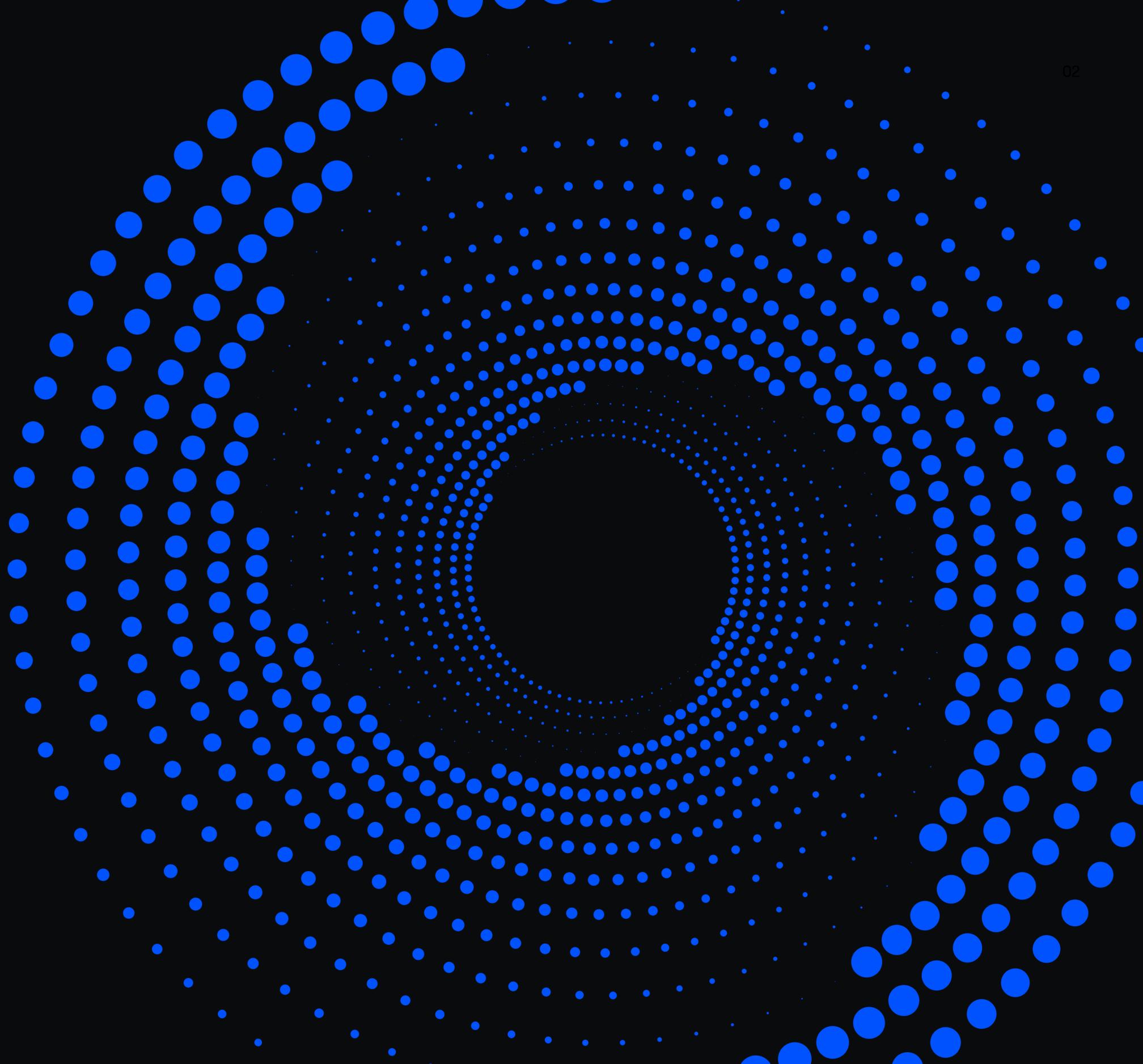


Q2 2024

# Guide to Crypto Markets



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# About this Report

The Guide to Crypto Markets is a joint publication of Coinbase Institutional and Glassnode. It equips investors with a deeper understanding of crypto markets by providing a comprehensive view of the metrics and trends that matter the most to institutional investors. For more information on any of the charts in the Guide, or on the crypto markets in general, please reach out to us [here](#). To see more of Coinbase Institutional's research and insights, visit our [Research & Insights Hub](#).

All of the data and charts included in this report reflect information through March 31, 2024, unless otherwise noted.

# About Coinbase Institutional

Coinbase Institutional is the trusted bridge to crypto markets for institutions. Built by experienced leaders from traditional financial services, Coinbase Institutional understands how to deliver scalable solutions to all types of institutions with industry-leading security and compliance. We work with a diverse set of institutional clients, including investors, liquidity providers, corporates, financial institutions, and private clients to develop solutions that meet their unique requirements.

# About Glassnode

Glassnode is the leading on-chain analytics provider in the digital asset space, primarily focused on institutions. Founded in 2017, the platform excels at helping traders understand capital flows, asset fundamentals and the underlying sentiment of the market. Hedge funds, asset managers, family offices and banks leverage Glassnode's near real-time data to inform their decision-making in a highly dynamic trading environment.

## Crypto Marches Forward

It was a historic quarter for crypto markets. The long-awaited and oft-delayed spot bitcoin ETFs finally debuted in January to great excitement and record-breaking inflows that surpassed even the most optimistic projections. Bitcoin hit a new all-time high shortly after, and trading volumes have soared across both spot and derivatives exchanges as crypto enters a new stage in its maturation as an asset class.

While bitcoin and ETFs grabbed many of the headlines, they were hardly the only story. Ethereum staged an impressive rally as well, and the successful Dencun upgrade has dramatically lowered fees on the network and led to a surge in decentralized finance (DeFi) activity. Meanwhile, investor enthusiasm for assets beyond the big two of BTC and ETH sent the prices of many altcoins sharply higher as well. Stablecoin issuance also rose meaningfully as market participants continue to find use cases for these novel assets.

In this second edition of the *Guide to Crypto Markets*, we go beyond the headlines and dig deep into market data and onchain analytics to provide institutional investors with insights to understand the trends that are shaping markets today, and how they may impact the dynamic crypto economy going forward. We begin by providing a look at the upcoming Bitcoin Halving and a breakdown of the activity behind the meteoric rise of ETFs before diving deep into bitcoin, ether, stablecoins, and more.

We hope you find the *Guide* useful as you navigate crypto markets, and we welcome your feedback and questions.



**David Duong**

Coinbase  
Head of Institutional Research



**James Check**

Glassnode  
Lead Analyst

# 01. Market Overview

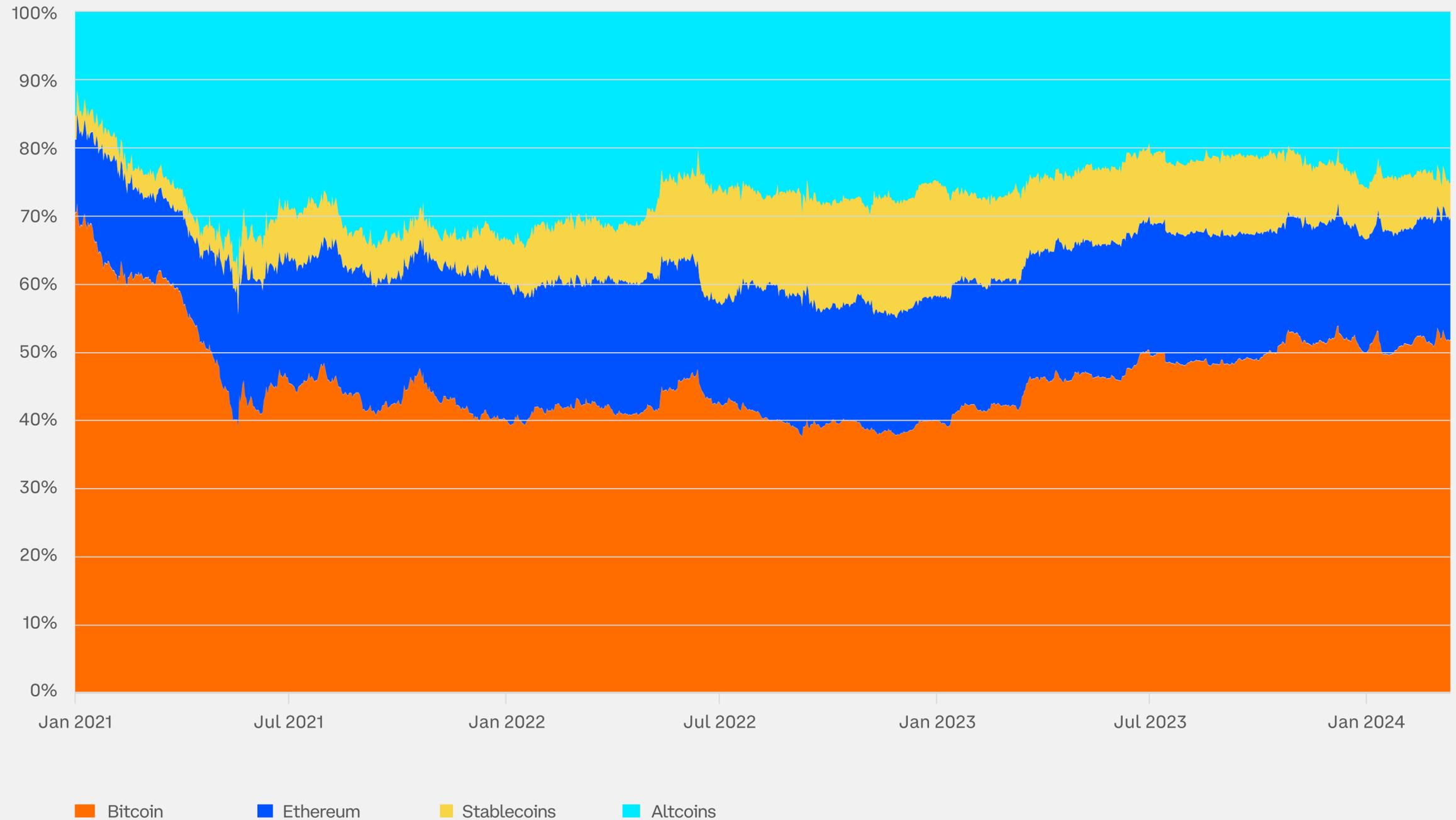
## Total Crypto Market Cap

Total crypto market cap measures the global market cap of digital assets including BTC, ETH, altcoins, and stablecoins. The total market cap of the crypto universe rose 63% in the first quarter on the back of broad-based gains in BTC, ETH, and altcoins and an uptick in stablecoin issuance.



# Crypto Dominance

Crypto dominance measures a cryptocurrency's market capitalization as a percentage of the total market cap of all cryptocurrencies. Bitcoin dominance rose from 50% to 52% in the first quarter.



# Correlations

Crypto has historically shown very low correlations with traditional asset classes, indicating that it can provide a meaningful source of idiosyncratic risk in many different portfolios.

	BTC	Copper	CRY	DXY	ETH	Gold	MOVE	S&P 500	US 10Y	US 2Y	US Bond	VIX
BTC	1.00	0.07	0.03	-0.13	0.79	-0.08	-0.08	0.11	0.05	0.00	0.06	-0.11
Copper	0.07	1.00	0.30	-0.39	0.18	0.35	-0.19	0.33	0.02	-0.04	0.06	-0.27
CRY	0.03	0.30	1.00	-0.45	0.12	0.13	-0.11	0.03	0.41	0.36	0.42	0.03
DXY	-0.13	-0.39	-0.45	1.00	-0.18	-0.10	0.20	-0.31	-0.47	-0.44	-0.51	0.23
ETH	0.79	0.18	0.12	-0.18	1.00	-0.02	-0.11	0.13	0.04	0.01	0.06	-0.11
Gold	-0.08	0.35	0.13	-0.10	-0.02	1.00	-0.05	0.10	-0.06	-0.07	-0.06	-0.09
MOVE	-0.08	-0.19	-0.11	0.20	-0.11	-0.05	1.00	-0.24	-0.27	-0.08	-0.30	0.40
S&P 500	0.11	0.33	0.03	-0.31	0.13	0.10	-0.24	1.00	0.13	-0.07	0.20	-0.73
US 10Y	0.05	0.02	0.41	-0.47	0.04	-0.06	-0.27	0.13	1.00	0.75	0.98	-0.09
US 2Y	0.00	-0.04	0.36	-0.44	0.01	-0.07	-0.08	-0.07	0.75	1.00	0.74	0.14
US Bond	0.06	0.06	0.42	-0.51	0.06	-0.06	-0.30	0.20	0.98	0.74	1.00	-0.17
VIX	-0.11	-0.27	0.03	0.23	-0.11	-0.09	0.40	-0.73	-0.09	0.14	-0.17	1.00

Source: Bloomberg, Coinbase.

## Portfolio Diversification

Allocations to cryptocurrency can provide a diversifying source of risk and return to traditional portfolios. In this table, we measure the effects of adding small allocations to the Coinbase Core Index (COINCORE) to a portfolio comprised of 60% MSCI ACWI and 40% US Agg, adjusting the equity and bond positions proportionally.

COINCORE is a market cap-weighted crypto index that is rebalanced quarterly with an almost 93% combined allocation to bitcoin (70.9%) and ether (21.9%) among seven total constituents.

The analysis looks at the 5-year period ending March 31, 2024. As seen in the table, adding COINCORE to the 60/40 portfolio increased both absolute and risk-adjusted returns. For more information on the impacts of adding crypto to a portfolio, see ["Crypto's Role in Portfolio Diversification."](#)

### Effects of adding crypto to a 60/40 portfolio April 2019 - March 2024

Portfolio	60% ACWI / 40% US Agg	60/40 + 1% Coinbase Core	60/40 + 2% Coinbase Core	60/40 + 3% Coinbase Core	60/40 + 4% Coinbase Core	60/40 + 5% Coinbase Core
Total Return	33.30%	39.63%	46.16%	52.91%	59.86%	67.03%
Annual Return	5.92%	6.91%	7.90%	8.87%	9.85%	10.82%
Volatility	10.47%	10.56%	10.72%	10.93%	11.19%	11.50%
Sharpe Ratio	0.41	0.50	0.58	0.65	0.72	0.78
Sortino Ratio	0.43	0.52	0.60	0.68	0.75	0.81
Calmar Ratio	0.28	0.31	0.34	0.37	0.40	0.42
Average Up Month	2.65%	2.84%	2.91%	3.05%	3.28%	3.36%
Average Down Month	-3.11%	-2.95%	-3.11%	-3.13%	-3.03%	-3.24%
Max drawdown	-22.81%	-23.42%	-24.04%	-24.65%	-25.27%	-25.88%

# Portfolio Diversification

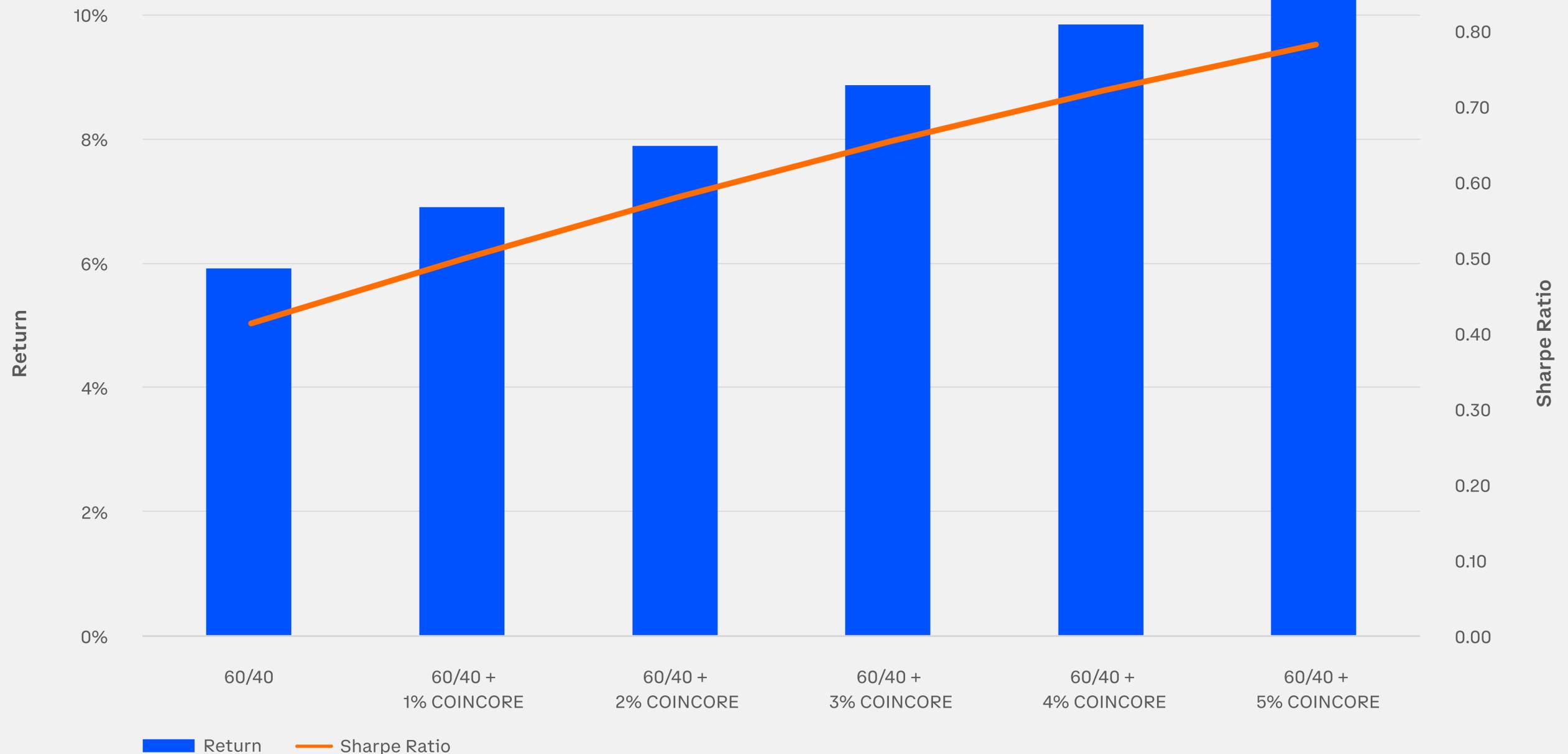
This chart displays the annualized returns and the Sharpe ratio of portfolios that were comprised of a core portfolio of 60% MSCI ACWI, 40% US Agg, and an allocation from 0% to 5% to the Coinbase Core Index (COINCORE).

COINCORE is a market cap-weighted crypto index that is rebalanced quarterly with an almost 93% combined allocation to bitcoin (70.9%) and ether (21.9%) among seven total constituents.

Adding COINCORE to the 60/40 portfolio increased both total returns and risk-adjusted returns, as measured by the Sharpe ratio.

This analysis looks at the 5-year period ending March 31, 2024.

## Impact on return and Sharpe ratio from adding crypto to a 60/40 portfolio April 2019 - March 2024



Sources: Bloomberg, Coinbase.

# Asset Class Performance

Bitcoin has been the top-performing asset in eight of the past 11 years. For three of the 11 years, bitcoin was the worst-performing asset. During the full time period from 2013 to 2023, it was also the top-performing asset, with annualized returns of 124%.

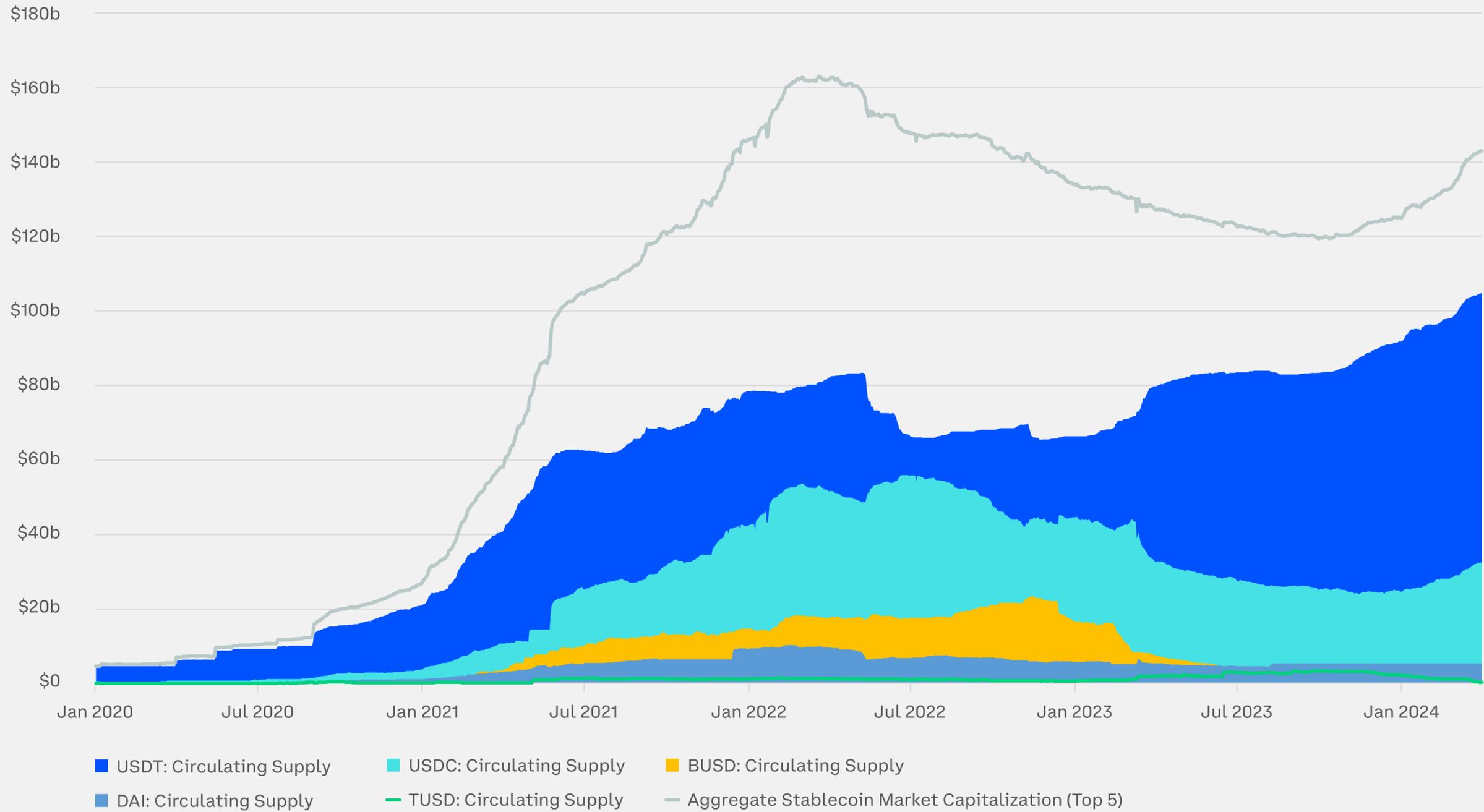
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Cumulative	Annualized
	Bitcoin 5,516%	S&P 500 12%	Bitcoin 37%	Bitcoin 119%	Bitcoin 1,300%	Investment-Grade Bonds 0%	Bitcoin 92%	Bitcoin 302%	Bitcoin 58%	Commodities 20%	Bitcoin 156%	Bitcoin 315,678%	Bitcoin 124%
	S&P 500 26%	Investment-Grade Bonds 5%	Investment-Grade Bonds 0%	High Yield Bonds 17%	Emerging Markets Equities 35%	High Yield Bonds -2%	S&P 500 29%	Gold 24%	Commodities 30%	Gold 1%	S&P 500 25%	S&P 500 226%	S&P 500 13%
	High Yield Bonds 6%	High Yield Bonds 2%	S&P 500 -1%	Emerging Markets Equities 15%	S&P 500 18%	Gold -3%	Emerging Markets Equities 21%	S&P 500 15%	S&P 500 29%	High Yield Bonds -11%	High Yield Bonds 12%	High Yield Bonds 64%	High Yield Bonds 5%
	Investment-Grade Bonds -1%	Emerging Markets Equities 1%	High Yield Bonds -4%	Commodities 14%	Gold 12%	S&P 500 -7%	Gold 18%	Emerging Markets Equities 14%	High Yield Bonds 5%	Investment-Grade Bonds -12%	Gold 12%	Emerging Markets Equities 35%	Emerging Markets Equities 3%
	Emerging Markets Equities -3%	Gold -3%	Gold -11%	S&P 500 11%	High Yield Bonds 7%	Commodities -9%	High Yield Bonds 14%	Investment-Grade Bonds 7%	Emerging Markets Equities 0%	Emerging Markets Equities -18%	Emerging Markets Equities 9%	Gold 18%	Gold 2%
	Commodities -9%	Commodities -18%	Emerging Markets Equities -14%	Gold 7%	Commodities 6%	Emerging Markets Equities -15%	Commodities 10%	High Yield Bonds 7%	Investment-Grade Bonds -1%	S&P 500 -20%	Investment-Grade Bonds 5%	Investment-Grade Bonds 17%	Investment-Grade Bonds 2%
	Gold -29%	Bitcoin -58%	Commodities -25%	Investment-Grade Bonds 2%	Investment-Grade Bonds 3%	Bitcoin -73%	Investment-Grade Bonds 8%	Commodities -3%	Gold -6%	Bitcoin -65%	Commodities -2%	Commodities -4%	Commodities 0%

Source: BlackRock

# Stablecoin Supply

Stablecoins are digital currencies that are designed to maintain a constant or “stable” value. To achieve a stable value, many hold reserve assets denominated in US dollars or other fiat currency at a fixed rate (typically 1:1). Such fiat-backed stablecoins make up the vast majority of the overall stablecoin market. An important metric to consider when assessing stablecoins is the amount and nature of reserve assets they hold.

The supply of stablecoins rose more than 14% in the first quarter as market participants continued to increase their usage.



# Stablecoin Network Velocity

Stablecoin velocity measures how quickly units are circulating in the network. It is calculated by dividing the on-chain transaction volume of a stablecoin (in USD) by its market cap.

Aggregate velocity is nearing 0.2, which means 20% of the total supply is transacting on a daily basis.



# 02. Bitcoin

## Background

Bitcoin (BTC) is the world's first widely adopted cryptocurrency. Note that bitcoin (BTC) itself is distinct from the Bitcoin network on which the token is transacted. The network is what allows secure and seamless peer-to-peer transactions on the internet through a blockchain. A blockchain is a public ledger that contains the history of every transaction ever made using bitcoin. BTC is decentralized: any two people, anywhere in the world, can send bitcoin to each other without the involvement of a bank, government, or other institution.

## DEVELOPER(S)

Bitcoin was created by Satoshi Nakamoto, a pseudonymous person or team who outlined the technology in a 2008 white paper.

## REFERENCE PRICE

Bitcoin Reference Rate (BRR) - CME CF Benchmark reference rate.

## % SUPPLY IN CIRCULATION

94%

## BLOOMBERG TICKER

XBT Curncy

## CIRCULATING SUPPLY

Fixed at 21 million BTC.  
Currently ~19.68 million, 94% of supply.

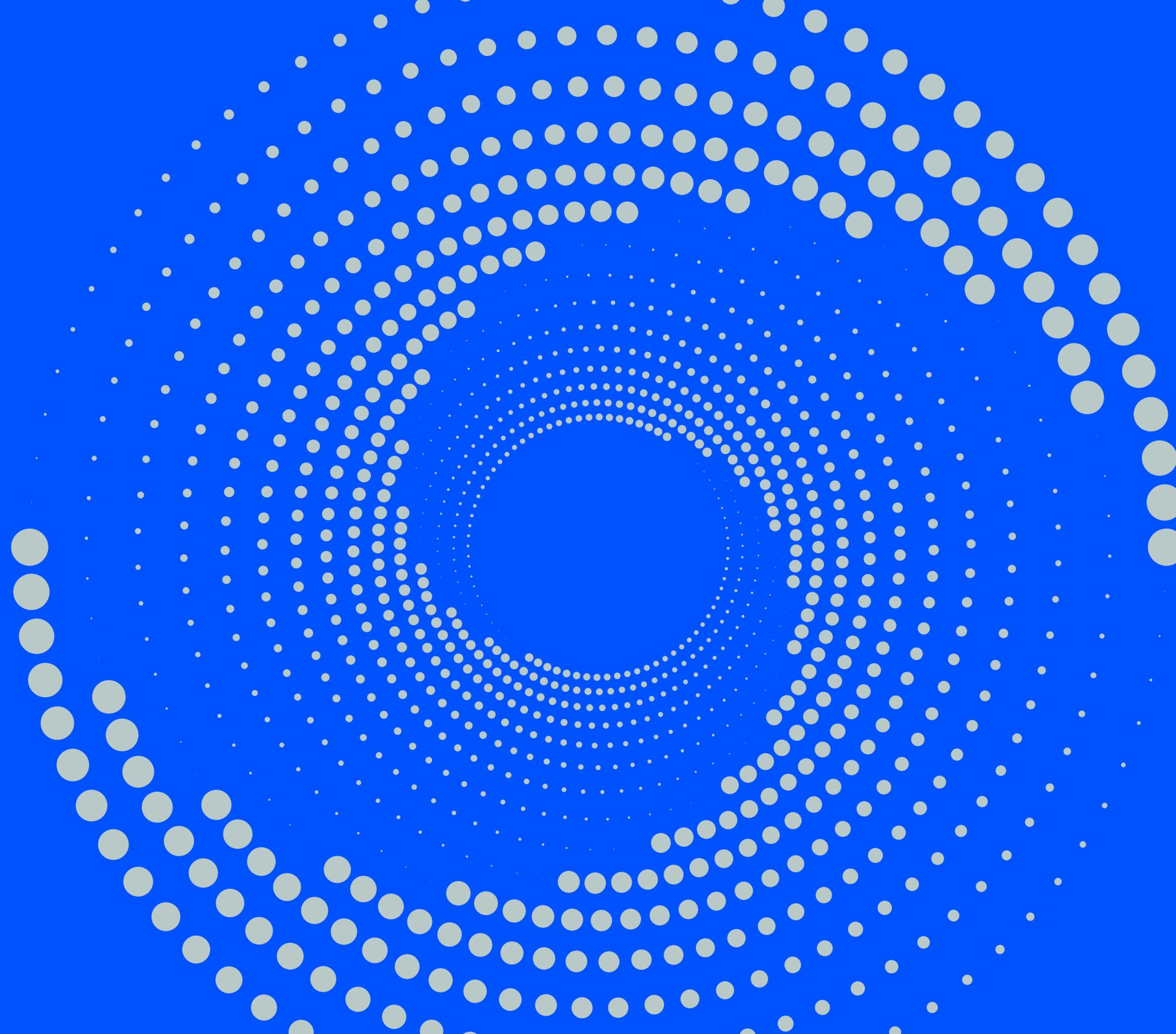
## INFLATION RATE

1.60%

# Spotlight: Bitcoin ETFs

## **SEC Decision on spot bitcoin ETFs**

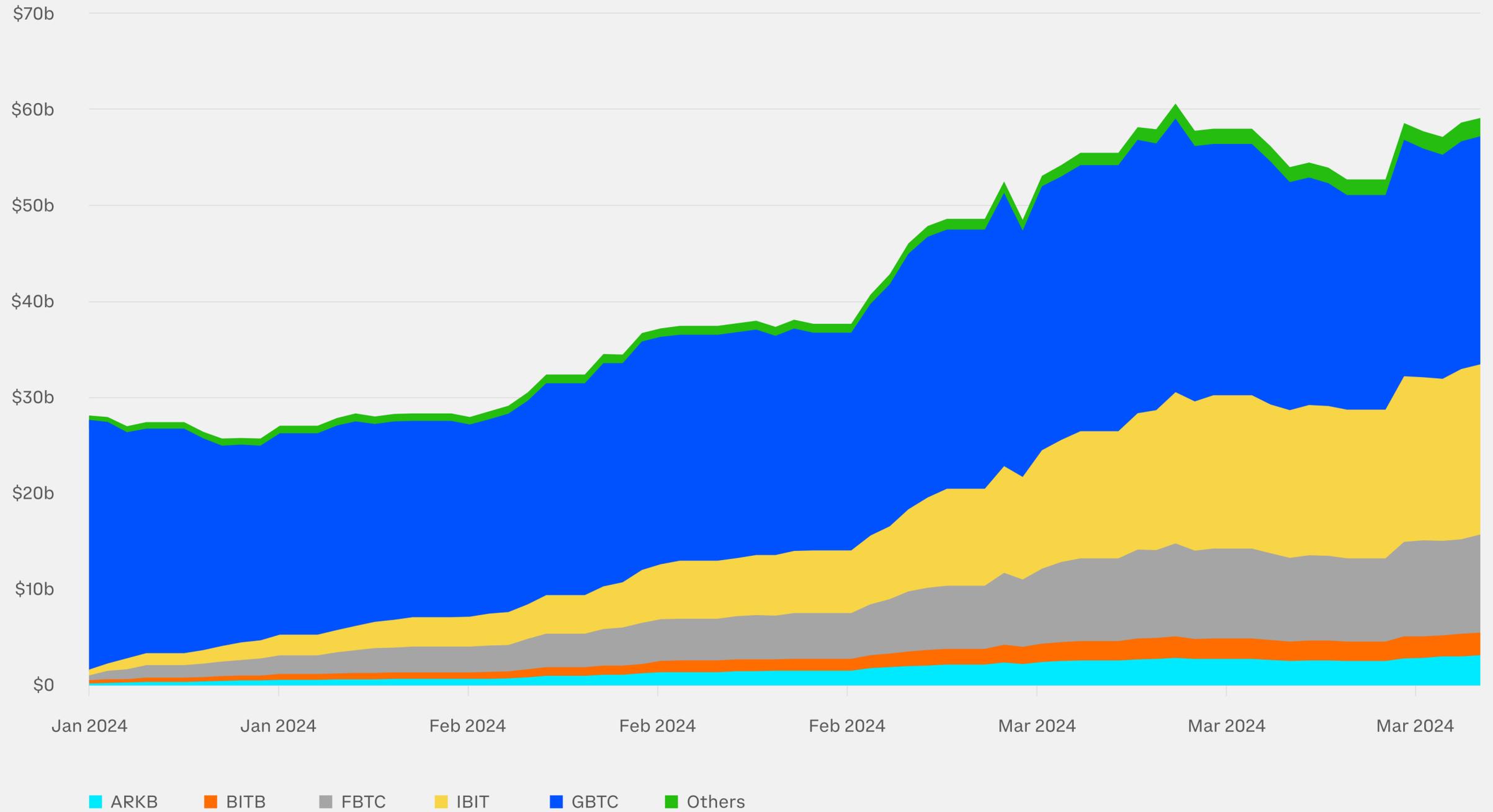
On January 10, 2024, the Securities and Exchange Commission (SEC) approved spot bitcoin ETFs for trading. Throughout the rest of Q1, flows into spot bitcoin ETFs became a significant factor in the price movement of bitcoin specifically and crypto more broadly.



# BTC ETF Balances

This metric provides the latest available balances of the top ten US-traded bitcoin ETFs, typically reflecting the asset holdings at the close of the previous trading day.

As of March 31, 2024, spot bitcoin ETFs have accumulated nearly \$60 billion in assets.



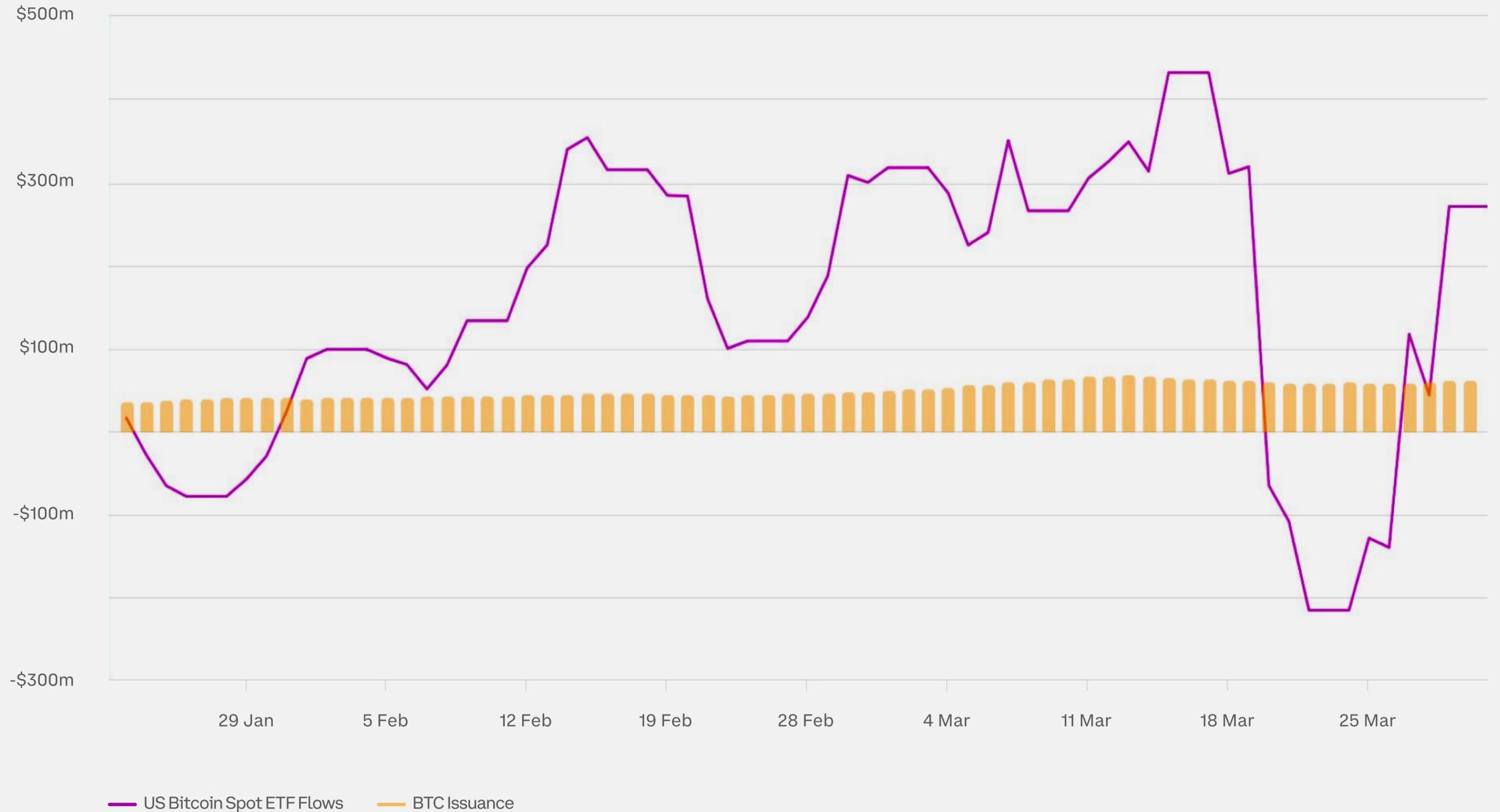
# ETF Inflows vs. New Issuance

Spot ETFs have created a significant source of new demand for bitcoin, but new supply of BTC is limited to miners' rewards.

To understand the effects of ETF demand on the market, this chart compares ETF flows with new supply.

In the two-and-a-half months since spot ETFs began trading, demand from ETFs has significantly outpaced issuance.

With miners' rewards set to drop by 50% when the Bitcoin Halving occurs in mid-April, the supply-demand imbalance will become even more important to follow.



# Spot and ETF Volume

This chart compares the volume of spot bitcoin traded on centralized exchanges with the volume of spot BTC ETFs.

ETFs are responsible for a significant portion of total spot volume, and overall spot volumes have seen some of their highest days on record since ETFs were introduced, which indicates that the new products are helping to increase trading activity and improve liquidity.



Sources: Glassnode, The Block.

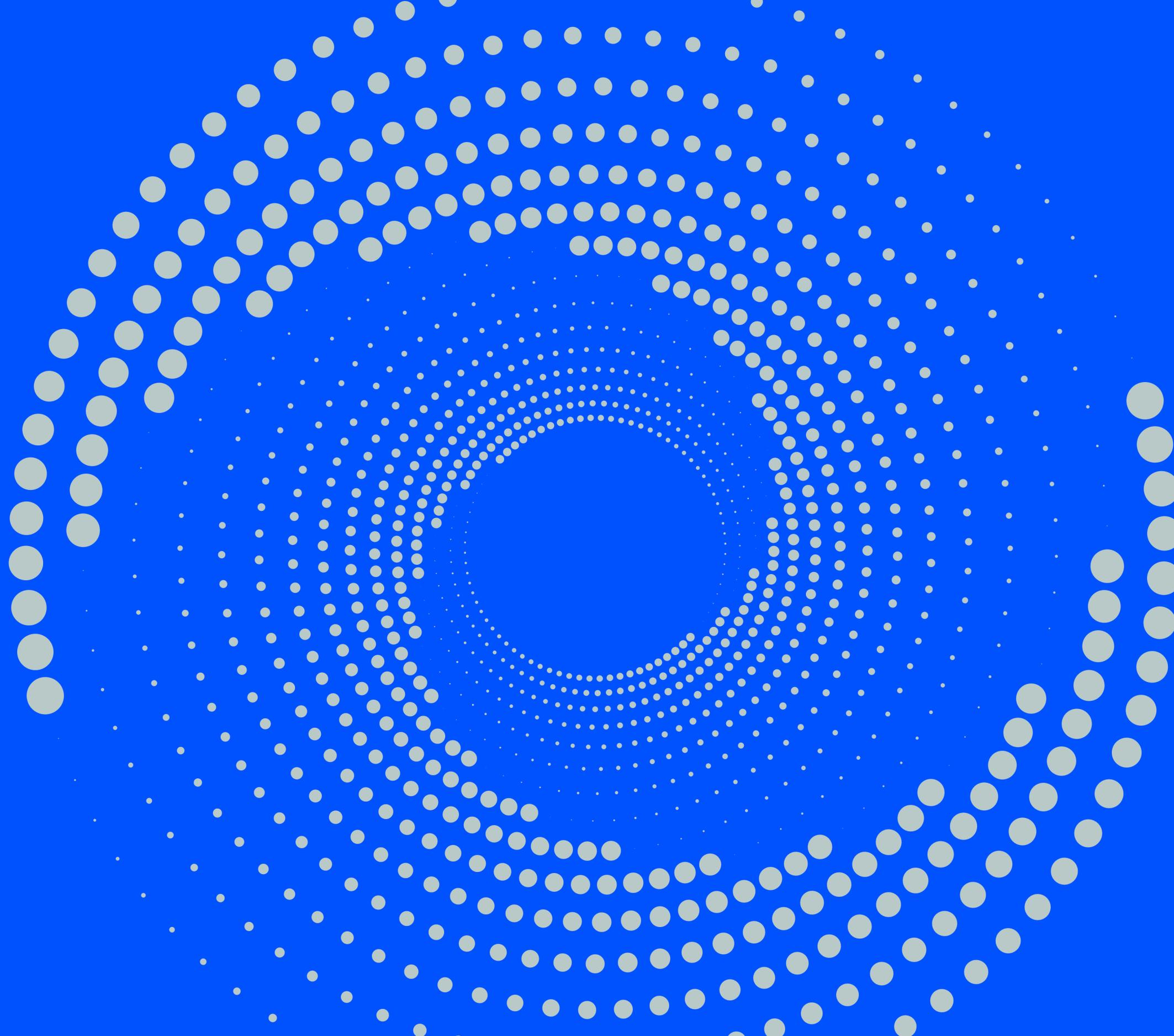
# Spotlight: Bitcoin Halving

## Disinflation in action

The fourth Bitcoin Halving will happen around April 19, 2024. This event will cut the amount of bitcoin awarded to miners in half. Halvings are an important feature of the Bitcoin network's design that are meant to lower inflation by reducing the supply of new bitcoins entering circulation.

Halvings take place each time 210,000 blocks have been mined, which happens roughly every four years. The upcoming Halving will be the fourth in Bitcoin's history, and when it takes effect miners' block rewards will drop from 6.25 BTC to 3.125 BTC.

Halvings will continue to take place on the same schedule until all 21 million bitcoin have been mined, around the year 2140. The fixed Halving schedule affords bitcoin its unique status as a programmatically disinflationary asset.



# BTC Price Performance Since Halving

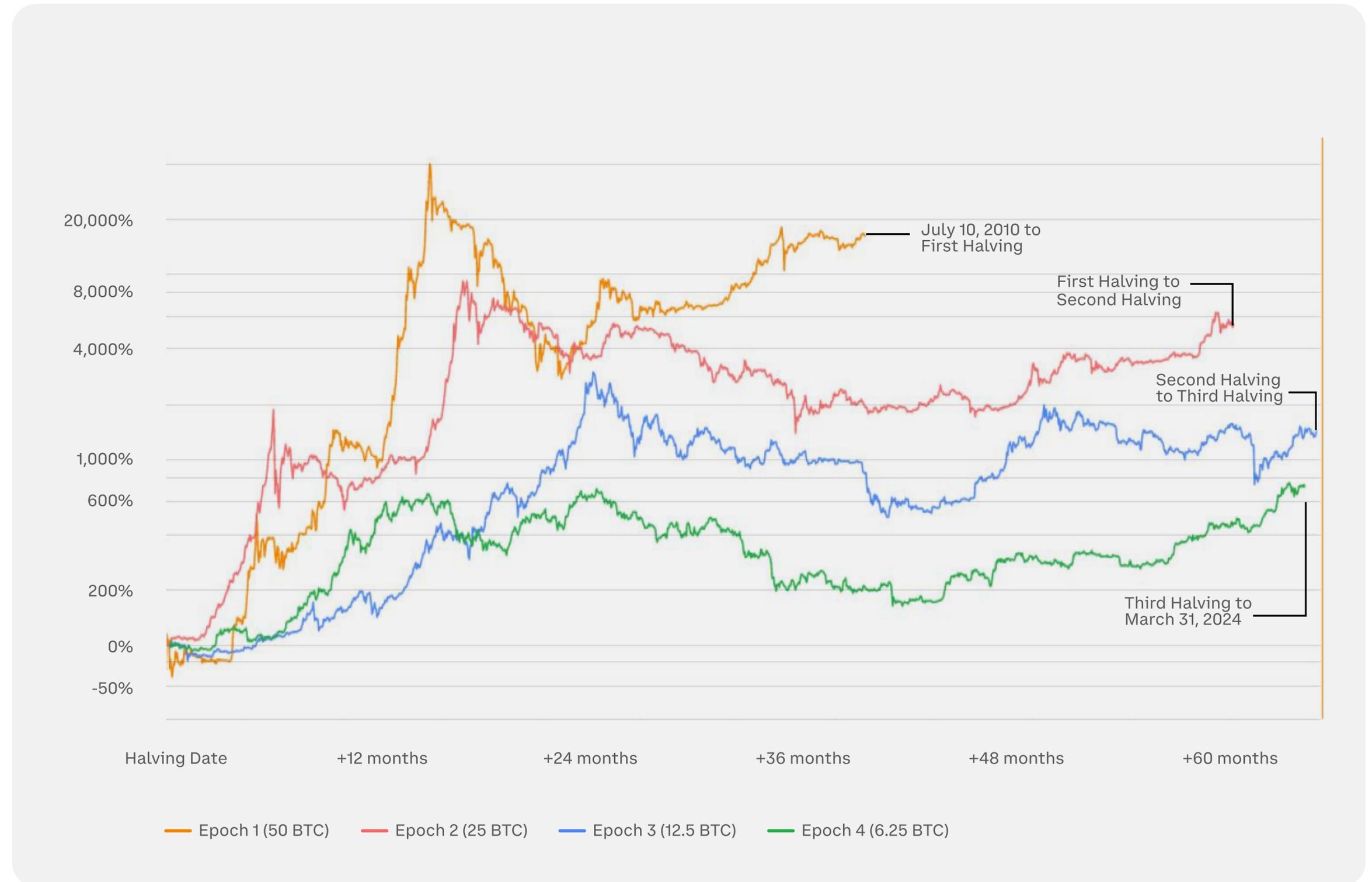
This chart measures the total return of BTC during each of the Halving cycles, or epochs.

Within 12 months following the prior three Halvings, the price appreciated meaningfully.

Following the first Halving (red line), prices gained more than 1,000% in the first 12 months.

Following the second Halving (blue line), prices gained 200% in the first 12 months.

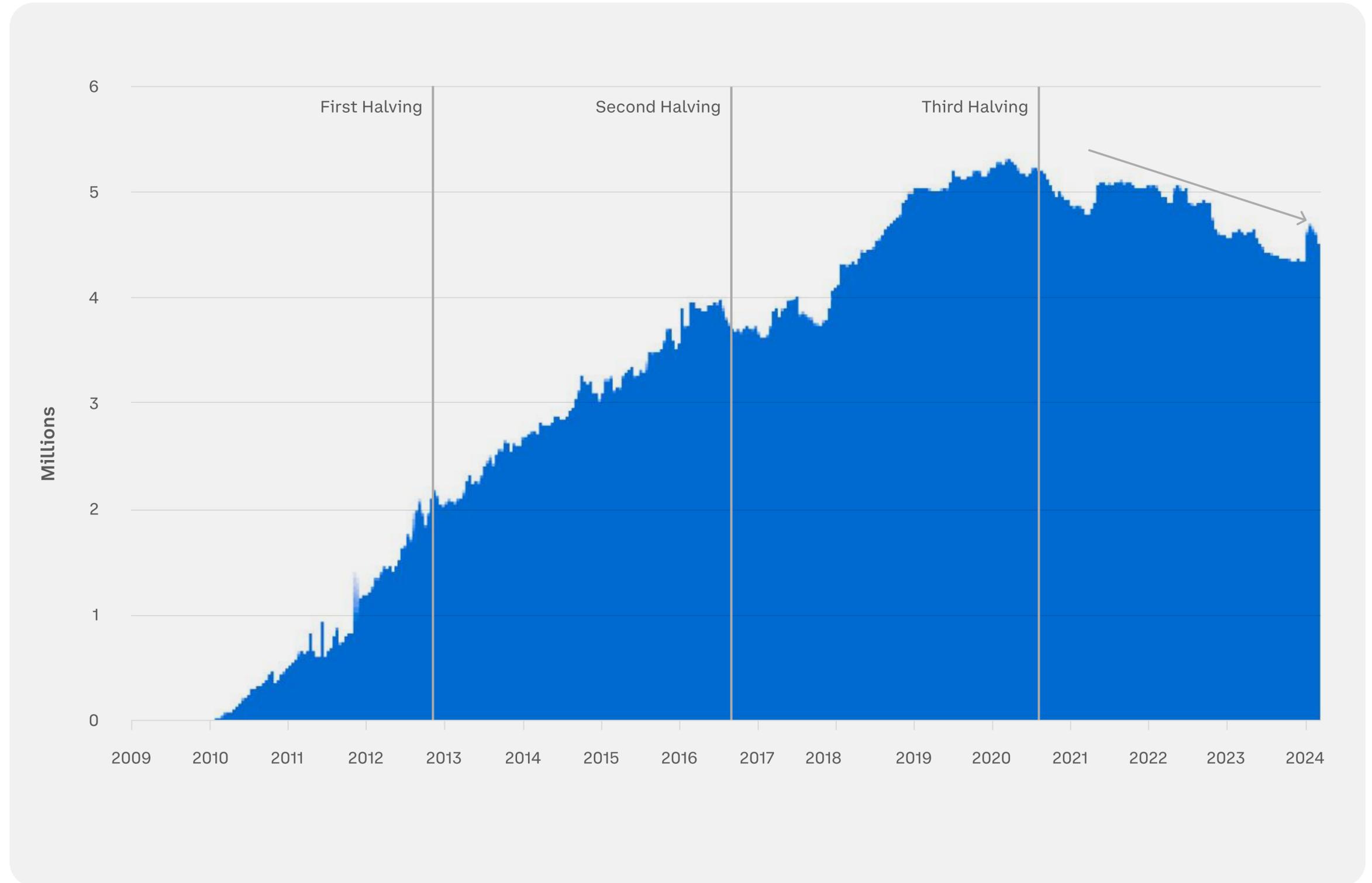
Following the third Halving (green line), prices gained more than 600% in the first 12 months.



# BTC Available Supply

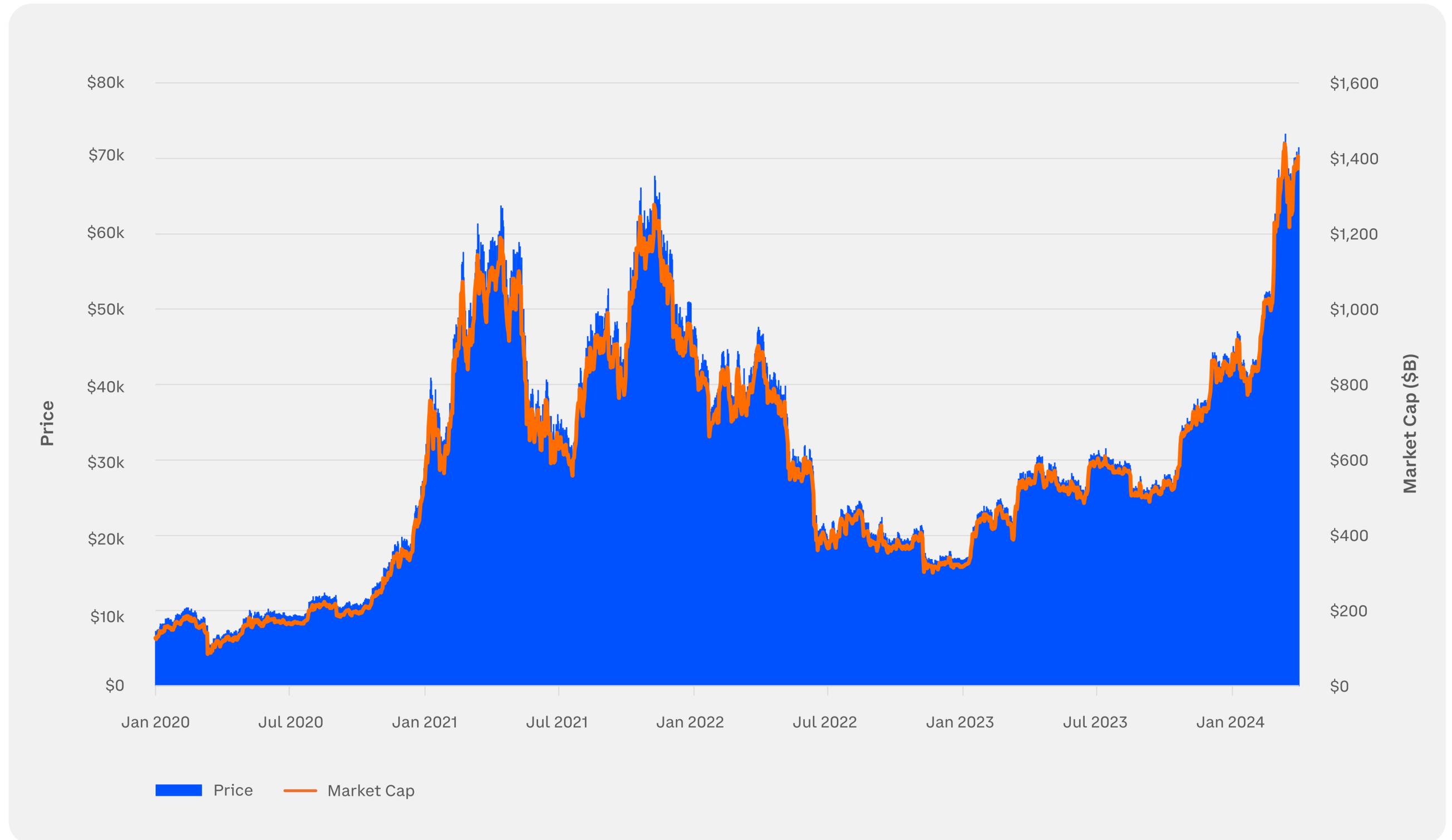
To measure bitcoin available supply, we take the difference between the token's current circulating supply of 19.68M BTC and subtract the illiquid supply consisting of bitcoin that are largely unavailable for trading due to being in lost wallets, stuck in very long-term holdings, or otherwise locked up.

As seen in this chart, the amount of available bitcoin supply peaked in early 2020 at 5.3M BTC and has since fallen to around 4.6M BTC. This is a major shift heading into the fourth Halving and differs from the steadily rising trend in available supply that was observed during the previous three Halvings.



# BTC Price and Market Cap

The price of BTC increased 69% in the first quarter, sparked by record-setting demand from spot ETFs that brought new investors into the crypto economy.

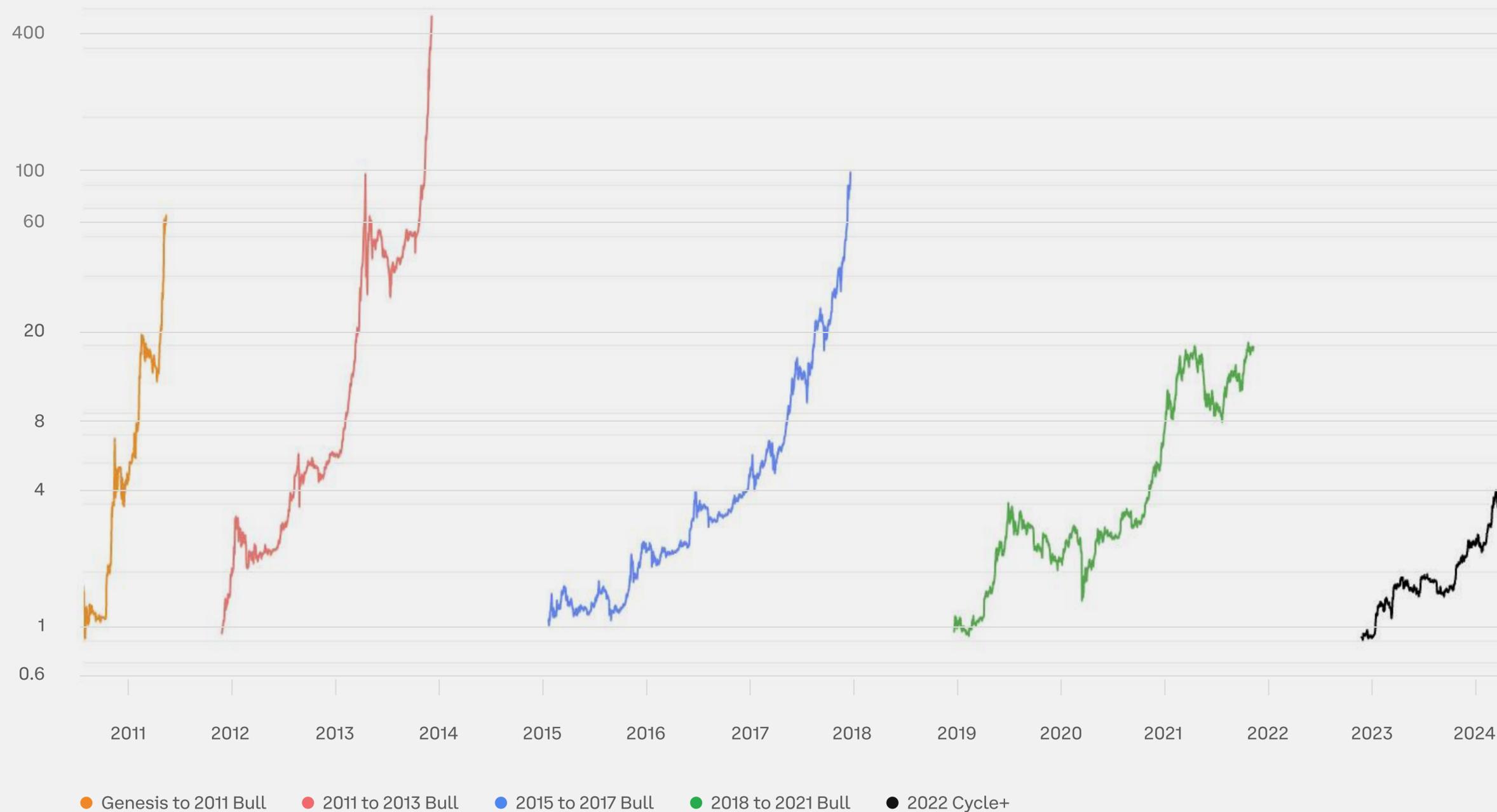


# Bull Market Cycle Performance

Bitcoin historically exhibited exponential gains during bull markets that have seen the price rally multiples off of the lows.

The current bull market cycle, which began in November 2022, has seen prices reach ~4x the lows.

As is seen in this chart, the two prior bull markets (2015-2017 and 2018-2021) saw prices rise 100x and 20x respectively.



# BTC Price Performance Since Cycle Low

Bitcoin has completed four cycles that each included both bull and bear markets. In this chart, we see how the current market cycle, which began in 2022, compares to the previous cycles.

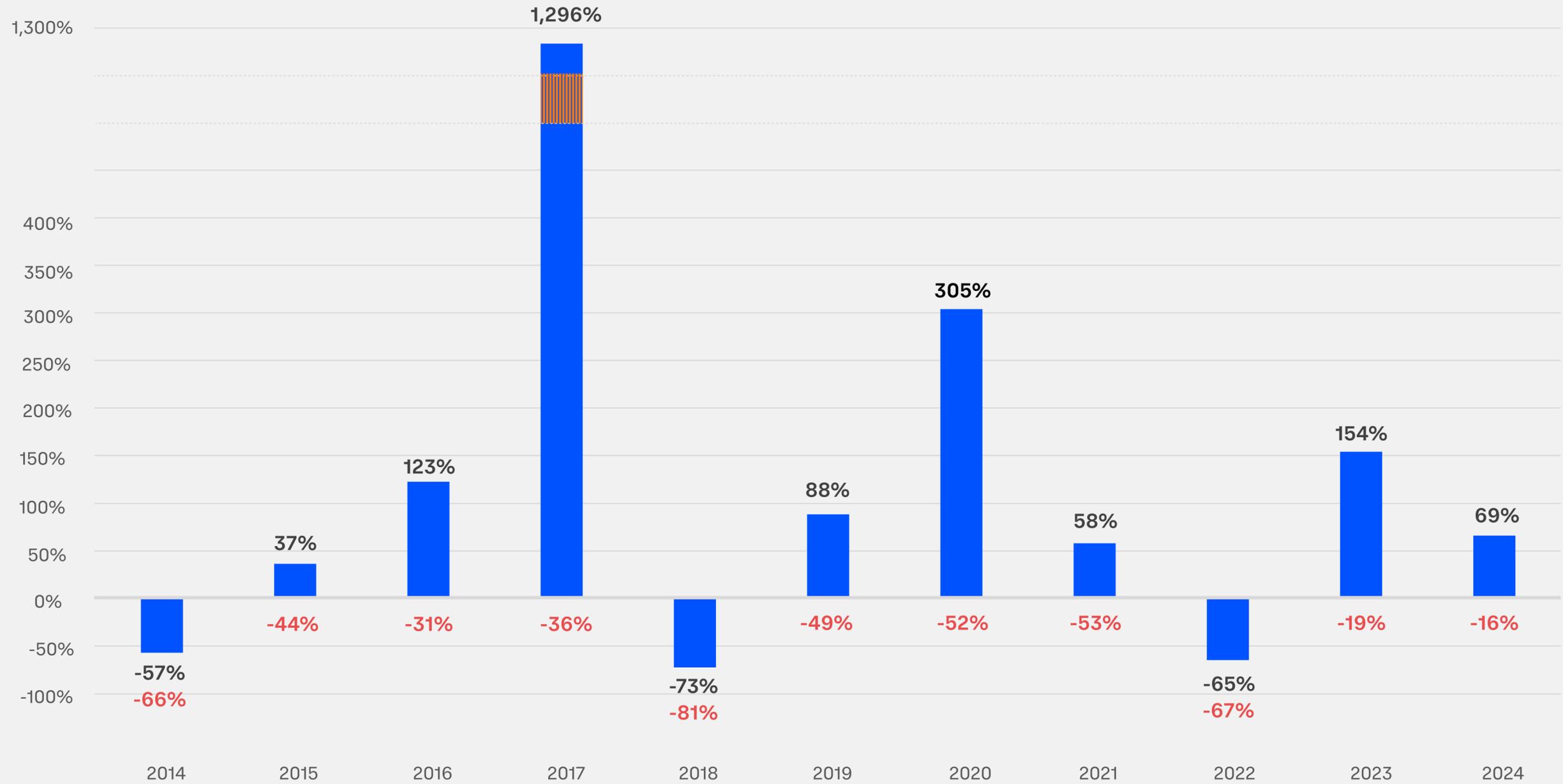
In the current cycle, BTC is up 400%+ in the 17 months since its cycle low.

The current cycle most closely resembles the one from 2018-2022, which ended with BTC up 1,000% 24 months after the low.



# BTC Annual Returns and Intra-Year Declines

Despite average intra-year declines of 47%, bitcoin has delivered substantially positive performance in seven of the last 10 years.

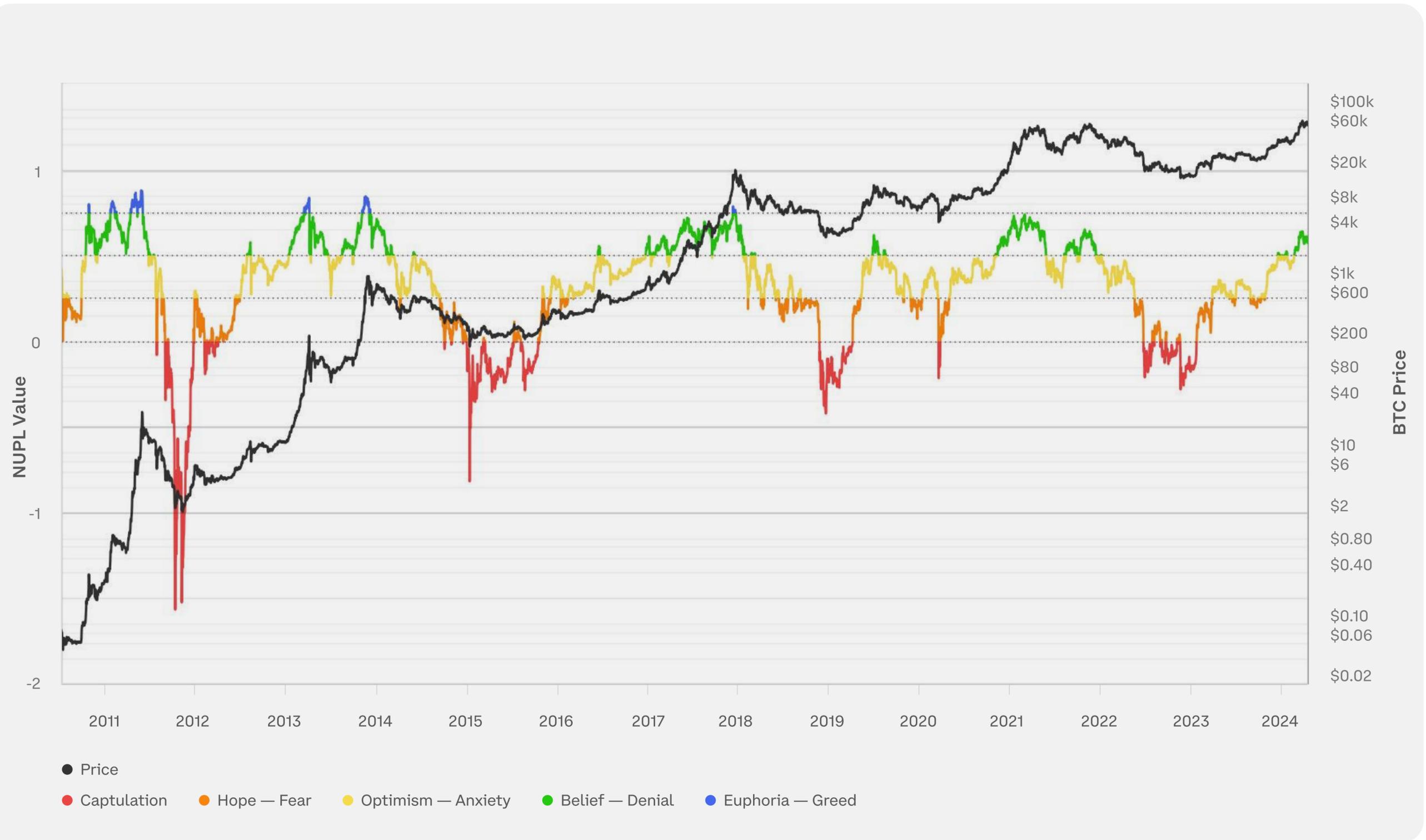


# BTC Fear and Greed

This chart measures the spectrum of investor sentiment by looking at Net Unrealized Profit/Loss (NUPL). This metric assesses the magnitude of unrealized profit and loss held within the coin supply, and is a useful indicator for gauging market sentiment.

This variant of NUPL uses advanced address clustering algorithms to filter out non-economical transactions, giving us the most accurate view of the profitability of investor holdings.

For more information see [this article](#).



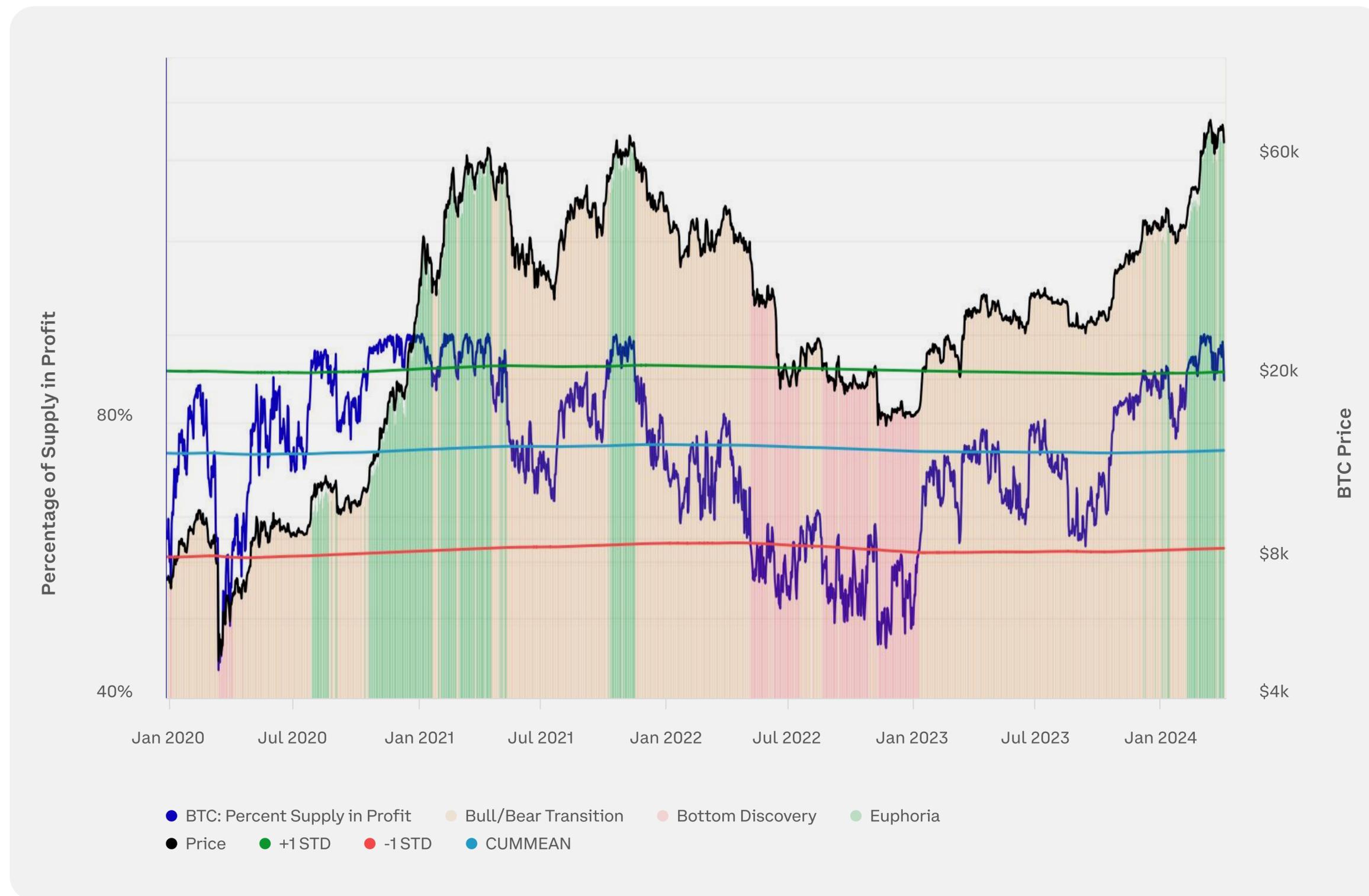
# BTC Supply Profitability State

The circulating supply of a cryptocurrency is comprised of supply in loss (all coins with a cost basis higher than the current spot price) and supply in profit (all coins with a cost basis lower than the current spot price). Looking at supply profitability can help shed light on where crypto prices are in the current market cycle, as previous crypto market cycles have been characterized by three phases:

**Bottom Discovery:** In the last stage of a bear market, when an extended period of price depreciation causes the share of supply in loss to rise (Percent of Supply in Profit < 55%).

**Euphoria:** When a parabolic price uptrend is in play during a bull market, the share of supply in profit dominates (Percent of Supply in Profit > 95%).

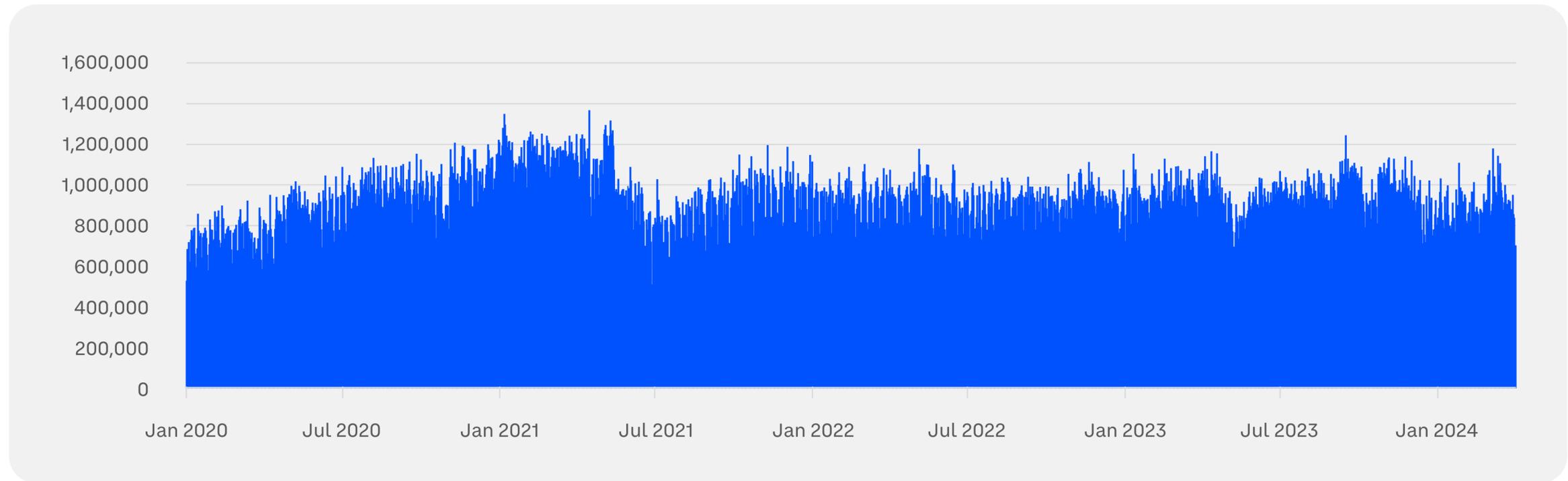
**Bull/Bear Transition:** The transition periods between Bottom Discovery and Euphoria, when supply profitability is closer to equilibrium (Percent of Supply in Profit between 55% and 95%).



## BTC Daily Active Addresses

Active addresses are the number of unique addresses that were active in a network as either a sender or a receiver. They are an important metric that can be used to gauge user adoption, network health, economic activity, and more.

The average daily address count decreased 11% in the first quarter.

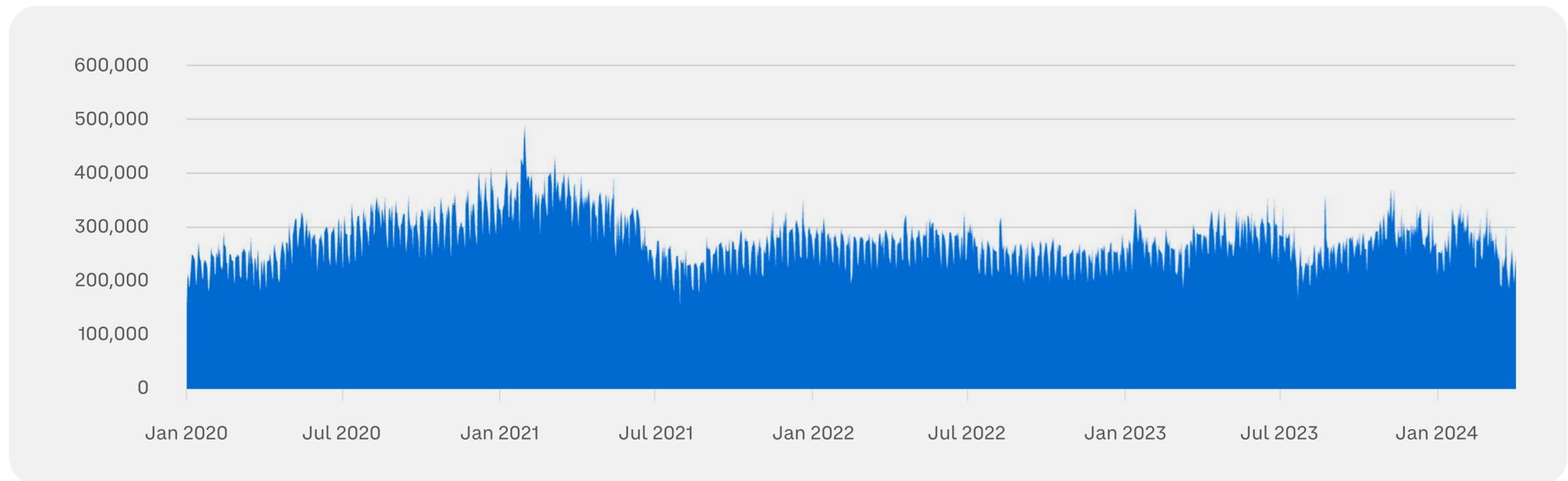


Source: Glassnode

## BTC Daily Active Entities

While active addresses are an important metric, a single entity can have multiple addresses, so we also look at the number of active entities. Entities are defined as a cluster of addresses that are controlled by the same network entity and are estimated through advanced heuristics and Glassnode's proprietary clustering algorithms.

The average daily entity count increased 16% in the first quarter.



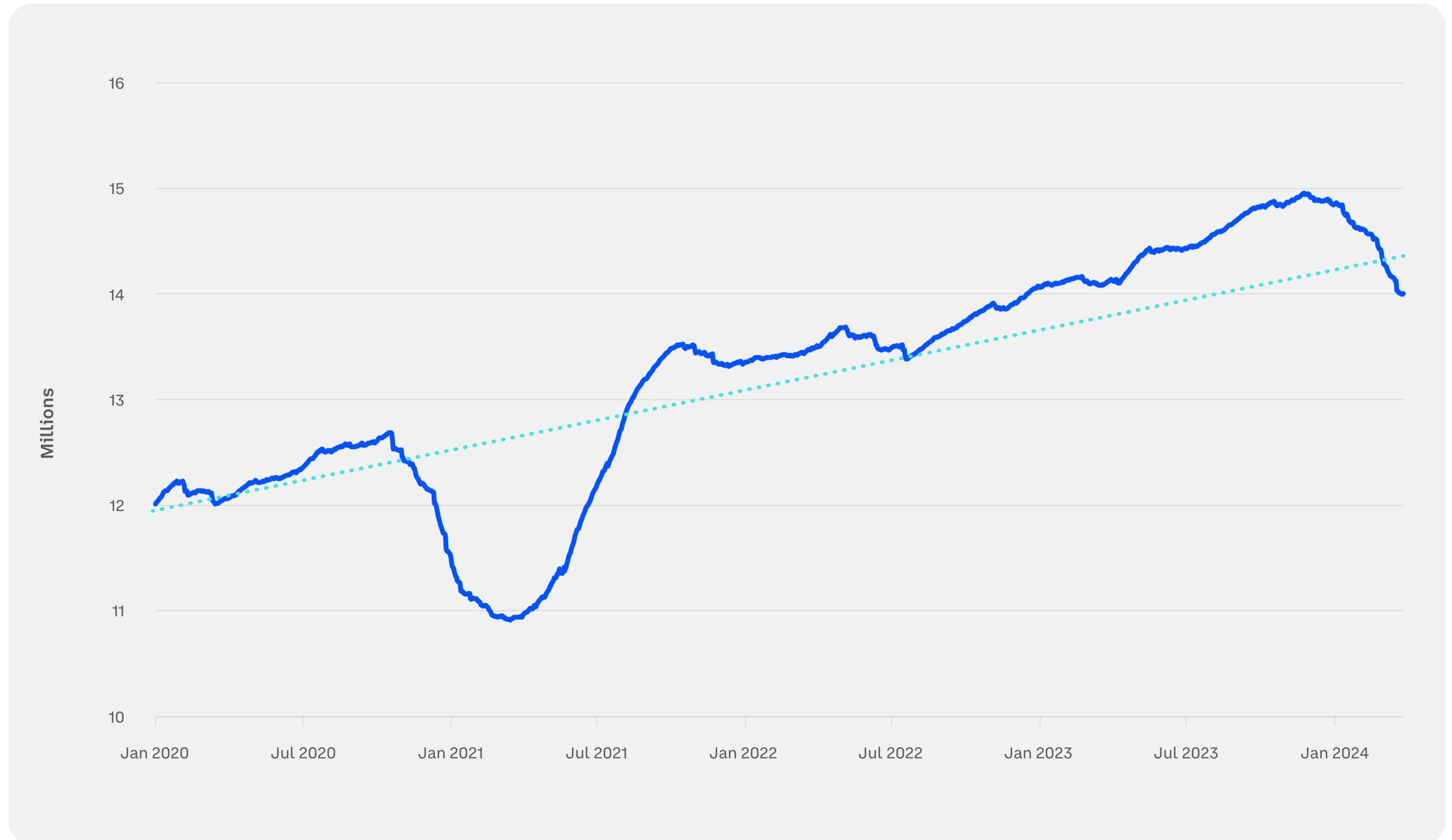
Source: Glassnode

# BTC Total Supply Held by Long-Term Holders

Long-term holders (LTHs) refers to investors who retain their cryptocurrency holdings for a minimum of 155 days. Historically, this duration marks the point beyond which the probability of these assets being sold decreases notably.

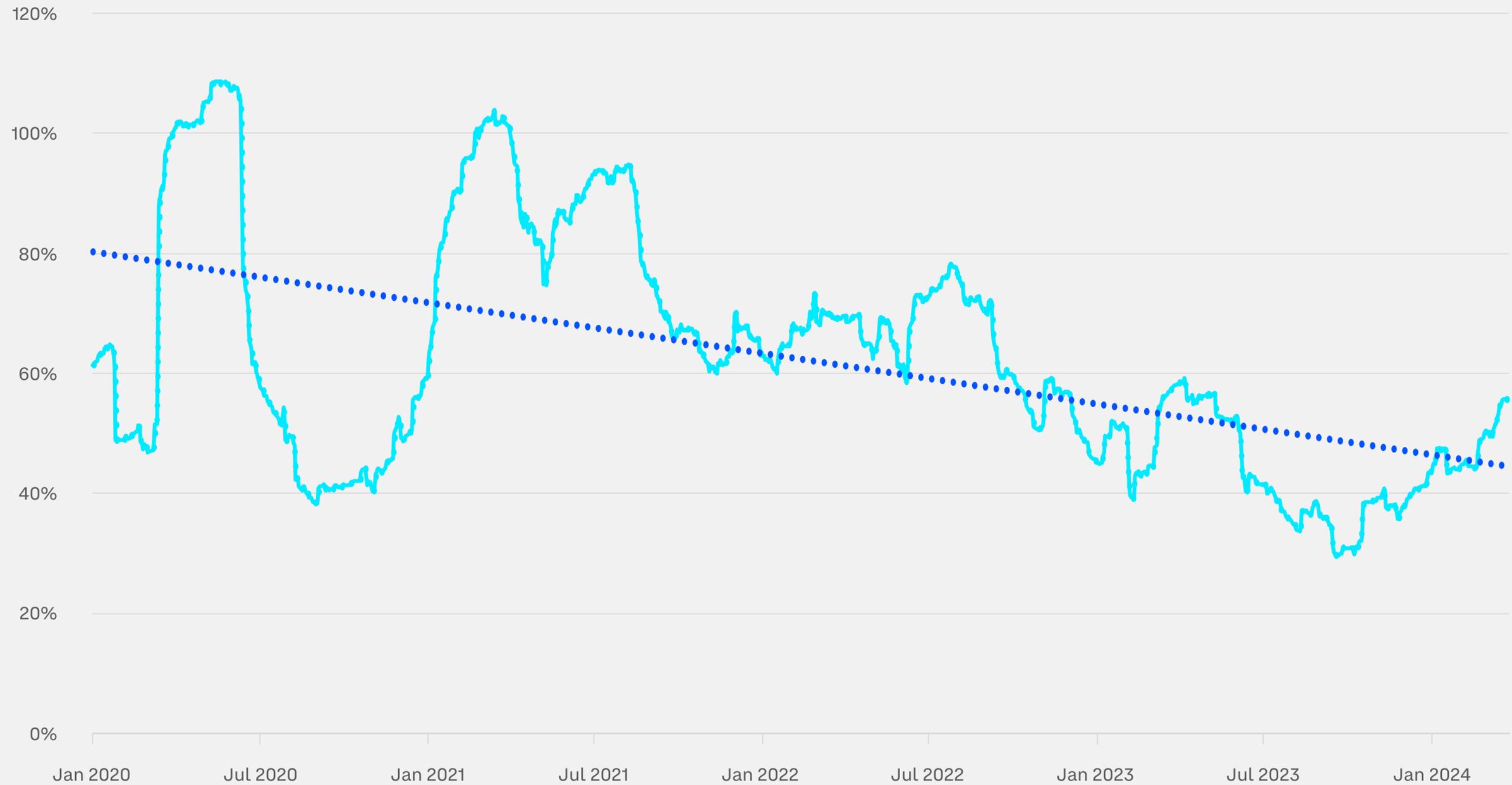
The activity patterns of LTHs can be used as a barometer for identifying cyclical trends within the cryptocurrency markets, including potential peaks and troughs.

In Q1, supply held by LTHs dipped below the long-term trend, in part due to dynamics in the ETF market.



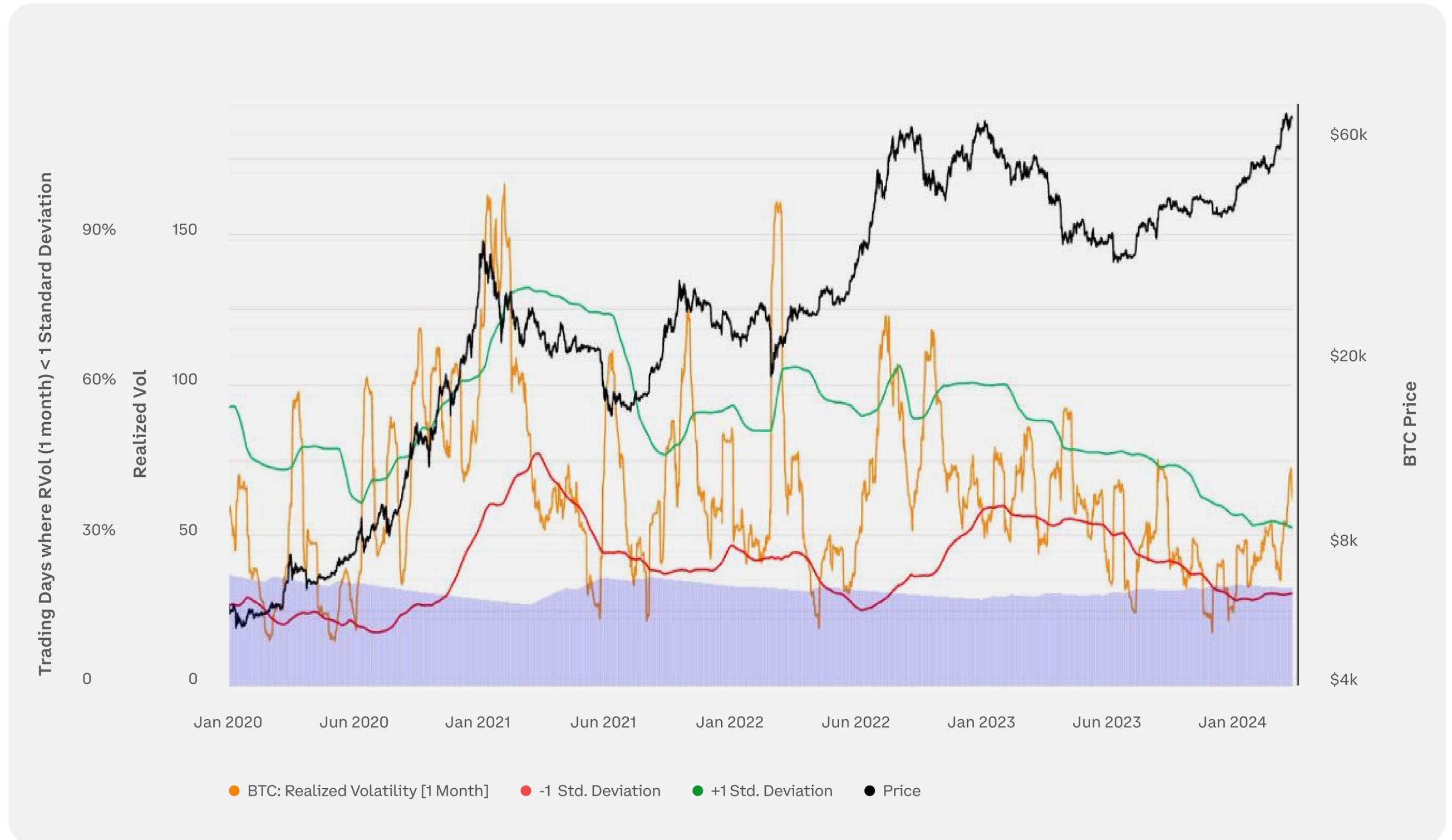
# BTC Annualized 3-Month Volatility

Volatility climbed 35% in the first quarter as BTC made a new all-time high and then pulled back. But since 2020, volatility has trended significantly lower as crypto has matured as an asset class and institutional participation has increased.



# BTC Monthly Realized Volatility Bands

This chart applies Bollinger Bands to one-month realized volatility to identify potential turning points in the prevailing volatility backdrop. When volatility is one standard deviation above or below the one-month average, it may signal that a reversal is more likely.



# BTC Realized Price and MVRV

Realized Price is the average price of a cryptocurrency's supply, valued on the day each coin last transacted on-chain; it is often considered the on-chain cost basis of the market. MVRV is short for Market Value to Realized Value; it is the ratio between the market value (spot price) and the realized value (realized price).

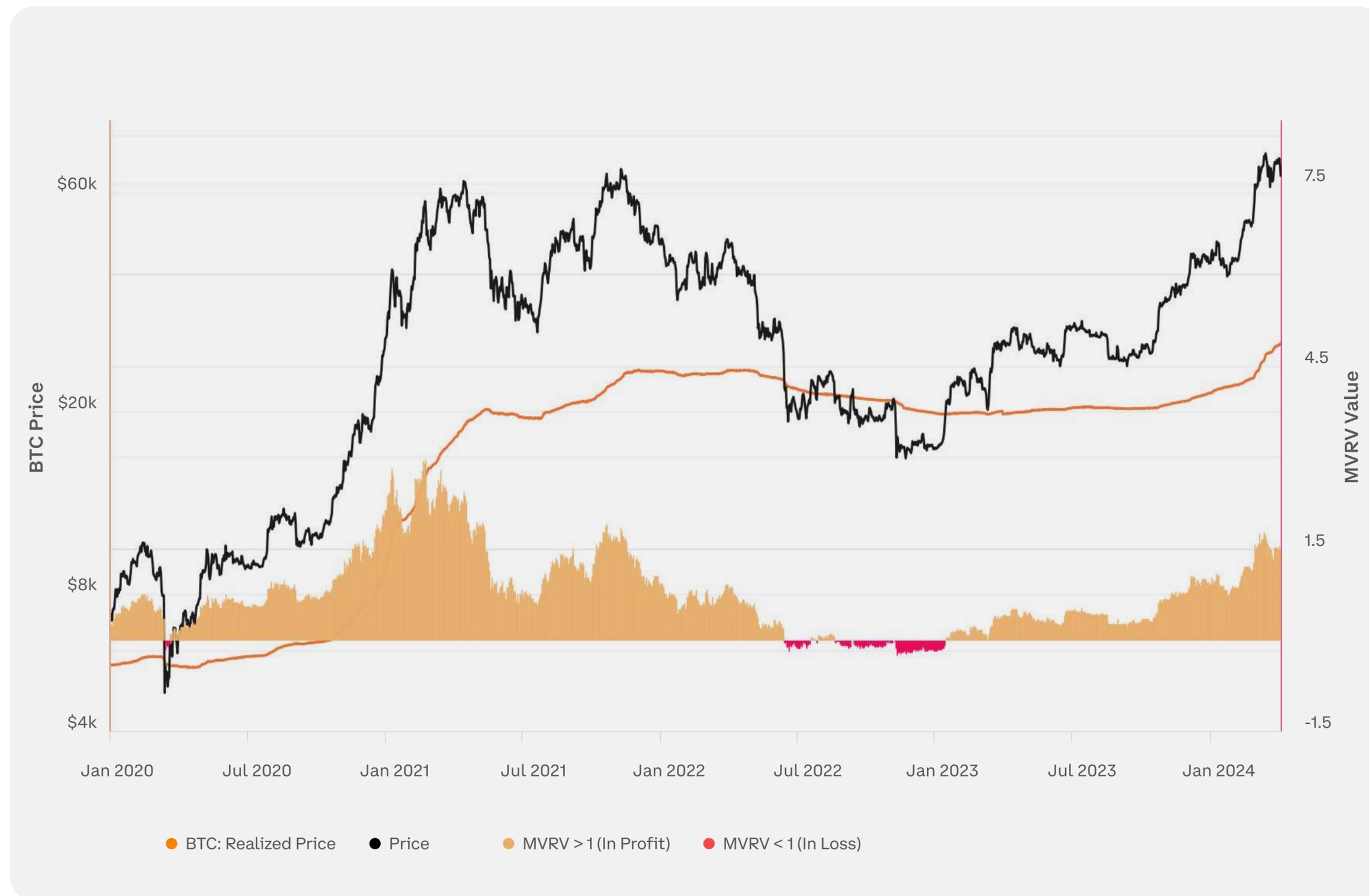
A MVRV of 2.0 means the current price is 2x the market's average cost basis (average holder is up 2x).

A MVRV of 1.0 means the current price is equal to the market's average cost basis (average holder is at break-even).

A MVRV of 0.50 means the current price is -50% below the market's average cost basis (average holder is underwater by -50%).

Extreme MVRV values can help identify periods where the market is overheated, or undervalued, and where investor profitability has reached a large deviation from the mean (realized price).

For more on the MVRV ratio, [see this article](#).



# BTC Long-Term Holder MVRV

This chart looks at the MVRV ratio for long-term holders. In the first quarter, the MVRV of this cohort of investors moved slightly above 3.5, a historically significant threshold that separates the early (Equilibrium) stage of a bull market from the Euphoria stage.

Based on the current value, long-term holders are approaching their Euphoria state, with an elevated incentive to take profits. Historically, this cohort ramps up their sales as the market reaches new highs, with distributions accelerating until they help form the cycle top.



# BTC MVRV Momentum

This chart shows the MVRV ratio alongside the six-month simple moving average (SMA), which is used as a gauge for momentum. Periods where MVRV is above the six-month SMA typically describe macro market uptrends, and periods where it is below typically describe downtrends.

Cycle transition points are often characterized by MVRV breaking strongly across the six-month SMA. Strong breaks above the SMA indicate large volumes of BTC were acquired below the current price, and strong breaks below indicate large volumes of BTC were acquired above the current price.



Source: Glassnode

# BTC Derivatives

Market participants use bitcoin derivatives for a variety of reasons, including gaining capital-efficient access to BTC, hedging spot exposure, mitigating mining risks, and hedging other tokens that don't have liquid and regulated derivatives. For more on hedging, see [Hedging cryptocurrencies with futures: A look at common use cases](#).

## Q1 2024 Daily Averages

**Futures volume**

\$47B

**Futures open interest**

\$22.5B

**Perp funding rate**

0.02%

**Options open interest (weekly)**

\$17.4B

# BTC Traditional Futures Specs

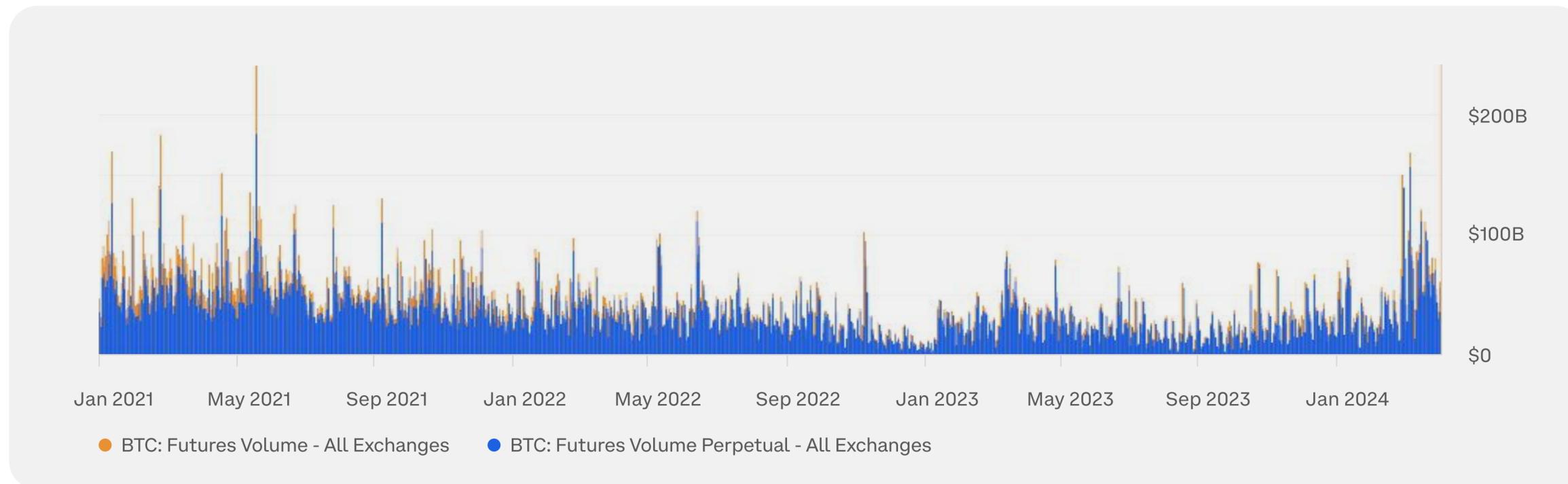
Bitcoin futures are offered by a variety of exchanges in different sizes and denominations.

Exchange	Size of Large BTC Contract	Size of Small BTC Contract	Trading Hours
Coinbase Derivatives Exchange	1 BTC	0.01 BTC	Sunday – Friday 6 pm – 5 pm ET
CME	5 BTC	0.1 BTC	Sunday – Friday 6 pm – 5 pm ET
Deribit	N/A	\$10 USD	24/7

## BTC Futures Volume

Volume in crypto futures is split between traditional futures, also known as term or calendar futures, and perpetual futures (perps), which are unique to crypto. Perps do not have an expiration date, so holders do not need to roll their contracts.

Volume in both perps and traditional futures surged in the first quarter as the introduction of spot ETFs led to increased liquidity throughout bitcoin markets.

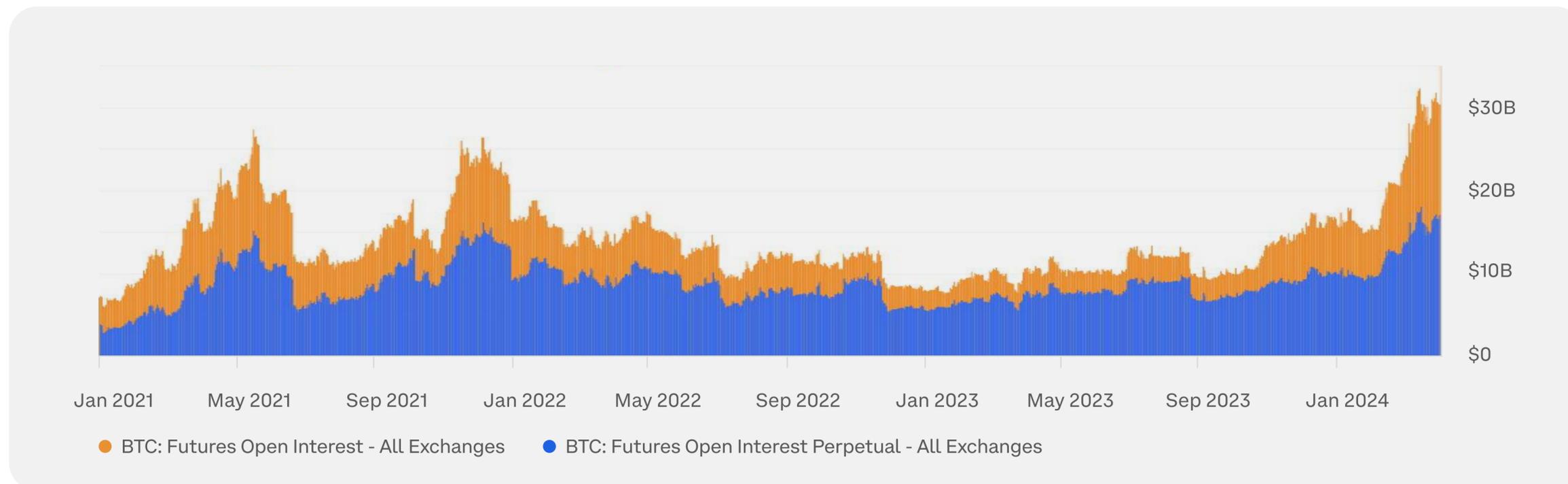


Source: Glassnode

## BTC Futures Open Interest

While trading volume in BTC futures is dominated by perps, many market participants use traditional futures for hedging and to put on cash-and-carry trades, so traditional futures make up a significant portion of total BTC futures open interest.

Open interest in traditional and perpetual futures moved substantially higher as prices hit an all time high and the introduction of spot ETFs led to increased liquidity throughout bitcoin markets.

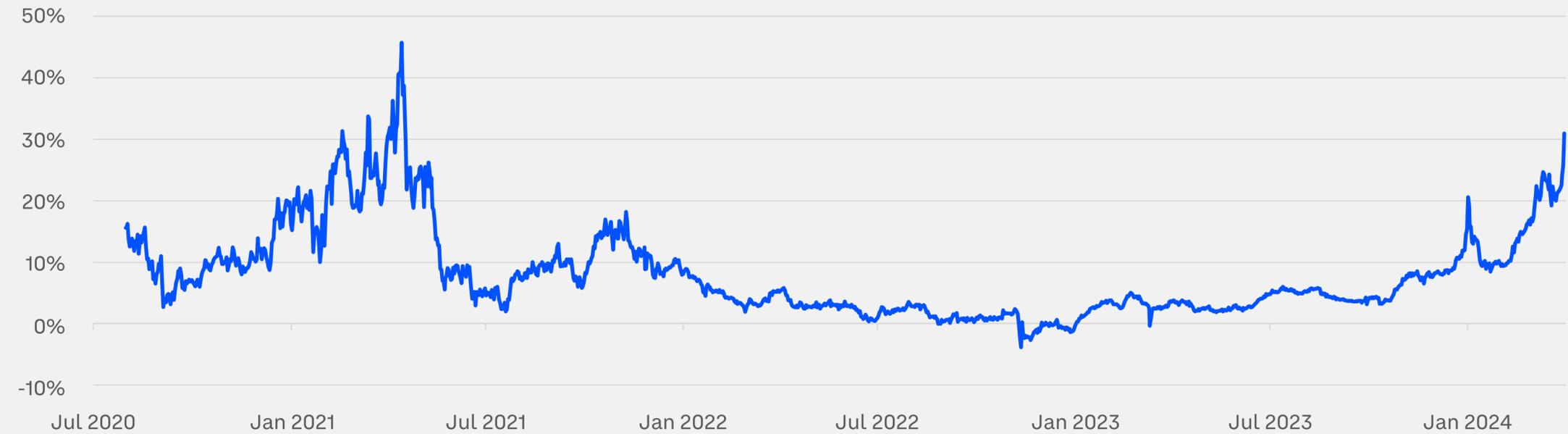


Source: Glassnode

## BTC Futures Annualized Rolling Basis (3M)

The basis in crypto markets has historically been positive (outside of market dislocations). Extreme moves in the basis, both positive and negative, tend to be associated with large swings in sentiment.

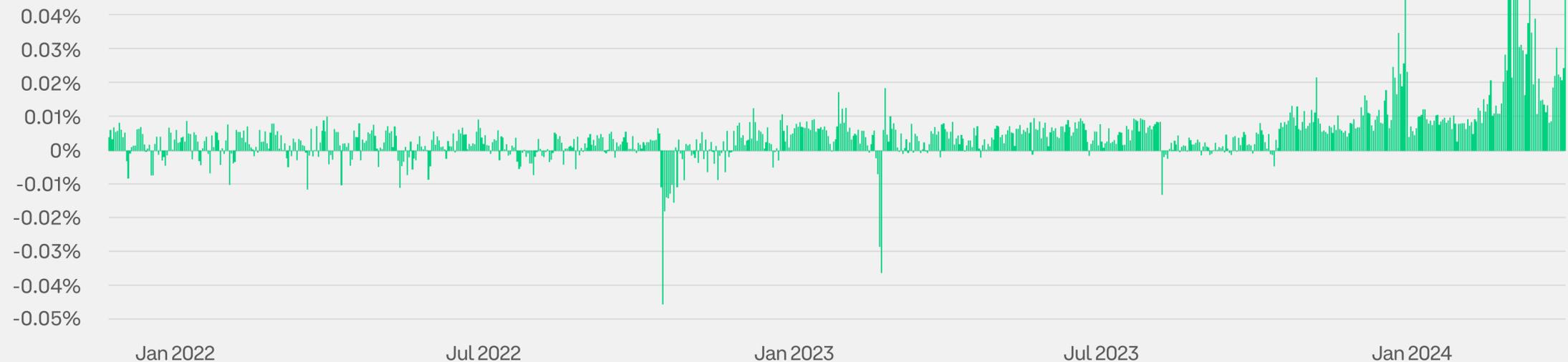
BTC basis more than tripled in the first quarter as the market tuned increasingly bullish.



Source: Glassnode

## BTC Perpetual Futures Funding Rates

Perpetual futures (perps) do not have an expiration date, so holders do not need to roll their contracts. To prevent the price from deviating too far from spot prices, perps have a funding mechanism (the funding rate) that is periodically paid between long holders and short holders. When the funding rate is positive, longs pay shorts, and when the funding rate is negative, shorts pay longs.

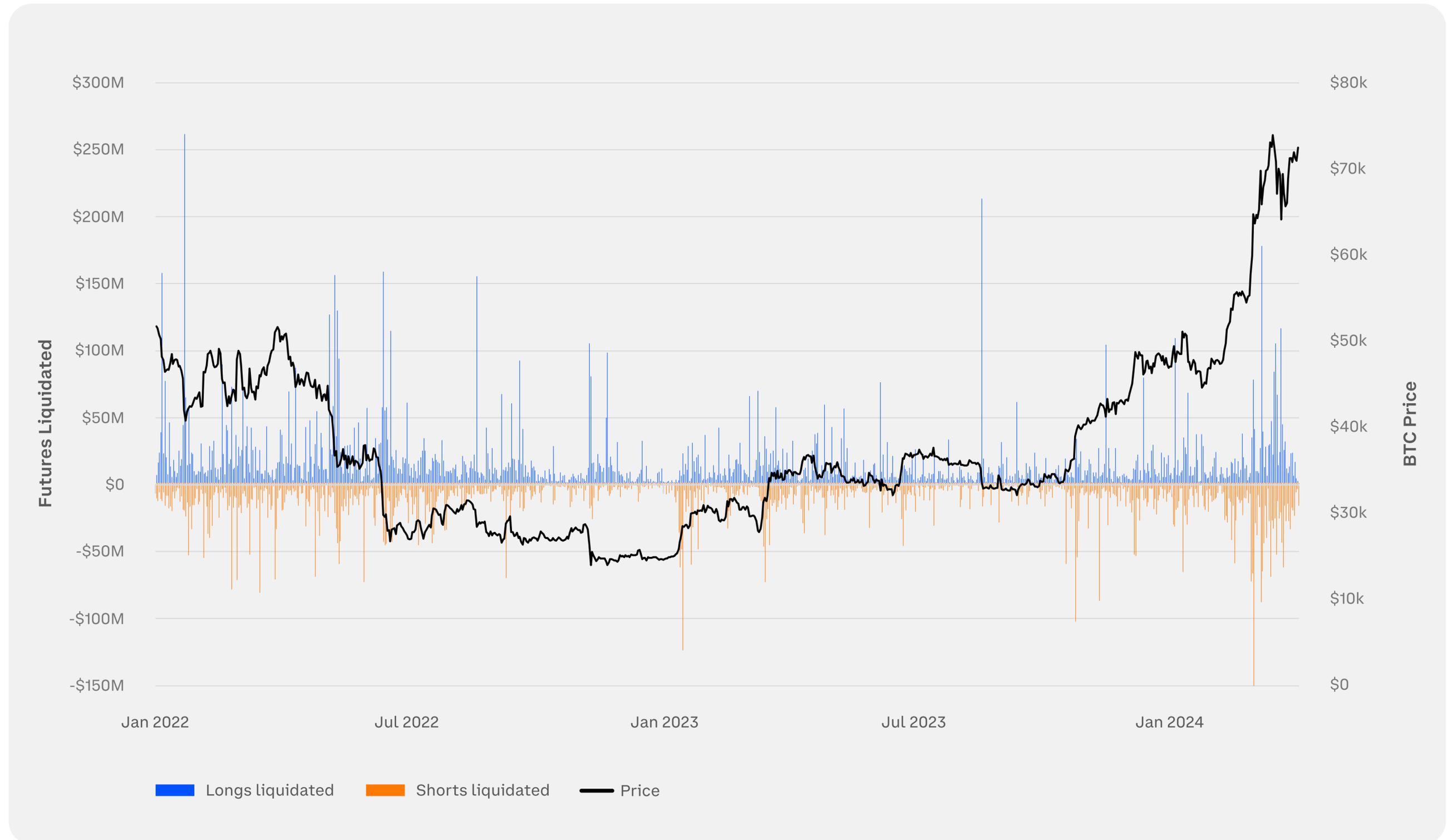


Source: Glassnode

# BTC Perpetual Futures Liquidated

Liquidation occurs when an exchange forcefully closes a futures position due to a partial or total loss of the initial margin. Large liquidations can signal the top or bottom of a steep price move.

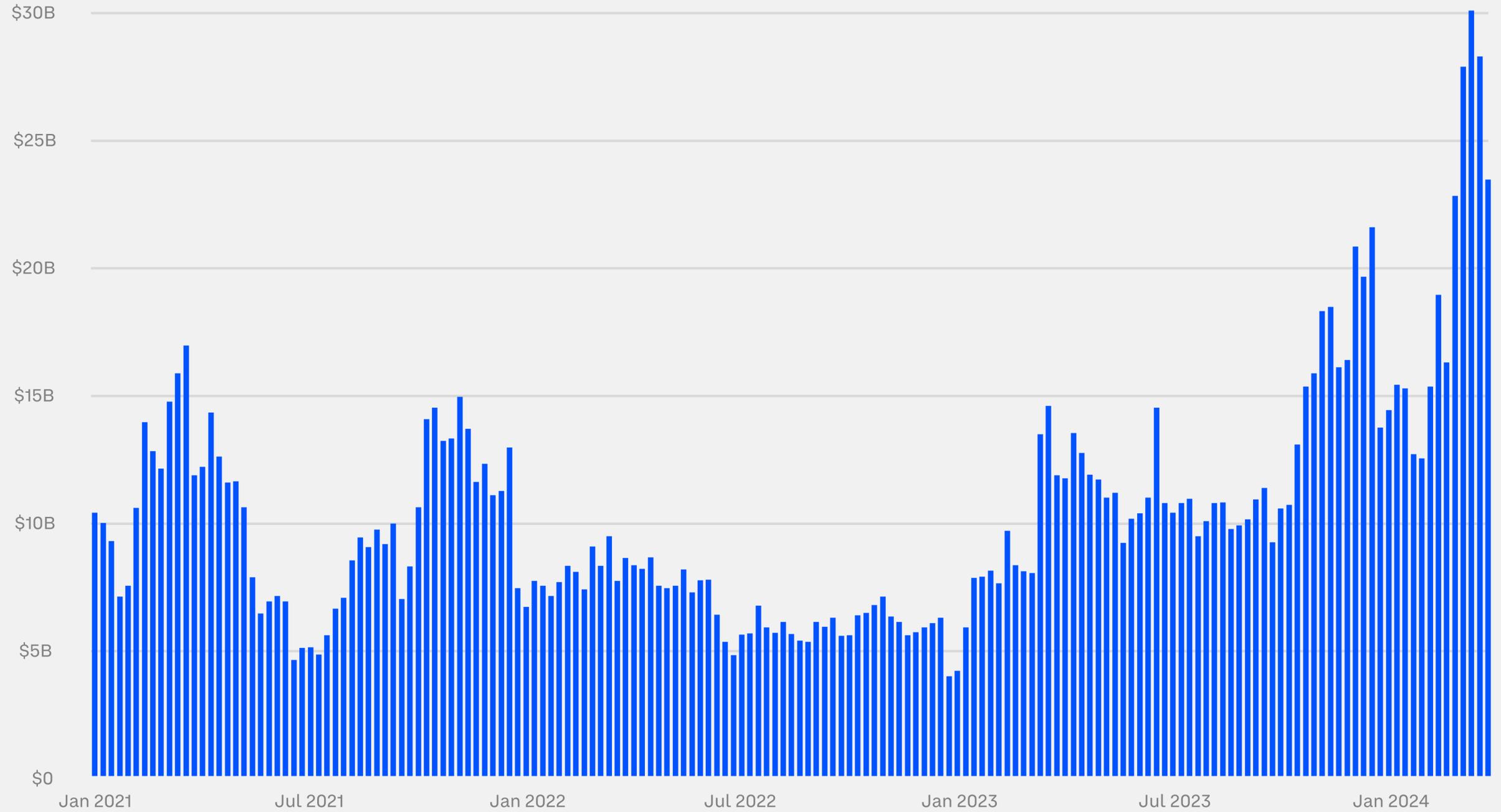
The first quarter saw several notable spikes in both long and short liquidations amid big price swings after BTC hit an all-time high and then retreated.



# BTC Options Open Interest

Options open interest (OI) increased 74% in the first quarter to a new all-time high above \$30B.

The increase in OI since Jan 2023 is a sign of maturing and deepening derivatives markets. This opens up opportunities for institutions and traders to put on more sophisticated positions, as well as for actors like miners to hedge their income exposure.



## BTC Upcoming Market Events

### Bitcoin Halving

The fourth Bitcoin Halving will take place around April 19, 2024. As with all prior Halvings, it will cut bitcoin issuance rewards for miners by half – this time from 6.25 BTC per block to 3.125 BTC. Although past Halving cycles can offer some insight into bitcoin's potential price action, we think the small sample size may not provide enough data points to identify clear patterns or make definitive predictions about the impact of upcoming Halvings.

We also believe that bitcoin's market dynamics have fundamentally changed with the advent of US spot BTC ETFs. With major institutional players now capable of taking exposure through these vehicles, bitcoin's response to the upcoming Halving may not necessarily mirror its performance in prior cycles. We think it's more important to understand the current technical supply-demand setup to gauge bitcoin's performance potential.

For more on the upcoming Halving, read our [detailed report](#).

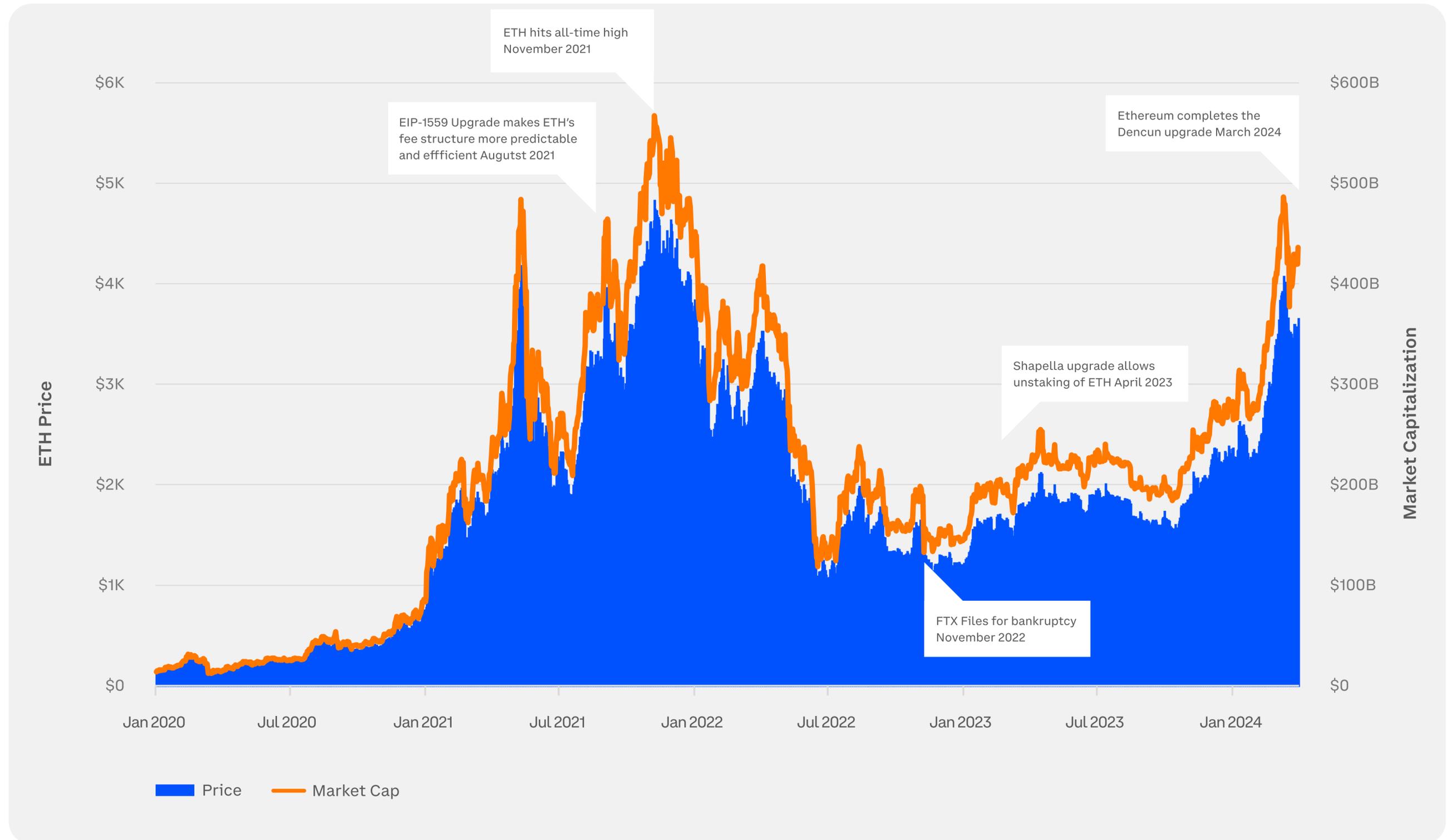
### Potential for Wirehouses to Recommend ETFs

While bitcoin ETFs have garnered huge inflows, they have done so without the aid of the major wirehouses, which typically cannot solicit their customers for new products until they have been trading for at least 90 days and the firms have conducted thorough due diligence.

Wirehouses could start recommending spot bitcoin ETFs to their clients as soon as April 12, although it will likely take some firms longer than that.

# ETH Price and Market Cap

The price of ETH increased 60% in the first quarter and briefly broke \$4,000 for the first time in two years before retreating.

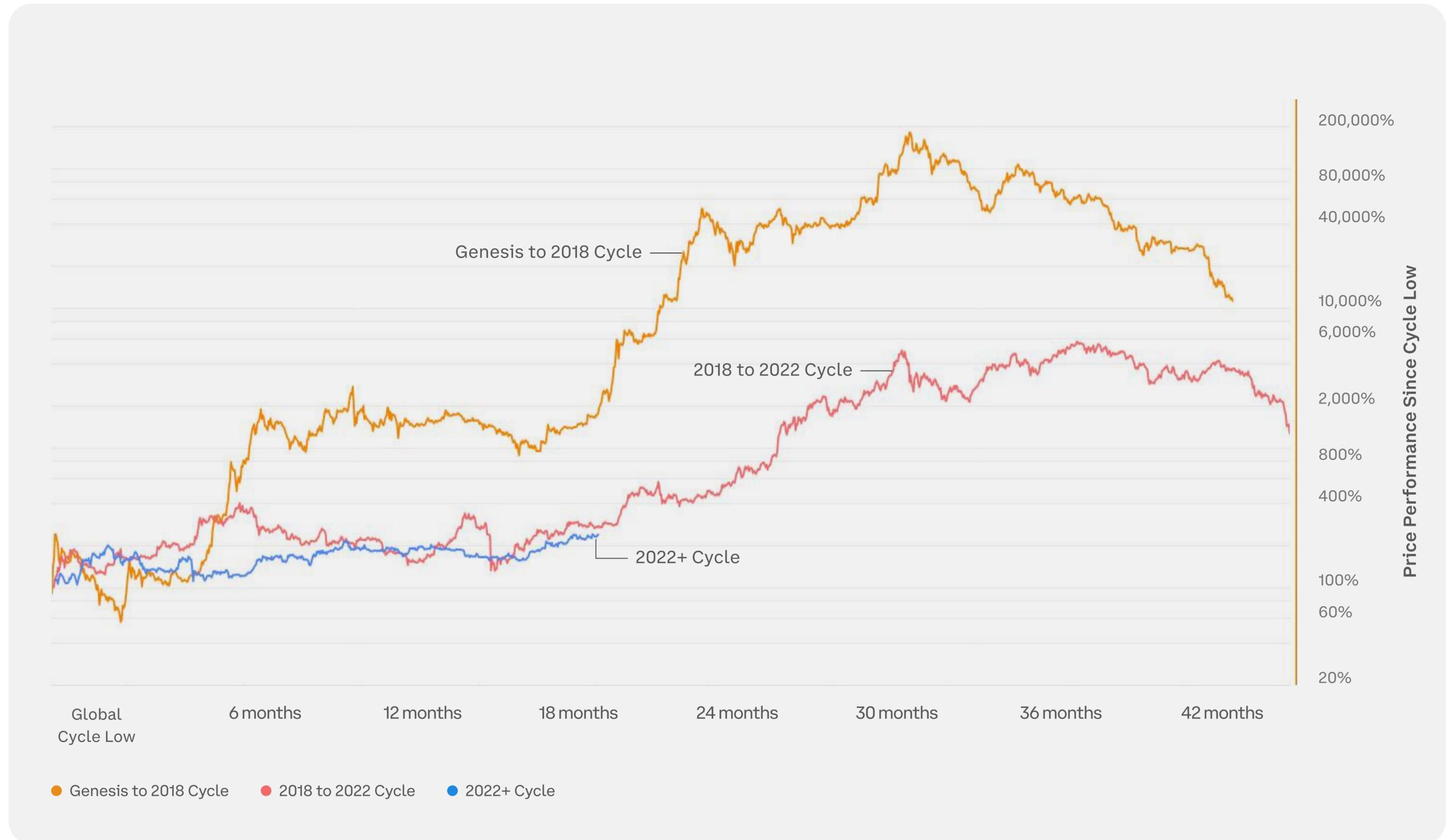


# ETH Price Performance Since Cycle Low

Ether has completed two cycles that each included both bull and bear markets. In this chart, we see how the current market cycle, which began in 2022, compares to the previous cycles.

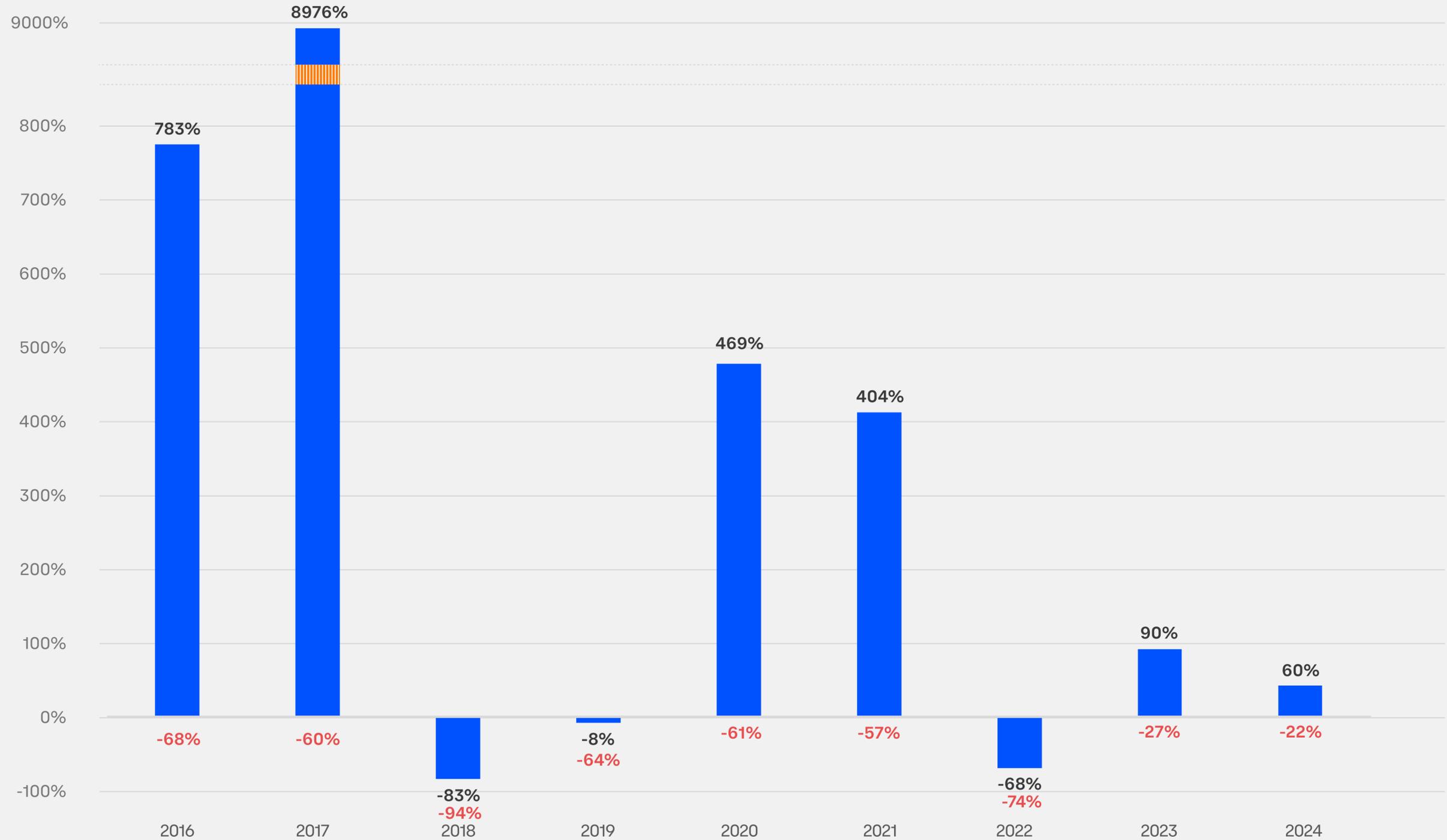
In the current cycle, ETH is up 200%+ in the 17 months since its cycle low.

The current cycle most closely resembles the one from 2018-2022, which saw ETH rise 400% 24 months after the low.



# ETH Annual Returns and Intra-Year Declines

Despite average intra-year declines of 59%, ether has delivered positive performance in five of the last eight years.



# ETH Fear and Greed

This chart measures the spectrum of investor sentiment by looking at Net Unrealized Profit/Loss (NUPL). This metric assesses the magnitude of unrealized profit and loss held within the coin supply, and is a useful indicator for gauging market sentiment.

For more information see [this article](#).



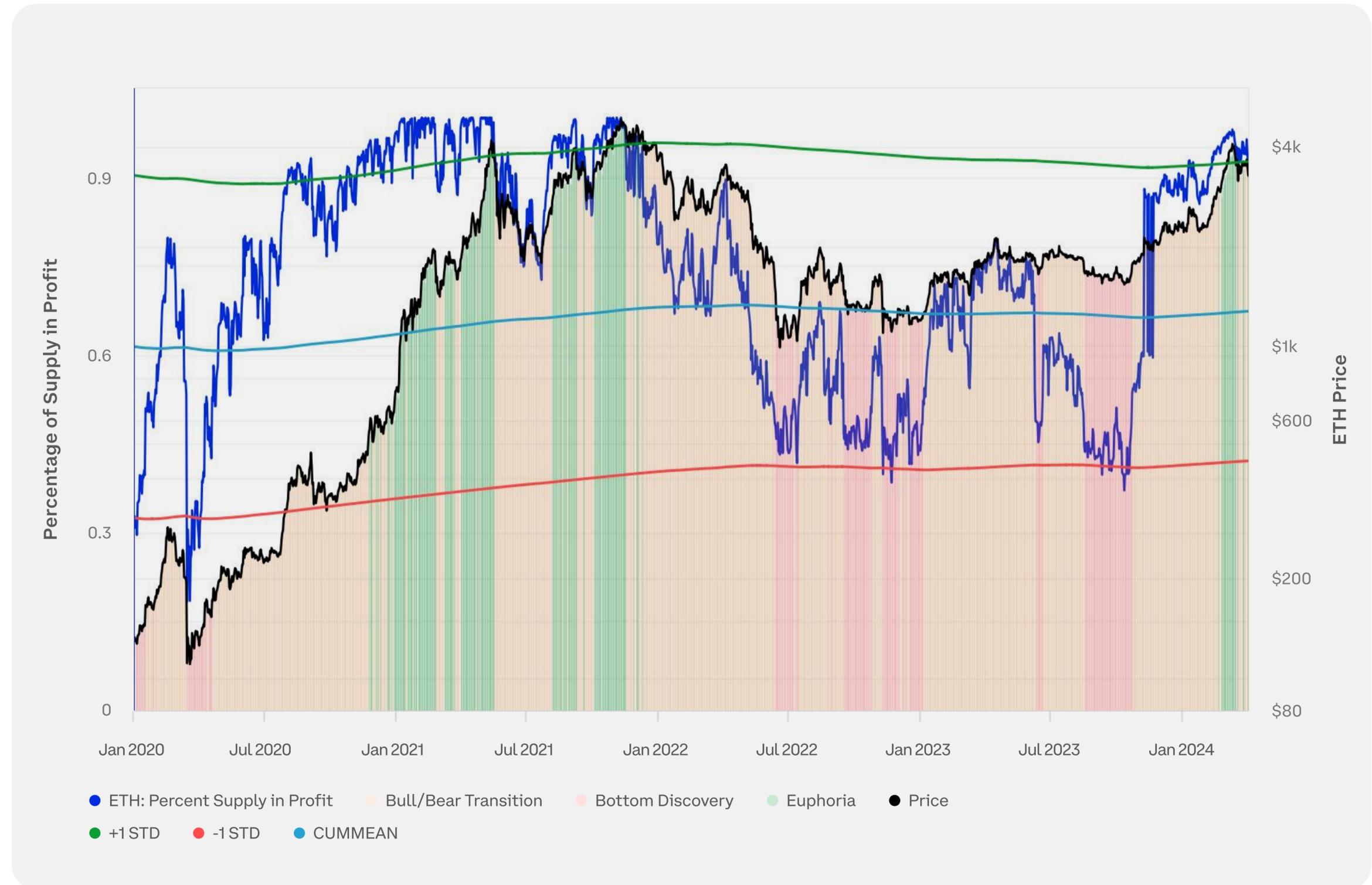
# ETH Supply Profitability State

The circulating supply of a cryptocurrency is comprised of supply in loss (all coins with a cost basis higher than the current spot price) and supply in profit (all coins with a cost basis lower than the current spot price). Looking at supply profitability can help shed light on where crypto prices are in the current market cycle, as previous crypto market cycles have been characterized by three phases:

**Bottom Discovery:** In the last stage of a bear market, an extended period of price depreciation causes the share of supply in loss to rise (Percent of Supply in Profit < 55%).

**Euphoria:** When a parabolic price uptrend is in play during a bull market, the share of supply in profit dominates (Percent of Supply in Profit > 95%).

**Bull/Bear Transition:** The transition periods between Bottom Discovery and Euphoria, when supply profitability is closer to equilibrium (Percent of Supply in Profit between 55% and 95%).

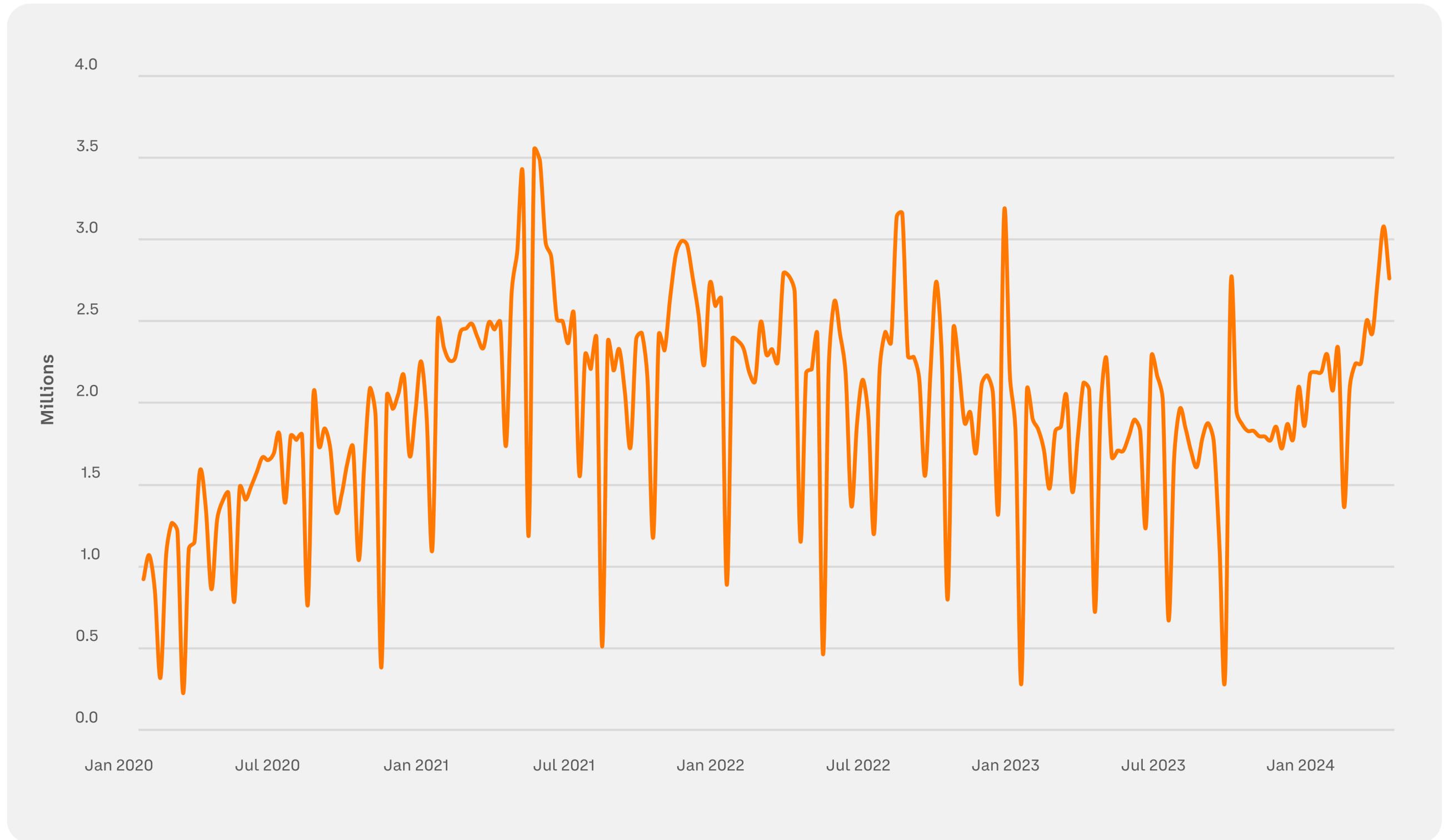


Source: Glassnode

# ETH Weekly Active Addresses

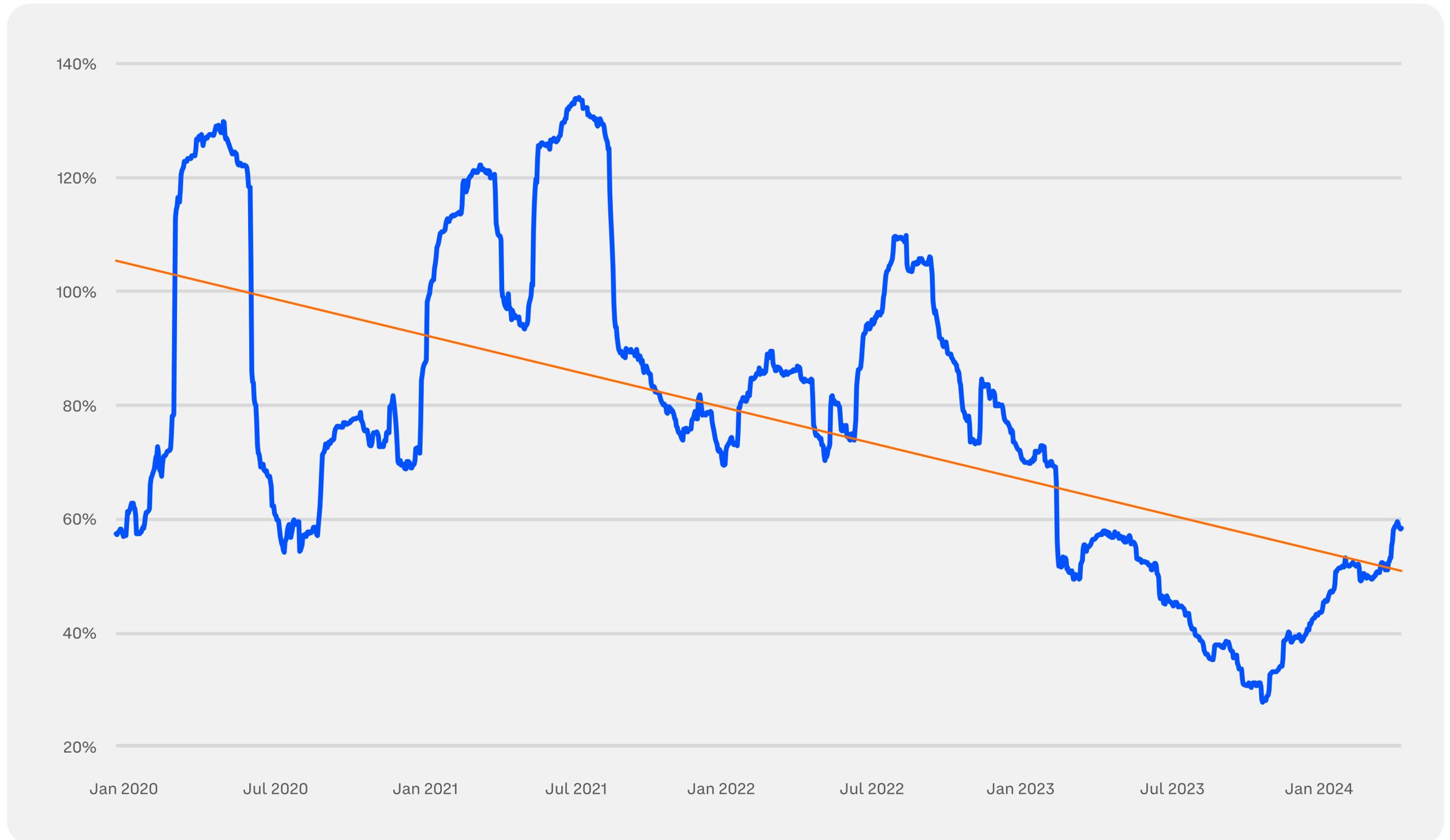
Active addresses are the number of unique addresses that were active in a network as either a sender or a receiver. They are an important metric that can be used to gauge user adoption, network health, economic activity, and more.

Active addresses moved 26% higher in the first quarter as network activity picked up amid the rally in prices and Ethereum's successful Dencun upgrade.



# ETH Annualized 3-Month Volatility

Volatility rose 28% in the first quarter as ether hit a two-year high and then pulled back. But over time, volatility has trended significantly lower as crypto has matured as an asset class and institutional participation has increased.



Source: Glassnode

# ETH Monthly Realized Volatility Bands

This chart applies Bollinger Bands to one-month realized volatility to identify potential turning points in the prevailing volatility backdrop. When volatility is one standard deviation above or below the one-month average, it may signal that a reversal is more likely.



# ETH Realized Price and MVRV

Realized Price is the average price of a cryptocurrency's supply, valued on the day each coin last transacted on-chain; it is often considered the on-chain cost basis of the market. MVRV is short for Market Value to Realized Value; it is the ratio between the market value (spot price) and the realized value (realized price).

A MVRV of 2.0 means the current price is 2x the market's average cost basis (average holder is up 2x).

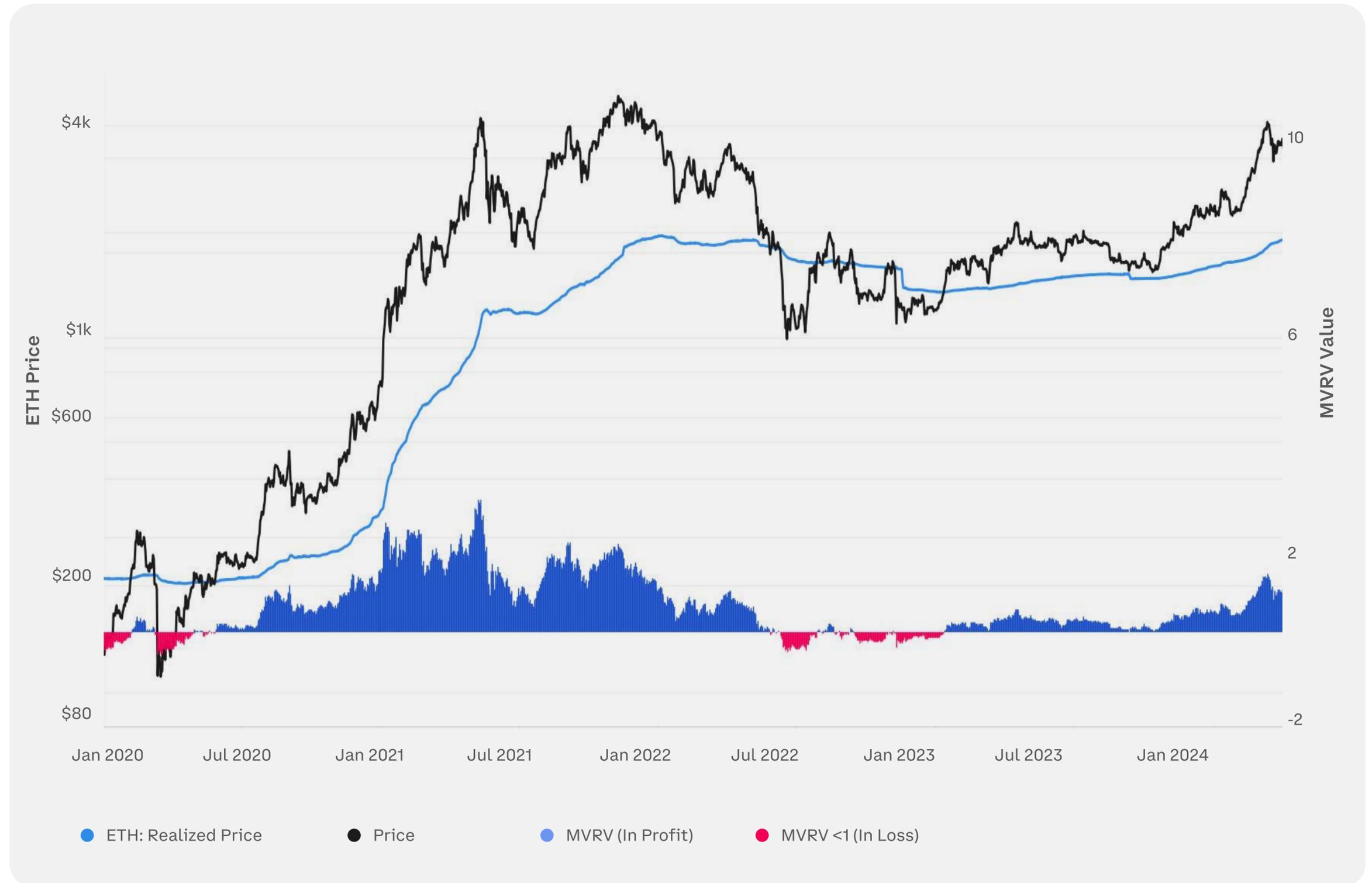
A MVRV of 1.0 means the current price is equal to the market's average cost basis (average holder is at break-even).

A MVRV of 0.50 means the current price is -50% below the market's average cost basis (average holder is underwater by -50%).

Extreme MVRV values can help identify periods where the market is overheated, or undervalued, and where investor profitability has reached a large deviation from the mean (realized price).

For more on the MVRV ratio, [see this article](#).

Source: Glassnode



# ETH MVRV Momentum

This chart shows the MVRV ratio alongside the six-month simple moving average (SMA), which is used as a gauge for momentum. Periods where MVRV is above the six-month SMA typically describe macro market uptrends, and periods where it is below typically describe downtrends.

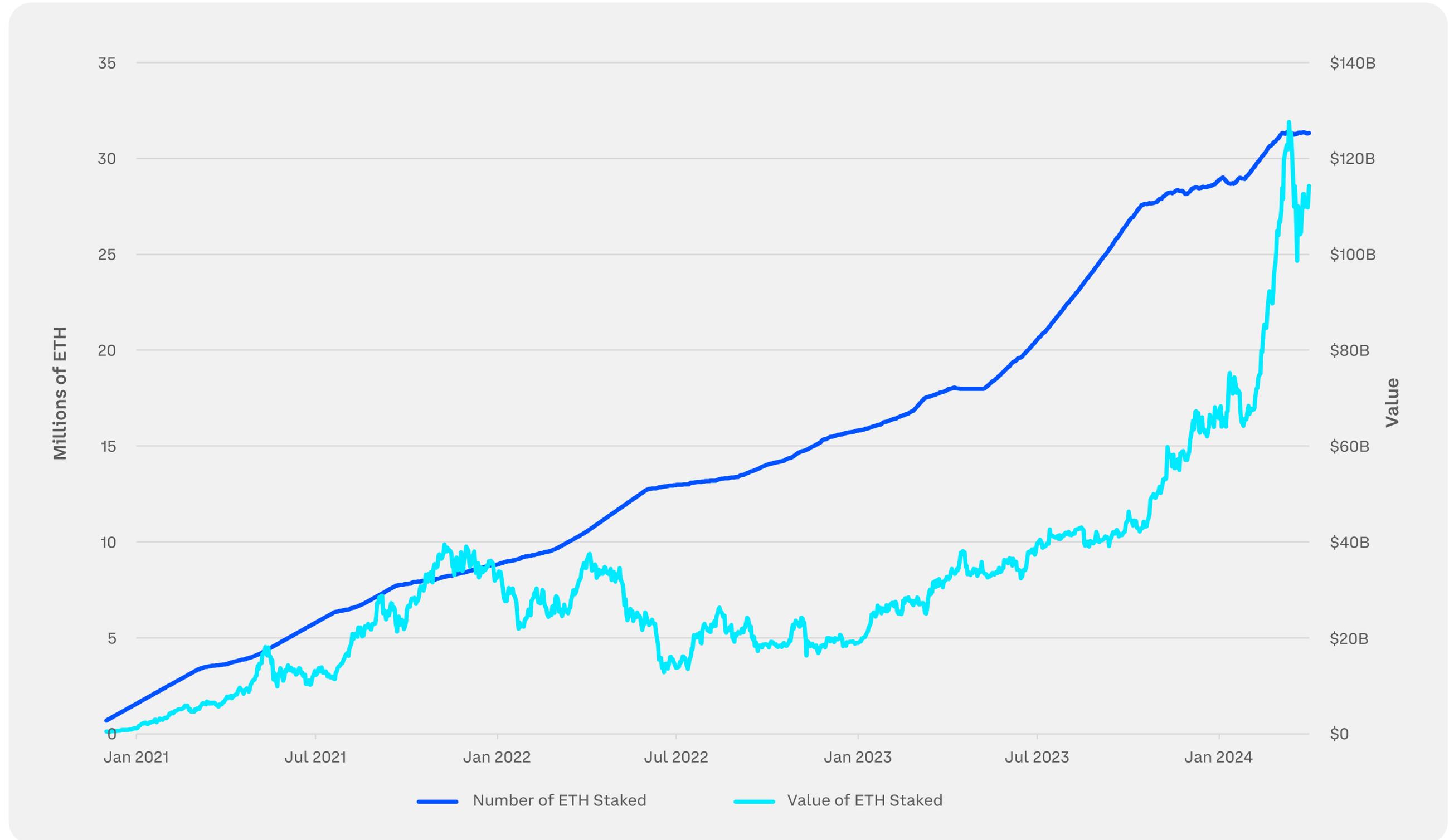
Cycle transition points are often characterized by MVRV breaking strongly across the six-month SMA. Strong breaks above the SMA indicate large volumes of ETH were acquired below the current price, and strong breaks below indicate large volumes of ETH were acquired above the current price.



# ETH Total Value Staked

Staking is an investment feature of Proof of Stake (PoS) blockchains in which token holders pledge their assets to support the network's security, in exchange for rewards in the form of additional tokens. In order to stake ETH, holders must pledge a minimum of 32 ETH and run a validator node. For more on staking see ["Staking 101 for Institutions,"](#) ["Growth of the Liquid Staking Market,"](#) and ["Ethereum Staking in Regulated Vehicles."](#)

The number of ETH staked rose 9% in the first quarter as more market participants were attracted by the yields on offer.



# ETH Total Value Locked in DeFi

Total Value Locked (TVL) refers to the value of assets, including ETH, stablecoins, and alt coins, that are locked in smart contracts or deposited in decentralized applications on the Ethereum blockchain. TVL is a measure of financial activity and liquidity within the Ethereum ecosystem.

TVL rose 85% in the first quarter as activity picked up across the Ethereum ecosystem.



## ETH Derivatives

Market participants use ether derivatives for a variety of reasons, including gaining capital-efficient access to ETH, hedging spot exposure, and hedging staked positions in ETH or in other tokens that don't have liquid and regulated derivatives. For more on hedging, see [Hedging cryptocurrencies with futures: A look at common use cases](#).

## Q1 2024 Daily Averages

**Futures volume:** \$21.8B

**Futures open interest:** \$7.1B

**Perp funding rate:** 0.02%

**Options open interest (weekly):** \$8.7B

# ETH Traditional Futures Specs

Ether futures are offered by a variety of exchanges in different sizes and denominations.

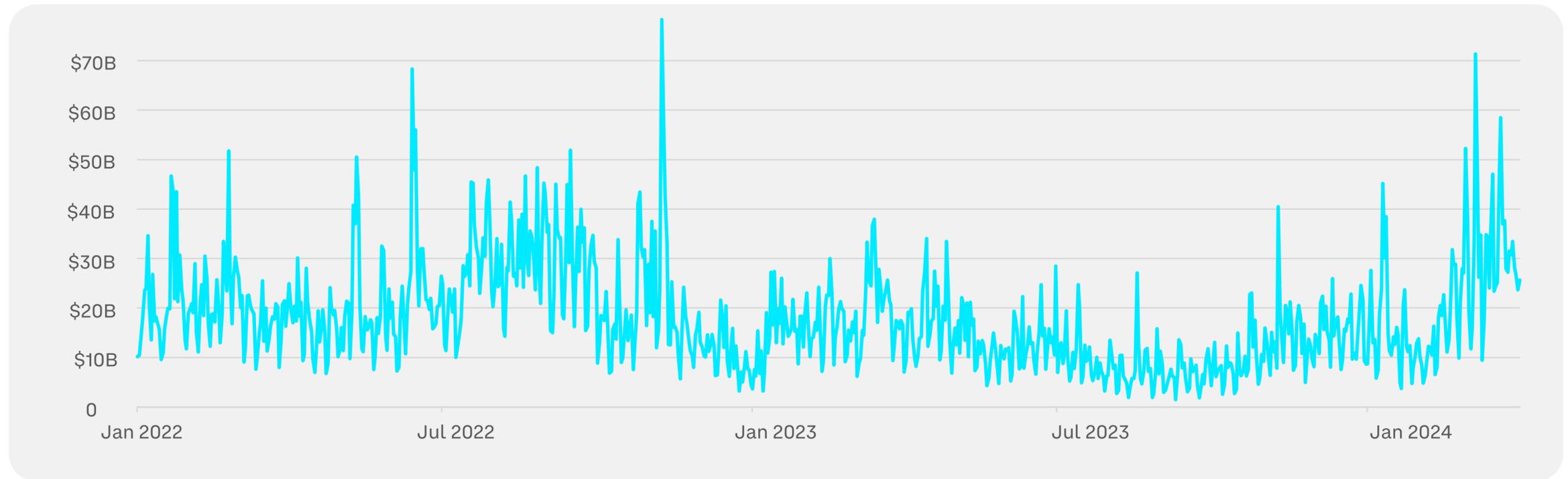
Exchange	Size of Large ETH Contract	Size of Small ETH Contract	Trading Hours
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CME	50 ETH	0.1 ETH	Sunday – Friday 6 pm – 5 pm ET
Deribit	N/A	\$10 USD	24/7

## ETH Perpetual Futures Volume

Volume in crypto futures is split between traditional futures, also known as term or calendar futures, and perpetual futures (perps), which are unique to crypto. Perps do not have an expiration date, so holders do not need to roll their contracts. Volume in ETH futures is dominated by perps.

Average daily ETH futures volume increased 70% in the first quarter.

Source: Glassnode



## ETH Perpetual Futures Open Interest

Open interest in ETH futures is also dominated by perps, with very little activity in traditional futures thus far.

In the first quarter open interest nearly matched the all-time high from 2022.

Source: Glassnode



## ETH Futures Annualized Rolling Basis (3M)

The basis in crypto markets has historically been positive (outside of market dislocations). Extreme moves in the basis, both positive and negative, tend to be associated with large swings in sentiment.

ETH basis more than doubled in the first quarter as the market tuned increasingly bullish.

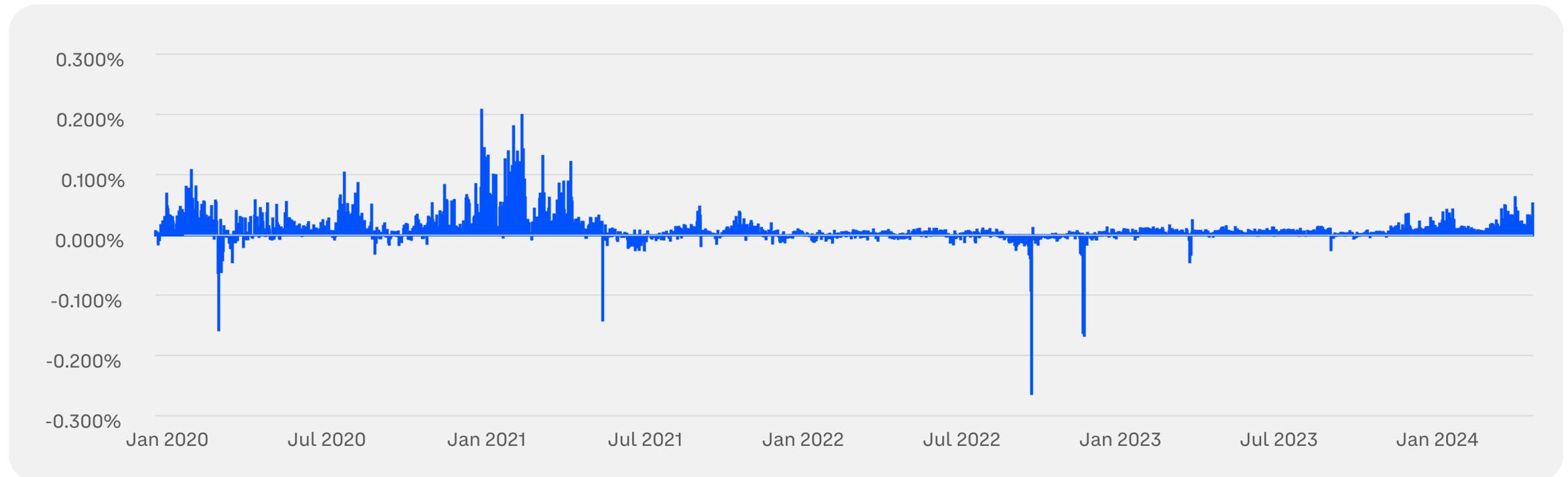
Source: Glassnode



## ETH Perpetual Futures Funding Rates

Perpetual futures (perps) do not have an expiration date, so holders do not need to roll their contracts. To prevent the price from deviating too far from spot prices, perps have a funding mechanism (the funding rate) that is periodically paid between long holders and short holders. When the funding rate is positive, longs pay shorts, and when the funding rate is negative, shorts pay longs.

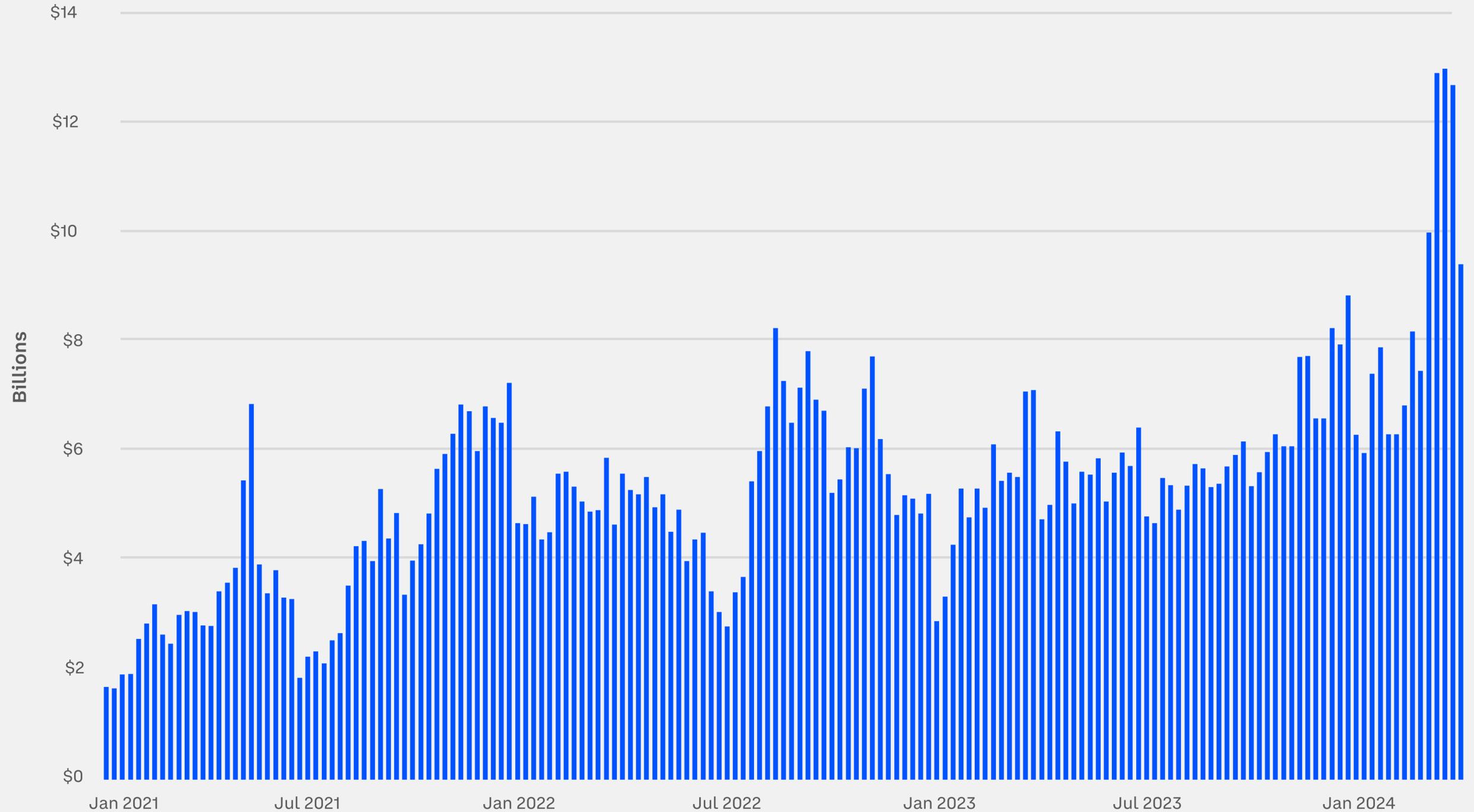
Source: Glassnode



# ETH Options Open Interest (Weekly)

Options open interest (OI) increased 50% in the first quarter, hitting a new all-time high above \$12B.

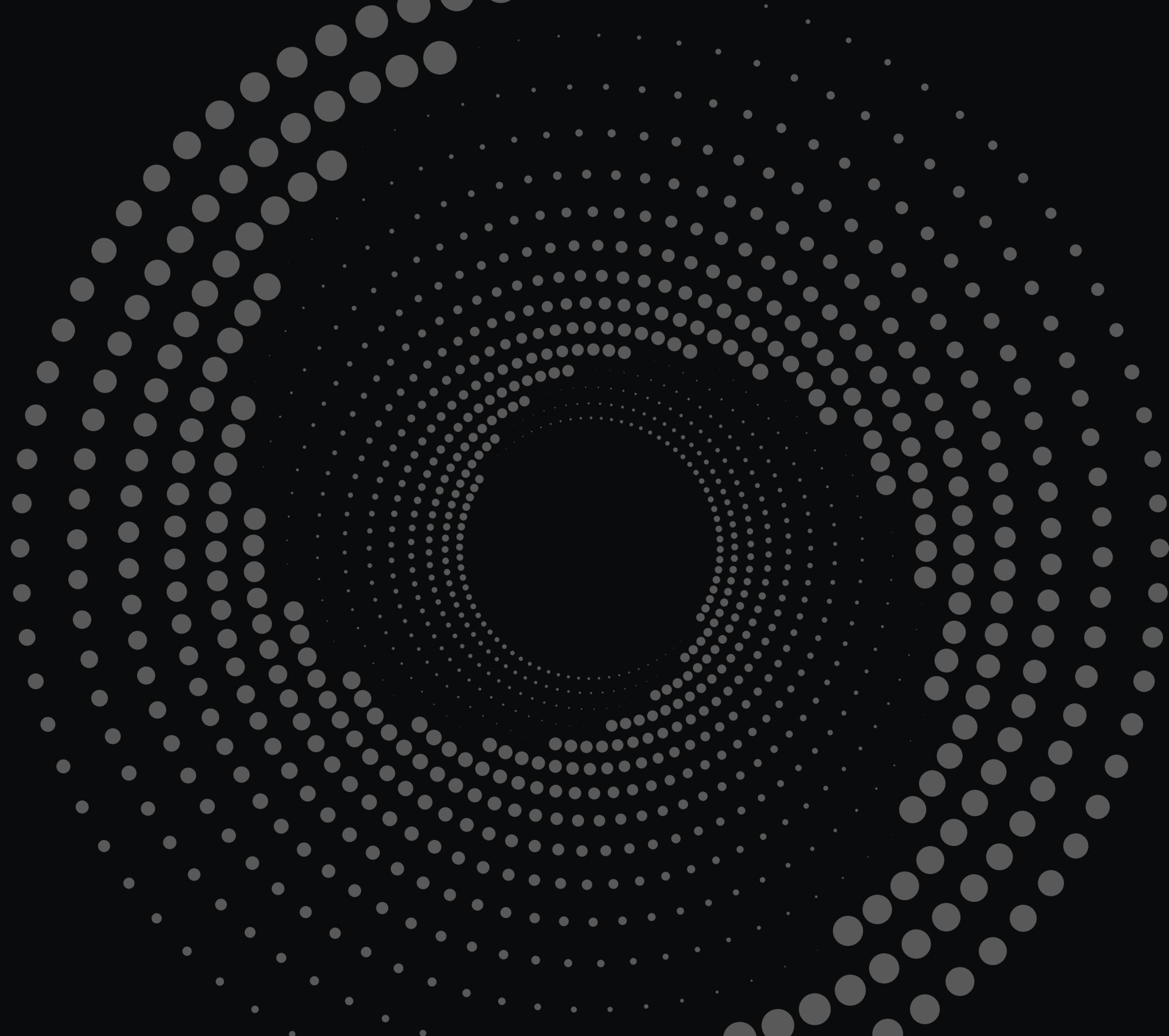
The increase in OI since Jan 2023 is a sign of maturing and deepening derivatives markets. This opens up opportunities for institutions and traders to put on more sophisticated positions, as well as for actors like miners to hedge their income exposure.



# ETH Upcoming Market Events

## **SEC Decision on Ether ETFs**

Many of the same firms that launched spot bitcoin ETFs have filed applications for spot ether ETFs with the Securities and Exchange Commission (SEC). May 23 is the first deadline for the SEC to decide whether to approve the first batch of filings.



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