The Weekly Update

Week 40, 2022

Provided by

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Market Update

- Volatility is declining in the market as BTC still holds firm within its lengthy consolidation range, seeing losses of 3% in yet another frantic week in global markets.
- BitMEX's BVOL index represents another way to gauge volatility. Currently, BVOL trails below 25, a level that has previously preceded huge moves.
- While volatility has plunged to extremely low levels, Thursday may present a volatility catalyst as September's U.S. CPI data will be released.

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Valuation

- We're repeating the analysis from the past weeks as bitcoin struggles to overcome the $20k level and is now forming a tight range between ~$18-$20.5k.
- The growing perps OI shows no signs of stopping. Now, notional open interest in BTC perps nears 500,000 BTC and seems to be in a parabolic growth trend amid BTC's flattening volatility.
- ETH's and BTC's open interest relative to its market cap sits at all-time highs. A sign of instability to come?

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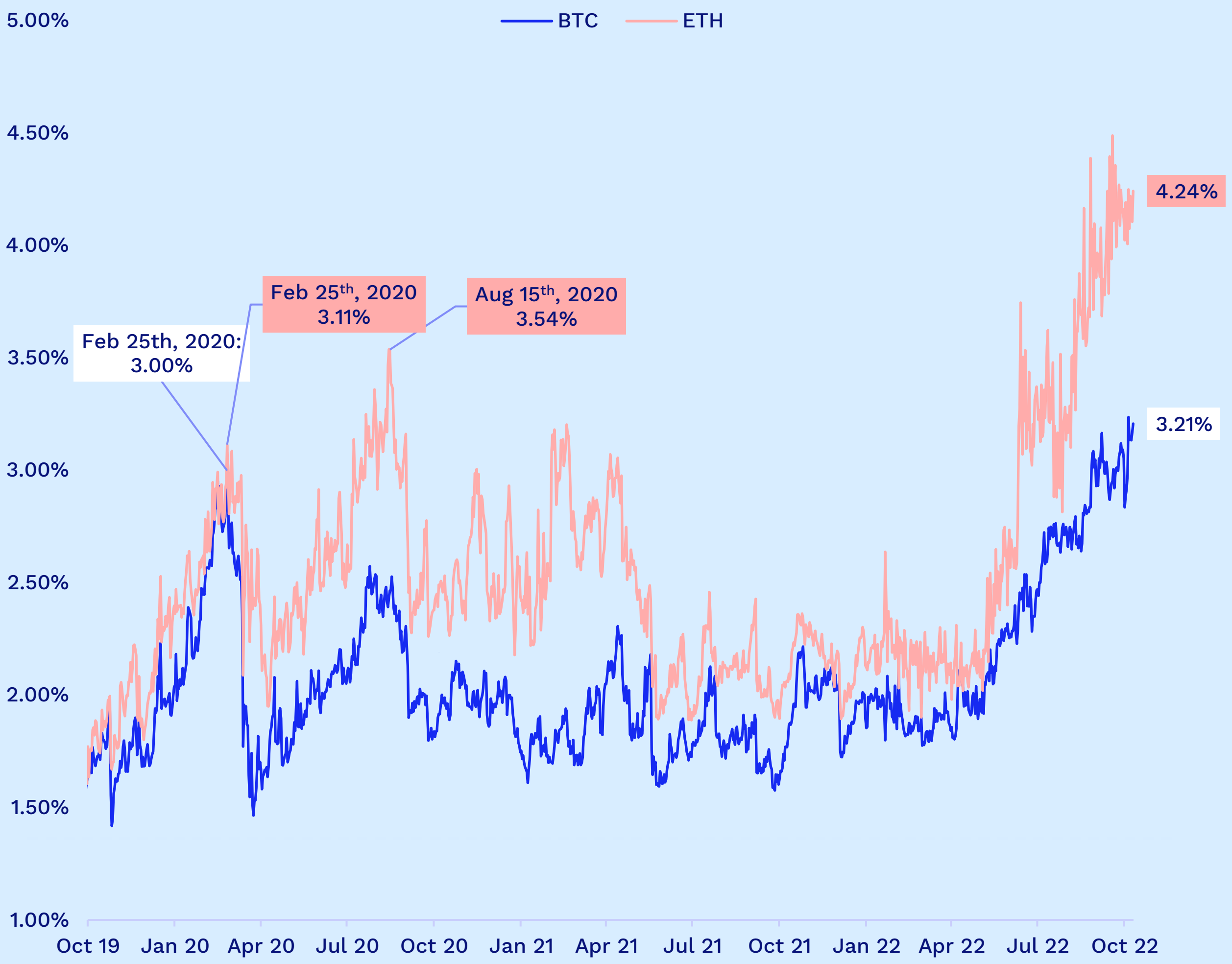
Blockchain Activity

- After a period of surging hashrate and a high block production rate, we got a significant change in mining difficulty this week, with an increase of 13.55% - the highest since May 2021.
- A vulnerability in the bridge between the BNB Beacon Chain and the BNB Smart Chain allowed hackers to endow themselves with 2 million BNB tokens ($570 million) last Thursday.

BTC and ETH: Open Interest to Market Cap Ratio (Futures and Perpetual Swaps)



Source: Skew, Laevitas, Coinglass, Tradingview

Calm before the storm?

- Volatility is declining in the market as BTC still holds firm within its lengthy consolidation range, seeing losses of 3% in yet another frantic week in global markets.
- ETH and BTC have moved in close tandem over the last week, as ETH also see losses of 3% in the last seven days. Under the hood, a concerning trend is apparent in both coins as leverage continues to soar to higher levels. Down the line, this may generate a substantial squeeze in the market, and the situation should be monitored cautiously.
- A potential volatility catalyst is approaching this week as U.S. September CPI numbers will be released on Thursday, forecasted to a 0.2% MoM CPI growth and a 0.5% MoM core CPI growth. A miss from this forecast is likely to lead to volatile markets, in particular in the prolonged strongly correlated environment between BTC and U.S. equities.
- After a lengthy period of strength, BNB (-5%) underperforms ETH and BTC this week following an exploit of a vulnerability in the bridge between the BNB Beacon Chain and the BNB Smart Chain.

Last week of top 50 by market capitalization

Best Performing	Price	Last week	Last month	YTD
Elrond	54.33	4.3%	0.9%	-77%
XRP	0.48	4.1%	34.6%	-43%
Hedera	0.06	1.1%	-8.3%	-81%

Worst Performing	Price	Last week	Last month	YTD
Ethereum Classic	23.91000	-12.9%	-39.2%	-31%
Internet Computer	5.29	-12.3%	-25.8%	-79%
EOS	1.05	-12.1%	-40.4%	-67%

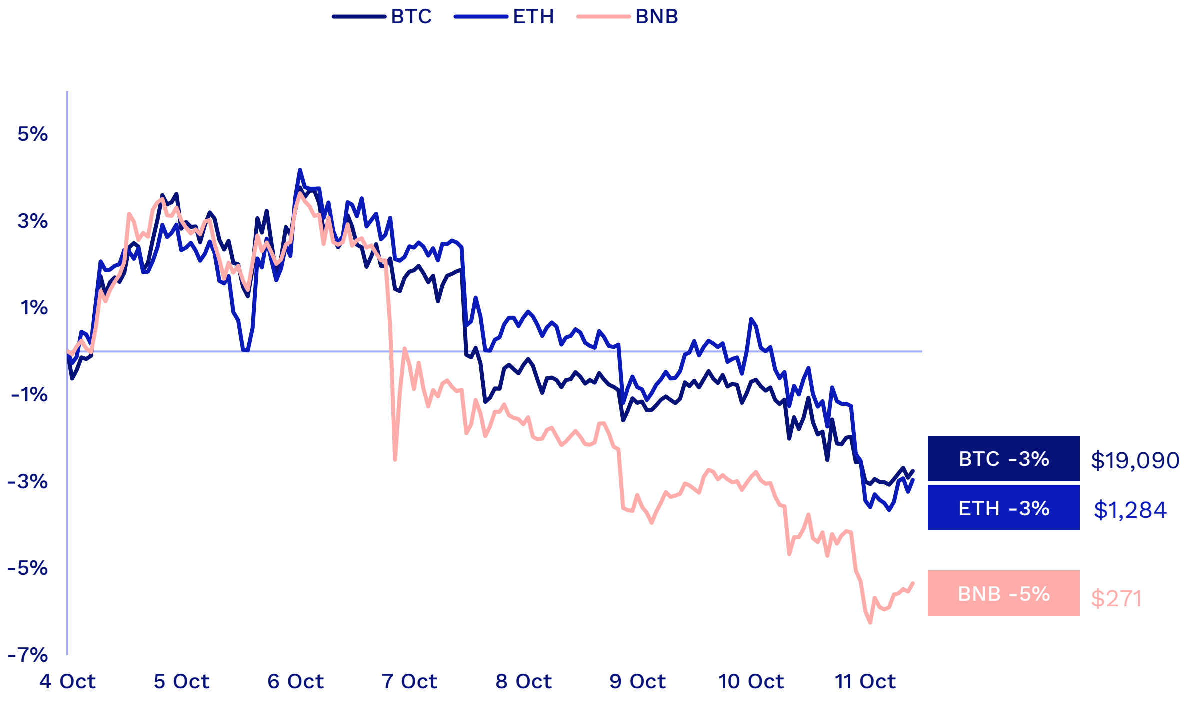
Source: CoinGecko, messari.io

Bitcoin Correlation:

90-day correlation (weekly change included)	ETH		GOLD		S&P500	
BTC	0.822	-0.006	0.421	0.094	0.614	0.064

Source: CoinMetrics

Top 3 by Market Cap: Percentage Change in Price Over the Last Week



Source: Tradingview (Coinbase, Binance US)

Slow start to October

It's been a slow start to October with no clear direction. Bitcoin is slightly outperforming relatively to the other indexes, and stablecoins are once again gaining market share.

- After a few days with positive returns, the crypto market started declining last week. All indexes are now marginally in the red after a flat start to October.
- Bitcoin is the best performer so far in October, but still down 1.5%. The leading cryptocurrency is closely followed by the other indexes, with the Mid Cap Index being down 2.1%, the Large Cap Index down 2.4%, and the Small Cap Index decreasing by almost 5%.
- Bitcoin is still following the stock market closely in October, as observed in September. Nasdaq is currently down ~1% so far this month.
- We see the usual increase in market shares for stablecoins as the crypto market sees negative returns.
- Notably, XRP is gaining market share this week and keeps its positive momentum from September. We expect XRP's current outperformance to diminish as soon as the legal battle with the SEC settles, as we believe the expectation of a favorable ruling has been the key driver of the XRP price lately. Buy the rumor, sell the news?

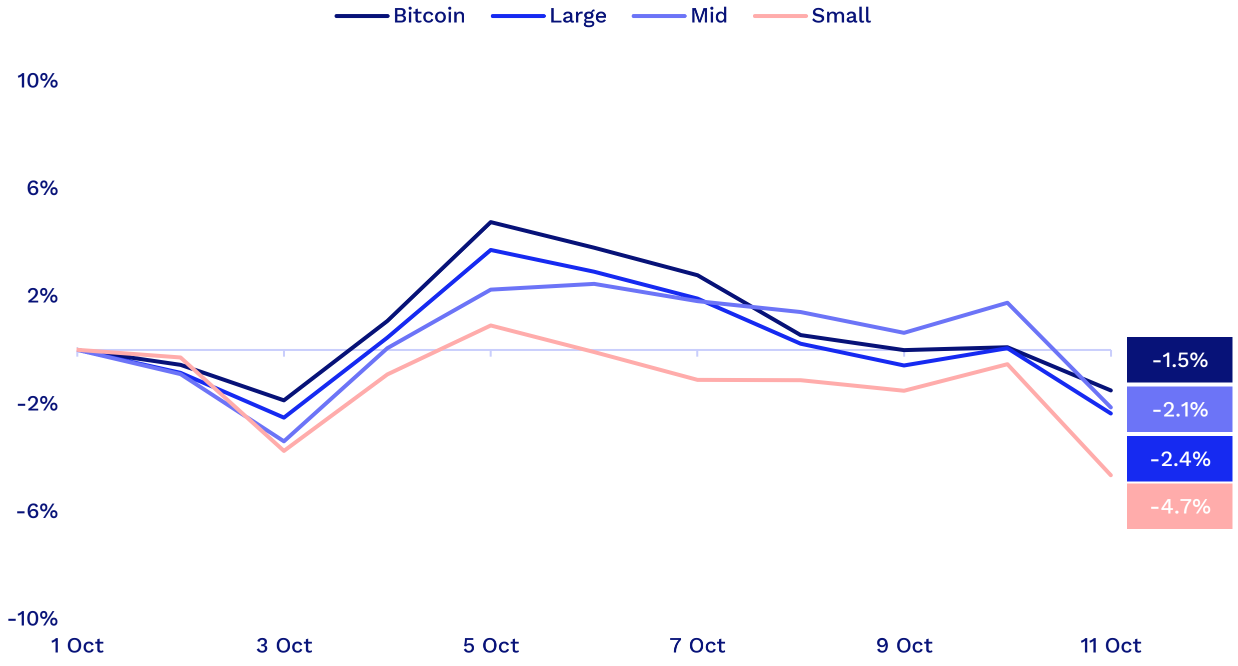
Percentage of Total Market Capitalization

	BTC	ETH	USDT	USDC	BNB	XRP	BUSD	ADA	SOL	DOGE
Market Share	39.77%	17.06%	7.45%	5.01%	4.74%	2.67%	2.36%	1.48%	1.22%	0.85%
Weekly Change	-0.20%	-0.24%	0.33%	0.06%	-0.16%	0.26%	0.15%	-0.08%	-0.03%	0.01%

* Weekly change in percentage points

Source: CoinMarketCap

Monthly Performance of Market Cap-Weighted Indexes

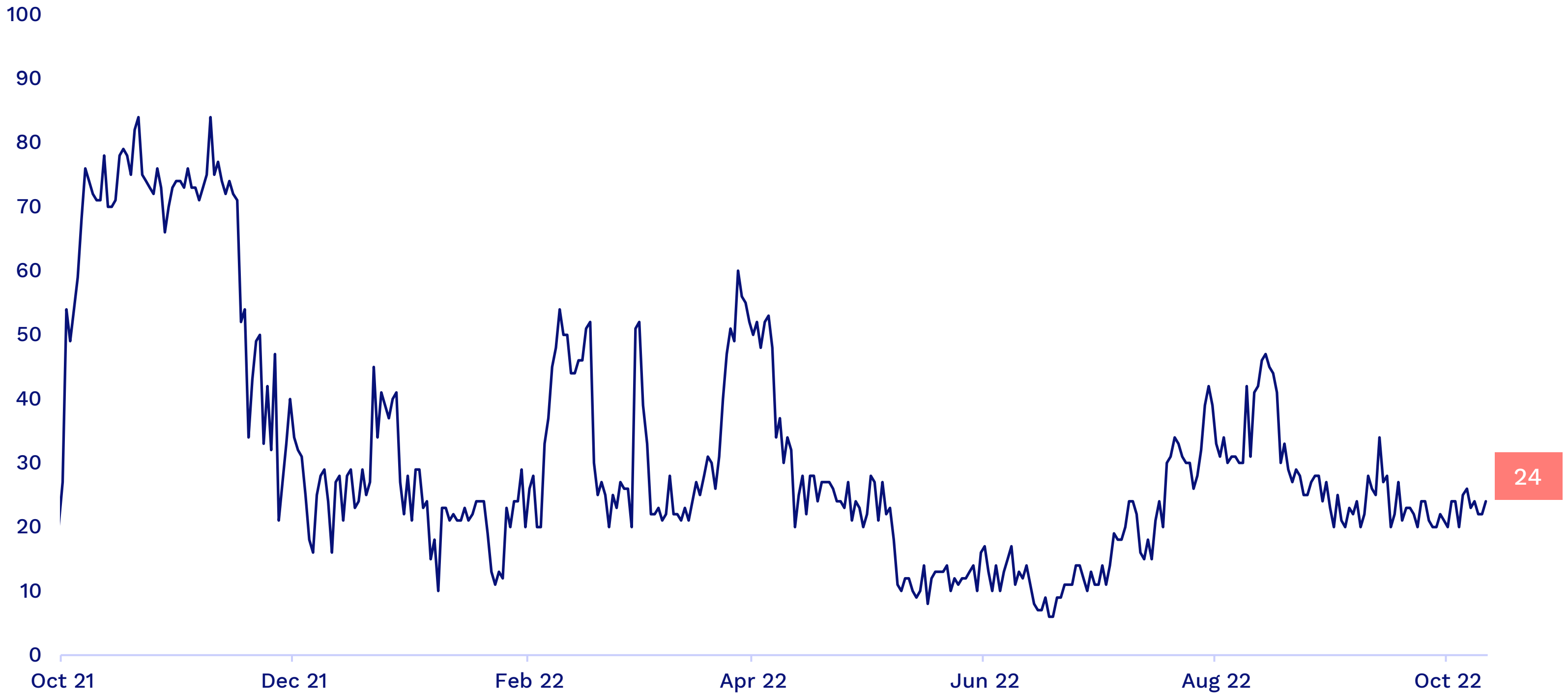


Source: Bletchley Indexes, Tradingview (Coinbase)

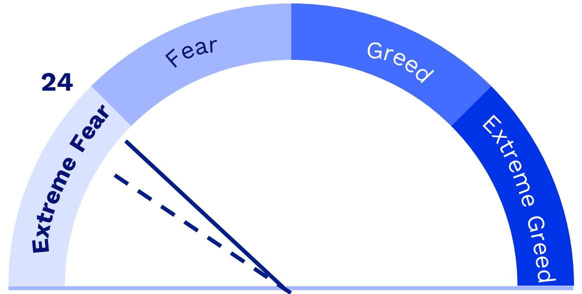
Unchanged sentiment in the crypto market

Not much change in the crypto market sentiment this week. We're still comfortable in the Extreme Fear area, and the Fear and Greed Index is now at 24. One can argue that the sentiment has stabilized in the upper section of "Extreme Fear", indicating that market participants are getting used to the low crypto prices we've seen lately. We're at the same levels as seen after the lending contagion flush-out, but the sentiment has improved. However, the trend is still evident; market participants are cautious and not very optimistic at the moment.

Fear and Greed Index



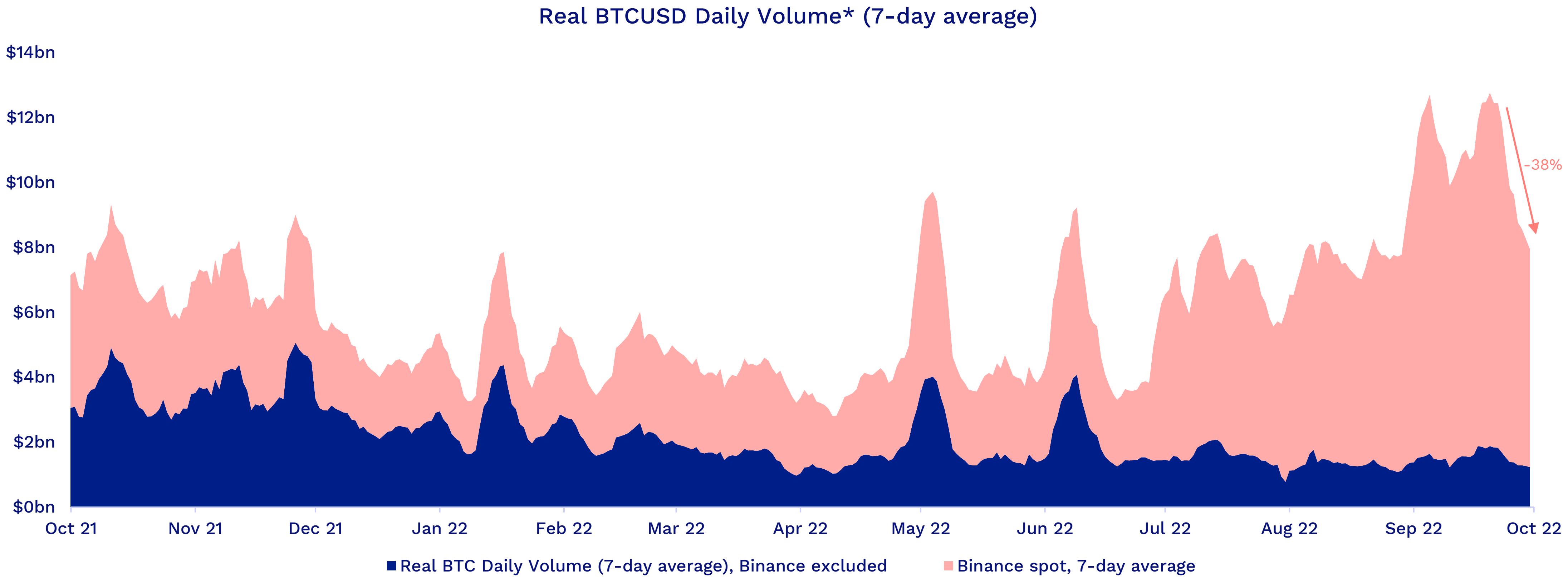
Source: Alternative.me



Now	Last week	Last month
Extreme Fear (24)	Extreme Fear (20)	Fear (26)

Sharp decline in the bitcoin volume

After several weeks of impressive trading activity in the bitcoin spot market, we see a sharp decline this week. The 7-day average bitcoin spot volume is now at $7.9 billion, down almost 40% from the September peak. In the current flat crypto market, it's not surprising to see the trading activity decline as market participants await a clear direction.

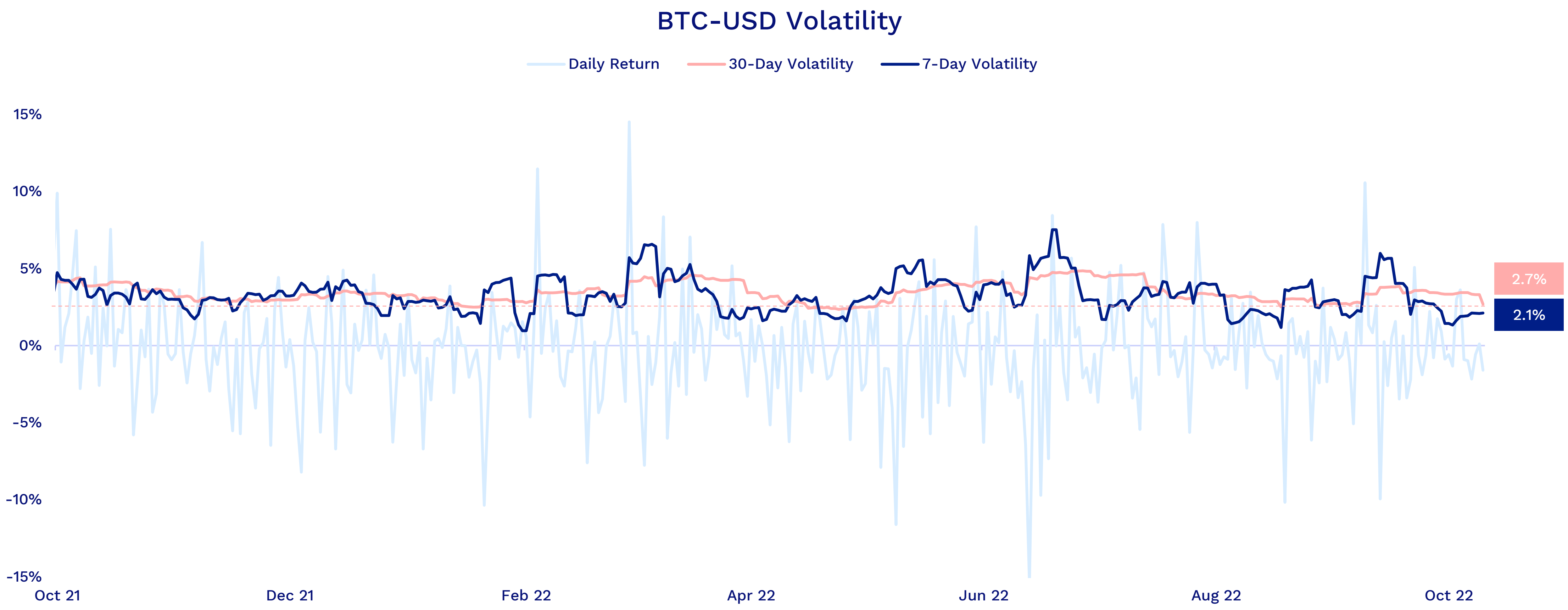


Source: Tradingview

*Includes Bitwise 10 exchanges and FTX

30-day volatility approaching yearly lows

The low 30-day volatility of 2.7% is a good summary of the state of the market. Without a deviation in August, we've had a fairly directionless bitcoin price since mid-June, mostly ranging around the psychological $20,000 level. The volatility is now approaching yearly lows, and all eyes are on the CPI update on Thursday, which can ignite global markets again. Leverage is still building up in the futures market, and we believe that volatility is just around the corner.

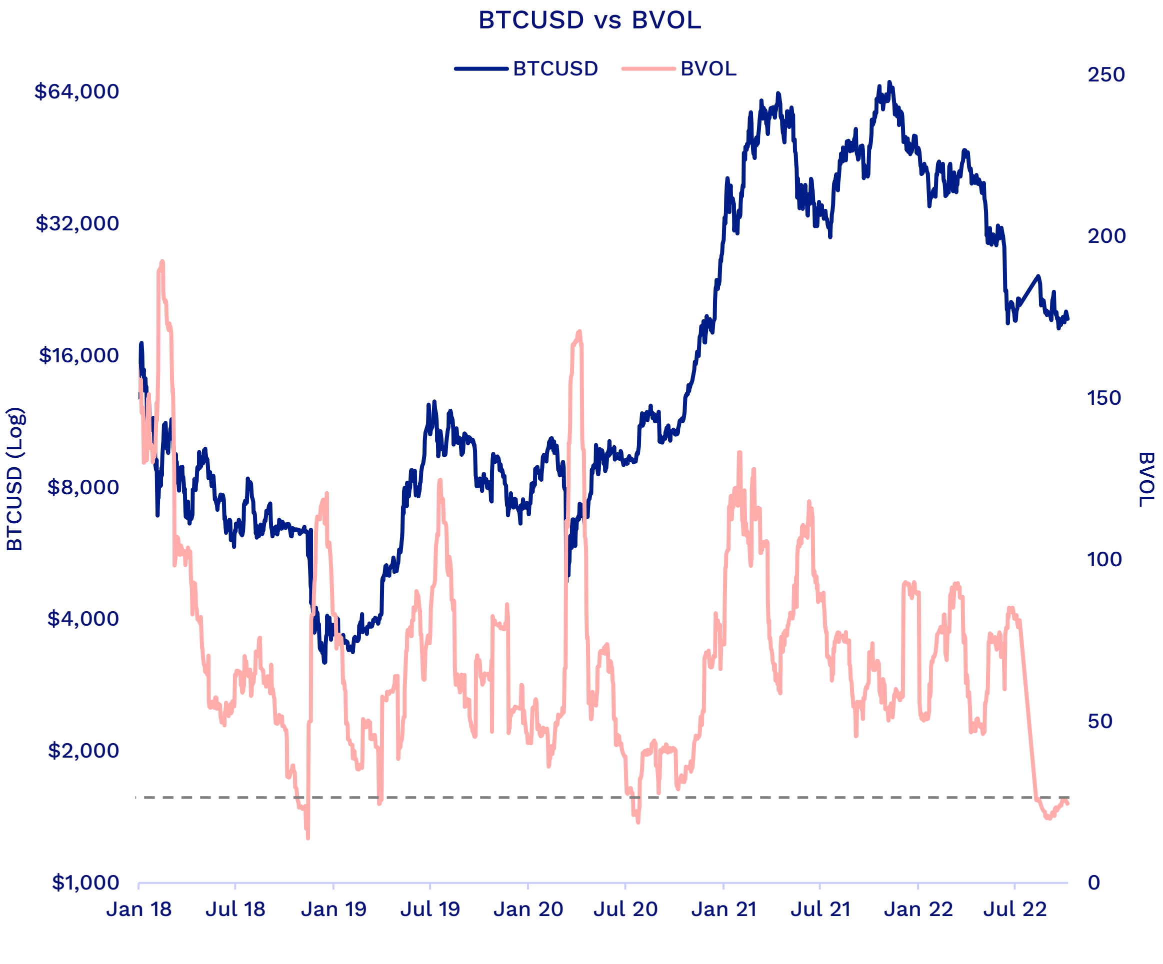


Source: Tradingview (Coinbase)

BVOL trailing below 25 for a record long duration

BitMEX's BVOL index represents another way to gauge volatility. Currently, BVOL trails below 25, a level that has previously preceded huge moves.

- BitMEX's BVOL index has reached historical lows below 25.
- This is the fourth time BVOL has fallen below 25 since launch. Large and volatile moves in BTC have followed all previous BVOL prints below 25.
- However, the current regime differs from the previous in that BVOL has ranged consistently below 25 since mid-August. BVOLs first visit below 25 in 2018 lasted for 18 days and was followed by BTC plunging from $6k to $3k.
- The other two occurrences were even shorter lived. In March 2019, BVOL briefly fell below 25 for two days before BTC recovered from $3k to $6k. The third occurrence of BVOL below 25 occurred in the summer of 2020 and was offset by BTC making a push to $12k.
- This low BVOL regime has lasted for 47 consecutive days. This illustrates that the current low volatility regime is unique when contextualizing the volatility to previous slow times in the market.
- In isolation, low volatility is not an interesting observation. However, accompanied by potential near-term catalysts with this week's CPI release, soaring leverage in derivatives, and declining IVs, this environment may generate opportunities for sophisticated traders.

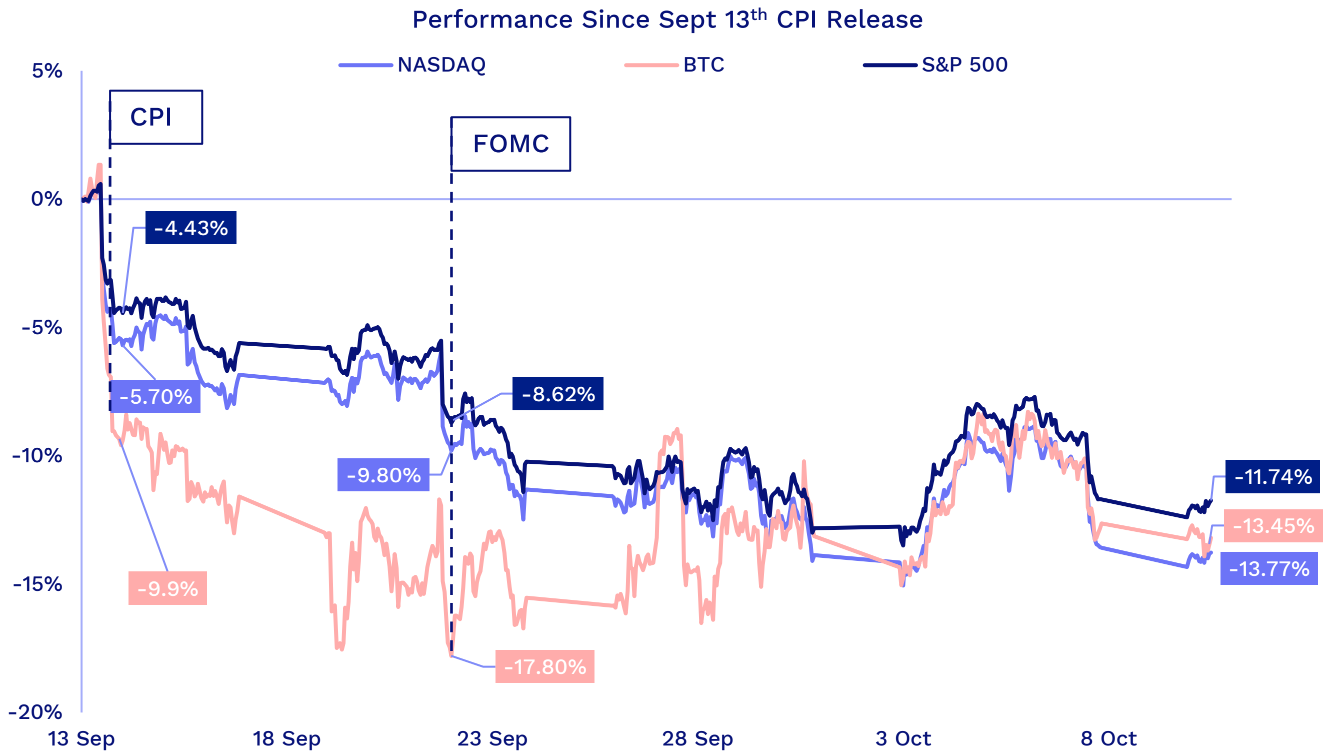


Source: Tradingview (Coinbase, BitMEX)

Big macro week: FOMC minutes, PPI and CPI

While volatility has plunged to extremely low levels, Thursday may present a volatility catalyst as September's U.S. CPI data will be released.

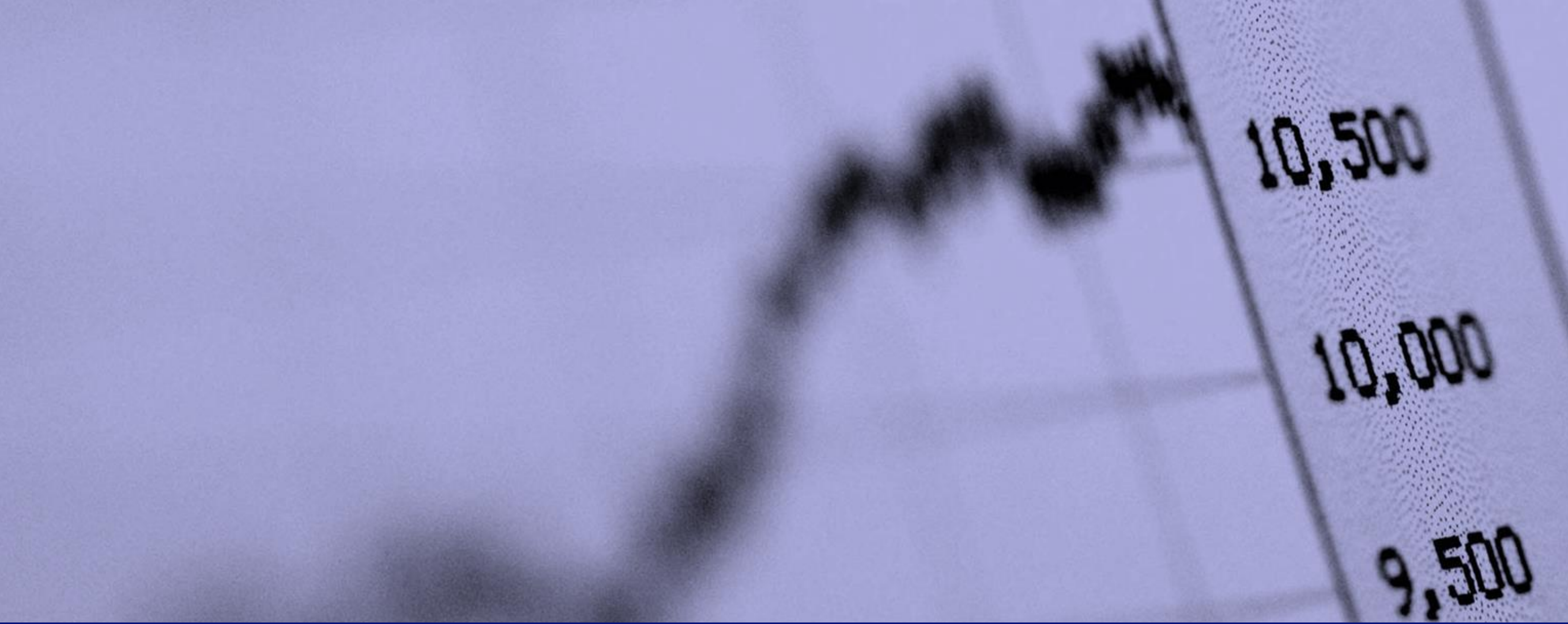
- This Thursday is likely to be volatile in the markets as the market awaits the U.S. September CPI release.
- The year-over-year forecast for the forthcoming CPI release on Thursday at 14:30 CET is estimated to be 8.1%, with a month-over-month growth in CPI of 0.2% and a MoM growth in core CPI of 0.5%.
- Last month's CPI release was higher than expected, and the release ignited a huge sell-off in BTC, leading BTC to plunge by 10% on the day of the release in tight correlation to the S&P 500 and Nasdaq as the market buckled up for a hawkish FOMC to follow.
- Since the last CPI release, BTC has slightly outperformed Nasdaq while underperforming S&P 500 slightly. However, on a relative strength basis, BTC has held off strongly lately. BTC has recovered from its Sept 21st FOMC press conference bottom of -17.8%, while both Nasdaq and S&P 500 have fallen since the FOMC.
- Nevertheless, correlations between equities and BTC is evidently high, and BTC and the overall crypto market are likely to experience volatility if CPI once again misses expectations.



Bitcoin daily return at CPI release date

Month	January	February	March	April	May	June	July	August	September
Deviation of actual CPI vs expected	0.00%	0.20%	0.00%	0.10%	0.20%	0.30%	0.30%	-0.20%	0.20%
BTC: Daily return at CPI release date	2.7%	-2.0%	-6.0%	1.4%	-6.5%	-3.4%	4.7%	3.5%	-9.9%

Source: Investing.com, Tradingview



Valuation

Bitcoin still struggling with $20,000

We're repeating the analysis from the past weeks as bitcoin struggles to overcome the $20k level and is now forming a tight range between ~$18-$20.5k.

- This week's analysis is more or less unchanged since last week. Bitcoin once again tried to stabilize above the $20,000 level but quickly dropped lower again.
- As we outlined last week, the last month has established a strong resistance level around the $20k level. As already mentioned, this resistance was not surpassed, and the price is now heading toward the range support again.
- We still encourage traders to be aware of the $18k-$19k support, as a break below would be a clear bearish technical signal.
- We also repeat the warning; the bitcoin price has mainly been testing the lower levels of the range over the past month.
- However, it's worth monitoring the micro trend of lower highs in the current tight range. After the local bottom in late September, the lows have marginally climbed higher, which is a positive trend.
- As already mentioned several times this week, the CPI update on Thursday is a catalyst for volatility, and we expect to see the BTC price challenge the current tight range.
- The more advanced traders can explore options strategies betting on volatility going into Thursday's announcement, as we're confident about increased volatility this week but not on the direction of the BTC price.

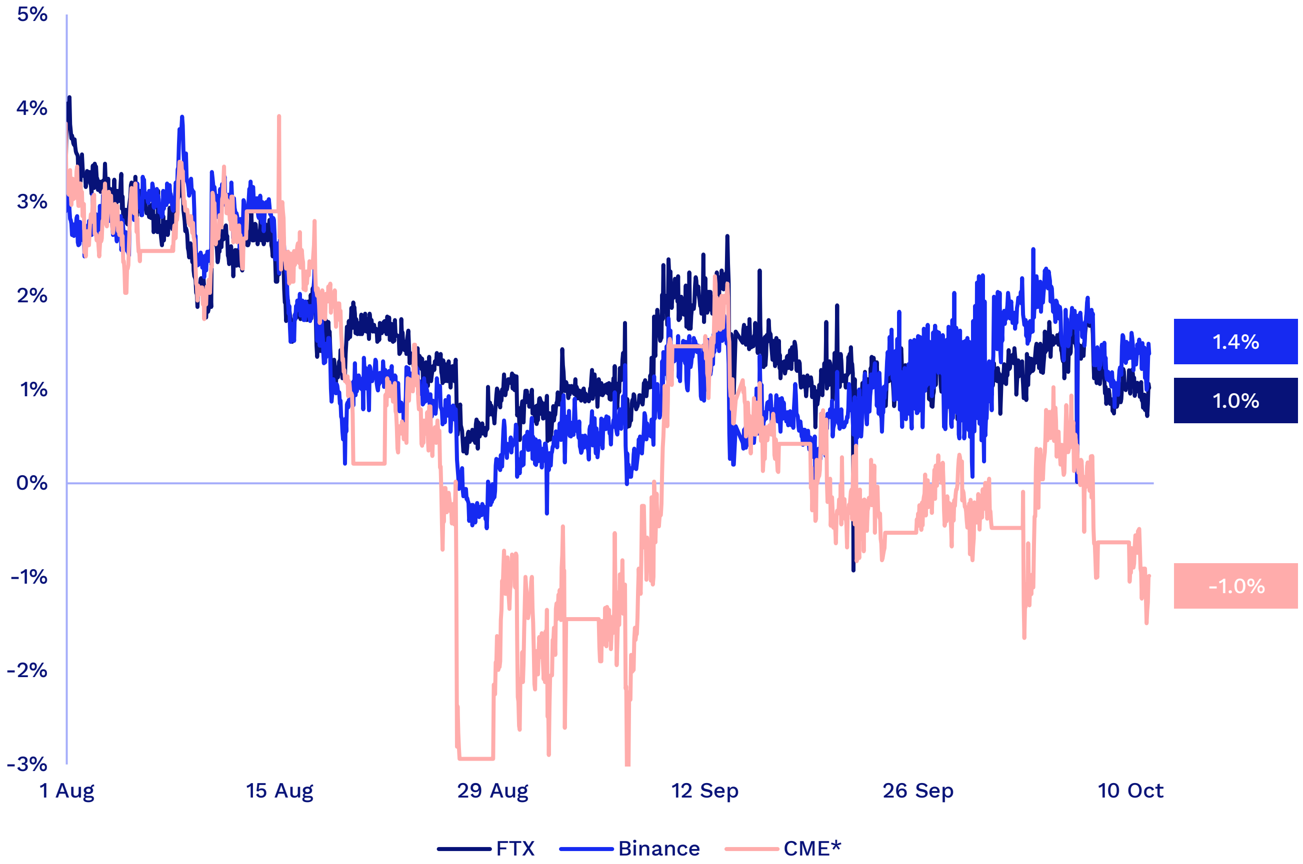
Source: Tradingview (Coinbase)

No signs of relief in BTC futures

In an idle futures market, CME has resumed trading at a discount to the spot market.

- Futures premiums stay suppressed this week as offshore exchanges see premiums flattening near 1%.
- Meanwhile, CME's 3mth basis falls to -1% as institutional traders remain reluctant to add long exposure in the current shaky environment.
- A flat week of flows to ProShares long BTC ETF versus a noticeable growth of inflows into the short BTC ETF has likely contributed to pressuring CME’s basis into negative terrain.
- In sum, futures premiums still suggest that market participants remain cautious, with few notable changes from the last weeks.

Bitcoin Futures Annualized Rolling 3-Month Basis



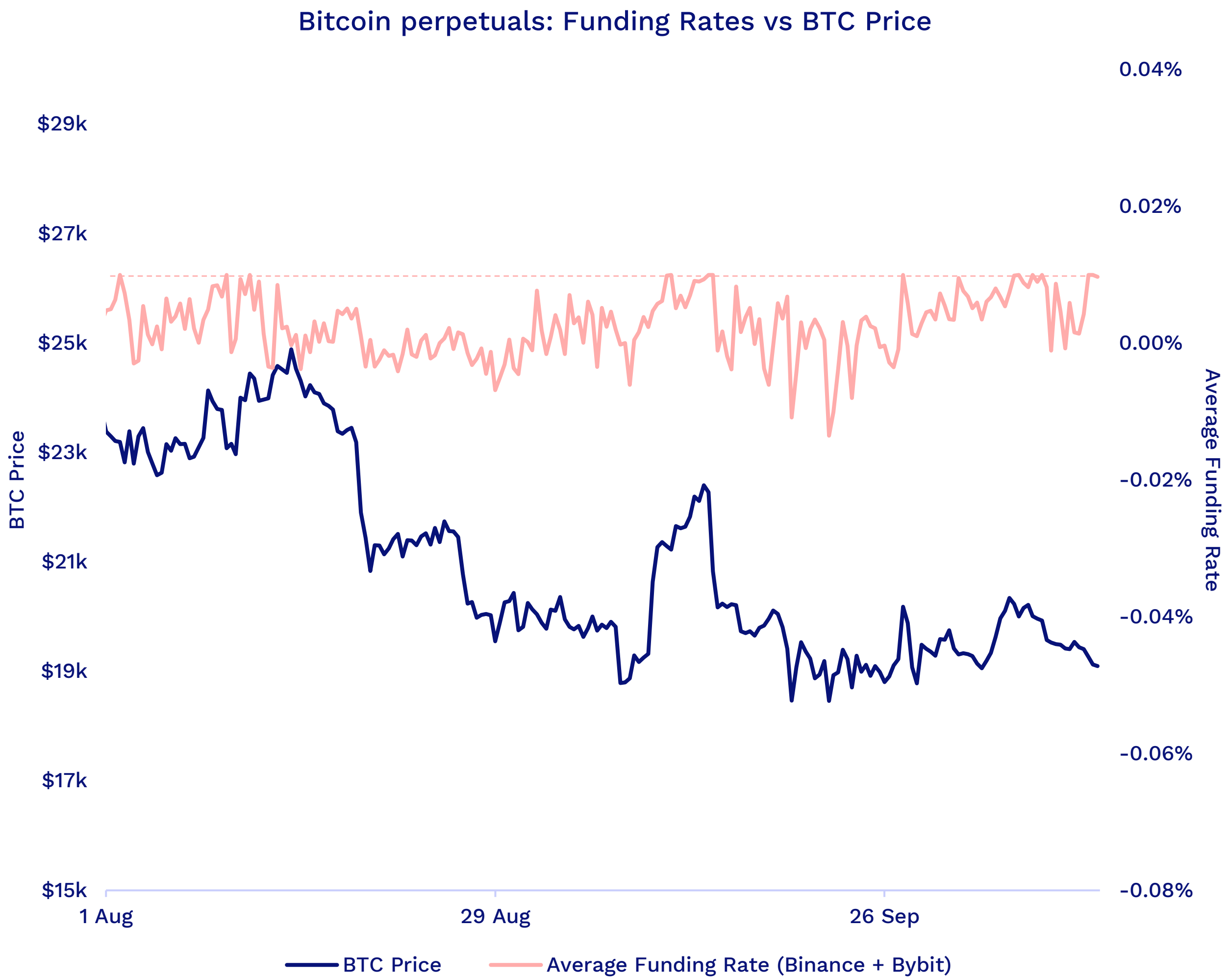
Source: Skew, Laevitas, Tradingview, CME

*Closed Saturday - Sunday

Neutral to below neutral funding rates still

Funding rates mostly trail at or below neutral territory as open interest inflates further.

- Funding rates have mostly trailed below neutral since our last report.
- Nevertheless, Binance perps have reached neutral terrain in the last 24 hours, accompanied by persistent growth in open interest.
- In the last week, notional open interest in BTC perps has surged from 428k to 498k. This is a concerning and unsustainable trend. The relatively orderly funding rate regime at near-neutral rates suggests that the growing leverage in the market is caused by a balanced demand for upside or downside exposure.
- In general, the market seems ripe for a squeeze, but assessing the direction based on funding rates provides little directional information. In this climate, it might be wise to avoid adding risk through leverage in the market.
- We elaborate on the high leverage in the coming slides and later highlight the low IVs to shed light on a potential way to position for a possible normalization of the remarkably leveraged crypto derivatives market.

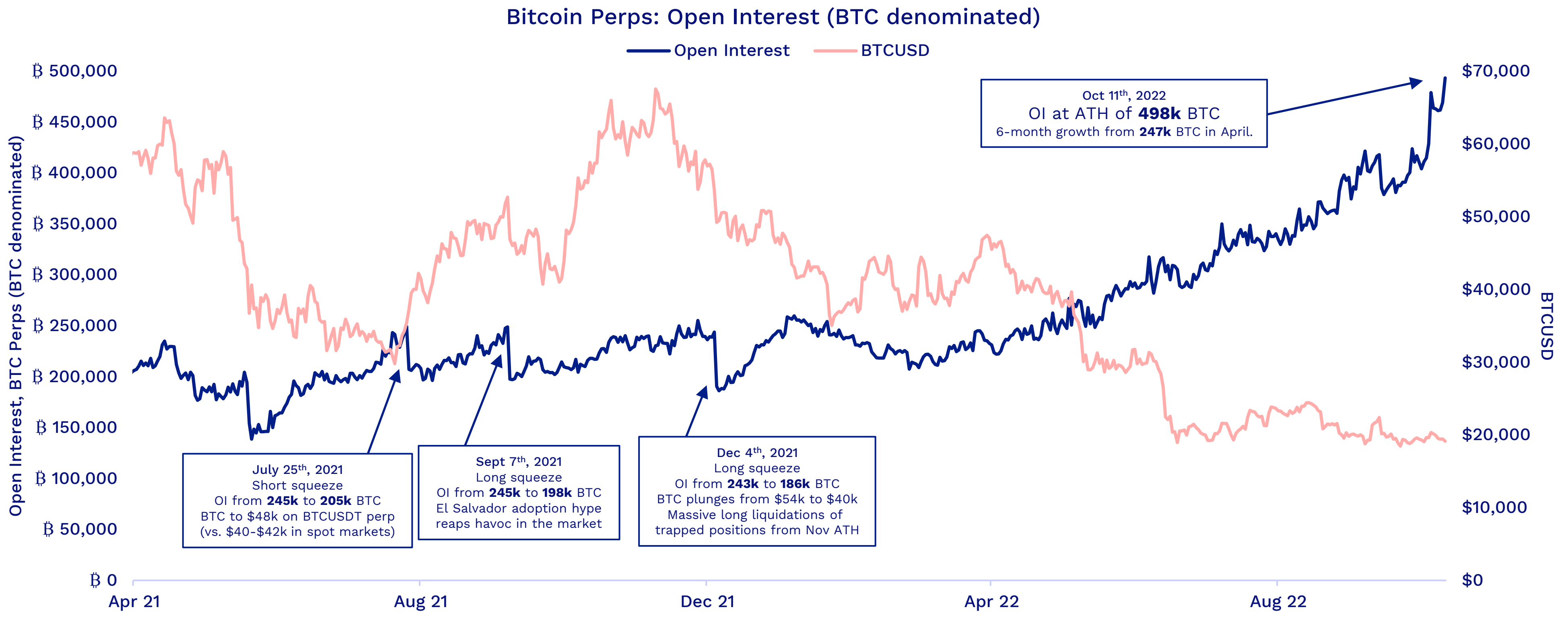


Source: Skew, Bybit, Binance

Perpetual open interest sees parabolic growth

The growing open interest (OI) shows no signs of stopping. Now, notional open interest in BTC perps nears 500,000 BTC and seems to be in a parabolic growth trend amid BTC's flattening volatility. We've highlighted the growing open interest in the market since June, and the trend has only escalated since. The open interest has more than doubled in notional terms since mid-April.

This level of leverage is unprecedented in perpetual swaps history, and this OI surge has not happened in isolation in BTC. We witness similar extremes in ETH derivatives as well (next slide). Eventually, this trend is likely to be succeeded by a violent squeeze.



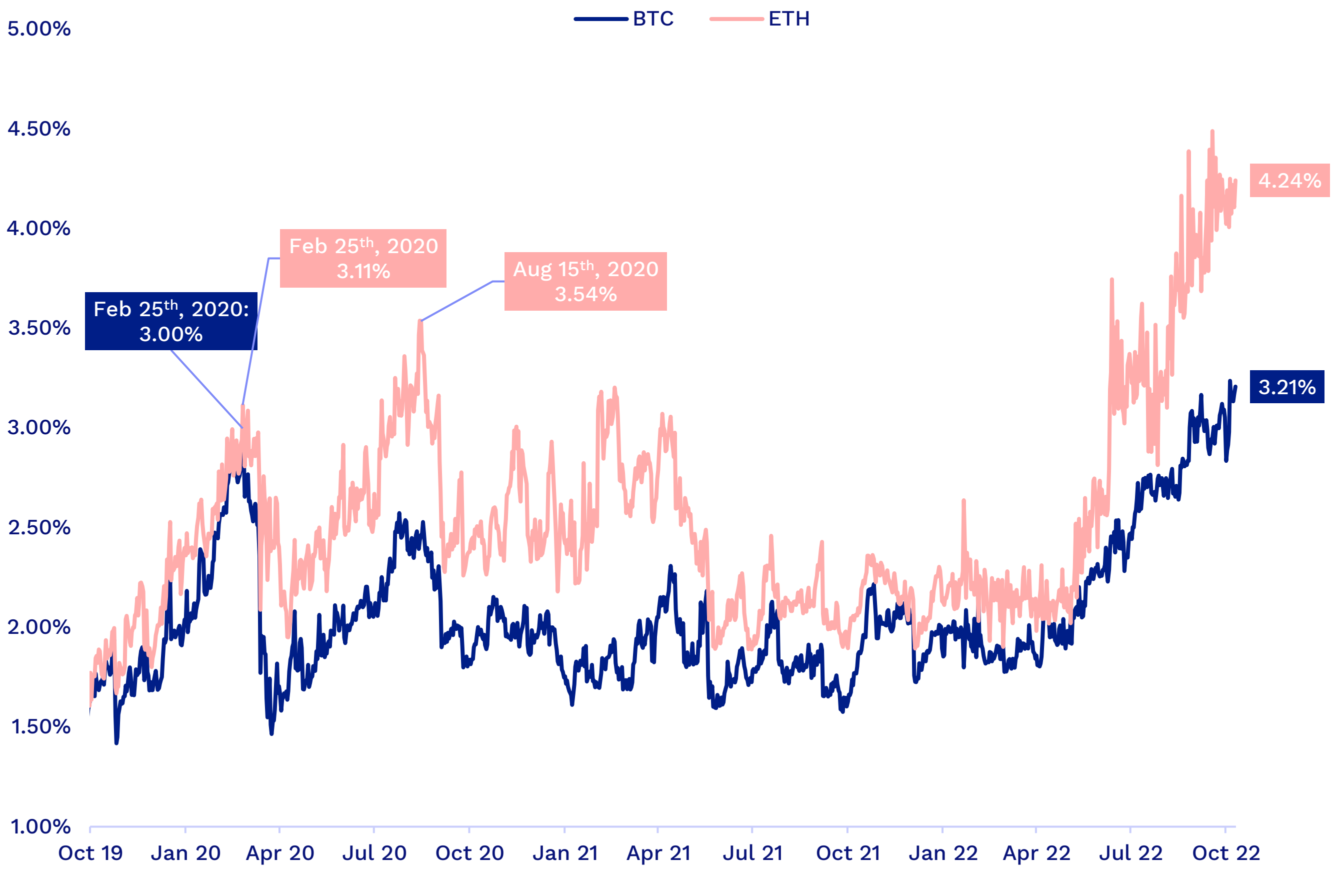
Source: Laevitas

Open interest relative to market cap at ATH in ETH and BTC

ETH's and BTC's open interest relative to its market cap sits at all-time highs. A sign of instability to come?

- The massive iceberg of leverage is not isolated to BTC. By comparing open interest relative to market cap, we see that leverage in both ETH and BTC derivatives sits at extremely high levels.
- Relative to its market cap ETH's OI is more extreme than that of BTC, with ETHs OI to market cap ratio sitting at 4.24% versus BTC's 3.21%.
- The gap between BTC's and ETH's OI to market cap ratio of 1.03% is far higher than the three-year average difference in relative OI.
- Since October 2019, the open interest to market cap ratio of ETH has averaged 0.46% above that of BTC. From September 2019 to August 2022, a larger relative leverage gap between BTC and ETH than today's level has only occurred on 36 occasions. 21 of these occasions originating in February 2021 during the start of the escalation phase of 2021's altseason.
- The elevated OI in ETH compared to BTC is related to hedged or directional positions ahead of the merge still being maintained, as the open interest has yet to see a substantial decline from the merge, where OI in ETH relative to market cap peaked at 4.5%.
- All traders should be aware of the potential short to medium-term implications of the extreme levels of leverage in the market. A winddown of this mountainous amount of leverage could be brutal, leading to enormous squeezes. This setup is potent for volatility and instability somewhere down the line.
- In order to offset directional risks, we view this time as a good time to explore option straddle strategies.

BTC and ETH: Open Interest to Market Cap Ratio (Futures and Perpetual Swaps)



Source: Skew, Laevitas, Coinglass, Tradingview

Timing right to bet on volatility?

The implied volatility in BTC options has declined towards April lows as BTC remains heavily rangebound. In light of the abnormally high leverage in futures and perps, the low IV may benefit traders seeking to bet on a structural shift in volatility. Straddle strategies might be a way to gain exposure for the more sophisticated investor.

Still, longer-dated options have yet to see a substantial fall in implied vols. Traders seeking to make bets on growing volatility should be aware that while the market structurally seems ripe for a burst in volatility, bear markets in crypto tend to be accompanied by prolonged flat markets. Nevertheless, compared to leveraged directional futures trades, we view option-based volatility plays as a more prudent way to gain exposure to a potential squeeze in the near to medium term in the market.

BTC Options: Implied Volatility (24h MA)

Source: Laevitas, Skew

Blockchain Activity

Bitcoin's hashrate explodes, resulting in significant difficulty adjustment

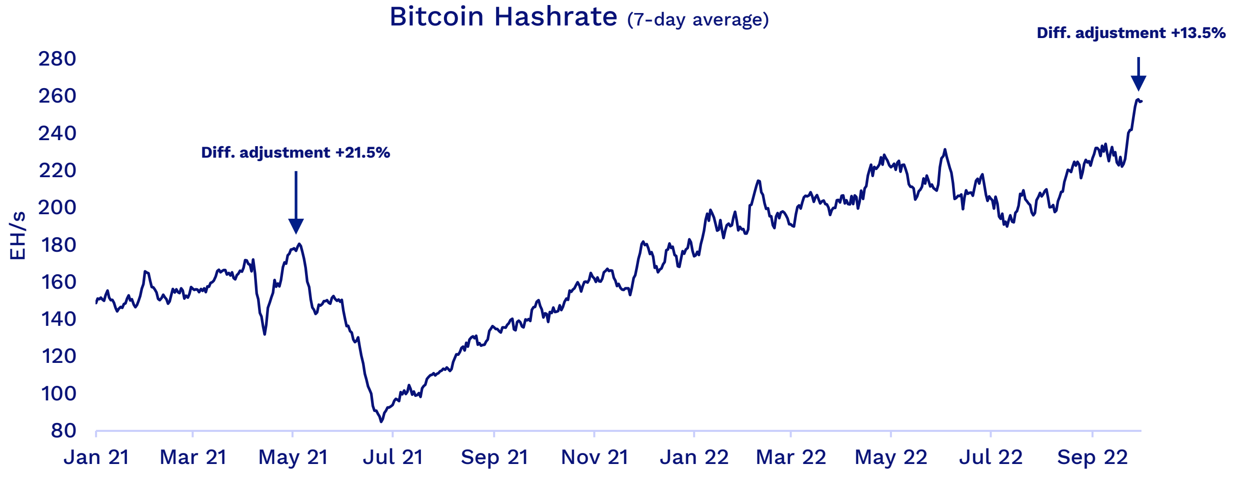
After a period of surging hashrate and a high block production rate, we got a significant change in mining difficulty this week, with an increase of 13.55% - the highest since May 2021.

- The Bitcoin hashrate continued its push higher last week, peaking at a new record 7-day average of 258 EH/s.
- The massive increase in hashrate lately resulted in the largest increase in difficult adjustment since May 2021. If the bitcoin price stays around the same levels for the rest of 2022, it's not unlikely that we just saw the peak hashrate of the year.
- The surging hashrate saw the block production rate climb close to 7 blocks per hour last week – an uncommon observation and far from the 6 blocks per hour target. This week's mining difficulty adjustment will show us the beauty of the bitcoin network, as the block production will move back to its target level without any centralized alteration, just code.
- While the daily miner revenues have climbed this week, we see that fees collected have declined massively this week. With the high number of blocks produced, there has been little competition to get transactions included in the blocks, and hence low fees.
- In general, the on-chain activity on Bitcoin is still low, and we note that the transaction volume has declined more than 15% this week.

Powered by: BYTETREE

	Bitcoin Network Data				
		10/10/2022	7d prior	7d Change	30d Trend
Network	Daily Miner Revenues	$ 20,698,469	$ 18,987,358	9.01%	
Network	Fees per day	$ 171,973	$ 263,137	-34.65%	
Network	Fees % Revenues	0.83%	1.39%	-0.56%	
Network	Daily TX Volume ($M)	$ 2,879	$ 3,445	-16.42%	
Network	Transactions per day	256,842	259,805	-1.14%	
Utility	Avg TX value $	$ 11,211	$ 13,261	-15.46%	
Utility	# Blocks per hour	6.94	6.45	7.66%	
Utility	Avg. # TX per block	1,542	1,560	-1.14%	

Source: Bytetree

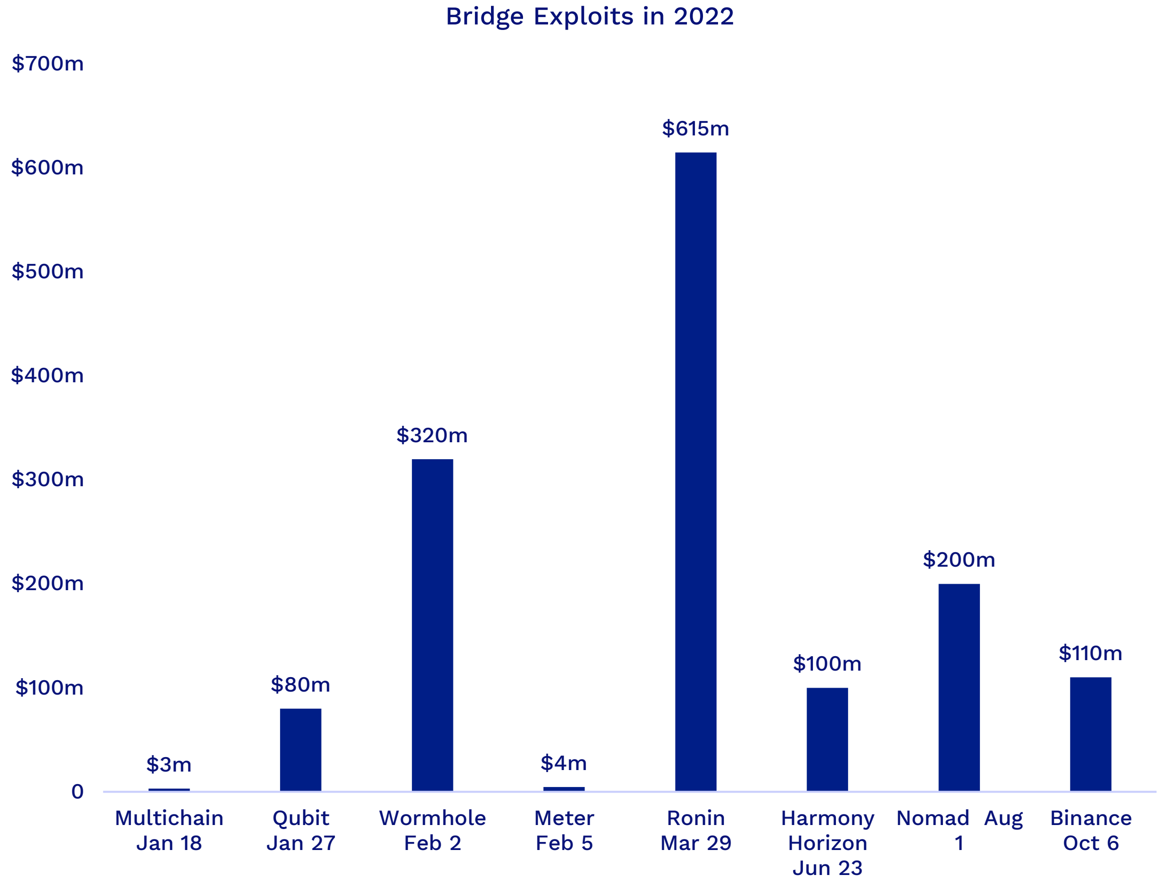


Source: Blockchain.com

BNB Bridge Exploit: $110 million stolen

A vulnerability in the bridge between the BNB Beacon Chain and the BNB Smart Chain allowed hackers to endow themselves with 2 million BNB tokens ($570 million) last Thursday.

- The hack exploited a weakness in the BSC Token Hub bridge's code, enabling the hackers to forge valid messages to mint new BNB tokens. No users, therefore, lost their tokens, but was rather diluted through the minting of new tokens.
- The attackers only managed to get away with about $110 million in tokens, as the BNB chain was halted when the hack was discovered, and the unmoved tokens deemed invalid following the suspension.
- The Binance bridge hack adds to a line of blockchain bridges being exploited, proving the difficulty of creating secure bridges between blockchains.
- The security of bridges is an ongoing topic of debate in the crypto community. In January, Ethereum co-founder Vitalik Buterin chimed in with his two cents, warning about the security of cross-blockchain bridges. He argued that bridging assets across blockchains would never enjoy the same guarantees as staying within one blockchain. The empirical evidence backs up his point, with an unproportionally large percentage of stolen funds stemming from bridge exploits.
- In total, close to $1.5 billion in tokens are stolen through bridge exploits so far this year. The Binance bridge hack ranks fourth in terms of size so far this year. The largest bridge exploit in 2022 is still the Axie/Ronin exploit in March, where hackers got away with $615 million in tokens.



Source: CNBC

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