Ahead of the curve
Market Update

Digital Assets

Signals from the market

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Sticky inflation sends BTC in the red
Bitcoins' (-6%) momentum halted last week after failing to break through the $25,000 resistance. Last week's PCE reading came in higher than expected, leading to a negative market reaction, as the market readjusted hiking expectations for the March 22 FOMC press conference, as the odds for a 50bps hike grew. Apart from the PCE reading, last week was relatively quiet, and we note no relevant changes to the market structure or general sentiment. CME still trades in a promising premium, and offshore activity reigns idle while IVs in options have fallen to attractive straddle levels.

We also note erratic altcoin cycles. Brief-lived narratives lead to short-term strength in altcoins, and in three of the past four weeks and in three out of the last four weeks, the "Top 50 coin" winner of the previous week has ended up as the next week's worst performer. This game of hot potato is challenging to navigate and is facilitated by relatively illiquid markets and frequent capital rotations within the crypto market.

The event calendar for the coming two weeks is relatively quiet, with few macro events to directionally impact the market. In this environment, crypto-related news should affect the directional drift in the market, and we view Grayscale's oral hearing vs. the SEC and the coming Shanghai upgrade as the most relevant catalysts.

The offshore futures market is all perps
Perpetuals swaps dominates the offshore futures market, currently representing 89% of all open interest in offshore futures. In April 2021, perps represented 62% off all the offshore open interest, while traditional futures represented 38% of the OI. When including CME data, we still see that traditional futures currently represents 28% of the open interest in the BTC futures market.

Below, we illustrate that the traditional offshore futures market is very small compared to CME. This directly impacts the relevancy of using the offshore basis as a proxy to gauge market sentiment. Most material directional offshore flows originate from perps, options, or the spot market directly.

This structural development also illustrates that crypto native traders prefer perps over traditional futures. This is an important development in the market. Traders seek perps rather than futures, which creates opportunities and carries costs based on a six-year-old funding rate adjustment by BitMEX.

The OI to PoR ratio
Crypto is abundant in data to analyze, but not all data is trustworthy. Our job is to filter out the noise and unreliable market data so our readers may make informed decisions. On page 8 we outline why we exclude Bitget and MEXC data from our derivatives data. In short, MEXCs and Bitget's ratio of open interest relative to proof of reserves sits at 400%, well above other peers who typically see an OI to PoR ratio below 100%. This can only happen if a) traders on MEXC and Bitget are far more leveraged than on any other platform or b) if numbers are manipulated. We see no signs of excess liquidations on these exchanges during volatile conditions and view alternative b as a more likely explanation.

By the numbers

BTCUSD $23,279
7d: **-6%**
30d: **-2%**

ETHUSD $1,621
7d: **-5%**
30d: **-1%**

Open Interest (BTC futures and perps)
$10.1bn
431,000 BTC (**-3.1%** last seven days)

Average daily BTC spot volume
$10.8bn (**-17%** last seven days)

BTC 90-d correlations (weekly change included)

ETH	Gold	S&P 500	DXY
0.94 (0.00)	0.18 (0.01)	0.46(0.01)	-0.33 (-0.01)

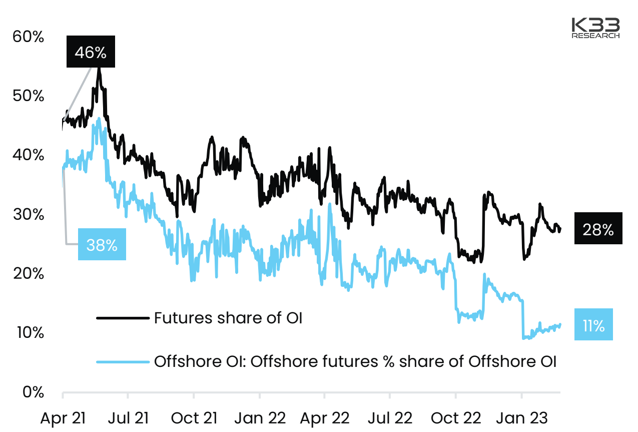
Percentage of Total Market Capitalization
Weekly change in percentage points

BTC	ETH	Stablecoins	Rest
42.3% (-0.4%)	18.7% (0.3%)	11.7% (0.5%)	27.3% (-0.4%)

Last week of top 50 by market cap

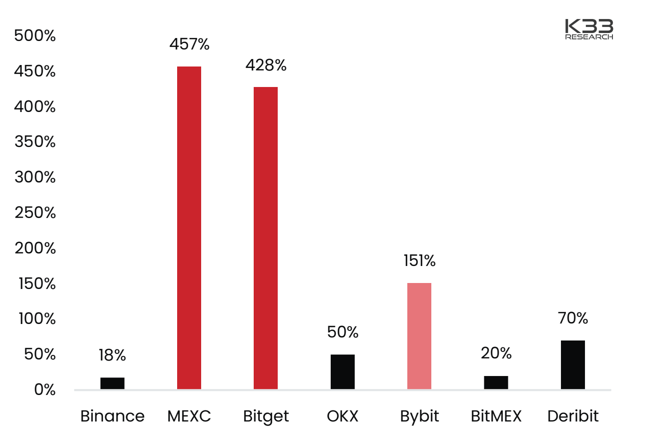
	Ticker	7d	YTD
Gainers			
1	STX	40%	308%
2	LDO	5%	186%
3	TON	4%	4%
Losers			
1	FIL	-22%	116%
2	ICP	-19%	48%
3	HBAR	-18%	86%

Figure 1: Futures share of total open interest (Futures + Perps)



Source: Laevitas, Skew, CME Group

Figure 2: Open Interest relative to Proof of Reserves*



Source: Nansen, MEXC, Laevitas, Coingecko, Coinmarketcap
*Exchange tokens excluded

A game of hot potato
March Outlook

Digital Assets

March Outlook

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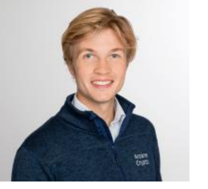

My short-term outlook has improved after a slow but SEC-heavy February and a BTC push toward $28k could happen sooner rather than later. Further, the Shanghai update represents attractive narrative-based opportunities in favor of increased weighing in LDO and ETH.

March represents an opportunity to be aggressive

February has been a wobbly month for BTC, with no material changes in the market. Correlations reign milder than in 2022, a potential side effect of Alameda's fall, as Alameda had pursued "substantial hedges, in some combination of BTC, ETH and QQQ" in the summer of 2022. The milder correlations and reduced liquidity has set the stage for a schizophrenic volatile, and unpredictable market.

Above $25k, the nearest resistance is found at $28k, and I tend to lean towards the market pushing in this direction in March. In unpredictable times, lines on a candlestick chart are our hope. Like clockwork, BTC failed to break through the $25k resistance established in August and is still oscillating inside its post-credit-crisis trading range. From a technical perspective, $25k is important. This area briefly held support as Do Kwon's House of Cards collapsed and has since been a key resistance area.

Two catalysts come close to the heart in order to facilitate moves of strength. Grayscale's oral hearing in their court case against the SEC on March 7 and the March 22 FOMC meeting. The oral hearing verdict is not expected until this fall, but it might spark needed enthusiasm to push the market higher. Related to the FOMC meeting, positive employment data and negative PCE data have increased the hiking expectations for the nearest FOMC press conference, with implied odds of 25% for a 50bps hike. The FED tends to deliver few surprises, and unless CPI surprises to the upside, a 25bps hike should reflect well on the market.

Institutional premiums enforce my short-term optimistic outlook. CME's futures basis remains wide as institutions pay a premium for the privilege of building long exposure in BTC. It's been a while since we have seen positive tendencies on CME, and this development is not something one should sleep on, and I will position more aggressively in March as I lean toward BTC being a buy in March.

Do not buy the weekly altcoin winners

The current altcoin cycles are extraordinarily aggressive and unusually short-lived. There are clear signs of continuous rotations and brief-lived niche-specific rallies attached to some half-assed narrative. In three out of the last four weeks, the "Top 50 coin" winner of the previous week has ended up as the next week's worst performer.

Altcoin cycles tend to be short-lived, but this is beyond the norm and has all the hallmarks of a bored market chasing opportunities, in addition to no new capital inflows. Poor liquidity facilitates this erratic pattern, and you do not want to be the one holding the bag when the music ends.

An intriguing Shanghai trade

I expect the one altcoin niche with a somewhat convincing narrative attached to regain relevancy in March, Liquid Staking Protocols. Ethereum's Shanghai upgrade is nearing and is expected to launch on the Mainnet in late March to early April. SEC's enforcement against Kraken's staking services earlier in February highlighted the need for decentralized access to liquid staking, and this narrative will be on top of mind as Shanghai nears.

Once Shanghai is live on mainnet, the price effects on both ETH and LIDO are challenging to assess. We know that substantial unstaking will originate from Kraken due to the SEC enforcement, but it's far from certain that U.S. domiciled traders on Kraken will aim to sell unlocked ETH. We may also experience unstaking from independent validators seeking to realize some returns on ETH that have been locked on the beacon chain for multiple years. However, the effect may be ambiguous. Liquid staking has provided stakers with access to trade a tokenized ETH derivative, and this flexibility may limit sell-side pressure. The ability to unstake ETH will potentially also lead to increased confidence in participating in staking in ETH, which might increase the staked ETH supply.

Due to the uncertain and ambiguous direct short-term effects of the Shanghai launch, I do not want to hold significant exposure at launch, but I will play this by holding a sizeable ETH and LIDO exposure up towards the launch and reducing exposure in the days leading into the Shanghai launch.

Arcane becomes K33

You may notice some minor changes in this report and our brand.

Arcane has rebranded to K33, and Arcane Research has rebranded to K33 Research.

Don't worry – Ahead of the Curve will still be published each and every week, and so will the Friday Focus.

We are even expanding our offering. In our Fundamentals project, we approach crypto through long-term lenses, meticulously exploring what should affect token prices in the long run.

We are also launching Webinars and offering access to book time to chat with us – the analysts!

You will find our research content through https://k33.com/research/.

If you have any questions, feel free to reach out via email or on Twitter.

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Spot Market

Sticky inflation sends BTC in the red
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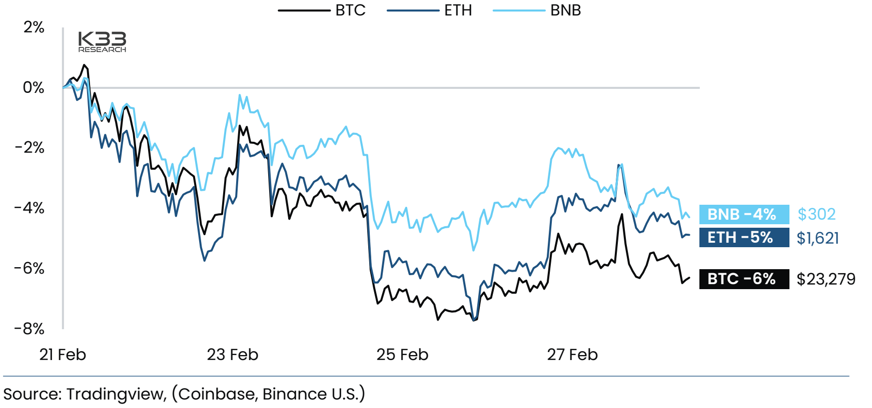
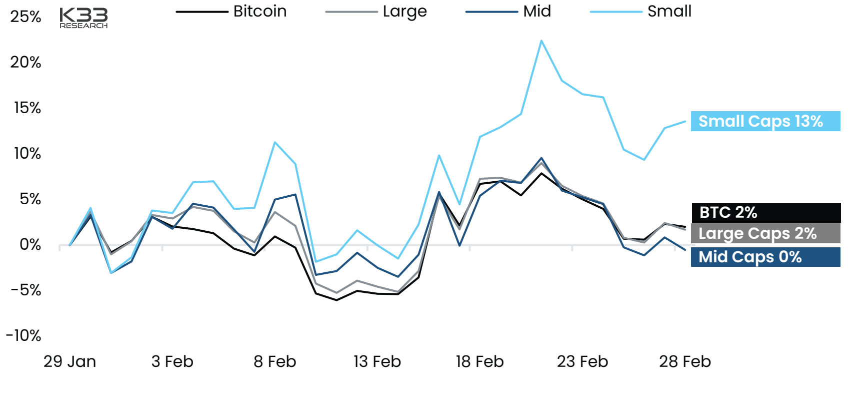
Figure 3: Top 3 Market Cap, Last Week



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

Small cap strength ensues
Frequent altcoin rotations lead the Small Cap Index to maintain its strength versus the rest of the market. BTC and the other indexes have moved in tight correlation throughout the past month, whereas Small Caps experience excess returns fueled by rotations into emerging narratives.

Figure 4: 30d Performance of Market Cap Weighted Indexes



Source: Bletchley Indexes, Tradingview (Coinbase)

Headlines last week

Coinbase Launches Layer 2 Blockchain Base to Provide On-Ramp for Ethereum, Solana and Others

Ethereum takes step closer to Shanghai-Capella with deployment on Sepolia testnet

Coinbase fourth-quarter revenue beats estimates despite falling 57% year-on-year

Crypto Conglomerate Digital Currency Group Reports Loss of $1.1B in 'Challenging' 2022

Coinbase to halt trading of Binance USD for not meeting listing standards

Calendar

Wednesday, March 1
- South Korean markets closed.

Thursday, March 2
- Euro CPI (Est: 8.2% YoY)

Tuesday, March 7
- Grayscale Oral Hearing vs. SEC

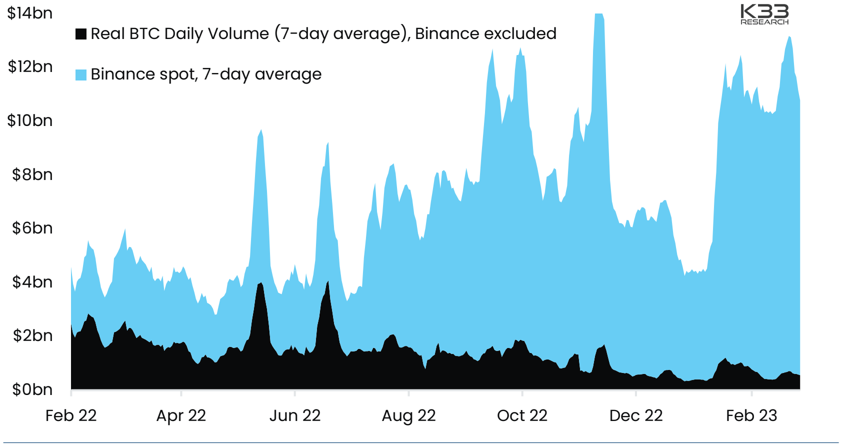
Spot Market

Volumes falling back towards $10bn
Trading volumes have fallen slightly in the past week, currently sitting at $10.7bn. Activity in the market reigns heavily concentrated on Binance, with Binance representing 95% of the Real BTC spot volume* in the past week.

Fear and Greed

Now: 53 (Neutral)
Last week: 60 (Greed)
Last month: 52 (Neutral)

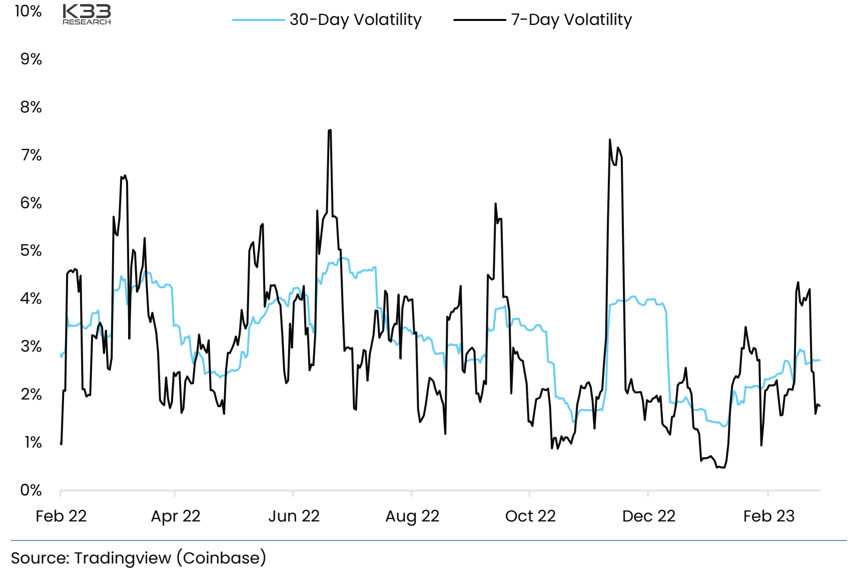
Figure 5: Real BTCUSD Daily Volume* (7-day average)



Source: Tradingview *Includes Bitwise 10 exchanges

Market quieting down again
BTC has steadily retraced towards $23k this week, leading BTC's 7-day volatility to fall toward February lows. Apart from a strong negative reaction to Friday's higher-than-expected PCE release, the market saw soft daily price moves throughout the week.

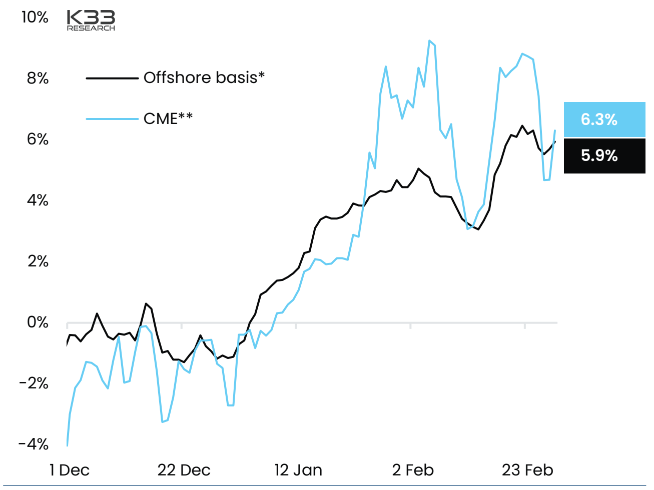
Figure 6: BTC-USD Volatility



Source: Tradingview (Coinbase)

Derivatives
CME, Futures and ETFs

Figure 7: Bitcoin Futures Annualized Rolling 3-Month Basis

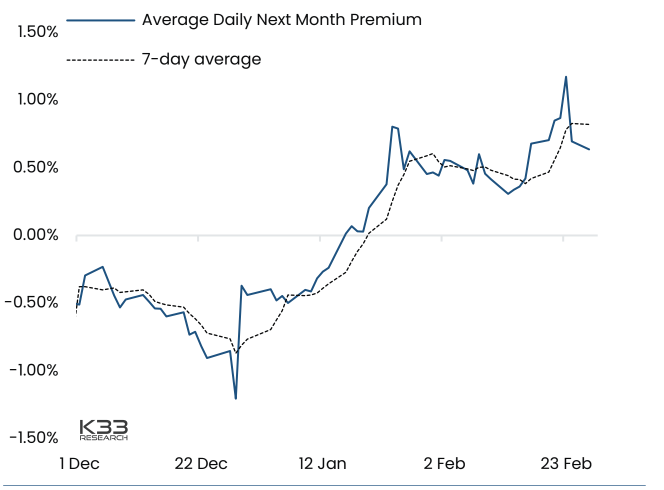


Source: Skew, Laevitas, Tradingview, CME
*OI weighted basis average (Binance, OKX, Deribit) **Closed Sat-Sun

Basis remains elevated
This week we have adjusted the methodology behind the CME basis calculation, using the March expiry in order to compare like-for-like with offshore data.

CME's March futures trade at a premium to offshore futures, despite seeing a sharp fall alongside the falling market last week. On page 7, we cover the declining relevancy of offshore futures.

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

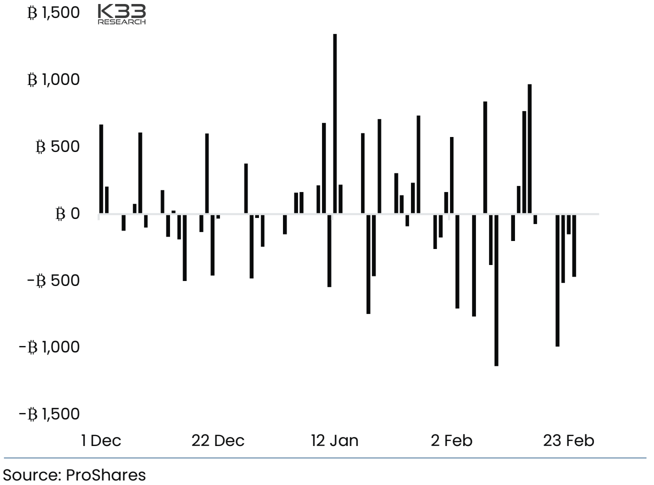


Source: Tradingview

CME's contango remains wide
CME's futures term structure remains in a sharp contango. The next month premium trended lower during last week's sell-off but remains substantial.

The current basis and contango on CME suggest that institutional traders maintain an optimistic outlook on the market.

Figure 9: ProShares: Net Flow – BTC Equivalent

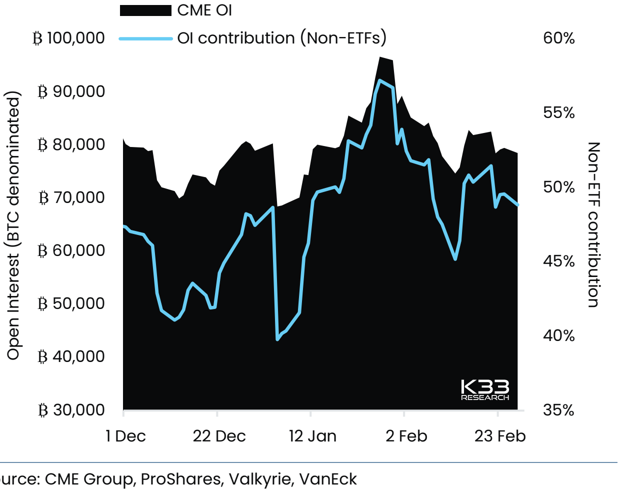


Source: ProShares

Worst ProShares flows since November 21, 2022
The past week has seen the largest negative net flows in ProShares since November 21, 2022, amounting to negative net weekly flows of 2130 BTC. This is fueled by a combination of substantial outflows from BITO, amounting to 1030 BTC, and substantial inflows to BITI, amounting to 860 BTC.

Negative ProShares' flows have been a relatively strong sentiment indicator, with large weekly net outflows tending to coincide with short-term bottoms.

Figure 10: CME BTC Futures: Open Interest



Source: CME Group, ProShares, Valkyrie, VanEck

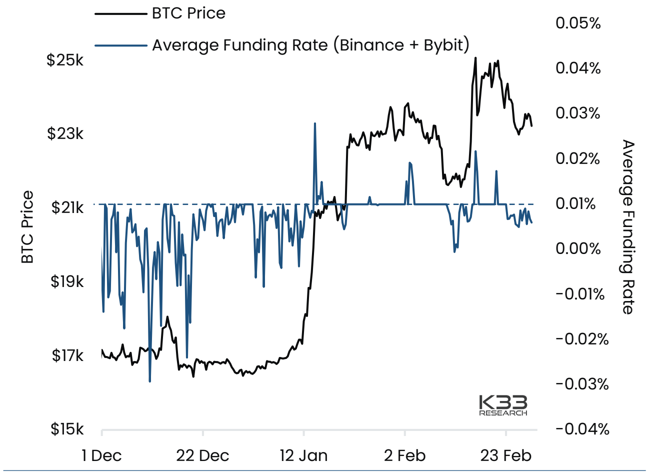
CME OI stabilizes
Open interest has stabilized on CME in the past week, with no notable changes compared to the past week.

CME's February contract expired last Friday, and 975 contracts have been held into expiry, which will lead open interest to fall by 4,875 BTC on the end of the day reading on Tuesday, similar to the post-settlement falls in CME OI in December and January.

Derivatives

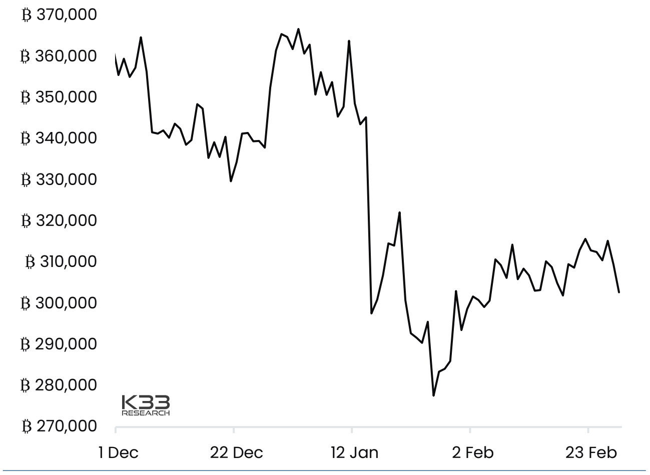
Perpetual Swaps and Options

Figure 11: Bitcoin Perpetuals: Funding Rates vs BTC Price



Source: Bybit, Binance, Tradingview (Coinbase)

Figure 12: Bitcoin Perpetuals: Open Interest



Source: Laevitas

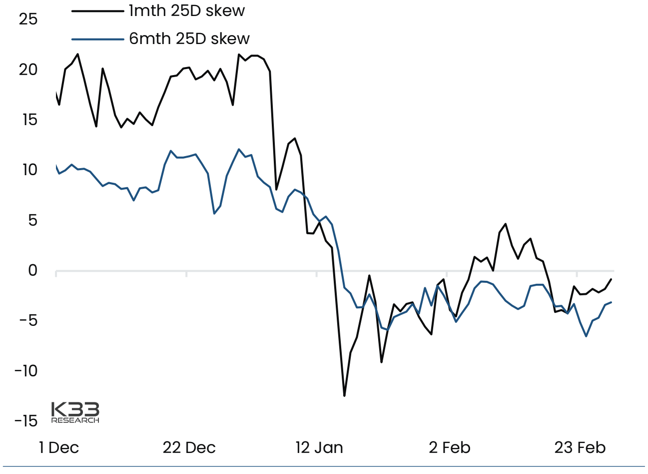
Funding rates below neutral
Funding rates have ranged slightly below neutral following the mild headwinds in the market in the past week. This suggests that the sentiment among perp traders has worsened slightly after BTC's failed attempt to push through $25k.

Nevertheless, as noted last week, the perp market remains relatively inactive, with open interest ranging from 300-320k BTC.

Open interest back to 300k BTC
Open interest has fallen by 13,000 BTC in the past week to 302,000 BTC.

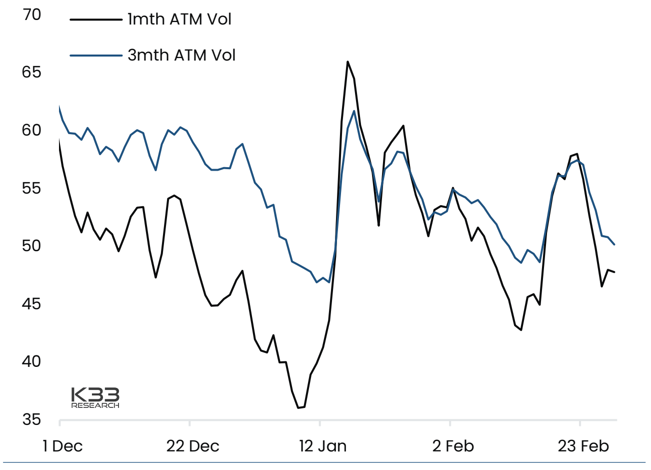
On February 23, Binance closed out Australian traders' open derivatives positions which caused a brief sell-off and a slight decline in Binance's BTCUSDT OI. The decline was relatively small, implying that Australian traders represented a small share of the active traders on Binance. Let this be a reminder that positions on offshore exchanges may be forcefully closed down as crypto companies aim to gain licenses and need to be compliant.

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



Source: Laevitas

Figure 14: BTC Options – Implied Volatility



Source: Laevitas

Calls still in demand
While funding rates sit below neutral, skews have stabilized in negative terrain as calls remain pricier than puts. This indicates that options traders still maintain a slightly bullish bias and are willing to pay a premium for upside exposure.

Implied volatility back towards 50
IVs has fallen back to 50 in the past week after BTC failed to push above $25k. The 6mth IV, not included in this chart, has fallen to 52, the second lowest recording ever, slightly above the Jan 12 lows.

Thus, straddles through longer-dated tenors are once again both relevant and attractive, as BTC stubbornly trades within the June-October trading range.

A deeper dive

The offshore futures market is all perps

Perpetuals swaps dominates the offshore futures market, currently representing 89% of all open interest in offshore futures. In April 2021, perps represented 62% off all the offshore open interest, while traditional futures represented 38% of the OI. When including CME data, we still see that traditional futures currently represents 28% of the open interest in the BTC futures market.

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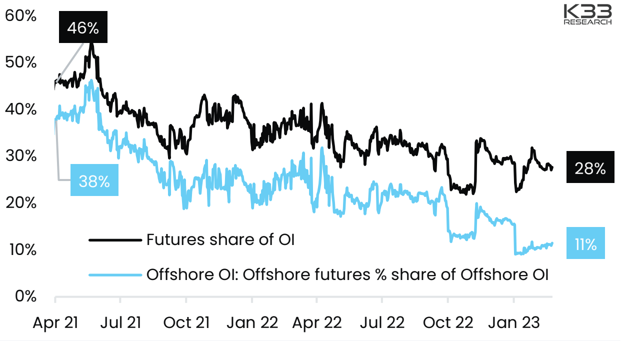
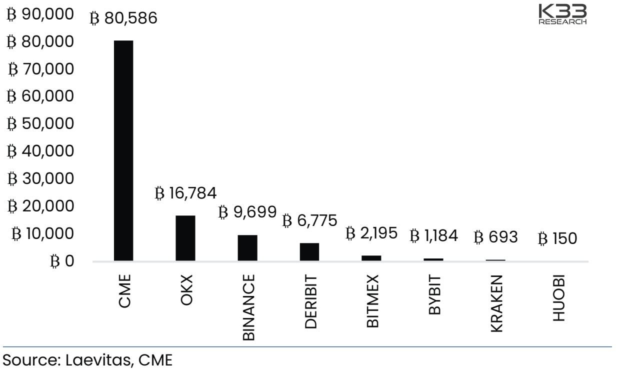
This structural development also illustrates that crypto native traders prefer perps over traditional futures. This is an important development in the market. Traders seek perps rather than futures, which creates opportunities and carries costs based on a six-year-old funding rate adjustment by BitMEX.

Figure 15: Futures share of total open interest (Futures + Perps)



Source: Laevitas, Skew, CME Group

Figure 16: BTC Futures: Open Interest*

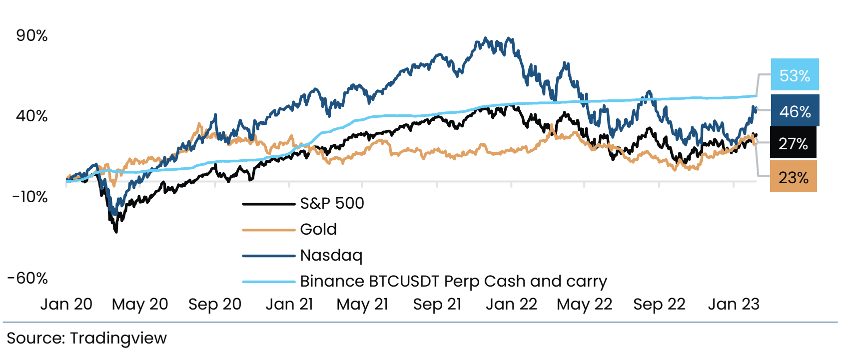


Source: Laevitas, CME
*Futures only. Perps excluded.

Effects of neutral funding rates at 0.01%
A majority of the open interest in BTC perps is related to instruments with a neutral funding rate of 0.01%, with 8-hour funding rate intervals corresponding to 10.95% annualized. This stems from an old adjustment to BitMEX's funding rate calculation in 2017, which has later been copied by other exchanges with their perp launches. In normal conditions, longs will compensate shorts 0.01%. Additionally, funding rates over time tend to be more extreme toward the upside vs. the downside. In sum, this has created good cash and carry opportunities for delta-neutral funds to utilize.

Below, we compare the return of gold, the S&P 500, and the Nasdaq with the cumulative yield earned through a delta-neutral, short exposure in Binance's linear BTC perp. The linear perp is used as a proxy due to data availability, but funding rates in inverse perps, which would be a more efficient tool for such exposure, have mirrored the linear perps very closely. We see that a delta-neutral exposure in BTC perps has yielded better returns than Nasdaq, gold, and the S&P 500 from January 2020, a period where bitcoin has more than doubled and seen stable performance in 2022, despite the market souring. We illustrate this to highlight that long positions in most perps carry a cost based on a 6-year-old decision of establishing a neutral funding rate well above 0%.

Figure 17: Cumulative returns: January 2020-Today



Source: Tradingview

A deeper dive
The OI to PoR ratio

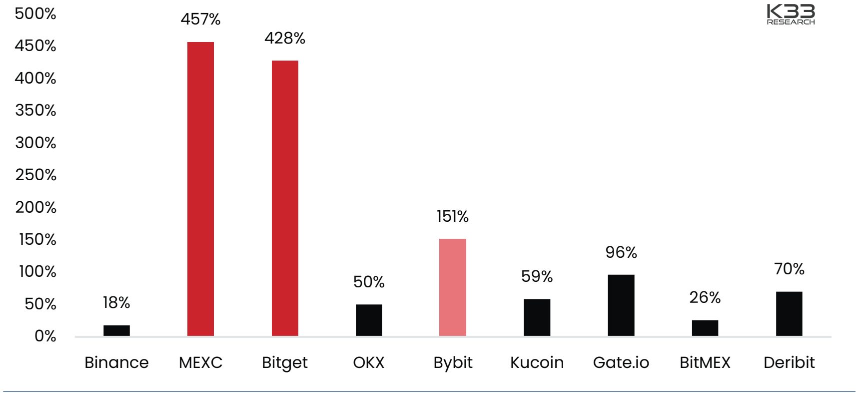
Crypto is abundant in data to analyze, but not all data is trustworthy. Our job is to filter out the noise and unreliable market data so our readers may make informed decisions. Here we aim to outline why we exclude Bitget and MEXC data from our derivatives data.

An exchange may be incentivized to manipulate trade data to score high on exchange leaderboards and to be included in data sets of data aggregators, and thus earn recognition through trusted peers. We aim to monitor the landscape and adjust to changing market conditions but seek to provide a relevant and trustworthy picture of the current state of the market.

Both MEXC and Bitget have provided proof of reserves, which should be interpreted as a positive and transparent move by these exchanges. Nevertheless, when comparing the reserves to the reported trading volumes and open interest on these exchanges to other offshore derivatives, we notice huge differences between MEXC and Bitget versus its peers.

As illustrated below, MEXCs and Bitget's ratio of open interest relative to proof of reserves sits at 400%, well above other peers who typically see an OI to PoR ratio below 100%. This can only happen if a) traders on MEXC and Bitget are far more leveraged than on any other platform or b) if numbers are manipulated. We see no signs of excess liquidations on these exchanges during volatile conditions and view alternative b as a more likely explanation.

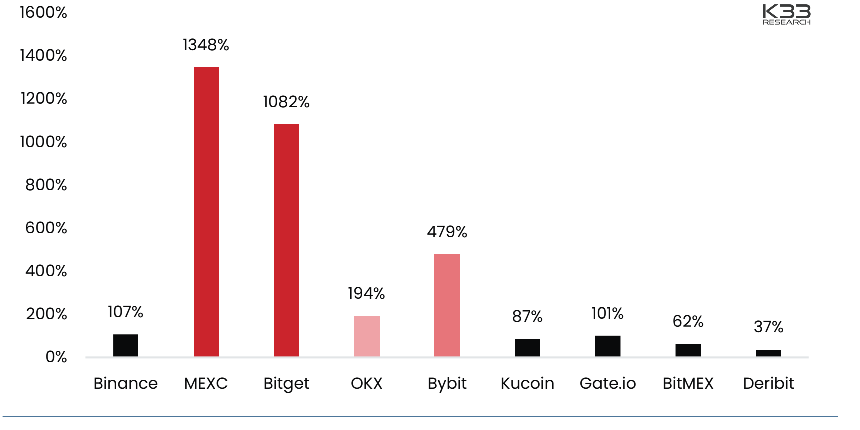
Figure 18: Open Interest relative to Proof of Reserves*



Source: Nansen, MEXC, Laevitas, Coingecko, Coinmarketcap
*Exchange tokens excluded

The same suspects visible in volume
Below, we illustrate the daily trading volume at the same exchanges, compared to their proof of reserves. MEXC and Bitget are also here, by far the most extreme outliers. MEXC's daily trade volumes represent 1348% of their proof of reserves, while Bitget also sees a comparatively extreme ratio of 1082%. Bybit, and to some extent, OKX also see elevated numbers.

Figure 19: Daily trade volume relative to Proof of Reserves*



Source: Nansen, MEXC, Laevitas, Coingecko, Coinmarketcap
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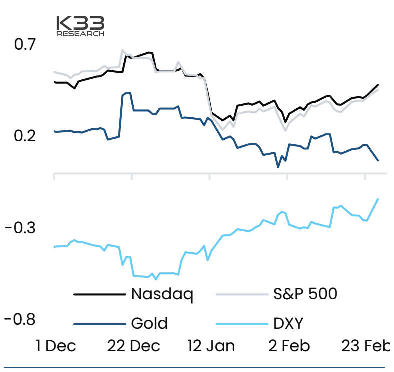
Market Related Charts

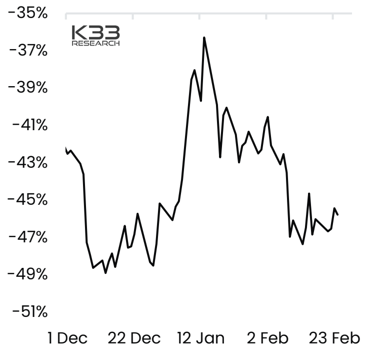
Data updated Monday Feb 27, 2023

Figure 20: BTC 30-d correlations*



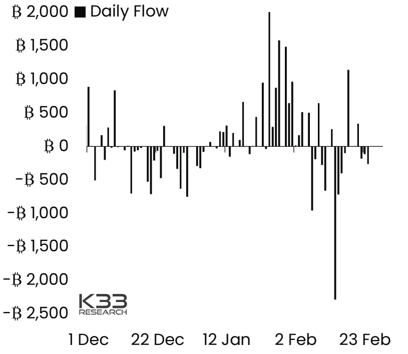
Source: Tradingview *Pearson

Figure 21: Grayscale Premium/Discount



Source: Ycharts

Figure 22: Daily Flows (BTC ETFs)



Source: Bytetree

Figure 23: BTC Dominance

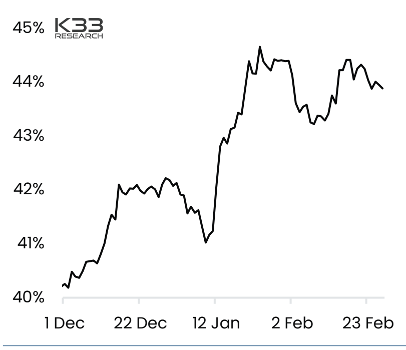
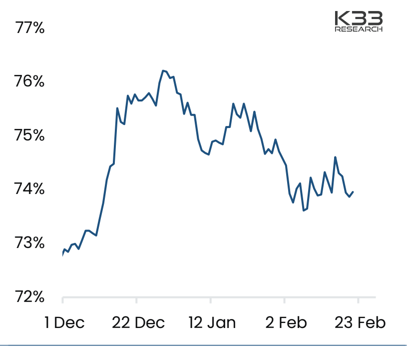


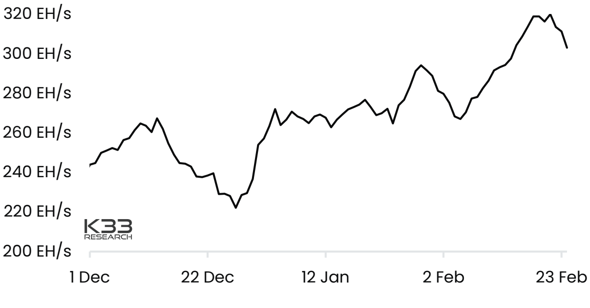
Figure 24: BTC + Stables Dominance

Figure 25: BTC + Stables + ETH Dominance



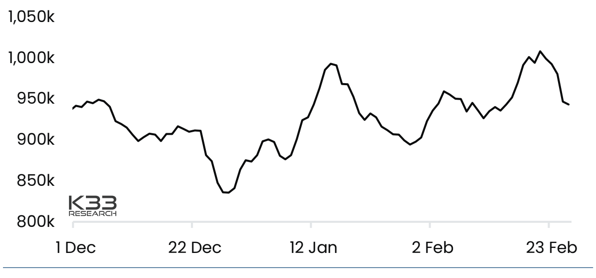
Source: Tradingview

Figure 26: Bitcoin Hashrate (7-day average)



Source: Blockchain.com

Figure 27: Active Addresses (7-day average)



Source: Coinmetrics

Figure 28: On-chain statistics

Powered by BYTETREE	02/26/2023	7d Change
Daily Miner Revenues	$22,507,693	-9.34%
Fees per day	$417,147	-30.79%
Fees % Revenues	1.85%	-0.57%
Daily TX Volume ($M)	$3,080	-15.73%
Transactions per day	280,285	-7.04%
Avg TX value $	$10,990.60	-9.34%
# Blocks per hour	6.15	-9.85%
Avg. # TX per block	1897	-7.04%

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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