arcane research

Ahead of the curve
Market Update

Digital Assets

Signals from the market

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Strong altcoin rally fueled by squeezed shorts
Several altcoins have seen sharp gains in the last week, and we also note a substantial outperformance from ETH and BNB versus BTC as market participants rotate into altcoins amidst a frantic short squeeze. In the last week, altcoins (excluding ETH and stables) have gained 1.2% percentage points in market share, recovering to dominance levels from December 13, 2022.

BTC, on the other hand, trades at compressed volatility but has experienced mild upside throughout the week, with seven of the first nine trading days of 2023 closing in the green.

While volatility remains shallow, this Thursday's U.S. CPI release may reignite price action, as we saw on December 13 when a promising CPI release sparked short-lived optimism in BTC. Back then, the optimism was swiftly halted by a hawkish tone during the December 14 FOMC press conference. The next FOMC press conference occurs on February 1, which could make this week's market reaction to the January 12 CPI release more directionally defining than what was the case in December.

On January 10, Cameron Winklevoss published a new open letter accusing DCG of public and private lies and accounting fraud. He urged the DCG Board to remove Barry Silbert as CEO and install a new CEO while adding that he was confident that Gemini could find an out-of-court solution with a new DCG management.

Bitcoin, currently a stable coin
The first ten days of 2023 have remained stubbornly flat in BTC. In this report, we have highlighted that the stable state of BTC in isolation is reflected in a tranquil derivatives market and supported by lower trading activity in BTC. In sum, these observations point towards a dampened speculative demand in BTC, as already noted in our previous market updates.

The flat and directionless pattern in BTC is typical during bear markets. BTC's 30-day volatility currently sits at lows not seen since June 2020. While BTC is flat, BTC's 30-day volatility has reached lower lows in 2013, 2015, 2016, 2018, 2019, and 2020.

BTC is currently more stable than gold, the dollar strength index, Nasdaq, and the S&P 500 gauged through 5-day volatility. In table 1 (page 6), we illustrate previous occurrences of BTC's 5-day volatility simultaneously falling below all the aforementioned indexes, defined as "relative volatility compression" in BTC. Per the table, this is highly unusual, and the current relative volatility compression environment has already lasted for a record-long duration.

Apart from the September 29 observation of last year, all other relative volatility compression events have been followed by volatile days with sharp bounces or frantic markets in the following 30 days.

Attractive straddle environment
Alongside the declining volatility, options IVs have fallen towards all-time lows across a set of different expiries. For instance, the IV of 1mth, 3mth, and 6mth expiries sit at all-time lows.

By the numbers

BTCUSD $17,255
7d: **4%**
30d: **1%**

ETHUSD $1,329
7d: **9%**
30d: **5%**

Open Interest (BTC futures and perps)
$7.9bn
459,000 BTC (**-5.6%** last seven days)

Average daily BTC spot volume
$4.4bn (**15%** last seven days)

BTC 90-d correlations (weekly change included)

ETH	Gold	S&P 500	DXY
0.89 (0.00)	0.30 (-0.02)	0.564(-0.02)	-0.45 (0.02)

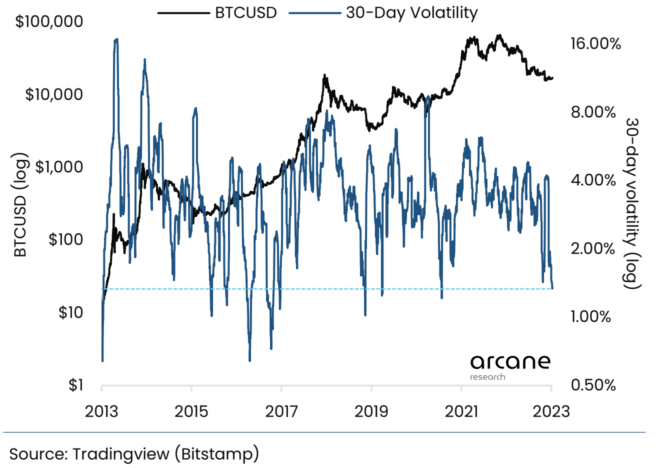
Percentage of Total Market Capitalization
Weekly change in percentage points

BTC	ETH	Stablecoins	Rest
39% (-0.9%)	19.1% (0.7%)	14.8% (-1%)	27.1% (1.2%)

Last week of top 50 by market cap

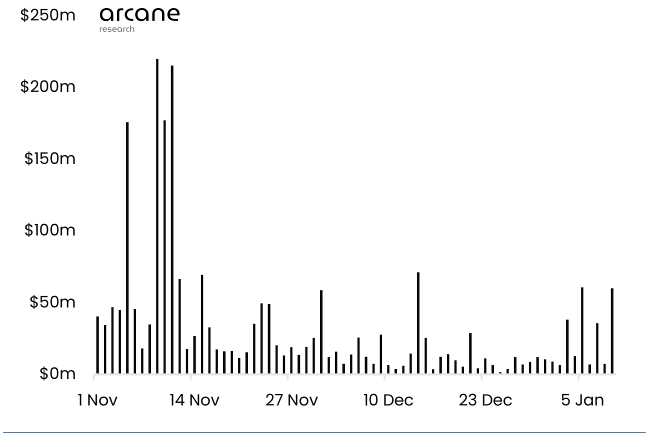
	Ticker	7d	YTD
Gainers			
1	LDO	67%	113%
2	SOL	45%	63%
3	SAND	28%	36%
Losers			
1	OKB	-9%	-2%
2	TON	-5%	-1%
3	TRON	-2%	-1%

Figure 1: BTCUSD vs BTC 30-Day Volatility



Source: Tradingview (Bitstamp)

Figure 2: Crypto perps: Daily short liquidation volume



Source: Laevitas

Spot Market

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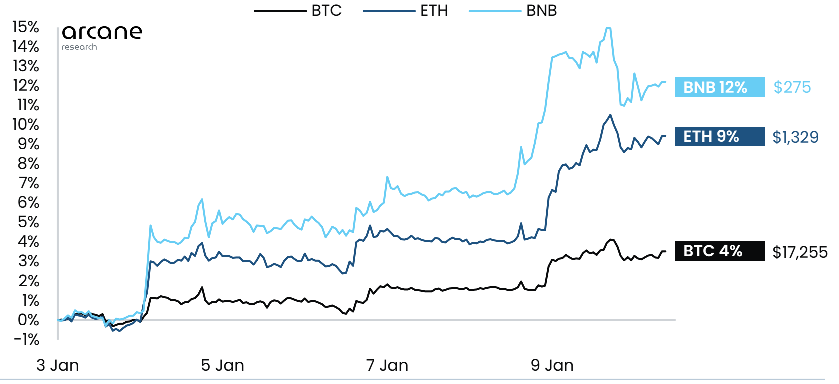
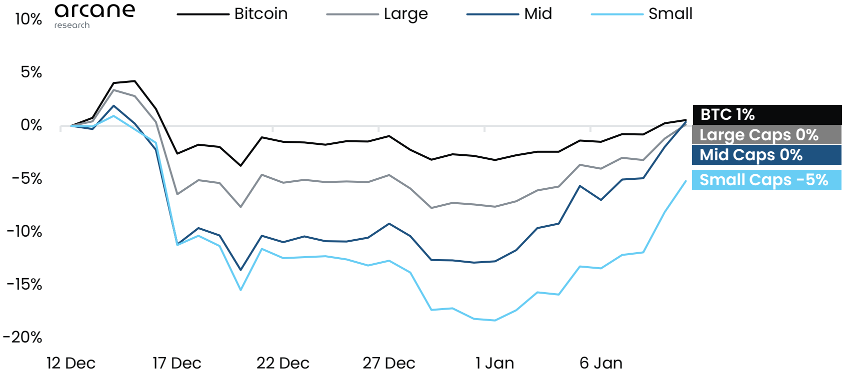
Figure 3: Top 3 Market Cap, Last Week



Source: Tradingview, (Coinbase, Binance U.S.)

Altcoins recovering losses vis-à-vis BTC
Alts have started 2023 strong, as several altcoins have experienced substantial short squeezes in the last few days, as we explore on page 7. Overall, these squeeze-fueled recoveries have led most altcoin indexes to recover vis-à-vis BTC, as BTC, Large Caps, and Mid Caps see flat returns over the last 30 days.

Figure 4: 30d Performance of Market Cap Weighted Indexes



Source: Bletchley Indexes, Tradingview (Coinbase)

Headlines last week

Crypto Empire DCG Faces US Investigation Over Internal Transfers

Coinbase Cuts Around 20% Workforce as Crypto Winter Rages

Judge Grants Celsius Rights to $4.2B in Customer Deposits

Coinbase to pay $100 million over failure to scale AML as business boomed

Silvergate shares plunge as company cuts workforce amid 'transformational shift'

Calendar

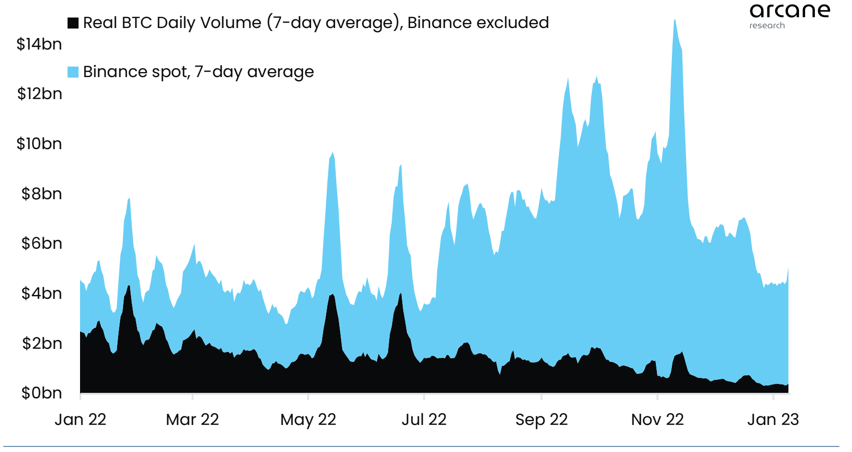
Thursday, January 12
- U.S. CPI (Exp: 6.5% YoY, 0.1% MoM)

Spot Market

Slight growth in trading volume
The bitcoin spot market volumes experienced a slight growth on Monday as BTC pushed to a three-week high of $17,400 as various altcoins experienced massive short squeezes. Nevertheless, trading volumes remain substantially below H2, 2022 levels, as bitcoin stays idle in a tight range, accompanied by low speculative activity.

The reduced volumes have implications for exchange revenues, leading to a further headcount reduction on Coinbase, announced today.

Figure 5: Real BTCUSD Daily Volume* (7-day average)

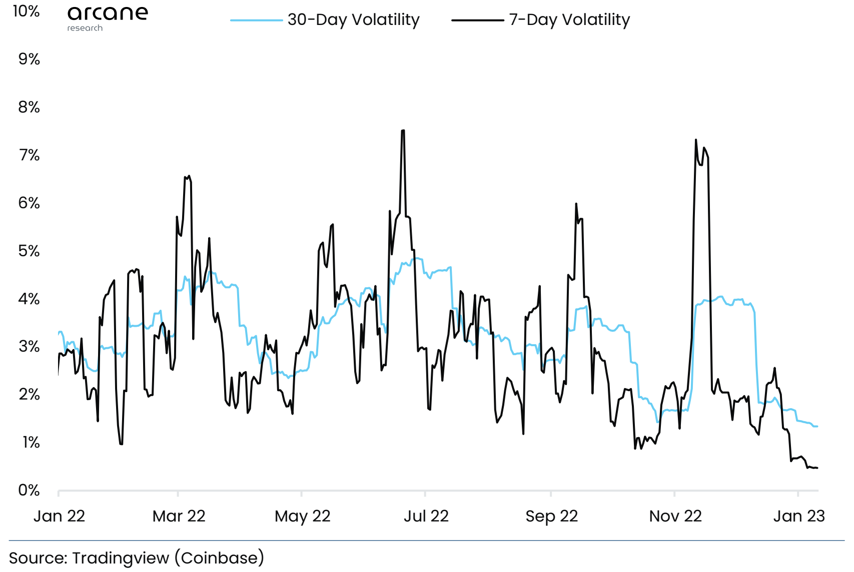


Source: Tradingview *Includes Bitwise 10 exchanges

Volatility stays low
BTC has slowly and gradually experienced mild buoyancy lately, as seven of the first nine trading days of 2023 have seen positive gains in BTC. However, a small and steady growth has done little to impact the volatility.

BTC's 7-day volatility remains well below 2022 lows as BTC reigns predominantly flat. Likewise, 30-day volatility remains at shallow levels. In the first nine days of January, BTC has been less volatile than gold, the DXY, NDQ, and the S&P 500. This is highly unusual, as we illustrate on our volatility deep-dive on page 6.

Figure 6: BTC-USD Volatility



Source: Tradingview (Coinbase)

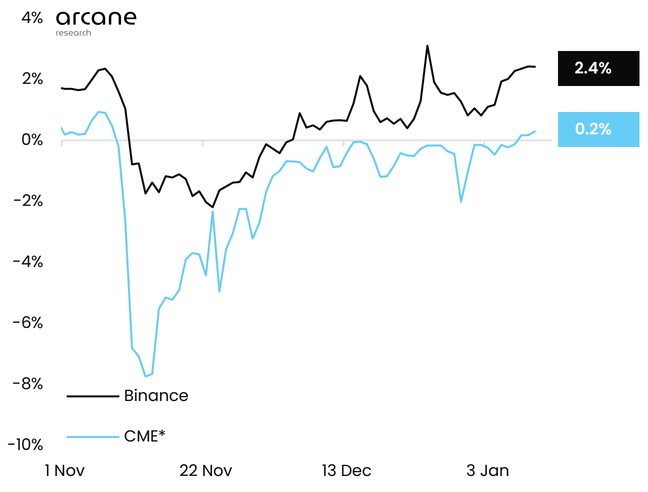
Fear and Greed

Now: 26 (Fear)
Last week: 26 (Fear)
Last month: 27 (Fear)

Derivatives

CME, Futures and ETFs

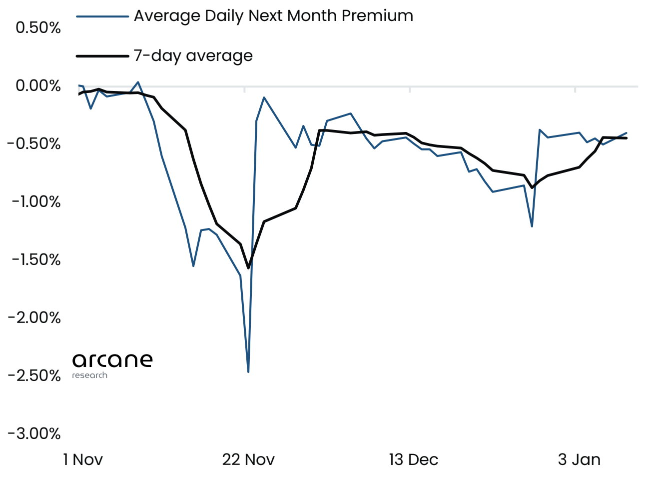
Figure 7: Bitcoin Futures Annualized Rolling 3-Month Basis



Source: Skew, Laevitas, Tradingview, CME
*Closed Saturday - Sunday

CME funding rates positive - first time since pre-FTX collapse
We note a slight growth in futures premiums over the last week as CME's futures push into positive territory for the first time since the FTX collapse. Apart from the CME recovery observation, futures remain neutrally priced, with no material changes from last week.

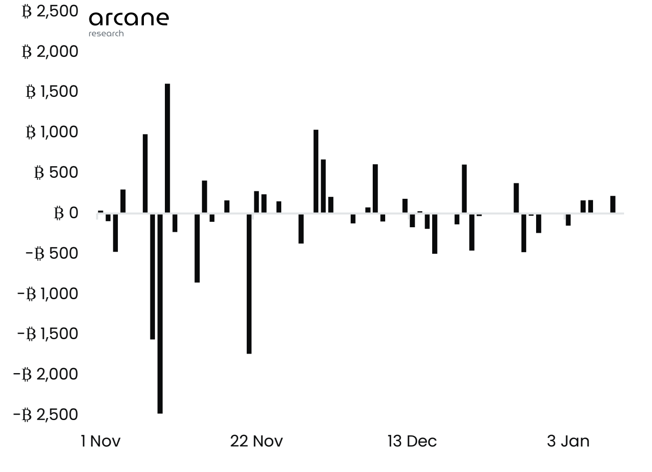
Figure 8: CME BTC Futures: Average Daily Next Month Premium



Source: Tradingview

... but the term structure remains in backwardation
While CME's basis has recovered, the term structure remains in backwardation as institutional investors maintain a cautious view on bitcoin and less liquid further dated expiry dates.

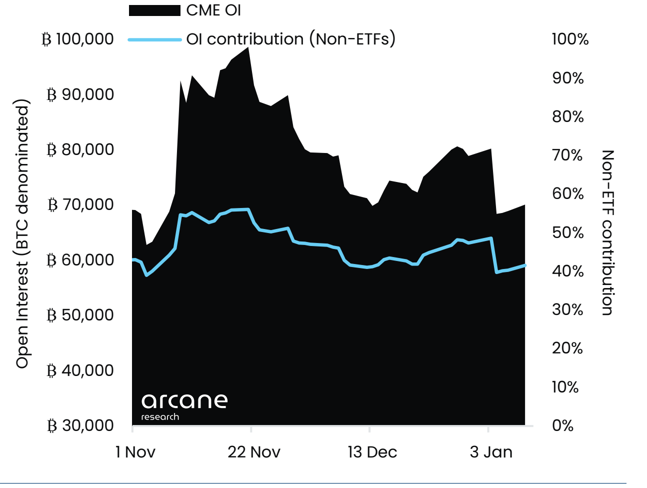
Figure 9: ProShares: Net Flow – BTC Equivalent



Source: ProShares

Prolonged lull in ETF flows
ProShares' flows have been rigorously stale since Christmas, with no notable inflows nor outflows to either the long or the short ETF.

Figure 10: CME BTC Futures: Open Interest

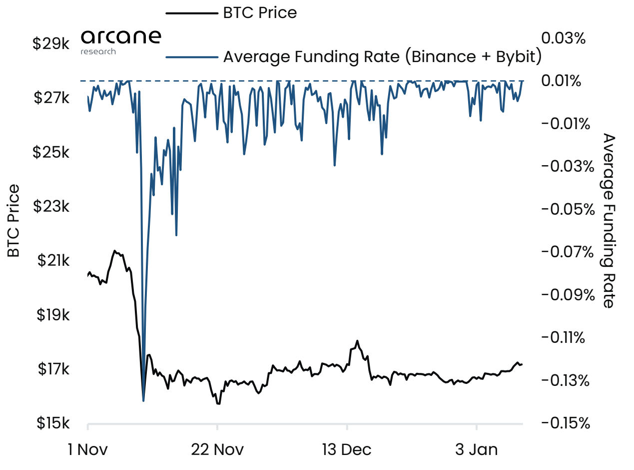


Source: Coinglass, ProShares, Valkyrie, VanEck

CME's OI back down to 70,000 BTC
CME experienced yet another brief stint of activity towards the final trading day of 2022, pushing OI back up towards 80,000 BTC, fueled by growing participation from active market participants. The growth was short-lived, and the active market participant share has once again fallen back to 40%.

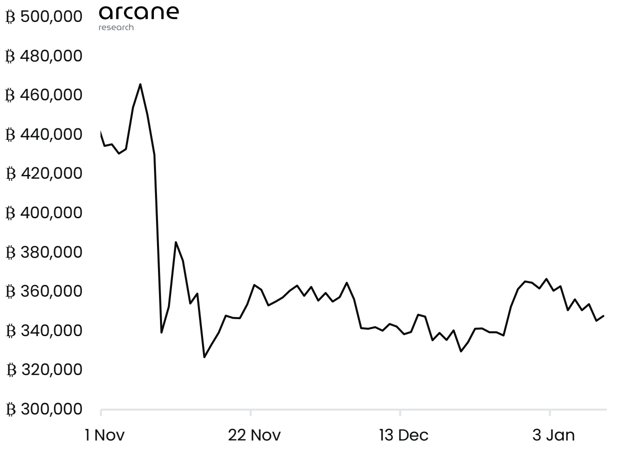
Derivatives
Perpetual Swaps and Options

Figure 11: Bitcoin Perpetuals: Funding Rates vs BTC Price



Source: Bybit, Binance, Tradingview (Coinbase)

Figure 12: Bitcoin Perpetuals: Open Interest

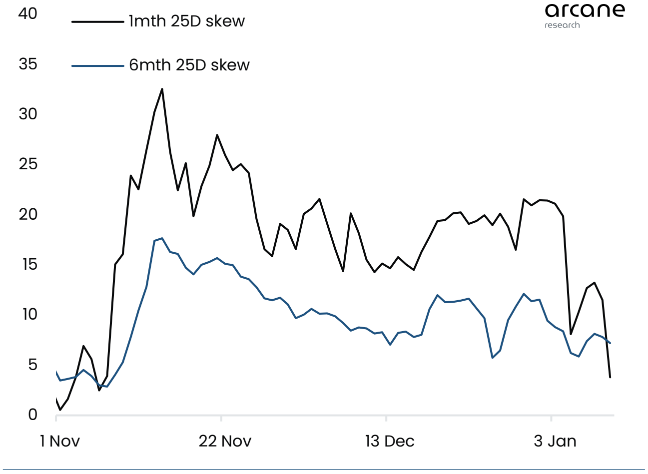


Source: Laevitas

Funding rates regime unchanged
BTC perps still trade in a relatively erratic funding rate pattern of neutral to below neutral rates but remain in predominantly neutral terrain. There are zero notable observable changes in the sentiment in BTC perps over the last week, as traders still maintain a primarily conservative bias.

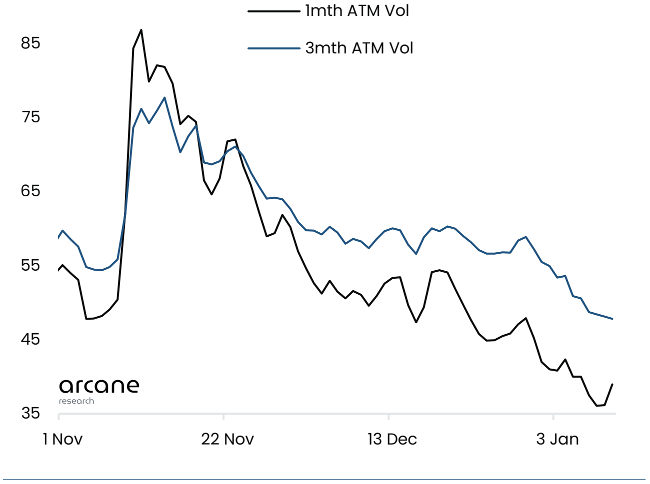
Open interest in perps see slight decline
While various altcoins have seen significant short squeezes in the last week (page 7), BTC perps trade in orderly conditions. Open interest has slightly declined from 360,000 BTC to 345,000 BTC, and leverage sticks to the status quo compared to previous weeks.

Figure 13: BTC Options - 25D Skew (1mth + 6mth)



Source: Laevitas

Figure 14: BTC Options – Implied Volatility



Source: Laevitas

Options skews back to pre-FTX collapse levels
The 25-delta options skews have fallen substantially over the last week as options traders express a less pressing demand for puts. Nevertheless, puts remain pricier than calls, a state maintained throughout most of the bear market.

Implied volatility at all-time lows
As volatility sees a substantial decline, implied volatility follows. Across various expiries, IVs sit at all-time lows, making straddle strategies gradually more attractive. We explore the current low volatility environment and IVs in more detail on page 6.

A deeper dive
Bitcoin, currently a stable coin

The first ten days of 2023 have remained stubbornly flat in BTC. In this report, we have highlighted that the stable state of BTC in isolation is reflected in a tranquil derivatives market and supported by lower trading activity in BTC. In sum, these observations point towards a dampened speculative demand in BTC, as already noted in our previous market updates.

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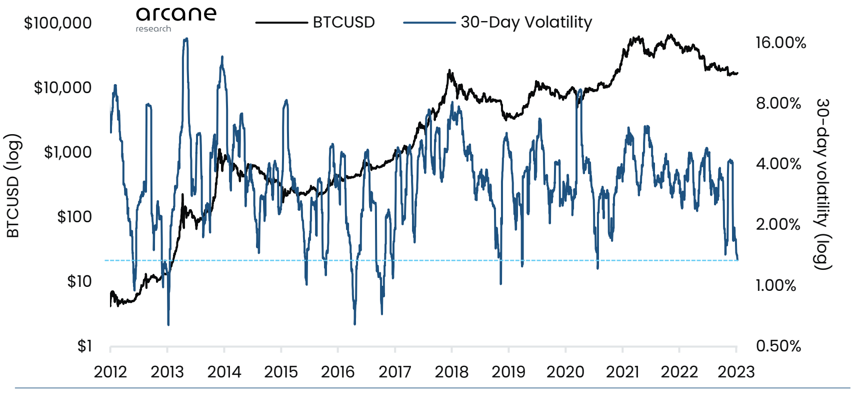
Figure 15: BTCUSD vs BTC 30-Day Volatility



Source: Tradingview (Bitstamp)

Attractive straddle environment
Alongside the declining volatility, options IVs have fallen towards all-time lows across a set of different expiries. For instance, the IV of 1mth, 3mth, and 6mth expiries sit at all-time lows.

Thus, straddle strategies are getting increasingly more appealing. Based on previous price patterns following declining BTC volatility, toppled with BTC's current relative volatility compression versus other equities, we believe this is a good time to utilize cheap options premiums to position for abrupt market moves.

Figure 16: BTC Options: Implied Volatility

Source: Laevitas

Table 1: BTC 5-d vol below DXY, NDQ, ES1 and Gold

Period	Duration	30d BTC return*
May 17, 2016	1 day	61%
Oct 25, 2018	1 day	-34%
Nov 6-7, 2018	2 days	-48%
Mar 12-13, 2019	2 days	32%
Sep 29, 2022	1 day	5%
Jan 4-9, 2022	4 days	x

Table explanation: BTC 5-day volatility below NDQ, S&P 500, DXY, and Gold
This table illustrates all previous occurrences of BTC's 5-day volatility falling below that of Nasdaq, S&P 500, DXY, and Gold ***simultaneously****. Per the table, this is a highly unusual event. The current relative volatility compression in BTC compared to other equities has reached a record-long duration. High volatility has tended to follow previous incidents of relative volatility compression in BTC.*

**BTC return 30 days after the first date of the volatility compression period.*

Source: Tradingview

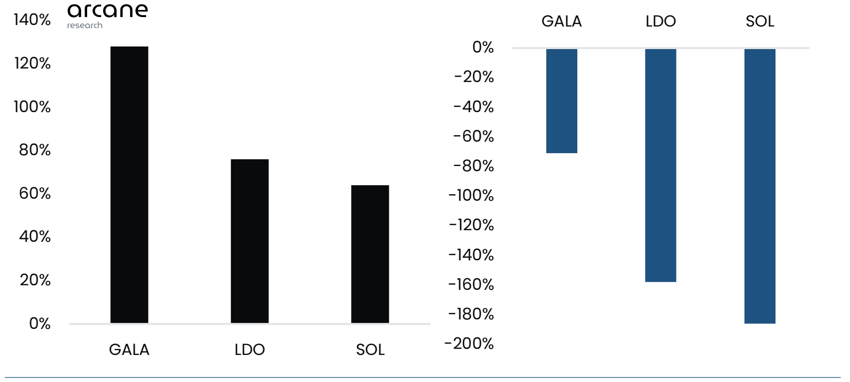
A deeper dive
Alts squeezing

A strong rally in several altcoins
While BTC remains stubbornly stable, we have seen significant altcoin price action in the last week. Relatively illiquid and heavily shorted altcoins such as Solana and metaverse tokens have seen massive upside alongside extremely negative funding rates. Meanwhile, promising developments related to Ethereum's Shanghai upgrade have reflected well on liquid staking protocols.

Liquid Staking Protocol tokens have surged as Ethereum is making progress on its Shanghai upgrade. The Shanghai upgrade will allow Ethereum stakers to withdraw tokens. Compared to other Proof-of-Stake chains, a relatively small amount of the circulating supply (14%) is staked at the beacon chain. The lacking ability to unstake ETH may be the root cause behind a relatively low share of staked supply compared to chains such as Cardano and BNB. Ethereum developers have prioritized getting withdrawals up and running with a tentative mainnet launch in March.

Before the Shanghai fork, liquid staking tokens gained traction from representing a liquid usable derivative proxy for otherwise staked ETH while also generating a yield. This has caused LIDO to become the largest staker on Ethereum. With the ability to unstake, ETH yields may be realized, and ETH stakers will gain more flexibility, potentially attracting more people to stake. This has caused a rally in Liquid Staking Protocol tokens, which also trade in relatively illiquid conditions on centralized exchanges, creating an environment ripe for sharp price moves, as illustrated by Kaiko.

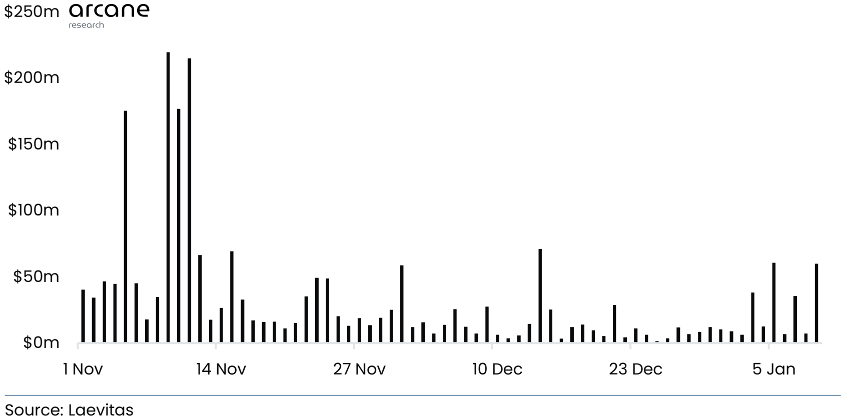
Figure 17: 7-day returns (left) vs. 7-day average annualized funding rate (right)



Source: Tradingview, Laevitas

Shorts squeezed
In essence, the sharp gains seen in various altcoins in the last week have predominantly been fueled by illiquid markets and a structural short squeeze. The last few days have seen consistently high short liquidation volume in crypto derivatives compared to liquidation volumes from mid-December.

Figure 18: Crypto perps: Daily short liquidation volume

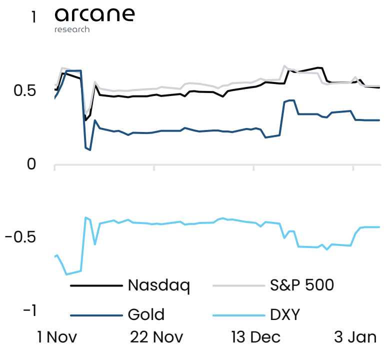


Source: Laevitas

Market Related Charts

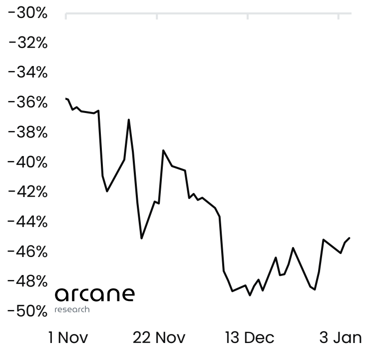
Data updated Monday Jan 9, 2023

Figure 19: BTC 30-d correlations*



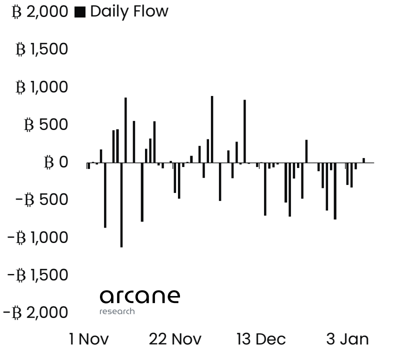
Source: Tradingview *Pearson

Figure 20: Grayscale Premium/Discount



Source: Ycharts

Figure 21: Daily Flows (BTC ETFs)



Source: Bytetree

Figure 22: BTC Dominance

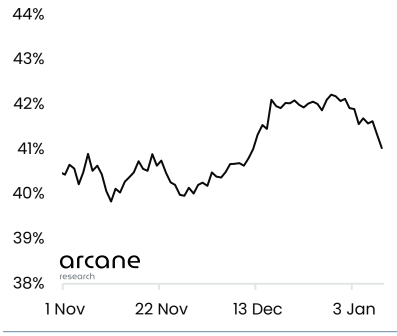
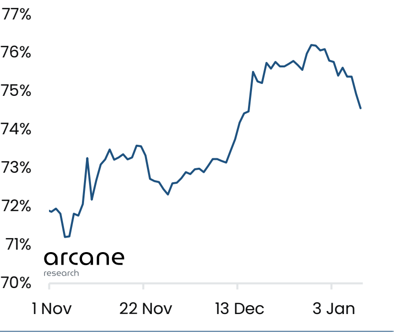


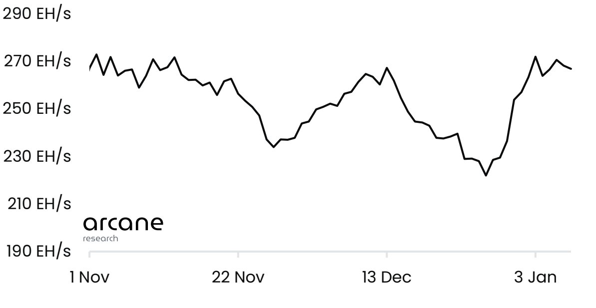
Figure 23: BTC + Stables Dominance

Figure 24: BTC + Stables + ETH Dominance



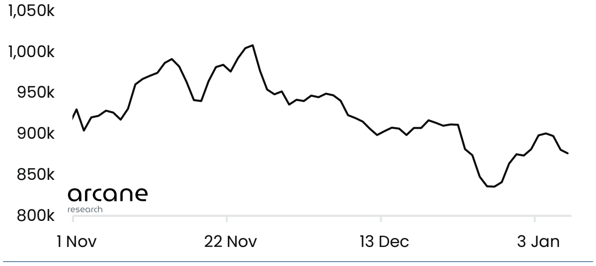
Source: Tradingview

Figure 25: Bitcoin Hashrate (7-day average)



Source: Blockchain.com

Figure 26: Active Addresses (7-day average)



Source: Coinmetrics

Figure 27: On-chain statistics

Powered by BYTETREE	01/08/2023	7d Change
Daily Miner Revenues	$16,710,816	7.89%
Fees per day	$190,146	-35.47%
Fees % Revenues	1.14%	-0.76%
Daily TX Volume ($M)	$2,325	-9.07%
Transactions per day	258,567	5.07%
Avg TX value $	$8,992.02	-13.46%
# Blocks per hour	6.53	7.34%
Avg. # TX per block	1650	5.07%

Source: Bytetree

Why we choose the charts we do

Heavy Bitcoin focus
The crypto market is heavily correlated. Movements in BTC tend to be reflected by sharper moves in altcoins. In many ways, BTC is the lower beta exposure alternative to crypto and the definite market leader. However, don't worry – whenever we find a topic, a coin, or some tendencies worth drilling deeper into – we will. This report will get you the most important information from the crypto market.

Market by the numbers
We highlight the most critical market data by numbers in this table. A glance at these data should be sufficient to assess the state of the market superficially.

Open interest is an essential underlying market driver. Crypto tends to be very volatile, and leverage exacerbates volatility. We have had frequent massive liquidation cascades throughout the last years, mostly towards the downside, but we've periodically seen short squeezes emerge. During the March 12th collapse in 2020, cascading liquidations were the root cause of the absolute carnage in the market. You should always pay close attention to open interest if you aim to be an active participant in the market. Our derivatives pages will contribute to delivering you a directional assessment of the data.

The spot volume is an efficient way to gain an overview of the general activity in the market.

Correlations have been growingly important in the last year due to the complicated macro picture post-COVID. It's important to be aware of BTC's, for now, close relationship with U.S. equities and its inverse relationship with the dollar strength index (DXY). However, the current correlation regime is unlikely to be as strong as today forever. Through awareness of correlation trends, you may be able to execute trading strategies before the market catches up to correlations breaking.

The simplified market cap distribution box allows you to assess the general risk sentiment in the market quickly. In general, the "Rest" category may be used as a proxy for risk aversion in the market. Currently, BTC, ETH, and stablecoins represent nearly 75% of the crypto market, which is telling for a risk-averse crypto market.

The two charts on the first page illustrate the two most interesting topics covered in our market analysis. A more thorough examination of these charts is found in the last section of the report, where we dive deeper into two topics that currently seem to drive the market.

Spot Primer

Top 3 coins
We explore the last week's performance of the top 3 cryptocurrencies to asses deviations and opportunities within the safer bracket of digital assets. Currently, BTC, ETH, and BNB represent the three largest. Both ETH and BNB have a thriving DeFi user base and unique drivers of price and demand, which could generate temporary or long-term correlations within crypto to decline as trading opportunities arise or spread trade opportunities.

Indexes
We use the Bletchley Indexes to gauge and assess market activity across BTC and altcoins grouped by market cap size. Documentation for the index weights may be found at through this link.

Volume
The BTC spot volume is an efficient way to communicate the general activity in the market. It may help you identify frantic market bottoms or peaks. Our volume data is based on Bitwise's 10. In 2019, Bitwise explored wash-trading and market manipulation in the spot market, leading to this index. In general, our volume assessment likely underestimates the volume to some degree, as legitimate volumes in other exchanges are excluded. However, the volume estimate is a good proxy for general activity in the market.

We differentiate Binance's volume from the remainder of the exchanges due to Binance's removal of trading fees this summer. We believe a substantial amount of the recent trading volume on Binance is related to "in-organic" trades, i.e., high-volume trading strategies that were not economically feasible prior to fees being removed. Of course, removing fees has likely also contributed to moving traders from alternative exchanges over to Binance.

Volatility
Volatility is a topic well worth paying attention to. In specific periods, such as the current – where BTC trails in a shallow volatility regime, new trading opportunities emerge related to options and straddles. This chart is handy to pay close attention to, as it may help you enhance your ability to act on opportunities in the market when activity is low and options are becoming cheap.

Derivatives primer

Why should you care about derivatives flows?
The crypto market is periodically extremely volatile, and activity in derivatives enhances the market reactions. Crypto derivatives are at the cutting edge of financial innovation, the offshore market is periodically wild, and animal spirits tend to take over. Derivatives more or less always carry a clue of overheating in the market or full-on depression. It's highly actionable and worthwhile understanding if you aim to be an active crypto market participant.

The market is also clearly divided. There are two branches worth monitoring – institutional and offshore. Both components periodically lead the market, and assessing sentiment and general risk aversion in these two provides you the tools to understand dangers or opportunities on the horizon.

CME – The importance of a cash-based futures market in BTC
Institutional traders strongly impact BTCs price discovery, as identified both by Bitwise and by us. However, many institutional traders have limitations regarding access to crypto markets or even related to holding BTC. CME provides the most accessible, most efficient access to crypto markets for those traders. CME also has the added caveat of a familiar clearinghouse structure, leading to fewer barriers to entry for crypto exposure for institutional traders.

We assess institutional sentiment by monitoring the futures basis and contract spreads between the front month (upcoming expiry) and the near month (next expiry). In general, a positive and high futures basis on CME indicates a positive sentiment, whereas a negative basis indicates the opposite. We include Binance's basis to compare offshore and CME premiums to highlight different sentiments between institutional traders and retail. While Binance have institutional traders, they also enable easy access to derivatives for retail, which may provide useful information ahead of periods of distress.

We monitor aggregated ProShares flows, meaning inflows and outflows to both ProShares' long BTC ETF (BITO) and short BTC ETF (BITI) on the CME page. In the chart, inflows to BITI will be calculated as a negative flow impact, while inflows to BITO will be calculated as a positive flow impact. The opposite is true for outflows from the ETFs mentioned above. ProShares are by far the largest U.S. BTC ETF provider, holding a substantial amount of BTC contracts on CME. Retail and institutions have access to BITO and BITI. Periods of strong aggregated flows to BITO may substantially impact CME's basis. An interesting scenario that has yet to emerge would be one scenario with neutral flows but a rising CME basis. In this scenario, one can assume that certain institutional players actively add long BTC exposure.

We further monitor CME's open interest and the contribution of ETFs to the open interest to assess the degree of activity in CME futures.

Perpetual swaps
Perpetual swaps are the most frequently traded derivative in crypto markets. It's an everlasting futures-like instrument, utilizing funding rates to secure that perp prices align with spot markets. There are certain intricate nuances to funding rates, for instance, varying funding intervals and varying neutral funding rate thresholds. In normal conditions, Binance and Bybit's funding rate sits at 0.01% every eight hours – meaning longs pay shorts a fee. This structural element in crypto derivatives may lead to a natural structural contango. They may be utilized for cash and carry strategies (albeit in a non-arbitrage fashion, assuming that funding rates will average around neutral terrain).

During roaring markets, funding rates tend to be pushed towards extreme highs due to enormous demand to go long, leading perps to trade at a substantial premium over spot. By assessing funding rates, you may be able to act on market moves and liquidation cascades prior to a liquidation cascade. Similarly, funding rates may sit in extremely negative terrain during bear markets, foreshadowing potential short squeezes.

We monitor open interest in perps to better gauge the risks of soaring volatility and market instability. We monitor open interest in notional value, i.e., in BTC, to have a clear eye on the relative leverage in the market. Currently, the open interest sits at all-time highs in notional value. This is a dangerous trend, and we view it as likely that this will generate a dramatic reaction when BTC breaks out of its prolonged consolidation. Cascading liquidations may occur in both directions, so the open interest is best used as a proxy for how volatile a spike may be.

Options
We monitor two options charts. The 25-delta skew, which is a metric comparing the implied volatility of a 25-delta put option vs. a 25-delta call option, normalized by at the money implied volatility. Counter-intuitively, when the 25d skew is positive, traders are paying more for puts than calls and may be assessed as cautious/bearish behavior in the options market. The opposite is true when skews are negative. Skews trending in a certain direction may also elaborate on repositioning from options traders and is worth paying attention to. We show the 1-month skew for contracts expiring by the end of the month, and the 6-month skew, for contracts expiring half a year from now to assess differences in positioning across maturities.

The implied volatility illustrates options traders' forward-looking assessment of volatility – or the options pricing. Implied vols in BTC are rarely trailing below 60 for long, and this has previously been a good time to enter straddle strategies.

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