



Crypto, are you dead yet?

Financials



While some have started questioning digital assets following last year's 'crypto winter', we note that major crypto downturns like that of 2022 occur regularly, being the manifestation of this relatively young industry's inherent higher volatility. Importantly, except for the quite experimental Terra/LUNA project, major project failures in 2022 were primarily associated with centralised entities rather than decentralised finance (DeFi) projects, which we consider one of the core value propositions of permissionless blockchains. Moreover, despite the 'crypto winter', we saw continued technological progress in the sector, such as Ethereum's 'Merge' and the first projects connecting the on-chain environment to real-world assets. We believe that digital assets have grown 'too big to ignore', even if the current adoption rate varies by investor group. Still, near-term adoption may be dampened by low market liquidity and gaps in infrastructure left by the collapse of some service providers (eg Silvergate Bank).

Timing of bear market onset and scale of de-rating broadly in line with historical pattern

After the exuberance of 2021, the digital asset markets faced a significant decline in asset prices in 2022, with bitcoin (BTC) and Ether (ETH) down from peaks in November 2021 to the (at least local) trough in November 2022 by 77% in US dollar terms each. The extent of the fall should not come as a surprise, given that past bear markets in 2011, 2014 and 2018 were characterised by even greater de-ratings of c 85–90%. Rising interest rates globally and in turn deteriorating risk appetite, coupled with high-profile collapses (see below) were key factors affecting the digital asset markets. However, it is also worth noting that the timing of the onset of the latest bear market is broadly in line with the historical pattern, as major bull runs in digital asset markets have occurred after every Bitcoin halving (in 2012, 2016 and 2020,

see our previous [Edison Explains](#) piece for details) and have lasted around one to two years (one year and nine months in the latest case).

CeFi experienced major failures...

What was more difficult to predict was the scale of failures and fraud at several large centralised finance (CeFi) entities operating in the digital asset space, with the most notable examples being Three Arrows Capital (a hedge fund), Celsius (a lending platform), Voyager Digital (a broker), FTX (an exchange) and Alameda Research (a trading firm). At this stage, it is difficult to assess the scope for further financial stress among centralised crypto players, with the situation remaining dynamic as illustrated by Genesis Global Capital filing for Chapter 11 bankruptcy on 19th January 2023. The company's demise could lead to financial stress for its owner, the Digital Currency Group, which also owns the asset manager of the Grayscale trusts. These entities repeated well-known mistakes and fraudulent behaviour also observed in traditional financial markets: excessively leveraged speculative positions, poor risk management policies

(including deficiencies in managing counterparty and liquidity risk), unlawful comingling of client assets with own balance sheet, etc. These issues led to massive client withdrawals from platforms offering lending, borrowing and trading services. On a positive note, the downturn helps weed out exuberant speculation and irresponsible business practices and could lead to greater emphasis on transparency within the sector (eg the regular publication of so-called proofs of reserves by major centralised exchanges, detailed independent audits, credit scoring tools, use of insurance and credit default swaps).

...but DeFi remains mostly resilient

Major DeFi platforms (eg Aave, Compound, UniSwap) operated uninterrupted (with the quite experimental Terra/LUNA project being a notable exception), even if lending yields offered by

Edison Insight

It is important to look beyond the short-term 'boom-and-bust' cycle and focus on the long-term value proposition of permissionless blockchains, in particular asset tokenisation, the creation of unique tradable digital representations of existing real-world assets (and the associated future cash flows) on a blockchain network, as well as the use of non-fungible tokens to represent digitally native assets (eg, digital art or in-game items).

lending protocols declined to ultra-low levels of 1–2% pa and trading volumes on decentralised exchanges fell amid shrinking demand for leverage for crypto speculation. Overall, total value locked in DeFi declined from all-time high of US\$180bn in November 2021 to c US\$47bn today based on data from [defillama.com](#). It is DeFi (automated protocols hosted on a blockchain offering financial products such as borrowing, lending, saving, trading and payments) not the centralised entities, that we consider one of the core value propositions of permissionless blockchains (ie public blockchains such as Ethereum accessible to anyone without restrictions and relying on a decentralised set of validators). We believe that the long-term game for blockchains and DeFi in particular is asset tokenization, an opportunity discussed for instance in a [recent report](#) published by the Boston Consulting Group and ADDX (even if it remains to be seen what part of the opportunity will be captured by public versus private blockchains). In order to expand its use cases beyond speculation, DeFi needs to connect the on-chain world to real-world assets (RWA). This process has already started, as illustrated for instance by the introduction of RWA (such as trade receivables, real estate, commercial loans and invoices) by MakerDAO, one of the most prominent collateralised debt platforms on Ethereum, in cooperation with Centrifuge.

Major blockchains continue to make technological advancements

Meanwhile, the development of the underlying technologies remains robust and has translated into several important milestones, most notably Ethereum's successful 'Merge'. This was a long-awaited, major upgrade that involved the move from an energy-intensive proof-of-work consensus algorithm (based on the activity of 'miners' who compete with their computing power for block rewards, a process similar to Bitcoin's consensus algorithm) to a proof-of-stake (PoS) consensus mechanism, where rewards are proportional to the amount of ETH staked (ie locked up as a kind of collateral) on the network by the validators. Below we summarise the key impacts of the 'Merge':

- The transition to PoS **has vastly reduced the energy consumption of the Ethereum network (by c 99.99%)**, which may be appealing to investors cautious of the use of energy and carbon footprint of blockchain networks.
- The Merge is expected to **significantly reduce the inflation rate of ETH** and potentially allow it to become a deflationary asset if the number of tokens being burned as transaction fees (a process introduced through the implementation of EIP-1559 last year) exceeds new token issuance.

In fact, ETH has been slightly deflationary in recent months (see for instance [etherscan.io](#) for details).

- The upgrade also **allows ETH holders to generate a steady income from staking rewards**. The level of staking yields depends on several factors, such as proportion of all ETH being staked on the network. Based on a discussion with the management of CoinShares International, we understand that recent staking yields on Ethereum stood at c 5.5% for validators.

The Merge also **opened the path for further upgrades**, with the next being the Shanghai update (expected in April 2023), which will allow the un-staking of ETH (ie releasing it from the network's 'collateral pool'). Further upgrades on the roadmap are aimed at increasing the scalability of the Ethereum network by the introduction of sharding, a process of horizontal partitioning (breakup) of the blockchain to spread out its computational and storage workload, so that every transaction does not have to be validated by the entire network.

Examples of blockchain adoption

We believe that the value proposition of permissionless blockchains is illustrated by several recent initiatives of well-known companies and institutions. We have listed just a few of these developments below:

- **Non-fungible tokens (NFTs):** Twitter launching NFT integrations, Nike launching a platform offering NFT products (hosted on Polygon, a layer-2 blockchain sitting on top of Ethereum), Warner Music Group offering NFT releases through its LGND Music marketplace, NFT-based Starbucks Odyssey loyalty program.
- **Financial asset tokenisation:** Siemens issuing its first €60m digital bond on the Polygon blockchain, KKR offering tokenised exposure to one of its funds on the Avalanche blockchain, the Monetary Authority of Singapore [carrying out](#) the first industry pilot that explores DeFi applications in wholesale funding markets.
- **Payments:** Chipotle partnering with Flexa, a digital payment service, to accept cryptocurrency payment in US stores, Mastercard acquiring cryptocurrency intelligence company CipherTrace, Block (a payments company with several digital asset initiatives) partnering with Apple to enable 'tap to pay' on iPhones, Stripe partnering with Polygon to allow customers to make payments in the USDC stablecoin.

Digital assets 'too big to ignore'

We believe that digital assets have emerged as a distinct asset class with growing acceptance among

retail and institutional investors, and that they have grown 'too big to ignore'. However, adoption rate and sentiment towards cryptocurrencies varies greatly by investor groups. While the investment level and positive perception of the asset class among high-net-worth individuals, family offices, financial advisors and private bankers, as well as some macro hedge funds, improved in recent years, large institutional investors such as endowments and foundations, pension funds, etc, mostly shy away from digital assets. This is well documented by a [survey](#) conducted in H122 by Fidelity Digital Assets. Interestingly, more than 81% of the institutional investors surveyed view digital assets as having a role in investment portfolios. Similarly, among European respondents of a [Bloomberg Intelligence survey](#) from 2022 who manage more than £25trn assets, nearly 60% see it as a new asset class that may eventually find its way into portfolios (even if only 4% of respondents confirmed exposure to crypto, with another 8% who did not want to confirm or deny it).

Recent activities of selected large traditional players show that the mainstream financial industry is warming up to digital assets as an investible asset class. For instance, Blackrock: (1) started offering crypto to its institutional clients in the United States through a spot bitcoin private trust launched in August 2022; (2) signed a deal with Coinbase to provide direct access to crypto for its Aladdin network (BlackRock's investment technology platform), which is one of the most widely used pieces of technology in the financial services industry, linking investors to markets and measuring risk; and (3) launched a blockchain company exchange-traded fund (ETF) in September 2022. Another good example is Fidelity, which (1) allowed 401K accounts to hold BTC and added an Ethereum index fund and (2) opened commission-free bitcoin and Ether trading for retail investors. Finally, several traditional players secured crypto custody solutions last year (eg State Street, BNP Paribas, Barclays and Nasdaq).