

WisdomTree Crypto Monthly

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Table of Contents

- 1. Table of Contents 1
- 2. Market Commentary 2
- 3. Insight of the Month 5
- 4. Market Summary 10
- 5. Macro Landscape 11
- 6. Bitcoin And Ether Focus 13
- 7. Sector Performance 14
- 8. Regulated Futures 15
- 9. Unregulated Futures 17
- 10. On-Chain Activity 20
- 11. Valuation Metrics 21

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Cryptocurrencies can demonstrate higher volatility than other asset classes.

Market Commentary

US Spot Bitcoin ETFs approved

Spot Bitcoin ETFs likely to expand the investor base

Ten years after the first spot Bitcoin ETF application was filed in the US, the Securities and Exchange Commission (SEC) finally approved spot bitcoin ETFs on January 10th, 2024, albeit grudgingly. The decisive factor seems to have been a recent federal appeals court ruling where the SEC was ordered to either approve the conversion of Grayscale's closed-end Bitcoin Trust (GBTC) to a spot Bitcoin ETF or reject it on some other grounds than previously indicated.

While the European markets have been offering crypto exchange-traded products (ETPs) since 2019, this is the first time US investors can access the spot price of Bitcoin in a brokerage account via a familiar exchange-traded fund (ETF) structure. We believe this approval will help to expand the investor base for bitcoin in the US and encourage regulators in other countries to reconsider the position in crypto.

The most obvious target market for the spot bitcoin ETFs is the US advisory market segment, which is approximately \$30 trillion in size. If the US advisors invested just 1% of their clients' assets to Bitcoin over time, this could translate to \$300 billion of inflows into these spot Bitcoin ETFs over the next 5-10 years. We expect the inflows to be gradual as it will take some time for advisors to introduce these products to their client base. In the coming weeks and months, we expect to see volatility in the price of bitcoin before a new equilibrium of supply and demand is achieved. It is also likely that some early investors in Grayscale's GBTC will liquidate their bitcoin and put downward pressure on the price in the short term.

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Increasing demand for bitcoin facing a cut in new supply

When Bitcoin was created in 2009 partly as a response to the Global Financial Crisis, continuous money-printing and devaluation of fiat currencies, the creators of the bitcoin blockchain wanted to limit the supply of bitcoin to 21 million. This supply limit is hard-coded into the bitcoin cryptocurrency. Over 94% of these bitcoins have already been mined¹. Some bitcoin has been lost forever, but it is difficult to estimate the exact number, as there must be some early investors who have not transacted on their bitcoin for several years.

Next April/May 2024, the issuance of new bitcoin, in the form of Bitcoin block rewards awarded to miners, will be cut in half and miners will receive 3.1 Bitcoin every 10 minutes or so. Normally, bitcoin miners need to sell part of their Bitcoin in the market to cover some of their operational expenses, such as energy costs and computing equipment upgrades. As miners will have less Bitcoin to sell in the market, this could mean lower supply of Bitcoin in the market overall.

Chart 1: Bitcoin “halving”, estimated April/May 2024

Event	Date	Block	Block Reward	Mined in Period	% Mined
Launch	January 2009		50	10,500,000	
Halving 1	November 2012	210,000	25	5,250,000	75%
Halving 2	July 2016	420,000	12.5	2,625,000	87.5%
Halving 3	May 2020	630,000	6.25	1,312,500	93.75%
Halving 4	Estimated April/May 2024	840,000	3.13	656,250	96.88%
Halving 5	Estimated 2028	1,050,000	1.56	328,125	98.44%
Halving 6	Estimated 2032	1,260,000	0.78	164,063	99.22%

Source: WisdomTree

¹ Bitcoin mining = a way new bitcoins are entering circulation; a process via which bitcoin transactions are verified on the bitcoin blockchain. New bitcoin is issued to bitcoin miners as a reward for validating transactions. Actual “mining” uses software and hardware to solve complex mathematical puzzles and guess a cryptographic number that matches a set criteria.

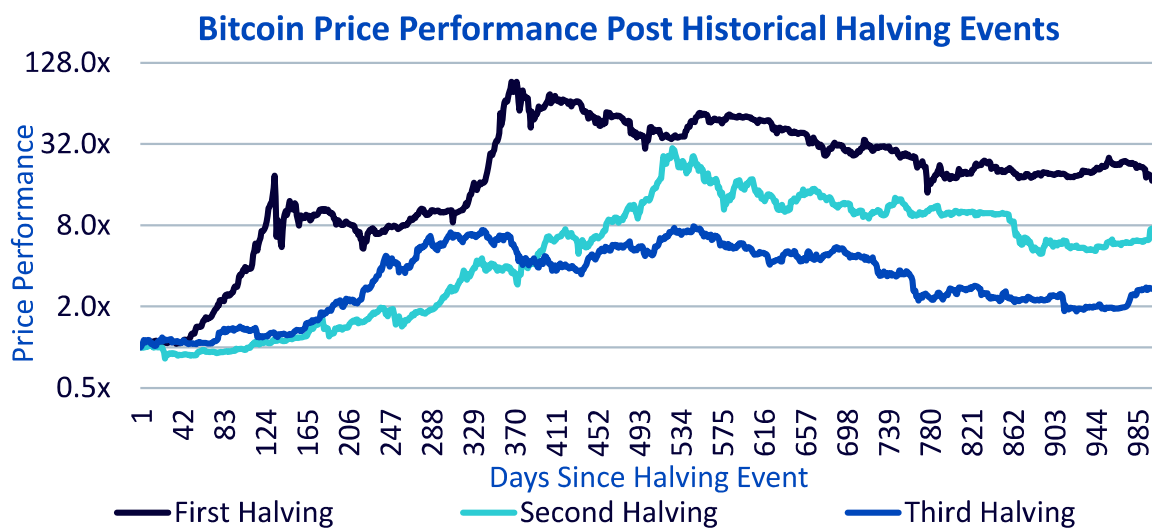
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Historically, this “halving” event has led to an initial increase in the price and although the price increase multiple has declined over time, this time around, there is an additional factor – a US spot bitcoin ETF available in the US. In normal circumstances, when the demand increases while the supply declines or stays the same, the price should move upwards.

Chart 2: Bitcoin’s Price Performance Post Historical Halving Events



Source: WisdomTree

Long-term Store of Value emerging as the most prominent use case for Bitcoin

While the use case of Bitcoin as Digital Money, a potential Digital Payment Layer for the Internet, could materialise in the future, for the moment, the most accepted use case for Bitcoin is Digital Gold, a long-term store of value, which acts as a hedge against debasement of currencies and geopolitical uncertainty. In this respect, Bitcoin could be viewed as a complement to a physical gold position.

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Insight of the Month

2024 Outlook for ALT-coins

Shift of focus to ALT-coins in H2 2024

After the US 10-year treasury yield peaked in October 2023, several ALT-coins started performing really well although they are still meaningfully lower than their all-time highs. Many ALT-coins declined by over -90% in 2021-2022.

Historically, the ALT-coin season has truly started after the bitcoin halving has taken place. This timing could coincide with the scalability upgrades we are expecting for both Ethereum (Proto-Danksharding) and Solana (Firedancer). These upgrades will make transactions in these blockchains faster and cheaper and allow for a larger throughput in the blockchain.

Both Ethereum and Solana offer a staking yield, which has been an attractive investment feature for institutional investors. The feared mass-unstaking of staked Ether (ETH) did not happen when Ethereum enabled withdrawal of staked ETH in April 2023. In fact, the number of ETH staked has grown to close to 29 million from 13.5 million in September 2022¹ when the Ethereum network moved to Proof-of-Stake blockchain. The current staking yield on Ethereum is approximately 3.8% per annum². The goal of Ethereum is to be deflationary as part of the tokens are burned³. In January 2024, the Ethereum network showed deflationary activity⁴ and had approximately 120 million ETH in circulation.

Solana's annual staking reward is approximately 5%⁵. However, Solana has a higher inflation rate, originally at 8% annually, decreasing by 15% year-over-year and ultimately reducing to 1.5% annual inflation rate. The current issued

¹ [Ethereum.org/Staking](https://etherscan.io/staking)

² [Ethereum.org/Staking](https://etherscan.io/staking)

³ Burning = removing from circulation

⁴ [Ultrasound.money](https://ultrasound.money)

⁵ [Docs.Solana.com](https://docs.solana.com)

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number of SOL tokens is 566 million¹ but this is expected to increase to over 750 million.

The price of Ether would most likely benefit if the SEC decided to approve spot Ether ETFs as well in the US. The industry seems to be anticipating that spot Ether ETFs could be approved in May/June 2024 timeframe. Going beyond these two major assets, Bitcoin and Ethereum, and approving other spot crypto ETFs at this point is unlikely, we believe, as the SEC has clearly indicated in its lawsuits that it views Solana, Cardano and Polygon, among many other coins/tokens, as securities. Only courts or crypto legislation could change this position, we believe.

¹ Docs.solana.com/inflation

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Insight of the Month

2023 US Crypto Recap

Early 2023 was filled with crypto challenges in the US

In crypto, things change quickly. When we look back to crypto sentiment a year ago, it was largely negative due to repercussions of the FTX bankruptcy and concerns over closing of crypto on and off-ramps in the US. Due to rising interest rates, several regional banks were in trouble as people and corporations were moving money away from banks and to short-term US treasuries where they could earn 4-5% yield. This helped to contribute to the bankruptcy of two major US crypto-focused banks, Signature and Silvergate.

A lot of the challenges in the crypto industry were centred around the actions in the US. The SEC filed lawsuits against Coinbase and Binance claiming they were selling unregistered securities. In these lawsuits, the SEC named several coins/ tokens, including as Solana, Cardano and Polygon, as securities. Kraken was sued for offering Staking-as-a Service product, which led Kraken to stop offering this service in the US. Kraken was later sued for selling unregistered securities in the US as well. Despite this negative crypto market sentiment, the prices of Bitcoin and many other crypto assets had started to rise.

Sentiment turned positive in June 2023 and was followed by positive court outcomes

In June, the sentiment turned positive as Blackrock filed for a spot Bitcoin ETF in the US. While there had been other issuers filing for spot Bitcoin ETF applications before, the weight, impact and size of this issuer made the approval more likely than before.

In June 2023, Ripple Labs won their case against the SEC where the SEC had claimed XRP tokens were securities. The court ruled that when sold to public

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via centralised exchanges or when issued to executives or via grants, XRP tokens should not be viewed as securities but when sold to sophisticated investors, XRP sales should indeed be viewed as securities, and regular securities laws would apply. And, finally, a decisive ruling was made by the District of Columbia Court of Appeals in Washington where the SEC was ordered to approve the conversion of Grayscale's GBTC to a spot Bitcoin ETF or reject it on some other grounds.

Crypto legislative framework created but passing unlikely during current US administration

In addition to these wins at the courts, the US House Financial Services Committee passed seven stand-alone pieces of crypto legislation. The goal was to create a comprehensive regulatory framework for digital assets in the US. The crypto market structure bill passed, and it proposes, that the initial regulator for digital assets would be the SEC until the crypto asset is sufficiently decentralised, after which the asset would be regulated by the Commodity Futures Trading Commission (CFTC). This was a first time a framework was proposed for how to define a security or a commodity and the process through which a digital asset could become a commodity.

Two of the most important acts passed were the "Clarity for Payments Stablecoins Act of 2023", which provides a clear regulatory framework for the issuance of payment stablecoins and "Keep your Coins Act of 2023", which allows consumers to maintain custody of their digital assets in self-hosted wallets. These bills were introduced to the Senate in November 2023 but passing them could be a challenge during the current administration.

Major uncertainty removed as Binance settled with the US government

One of the major uncertainties had been the fate of Binance, which the US regulators and the Department of Justice had been investigating. Finally, at the end of last year, Binance pleaded guilty to allegations and agreed to pay

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\$4.3 billion settlement with the US government for violations that included sanctions violations, money laundering and wilfully marketing to US customers. The fine did NOT settle charges with the SEC, and we expect the SEC to pursue the court cases against crypto exchanges Coinbase, Kraken and Binance. The CEO of Binance, Zhangpeng Zhao, stepped down and was banned from involvement with Binance for three years. The settlement was positive news for the industry and clears some of the uncertainty over Binance and will pave the way, we believe, for regulated and onshore exchanges being used more frequently in the US.

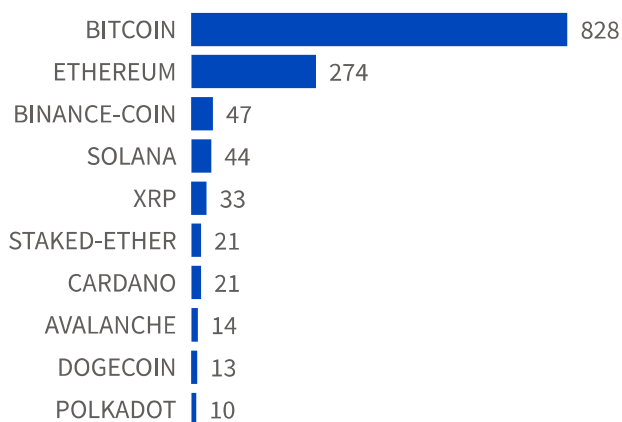
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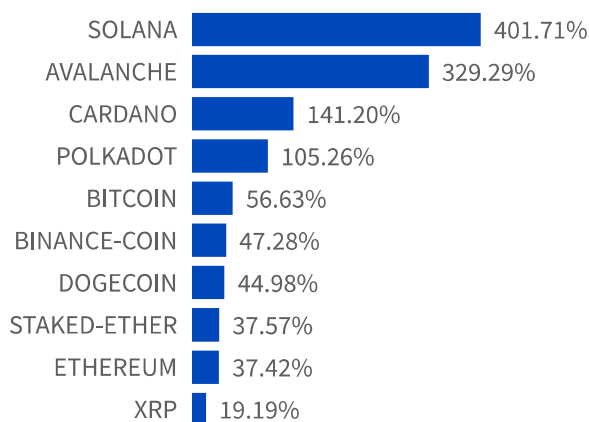
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Market Summary

Top 10 by Market Cap | USDbn



3-Month Return | USD



Summary Statistics

Asset	Market Cap	1m Return	3m Return	Volatility	Correlation w. Bitcoin
BITCOIN	827.81	11.33%	56.63%	43.59%	1.00
ETHEREUM	274.19	12.94%	37.42%	50.07%	0.71
BINANCE-COIN	47.39	39.47%	47.28%	49.97%	0.38
SOLANA	43.58	71.88%	401.71%	114.17%	0.52
XRP	33.28	2.04%	19.19%	50.04%	0.53
STAKED-ETHER	21.07	13.06%	37.57%	47.72%	0.69
CARDANO	21.01	57.65%	141.20%	76.16%	0.55
AVALANCHE	14.09	86.79%	329.29%	105.35%	0.41
DOGECOIN	12.75	11.84%	44.98%	60.70%	0.58
POLKADOT	10.35	61.94%	105.26%	79.13%	0.55

3-Month Correlation | Daily USD Returns

Asset	BITCOIN	ETHEREUM	BINANCE-COIN	SOLANA	XRP	STAKED-ETHER	CARDANO	AVALANCHE	DOGE COIN
ETHEREUM	0.83								
BINANCE-COIN	0.62	0.64							
SOLANA	0.61	0.61	0.48						
XRP	0.40	0.47	0.35	0.38					
STAKED-ETHER	0.82	0.98	0.64	0.58	0.45				
CARDANO	0.65	0.67	0.58	0.61	0.62	0.66			
AVALANCHE	0.59	0.55	0.49	0.62	0.34	0.52	0.63		
DOGECOIN	0.60	0.61	0.52	0.49	0.40	0.59	0.63	0.59	
POLKADOT	0.68	0.67	0.59	0.69	0.41	0.65	0.75	0.71	0.65

Source: WisdomTree. Volatility and correlation on 3-month USD returns. As of Sunday, December 31, 2023.

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Macro Landscape

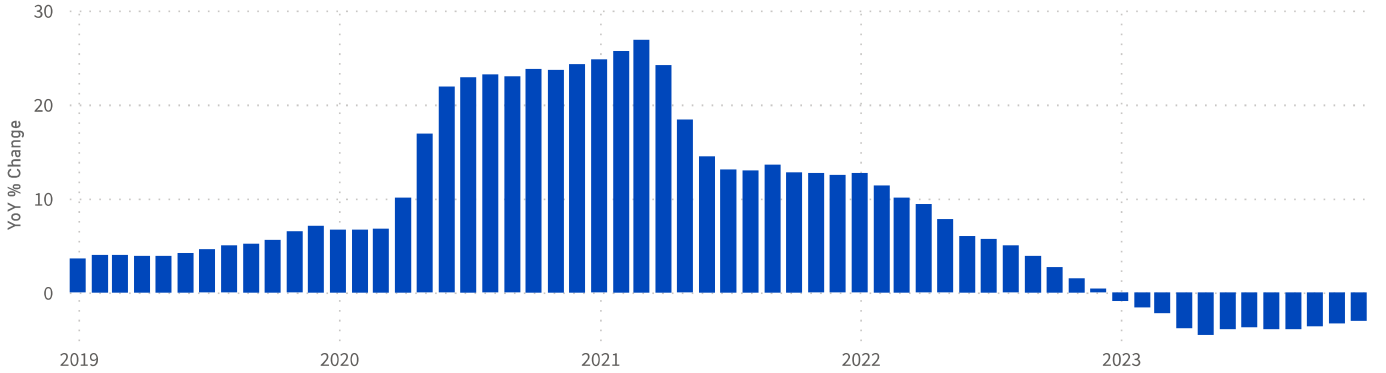
Curve | 10Y minus 3M US Treasury Yield



3-Month Real Yield



US M2 Money Supply



US Liquidity Index

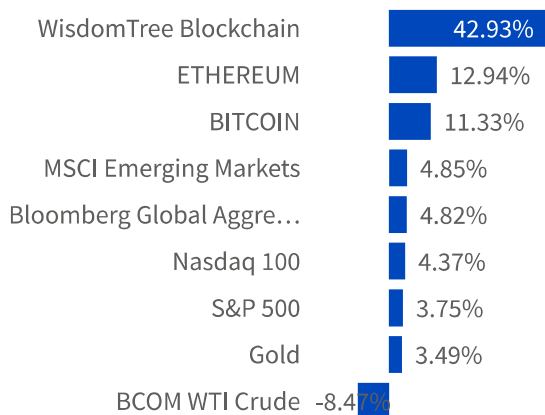


Source: WisdomTree. Bloomberg. As of Sunday, December 31, 2023.

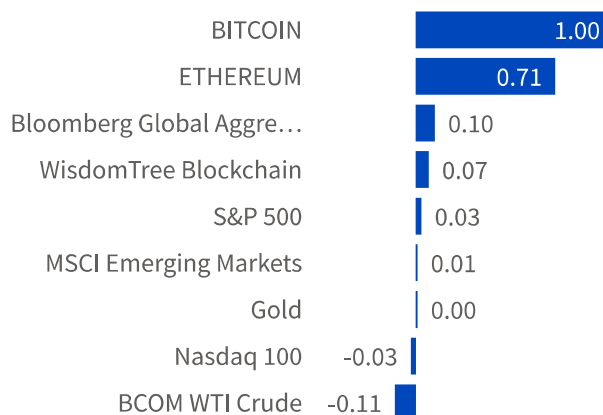
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Crypto vs. Traditional Assets

1-Month Performance



Correlation with Bitcoin



Summary Statistics

Asset	1m Return	3m Return	Volatility	Correlation w. Bitcoin
WisdomTree Blockchain	42.93%	61.00%	78.44%	0.07
ETHEREUM	12.94%	37.42%	50.07%	0.71
BITCOIN	11.33%	56.63%	43.59%	1.00
MSCI Emerging Markets	4.85%	8.61%	13.54%	0.01
Bloomberg Global Aggregate	4.82%	8.27%	8.78%	0.10
Nasdaq 100	4.37%	7.82%	20.48%	-0.03
S&P 500	3.75%	7.01%	15.81%	0.03
Gold	3.49%	15.20%	16.11%	0.00
BCOM WTI Crude	-8.47%	-16.63%	44.87%	-0.11

3-Month Correlation | Daily USD Returns

Asset	BITCOIN	ETHEREUM	Nasdaq 100	S&P 500	MSCI Emerging Markets	WisdomTree Blockchain	Bloomberg Global Aggregate	Gold
ETHEREUM	0.83							
Nasdaq 100	0.01	0.05						
S&P 500	0.02	0.04	0.93					
MSCI Emerging Markets	0.04	0.04	0.86	0.93				
WisdomTree Blockchain	0.03	0.04	0.53	0.56	0.56			
Bloomberg Global Aggregate	0.00	-0.08	0.22	0.18	0.35	0.28		
Gold	-0.11	-0.21	-0.02	-0.02	0.06	0.15	0.54	
BCOM WTI Crude	-0.10	-0.06	0.02	0.13	0.18	0.07	-0.05	0.06

Source: WisdomTree. Volatility and correlation on 3-month USD returns. As of [Sunday, December 31, 2023](#).

Equity indices are USD Net Total Return.

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Bitcoin And Ether Focus

Cumulative Return | 12 Months

● BITCOIN ● ETHEREUM



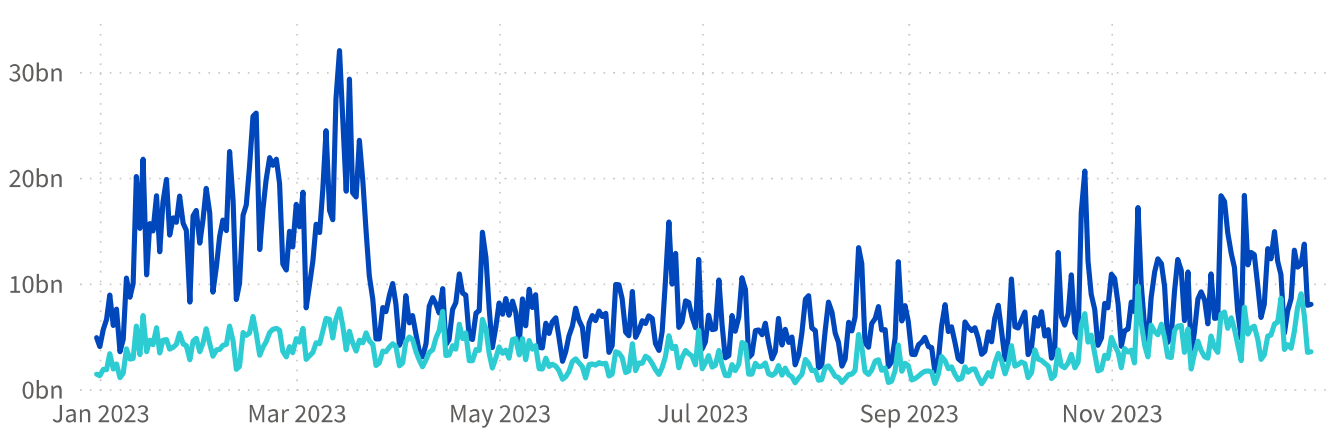
Rolling 90-Day Correlation with Bitcoin | 12 Months

● ETHEREUM



Daily Volume | USD

● BITCOIN ● ETHEREUM

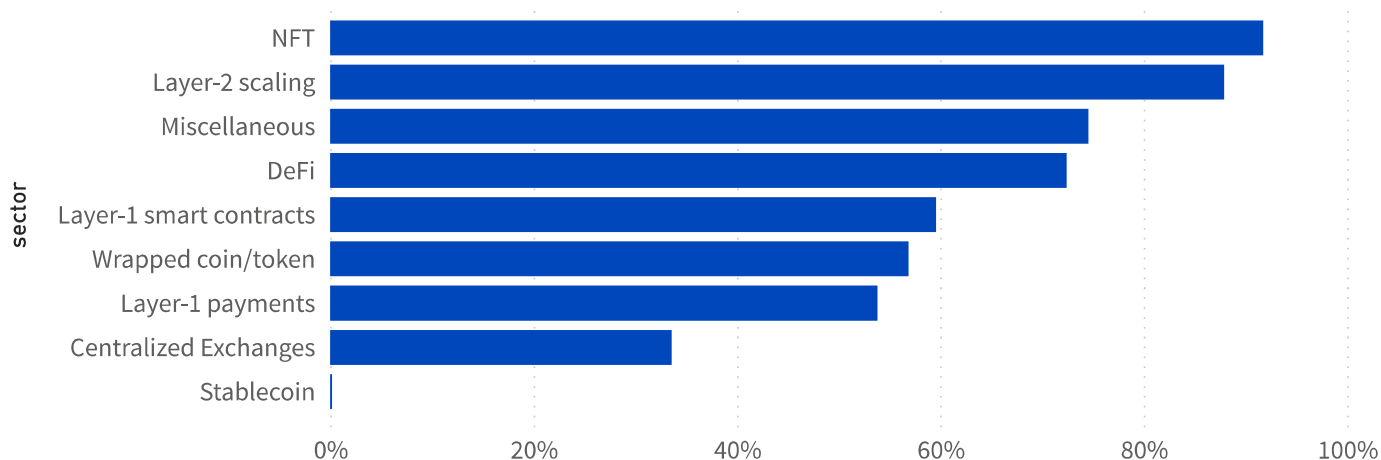


Source: WisdomTree, Messari. As of Sunday, December 31, 2023.

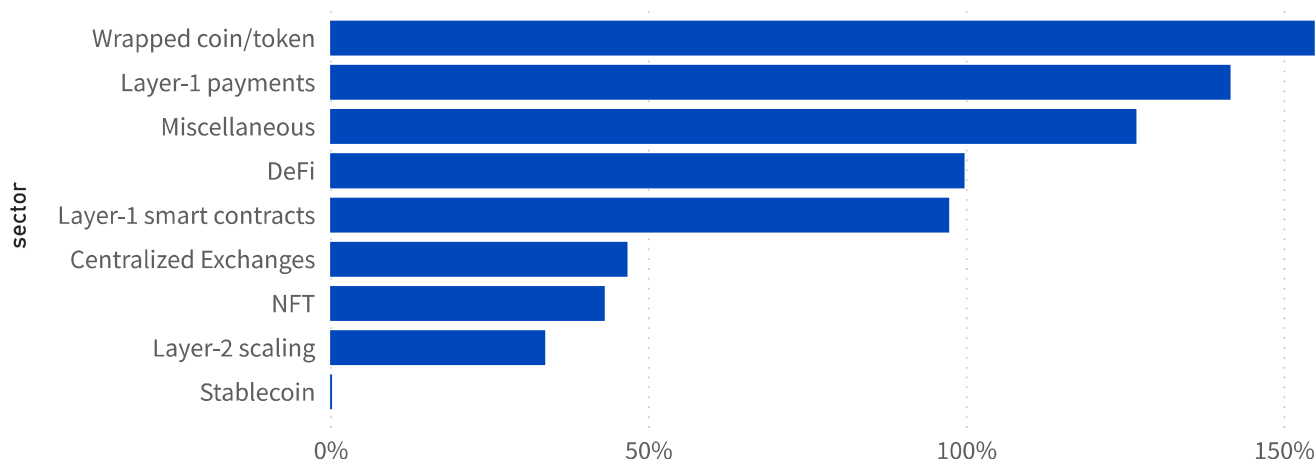
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Sector Performance

3-Month Performance



1-Year Performance



Sector Performance

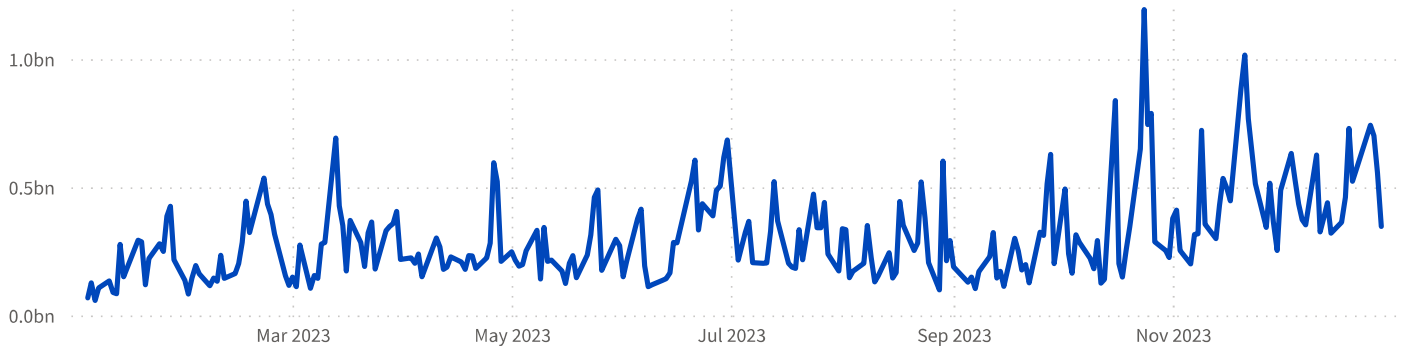
sector	YTD	1M	3M	6M	1Y
Wrapped coin/token	155.8%	11.8%	56.9%	38.7%	154.9%
Layer-1 payments	142.4%	11.2%	53.8%	37.4%	141.6%
DeFi	100.0%	20.6%	72.4%	69.2%	99.8%
Layer-1 smart contracts	97.5%	24.9%	59.6%	45.8%	97.4%
Uncategorized	67.1%	19.7%	74.5%	44.3%	66.9%
Centralized Exchanges	45.4%	5.5%	33.6%	24.4%	46.7%
NFT	41.9%	28.7%	91.7%	51.5%	43.2%
Layer-2 scaling	34.1%	39.4%	87.9%	63.5%	33.8%
Stablecoin	0.1%	0.0%	0.0%	0.1%	0.1%

Source: WisdomTree. As of [Sunday, December 31, 2023](#).

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Regulated Futures (1/2)

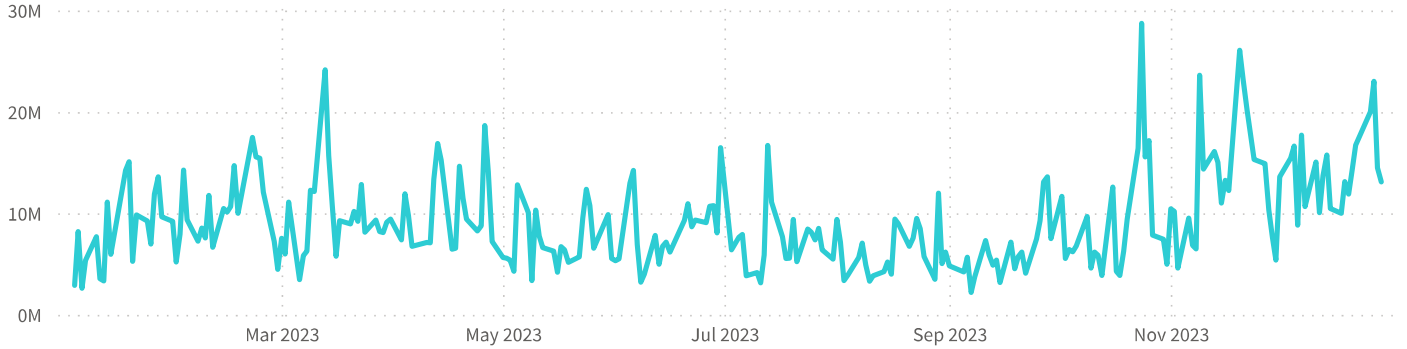
Bitcoin CME Futures | Volume USD



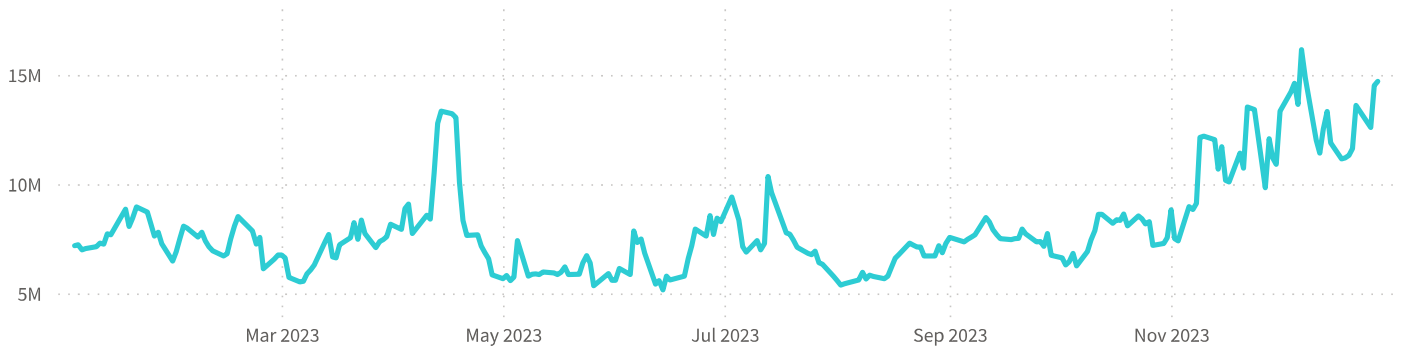
Bitcoin CME Futures | Open Interest USD



Ether CME Futures | Volume USD



Ether CME Futures | Open Interest USD

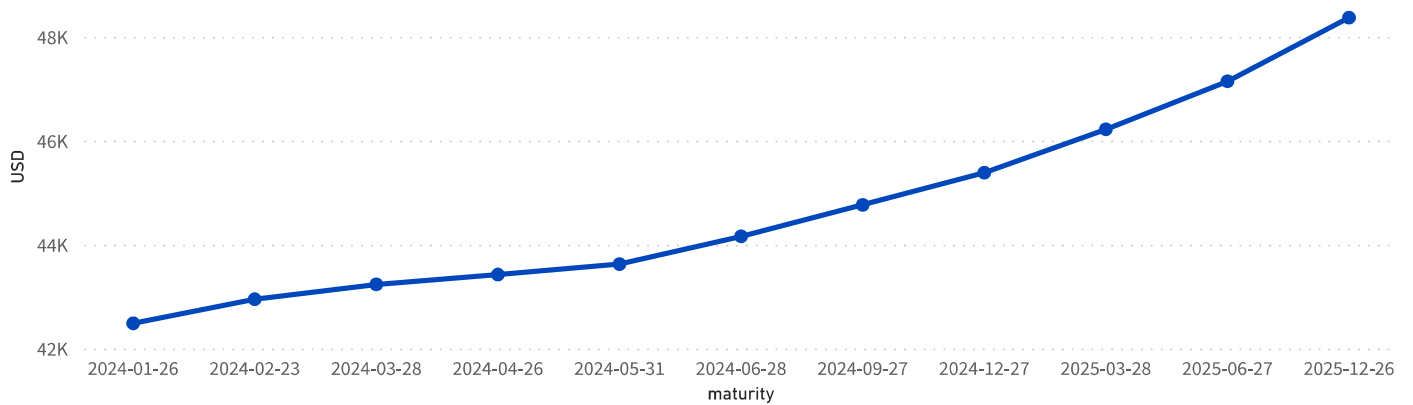


Source: WisdomTree, Bloomberg. As of Sunday, December 31, 2023.

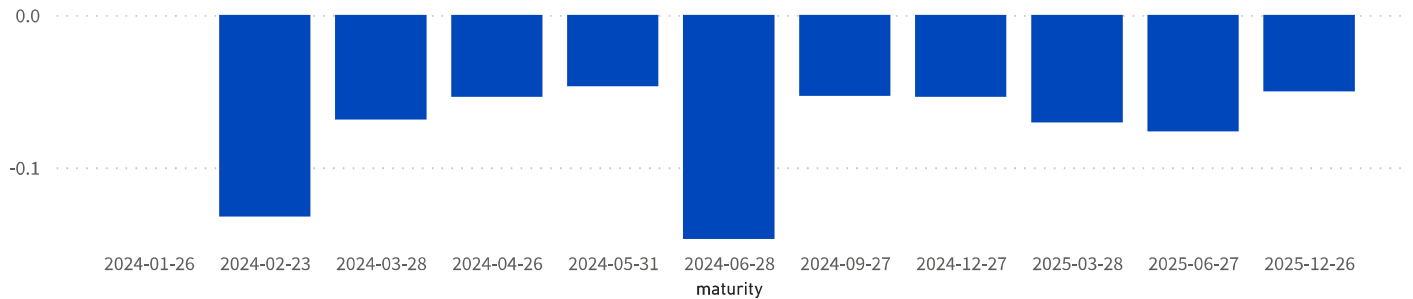
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Regulated Futures (2/2)

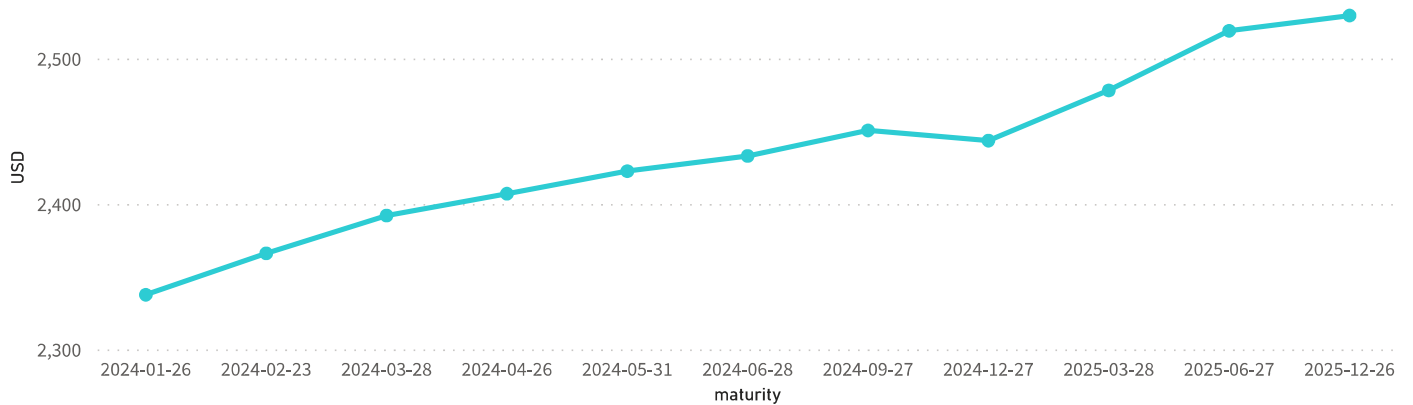
Bitcoin CME Futures | Price



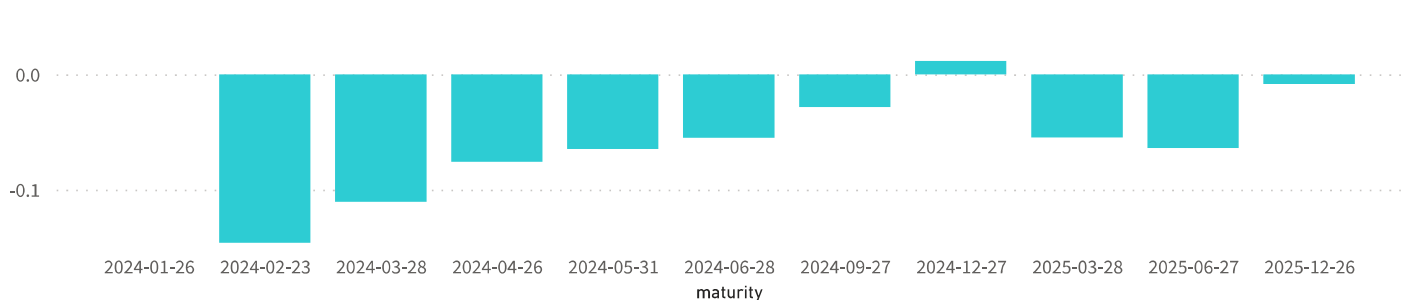
Bitcoin CME Futures | Annualised Implied Carry



Ether CME Futures | Price



Ether CME Futures | Annualised Implied Carry

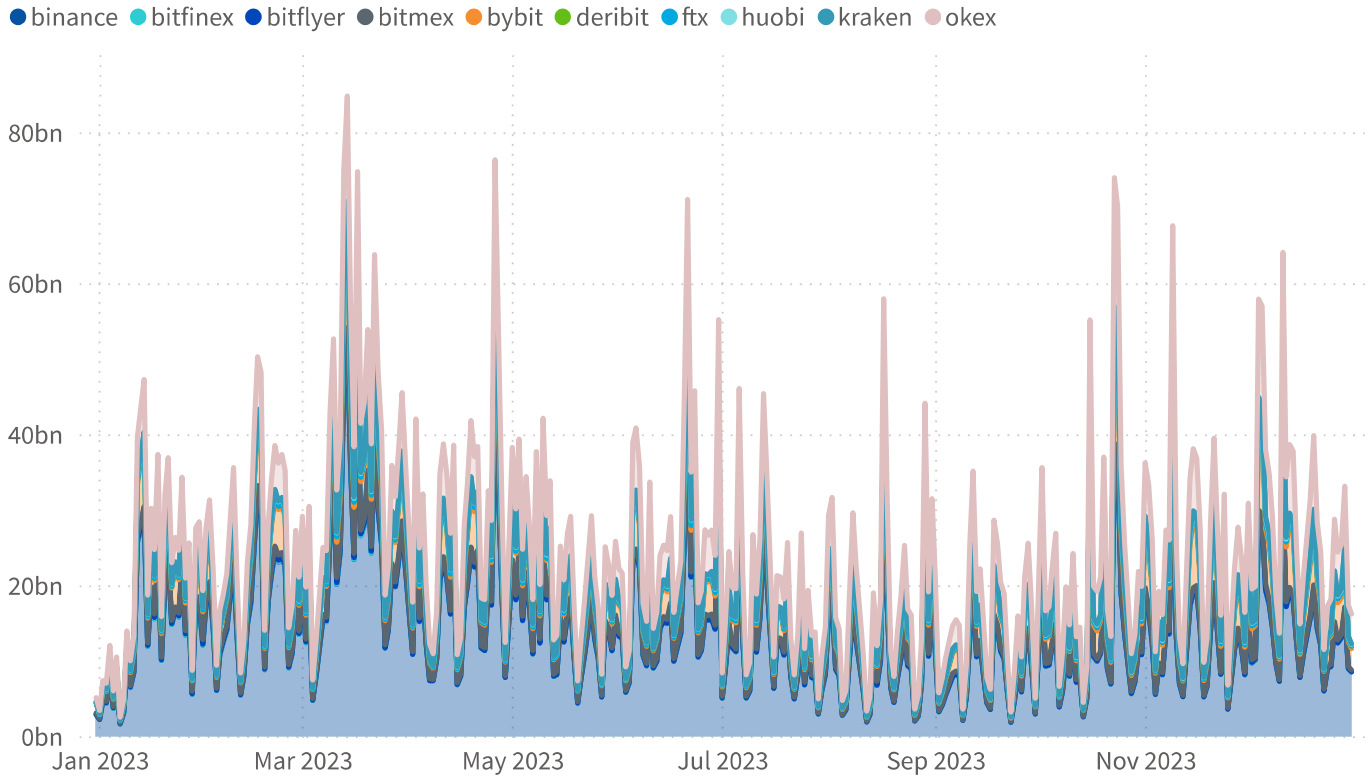


Source: WisdomTree, Glassnode. As of 12/31/2023.

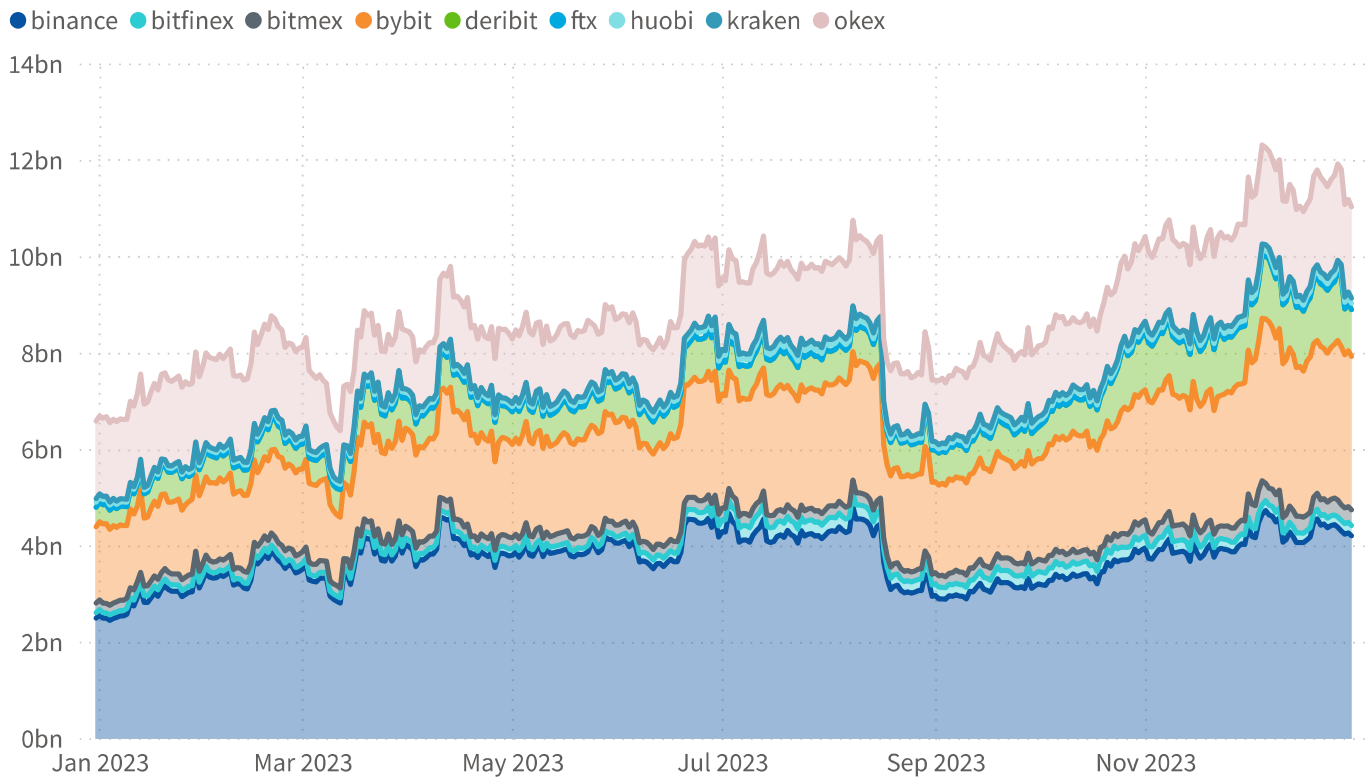
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Unregulated Futures (1/3)

USD Volume in Futures | Bitcoin



USD Open Interest in Futures | Bitcoin

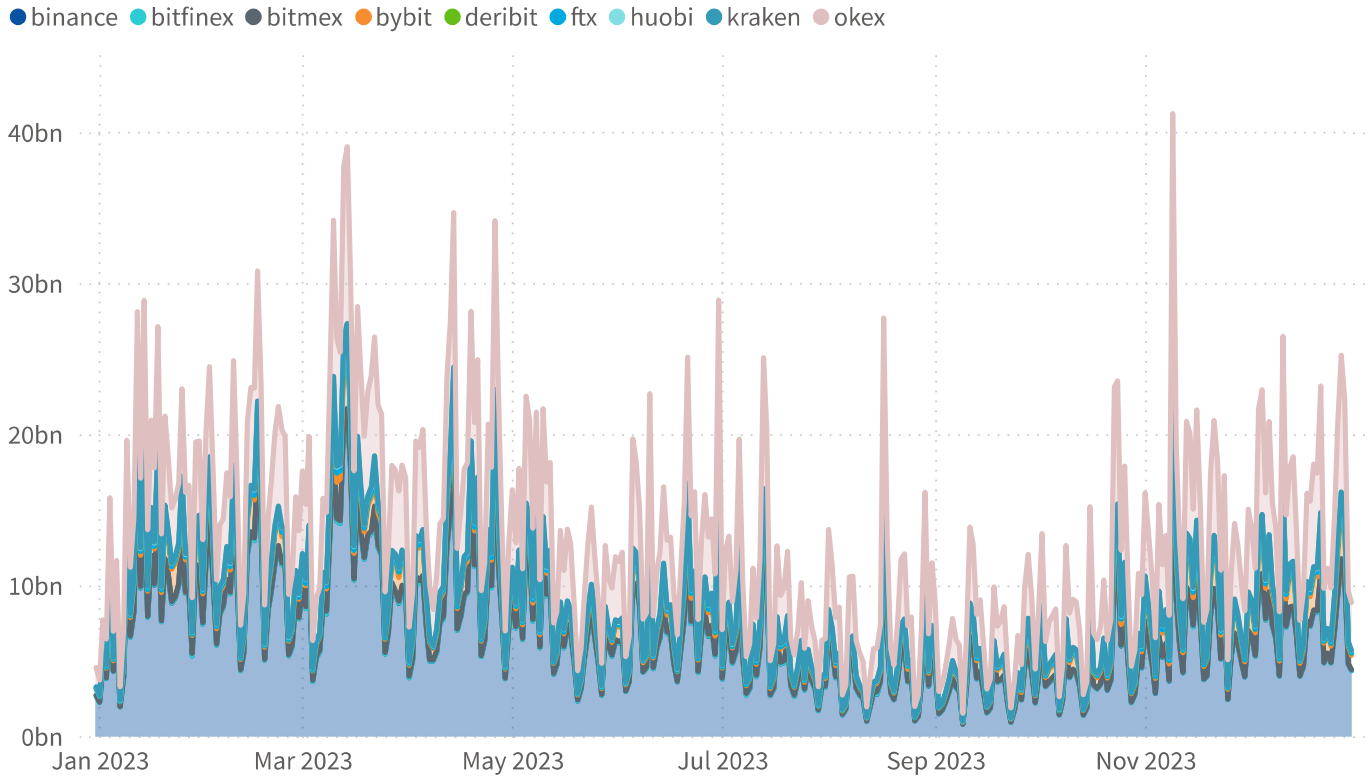


Source: WisdomTree, Glassnode. As of Saturday, December 31, 2022.

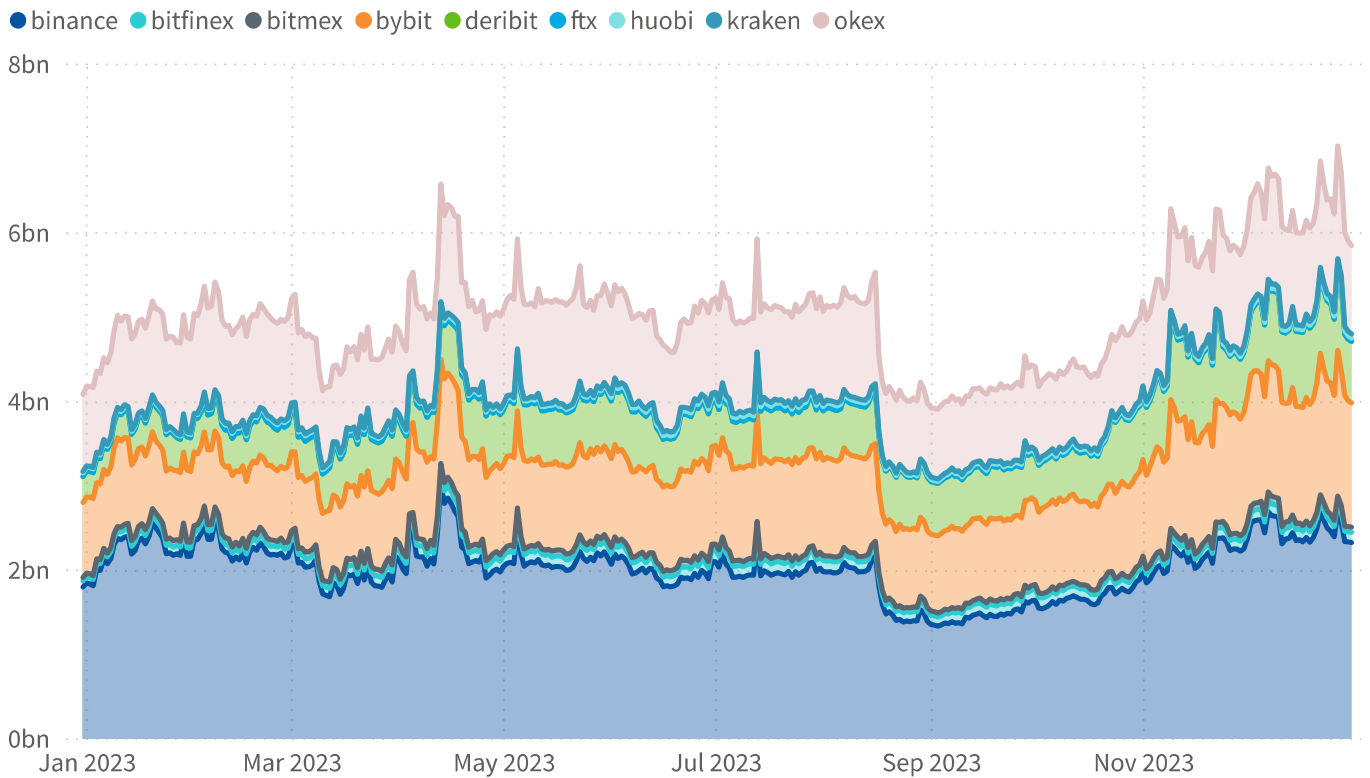
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Unregulated Futures (2/3)

USD Volume in Futures | Bitcoin



USD Open Interest in Futures | Bitcoin



Source: WisdomTree, Glassnode. As of Sunday, December 31, 2023.

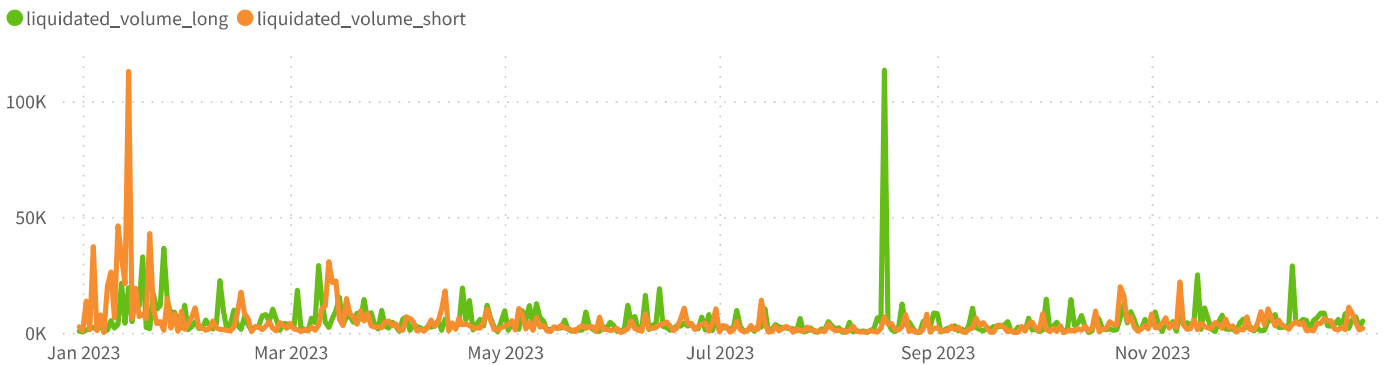
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Unregulated Futures (3/3)

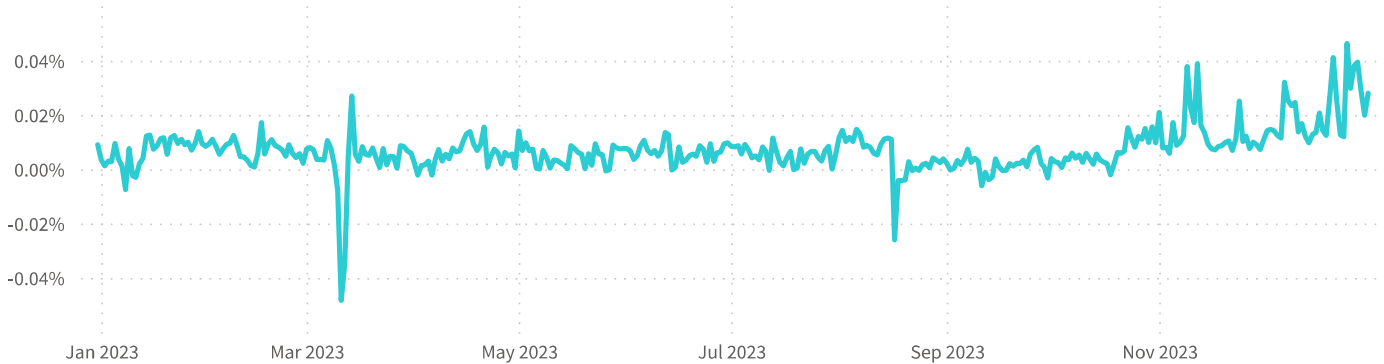
Bitcoin | Perpetual Funding Rate



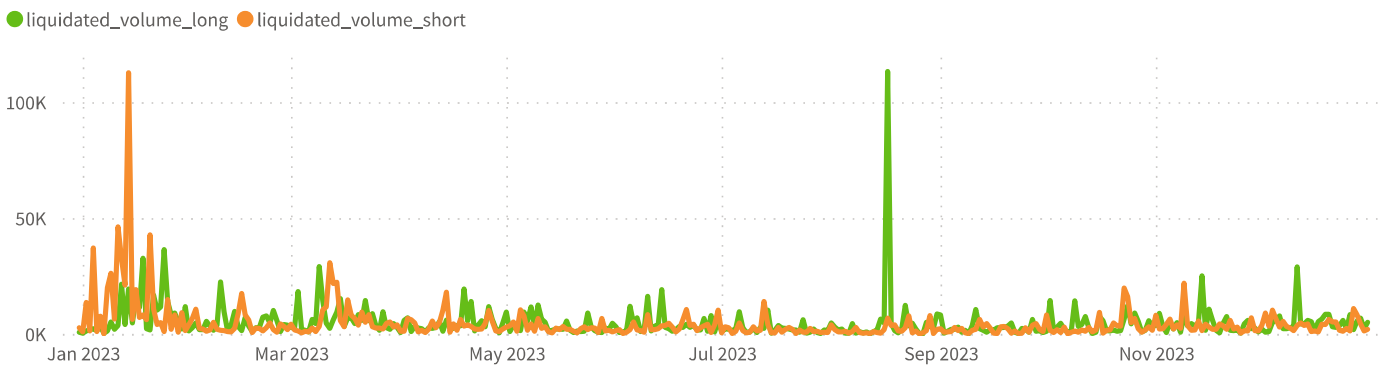
Bitcoin | Liquidated Volume



Ether | Perpetual Funding Rate



Ether | Liquidated Volume

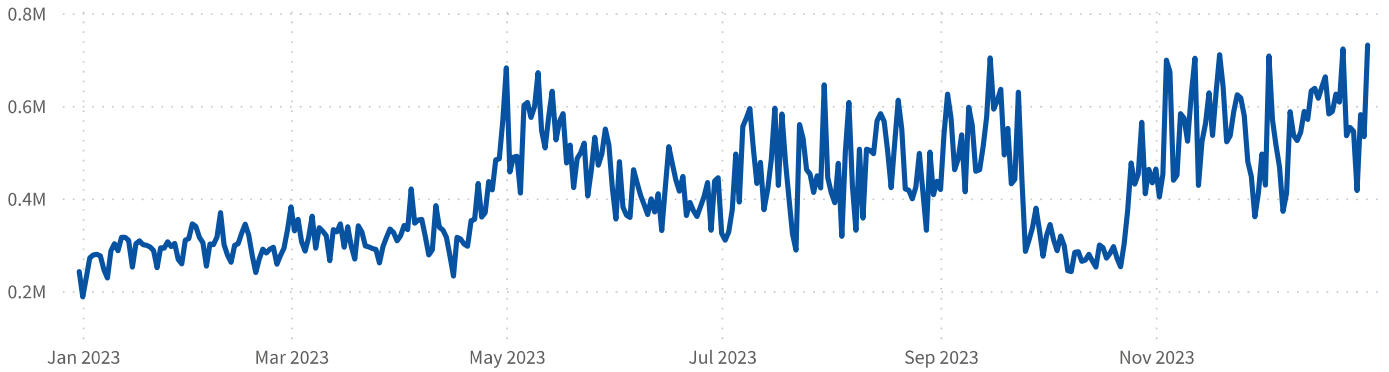


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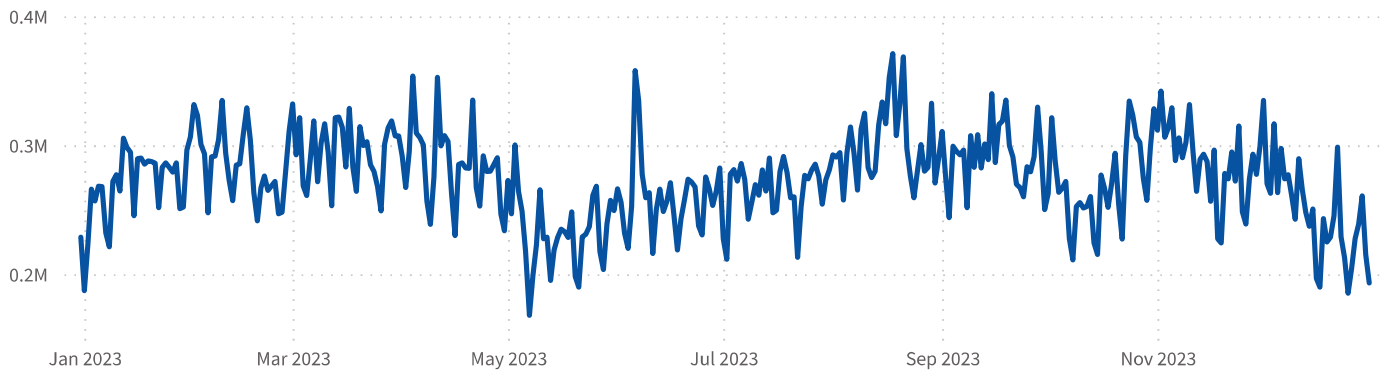
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Bitcoin | On-Chain Activity

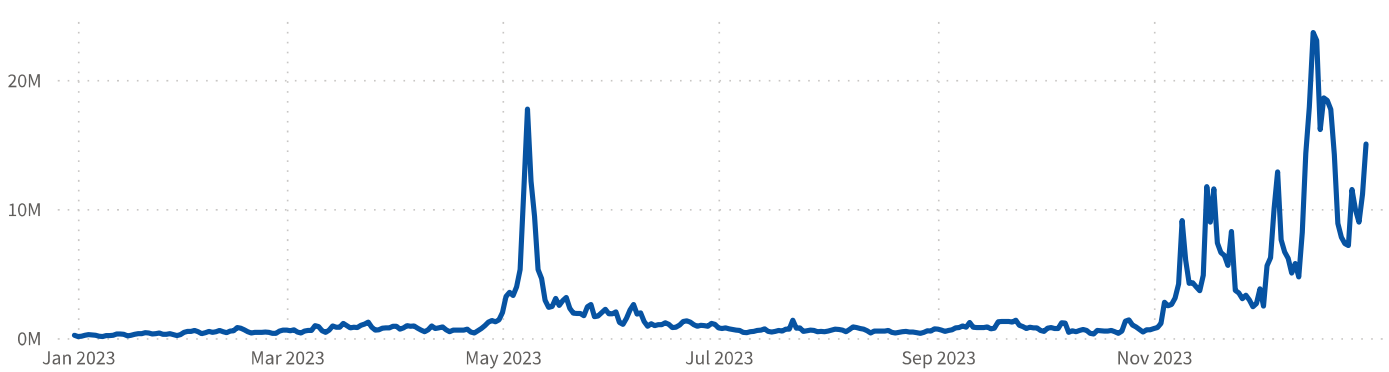
Number of Transactions



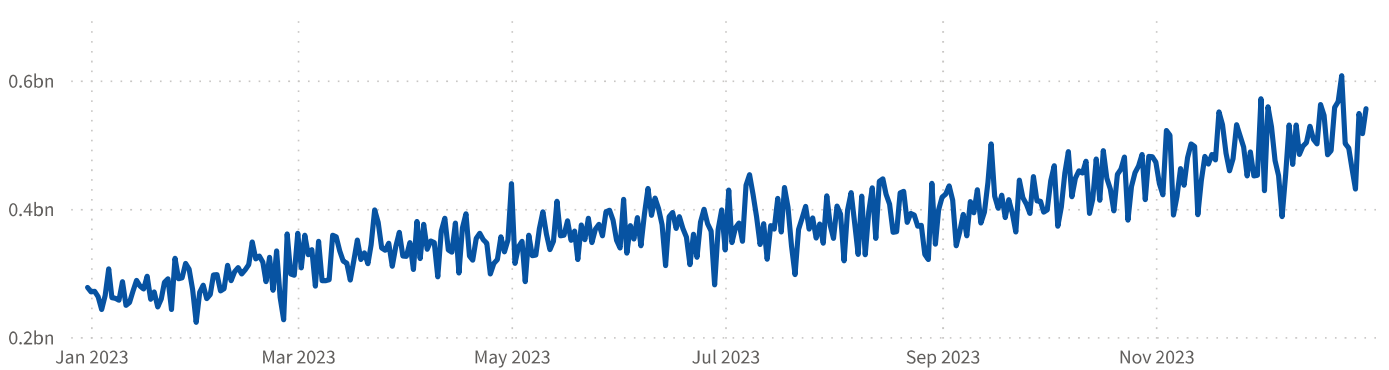
Number of Active Addresses



Fees Paid to Miners | USD



Hashrate | Terahash

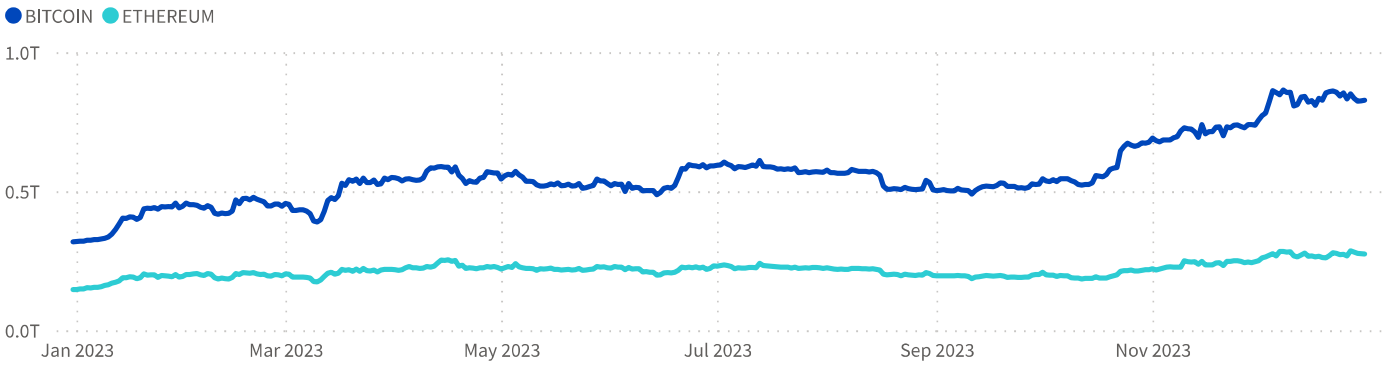


Source: WisdomTree, Glassnode. As of Sunday, December 31, 2023.

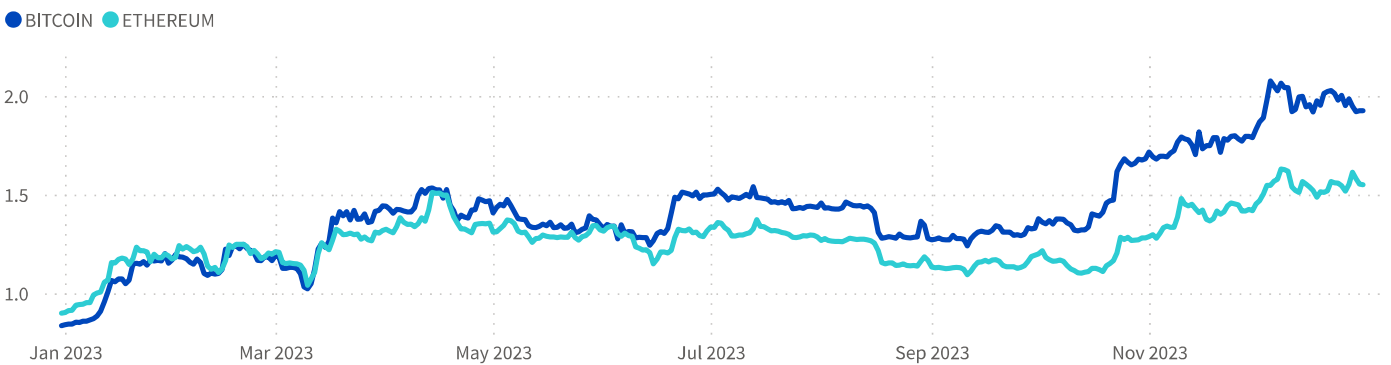
Historical performance is not an indication of future performance and any investments may go down in value. Cryptocurrencies are a high-risk investment and may not be suitable for all types of investor. Cryptocurrencies can demonstrate higher volatility than other asset classes.

Valuation Metrics

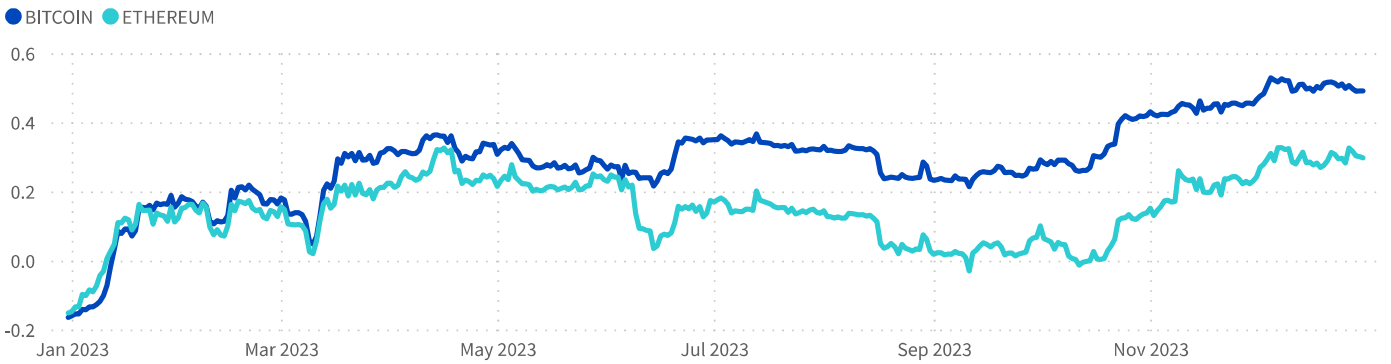
Market Cap | USD



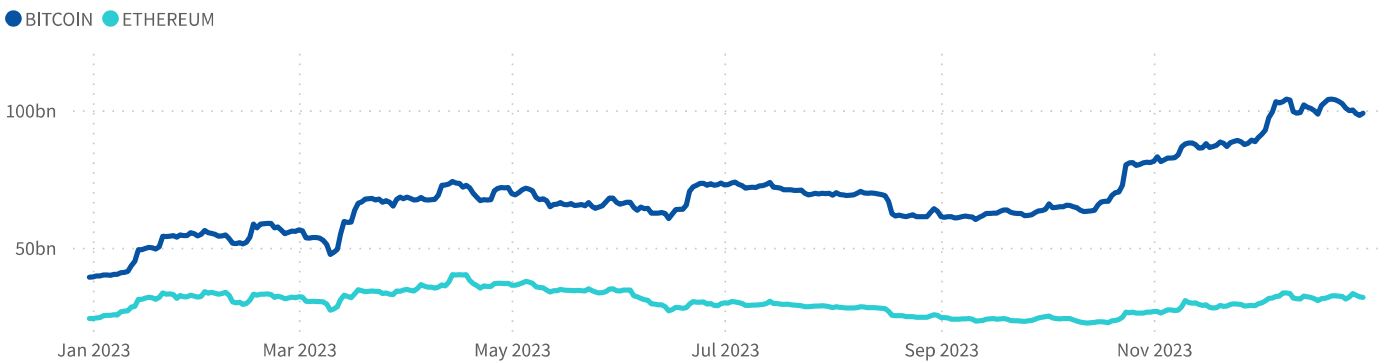
MVRV | Market Value to Realised Value



NUPL | Net Unrealised Profit Loss



Exchange Balances | USD



Source: WisdomTree, Glassnode. As of Sunday, December 31, 2023.

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