Fidelity DIGITAL ASSETS®

JANUARY 2023

2023 Look Ahead:

Refocusing and Building on Digital Assets' Core Principles

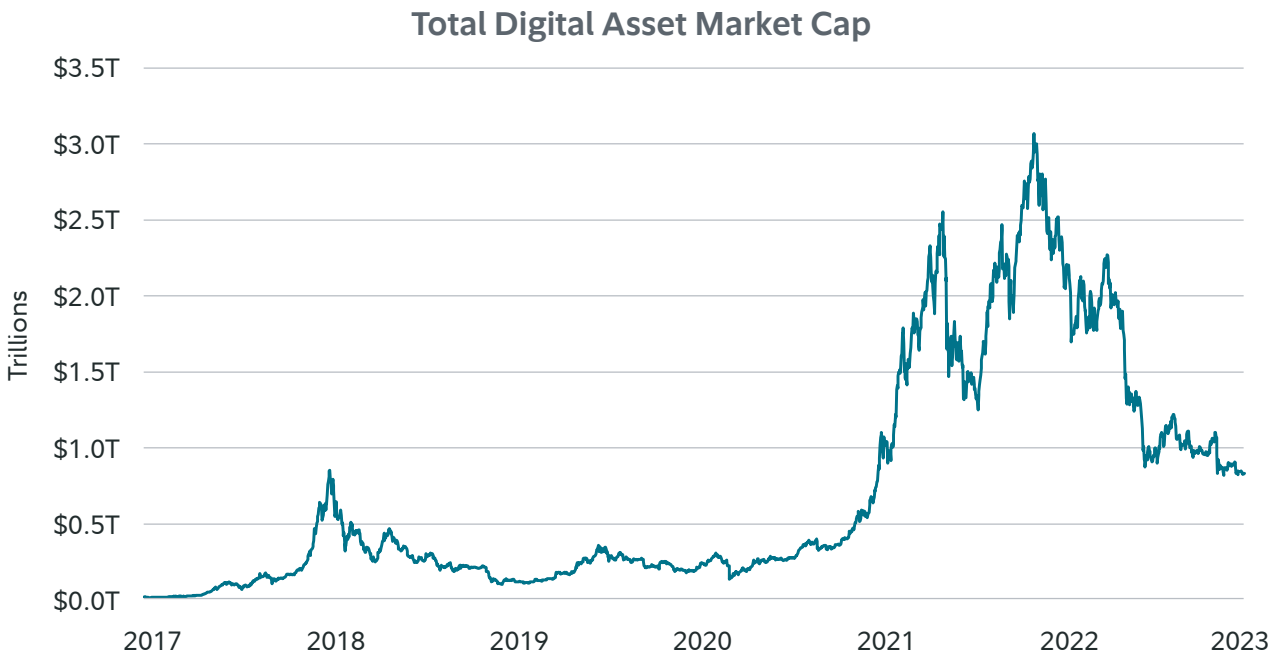
Fidelity Digital Assets® Research

Introduction

In this edition of the Research Round Up, we reflect on some of the biggest developments in the digital asset space in 2022 and, more importantly, contextualize what we think they could mean for this year and beyond. Our director of research and two of our research analysts each weigh in on the trends that they are watching in 2023 while our research analyst Daniel Gray provides a data update and the following charts.

A difficult year that should lead to renewed growth

To say 2022 was a difficult year for the digital asset industry would be an understatement. Not only was there a $1.5 trillion plummet in total market cap for all digital assets, but the industry also experienced a number of headline-making events, such as bankruptcies, hacks, exploits, and loss of depositor money.



Data Source: The Block, 01/04/2023.

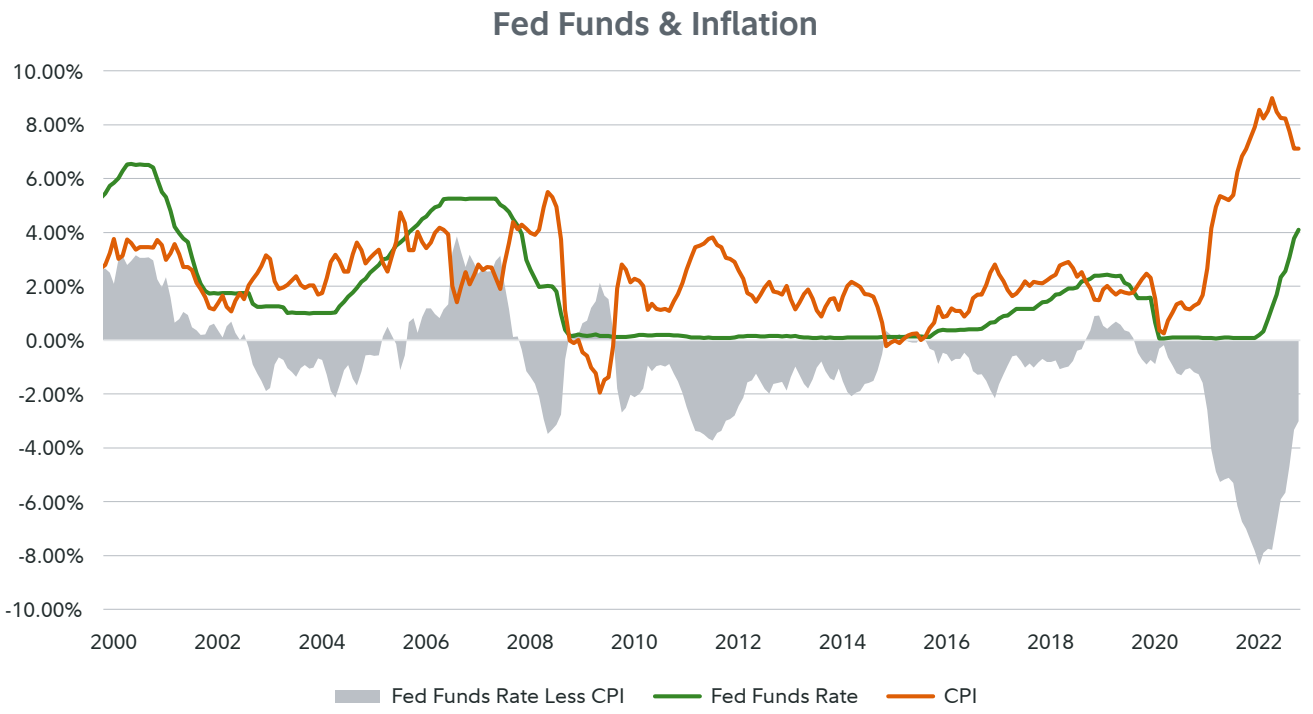
As challenging as last year's events were, we believe that the system could be made stronger in many ways. Like a biological system that learns from and forms a response to an attack, adversity in the digital asset ecosystem has the potential to create a more resilient, or "anti-fragile," industry.

There is still a lot unfolding regarding some of 2022's biggest events, so we're not in a position to speculate on specific outcomes. However, we believe that 2023 could see a rediscovery of the core principles of the space, such as decentralization, immutable code, and trustless transactions. We also think 2023 could see a refocus on creating more formalized industry standards and leveraging traditional financial due diligence practices, like vetting counterparties and understanding if or where there might be leverage.

Macro: Inflation was an issue last year. Is the opposite a concern for this year?

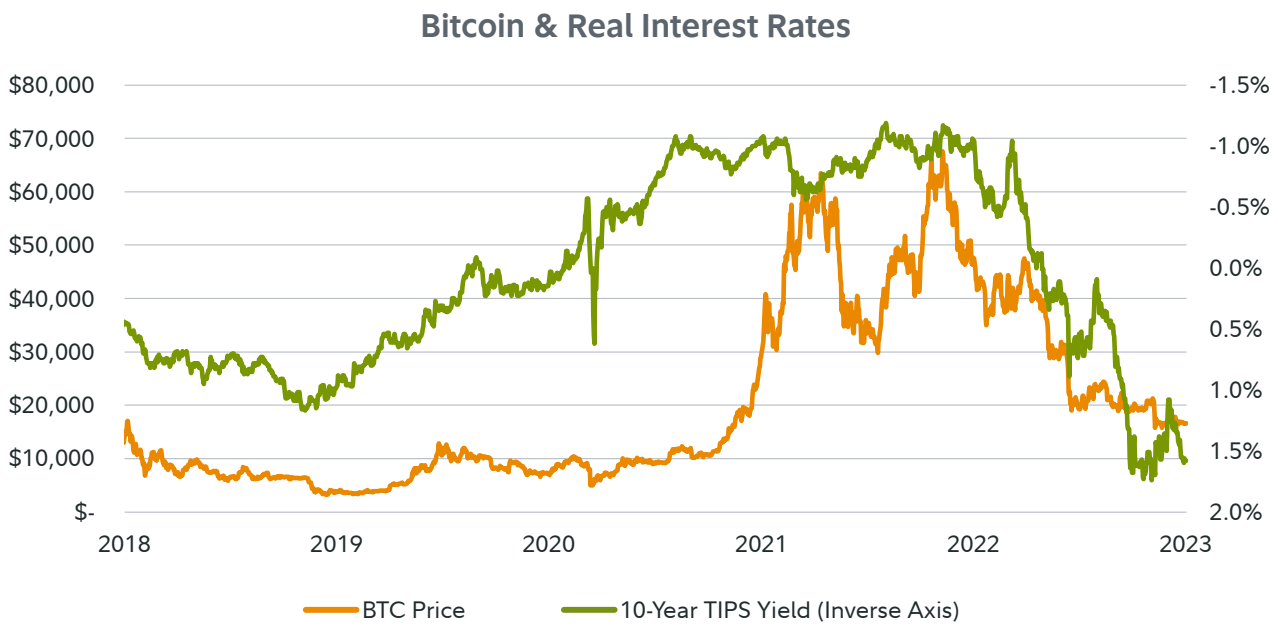
"Transitory" appears to have been retired as the economic buzzword as the Federal Reserve has shifted its focus from stimulating a previously closed global economy to fighting the highest levels of inflation seen since the Volker era in the late 1970s.

In March 2022, the Federal Reserve began raising interest rates for the first time in more than three years with a 25-basis-point hike in the federal funds rate. This was followed by a 50-basis-point hike, four 75-basis-point hikes, and, most recently, a 50-basis-point hike in December. In total, this represents an increase in the rate from a 0% to 0.25% range in March to a 4.25% to 4.50% range to end the year. This was one of the fastest increases on record.



Data Source: U.S. Bureau of Labor Statistics & The Board of Governors of the Federal Reserve System, 01/05/2023.

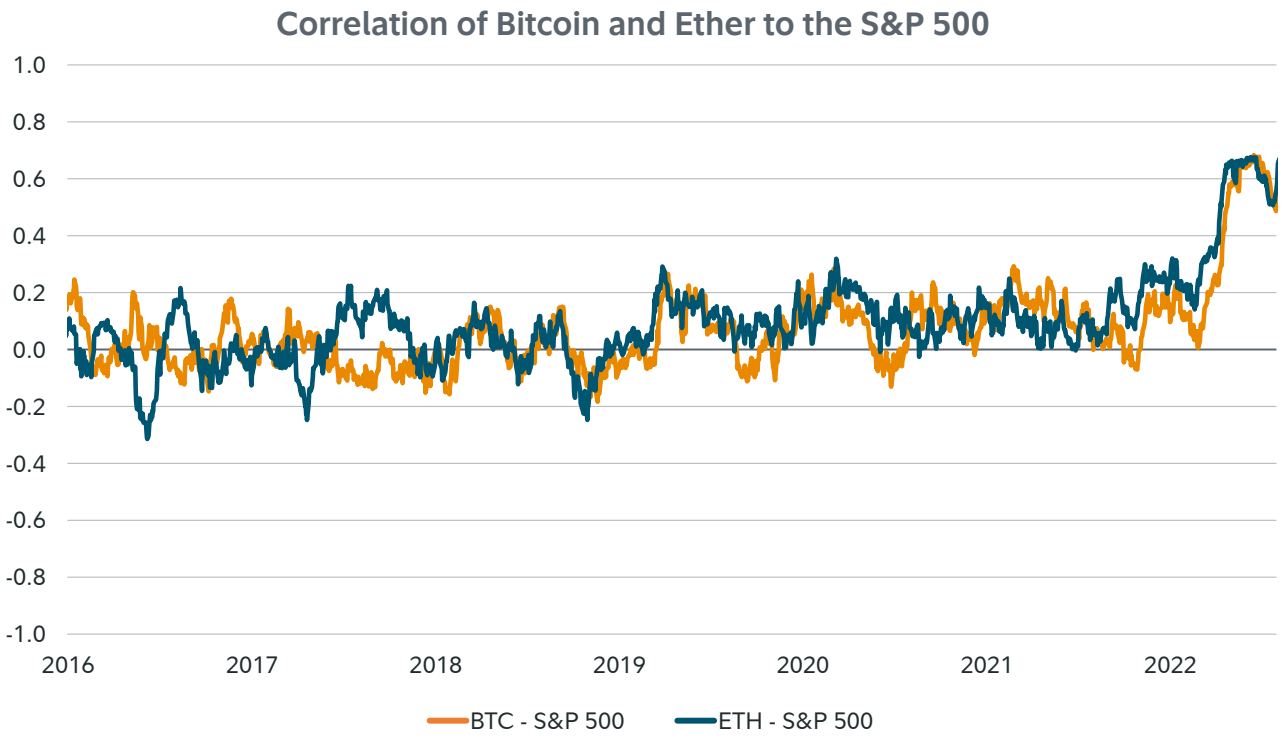
While interest rates rose dramatically in 2022, trailing inflation indicators appeared to show that it may have peaked late last year, either coincidentally or because of the shift in monetary policy. Regardless, the expectations for future inflation embedded in the bond market never moved as dramatically throughout the year as it fluctuated in a range from 2.0% to 2.5%. As a result, the real cost of capital, measured by Treasury inflation-protected (TIPS) interest rates, rose significantly from rising nominal yields and stagnant forward inflation expectations, which created a major headwind for risky assets, including bitcoin and other crypto assets.



Data Source: Coin Metrics & Board of Governors of the Federal Reserve System, 01/05/2023.

Entering 2023, the macro winds appear to be shifting for the time being. If peak inflation is indeed behind us for now, then long-term interest rates may move lower as we approach the end of the inflation-focused rate-hiking cycle. This could signal positive momentum on the macro front for assets such as bitcoin. Nominal rates had moved much higher in 2022 while forward inflation expectations stayed relatively stable, creating a headwind of rapidly increasing forward real interest rates. The opposite could happen in 2023. Nominal rates may fall if peak hawkishness is in the rearview mirror while inflation expectations, which never materially increased, will likely continue to remain relatively unresponsive to inflation beginning to normalize, netting a potential tailwind in the form of falling forward real interest rates.

As the economy potentially slows, corporate earnings will likely be a major driver for equity performance in 2023, and herein lies the likeliest headwind for digital assets on the macro front. Digital assets continue to be viewed by many as the riskiest bucket of assets that allocators may consider. As a result, the correlation between assets such as bitcoin and traditional equity indexes, such as the S&P 500 or tech-heavy Nasdaq, has been driven upwards in recent years.



Data Source: Coin Metrics, 01/03/2023.

While a possible decline in interest rates may represent a tailwind for the present value of future cash flows, any revision in earnings expectations to the downside would provide what could serve as an offsetting negative headwind for stocks in 2023. Given the correlation between crypto and equities in recent years, it would be unprecedented relative to recent history for crypto markets to materially decouple from equity markets for a sustained period. While certainly not impossible, the preponderance of data so far suggests that what matters to equities probably matters to all risk assets, which means that corporate earnings may be an important indirect data point for crypto market participants to watch in 2023.

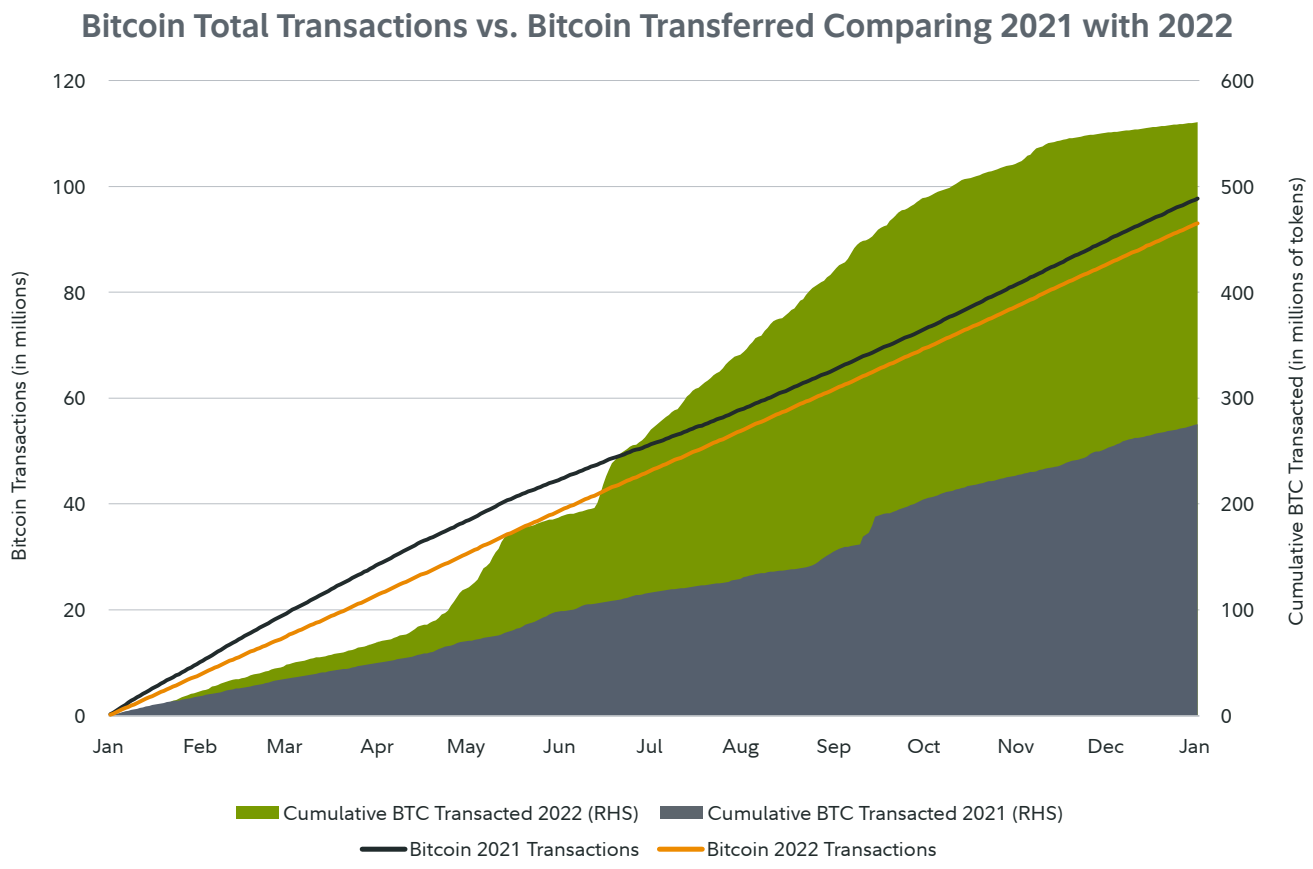
Bitcoin

By Chris Kuiper, CFA®, Director of Research, Fidelity Digital Assets®

Price action aside, bitcoin didn't have much of a story in 2022

Bitcoin's price ended the year down 65% in 2022, according to data from Coin Metrics. Some investors would view that price action for a traditional financial investment with an assumption that something had materially deteriorated or gone wrong at a fundamental level or that the Bitcoin network had suffered a bug or downtime. Comparing some of Bitcoin's major fundamentals from the beginning of the year with the end shows the following:

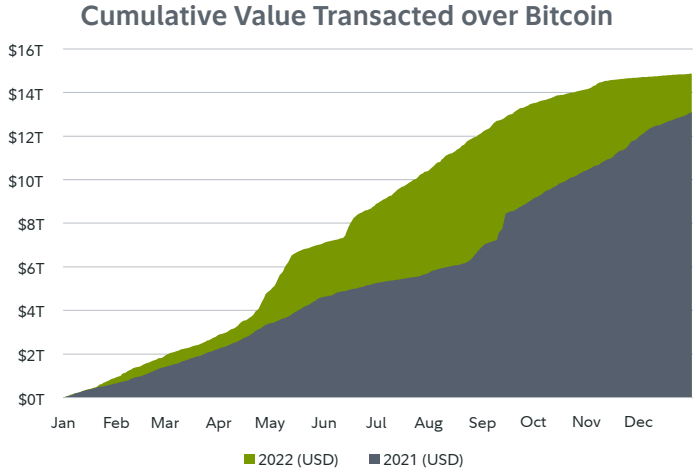
- The Bitcoin network facilitated 92.9 million transactions, transferring a total of 560.5 million bitcoin in 2022. The *number* of transaction messages in 2022 was down nearly 5% from the prior year, but the total amount of bitcoin transferred increased by 104%.



Data Source: Coin Metrics, 01/03/2023.

At first glance, it seems that this could be due to the price of bitcoin falling, thus requiring more bitcoin to be sent to cover the same cost denominated in U.S. dollars. However, when using USD-denominated transfers, there was some growth. In 2022, bitcoin transferred roughly $2 trillion more than it did in 2021, which is a 13.5% increase.

Of course, some of this transfer is merely change outputs inherent in Bitcoin's UTXO structure (where the network sends back the difference or "change" when a payment is made), but using Coin Metric's adjusted data, we estimate that roughly $4 trillion was transferred over the Bitcoin network in 2022. To put this in perspective, this was half of the $8.2 trillion in volume sent through Mastercard's network over the 12-month period from September 30, 2021, through September 30, 2022.[1]



Data Source: Coin Metrics, 01/03/2023.

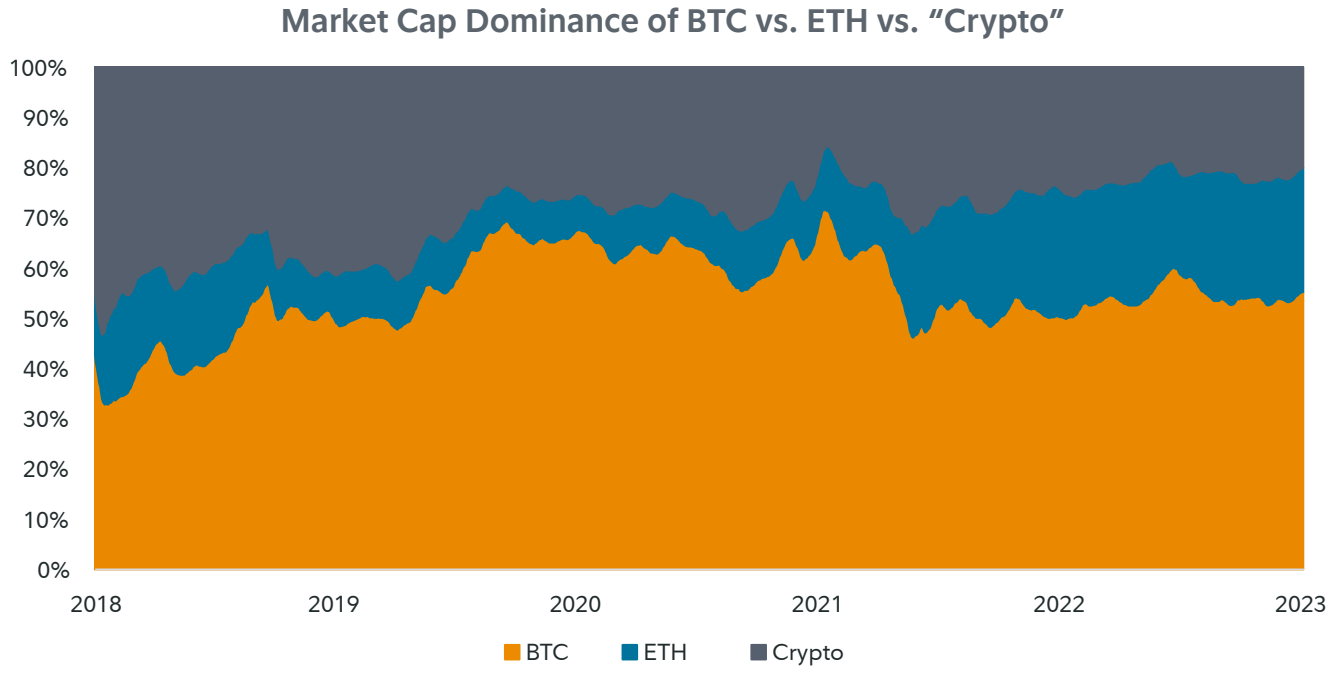
1 Mastercard Q3 2022 financial results: https://s25.q4cdn.com/479285134/files/doc_financials/2022/q3/3Q22-Supplemental-Operational-Performance-Data-Final.pdf

Other fundamental data points that showed resilience or growth despite the large price drawdown include the following:

- Coin Metrics data showed:
  - The number of Bitcoin active addresses stood at 333.5 million in 2022, which was a decline of almost 8% from the previous year but relatively resilient in our opinion given the price drop of approximately 65%.
  - Hash rate grew 52.5% in 2022 compared with the previous year.
- The number of bitcoin nodes remained steady at approximately 15,000.[2]

Bitcoiners had a challenging year but, on a relative basis, have remained committed to the market

While all digital assets suffered during the 2022 bear market, it is helpful to see on a market capitalization dominance basis which ones outperformed. In the chart below, we show the market cap dominance of bitcoin, ether, and then approximately everything else, which we denote as "crypto." As you can see, despite the major drawdown in both bitcoin and ether, the rest of the digital asset space did relatively worse. (Note that "crypto" includes all other digital asset tokens tracked by Coin Metrics and is fairly representative of market, in our opinion, with the exception that Solana and Avalanche are not included.)



Data Source: Coin Metrics, 01/05/2023.

2 https://bitnodes.io/dashboard/1y/

El Salvador – 2023 might be the make-or-break year for the country's bitcoin experiment

In our 2021 retrospective, we noted the high stakes game theory at play whereby if sovereign nations started to accept and purchase bitcoin, it might put them at a competitive advantage versus peers if the adoption of bitcoin worldwide continued. We also noted:

> *"Therefore, even if other countries do not believe in the investment thesis or adoption of bitcoin, they will be forced to acquire some as a form of insurance. In other words, a small cost can be paid today as a hedge compared to a potentially much larger cost years in the future. We therefore wouldn't be surprised to see other sovereign nation states acquire bitcoin in 2022 and perhaps even see a central bank make an acquisition."*

Following El Salvador's move made in September 2021, one other country made bitcoin legal tender in 2022, the Central African Republic,[3] but we have not seen any central bank make an acquisition—yet. We may see such a move in 2023 given the aforementioned game theory.

However, what is shaping up to be an interesting challenge to the status quo in 2023, is El Salvador's bid to issue its "bitcoin bonds" in aggregate of $1 billion, of which half is expected to be used to build its "Bitcoin City" and the other half to purchase bitcoin directly. Previously tabled, a newly passed bill moves that closer to happening and something we may see in 2023.[4]

With a $604 million bond due before the end of the month (due January 24, 2023 according to data from Bloomberg LLP) and approximately $1 trillion of principal due by 2025 (out of a total of nearly $7 trillion in debt), markets and credit rating agencies have speculated the country may default on its debt. If El Salvador can finance its bitcoin bonds from outside investors, it could be a bold move that would show a country does not necessarily have to go to the typical institutions, such as the International Monetary Fund, for financing needs, and may once again put game theory pressure on other countries to consider similar moves.

Will 2023 be a renaissance year for building on Bitcoin?

The current bear market may bring about a year of renewed interest and focus on building on Bitcoin following 2022 events. We have already seen a major leap forward in the development and usage of one of Bitcoin's scaling solutions, the Lightning Network. The number of bitcoin on the Lightning Network has gone up 60% in the past year with over 5,000 BTC in Lightning channels (which were up 1% in 2022). This will not only continue to accelerate the use of bitcoin as an electronic cash for easy in-person and fast payments, but we also expect to see more business and other use cases that arise when fast and cheap

3 https://www.cnbc.com/2022/04/28/central-african-republic-adopts-bitcoin-as-legal-tender.html

4 https://www.bloomberg.com/news/articles/2023-01-11/el-salvador-passes-law-that-would-enable-bitcoin-bond-issuance

micropayments are viable, such as micropayments for content (rather than monthly subscriptions behind paywalls), streaming BTC for podcasts, or even gaming.

We're also closely watching the development and usage of Taproot, a Bitcoin Improvement Proposal that we previously covered when it went live in 2021. Since then, progress and adoption have been slow, but we could see developers and users turn their attention to it for its enhanced privacy benefits as well as its potential for smart contracts and unlocking DeFi capabilities.

In 2022, Taro, a Taproot-powered protocol for issuing assets that can be transferred over the Bitcoin network (and expected to over Lightning), was announced. This could enable stablecoins and other assets to be issued on the Bitcoin network itself. For example, Bitcoin wallets could hold USD-denominated balances alongside bitcoin balances. This could also unlock many DeFi applications and is something we will continue to watch this year.

Finally, we fully expect 2023 to bring other ideas that have been percolating that we have yet to hear about or entirely new ones that are not yet invented! Overall, we think bear markets tend to bring out builders, and we expect 2023 will be a year of more being developed on Bitcoin itself or extending it in new ways.

Ethereum

By Max Wadington, Research Analyst, Fidelity Digital Assets

What's next for Ethereum in the relatively quiet wake of The Merge?

The Merge, which occurred in September, has been viewed by many as one of the greatest feats in digital asset history. This event completely shifted the economics and sustainability paradigm of Ethereum as it is now consuming significantly less energy than before The Merge and relies on the value of staked ether to ensure security. We've seen validators continue to come online at a steady pace, even before staking withdrawals have been enabled, and there is currently around $20 billion of value securing the chain.[5]

The narrative around ether being "ultra-sound money" has also arisen, pointing to the significant decrease in daily issuance coupled with the occurrence of burn. Is it possible that ether has a deflationary run in 2023? In practice, burn is wildly volatile, but to get a sense of what ether's monetary trajectory may be, we've annualized burn data since EIP-1559 (August 5, 2021) and issuance since The Merge. Using all the data available to us currently, our projection shows ether as roughly 1% deflationary.[6] A lot can change over the course of a year, especially if the bear market continues to put a cap on demand for block space; however, the small sample of data available suggests a potential to end the year with less ether than it began with.

5 Coin Metrics, 01/12/2023

6 Glassnode, 01/04/2023

The path to The Merge involved years of challenges and setbacks, but its ultimately successful implementation has given the Ethereum community reason to be optimistic about the execution of future initiatives on its road map.

What's the over/under on the Shanghai upgrade?

"Shanghai" is the project name given to the upgrade that will allow staked ether withdrawals. While it has always been assumed that this upgrade would take place shortly after The Merge, there hasn't been an exact date specified. As of writing, Ethereum developers have agreed that March 2023 is the target date.

Until this point, the cause for ambiguity was lack of clarity on what other improvements would be included alongside withdrawals. However, as of January 5, 2023, core developers confirmed that all other improvements will be on the backburner until withdrawals have been enabled. The prioritization of withdrawals shows the community's commitment to addressing users' needs in a time-sensitive manner. If testing doesn't find any major bugs, we would expect the markets to react positively and validators will continue to come online.

Will Validators be running for the exit?

It seems likely that enabling withdrawals will actually increase the amount of ether being staked. While this may seem somewhat counterintuitive, the reasoning is quite simple. First, Ethereum's current supply of staked ether is sitting around 15.8 million out of approximately 120.5 million total ETH, or roughly 13% as of the end of 2022, according to Coin Metrics. This is low compared with many other proof-of-stake protocols. For example, Solana and Cardano are both sitting at around 72%[7] in staked tokens as a percentage of total supply. While Ethereum may never reach those levels, continued convergence in the staked supply ratio is expected. Second, the enablement of withdrawals significantly reduces risks for solo stakers, specifically regarding liquidity. Individuals that participate in pooled staking services can typically exit their passive staking position at a small discount, since there is a large secondary market for liquid staking derivatives. Solo stakers, however, have no liquidity for their staked ether until the Shanghai upgrade is complete. This liquidity conundrum has ostensibly driven stakers to pooled services in the short term but will likely bring more solo stakers into the mix once withdrawals are enabled. Combine this with helpful plug-and-play options for staking nodes, as well as programs like MEV-Boost leveling out the staking rewards, and we have a healthy recipe for increased validator participation through 2023.

Will 2023 see proto-danksharding?

Proto-danksharding is the name of a future upgrade to Ethereum. The name comes from two community members who helped come up with the idea: Protolambda and Dankrad Feist. The upgrade is focused

7 https://www.stakingrewards.com/earn/solana/ and https://www.stakingrewards.com/earn/cardano/

on scaling Ethereum, which is done by "sharding" data. Sharding data, put simply, is a technique used to simplify the act of validating blocks. Easier block verification means that we can have more data and transactions in each block without sacrificing decentralization. However, proto-danksharding is going to be a steppingstone to get to full sharding. This stopgap upgrade does not shard data but will introduce most of the logic required for data sharding and will still reduce fees required for layer 2s (L2) to operate. In late 2022, developers repeatedly expressed that they will look to implement proto-danksharding as a fast-follow upgrade to Shanghai. The intention is to push this as soon as possible without delaying withdrawals. Proto-danksharding will be the first endeavor to turn Ethereum into a robust scaling platform, which is why core developers have been keen to push this improvement. With so many changes expected to the network, this likely won't take place until the second half of 2023 at the earliest.

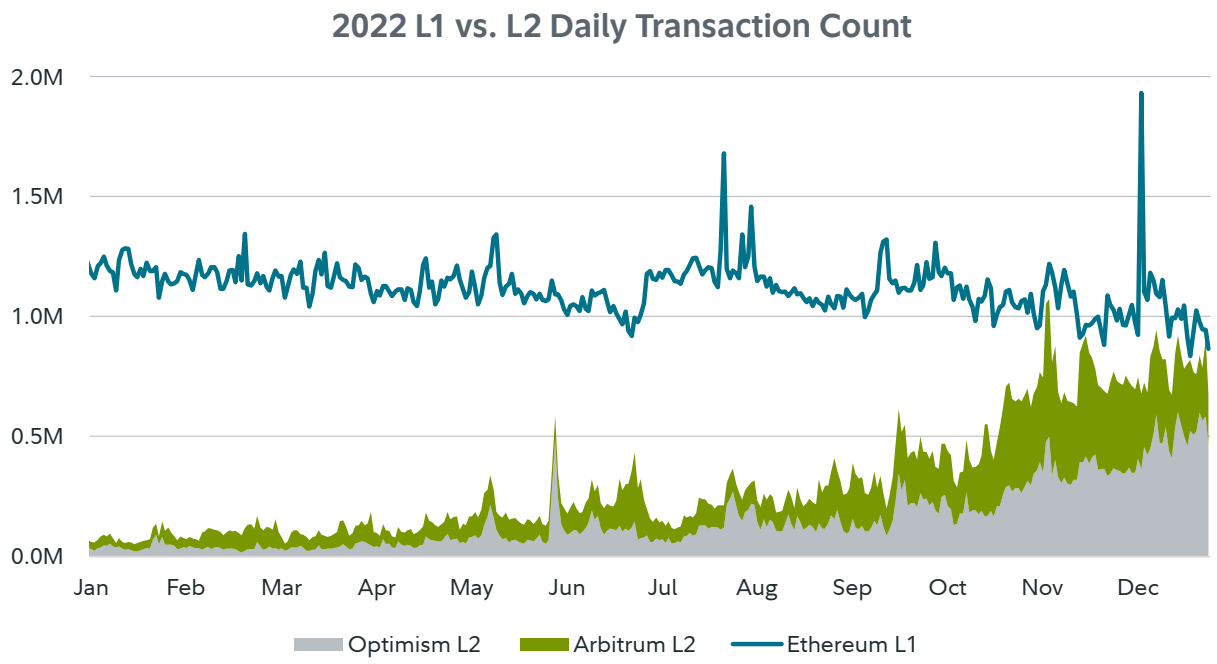
This timing, even if it ends up being 2024, aligns well with where many scaling solutions are in their development timeline. Many of the layer 2 platforms are just looking to "take off their training wheels" in 2023. The majority of Ethereum's scaling platforms operate with larger trust assumption models than will be expected of them in the future. For example, Optimism and Arbitrum, which are two of the most popular by value on-chain,[8] are still working on full implementation of fraud proofs. These fraud proofs are what enable layer 2 channels to leverage Ethereum's security. Until this is completed in a thorough and thoughtful manner, the risk to users is greater than transacting on the base layer.

What does Ethereum adoption hold this year? Where do layer 2s go from here?

2023 will be a year for layer 2s to prove themselves. The abundance of bridge hacks in 2022 put a stain on the idea of porting value across chains. This should give developing platforms a clear motivation to build trust and solve the problem of security for users. Until that is accomplished, it is likely that proto-danksharding will provide more than enough scaling for the platforms to handle.

Optimistic rollups clearly won the L2 battle in 2022 and will likely continue to pick up steam throughout 2023 as applications continue to migrate to a sustainably fee-friendly environment. Optimism and Arbitrum have seen significant increases in transaction volume even after the catastrophic bridge hacks and bear market of 2022. These two platforms alone have been rivaling Ethereum's layer 1 transaction throughput over the past few months, which is noteworthy considering that Ethereum fees aren't abnormally high. Their success does mean less value accrual to the main Ethereum layer as many transactions that would have individually paid fees to the base layer are now bundled together and share a singular fee. Yet, this is but a small price to pay for the level of adoption scaling solutions are aiming to achieve. With the ultimate goal of rivaling large, centralized organizations in transaction speed, it's easy to forget that we are still in the early stages.

8 https://l2beat.com/scaling/activity



Data Source: EtherScan and ArbiScan, 12/31/2022.

We'll be watching closely to see if users and applications continue to migrate to the layer 2 ecosystem or if they prefer alternatives. In 2022, we saw the emergence of layer 2 native applications (GMX) as well as Ethereum native applications integrating with layer 2s (Uniswap, Curve, Aave). A strong case can be made for the future of layer 2 scaling platforms becoming a productive environment for applications but that hasn't stopped the development of application-specific chains. dYdX is a perpetuals exchange that recently announced they'll be moving to their own chain that is able to function and progress exactly how the developers decide. The success of this endeavor may be a proxy for the future of appchains vs. layer 2—the deciding factor lies with the trade-offs that users are willing to accept.

Ethereum fans may hope 2023 doesn't bring a bull market

After pulling off The Merge, most are convinced that Ethereum can accomplish what it sets out to do next on its road map. The ever-important timing of improvements is the real question. The concern that scaling solutions don't become mainstream before the next bull run could determine how the competition in the blockchain ecosystem plays out. Remember that The Merge didn't improve scaling at all, so during a bull run, fees will undoubtedly skyrocket and some users will be incentivized to migrate elsewhere. The flipside to this is that as demand for block space is overwhelmed, it will increase validator rewards as well as the value accrual to ether token holders in the form of burn. This exchange of market share for value accrual isn't too appealing considering scaling solutions are within reach, so it's reasonable to expect that developers will be prioritizing EIP-4844 (proto-danksharding) as soon as possible.

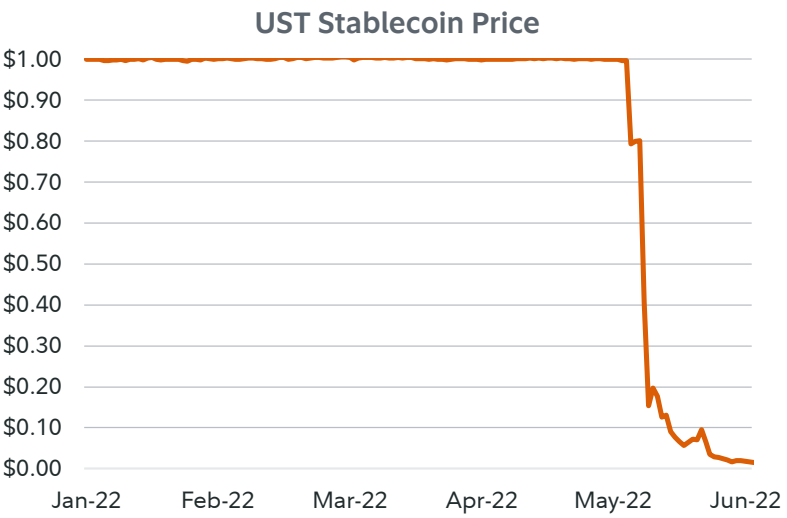
DeFi & Stablecoins

By Jack Neureuter, Research Analyst, Fidelity Digital Assets

2022 was also a notable year for the continued experimentation and evolution of decentralized finance (DeFi). Stablecoins reached a record level of value settled in a single year and provided continued evidence that digital payments are one of the most clear present-day use cases for public blockchains. Additionally, many of the long-standing DeFi protocols across the Ethereum ecosystem shined, while the centralized, trusted models failed. However, there were a few instances of large-scale DeFi failures—namely the complete unwinding of the Terra/Luna ecosystem and its algorithmic stablecoin known as UST. Going forward, it's very possible that the industry places an emphasis on "back to the basics" for DeFi projects in which more established DeFi projects see continued growth on a relative basis in 2023.

Are algorithmic stablecoins the equivalent of alchemy in digital assets?

To many, the most notable failed idea of 2022 across crypto native platforms was the concept of the algorithmic stablecoin. The Terra ecosystem was designed with the intention of creating a decentralized digital dollar, which could be created (destroyed) via burning (minting) the platform's native token, known as Luna. By the second quarter, the Luna ecosystem was worth a combined $60 billion and was acquiring exogenous capital (bitcoin) to provide additional stability to its blossoming algorithmic stablecoin.



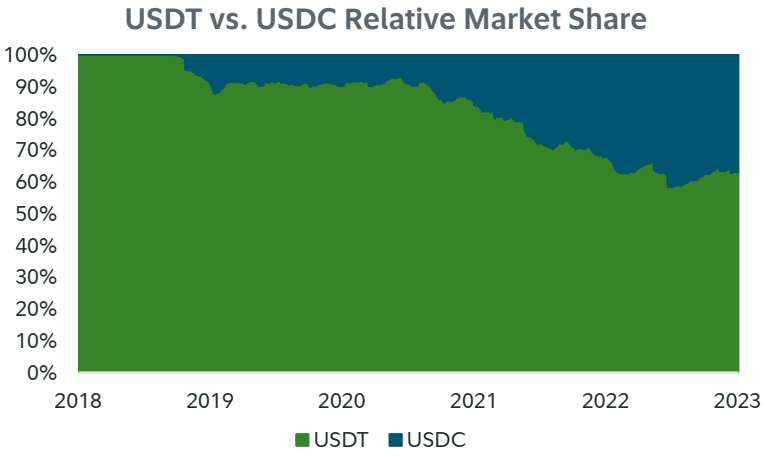
Data Source: Yahoo Finance, 01/04/2023.

Ultimately, the entire experiment collapsed over the course of just a few days as holders of the then $20 billion worth of UST stablecoins rushed to redeem their assets. The redemption gates for Luna were overwhelmed, the stablecoin meaningfully lost its peg, and a complete collapse ensued. These events drove a wave of contagion across other crypto ecosystems as well as many lenders and crypto-native hedge funds. Algorithmic stablecoins quickly became a relatively forbidden term for crypto market participants, but will the idea ever resurface? More conservative versions of algo stables continue to operate, such as Frax. It operates under a partial collateralization model whereby the vast majority of the stablecoin is collateralized by USDC, a centralized, fiat-backed stablecoin, and a small portion is redeemable for the ecosystem's native token. Thus far, this partial algorithmic model has operated successfully.

This idea for a purely decentralized stablecoin may be tabled for now, at least at any meaningful scale. Dai, an overcollateralized, decentralized stablecoin, may fulfill most of the market need for a more decentralized and less censorable form of digital dollars relative to fiat-backed stables, despite many obvious points of centralization for the current Maker model.

Stablecoin consolidation in the year ahead?

Today, there are a few dominant players in the centralized, fiat-backed stablecoin space. Tether (USDT), Circle (USDC), and Binance (BUSD) combine to make up approximately 95% of the total stablecoin market cap with more than $125 billion U.S. dollar tokens in circulation, as of January 12, 2023, according to Coin Metrics. Given the increased emphasis on transparency following the events at the end of 2022, growth is likely to center on stablecoins that are willing to work with regulators and traditional audit firms. With this in mind, Circle's USDC could continue to grow its overall relative market share and could eclipse Tether's position as the largest stablecoin in crypto in 2023.



Data Source: Coin Metrics, 01/04/2023.

The level of stablecoin oversight from regulators is expected to increase, and the conservatism regarding the credit risk and duration of the assets underlying these digital dollars will likely increase as well. These expectations reinforce the previously mentioned hypothesis that the market leaders moving forward in the centralized stablecoin space will be more, not less, regulated and transparent entities. Though unlikely to occur on a large scale in 2023 due to the lack of regulatory clarity regarding on-chain securities, we view the eventual next phase for stablecoin assets as one in which holders can receive direct yield generated by the underlying assets.

Digital dollars are and, and in our view, likely will continue to be, one of the most widespread use cases for crypto payment rails. If the total value of stablecoins settled reached an all-time high in the same year that crypto asset prices plummeted, what might that imply about the future of stablecoin value transfer if asset values recover?

DeFi > CeFi in 2023?

Centralized exchanges, custodians, and lenders have been instrumental in helping onboard millions of people into the digital asset ecosystem. However, 2022 showed how centralized finance CeFi can sometimes simply lead to worse versions of preexisting traditional financial (TradFi) service offerings. There is a chance that 2023 is a year in which trade volumes, borrowing and lending, and many other functions shift from predominantly off-chain, CeFi-based activities toward on-chain, transparent DeFi-based

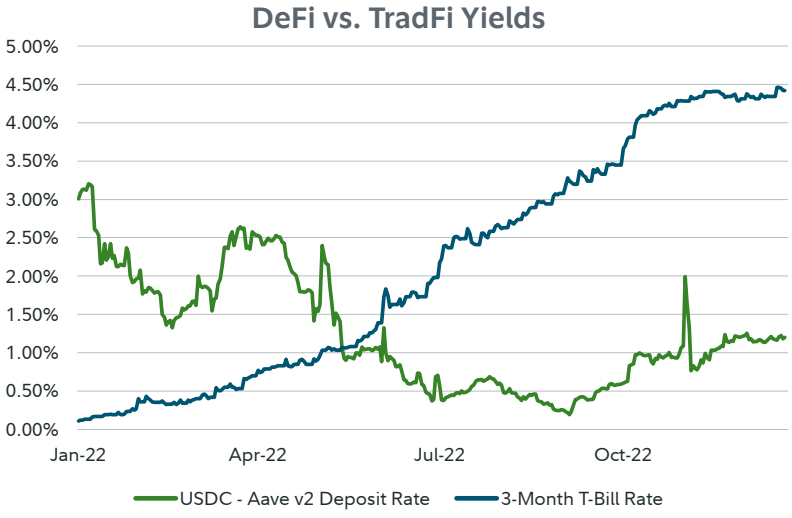
applications. The usability and functionality of many of the largest DeFi platforms are, in many cases, now on par with experiences that users have on centralized exchanges.

DeFi Trading – So easy a baby can do it?

The cost and complexity of trading across DeFi platforms is quickly becoming competitive with traditional exchanges. Trade aggregators offer users the ability to find the best possible pricing across many decentralized exchanges. Enhancements to self-custodial wallet infrastructure makes it easier than ever for users to interact with decentralized applications via hardware, mobile, or browser extension wallets. Additionally, the ability to trade across native assets without a centralized intermediary continues to evolve such that users can now trade from one native ecosystem to another, a previously impossible task. For traders, some of the most profitable DeFi projects currently operating are on-chain derivative exchanges.

Arguably the single biggest missing piece across DeFi trading, and one that we think may be solved over the course of the next year, is with regard to orderbook types. The majority of DeFi protocols operate using automated market maker (AMM) models as a result of the success seen by Uniswap. This involves pools of assets whereby constant liquidity is available for a user to trade from one asset to another. AMMs' largest cited downfall is that they primarily enable market orders for users, whereas we have yet to see a central limit order book (CLOB) on par with what traditional exchanges offer operating at scale in DeFi. This missing piece has been acknowledged, and a number of small projects have launched to compete in this area. Ultimately, it's likely that we see an evolution of decentralized exchanges as AMMs and a new era of CLOBs face off head-to-head in a battle for trade volumes that are increasingly shifting to a diverse set of decentralized exchanges on-chain.

TradFi and DeFi Yields Converge?



Data Source: Aavescan and the The Board of Governors of the Federal Reserve System, 01/05/2023.

One of the most common pitches for DeFi in years past was the elevated level of yields that could be earned by users for lending or staking their assets in the crypto ecosystem. In 2022, we saw the exact opposite effect as the Federal Reserve raised rates that caused yields in the traditional financial system to rise, while utilization and borrowing demand in DeFi diminished causing crypto yields to plummet.

So, what happened to the yields in DeFi and are they gone forever? Well, yields seen in crypto and traditional finance have, over their brief history, shown a somewhat inverse correlation to one another. This makes some sense as risk sentiment has driven cycles of crypto usage and risk appetite has tended to be correlated between crypto and traditional markets. Lower rates in the TradFi system meant that there was an overall lower cost of capital that investors may be willing to trade and speculate, and that margin and trade volume demands would likely become elevated, which raises the return to liquidity providers or lenders in crypto markets. Today, we're seeing the opposite effects take place, hence the unattractive yields.

The regulatory environment has made the overlap between traditional securities migrating on-chain a difficult one, but we think that might shift in 2023 based on some of the activity we've seen over the past year. For instance, Maker has begun to invest in real-world assets (RWAs), such as their $100 million loan to Huntingdon Valley Bank, their $500 million investment in government and corporate bonds, and their agreement to multiple proposals from Coinbase (USDC) and Gemini (GUSD) in which a meaningful portion of the increased yields received by stablecoin issuers are being passed on to the Maker treasury, and even Dai holders themselves via an increase to the Dai savings rate. We may see more of these types of engagements of TradFi assets and institutions interacting with DeFi and DAOs, to the degree that regulators allow it to continue, and thus for the first time a potential convergence between TradFi and DeFi yields.

After a year of major cross-chain hacks and exploits, will bridges die off in 2023?

Unfortunately, the past year saw some major hacks and exploits in the digital asset space, such as Axie Infinity's Ronin bridge ($625 million stolen), which easily surpassed another large bridge hack that happened only a few weeks prior, Wormhole (where $326 million of wrapped ETH was taken). What these and other major attacks had in common was the use of cross-chain bridges and/or wrapped tokens. Because blockchains are not compatible with each other, bridges are used to move native tokens from one blockchain to another, usually by "wrapping them," which is accomplished with smart contracts. However, these bridges have been found to have bugs in their software or smart contracts, making them targets for exploits. In fact, as of Q3 2022, attacks on bridges accounted for 69% of total funds stolen last year, according to Chainalysis.[9]

Will users finally despair to the point of avoiding bridges and wrapped tokens if at all possible? In our opinion, this is not likely because the value of being able to move tokens between chains is great and will continue to be needed in our current multi-chain world. These attacks will certainly incentivize people to be more careful and for developers to try to prevent them and harden their code.

The events of 2022 likely made many market participants realize that wrapped assets are not the same as native assets. After all, a wrapped asset is simply a trusted IOU from the key signers of the vault holding the actual native assets. Wrapped assets depegged from their native assets on many occasions in 2022, and in some cases it remains relatively unknown if the underlying native assets are even accessible anymore.

9 https://blog.chainalysis.com/reports/cross-chain-bridge-hacks-2022/

We see another possibility on the horizon, with alternatives like THORChain, which allows for native asset swaps, or a solution to cross-chain bridges without wrapped tokens allowing for users to move from chain A to chain B with minimal trust and true value settlement to the native token. While wrapped assets will continue to exist, native cross chain swaps are likely to be a growing narrative, which in our view is positive for asset holders in 2023.

Conclusion

Without diminishing how hard a year 2022 was for the digital asset space and for many investors, we believe we will look back at the events of this time and realize how formative they were in making the industry stronger and wiser. Moreover, we can't help but notice in this reflection how much has been built during the past year despite the setbacks and how much more is on the horizon: from the steadfast growth and exciting possibilities for bitcoin, a very aggressive developer road map for Ethereum, and a whole range of advancements in DeFi and stablecoins. These are not the signs of an industry dying, but one that is clearly here to stay.

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