Q3 2022

Kaiko Research

Quarterly Market Report

A data-driven recap of the quarter's most significant market events

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Q3 Timeline

July

July 1
Voyager Digital suspends withdrawals after Three Arrows fails to repay loan, files for bankruptcy five days later

July 8
Binance eliminates BTC trading fees

July 14
Celsius files for bankruptcy

July 19
Tether re-gains to its peg

July 25
Coinbase the focus of an SEC probe

July 29
Curve 3pool returns to equilibrium

August

August 1
Nomad Bridge exploited for $190mn

August 3-4
Solana wallets are hacked, *CoinDesk* alleges one developer inflated TVL metrics

August 8
U.S. Treasury sanctions Ethereum addresses related to Tornado Cash, Circle blacklists addresses a day later

August 15
EOS Network Foundation announces September hard fork

August 24
Coinbase launches cbETH liquid staking token

September

September 15
Ethereum Merge completed

September 19
SEC and Ripple request summary judgement

September 20
Wintermute hacked for $160m

September 27
Celsius CEO steps down

September 30
Solana network outage

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Analyst Commentary

Clara Medalie

Binance's Bold Moves

Q3 was a whirlwind dominated by macro volatility, the Merge, and the ongoing fallout from the crypto credit crisis. Yet, one relatively under-the-radar trend caught my attention: Binance’s bold moves to clinch market supremacy. On July 8th, Binance eliminated trading fees for 13 BTC trading pairs and shortly after removed fees for ETH-BUSD. This action was of nearly unprecedented scale in the history of cryptocurrency markets, especially considering Binance’s BTC-USDT pair is the most liquid in crypto. The exchange essentially decided to sacrifice profits earned from ~$5bn in daily volume. Not only that, these 13 pairs + ETH-BUSD accounted for more than half of total volume on the exchange.

Binance has a massive war chest that can handle a sharp drop in revenues and this move is clearly part of a longer-term strategy to siphon traders from its competitors. But the question remains, how long can the exchange maintain zero fees, especially in a bear market? Other exchanges will surely respond with their own promotions and altered fee structures, but will it be too late?

The exchange fee war is just getting started and there's nothing like a bear market to trigger consolidation in a heavily competitive industry.

Dessislava Aubert

It's All Macro Now

Despite outperforming traditional assets in Q3, crypto markets continued moving in sync with global risk sentiment. This was well-illustrated by the summer’s crypto recovery which coincided with revived expectations for an early dovish pivot in U.S. monetary policy. After U.S. core inflation continued climbing in September, the Fed (as expected) hiked rates while doubling the pace of its quantitative tightening (i.e. balance sheet reduction). This led to a broad risk-off sell-off across asset classes, including crypto. Bitcoin’s correlation with the S&P 500 hit a fresh all-time high in September after decreasing slightly throughout the summer.

The U.S. Dollar was the main beneficiary of the Fed’s hawkishness, with several currencies hitting multi-decade lows against the greenback. FX volatility reached a boiling point when the British pound (GBP) fell to a record low and the Bank of England was forced to intervene.

Data releases are likely to keep generating volatility in the coming months with recession fears on the rise as the global economy shows signs of weakening. The fast-evolving U.S. and European crypto regulation will be among the major market movers, potentially offering much-needed clarity to the industry in the coming months.

Analyst Commentary

Conor Ryder, CFA

Macro Trumps the Merge

The most interesting thing for me about the Ethereum Merge has been the sheer inability for crypto, or more specifically ETH, to stage a meaningful rally in the face of macro headwinds. No-one would disagree with the fact that the Merge went as well as it could have. Even the test runs in the buildup had some minor glitches, but the main event had virtually none.

Ethereum now runs away in the background on proof of stake like the whole transition process was no big deal. That's remarkable in itself, but what's even more remarkable was that this feat has led to an underperformance vs BTC since the Merge of -12%. However, this starts to makes a bit more sense when you zoom out to pre-Merge and see ETH's dominance relative to BTC in both price and volumes traded. The ETH Merge trade was a crowded one with ETH commanding equal spot volumes to BTC pre-Merge, which have since reverted to over 60:40 in favour of BTC as investors seem to be unwinding their "long ETH into the Merge" positions.

The question now is how long a gap there will be between institutional adoption, which will undoubtedly only happen when prices start going back up, and the more risk-conscious, short term selling we're seeing at the minute. I think once we get the first sniff of a pivot from the Fed, which could be as early as the end of this year, money will start flooding in to Ethereum and crypto as whole.

Riyad Carey

DeFi is Resilient

Terra's collapse continued to weigh heavily this quarter, as previously unknown links between *CeDeFi* companies (i.e., Voyager and Celsius) manifested in balance sheet holes and consumers losing access to their funds. This summer was a constant stream of headlines detailing something breaking. What didn't break? DeFi.

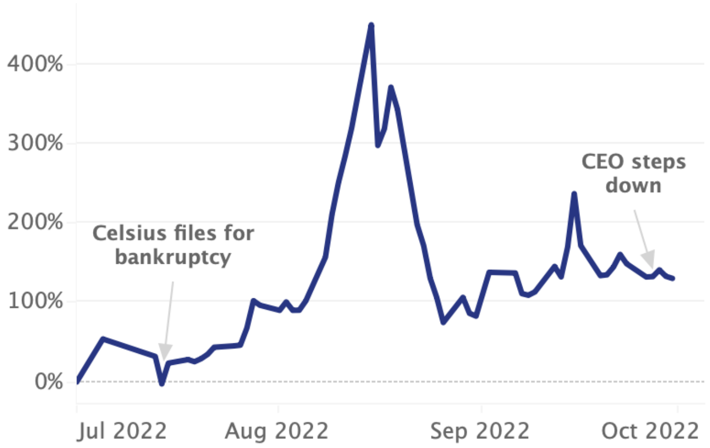
Through the most stressful period in its short existence, DeFi continued to function as promised. DEXs worked while centralized exchanges went down. Lending and borrowing continued to operate normally. Liquid staking platforms weathered the storm and generated some nice returns for those who bought when others were panicking. And this happened all while CeDeFi companies were liquidating hundreds of millions of dollars worth of DeFi positions and Ethereum was changing its consensus mechanism. Yes, there were exploits and casualties along the way, but the blue chips proved why they're blue chips.

CeDeFi is dead or nearly dead, but no one should be shocked when charlatans resurrect it with new buzzwords and attractive yields in the next bull run. What happens next? Price-wise, macro is still king. Regulation remains a big unknown, though I'm skeptical of any one government being able to kneecap DeFi. DeFi protocols have now had years to learn from the failed ponzinomics of the past and are well positioned to lead whenever the Fed decides to pivot.

Crypto Credit Crisis: Voyager Digital and Celsius

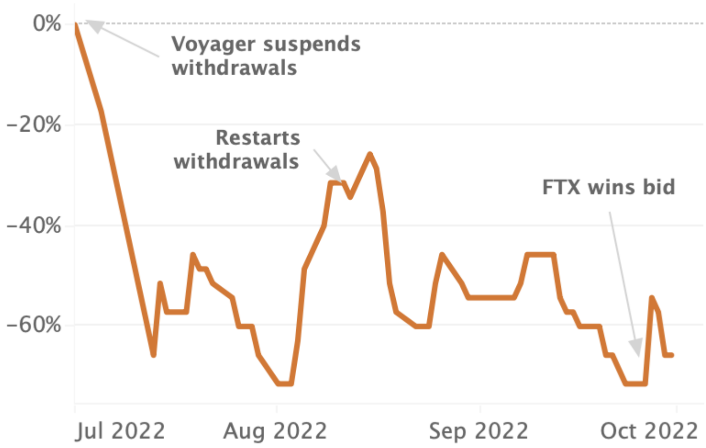
Celsius

CEL token price Q3 returns



Voyager

VYGVQ share price Q3 returns



The quarter got off to a bleak start due to the ongoing fallout from the crypto credit crisis. On July 1, Voyager Digital, one of the largest crypto lenders, announced that it was suspending trading and withdrawals. In its press release, the company identified an unpaid 15,250 BTC and $350mn USDC loan to Three Arrows Capital (3AC) as the source of its troubles. 3AC was once the industry's largest hedge fund, and after the firm filed for bankruptcy in early July, its unpaid loans exacerbated liquidity troubles for many crypto lenders. Voyager resumed cash withdrawals in August and on September 26, FTX.US won a bidding war for Voyager's assets and will reportedly pay around $1.4bn.

Meanwhile, the large crypto lender Celsius, which halted withdrawals on June 12, finally filed for bankruptcy on July 13. In a statement, Celsius revealed that it had $167mn in cash on hand, though the Vermont Department of Financial Regulation alleged that the company is "deeply insolvent... Celsius deployed customer assets in a variety of risky and illiquid investments, trading, and lending activities." On September 27, founder and CEO Alex Mashinksy stepped down.

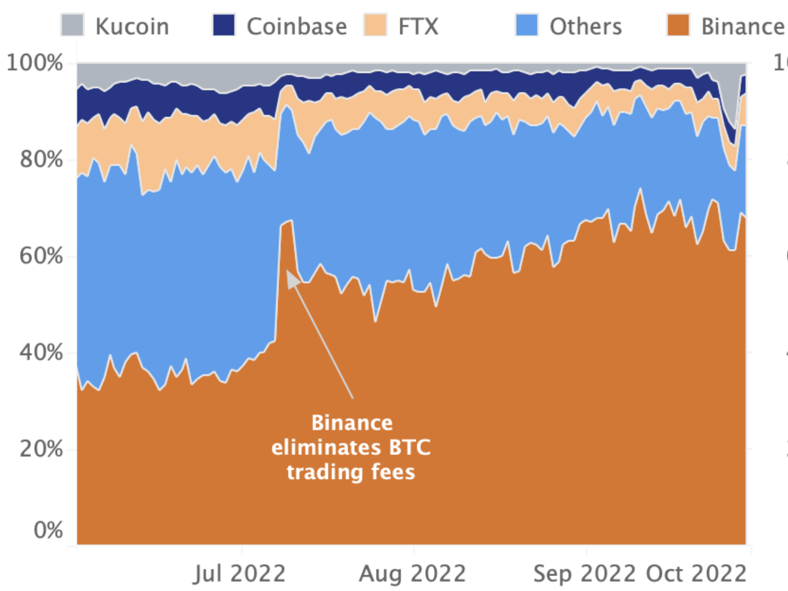
Interestingly, Celsius's CEL token closed the quarter up around 120% despite the firm's ongoing insolvency. Voyager's share price, on the other hand, closed the quarter down nearly 60%.

Liquidity Troubles Have Eased... For Now

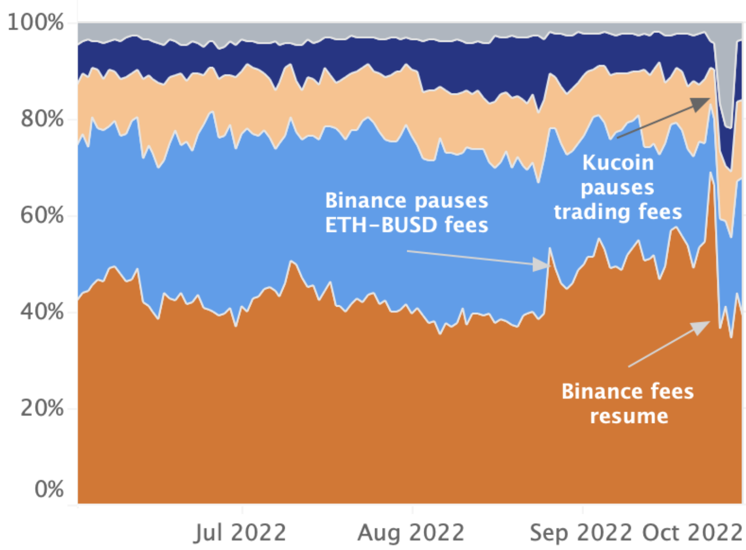
Liquidity issues were prevalent at the beginning of the quarter as firms grappled with direct and indirect losses related to the Terra collapse, 3AC bankruptcy, and general bear market. By the end of Q3, markets had stabilized from the fallout, although there remain several ongoing bankruptcies that could put downward pressure on prices. For more on the troubles that plagued Celsius, see our Celsius Deep Dive. For more on forced selling and the role of price slippage, check out our Deep Dive: How to Liquidate Large Bitcoin Holdings.

Binance Eliminates Trading Fees, Promotes BUSD

BTC Market Share



ETH Market Share



On July 6, Binance announced that it would eliminate trading fees for 13 BTC-fiat/stablecoin trading pairs. Unsurprisingly, there was an explosion in volume on the exchange. In an acknowledgement that much of this initial volume was wash trading, Binance excluded volume on these pairs from trader incentive calculations. The elimination of fees instantly brought Binance's BTC volume market share above 65%, though it quickly dropped to 50% and then began a steady uptrend. By mid-September, Binance was facilitating over 70% of spot BTC volumes, a record high.

Binance also suspended ETH-BUSD trading fees from August 26 to September 26 to benefit from Merge-related activity. Ahead of the move, Binance was responsible for about 40% of ETH spot volumes, after which volumes were regularly over 50%. Binance's ETH market share has since returned to normal levels.

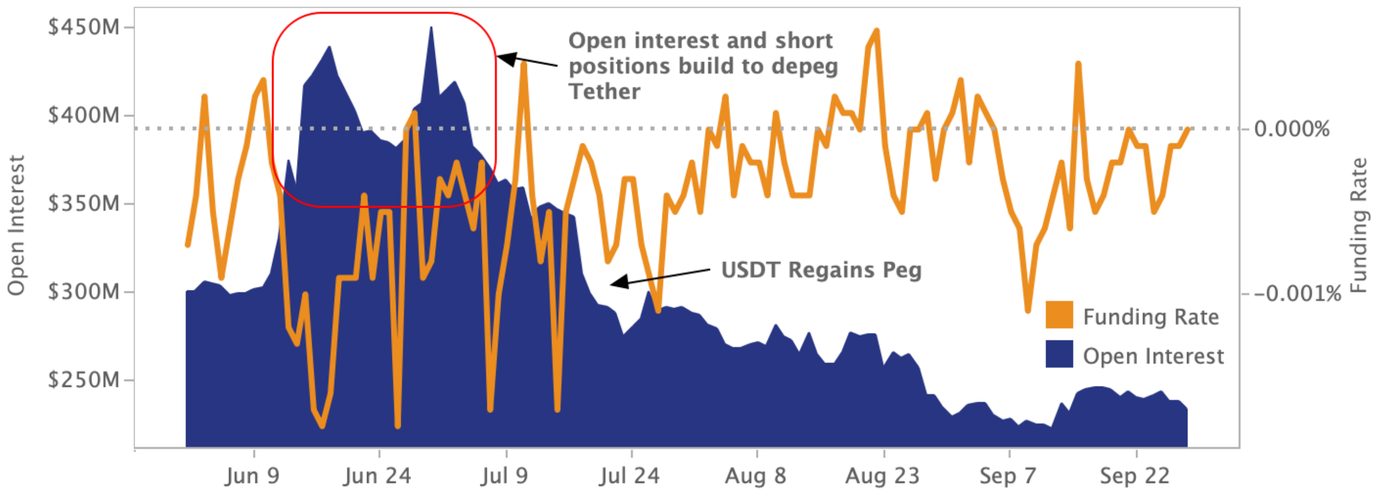
In another surprising move, the exchange announced on September 5 that it would be auto-converting users' balances of USDC, USDP, and TUSD to BUSD. Users will still be able to withdraw in their stablecoin of choice.

Binance's Bold Moves Pay Off

Taken together, these moves suggest that Binance is prioritizing the growth of its stablecoin BUSD and trying to seize as much market share as possible amid an ongoing bear market. The next steps the exchange takes will be interesting: will it attempt to encroach on USDC's DeFi dominance or will it continue to focus on centralized exchange volumes? BNB holders have reaped the rewards of the exchange's growing dominance, as the token was one of the top performers this quarter, up nearly 30%. Other exchanges have taken notes, with Kucoin launching its own trading promotions that helped volumes on the exchange temporarily soar to all time highs.

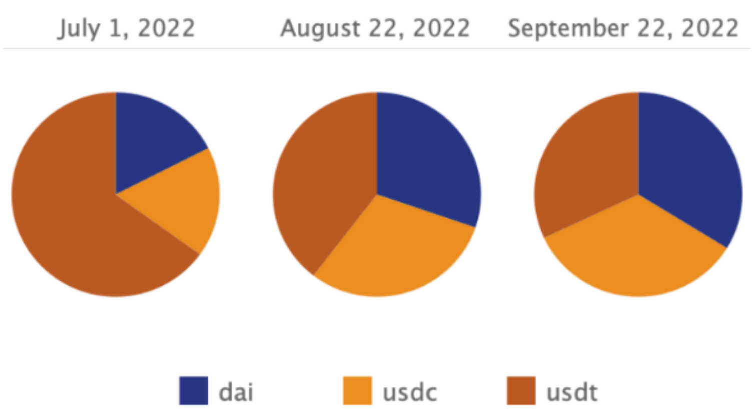
Tether Regains Peg

USDT Open Interest and Funding Rates



On July 19, Tether regained its peg after trading at a persistent slight discount for 68 days. Throughout this time, open interest for USDT perpetual futures grew to all time highs and funding rates indicated a strong short bias. The discount emerged in the wake of the Terra crash, which created fear that Tether would not be able to cope with redemptions. At the time, the CTO of Tether claimed that the USDT perpetual future market on FTX could be used as an attack vector for anyone trying to de-peg Tether. Once it became clear that Tether was able to handle redemptions, these positions were closed out and open interest reverted back to usual levels.

Curve 3Pool - Ratio of Reserves



DEXs play an increasingly important role in the stablecoin ecosystem, dominated by Curve's 3pool, which accounted for billions of trade volume in Q3. When USDT started trading at a discount, the 3pool became heavily imbalanced, with USDT making up 60% of the pool. As rumors surrounding Tether's liquidity situation died down and Tether returned to its peg, the 3pool re-balanced with each asset returning to a 33% weight.

Tether Passes Test But is Still Under Scrutiny

The Terra collapse proved the catastrophic consequences of a depegging event and fears quickly spilled over and latched on to Tether, a frequent target for criticism and suspicion. But Tether survived its toughest stress test yet, as it continued to process redemptions as its market cap dropped from $86bn to $65bn in two months. Though these pressures have abated, it is still under the microscope: on September 21, a NY Judge ordered Tether to produce records showing its backing of USDT.

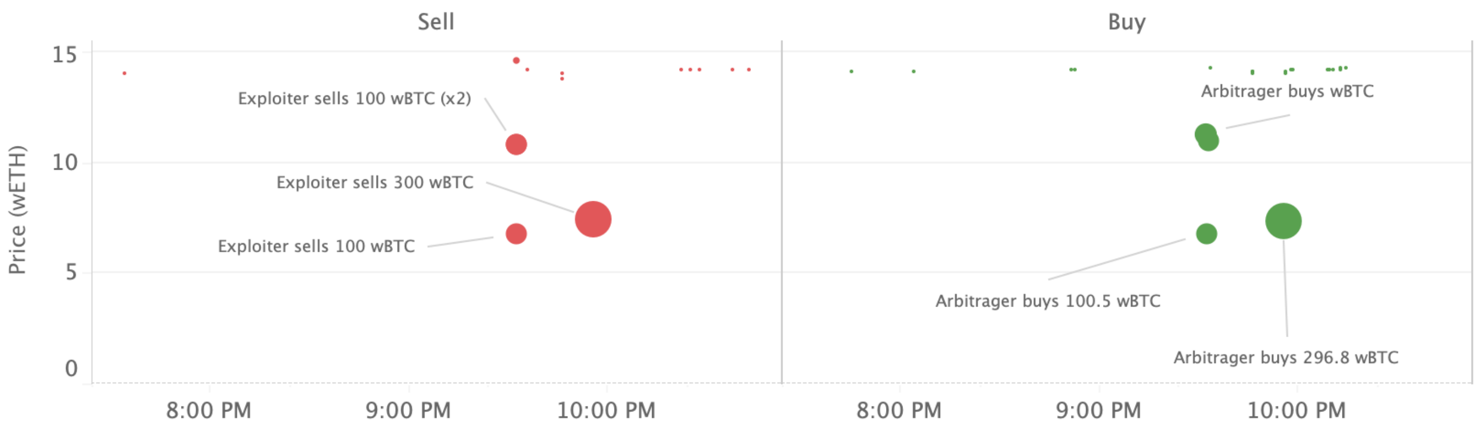
The Nomad Bridge Exploit & Tornado Cash Sanctions

On August 1, the Nomad Bridge, which connects Ethereum, Avalanche, and several other layer 1 networks, was exploited for $190mn in one of the largest bridge hacks to date, which heightened concerns around inter-chain security. This exploit was unique in that many people were able to join in and drain funds with a little technical know-how.

When investigating this exploit and the transactions that followed, we found that one of the first exploiters conducted large wBTC swaps on Uniswap V2, which has significantly less wBTC liquidity than V3. The result was massive price impacts that were arbed away by bots, netting the arbitrager upwards of $4mn in profits.

wBTC-wETH Swaps on Uniswap V2

August 1, 2022



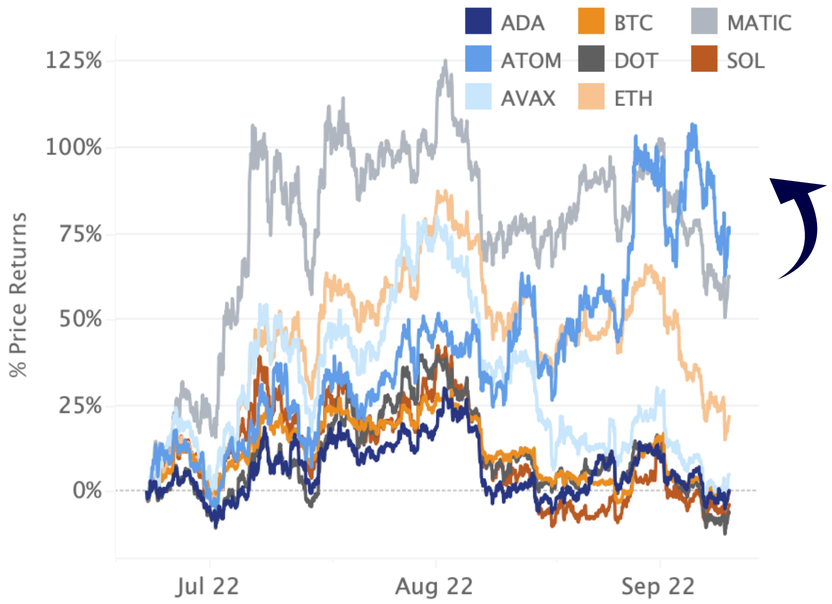
The question is: why? It is possible that the exploiter simply made a mistake, but given the technical knowledge that it would take to pull off this heist, this seems unlikely. The more intriguing possibility is that the exploiter was arbing themselves, generating "clean" tokens that would not be scrutinized by authorities. Read the full Deep Dive here.

Heists Continue, But Laundering is More Difficult than Ever

A week after the Nomad exploit, the U.S. Treasury sanctioned Ethereum addresses associated with Tornado Cash, the mixer frequently used to launder stolen funds. The Treasury alleged that the notorious North Korean hackers Lazarus Group had used Tornado Cash to launder hundreds of millions of dollars. Circle, the issuer of USDC, blacklisted the addresses associated with Tornado Cash a day later. This action cast a light on the fact that much of DeFi is built around USDC, a centralized stablecoin issued and operated by a regulated company. While hacks and exploits have and will continue, sanctions have made it more difficult than ever to launder.

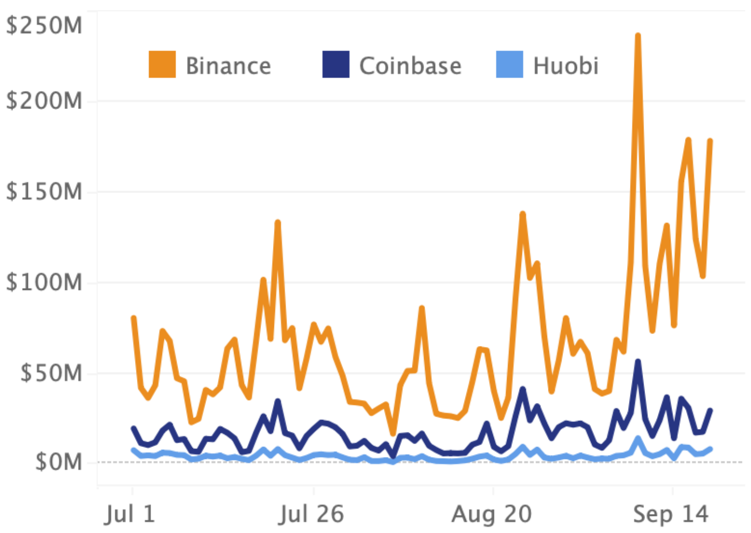
Cosmos' ATOM Outperforms

ATOM vs. Similar Market Cap Tokens

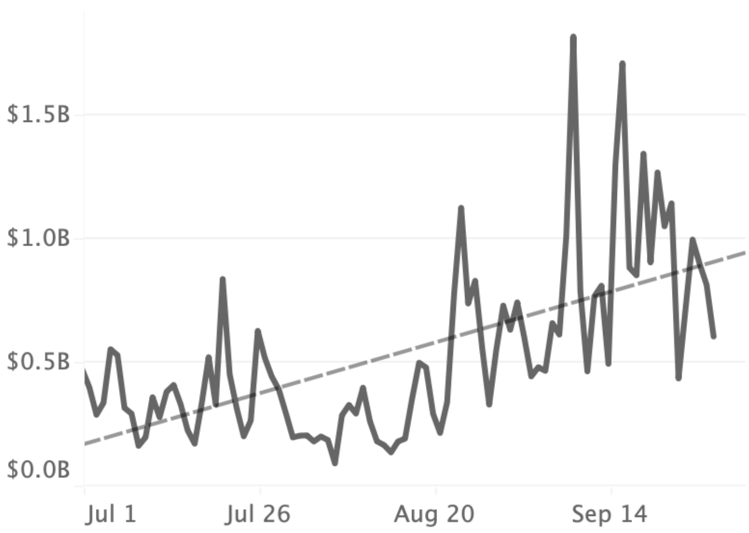


The Cosmos network's ATOM token rallied late in the quarter and was one of the best performing tokens of September, outperforming BTC, ETH, and its closest Layer 1 competitors. This outperformance was largely related to the rumored (and now confirmed) updates to ATOM's tokenomics, which are designed to improve value accrual. Volumes for the token rose on spot markets and perpetual futures markets ahead of the announcements from the team, surging particularly high on Binance.

ATOM Spot Volumes



ATOM Perpetual Futures Volumes



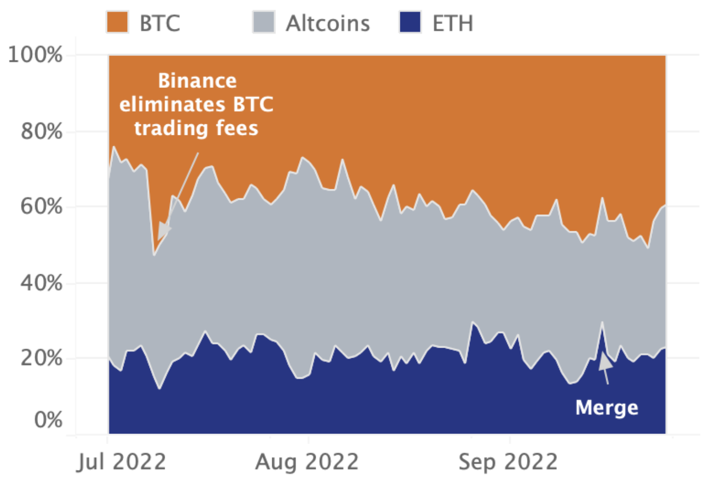
Improved ATOM Tokenomics Could Boost Cosmos Adoption

Despite Cosmos' innovation in blockchain technology, ATOM has always struggled with value accrual. This is because each blockchain built using Cosmos's technology runs its own validators, and therefore secures themselves with their own native tokens via proof of stake. The improvement in the tokenomics of ATOM will be addressed by Interchain Security, which will allow Cosmos chains to secure themselves with ATOM, thanks to the Cosmos Hub validators, with value finally accruing to ATOM. Cosmos founders also revealed an inflation schedule which aims for a lower level of issuance, another factor which should support its price. To learn more about Cosmos and ATOM, check out our Deep Dive here.

Ethereum Merge: Market Reaction

Spot Markets

Market Share of Spot Volume

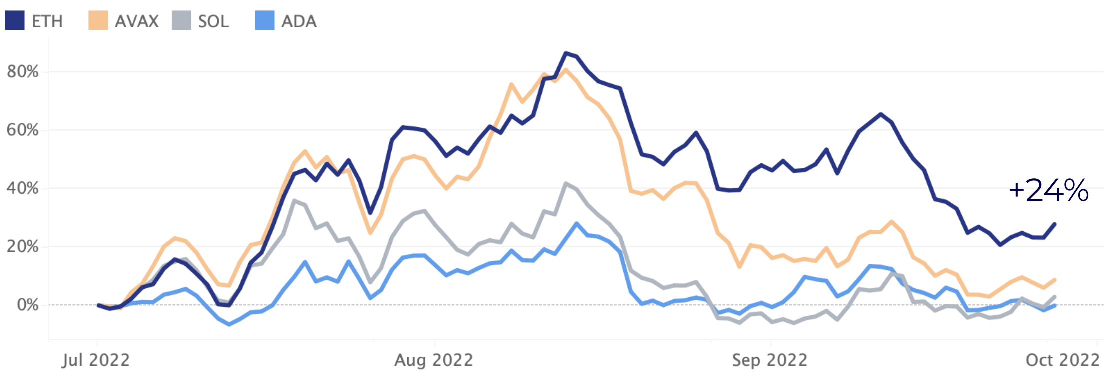


BTC vs. ETH Q3 Price Returns

The Merge was the dominant narrative in the second half of this quarter, with much ink spilled on its benefits and drawbacks. Given a market that was desperate for a new narrative in the wake of Terra's collapse and the subsequent failure of CeFi companies, one might have expected a significant increase in ETH volumes. This was not borne out in spot volume data. As pictured above, ETH's volume market share was essentially flat the entire quarter, peaking at just under 30% the week of the Merge.

The fears that longing spot ETH in anticipation of the Merge was a crowded trade that would have to unwind have proved correct, with ETH down about 20% since the Merge's completion. It would be easy to blame the price crash on macro headwinds, but that fails to explain BTC's relative over-performance in the weeks following the event. More likely, the divergence is linked to ETH's previous outperformance of BTC in August, and the two assets are coming back towards balance.

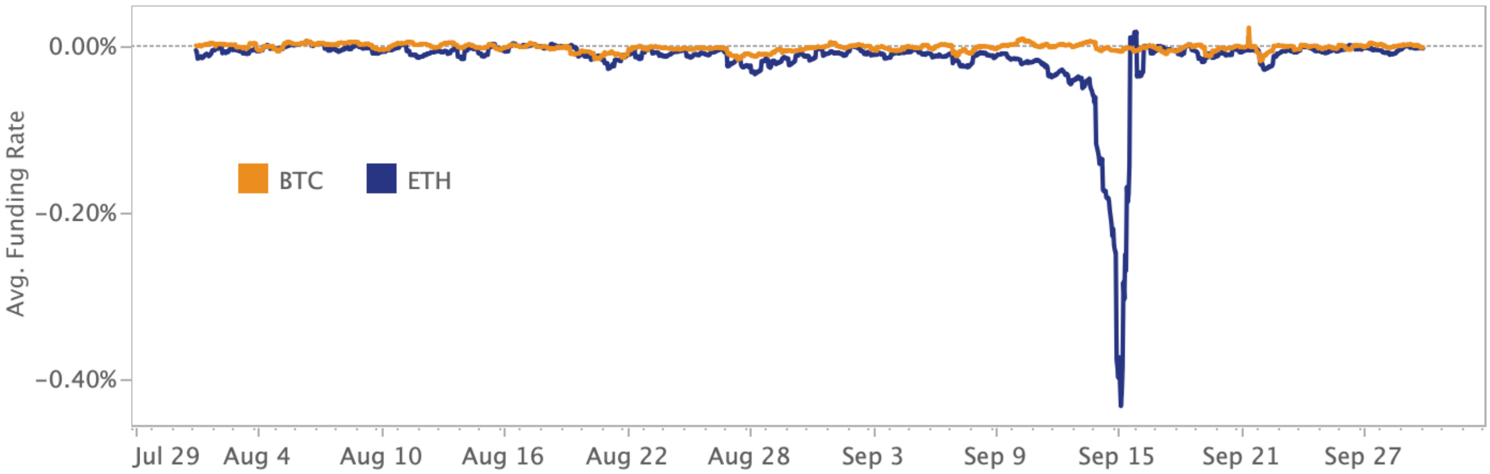
Price Performance of ETH vs. L1s



Despite ETH's poor post-Merge performance, the asset still closed Q3 up 24%, better than all of its top Layer 1 competitors. Avalanche's AVAX, Solana's SOL, and Cardano's ADA tokens closed flat.

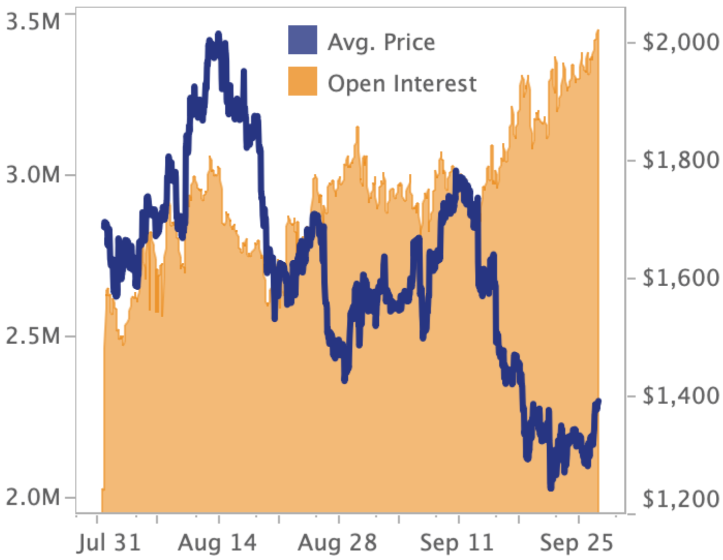
Derivatives Markets

Perpetual Futures Funding Rates

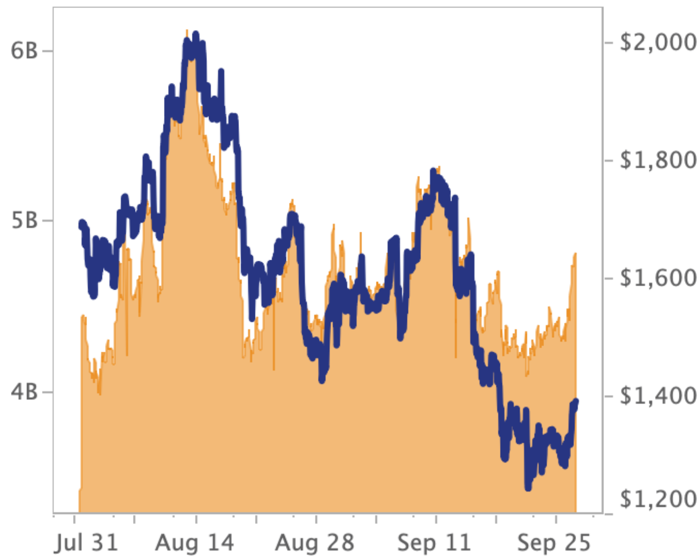


Derivatives markets dominated Merge-related market activity. ETH funding rates dipped to all time lows while open interest surged to all time highs as traders built strong hedging positions in the weeks preceding the Merge. The divergence between spot and futures markets can be explained by the impending Ethereum Proof-of-Work hard fork that occurred immediately post-Merge. Traders went long spot ETH and short perpetual futures to benefit from the value of the airdropped ETHW token and also hedge against any possible worst case Merge-related scenario. Meanwhile, BTC funding rates remained neutral throughout the event.

Open Interest Denominated in ETH



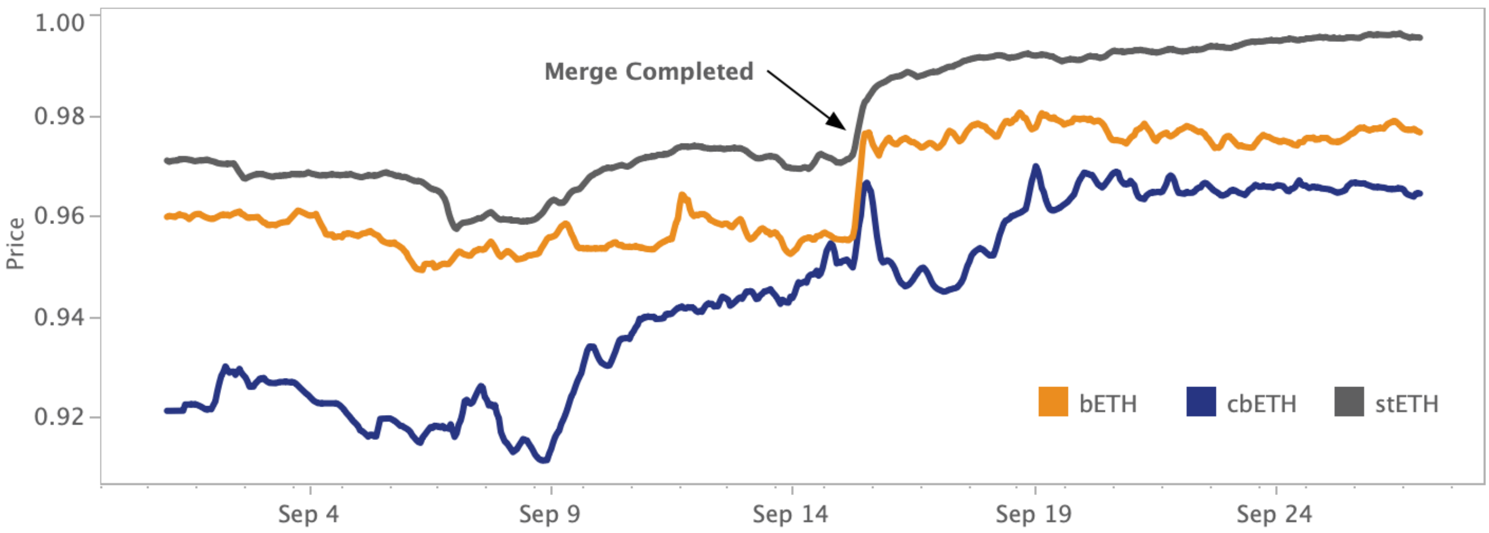
Open Interest Denominated in USD



Interestingly, open interest continued to surge following the Merge as funding rates returned to neutral. All time high open interest (denominated in ETH) was first breached in August, but new all time highs were again breached in the final weeks of Q3. When denominating in USD, open interest has closely tracked price movements, which reflects the current downward trend. The record high amount of open contracts acts as a leveraging force on the price of ETH, so any market mover such as CPI releases or Fed meetings has an outsized effect on prices.

Liquid Staking Derivatives

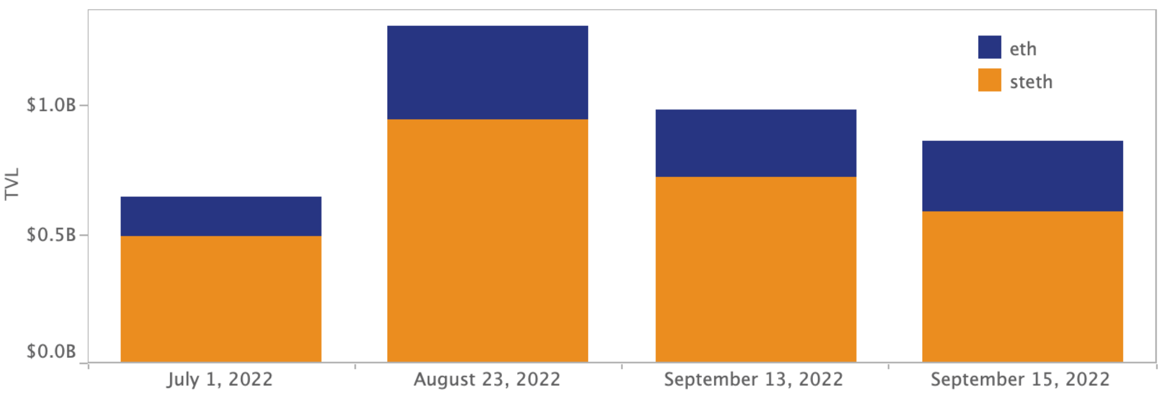
Price of Liquid Staking Tokens vs. ETH



The discount on staked ETH tokens relative to spot ETH has narrowed to its lowest levels since May, a trend which first emerged in the hours after the Ethereum network's successful transition to proof-of-stake. Liquid staking derivative tokens such as Coinbase's cbETH, Binance's bETH, and Lido's stETH are wrapped versions of ether staked on Ethereum's consensus layer — the Beacon chain. They are not pegged to ETH and their market price takes into account a number of regulatory and smart contract risks. Nonetheless, a discount for staked ETH presents certain liquidity risks for large holders considering ETH can't be redeemed for another ~6 months.

Lido's stETH is currently the largest liquid staking token with a market capitalization of more than $4.6bn. The stETH-ETH discount first emerged in the aftermath of the Terra collapse on the decentralized exchange Curve, triggering a sharp reduction in total value locked. An important factor improving the discount from 4% to 1% has been the additional ETH added to the Curve pool.

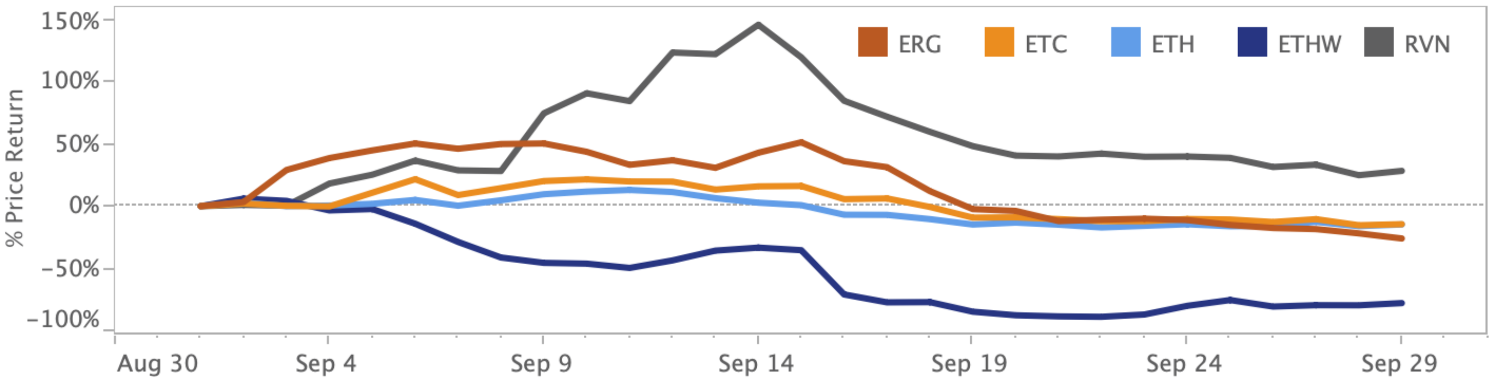
TVL of stETH-ETH Liquidity Pool on Curve



Pre-Merge, ETH represented just 28% of the stETH-ETH Curve pool, whereas after the Merge this has risen to 34%. The more balanced the pool becomes the closer stETH will return to parity.

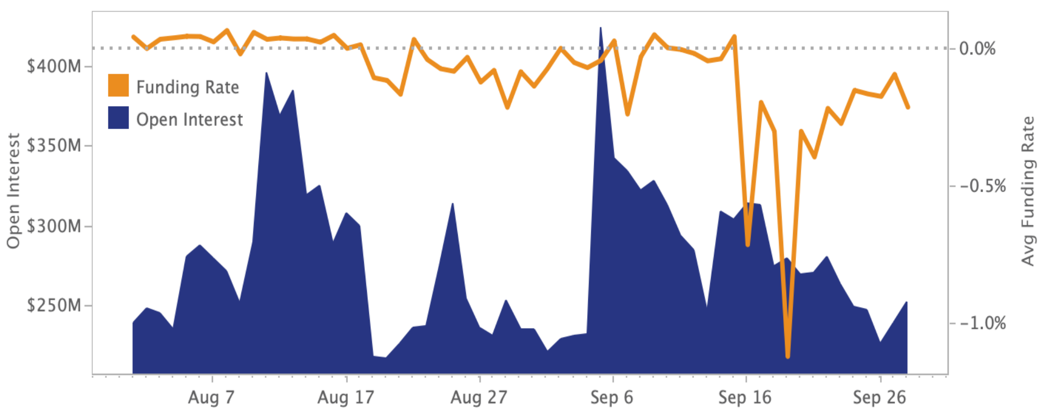
Ethereum Hard Forks

Price Returns for PoW Tokens



The migration to proof-of-stake was cataclysmic for Etheruem miners. After the Merge, around one third of ETH miners migrated to other proof-of-work (PoW) networks while the rest halted operations. While hash rates for other PoW networks such as Ravencoin, Ergo, and Ethereum Classic have soared, the prices of most PoW tokens have dropped sharply, in line with the broader market. The token for the newly launched Ethereum hard fork, ETHW, is the worst performer, dropping over 70% since the start of September. Ravencoin's RVN is the only PoW blockchain token up for the month, although its total market cap is just $430mn.

Ethereum Classic Open Interest and Funding Rates



ETC is one of the first Ethereum hard forks and the Merge caused its hash power to surge to all time highs as miners shifted power to the network. Open interest for ETC derivatives markets also climbed to all time highs, although immediately following the Merge, funding rates dipped sharply negative as investors bet against the future of the network.

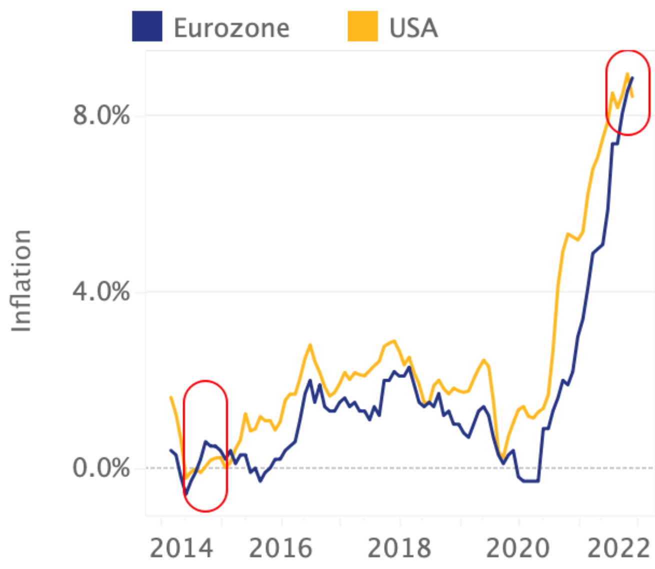
Ethereum's Long-Term Future is Secure

The Merge has been likened to replacing the engine of an airplane in mid-air. This process was completed successfully with no fireworks and nothing breaking. This is a testament to the Ethereum developers and community who not only organized such a technical achievement, but also communicated what to expect when it happened. While ETH's price did not behave as many hoped, the long-term future of the network is secure, which could translate into future value accrual for the token. The future of Ethereum hard forks, on the other hand, is precarious at best. For more Merge-related charts, check out our Deep Dive here.

Strong Dollar and High Inflation Shake Markets

Dollar Strengthens

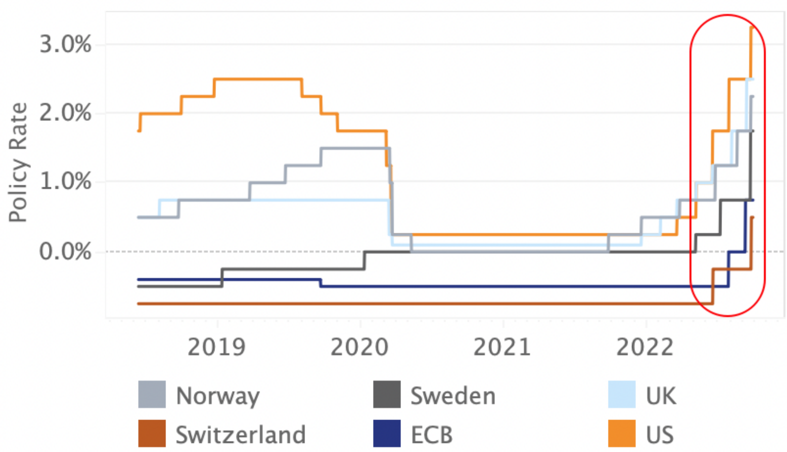
Inflation Soars



High inflation, the Fed's hawkishness, and strong safe-haven demand has continued to fuel the U.S. Dollar's rise to two-decade highs. The Dollar Index (DXY) measures the U.S. Dollar's performance versus a basket of foreign currencies and is up 3.2% in September and 14.1% YTD. Historically, a strong dollar has been bearish for risk assets, both bitcoin and equities included. The strong dollar has caused currencies to devalue to decade-lows, hitting the Euro and British Pound particularly hard.

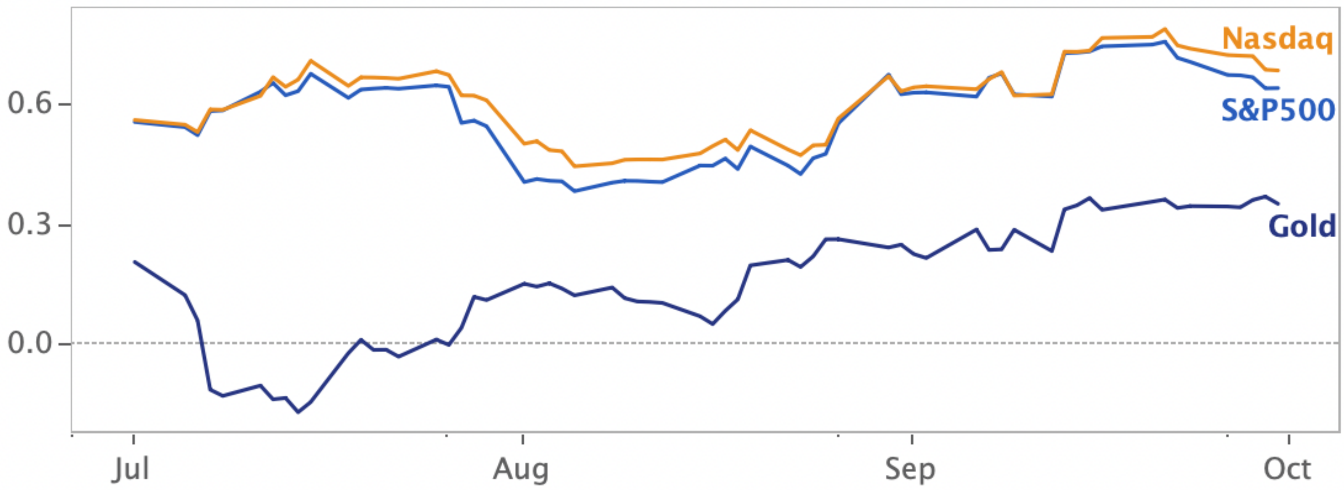
High inflation in the Eurozone and U.S. exacerbated market volatility, causing equities to continue their sharp decline to yearly lows. In September, y/y inflation climbed above 9% in the EU and hit 8.3% in the U.S.

Central Bank Rate Hikes



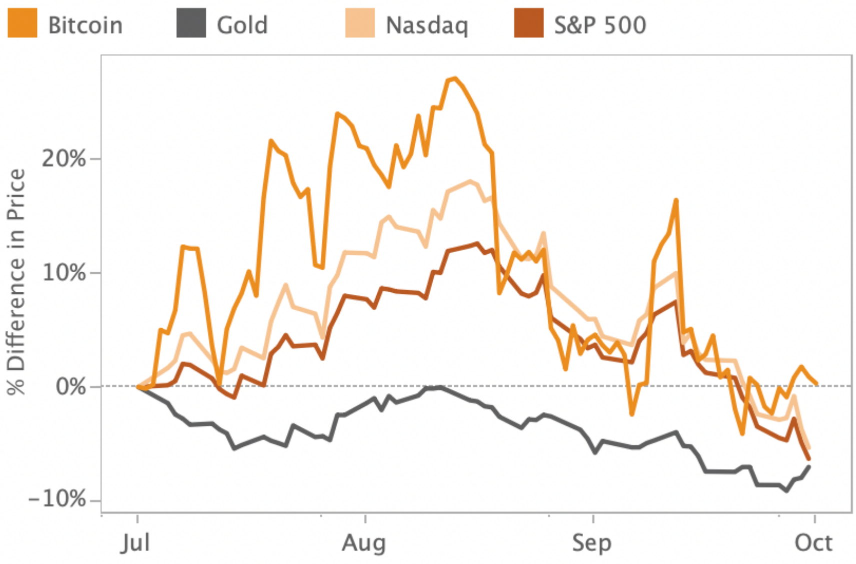
In response to persistent inflation, global central banks continued raising rates throughout Q3 despite mounting recession risks. The U.S. Federal Reserve is leading the way among developed countries, raising its policy rate by 75bps for a third time in a row, totalling a cumulative 300bps in rate increases YTD. The Swiss National Bank ended a seven-year period of negative rates with a similar rate move while the Bank of Sweden hiked by a full percentage point.

Bitcoin's 30D Correlation With Traditional Assets



BTC's correlation with Gold hit yearly highs in September following a slight decoupling in the cryptocurrency's correlation with equities in Q3. The correlation between Gold and BTC has been negative or weakly positive since last year, which has harmed BTC's safe-haven narrative. BTC's correlation with Nasdaq and the S&P 500 dropped slightly in September, but closed Q3 still in a strongly correlated range of .6-.7. It is too early to tell whether this will evolve into a stronger trend considering all assets, whether safe haven or risk asset, are doing poorly amid a record strengthening of the Dollar.

Q3 Returns: BTC vs. Traditional Assets



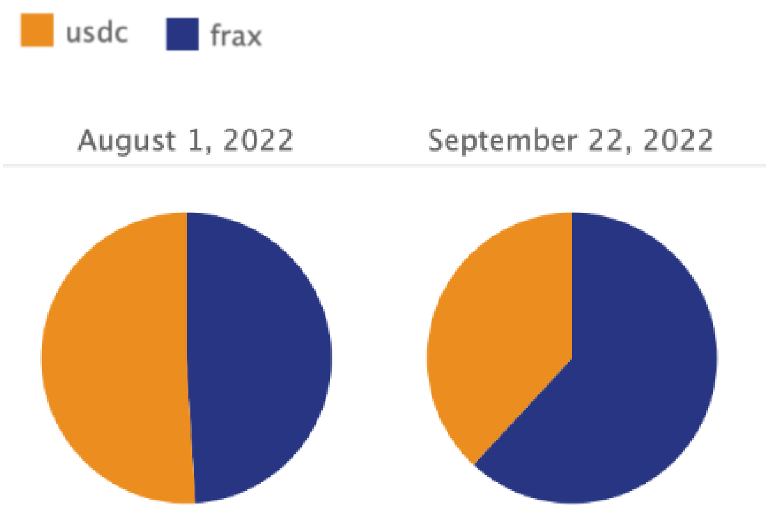
In September, equity markets continued to sink to yearly lows as the macro situation worsened, while cryptocurrencies largely fended off the worst of the traditional risk asset sell-off. BTC closed the quarter up .9%, while the S&P 500 and Nasdaq closed down 6% and 5%, respectively. Gold was the worst performer of the month, down 7%, although it erased some losses in the final week, which helped boost its correlation with BTC.

BTC Outperforms Traditional Assets Amid Macro Volatility

A strong dollar and high inflation suggest an impending global economic recession. Cryptocurrency markets surprisingly closed the quarter mostly in-the-green, although YTD returns are still deep red. It will be interesting to watch correlations in Q4 to see if BTC bucks the macro trend or continues behaving like a risk asset.

Regulators Hone in on Crypto

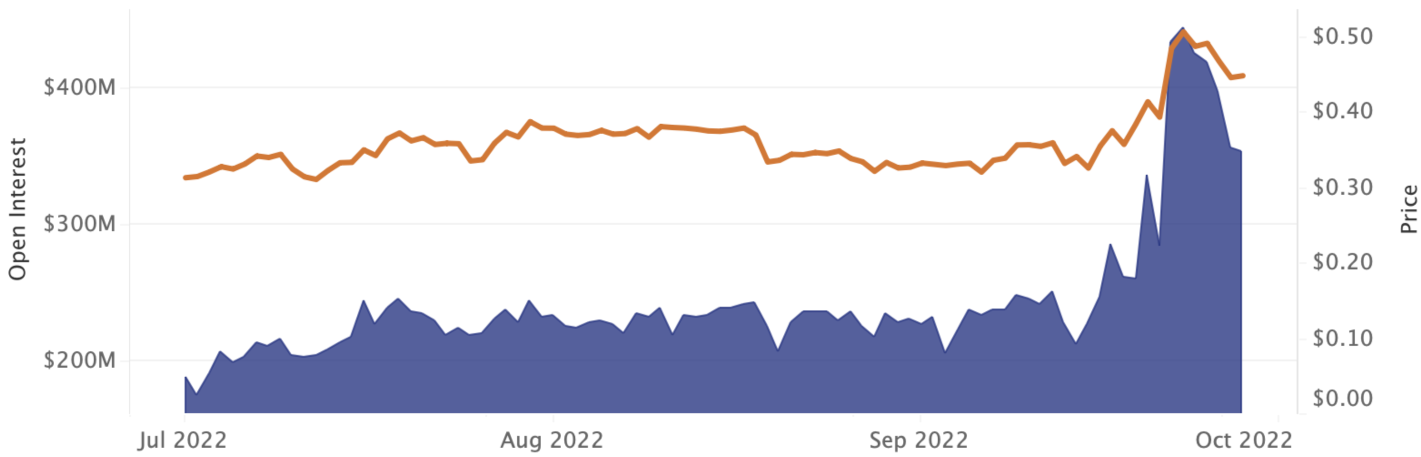
FRAX-USDC Pool on Curve



Regulators Target Stablecoins

As Q3 came to a close, regulatory worries came to the fore. The U.S. House Financial Services Committee is considering a bill that would ban algorithmic stablecoins for two years, citing investor protection following the Terra collapse. The ban on algorithmic stablecoins could impact existing algo-stables such as Frax and the impact of the potential ban was evident in Frax Curve pools immediately after the announcement. The Frax-USDC pool, the third largest pool on Curve by TVL, moved from a 50/50 split to a Frax-heavy 60/40 imbalance.

XRP Price and Open Interest



The end of this quarter brought with it another update in the long saga between Ripple and the U.S. SEC after the two parties requested a summary judgement. If accepted by the judge, this would allow them to skip the trial phase and receive a ruling, likely in the first half of next year. On this news, XRP's price spiked, open interest more than doubled, and daily volumes hit yearly highs.

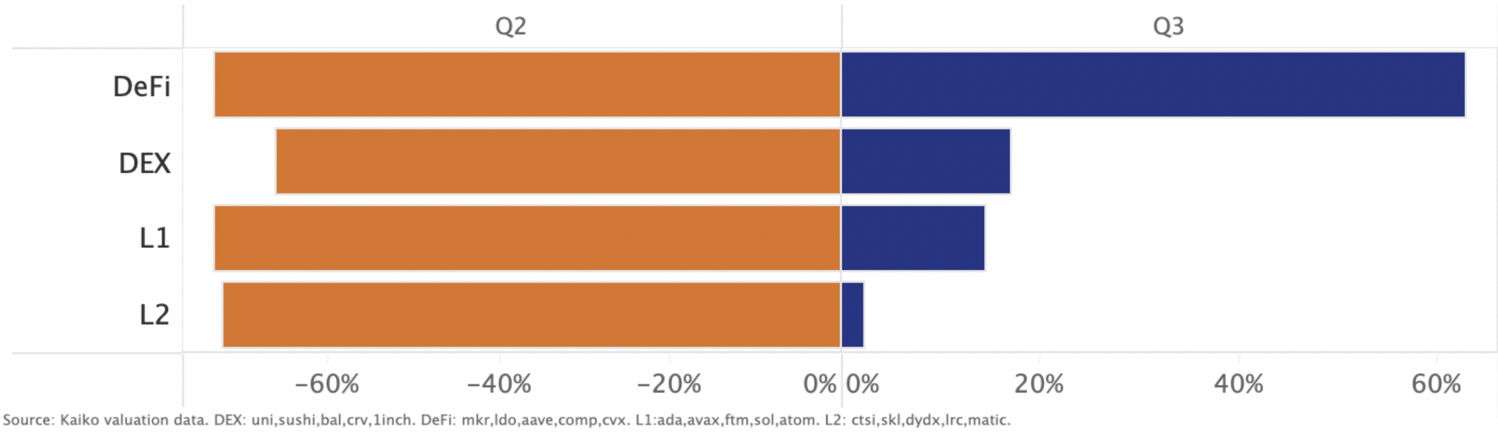
Regulatory Clarity is a Long Way Off

The regulatory environment in the U.S. is murkier than ever, with SEC Chairman Gary Gensler continuing to state that he believes most cryptocurrencies are securities and the SEC's case against Ripple still unresolved. Additionally, Congress appears unlikely to pass any sweeping crypto legislation, instead focusing on points of emphasis like stablecoins. For more on the impacts of regulation, check out Ripple Effects of SEC Policy.

Q3 Chartbook

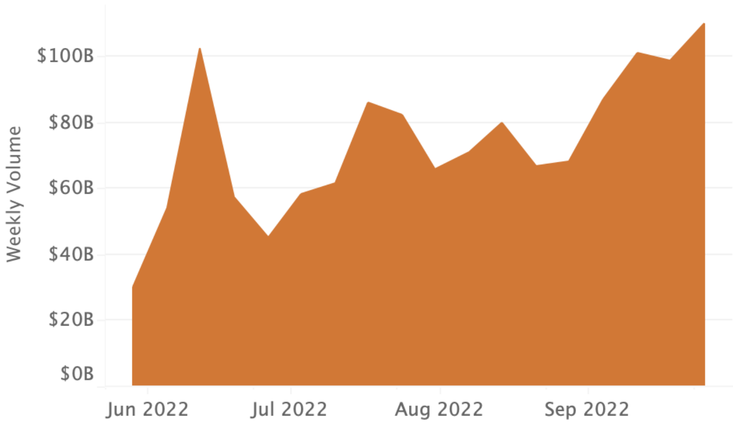
Price and Volume

Quarterly Returns by Sector

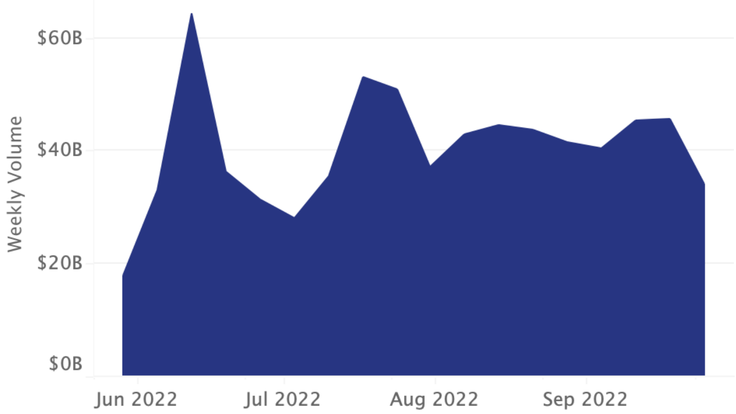


Source: Kaiko valuation data. DEX: uni,sushi,bal,crv,1inch. DeFi: mkr,ldo,aave,comp,cvx. L1:ada,avax,ftm,sol,atom. L2: ctsi,skl,dydx,lrc,matic.

BTC Weekly Spot CEX Volume

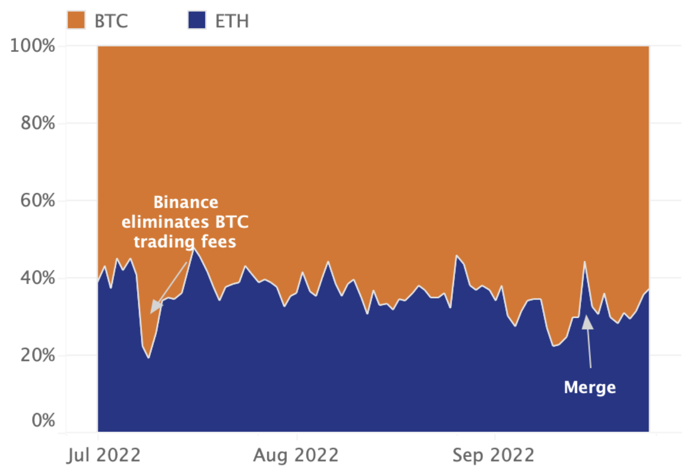


ETH Weekly Spot CEX Volume



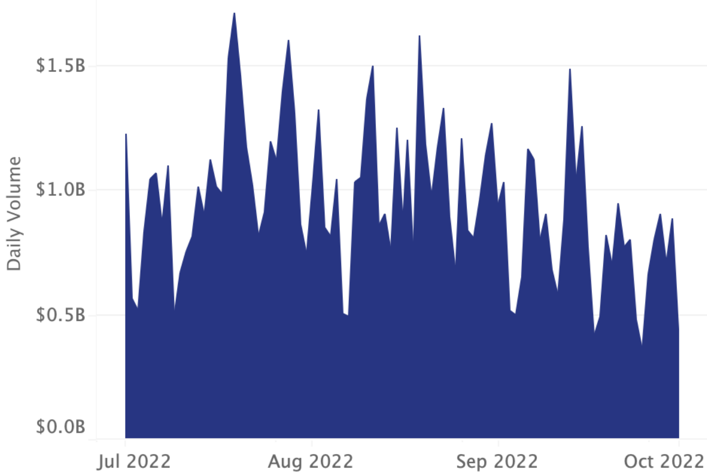
Source: Kaiko COHLCV data for 25 top exchanges

BTC to ETH Spot Volume Ratio



Source: Kaiko exchange volume data for Bybit, Bitfinex, BigONE, Binance, Coinbase, FTX, Huobi, Kucoin, and Upbit

Uniswap V3 Daily Volume

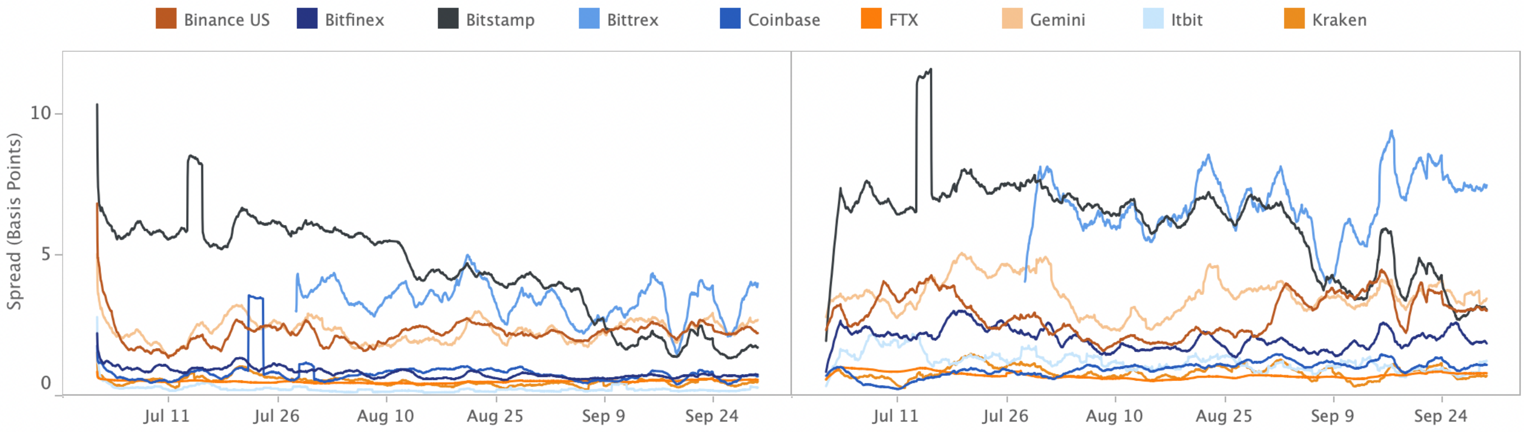


Liquidity

Bid-Ask Spread - Fiat Pairs

BTC-USD, 2D MA

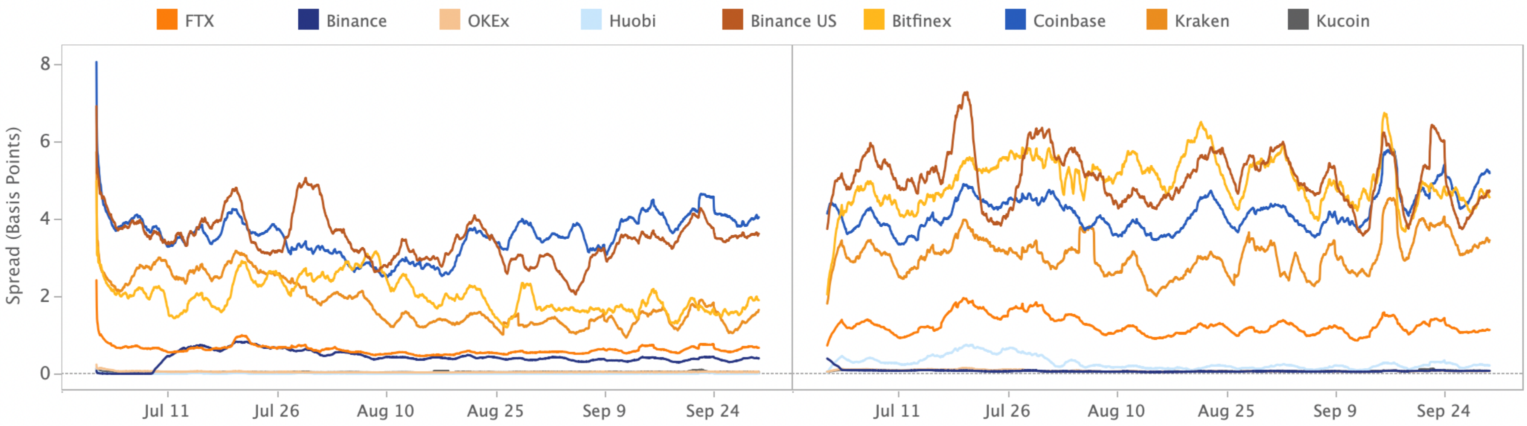
ETH-USD



Bid-Ask Spread - Tether Pairs

BTC-USDT, 2D MA

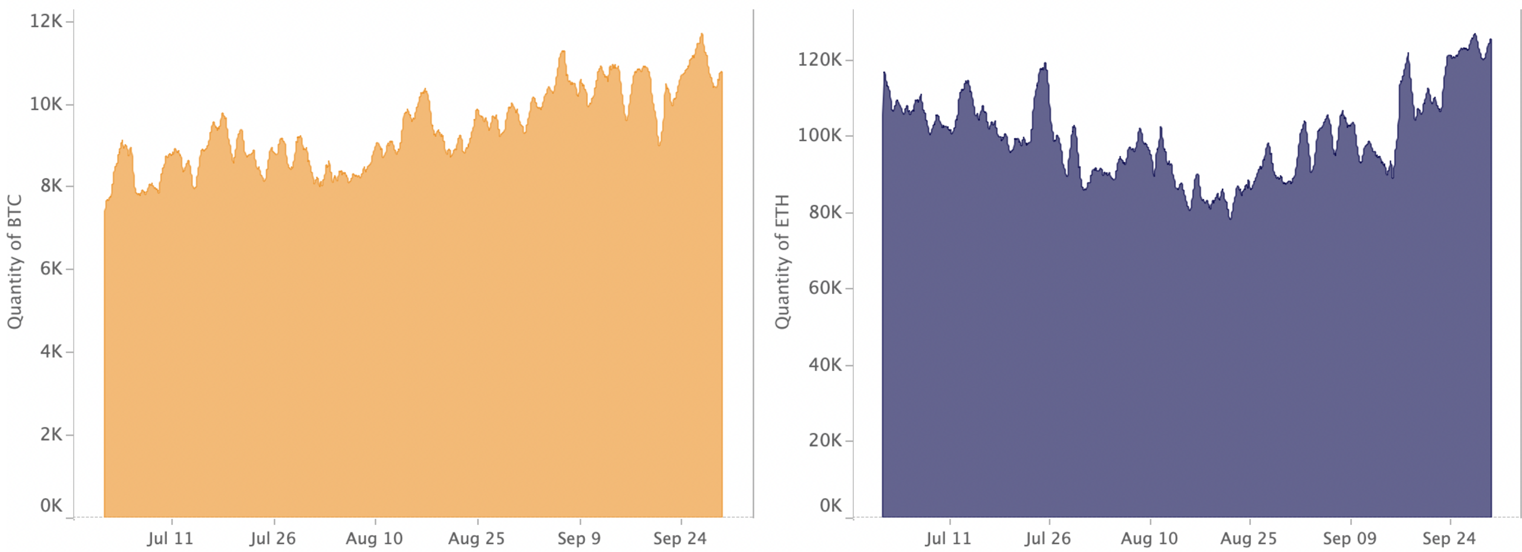
ETH-USDT



Aggregated 2% Market Depth

BTC-USD(T)

ETH-USD(T)



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