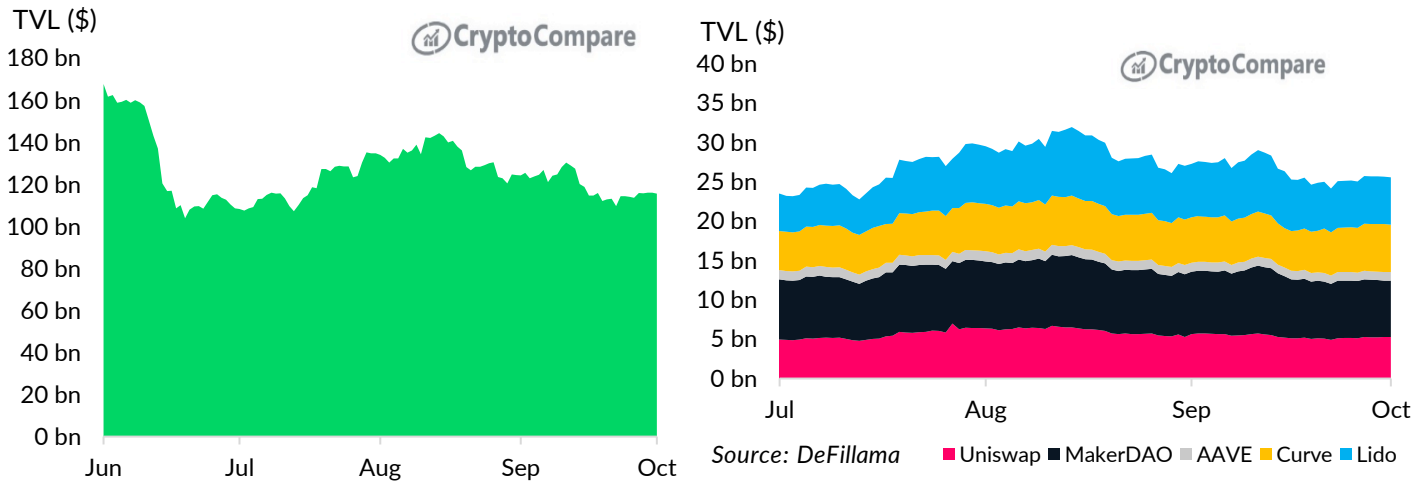
In addition to the Ethereum Merge, many innovations have transpired during this bear market with the aim of tackling the blockchain trilemma, including advancements in layer 1 blockchains, introductions of new side chains and layer two protocols, and the increasing adoption of blockchain technology in general.

Decentralised Finance (DeFi)

Q3 Recap: Range-bound, Sanctions, and Lawsuits

As rising inflation and poor macroeconomic conditions persist, Q3 saw the crypto markets stay largely rangebound with Bitcoin and Ethereum struggling to break key resistance levels. In Q3, the Total Value Locked (TVL) in DeFi increased 5.51% to $75.9bn as markets recovered slightly from the aftermath of the Terra collapse and the meltdown of centralised crypto lending products.

Figure 12 – Total Value Locked (TVL) in DeFi, Q3 2022



MakerDAO, the builders of the DAI stablecoin, saw TVL fall by 5.99%, however, it remained the largest protocol by TVL at $7.17bn. Meanwhile, stableswap DEX, Curve, recovered from its dismal Q2 which saw a loss of more than 70% in TVL, recovering 22.1% to $6.07bn.

The highlight of last quarter was the long-awaited Merge, which saw Ethereum transition its Proof of Work consensus to Proof of Stake. Leading up to the event, the protocols involved in the Merge narrative saw an increase in TVL with Lido Finance and Rocket Pool (two liquid staking protocols) rising 28.6% and 101% to $6.07bn and $546mn, respectively.

As discussed in the Q2 Outlook, we saw an escalation of regulatory activities in Q3. The first-ever lawsuit against insider trading action involving digital assets came about as the SEC charged a former Coinbase manager and his two associates for profiting from insider information. The US Treasury also bought forward sanctions against the

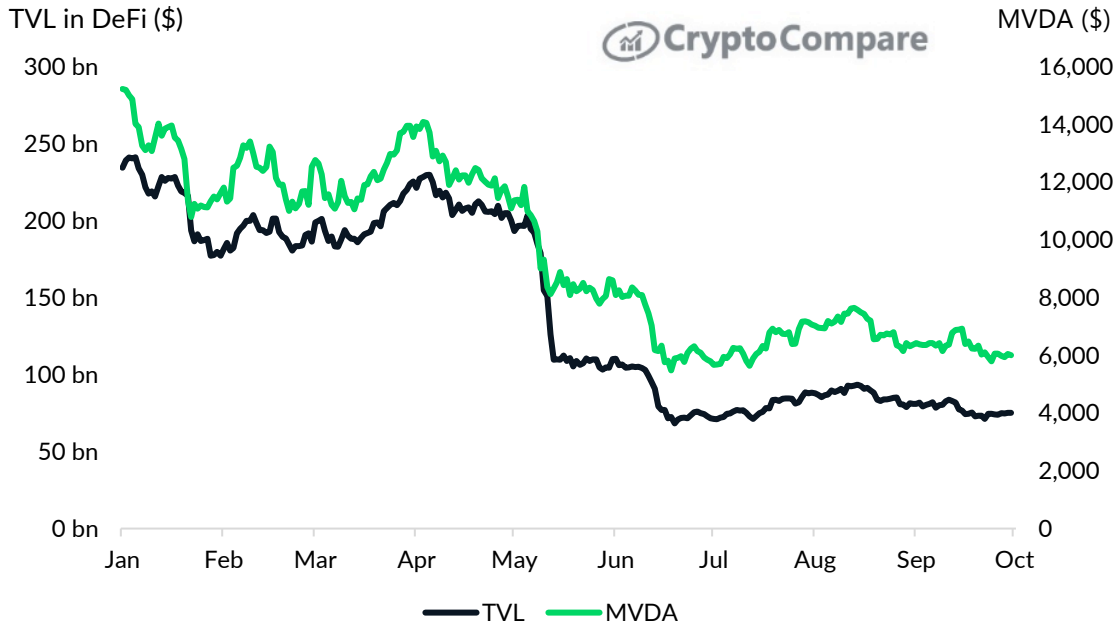
popular cryptocurrency mixer, Tornado Cash, with any entities that have engaged with the platform now put under the Specially Designated National and Blocked Person ("SDN") list.

We also saw the SEC charge popular celebrity Kim Kardashian for promoting the crypto security EthereumMax. The significance of this lawsuit is that the charge stands even though it was disclosed that the post was an advertisement and not financial advice - promoters must now also disclose their compensation. This is a precedent for all the celebrities promoting crypto without giving much thought to its consequence.

In The Midst Of Winter

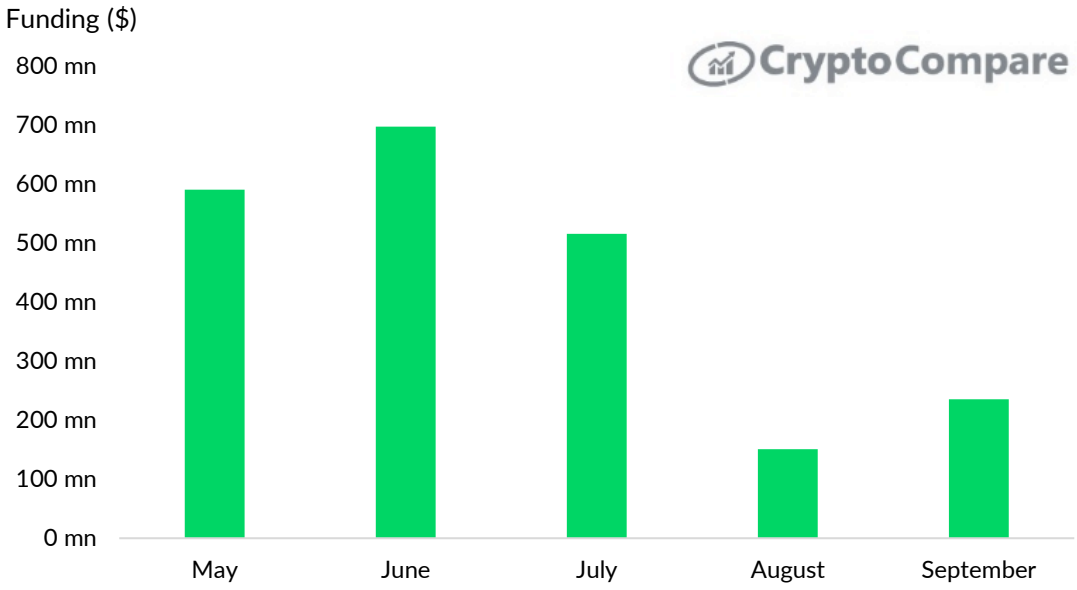
Since there has been a strong correlation between the performance of crypto markets and the total value locked in DeFi protocols, we are likely to see the total value locked in DeFi decline in Q4. The correlation between the MVDA Cryptocompare Large Cap 100 Index and the TVL in DeFi was 0.88 in 2022 (year-to-date).

Figure 13 – Correlation between TVL and MVDA Index, 2022



There has also been a significant decline in funding and investments in DeFi protocols in the second half of this year. Venture capital investments in the DeFi sector declined 66.2% from June to $235mn in September. The lack of access to capital will be felt by a wide range of projects – even those with strong tokenomics and utility may struggle to sustain their operations.

Figure 14 – VC Funding in Decentralised Finance, May – September 2022



Source: WuBlockchain

Tokenomics Revamp: Just Narrative or a Necessity?

As mentioned in the Q2 Outlook, a strong narrative prevalent in Q2 was that of 'real yield.' A project without a strong revenue stream from user activity and a healthy treasury is incapable of providing a sustainable yield to users. In the bear market, we expect to see a rise in the number of projects overhauling their tokenomics to acquire new forms of revenue.

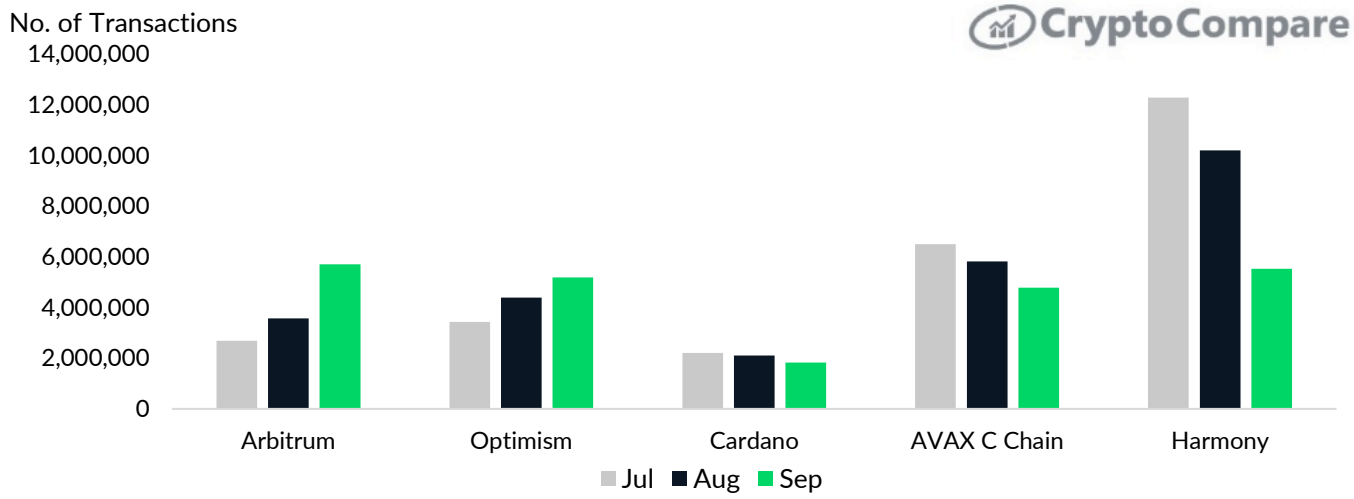
Recently Olympus DAO, the flag bearer of providing unsustainable yields in the 2021 bull run, revised their tokenomics to move away from their infamous (3,3) model to a lower base rate that incentivises users to actively participate in the network. This change allows the protocol to reward users without heavily relying on their treasury (which amounts to a healthy $224mn). It remains to be seen whether such protocols can retain their user base without the attractiveness of high yield, however, on paper, these changes can equip them with enough capital to weather the current crypto bear market.

Earlier, Uniswap proposed switching on a protocol fee on their v2 platform in order to 'open a path to self-sustainability'. With the largest treasury among all DeFi protocols at $2.80bn and a potential new revenue stream, the DEX is one of the few dApps that can endure a multi-year crypto winter.

Ethereum Rollups to Eclipse Obsolete Alt-Layer 1s

One of the big narratives this year was related to scaling solutions. Layer 2 solutions, like Arbitrum and Optimism, have been up and running for a while and we have enough data to suggest that they will indeed take market share from most of the layer-1 chains. For example, Arbitrum already has more transactions than the likes of Cardano, Harmony and the Avalanche C Chain.

Figure 15 – Transaction Count of Ethereum Scaling Solutions vs. Layer 1s, Q3 2022



We have seen from Ethereum's dominance that the ability to amass the most user activity and establish a network effect is critical for a layer 1 or layer 2 blockchain's long-term success. One key value proposition of other layer 1 blockchains was offering cheaper transaction fees and faster processing. However, with the rise of layer 2 solutions that can leverage the network effects of Ethereum, we have seen an outflow of users and activity from these layer 1 networks. This means blockchain networks that don't offer any other value propositions could become 'zombie chains' in the future.

The data above highlights the promise of scaling solutions and adds more credibility to Ethereum's claim to the throne. The scaling of the Ethereum network is set to expand under its Surge phase which will see the blockchain introducing new systems including more ZK Rollups and Sharding.

Sharding is an idea that was conceptualised in 2013 and is expected to be implemented next year. By splitting the network into multiple mini-blockchains called shards, Ethereum will be able to process a larger number of transactions. However, Ethereum sharding isn't the first time we have come across the concept of heterogeneous blockchains which we discuss in more detail below.

Subnets vs. Parachains vs. AppChains

Avalanche, Polkadot and Cosmos are the three most popular blockchains that have successfully incorporated the concept of heterogenous blockchains. With their unique concepts of subnets, parachains, and appchains, these networks try to tackle the scalability issues by creating an 'internet of blockchains.' This type of interconnected yet independent approach allows for higher processing speeds, interoperability, and customizability of blockchains according to the need of each dApp.

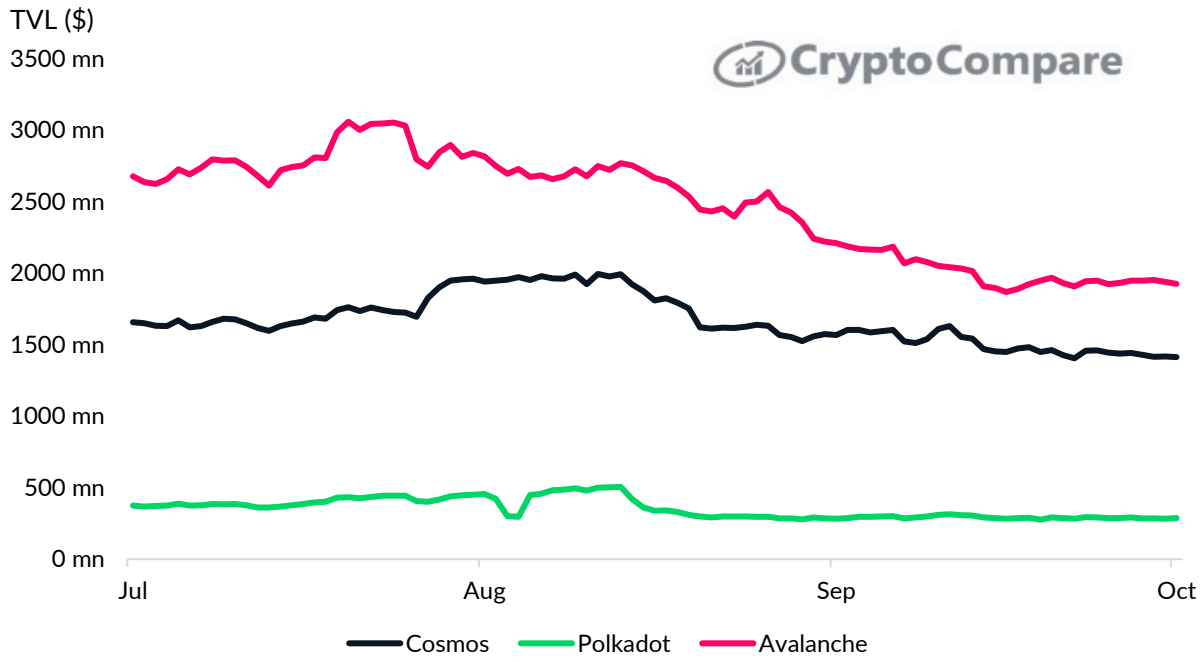
Figure 16 – Comparison between Polkadot, Avalanche, and Cosmos

Blockchain	Description
Avalanche	By leveraging its DAG-optimized consensus protocol, the blockchain allows anyone to create an application-specific blockchain, tailored to their requirements. Compared to Polkadot and Cosmos, Avalanche can currently process higher transactions per second (4,500 tps vs ~ 1,500 tps) and there is no limit on the number of subnets that can be created. Avalanche also has a substantially greater number of dApps on the chain.
Polkadot	Polkadot employs a sharding infrastructure with multiple blockchains running in parallel (hence called parachains), that are connected to a central chain called the Relay Chain. The advantage of Polkadot is in its interoperability between parachains enabled through Cross-Chain Message Passing (XCMP) Protocol and the shared state infrastructure with the Relay Chain.
Cosmos	The Cosmos universe consists of Zones and Hubs where developers can easily build customizable appchains using their Cosmos SDK framework. These Zones are then linked to Hubs which are designed to connect the Zones together. The network achieves interoperability via inter-blockchain communication (IBC) which also supports non-shared security chains.

Although Cosmos is currently lagging behind Polkadot in terms of technical advancements, we expect the Cosmos ecosystem to grow the most among the three in the short term. With the new tokenomics announced in

September, the ATOM token will have a new value accrual mechanism using Interchain Security which is scheduled to go live in January 2023. This will allow Cosmos Hub to be responsible for producing blocks for consumer chains whose validators will need to stake ATOM tokens.

Figure 17 – TVL in Avalanche, Polkadot and Cosmos, Q3 2022



Moreover, USDC is set to be available for the Cosmos ecosystem, addressing the issue of a reliable native stablecoin after the collapse of TerraUSD. These developments, along with a loyal user base that has grown organically over the last couple of years mean we are likely to see a new advent for the Cosmos ecosystem.

Bear Market: An Opportunity

It is no secret that with the current market conditions, it is likely that we are set for a prolonged period of crypto winter. However, it is worth noting that downturns are often a good time to focus on building and creating long-term value. Now that the 2021 bull run seems like a distant memory, we are likely to see more developers focus on innovations rather than creating copy-paste projects on multiple chains. As some of these alt-Layer 1s lose users, we are seeing a lot of traction (or hype) surrounding a few new ones. These include:

Figure 18 – Upcoming Layer-1 Blockchains

Blockchain	Description
Celestia	Hailed as the world's first modular blockchain, Celestia separates the consensus, execution, and data availability layer to achieve scalability. The network is expected to be launched in Q2 2023.
Aptos	Having raised $350mn from FTX, Aptos aims to achieve higher transaction throughput by integrating the Move programming language and using a modular approach. Aptos launched on October 19th.
Sui	Another Layer 1 built using the Move programming language, Sui achieves high throughput by executing transactions in parallel. Sui launched their incentivised testnet in August.

These innovations address a lot of concerns currently in the crypto space including the security of smart contracts and limited scalability. It is a testament to the industry's desire to constantly improve and bring new technological advancements.

Having lost around $2 trillion in market capitalisation since the start of the year, it is normal to lose track of why this industry is of importance. The latest developments in the financial world underpin the need for crypto. As part of its restructuring process, Celsius exposed its user information in public court documents, leaking their name, addresses, wallet addresses, and transactions. This downside of using CeFi products adds more credibility to their DeFi counterparts, such as AAVE and Compound, which offer the same services without collecting any personal information from the users, and without counterparty risk.

Recently, payment platform PayPal also updated their terms and conditions which allowed them to penalize users (up to $2,500) if they find them guilty of sharing misinformation. After heavy backlash from users and their co-founders, including Elon Musk and David Marcus, the company backtracked from its decision. This shows the shortcomings of a centralised payment system and takes us back to Satoshi's original vision of a decentralised peer-to-peer payment system. Although Bitcoin has turned too volatile to be a reliable medium of exchange, a

stablecoin launched on the Bitcoin network (arguably the most decentralized platform out there) could address this issue. The TARO upgrade, currently on the testnet, enables developers to mint new assets including stablecoins and may play a big role in this development.

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Report	Description
Exchange Review	Captures key developments within the cryptocurrency exchange market — providing readers with an in-depth analysis of exchange volumes, trading activity, and derivatives open interest.
Digital Asset Management Review	Tracks and provides analysis of the most innovative institutional products in the industry, assessing volumes, assets under management (AUM), and product flow trends.
Exchange Benchmark	Brings clarity to the crypto asset exchange sector. Two years on, it has become the industry standard for assessing and evaluating cryptocurrency exchanges, with the methodology and rankings now being utilised to help create financial products and indices.
Asset Report	Provides professionals in the financial services space, particularly the investment management industry, with a summarised analysis of the latest movements in five of the largest cryptocurrencies.
Market Outlooks	A quarterly report that identifies the most important developments of the last quarter, which may thereafter set the tone for key trends to look out for in the following months. This includes references to the macroeconomic environment, DeFi, NFTs, stablecoins, and more.

Topic Deep Dives

Report	Description
Liquidity Report	Created in collaboration with Bitstamp — a first of its kind report — it examines the intricacies of digital asset liquidity and compares it across top-tier exchanges to find the true liquidity of digital asset exchanges.
UST's Fall From Grace	Summarises the depegging of UST and subsequent debacle of LUNA and the Terra ecosystem, including analysis on the ripple effects of the event and where it situates the digital asset industry.