ZEROCAP

Zerocap Q4 2022 Report

P – AUSTRALIA 1800 ZEROCAP (937 622)
P – INTERNATIONAL +61 3 9491 8256

CONTENTS

About

Zerocap is a market-leading digital asset firm, providing **liquidity, digital asset custody, asset management and technology** to forward-thinking investors and institutions globally.

Zerocap offers a full-service model for all your digital asset needs, served by a team of seasoned professionals with a deep understanding of digital asset technology and traditional finance.

Zerocap sets a new standard for governance and compliance in the digital asset industry, as evidenced by licensing, auditing, institutional backing and a bespoke insurance policy from Lloyd's of London.

Proudly founded in Melbourne, Australia.

Zerocap Pty Ltd carries out regulated and unregulated activities.

Spot crypto-asset services and products offered by Zerocap are not regulated by ASIC. Zerocap Pty Ltd is registered with AUSTRAC as a DCE (digital currency exchange) service provider (DCE100635539-001).

Regulated services and products include structured products (derivatives) and funds (managed investment schemes), which are available to wholesale clients only as per the Corporations Act. Zerocap Pty Ltd is a corporate authorised representative (number 001289130) of Gannet Capital Pty Ltd (ACN 139 264 690, AFSL 340799).

CIO Note

The fourth quarter of 2022 marked a significant downturn in the digital asset market as many participants became forced sellers in the face of a total breakdown in trust.

The collapse of FTX caused an aggressive sell-off in the market, leaving holders fearful. The very public nature of this event also triggered a flurry of regulatory activity, at times labelling the collapse as a failure of the technology or asset class, as opposed to the failure of a financial institution. I found myself warring with LinkedIn folks hell-bent on calling crypto a 'scam', jumping on media interviews trying to make sense of the madness, and looking at our own business wondering how the breakdown of trust with our peers has happened so quickly. Collaboration turned to scepticism over the past 6-months, and darkness fell on our industry.

Despite everything that has hit the fan, this downturn has marked a key inflection point. Market participants are moving towards solutions that aim to protect users and are trustless in nature, a net positive for the ecosystem. Furthermore, institutional adoption of key blockchain infrastructure has been growing at one helluva pace. We've seen JP Morgan and the Project Guardian work in Singapore continue; Asset Tokenisation in the JPY (JPM) and Carbon Credits continue to gain steam, with major companies such as Instagram, Reddit, and Nike committing to further development on networks such as Polygon.

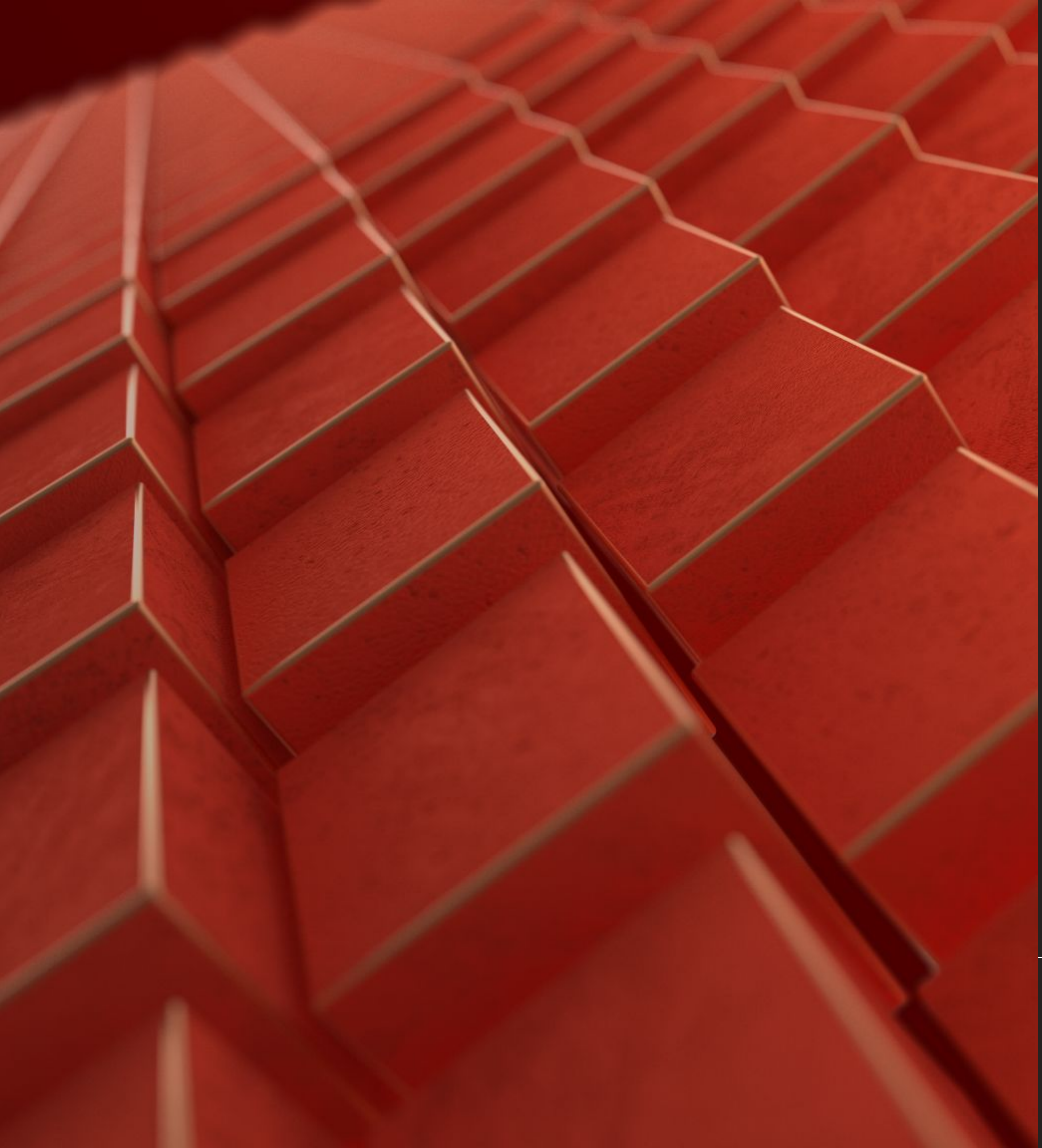
On the macro front, Q4 presented relief for many despite a spike in volatility as a result of reduced liquidity and low trading volume. Most currencies rallied against weakness in the USD as the impact of broader central bank rate hikes strengthened. Tightening policies also impacted bond markets with the US 10Y-2Y spread reaching its most negative since 1981, a key indicator of recessionary predictions.

A potential inflationary top as well as a slowing of rate hikes in the US has led many to speculate about a pivot to risk-on in 2023, although economic indicators point to markets that are not out of the woods just yet. While sentiment is shifting, any mean reversion should be observed with caution.

In cryptoland, with the marginal seller washed out (insolvent exchanges, financial service providers and miners), positive price action could be around the corner especially given the volatility compression going into year-end. While this is the case, participants should be careful to not mistake mean reversion for a guaranteed bottom and "up only" price action.

While uncertainty still remains, 2023 has the potential to be a positive year for global markets and particularly for the foundational structure of the digital asset space.

All the best for Q1, 2023.



SECTION 2.

Markets

ZEROCAP

Macro

Q4 - The inflationary hotpot approaches boiling point.

The final quarter of 2022 proved to be a tumultuous period for the global economy, as trends were largely influenced by crucial macroeconomic data. Relative strength in labour markets, and easing inflationary pressures have seen markets divided on the path of federal reserve (FED) rate hikes. The FED initiated another 75 bps hike in November, and a lesser 50 bps in December - with the fed funds rate sitting between 4.25% to 4.50% at year-end.

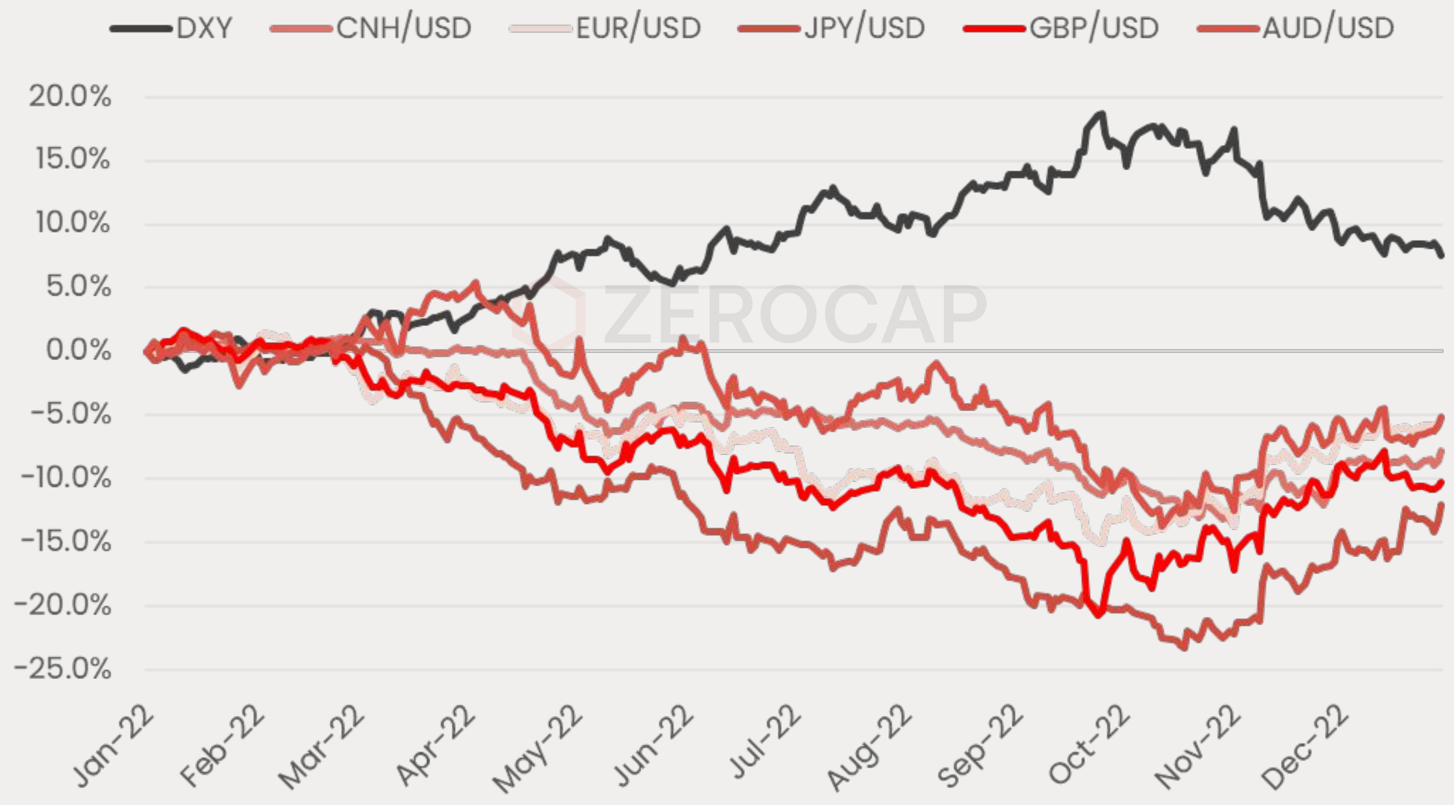
Macro

Contrary to last quarter, the previously steadfast US dollar (DXY) showed signs of weakness falling -7.73% to 103.39. The movement was in line with growing hawkish sentiment amongst other central banking institutions worldwide, resulting in a reduction of the interest rate differential. Notable performers in the global foreign exchange markets were the New Zealand dollar, Japanese yen, and the Euro, with respective gains of 13.40%, 9.40%, and 9.17%.

The Japanese Yen (¥) rallied hard on the back of the Bank of Japan (BoJ)'s shock decision to alter its yield curve control (YCC), cementing a four-month high vs the dollar at ¥130.563 (USD/JPY). A contrast to the ultra-dovish policy employed all throughout Q3, the adjustment aimed to ease some of the costs associated with prolonged monetary stimulus, allowing the 10Y bond yield to fluctuate ±50bps on either side of its target 0% level.

The European Central Bank (ECB) joined the FED and BOE in increasing the benchmark interest rate by 75 basis points in its November meeting, elevating European borrowing costs to their highest level since 2009. The Reserve Bank of Australia (RBA), increased the cash rate by a lesser although important 25 basis points to 2.85%, representing a nine-year high for borrowing costs. Australian housing market concerns resurfaced, with Roy Morgan data showing that 23.9% of Australian households were “at risk” of mortgage stress in the three months to December 2022.

USD vs Major Currencies - YTD Returns

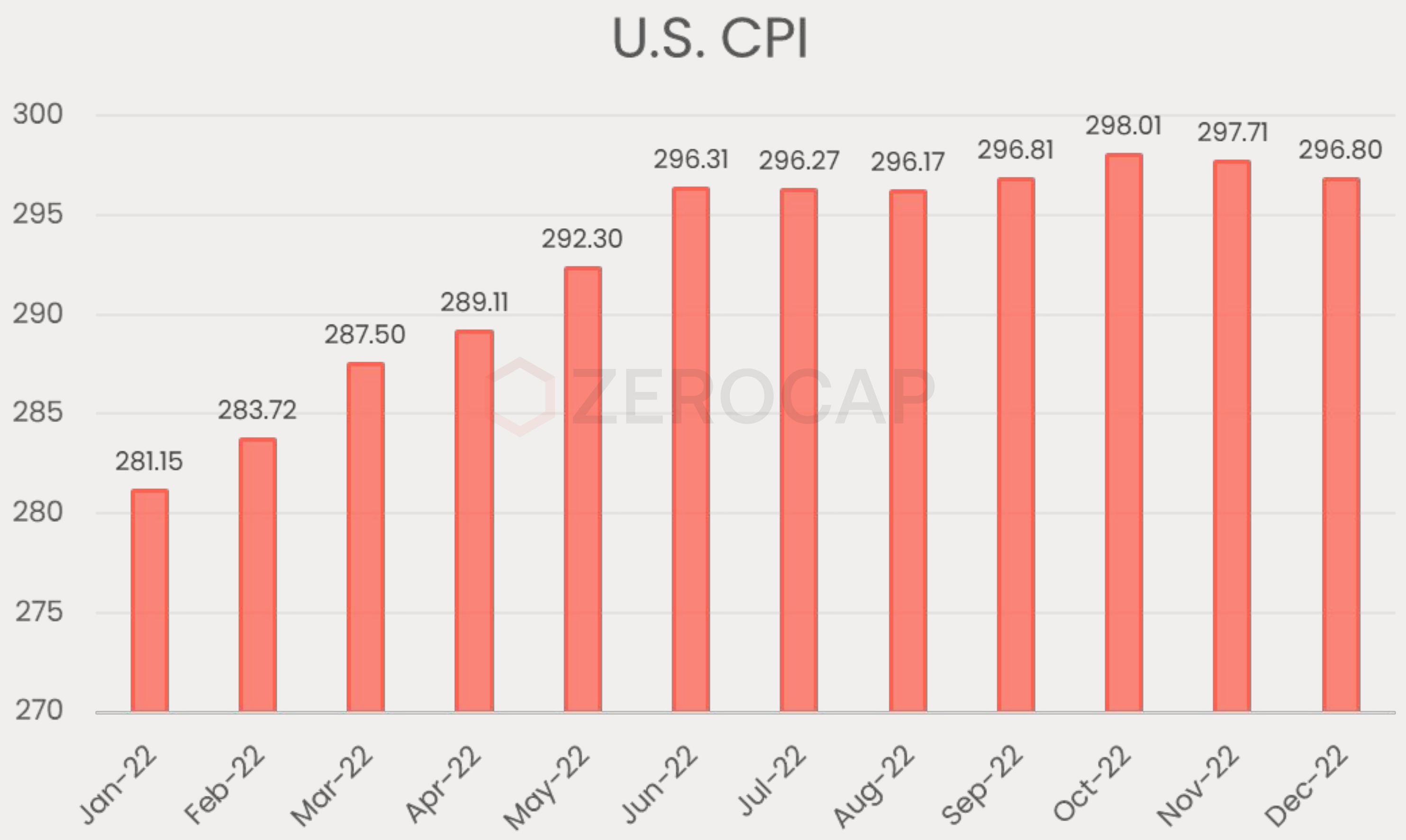


Source: TradingView

Macro

US labour markets remained relatively tight throughout this quarter, although were accommodative towards shifting market sentiment and vital economic data released over the quarter. A normalisation in the labour market was evidenced in the decrease from the upwardly revised October Non-Farm Payroll numbers (+284,000 new jobs) to the 200,000 new jobs recorded in December. Tech firms have felt the crunch, with Meta laying off 13% (11,000) of its staff, Twitter also cutting an estimated 50% of its staff as Elon Musk took over the company in late October.

Despite a softening labour market, consumer sentiment was on the rise into the end of the quarter, portrayed in the German ZEW Indicator of economic sentiment rebounding from October's -59.2 to -23.3 in December (a reading below 0 representing negative sentiment). The Michigan Consumer Sentiment Index revealed similar results, with December's revised numbers showing a minor recovery from November's 56.8 to 59.7.



Source: Trading Economics.com

ZEROCAP

Macro

The Reserve Bank of Australia (RBA) reported in Q4 that since shoring up the economy throughout the Covid pandemic, it had accumulated a net loss of $37 billion AUD, the largest ever, resulting in negative equity of $12.4 billion AUD. A retrospective evaluation of the government bond-buying program unveiled that the financing of benefits programs (Job Keeper, etc) was initiated through the issuance and repurchase of bonds using newly printed currency. The $281 billion invested in bonds enabled the RBA to simultaneously underwrite government programs and decrease the overall interest rate within domestic bond markets.

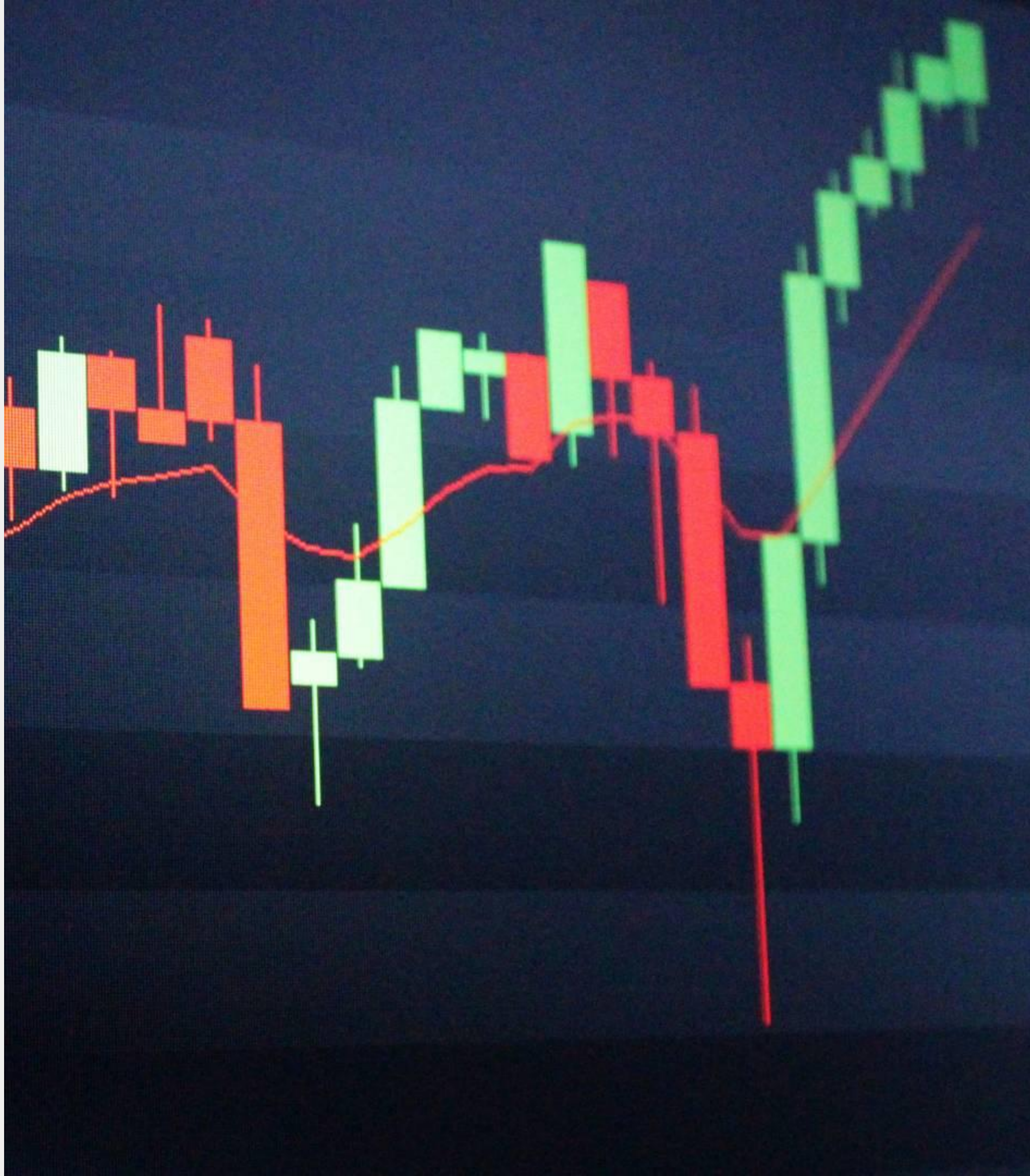
Heading into the end of the quarter, market participants remained cautiously optimistic. The inflationary climate appears to be cooling for the most part, due to proactive monetary intervention globally. All eyes are on February's FOMC meeting, money markets at the time of writing are pricing in around a 75% probability that the FED hikes the cash rate by 25 bps. If this is met, will provide further motivation for risk allocations.

Broader Markets

The past quarter has been marked by a plethora of critical events, having a profound impact on broader markets. The residual effects of the Bank of England's monetary policy reversal, China's abandonment of its Zero COVID strategy, and the European Union's embargo on seaborne imports of Russian crude oil, all drove sentiment shifts across the quarter.

Despite these challenges, the global economy has exhibited a degree of resilience, with mixed yet discernible performance indicators.

The United Kingdom (UK)'s Monetary flippening came to a conclusion on October 14, with the proposed £65 billion worth of long-dated gilt repurchases ceasing. Despite the speed of BOE intervention, global bond markets remained subdued. A continued sell-off of long-term UK Gilts caused UK 10-year bond yields to bounce back to levels seen prior to BOE intervention at around 4.5%. The closely watched 10Y-2Y US Treasury yield curve inversion closed the quarter around -54 bps, signalling a looming recession.



Broader Markets

Commodities saw mixed price action. WTI was indecisive, fluctuating between a 70.24-92.8 range. BRENT closed the quarter in the green at 85.79 (+0.9%). GOLD performed well, continuing its recovery narrative, up over 9% QoQ. Iron ore had a strong finish to the quarter hovering around the 117 mark - a significant improvement on November's 81.5. The two core drivers in commodities this quarter were China's long-awaited reopening, and simmering geopolitical tensions in Europe. OPEC+ flexed its muscles, doubling down on its October plan to cut oil production by 2 million BPD from November, and into 2023.

Western sanctions have also tightened, with Australia and a handful of G7 nations placing a price cap on Russian seabourne oil at $60 per barrel. This price cap came alongside the European embargo on Russian seaborne crude oil, which came into effect on December 5, the West attempting to quell financing of the Russian war effort in Ukraine.

As Q4 came to a close, Wall Street experienced a downturn, culminating in its worst yearly performance since 2008. The Dow Jones Industrial Average, S&P 500, and Nasdaq Composite all ended in negative territory. The Dow Jones Industrial Average fared better than other indices, closing at 33,147.24, exhibiting a decline of -8.8% YoY. The S&P 500 saw a sizable decrease of -19.4% to conclude at 3,839.49, and the Nasdaq Composite descended by an alarming -33.1% to reach 10,467.03 - a somber end to pretty wild year.

Q3 Performance	HIGH	LOW	QoQ
SPGSCI	730.59	591.81	-15.00%
WTI	109.48	76.17	-24.28%
GOLD	1812.10	1614.00	-8.01%
COPPER	3.78	3.13	-8.09%
S&P	4818.62	3584.13	-16.63%
NASDAQ	16764.85	10966.95	-24.50%

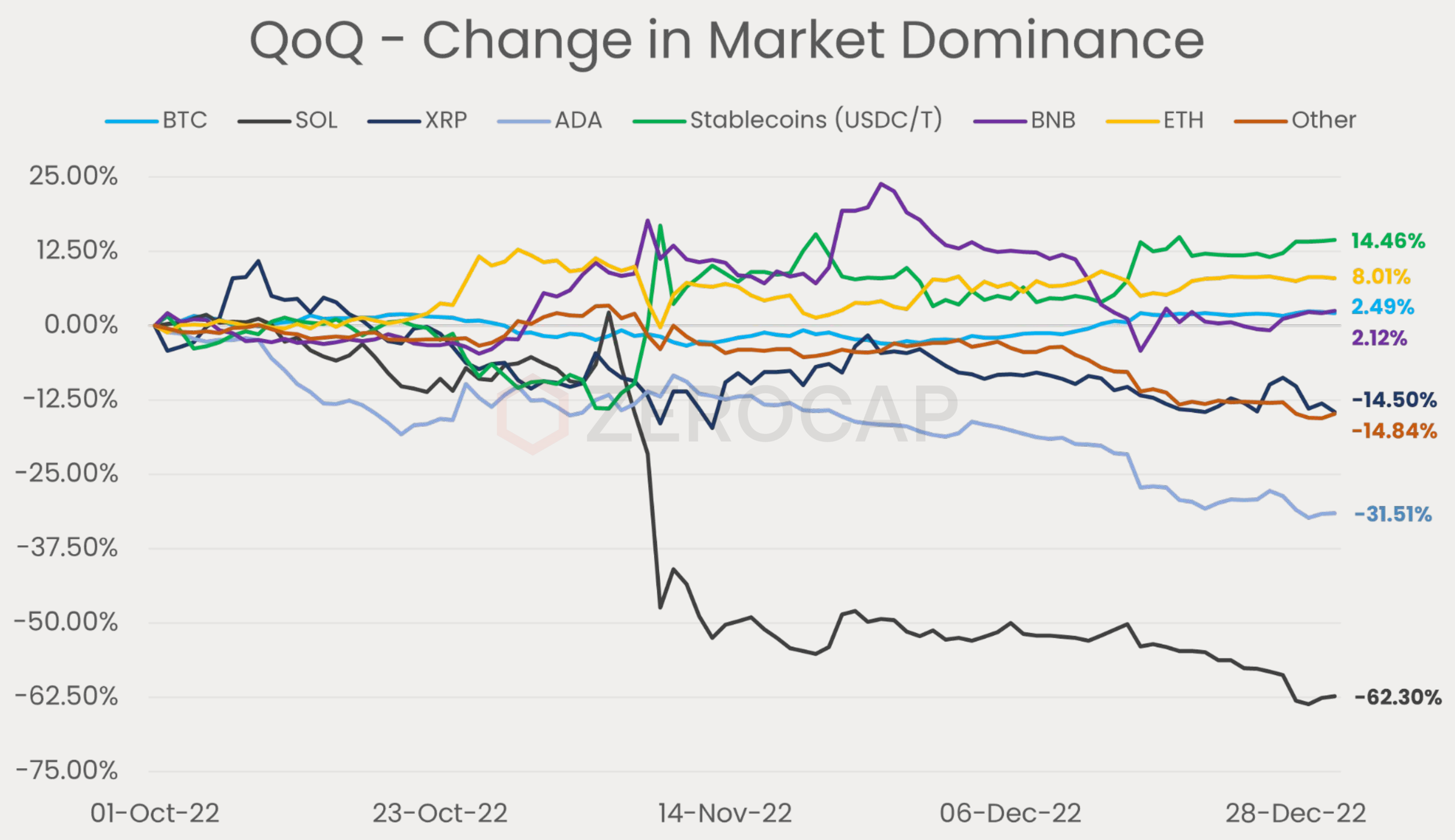
Source: TradingView

Digital Asset Markets

As the global economy continued to deteriorate and the FTX empire faced collapse, digital assets experienced continuous volatility throughout the quarter, with many assets revisiting 2020's black swan lows.

The two largest cryptocurrencies by market capitalisation, Bitcoin (BTC) and Ethereum (ETH), had their dollar-denominated market capitalisation contract by -17% (-$54 billion) and -11% (-$16.7 Billion) respectively. Price action mimicked broader market sentiment, pivoting on the release of positive tier-1 economic data. Traders took advantage of these short-term price fluctuations as demonstrated by increasingly aggressive funding rates in futures markets.

BTC and ETH weathered the FTX storm better than the majority of the market, despite breaking below their respective support levels at $18,000 (BTC/USD) and $1,300 (ETH/USD). ETH showed relative strength vs BTC closing at $1,195.1 ETH/USD (-10.05%), with BTC at $16,528 BTC/USD (-14.91%). Digital assets tied to FTX's beleaguered balance sheet struggled against immense sell-side pressure, FTX's native yield token (FTT) (used to prop up their balance sheet) was amongst the worst affected, losing -96.52% of its value in Q4 alone. Contagion was quick to spread to Solana (SOL), a significant holding of FTX. The asset saw in excess of -70% wiped from its market capitalisation QoQ to close December 31st at $9.97.

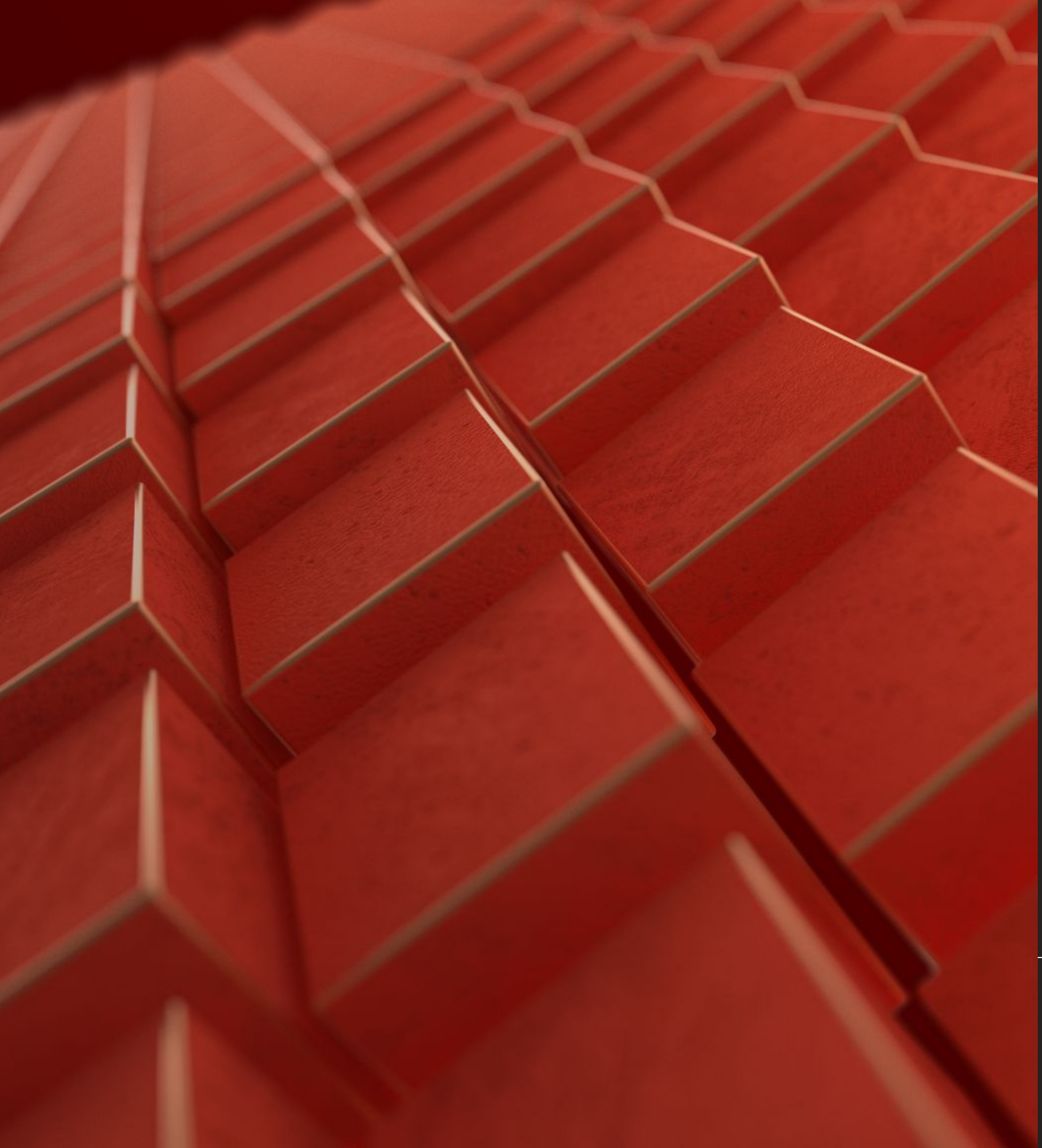


Source: TradingView

ZEROCAP

Digital Asset Markets

Digital asset market dominance, echoed risk-off sentiment present across the traditional space. Post FTX capitulation, investors adjusted portfolio allocations to risk-adverse stablecoins such as USDT, and USDC - increasing their combined market dominance +14.46% QoQ. Bottom fishing investors were out in force towards the end of the quarter, defending total industry market capitalisation. Increasing demand for ETH and BTC absorbed SOL's plummeting market share, with ETH and BTC closing the quarter with 8.01% and 2.49% in market share respectively.



SECTION 3.

Quarterly Asset Performance

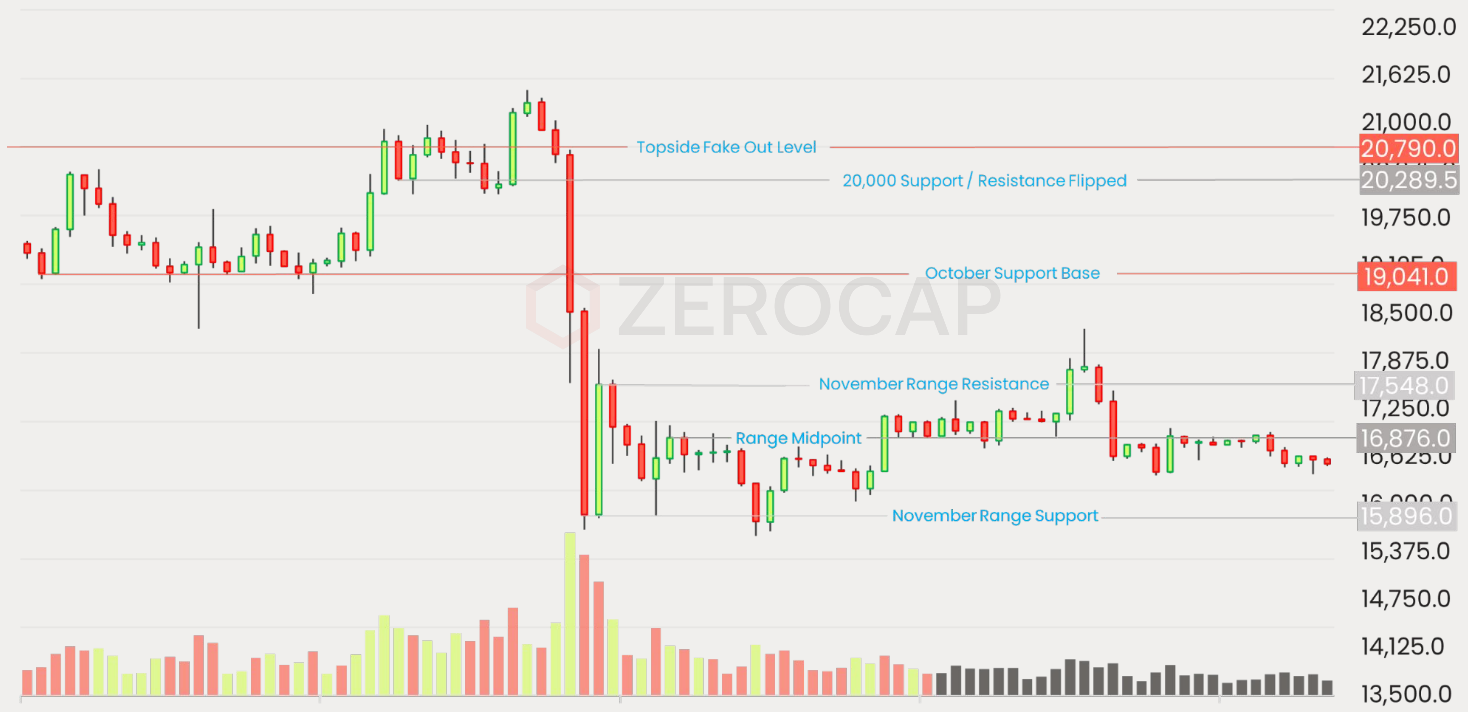
Bitcoin

Bitcoin began the quarter retesting the formidable 18,800 floor price that was established in mid-June. Whilst much of October was spent ranging, there was a notable uptick into month-end with the 20,000 handle being reclaimed and successfully tested as support by the first week of November.

However, following a concerted effort to push towards 21,500, BTC began to sell off aggressively as fear surrounding the health of FTX intensified. Between the daily open on 6th November and the daily close on 9th November, the asset fell by 24.24% - the largest volatility spike since the Terra-inspired crash just four months prior. The move was followed by an impressive 1-day return of 10.54% as shorts unwound and traders were liquidated. Following the FTX fallout, volume dropped off and a range formed between 15,900 and 17,600.

By late November a fake-out to the downside ensued, although a swift reclaim led to a multi-week rally that culminated in a break above the range high to reach 18,400 by the 14th December. Although, this move was quickly faded and price returned to the range mid-point where it oscillated for the remainder of the year. QoQ BTC returned -14.91% to close the year at $16,528.

BTC - Q4 Price and Volume



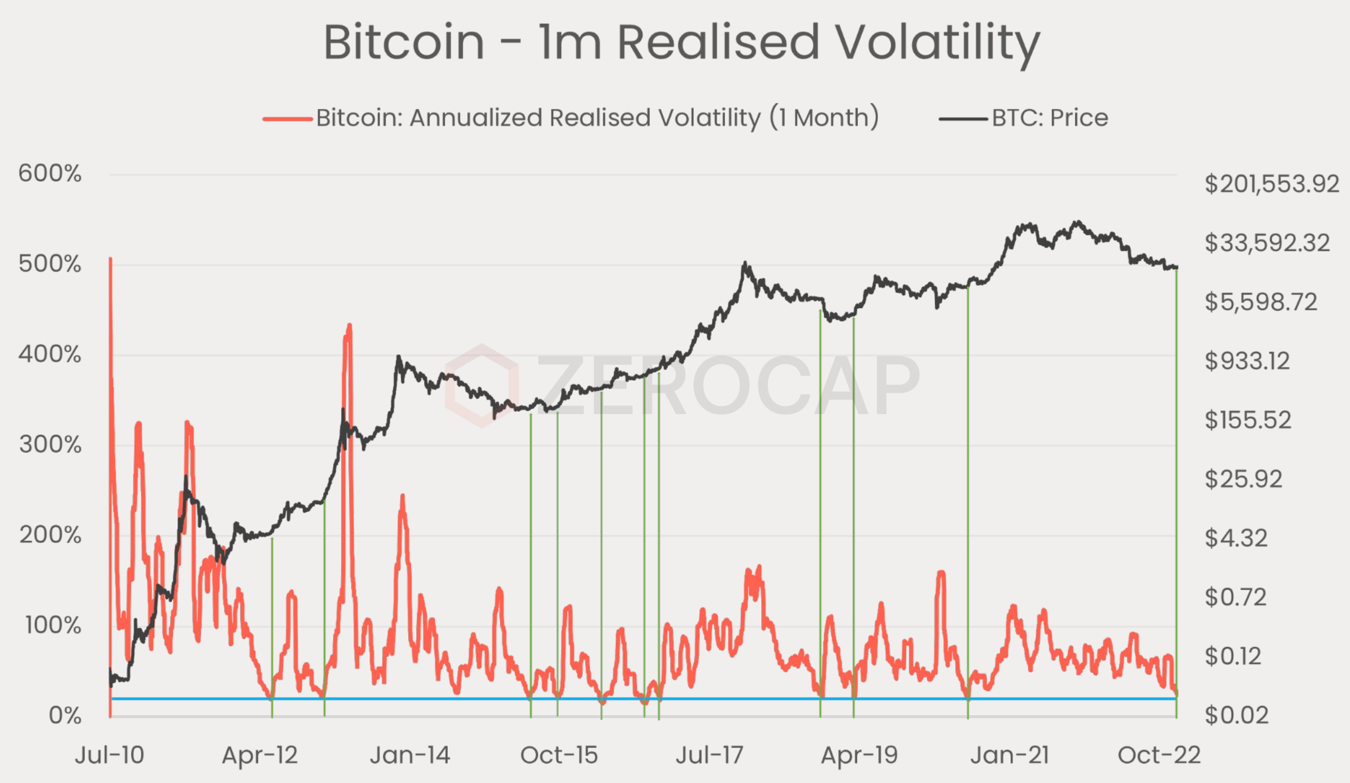
Source: Glassnode

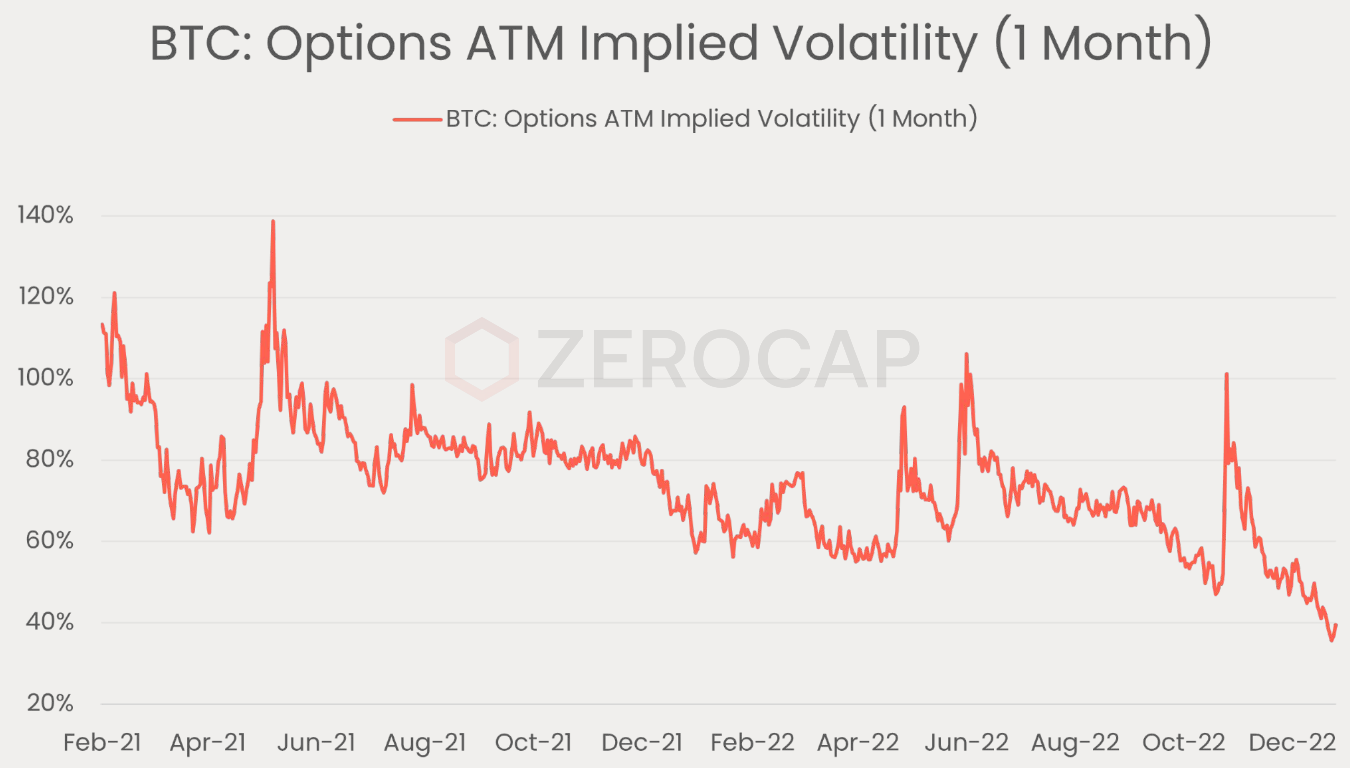
Bitcoin

Entering October, global recessionary fears ignited off the back of a poorly received 2022 economic Growth Plan out of the U.K. which sent the Sterling to all-time lows against the USD. While the BOE's announcement outlining their plan to purchase 65 billion pounds worth of long-dated bonds somewhat alleviated concerns, October's higher-than-expected U.S. inflation data pushed risk assets lower with BTC constrained to the lower end of the 19,000 – 19,500 range.

However, toward the second half of the month, participants witnessed Bitcoin enter an uncommon period of low volatility and for the first time in 2 years, BTC was less volatile than equities, leading some to speculate that this was the start of a longer-term decoupling. This notion came to fruition following the release of poor BigTech earnings whereby BTC outperformed a host of large tech stocks. A better-than-expected U.S. inflation figure for November drove risk appetite although this was soon superseded by extreme fear following FTX's capitulation and rumours surrounding the breadth of its impact. BTC tracked 21.96% lower in the same week. While the premise of peaked inflation bolstered sentiment, BTC struggled to recoup its losses.

Following FTX and into year-end, Bitcoin's 30d realised and implied volatility continued to track lower. This behaviour outlined a void of expected volatility into the year-end with the only buying interest centred around short-term expiries close to December's U.S. inflation data release and the FOMC rate decision. Interestingly, prior examples of when BTC's 30d realised volatility diminished to similar levels have been followed by highly volatile environments, trading higher 90% of the time.





Source: Glassnode

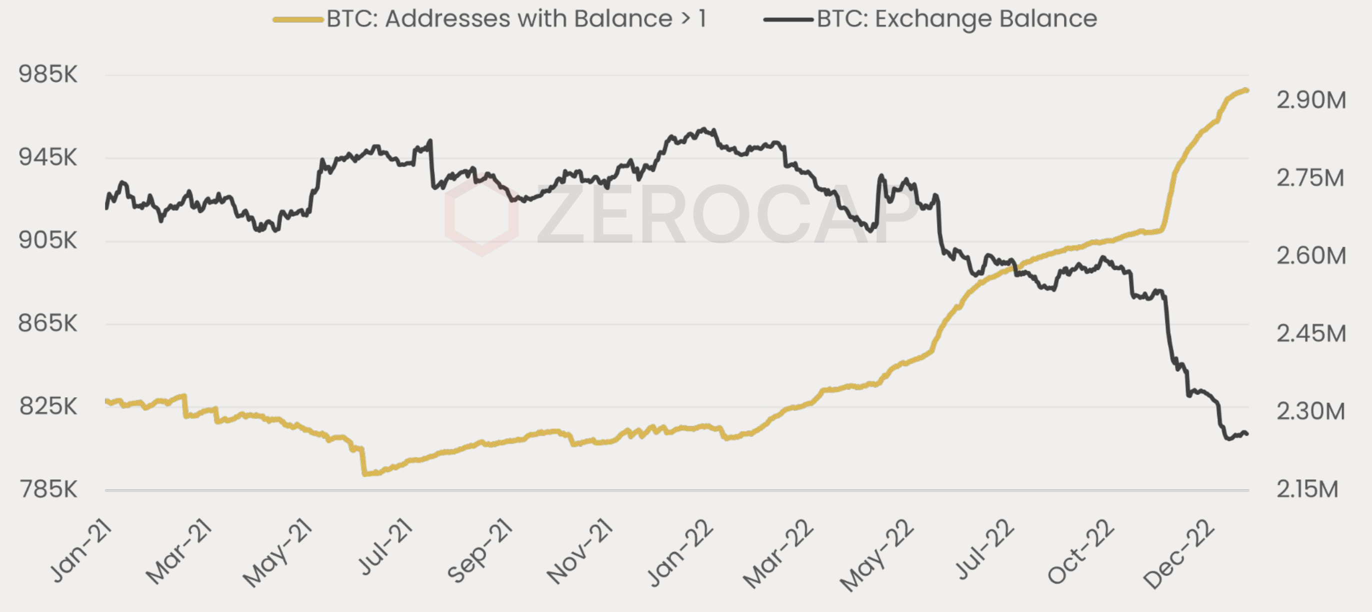
Bitcoin On-Chain

Following FTX's capitulation, we witnessed notable volumes of BTC swiftly withdrawn from exchanges and moved into alternative custody methods. As a result of continued fears related to counterparty risk, this trend persisted into early December.

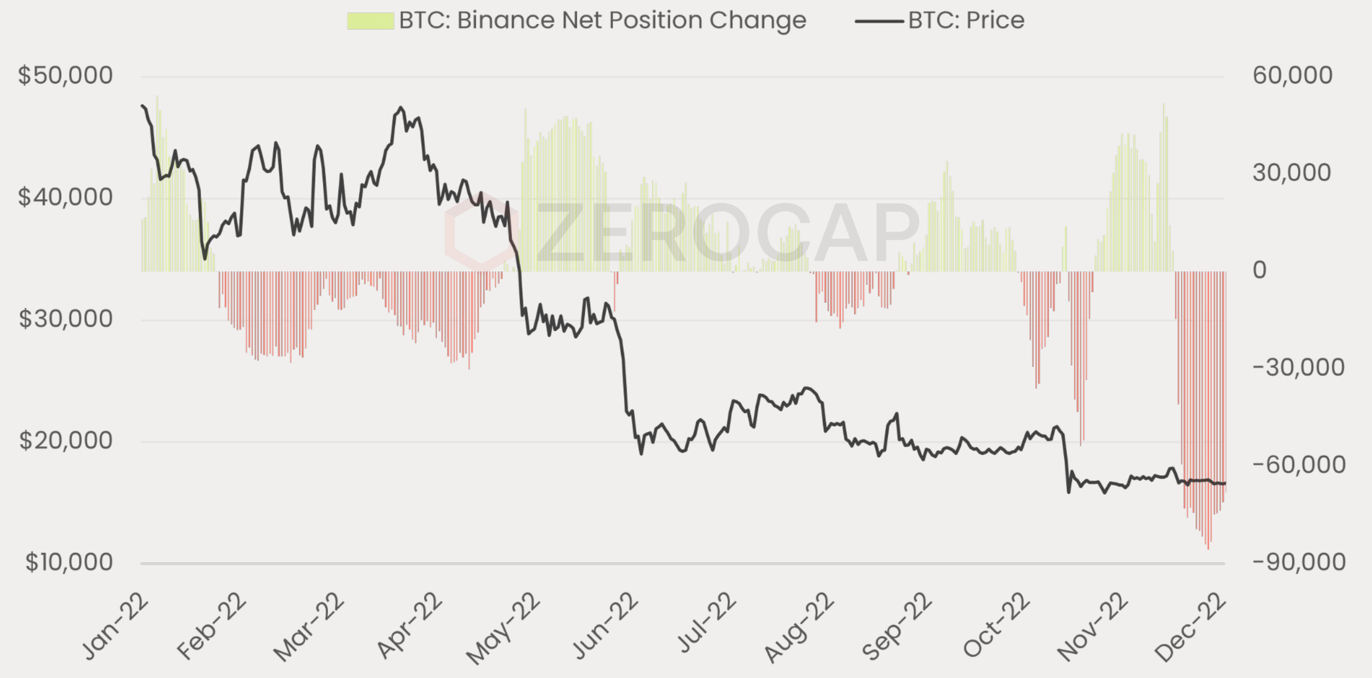
Interestingly, while the overall exchange net position was negative, we witnessed participants deposit BTC into Binance. In light of numerous exchanges providing Proof-of-Reserves to restore consumer confidence, this behaviour suggested that participants possessed a relatively healthier perception of Binance's counterparty risk when compared to other centralised exchanges at the time.

Correspondingly, the number of addresses with balances of BTC greater or equal to one grew exponentially, a behaviour which is also suggestive of accumulation. While BTC exchange balances started to increase into the year-end, reflecting greater confidence amongst participants, the number of addresses with balances greater than 1 continued to climb into the turn of 2023. This trend highlights the increasing awareness and importance of self-custody solutions, such as that offered by Zerocap, as well as a shift in intramarket dynamics. Moreover, in light of Bitcoin's recent retracement to levels not seen for years, there is a cautious building of conviction among participants.

BTC - Balance on Exchanges vs. Addresses with Balance > 1



Bitcoin - Binance Net Position Change (YTD)



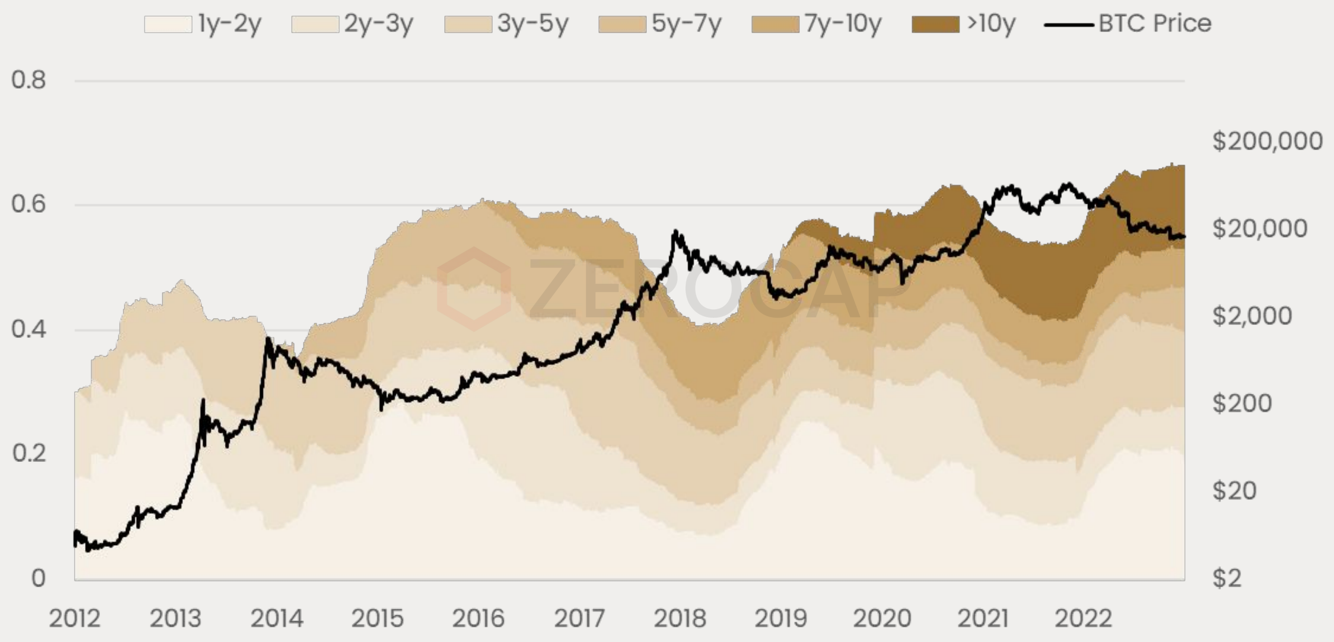
Source: Glassnode

Bitcoin On-Chain

BTC's HODL Waves shows the percentage of Bitcoin's circulating supply that last moved within a corresponding time period. HODL metrics can be used as a cyclical measure and prior peaks of long-term holdings have corresponded with market bottoms. During November, the % supply of BTC held for longer than one year reached an all-time high. As 2023 approached, this metric started to slowly decrease, a behaviour that is typical of late-stage bear markets.

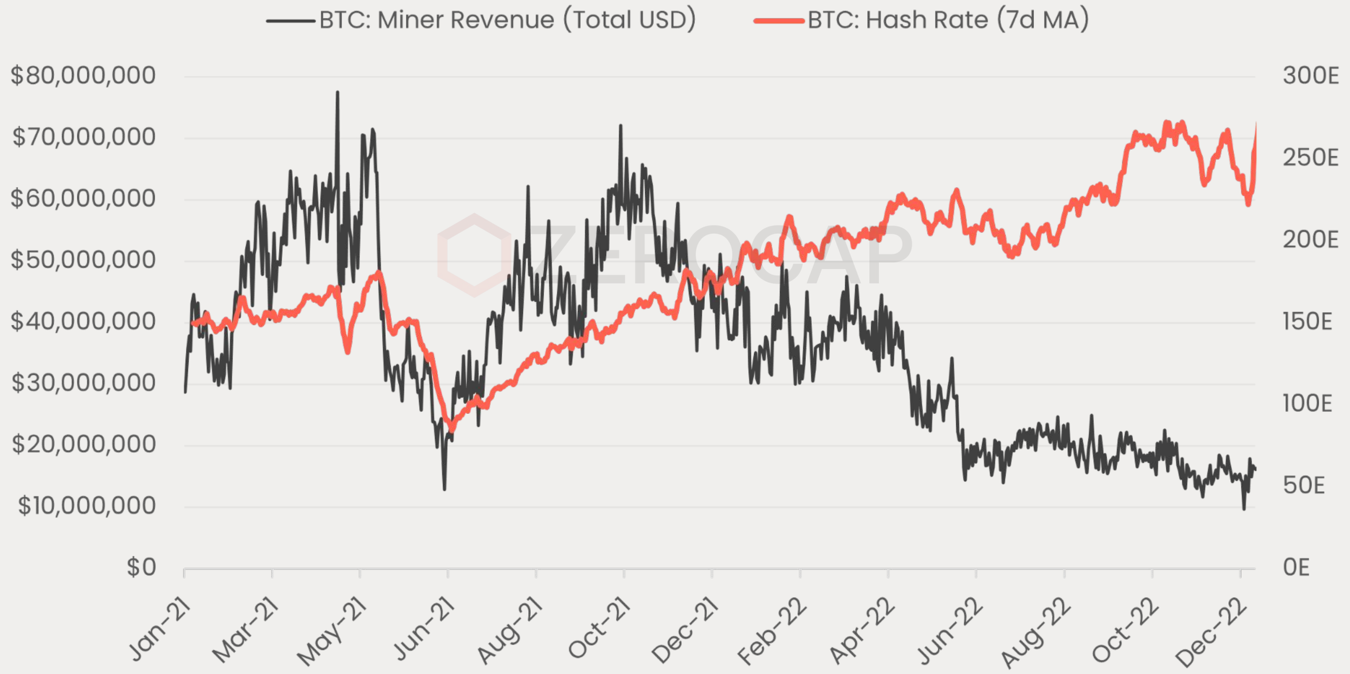
The narrative surrounding BTC miner profitability and capitulation was placed at the centre of 2022. As Q4 persisted, markets continued to decline and BTC's hash rate persisted higher. In turn, profitability diminished. However, as 2023 came to a conclusion, we saw some relief with profitability ticking higher. Similar to HODL Waves, miner capitulation is also correlated to market bottoms. Nonetheless, as hash rate continues higher and in the face of potentially higher costs, we may see selling pressure from miners in the short term who wish to solidify revenues off the back of a previous year of poor performance.

Bitcoin HODL Waves



Source: Glassnode

BTC - Hash Rate vs. Miner Revenue



Source: Glassnode

Ethereum

Ethereum entered the quarter range bound with 1,300 acting as support although, by late October the asset began to rally alongside the market - returning 28.24% between October 21st and November 4th.

Despite this, the price slide as a result of FTX uncertainty was quick to reverse the QTD gains, falling 32.96% between the daily open on 5th November and the daily close on 9th November. Following a 17.82% one-day return on the 10th November, Ether (much like BTC) fell into a ranging market as participants digested the events that had just ensued and positioned themselves for further fallout.

Whilst the bottom of the 1,100-1,300 range held firm throughout November, ETH staged a breakout attempt on the 13th December. Price was quick to retreat and fell more than 11% over the following three days. As liquidity dried up going into the holiday season, the asset maintained a 5% range around the mid-point resulting in a stable end to the year at $1,195.1 for a QoQ return of -10.05%

ETH - Q4 Price and Volume

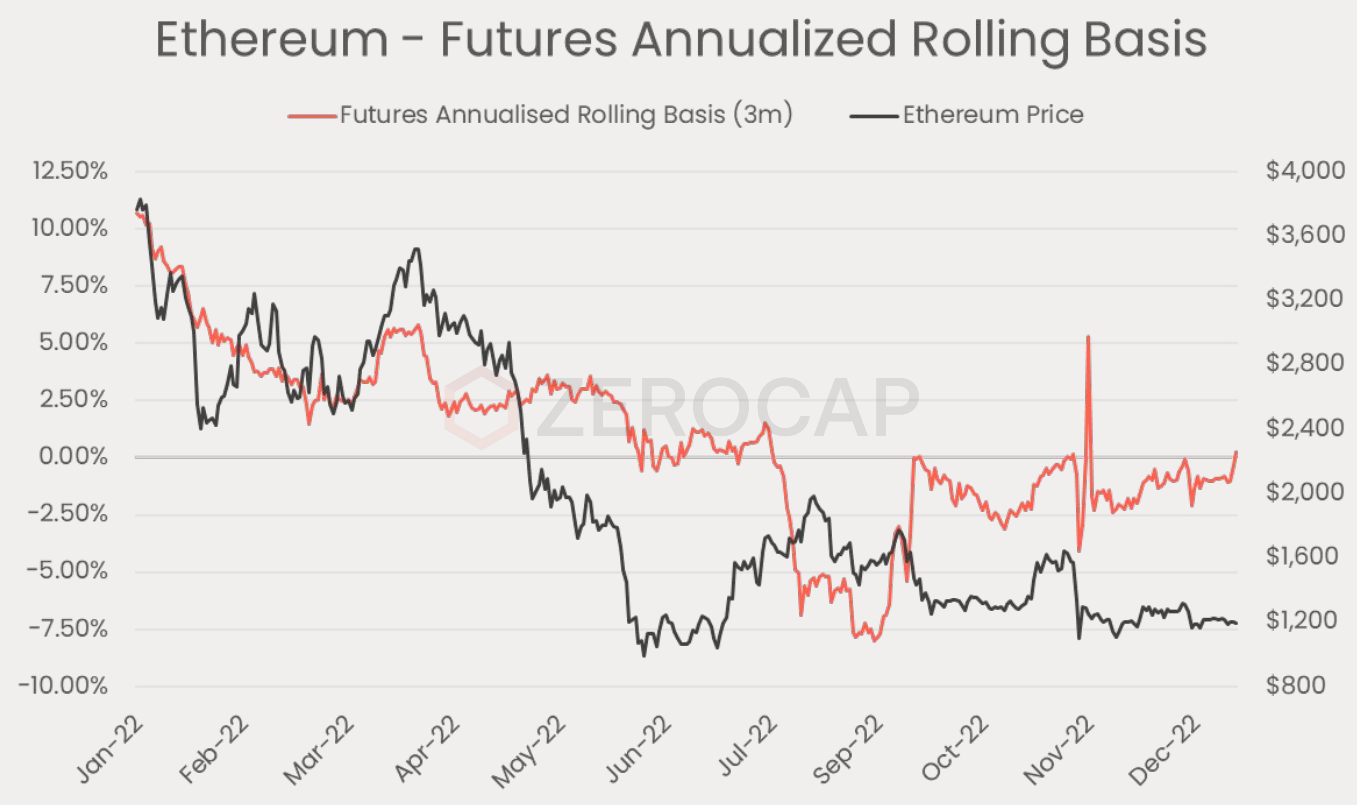
Source: Coinmarketcap

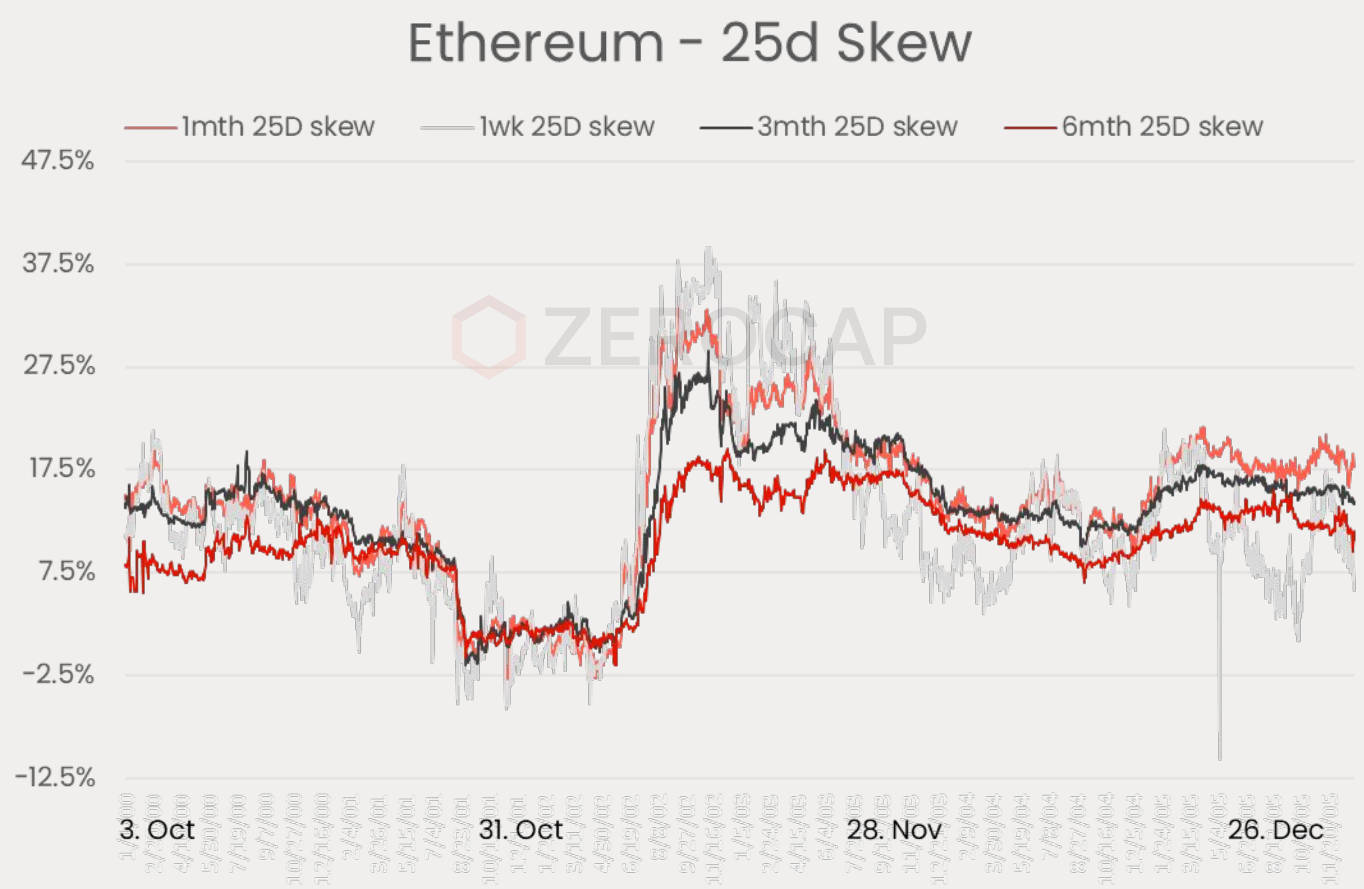
Ethereum

In line with post-merge expectations, the relationship between ETH and BTC returned to its previous state with ETH following BTC directionality in a high beta fashion. In addition, the expected shift in Ethereum's tokenomics resulted in ETH's total circulating supply decreasing. While deflationary tokenomics are positive for a token's price as its supply is decreasing at a relatively greater rate than demand, ETH failed to ascend higher in the face of macroeconomic concerns during early October.

As we moved into November, ETH/BTC attempted multiple breakouts without prevailing. Notably however, insolvency risks and the growing prospect of a 75 bps hike in December's FOMC resulted in crypto asset correlation remaining low as players continued to de-risk across the board. While failing to make notable ground, the aforementioned breakout attempts were a strong indicator of ETH's relative strength versus the rest of the market.

ETH futures spent the majority of Q4 at a discount to spot following the futures unwind post-merge, indicating open interest was skewed toward shorts. However, as the quarter persisted and into the year-end, this discount began to converge and move above zero which outlined an unwinding of short interest or an increase in buyer interest. Correspondingly, going into year-end and with the expectation of dried-up liquidity, we saw 25 delta put skews across various term lengths edge higher. This indicates that the market was pricing implied volatility higher on the downside than the upside and was likely indicative of participants hedging exposure over the holiday period.



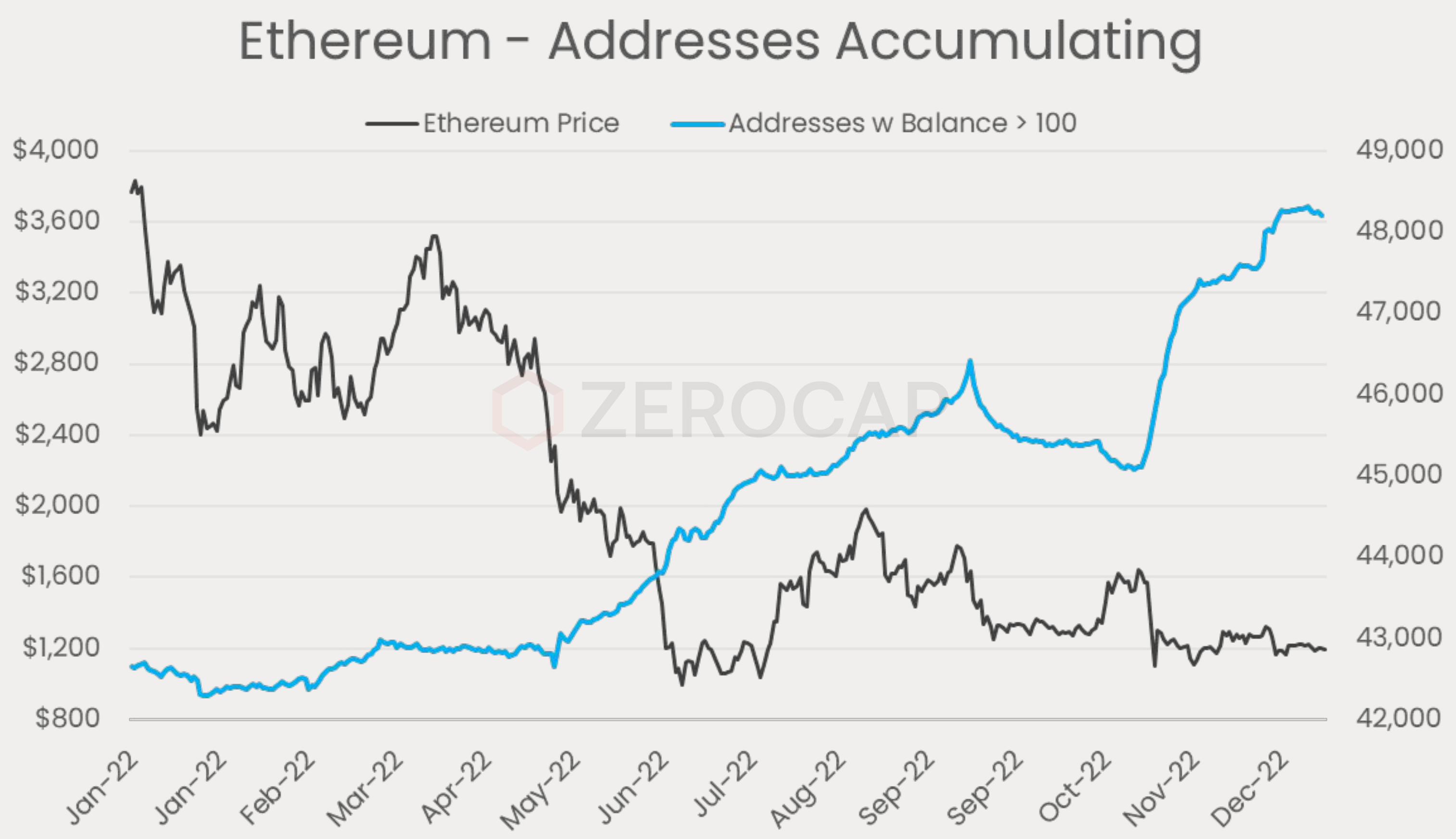


Source: Glassnode

Ethereum On-Chain

Providing further sustenance on the shifting dynamic between BTC and ETH across Q4 was the number of addresses with holdings >100 ETH. During and following FTX's capitulation, we saw this metric increase exponentially.

Notably, while we saw an increase toward the end of 2022, we're now seeing this metric decrease. Such behaviour may be indicative of whales selling into relative strength, a common characteristic of early bull markets but also commonplace in the lead-up to events that are expected to drive price such as ETH's Shanghai upgrade. A continuation or exaggeration of this trend may result in a continued outperformance of BTC relative to ETH in the medium term.

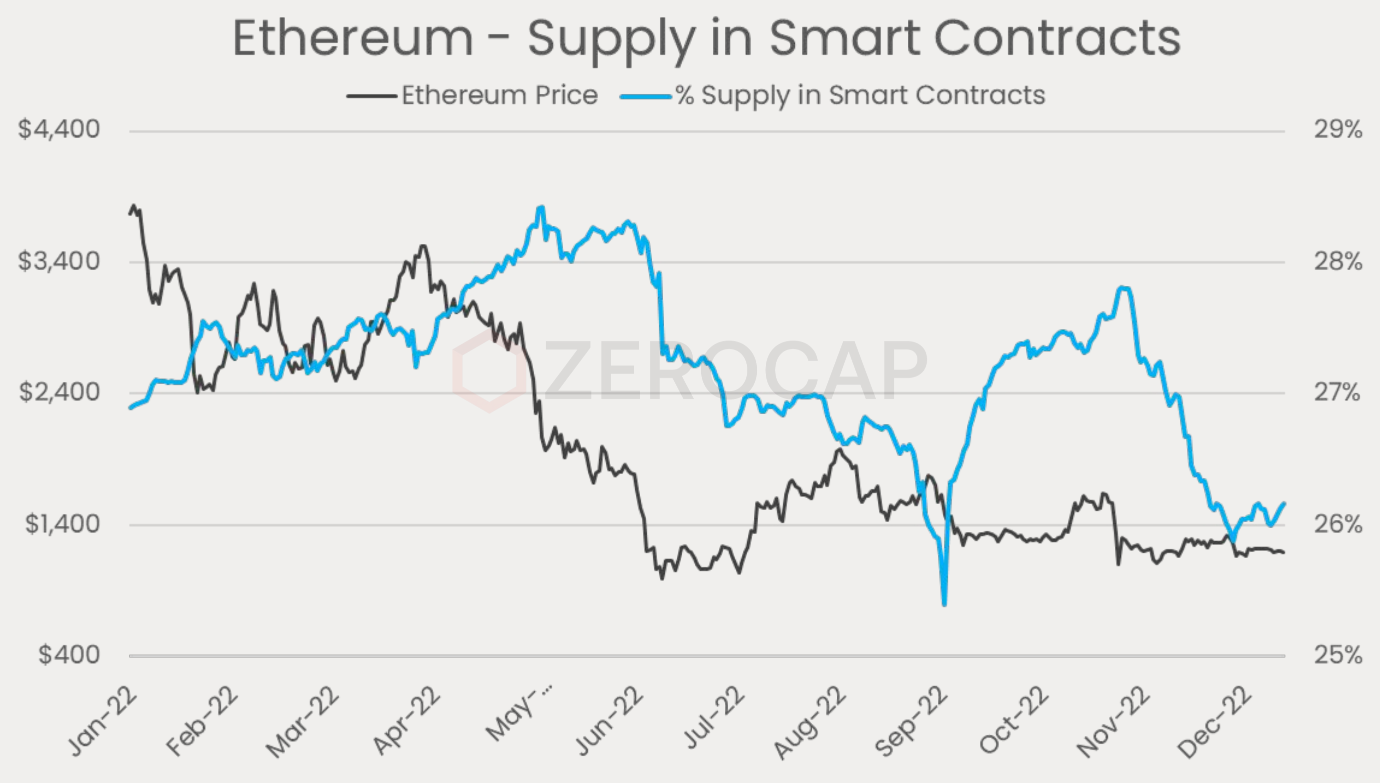


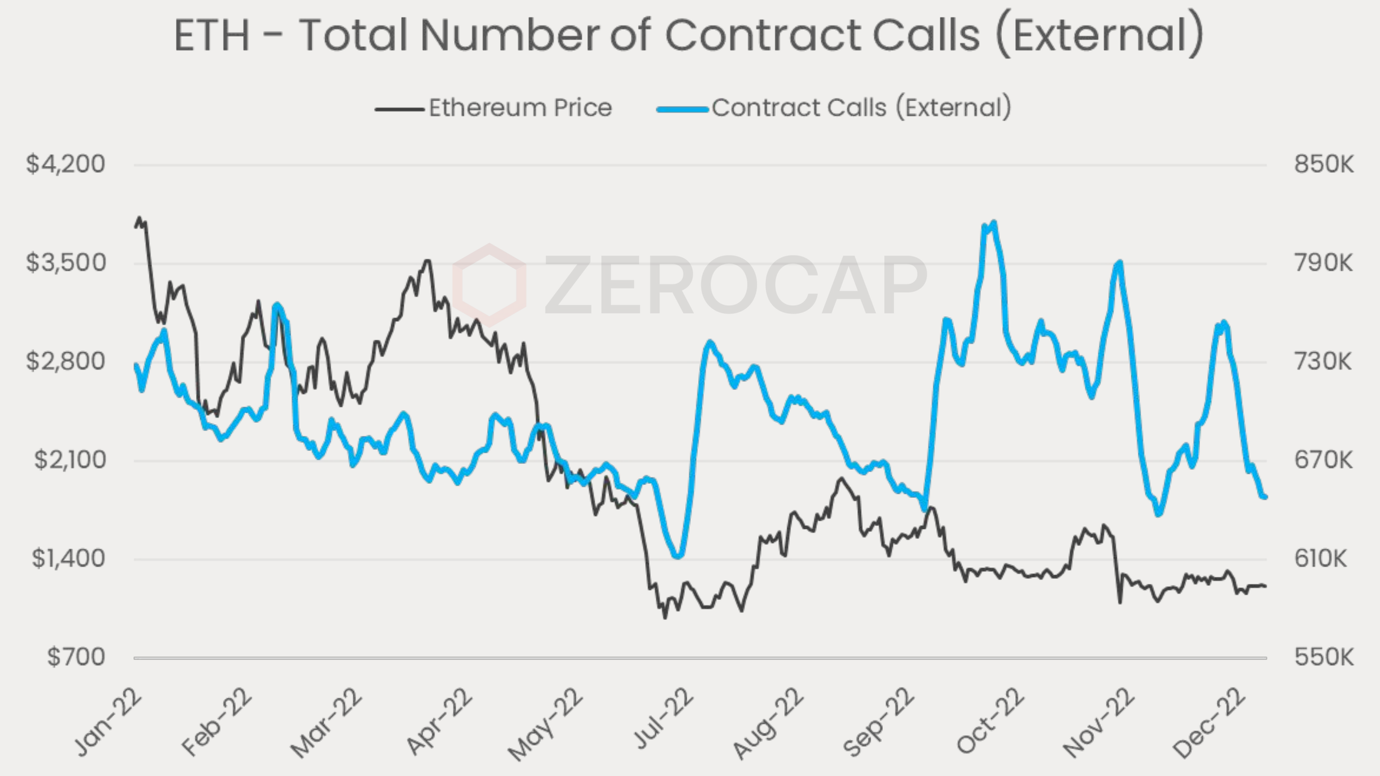
Source: Glassnode

Ethereum On-Chain

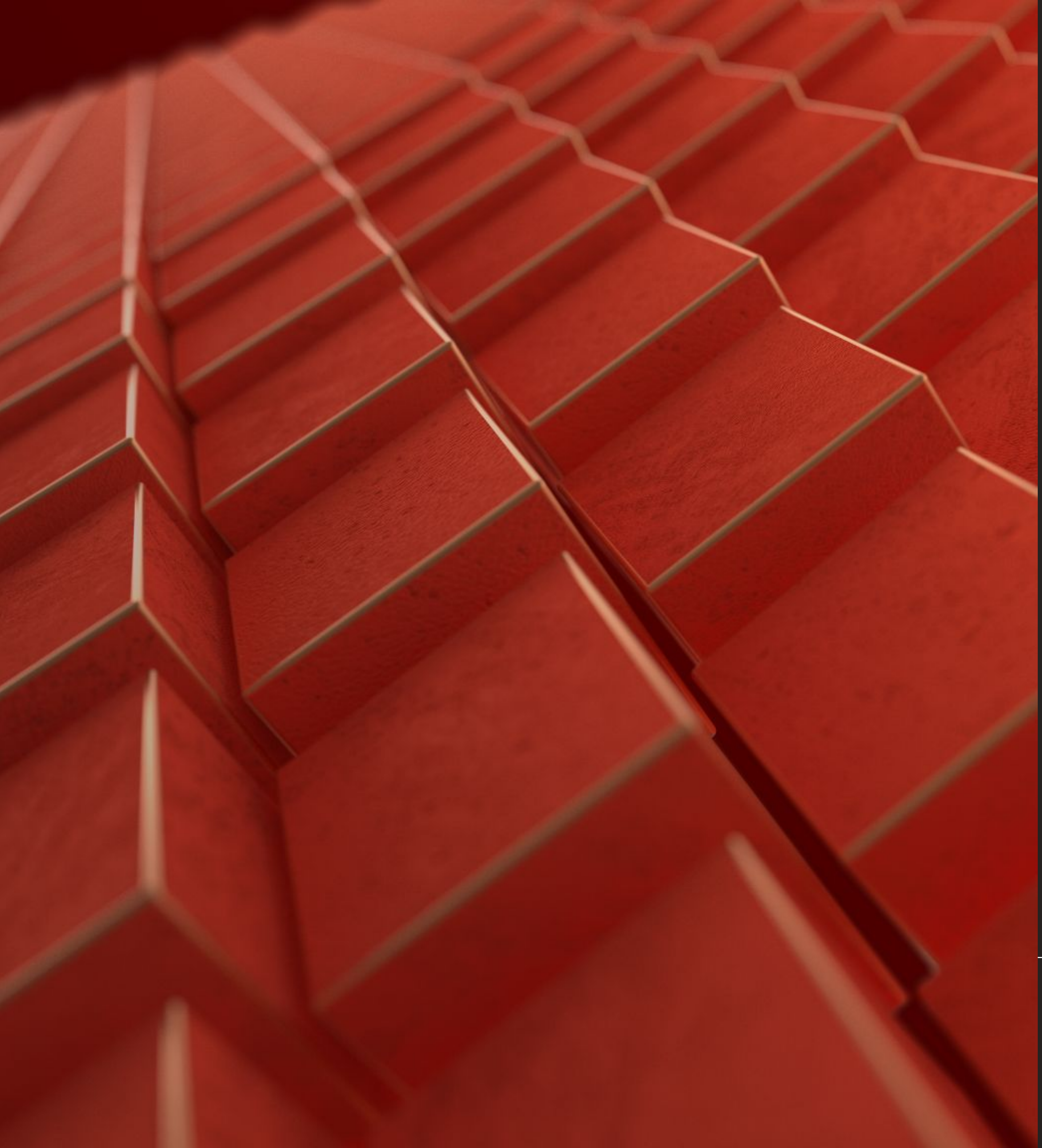
Coinciding with post-merge chain stability, we saw market participants redeploy funds into Ethereum's ecosystem. This behaviour was reflected in the percentage of circulating supply in smart contracts which continued its strong recovery through October and into November. Notably, the ETH Beacon Chain staking contract saw its largest monthly inflow in three months in September. However, off the back of FTX's capitulation and resultant market-wide fear we saw this metric retrace back to pre-merge levels before edging slightly higher into year-end. Moving forward, this metric will provide insights into sentiment and the health of the Ethereum network.

Similarly, Ethereum contract call volume ascended higher post-merge before seesawing with an inclination lower as Q4 persisted. We saw a spike in early November as a result of network participants pulling liquidity to self-custody. However, the decline into year end paints a bleak picture for the network which feeds off of traffic. Contract calls underpin the entire Ethereum ecosystem beyond basic value transfer. Given the severity of the damage caused by FTX, it is likely that market participants pulled at-risk collateral into the turn of the new year. Behaviour which outlines a sense of continued risk-off attitudes amongst participants of Ethereum's ecosystem. As market liquidity recovers in early 2023, we can expect this metric to ascend higher which fares well for overall network health.





Source: Glassnode



SECTION 4.

Decentralised Finance

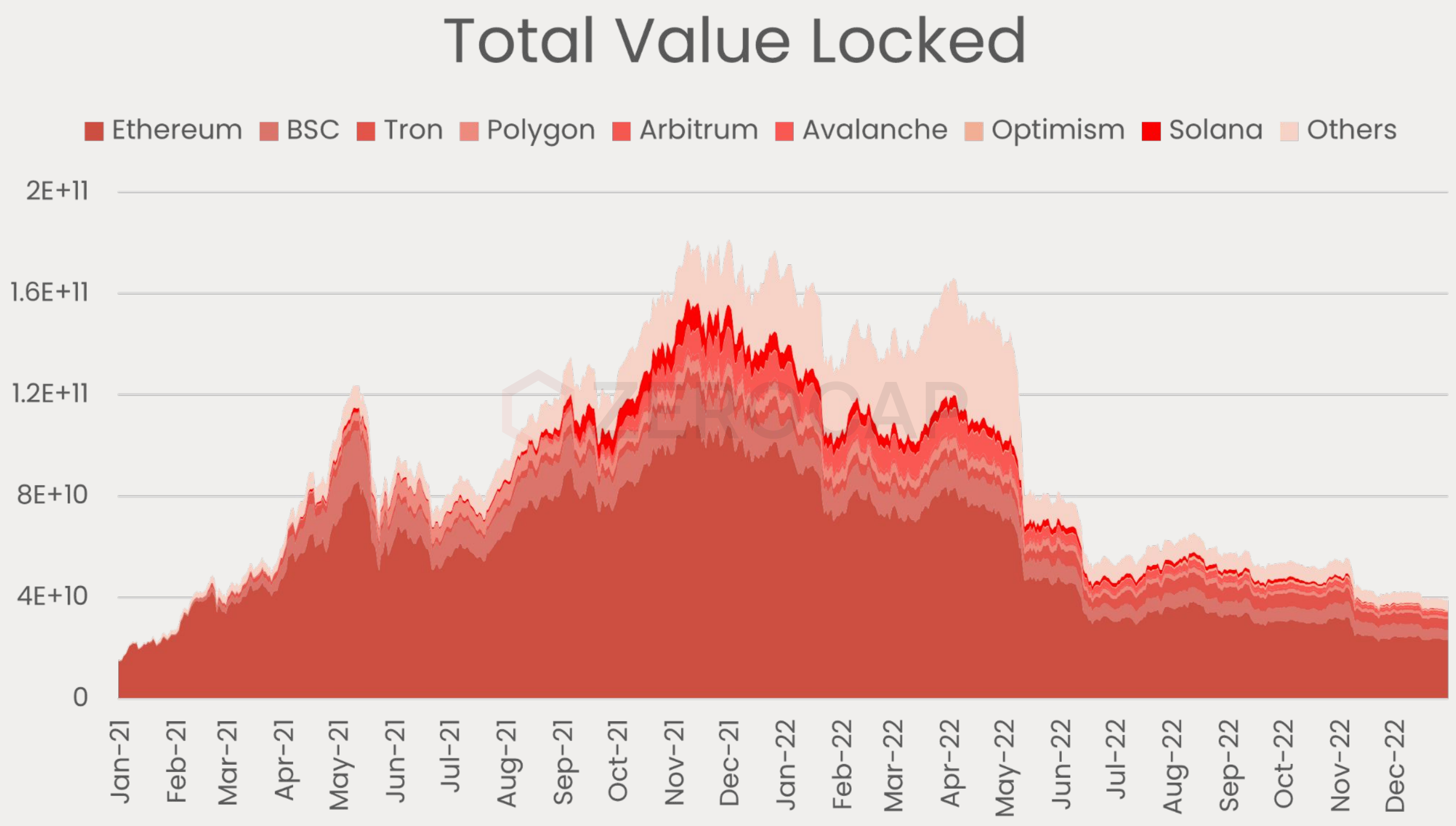
Total Value Locked

In Q4 2022, we saw an overall decrease in the Total Value Locked (TVL) in the general DeFi space, that is, considering all chains' ecosystems.

At the start of October, there was US$53.65 billion locked into DeFi smart contracts, being used for a variety of applications including decentralised exchanges (DEXs), decentralised lending protocols and decentralised derivative exchanges. However, at the end of 2022, the total TVL across all chains was at a low of $39.12 billion. This is reflective of a QoQ loss of more than 27%.

As the dust settled from the FTX fallout, the sentiment that centralised exchanges (CEXs) are an unsafe option to store cryptocurrencies grew, with many moving towards self-custody.

With more tokens held in MetaMask and other web3 wallets, DeFi grew in usage whereby individuals and entities did not want to bear the risk of depositing their crypto on a CEX to trade. Accordingly, this negated some of the detriments of the crumbling of FTX as the additional tokens being moved into smart contracts slowed the falling TVL which was based on the plummeting token prices.



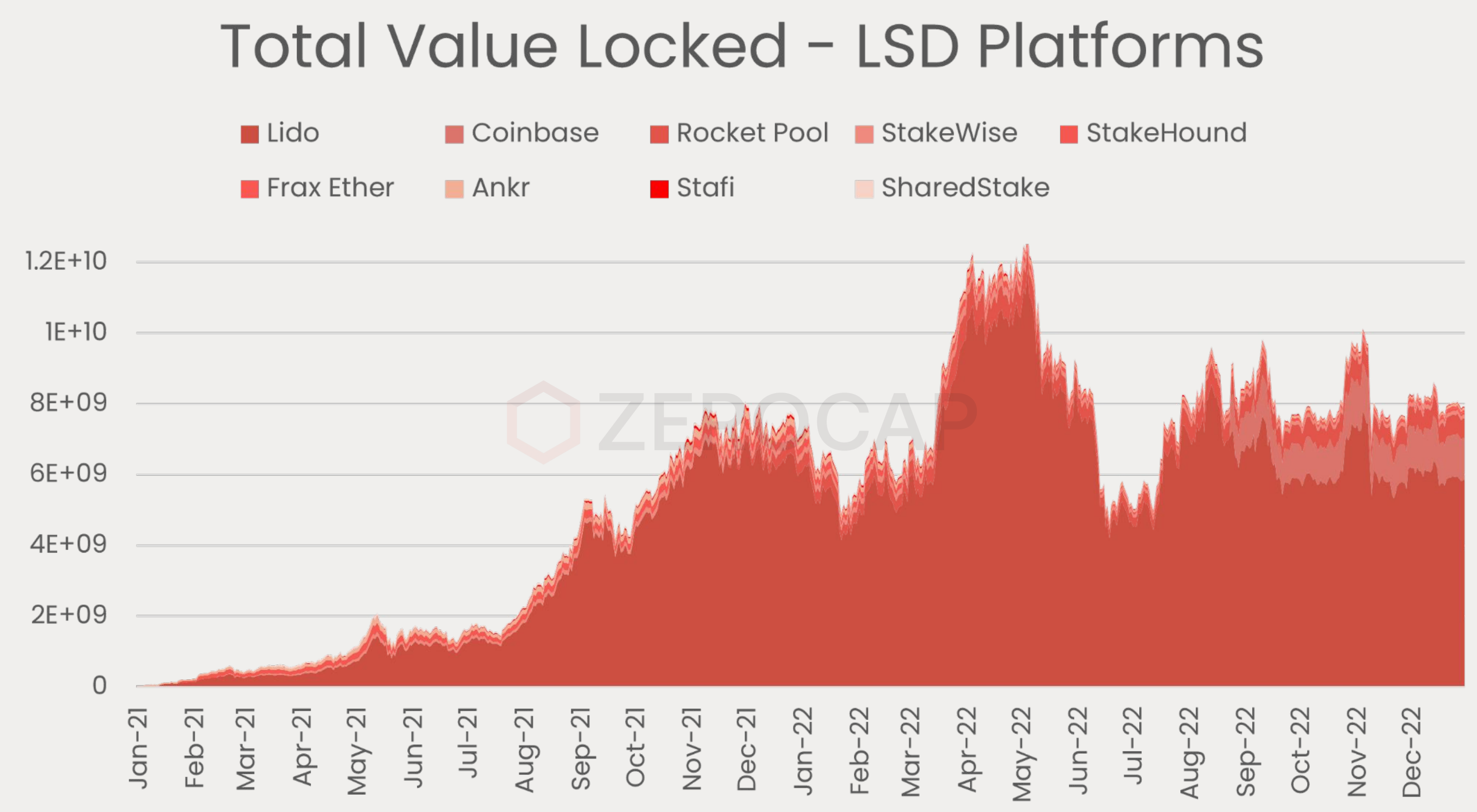
Source: DeFi Llama

Liquid Staking Derivatives (LSDs)

In the lead-up to the Shanghai upgrade, outlined in the Emerging Themes section, DeFi protocols offering liquid staking for ETH have soared in TVL; Lido, with a TVL of US$7.8 billion, is the most popular LSD platform, contributing over 17% of funds in the entire Ethereum-based DeFi ecosystem.

Prior to Liquid Staking Protocols (LSPs), stakers faced many obstacles using traditional staking methods such as accessibility, immovability, and illiquidity. LSPs address these issues by allowing investors to receive liquid staking derivatives in exchange for staking their assets, which represent their claim on the given stake pool and its yield. This allows stakers to generate yields on their assets, while also retaining the ability to trade, lend, and use their assets as collateral on other protocols. An example of this is Lido's Staked ETH (stETH) token.

Whereas a vanilla Ethereum validator requires a sum of 32 ETH, through LSPs, users can stake significantly smaller amounts of ETH. In this way, LSDs have substantially lowered the barrier to entry for stakers, ensuring more individuals can get involved with contributing to the decentralisation of the Ethereum network.



Source: DeFi Llama

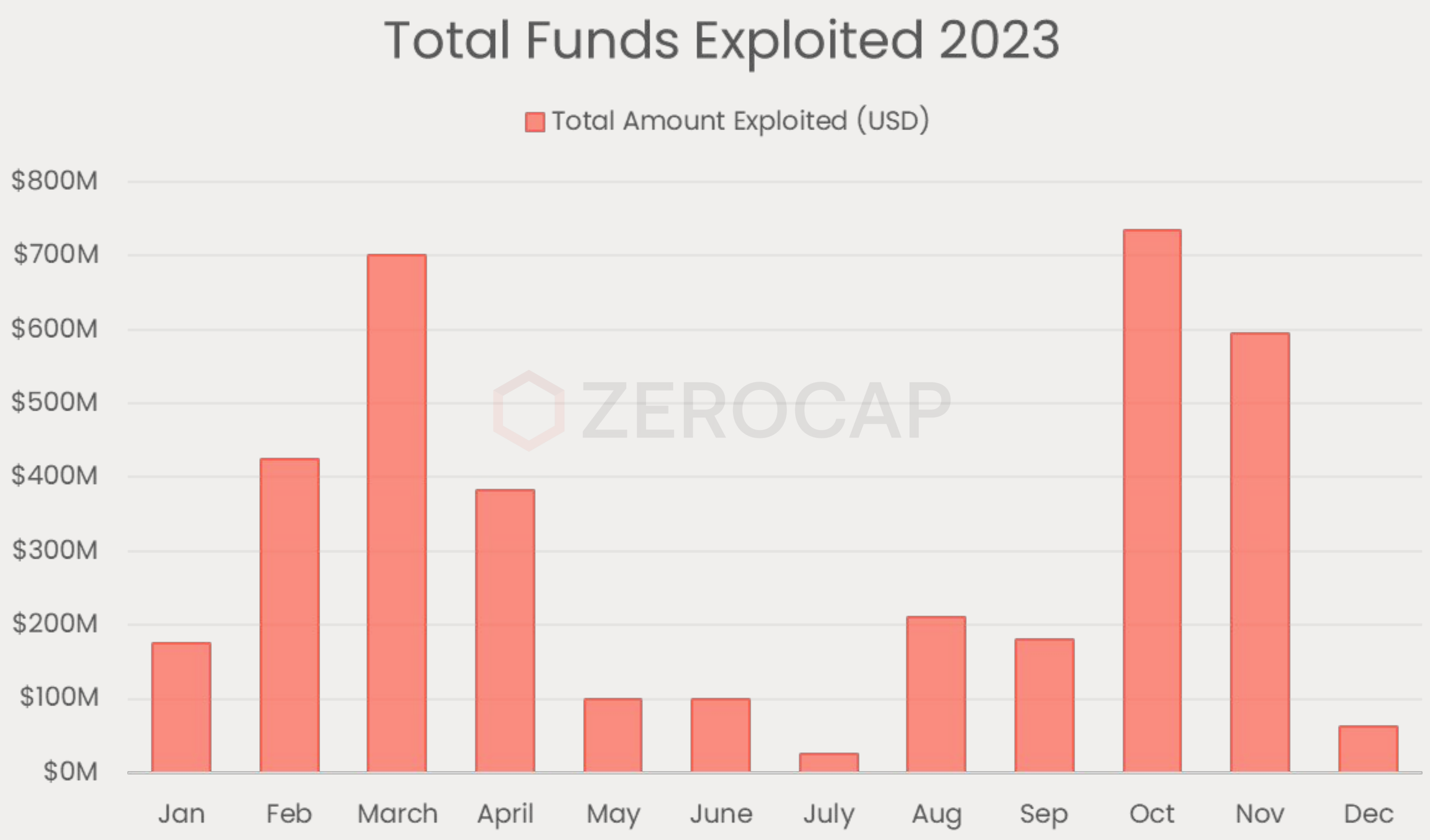
Rife Exploits

The endless potential of composable smart contracts has been widely adopted by advanced DeFi platforms. These protocols rely on the smart contract for security; if a flaw exists in the contract(s), the protocol itself can be exploited.

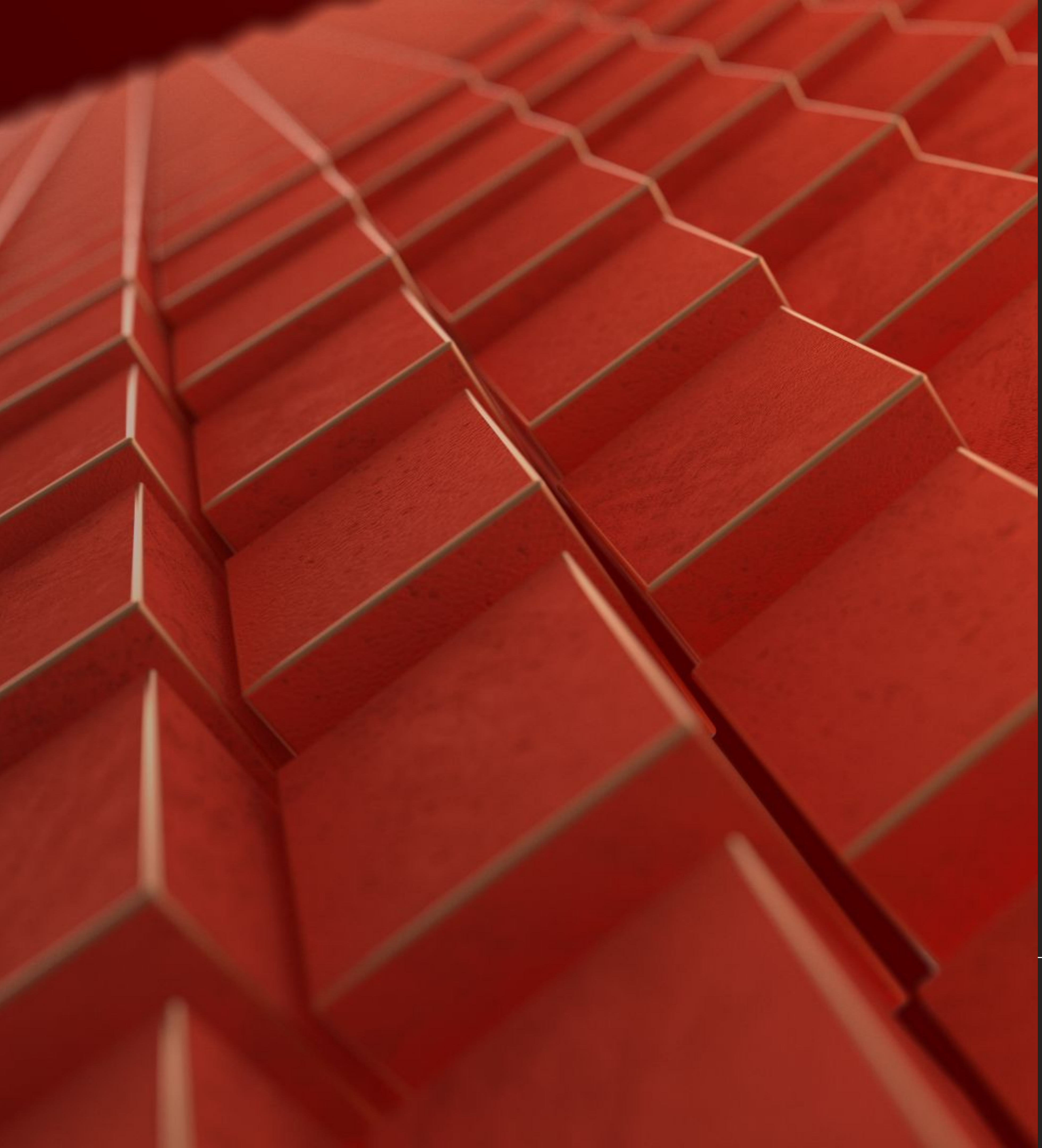
Even the smallest vulnerability can lead to disproportionally large hacks. This has been seen many times throughout Q4, with October representing the most funds exploited in 2022 at over US$760 million.

More specifically, October highlighted that despite how well-funded and audited a project is, it can still be attacked. This was evident with Binance's BNB Chain facing an exploit that drained its native bridge of US$586 million. Later, Solana-based Mango Markets was publicly exploited for roughly US$115 million, the details of which we delve into in the Emerging Themes section.

Smart contract developers in the DeFi space are learning from these exploits and ensure similar vulnerabilities are excluded from the contracts underpinning their protocol(s). Likewise, auditing firms are improving their capabilities with thorough investigation into each DeFi protocol attack. However, as DeFi evolves so do hackers; it is probable that the exploits the DeFi space endured during October will continue into 2023



Source: DeFi Llama



SECTION 5.

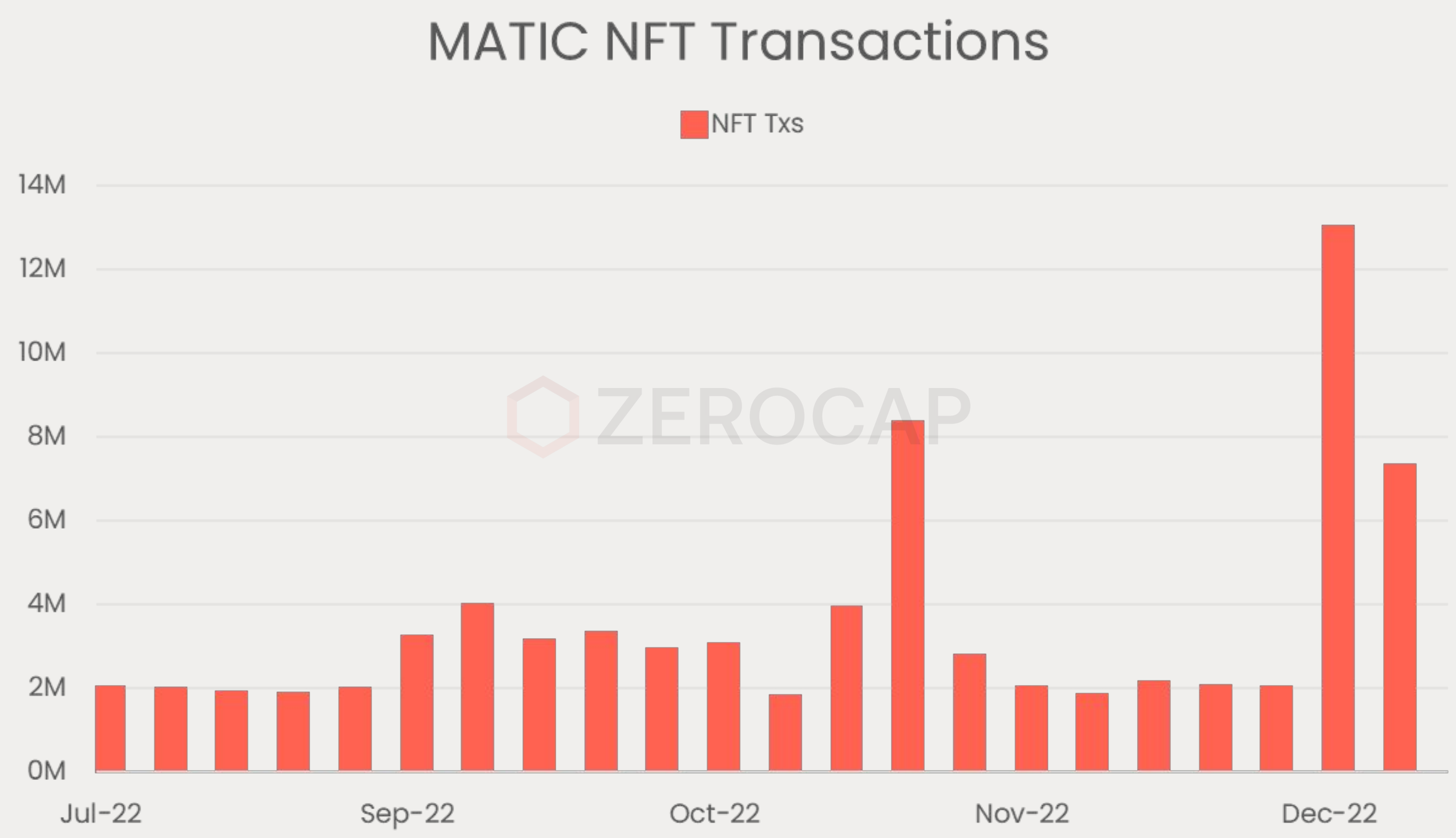
NFTs & the Metaverse

Polygon Onboards Web2 Companies

In Q4, Polygon's NFT ecosystem took flight as a result of a number of impressive partnerships between Polygon and dominant web2 companies. These collaborations typically eventuated in a new platform that leveraged Polygon as the underlying technology.

Notably, this feature of the company's strategic partnerships resulted in the number of wallets on the chain skyrocketing. Such users were brought on because of the adoptability of NFTs, resulting in most of these wallets primarily interacting with NFTs.

Throughout the quarter, Polygon's largest partnerships were with Instagram and Facebook, Reddit and Nike. Focusing initially on Instagram, Meta announced that users of Instagram and Facebook would be able to create and sell Polygon-based NFTs directly on the platforms. Reddit's foray into the web3 space with Polygon had a significant impact on the blockchain's on-chain metrics. Reddit users were able to mint "digital collectibles" on Polygon that represented their avatar on the platform. So far, over 6 million avatars have been minted as NFTs, bringing on millions of Reddit users to Polygon. Additionally, Nike announced it would be developing its web3 platform, .Swoosh with a Polygon integration for NFTs supported on the platform.



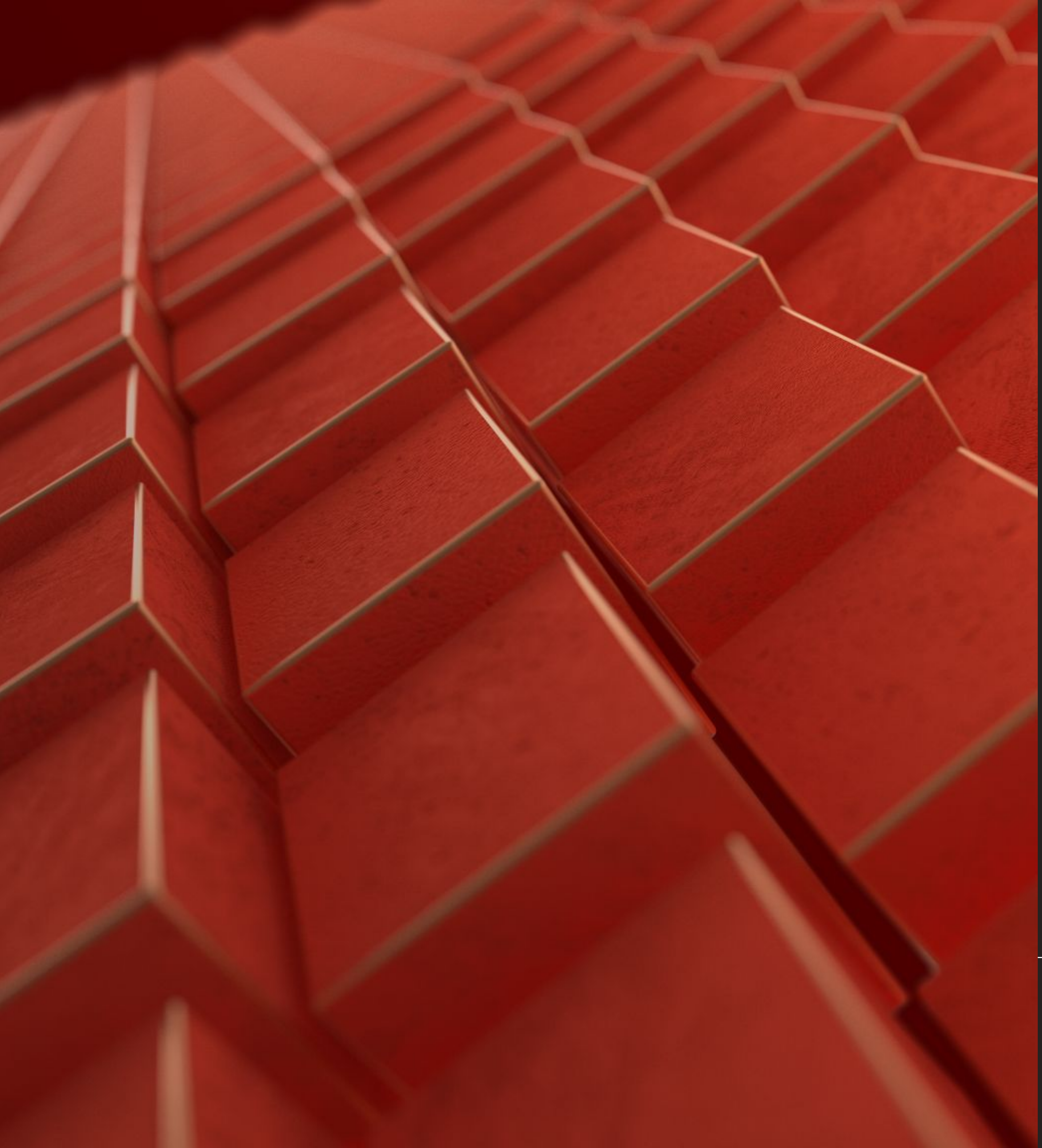
Source: NATH

Solana NFTs Migrate to Ethereum-Based Blockchains

Following our recap on Solana-based NFTs in Zerocap's Q3 quarterly review, the ecosystem managed to depict strong performance in a downwards market. However, towards the end of Q4, the dominant NFT projects on Solana, DeGods and y00ts, announced they would be migrating to Ethereum-based blockchains.

Importantly, these two projects, developed by Dust Labs, make up the bulk of the NFT trading volume on Solana and accordingly highlight a severe loss to the blockchain's NFT ecosystem.

DeGods, the initially dominant and largest project on Solana, will be migrating to Ethereum. This decision was influenced by the fear, uncertainty and doubt surrounding Solana's future after the FTX collapse given the heavy involvement of Sam Bankman-Fried in the blockchain. Dust Labs selected Ethereum given its widespread reach and engagement across web3 communities. On the other hand, y00ts announced it would be migrating to Polygon. Shortly after the announcement about the move, Dust Labs stated that Polygon has provided it with a non-equity grant for y00ts to migrate to its blockchain; US$3 million will be received by y00ts as an incentive for the shift in chains. Along with the NFT collections, the native token to DeGods and y00ts ecosystems, DUST, will too be migrating to Ethereum and Polygon.



SECTION 6.

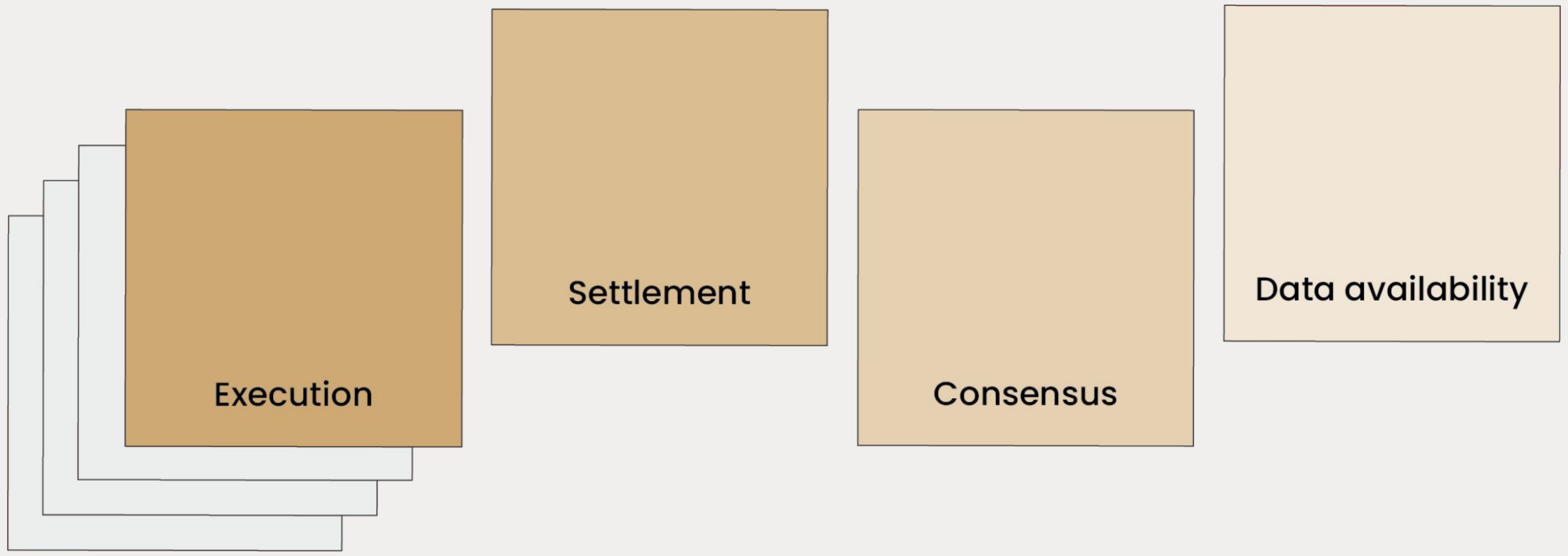
Emerging Themes

Modular Blockchains

Modular blockchains, also known as modular blockchain architecture, is an emerging theme in the blockchain space.

The concept involves breaking down the monolithic structure of traditional blockchain networks into smaller, modular components that can be easily swapped out or upgraded. This approach allows for more flexibility and scalability in the blockchain ecosystem, as specific components can be improved or replaced without disrupting the entire network.

With modular blockchains being divided into four primary infrastructure layers, the execution layer, settlement layer, consensus layer and data availability layer, a multitude of different teams are focusing on optimising a single layer. For example, Celestia and Polygon Avail are concentrating on providing a cheap data availability solution for rollups whereby calldata is posted on a blockchain built for storing block data. Similarly, Fuel Labs is striving to design and actualise an efficient, effective execution layer for the modular blockchain stack. This theme only grew stronger following The Merge which rendered Ethereum an innately modular blockchain stack.

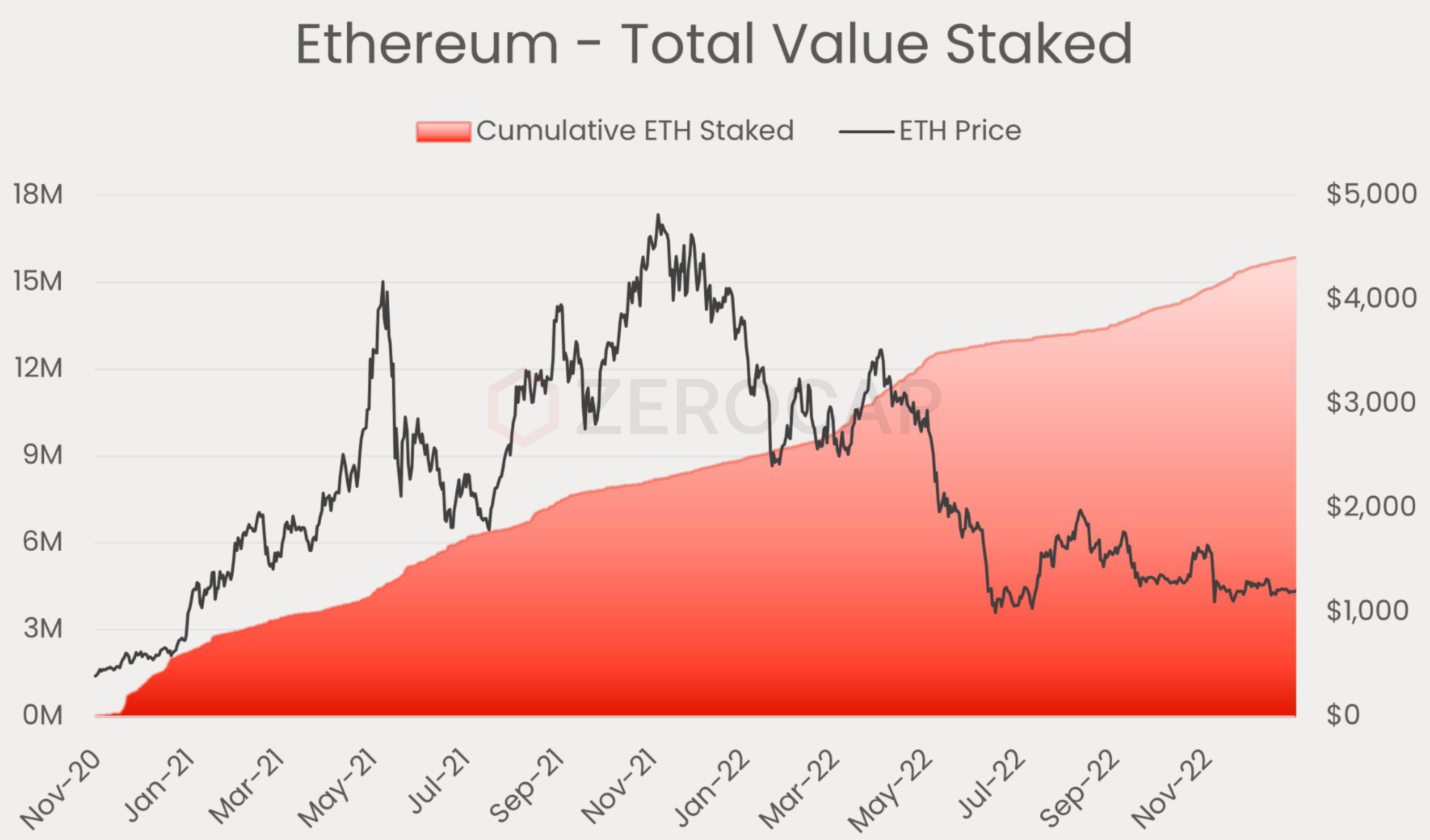


Shanghai Upgrade

Ethereum Improvement Proposals (EIPs) that are included in the forthcoming major Ethereum event, the Shanghai upgrade, gained momentum in Q4.

One primary feature that will be merged into the blockchain's protocol with the Shanghai upgrade is the unlock of staked Ethereum on the network's Beacon Chain. Accordingly, for certain individuals, they will be able to withdraw their staked ETH after locking it up over 2 years ago. Given that staked Ethereum withdrawals have not been enabled since the Beacon Chain, the total amount of ETH accruing on the chain is significant. Presently, there is over US$26 million worth of ETH staked on the Beacon Chain, equivalent to just under 14% of the circulating supply of Ethereum coins.

Throughout Q4, the total number of validators was approaching 500,000 with the emerging theme of the Shanghai upgrade. With each validator contributing 32 ETH, the barrier to entry for direct on-chain staking, that is without the use of pooling and liquid staking protocols, is high. Nonetheless, the strength of this narrative became clearer when the number of validators jumped above 500,000 very early in 2023 with most significant trends arising after Ethereum-developer announcements relating to withdrawals going live.



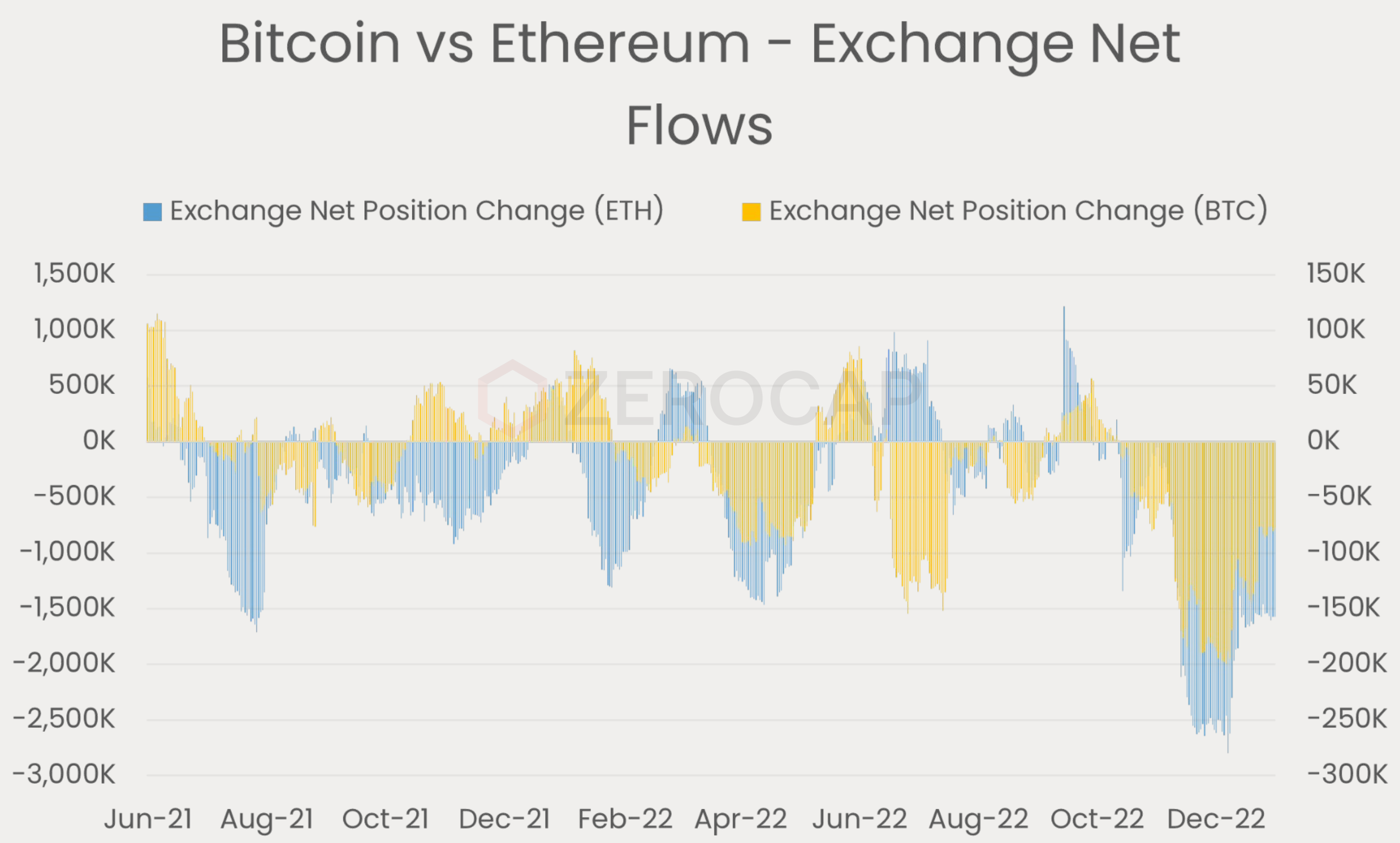
Growth in On-Chain Custody

Following the collapse of FTX and the emerging revelations relating to the back-door access to customer funds, many users who retained their cryptocurrencies moved their funds into web3 wallets and on-chain custodian solutions.

This event led to cold wallet providers, including Ledger and Trezor, selling out in many stores given the substantial increase in demand. Notably, whereas exchanges function similarly to banks where reserves are held in pooled wallets, and sometimes don't represent total user assets in a liquid form, Web3 and on-chain wallets give users complete ownership over their tokens, with verification available on the blockchain.

Web3 wallets enable users to store their own private key, leveraged by the cryptography of blockchains to sign transactions. For this reason, the familiar adage, "not your keys, not your crypto", once again has become a highly relevant and repeated phrase in the industry. In this time of elevated fear around custody, self-custody provides that guarantee that an exchange cannot rehypothecate user and client assets.

We've always advocated for on-chain, verifiable custody. Zerocap runs a hybrid model - your assets are on-chain and segregated, but you still have the protections of a tier-1 firm that operates in a regulated environment.



No, Code is Not Law

October of 2022 was saturated with DeFi exploits.

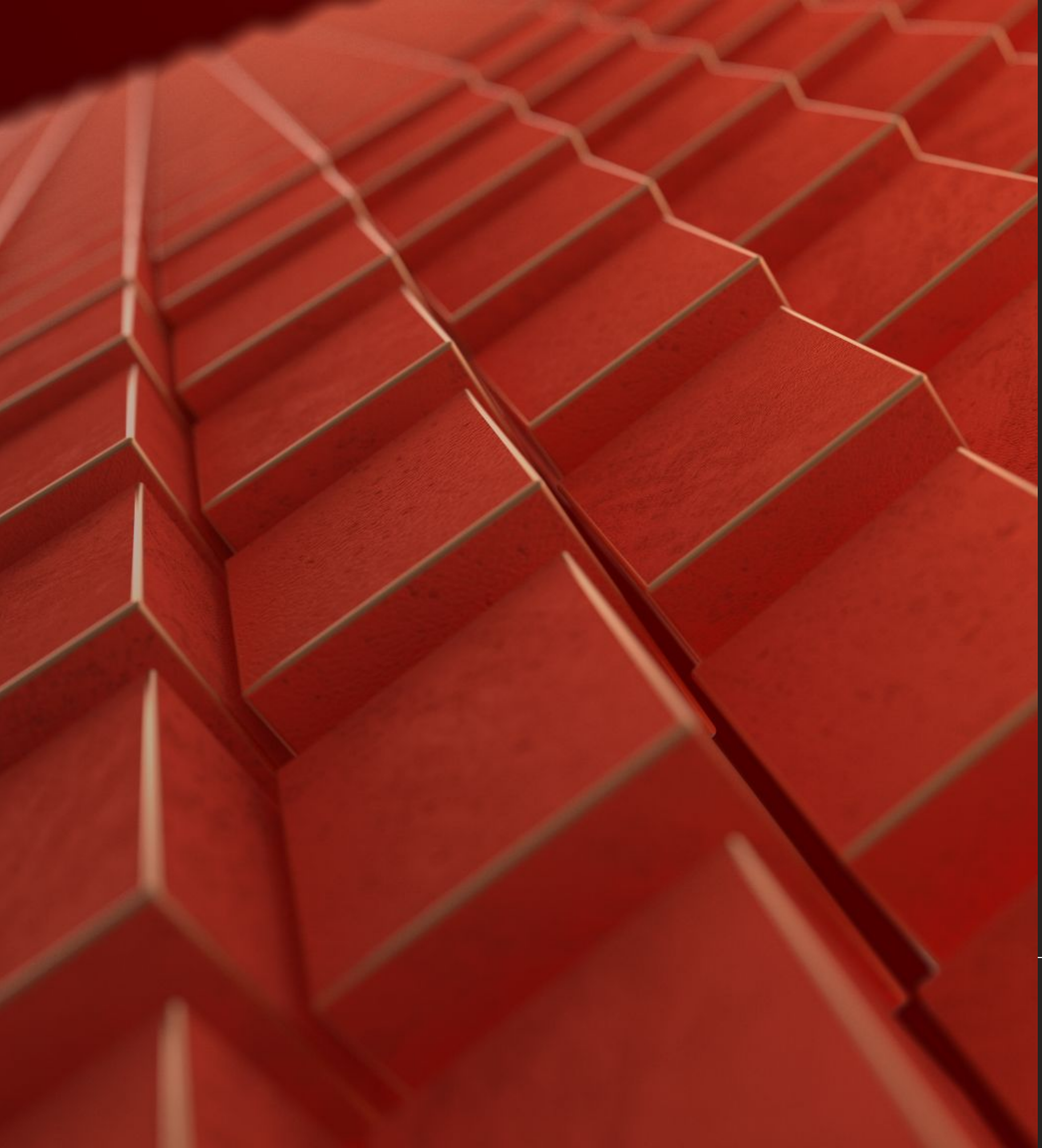
Whilst most of these hacks were performed by anonymous individuals or teams, on the 12th of October, Avraham Eisenberg attacked the decentralised lending protocol, Mango Markets, to steal US$117 million as a result of an unseen vulnerability in the decentralised lending platform's design.

This vulnerability came in the form of a price oracle used by Mango Markets to provide the dApp with information in a decentralised fashion about the value of the protocol's native token, MNGO. As a relatively illiquid asset, Eisenberg was able to substantially raise the price of MNGO by establishing a US$19 million long position. The exploiter achieved this by funding two anonymous Mango Markets accounts and funding each with US$5 million in USDC. With the first account taking a long position, the second account took the exact mirror of the position with shorts.

This saw the price jump from US$0.038 to US$0.91, an increase of over 2,000%. The price oracle fed that back into Mango Markets, at which point Eisenberg borrowed from the protocol's liquidity providers, putting up the highly inflated MNGO as collateral. Eisenberg moved his tokens off the protocol, leaving the MNGO, realistically valued at a fraction of the price being given by the oracle, to be liquidated.

However, the attack did not end with Eisenberg making off with US$117 million. Following the exploit, Eisenberg went onto the Mango Markets governance platform to tender a proposal that would permit him to take US$47 million as a bug bounty for finding the vulnerability, returning US$67 million back to the dApp's treasury. Whilst this would usually not pass through the DAO, Eisenberg owned the sufficient number of MNGO tokens to push it through with ease.

After being doxxed by Twitter sleuths, Eisenberg tweeted that he and his team had operated a "highly profitable trading strategy". He subsequently attempted to make the case that given "code is law", all his actions were legal given the vulnerability had always existed in the smart contract's code. The Commodity Futures Trading Commission (CFTC) disagreed - leading to accusations of market manipulation and commodities fraud.



SECTION 7.

Zerocap Highlights

Highlights

DEFI DISCOUNT NOTES

Last quarter, Zerocap launched the DeFi Discount Notes (available to wholesale investors only). This was on the back of anticipation that DeFi protocols would see heavy user growth, leading to higher revenue, as a result of an erosion in trust of centralised third parties in 2022 (3AC, Celsius, FTX). DeFi Discount Notes allow investors to enter a long position in DeFi tokens lower than market prices. The maximum return for these instruments is limited to a predetermined price (Cap Price). As it stands, these products have performed exceptionally well. If the Notes expired today, based on current prices the GMX Discount Note would have paid its return cap of 39% and the UNI and AAVE Discount Notes would have outperformed their Spot Price Returns by 11.11% and 11.10% respectively.

	Start Price	Current Price	Spot % Return	Discount Note % Return
UNI	$5.40	$6.56	**21.48%**	**34.98%**
AAVE	$64.51	$80.41	**24.65%**	**38.49%**
GMX	$29.82	$49.97	**67.57%**	**39.00%**

Discount Note % Return represents the % Return from the payout of the DeFi Discount Notes if they were paid out on the 17th of January 2023.

Highlights

AWARDS AND ACCOLADES

Zerocap exhibited a strong presence at the 2022 Blockchain Australia Awards - also known as the "Blockies" - winning two awards on the night. Zerocap was awarded the "Blockchain Organisation of the Year" - recognizing a business that has played a pivotal role in shaping the blockchain industry through its contributions and efforts to champion blockchain technology. Zerocap also won "Corporate Project of the Year" which recognizes the outstanding use of blockchain technology to deliver or enhance the delivery of products or services in a commercial setting. Zerocap won this award for its collaboration with ANZ on their A$DC stablecoin. This caps off a successful year for Zerocap on the awards front - with the company also winning awards at Finder Awards 2022 and the FinTech Australia Awards 2022. These awards recognize innovation and leadership in the blockchain industry.

Zerocap CINO Trent Barnes, Wealth Manager Pras Indrakumar and CEO Ryan McCall at the Blockies.

How to Get Started

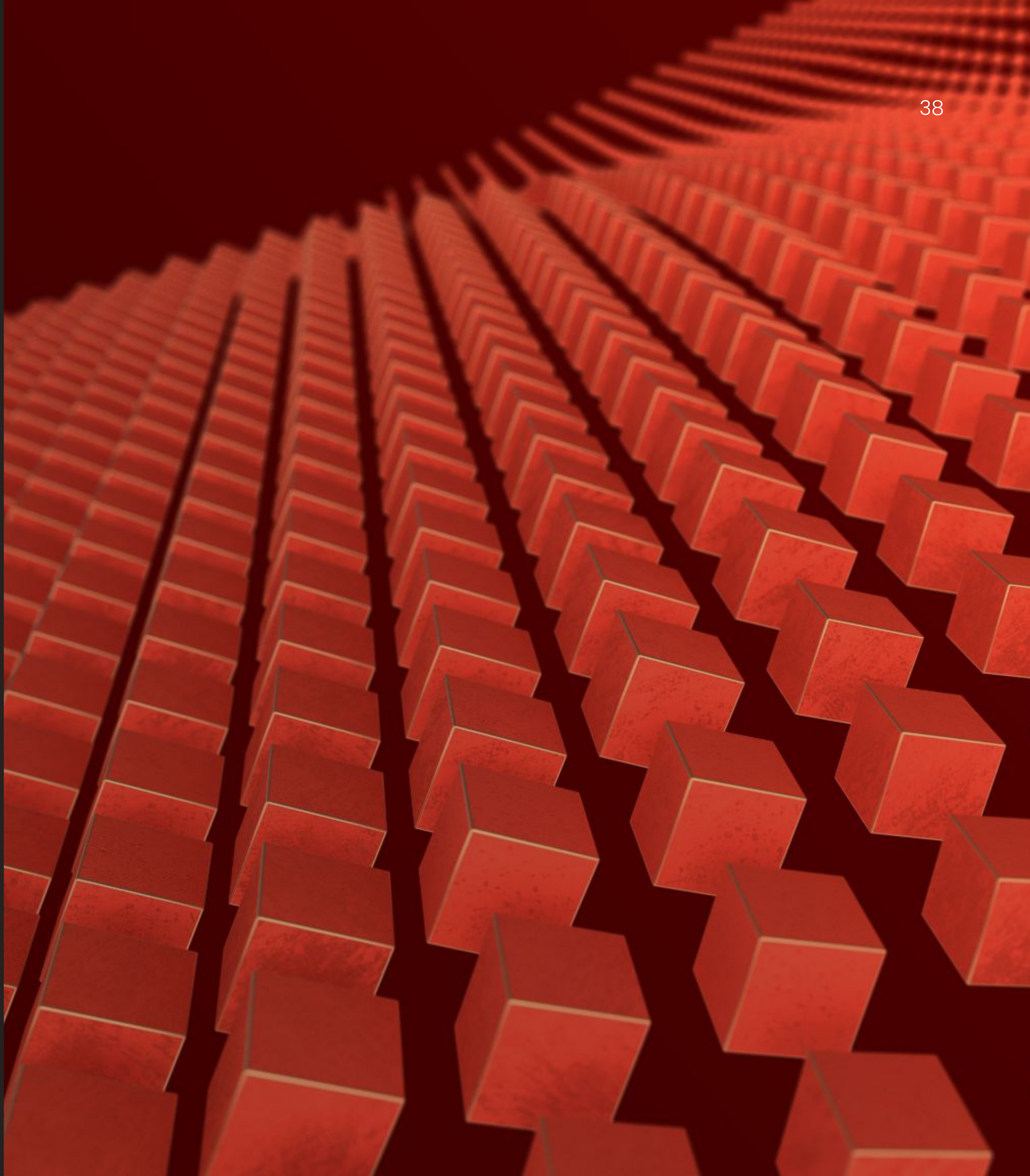
To sign up and start trading, visit: ZEROCAP.COM/SIGNUP

To discuss how digital assets fit into
your investment strategy, contact us at:

1. **HELLO@ZEROCAP.COM**
2. Phone – Australia: **1800 ZEROCAP (937 622)**
3. Phone – international: **+61 3 9491 8256**

Read our insights: **ZEROCAP.COM/INSIGHTS/**

Subscribe to our Weekly Crypto Market Wrap



ZEROCAP

P – AUSTRALIA 1800 ZEROCAP (937 622)
P – INTERNATIONAL +61 3 9491 8256

ZEROCAP.COM