

Monthly Market Recap

July 2024

Market Performance

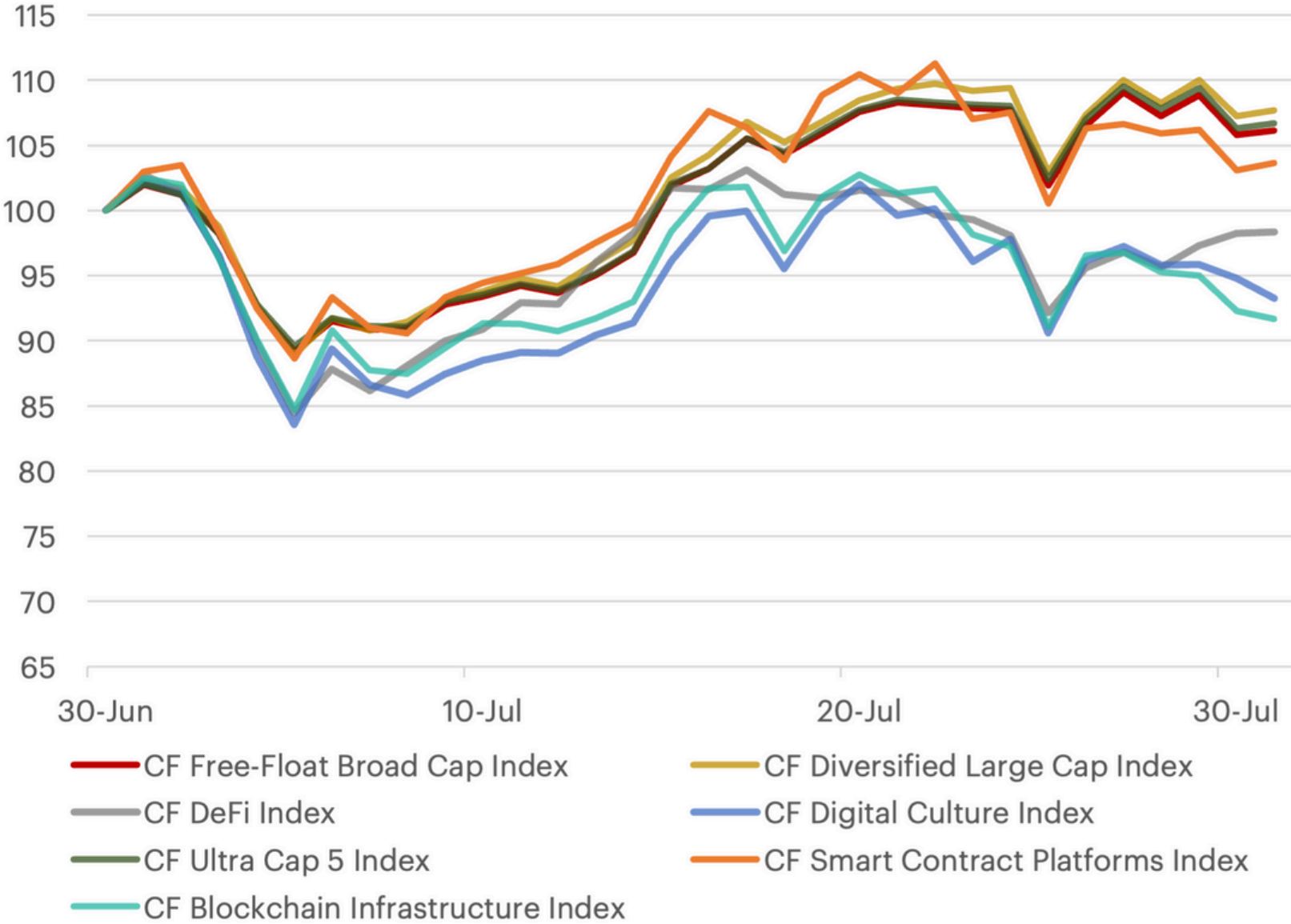


Crypto Stabilizes with ETF Demand & Policy Spotlight



Monthly Index Performance

Multi-token indexes



- Robust demand was observed for the anticipated launch of spot Ether ETFs, with over \$1 billion in fund flows accumulating into the newly launched products. Concurrently, U.S. presidential candidates and policymakers have publicly advocated for Bitcoin to be adopted as a strategic reserve asset for the U.S. Treasury, reflecting the growing focus on digital assets in public policy. Meanwhile, cooling inflation and labor market data, coupled with recent Fed commentary, indicate potential interest rate cuts starting as early as September.
- Last month's portfolio index performance was broadly positive. The CF Free-Float Broad Cap Index, our broadest gauge of the institutionally investible market, recorded a 6.1% gain. Mega-cap tokens, represented by the CF Ultra Cap 5 Index, emerged as top performers, rising by 6.7%. The CF Diversified Large Cap Index led the pack with a 7.7% increase. In contrast, the CF Digital Culture Index continued to face challenges, declining by 6.7%, while the CF Blockchain Infrastructure Index lagged the rest with an 8.3% decline.

All index performance is rebased to 100. Source: CF Benchmarks, Bloomberg, as of July 31, 2024

Major Crypto-Pairs

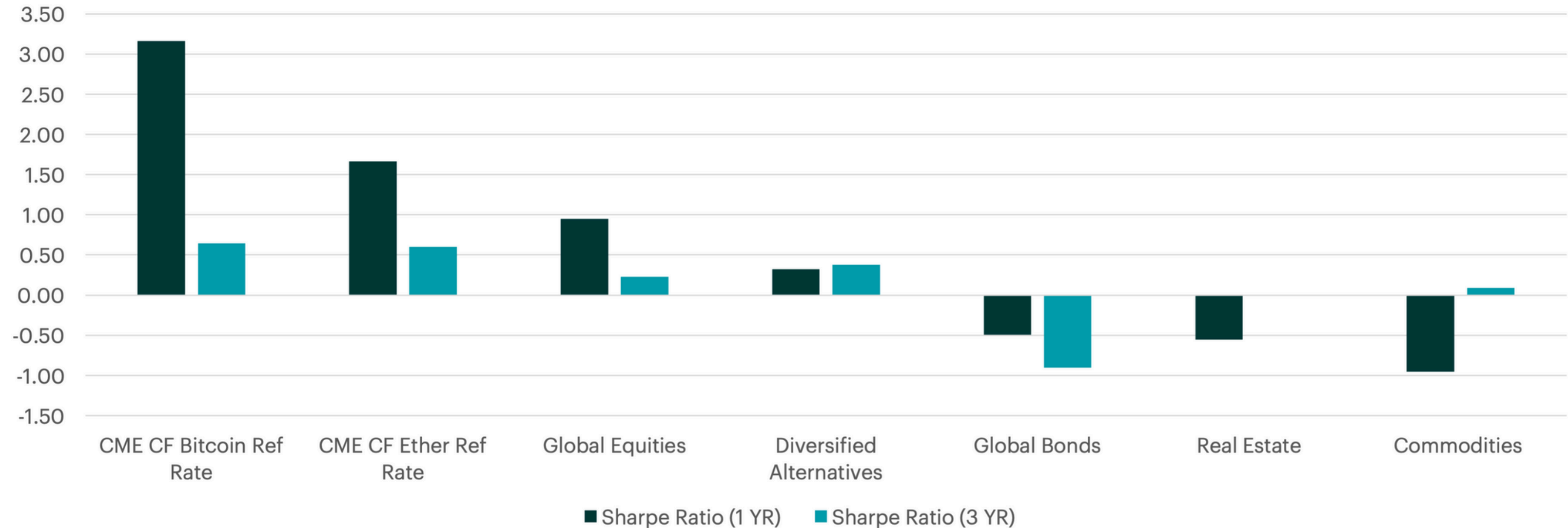


Name	DACS Level 1	DACS Level 2	DACS Level 3	1 Day	1 Week	1 Month	3 Month	1 Year	30 D Volatility
Ripple	Settlement	Non-Programmable	Store of Value and Payment	-0.3%	-0.5%	31.6%	25.0%	-10.9%	75.71
Solana	Settlement	Programmable	General Purpose Smart Contract Platforms	-4.1%	-3.6%	17.3%	35.5%	623.4%	72.14
Maker	Sectors	Finance	Stablecoin Issuance & Management	1.8%	4.3%	12.3%	6.0%	130.5%	64.93
Internet Computer	Settlement	Programmable	General Purpose Smart Contract Platforms	3.1%	-4.3%	11.4%	-29.3%	116.9%	92.05
Aave	Sectors	Finance	Borrowing & Lending	2.1%	19.5%	10.3%	29.0%	64.2%	57.46
Stellar	Settlement	Non-Programmable	Store Of Value And Payment	-2.0%	-2.4%	10.3%	-6.6%	-34.4%	57.16
Bitcoin Cash	Settlement	Non-Programmable	Store Of Value And Payment	-4.4%	13.0%	5.5%	-4.1%	65.8%	64.70
Bitcoin	Settlement	Non-Programmable	Store Of Value And Payment	-2.4%	-2.2%	4.3%	7.8%	121.0%	36.44
Stacks	Services	Infrastructure	Computing	-3.1%	-0.7%	3.4%	-19.8%	195.2%	77.46
EOS	Settlement	Programmable	General Purpose Smart Contract Platforms	2.6%	-3.4%	1.6%	-22.9%	-21.8%	64.41
Cardano	Settlement	Programmable	General Purpose Smart Contract Platforms	-2.8%	-6.0%	0.8%	-11.3%	26.1%	59.30
Dogecoin	Settlement	Non-Programmable	Store Of Value And Payment	-2.9%	-6.8%	-1.4%	-7.7%	57.8%	70.05
Tezos	Settlement	Programmable	General Purpose Smart Contract Platforms	-1.3%	-1.3%	-5.1%	-17.8%	-10.8%	46.29
Algorand	Settlement	Programmable	General Purpose Smart Contract Platforms	-1.5%	-3.0%	-5.4%	-22.7%	24.5%	64.17
Ether	Settlement	Programmable	General Purpose Smart Contract Platforms	-1.8%	-4.6%	-5.7%	8.7%	73.8%	43.22
Filecoin	Services	Utility	Information & Data Management	-3.2%	-3.5%	-5.8%	-25.4%	-0.8%	79.48
Litecoin	Settlement	Non-Programmable	Store Of Value And Payment	-2.4%	-2.9%	-6.1%	-11.0%	-23.8%	51.11
Decentraland	Sectors	Culture	Vr And Ar	-6.4%	-5.6%	-7.4%	-24.7%	-19.0%	70.61
Curve DAO Token	Sectors	Finance	Trading	1.5%	-1.7%	-7.4%	-35.4%	-53.1%	87.95
Ethereum Classic	Settlement	Programmable	General Purpose Smart Contract Platforms	-2.2%	-5.7%	-7.7%	-13.8%	18.0%	49.13
Chainlink	Services	Utility	Oracles	-2.4%	-6.1%	-8.7%	-1.8%	70.7%	57.03
Synthetix	Sectors	Finance	Derivatives	-7.1%	-3.7%	-10.3%	-35.0%	-58.7%	104.07
Polygon	Services	Infrastructure	Scaling	-2.2%	-6.6%	-10.9%	-25.1%	-28.1%	55.24
Avalanche	Settlement	Programmable	General Purpose Smart Contract Platforms	-2.4%	-9.4%	-12.3%	-21.4%	100.5%	73.18
Polkadot	Settlement	Programmable	General Purpose Smart Contract Platforms	-3.7%	-7.9%	-13.4%	-13.4%	5.2%	44.02
Cosmos	Settlement	Programmable	General Purpose Smart Contract Platforms	-2.4%	-4.4%	-14.0%	-22.9%	-33.2%	61.92
Chiliz	Sectors	Culture	Social	-2.9%	-7.0%	-15.4%	-38.3%	-15.4%	72.91
Hedera	Settlement	Programmable	General Purpose Smart Contract Platforms	-4.7%	-5.4%	-17.9%	-32.9%	21.4%	57.22
Apecoin	Sectors	Culture	Social	-1.5%	-4.6%	-21.7%	-33.1%	-59.2%	76.73
Uniswap	Sectors	Finance	Trading	-3.0%	-4.7%	-21.8%	2.7%	10.9%	47.25
Fantom	Settlement	Programmable	General Purpose Smart Contract Platforms	-5.1%	-13.7%	-28.2%	-36.3%	76.2%	86.98

- Ripple's XRP token (+31.6%) and Solana's SOL token (+17.3%) were the top performers in July. XRP surged on settlement hopes with the SEC after an amendment was filed in the SEC's case against Binance. Solana saw record on-chain activity, surpassing Ethereum in daily fee revenue for the first time in late July.
- Fantom's FTM token (-28.2%) and Uniswap's UNI token (-21.8%) were the month's bottom performers. The Fantom foundation announced that it would be committing 200M FTM tokens, valued at \$120M to fund strategic grants to developers creating apps on Fantom.


Source: Returns are based in USD terms, CF Benchmarks, Bloomberg, as of July 31, 2024

Trailing Risk-Adjusted Returns



- When compared to traditional asset classes, both Bitcoin and Ether have delivered above average risk-adjusted performance over both shorter and longer time horizons.

Source: CF Benchmarks, Bloomberg, total return indices are referenced in USD, as of August 1, 2024

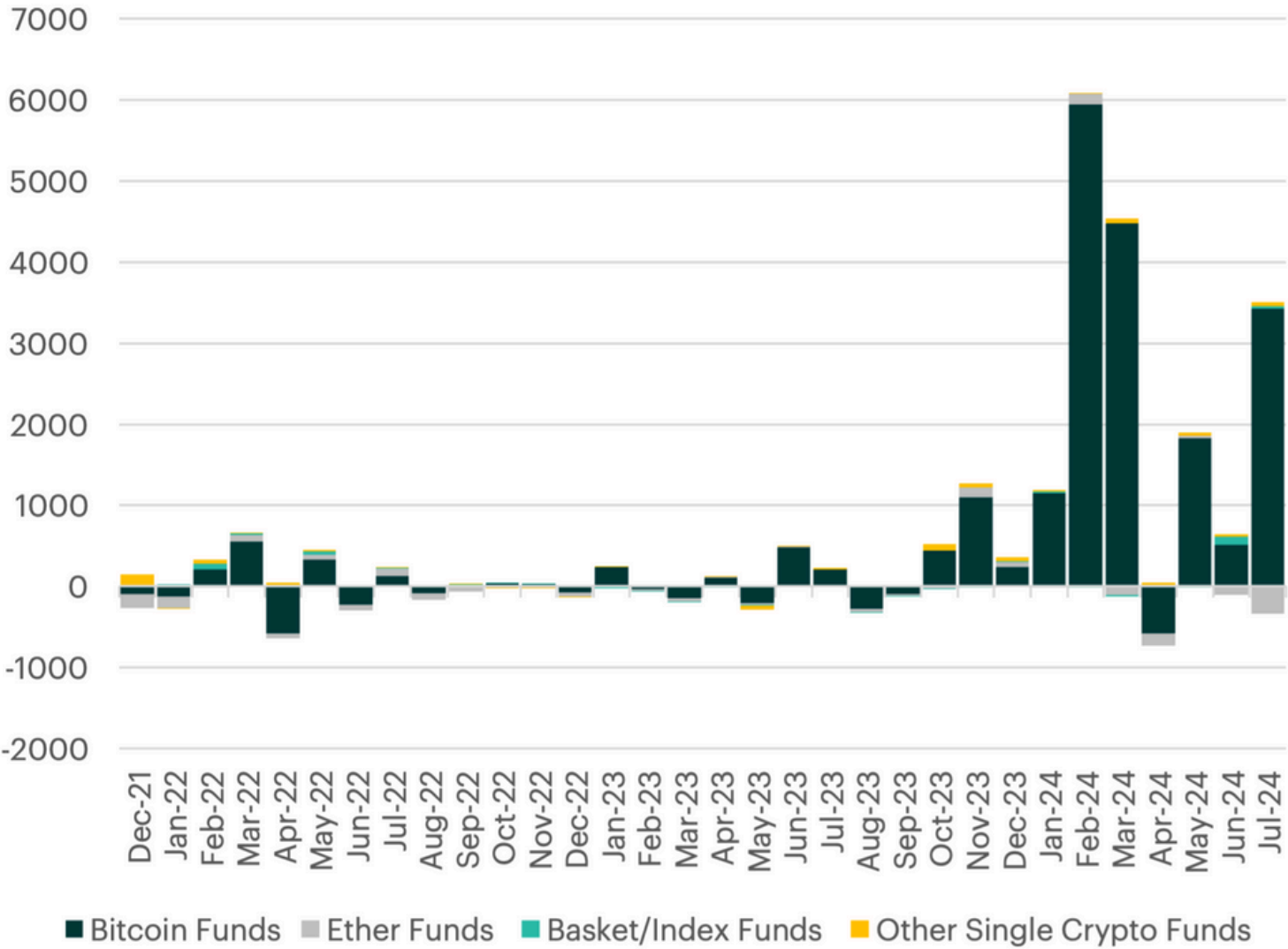


Investor Activity & Sentiment Positioning

Currency of Flows

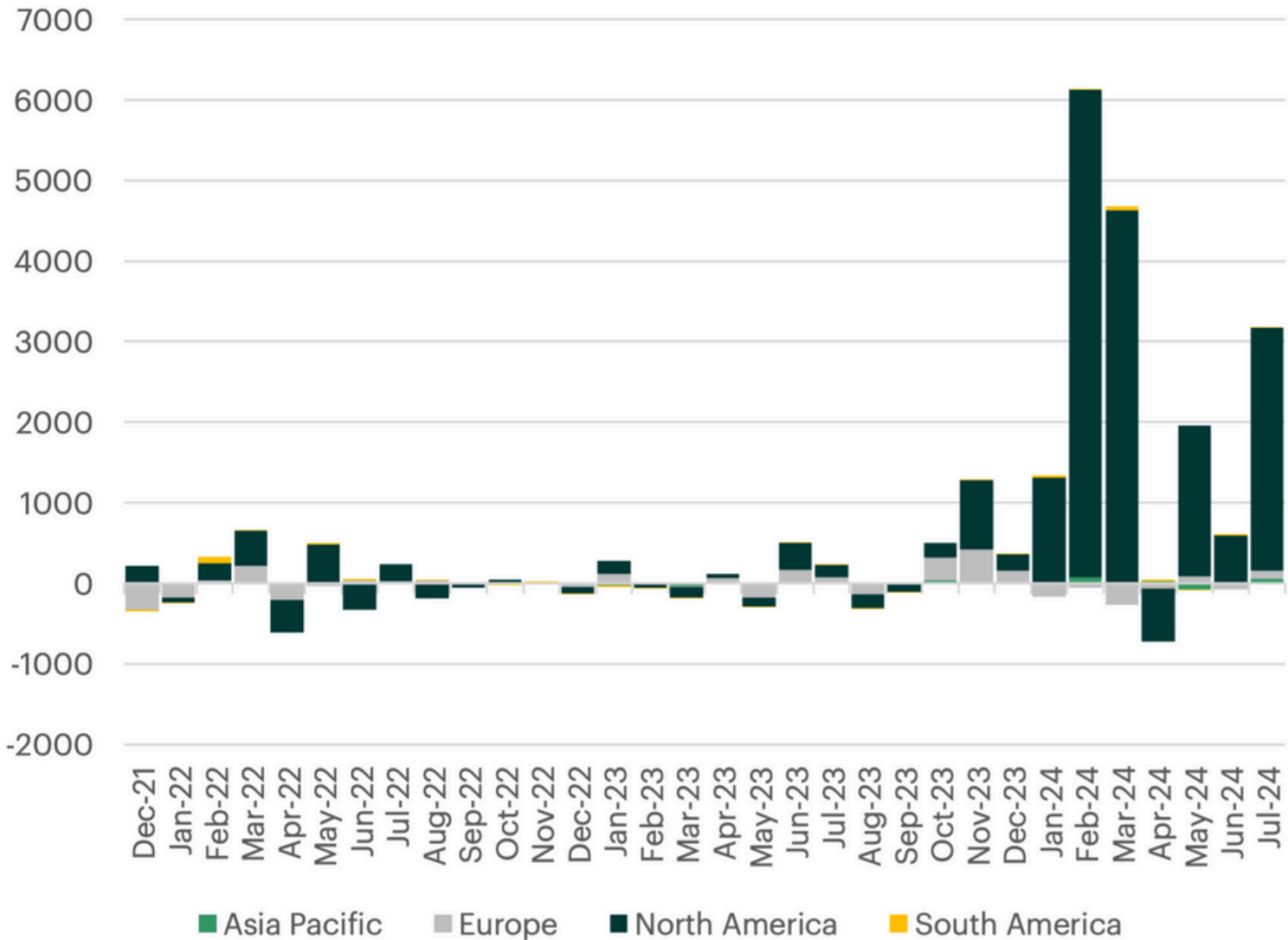


Fund Flows by Asset (\$m)



- Net monthly inflows continued in July, with Bitcoin accounting for \$3,426 million in inflows. Following the launch of the spot ETFs, Ether saw \$334 million in outflows

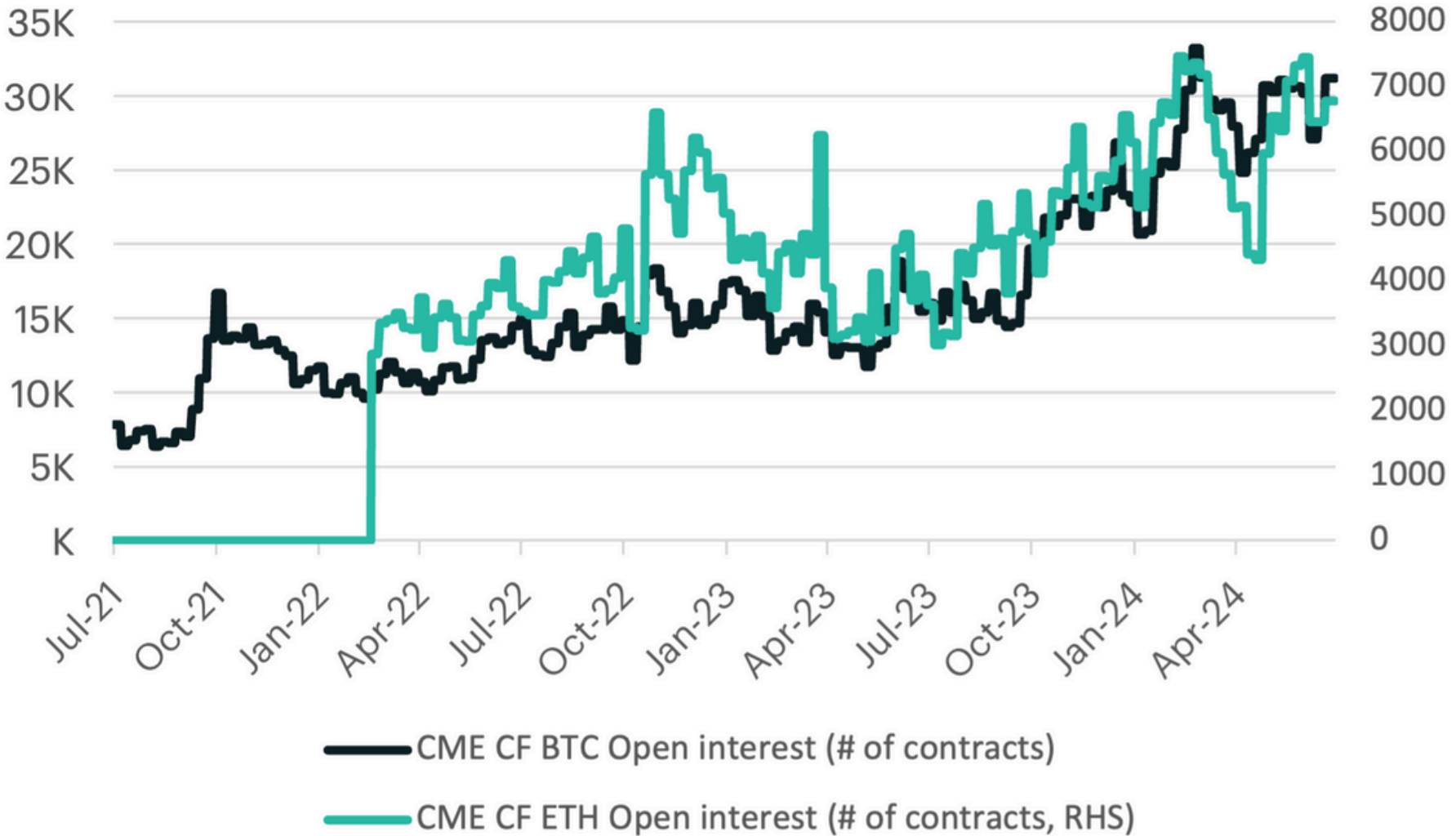
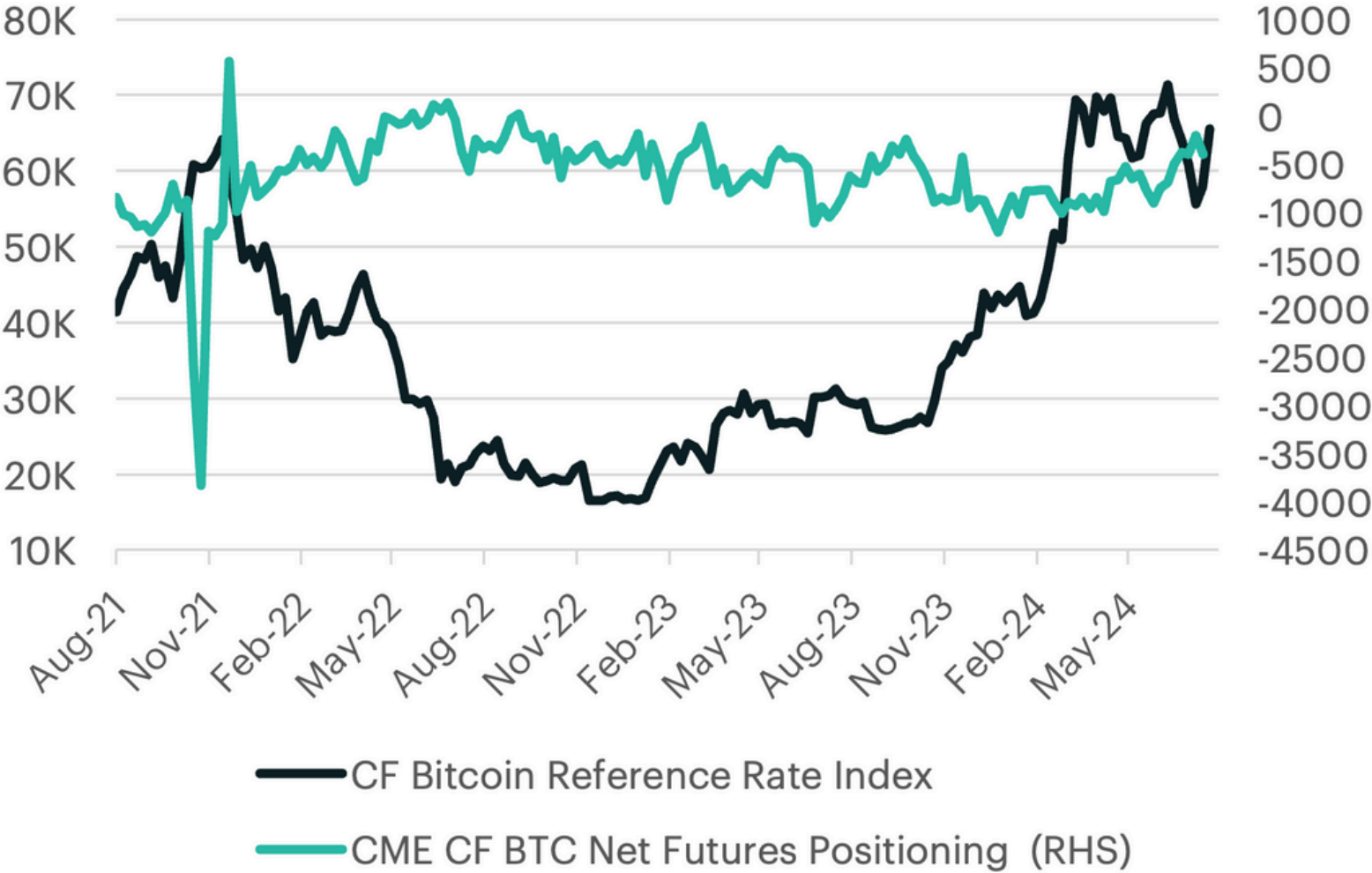
Regional Fund Flows (\$m)



- From a regional perspective, the majority of the inflows were concentrated in North America (+\$3,021 million).

Source: CF Benchmarks, Bloomberg, as of July 31, 2024

Futures Positioning and Open Interest

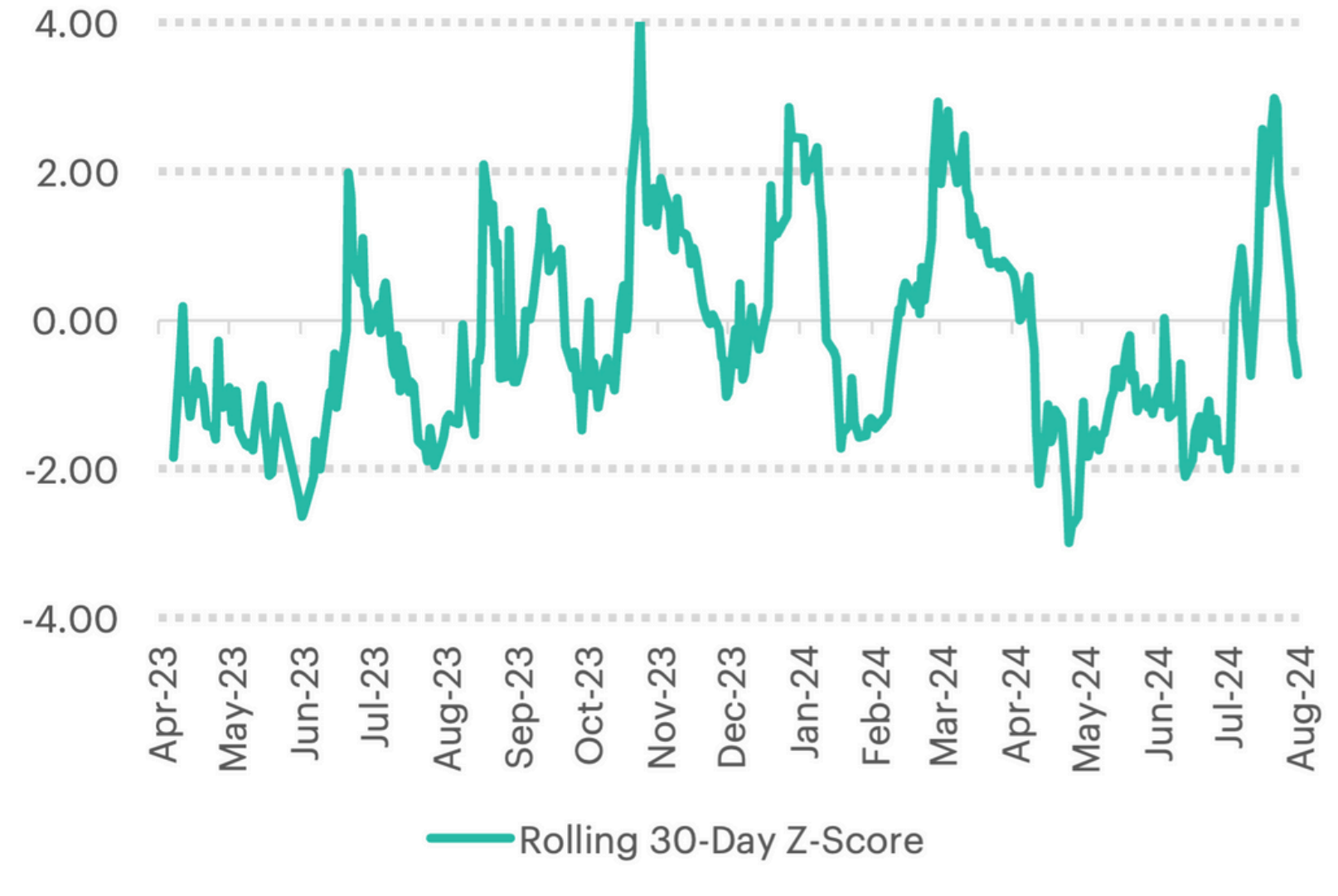
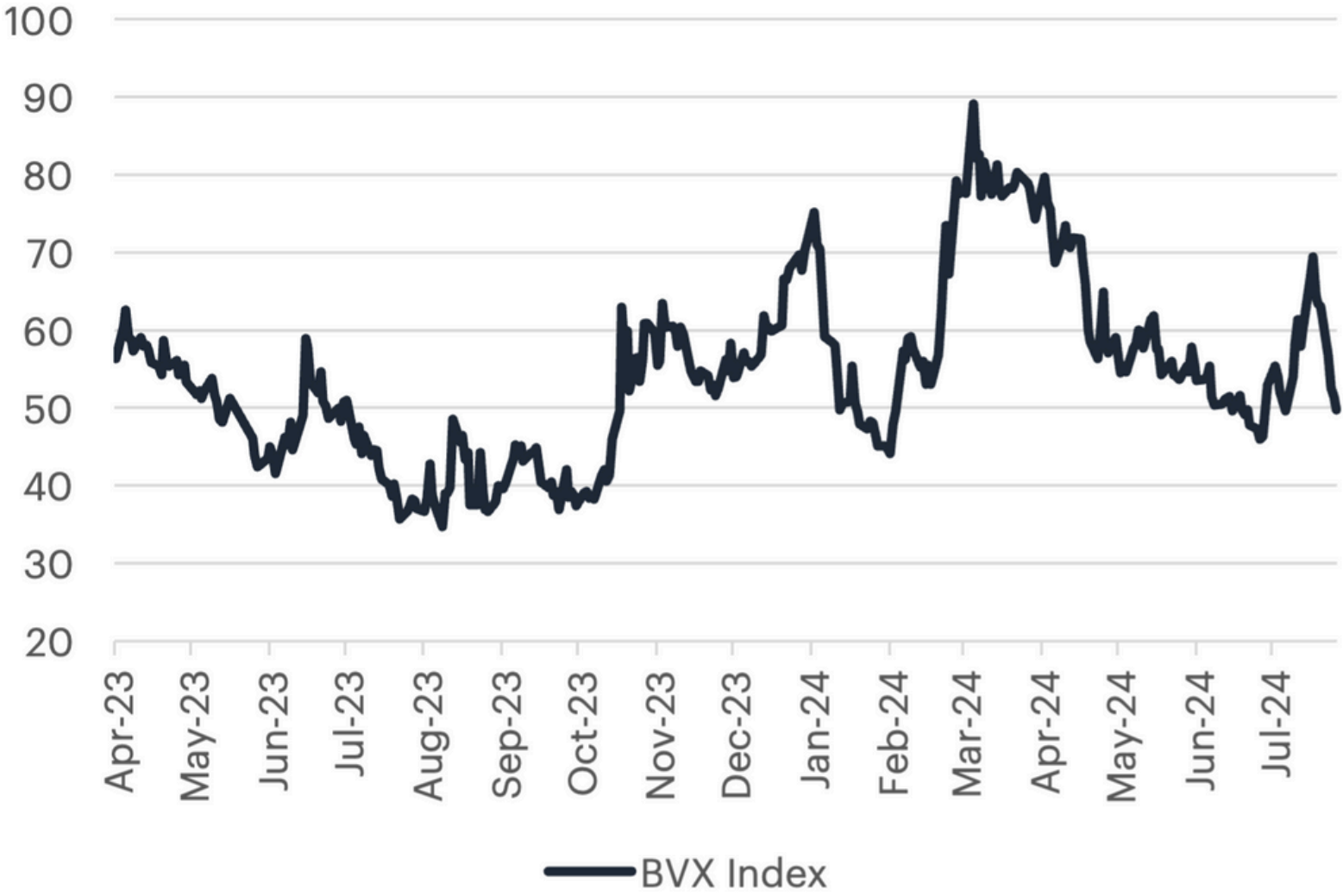


- Net sentiment positioning in Bitcoin decreased slightly in July, with short positions outpacing longs. This resulted in net futures positioning on the CME decreasing to -398 from -383 contracts.

- Total open interest for Bitcoin grew 3.4% from a month prior, while Ether saw a -9.1% decrease.

Source: CF Benchmarks, CFTC, Bloomberg, as of July 24, 2024

CF Bitcoin Volatility Index (BVX)

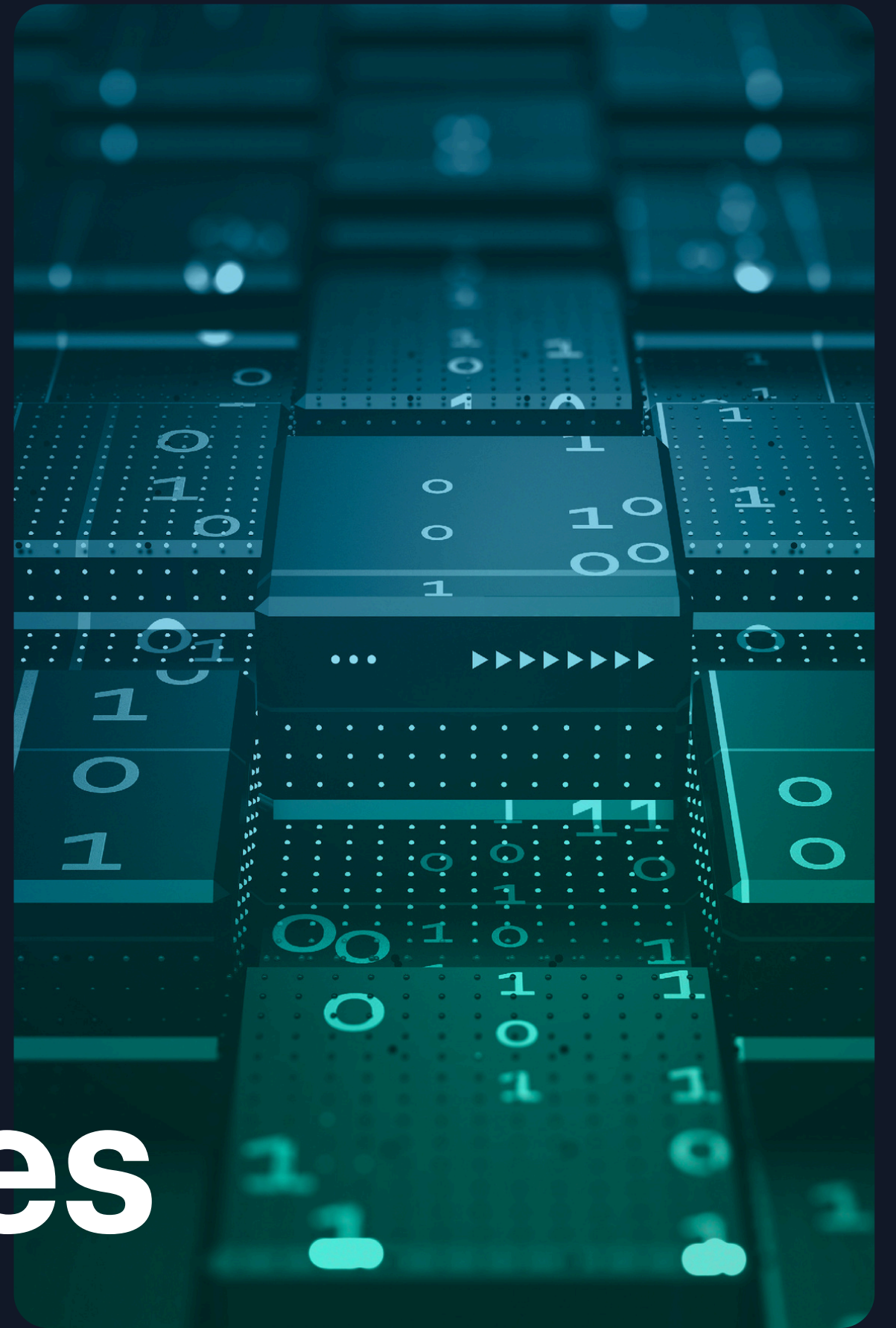


- The CF Bitcoin Volatility Index Settlement Rate (BVXS) is a once a day benchmark representing a forward looking, 30-day constant maturity measure of implied volatility based on CFTC regulated Bitcoin option contracts traded on the CME. The BVX represents the fair strike of a variance swap.
- The BVX ranged from a low of 46.01 to a high of 69.38 over the most recent month. This period saw some extreme swings, with the index hitting its highest level since April 2024 and posting a +2-sigma move (as measured by our rolling 30-day z-score), before declining to the sub-50 level.

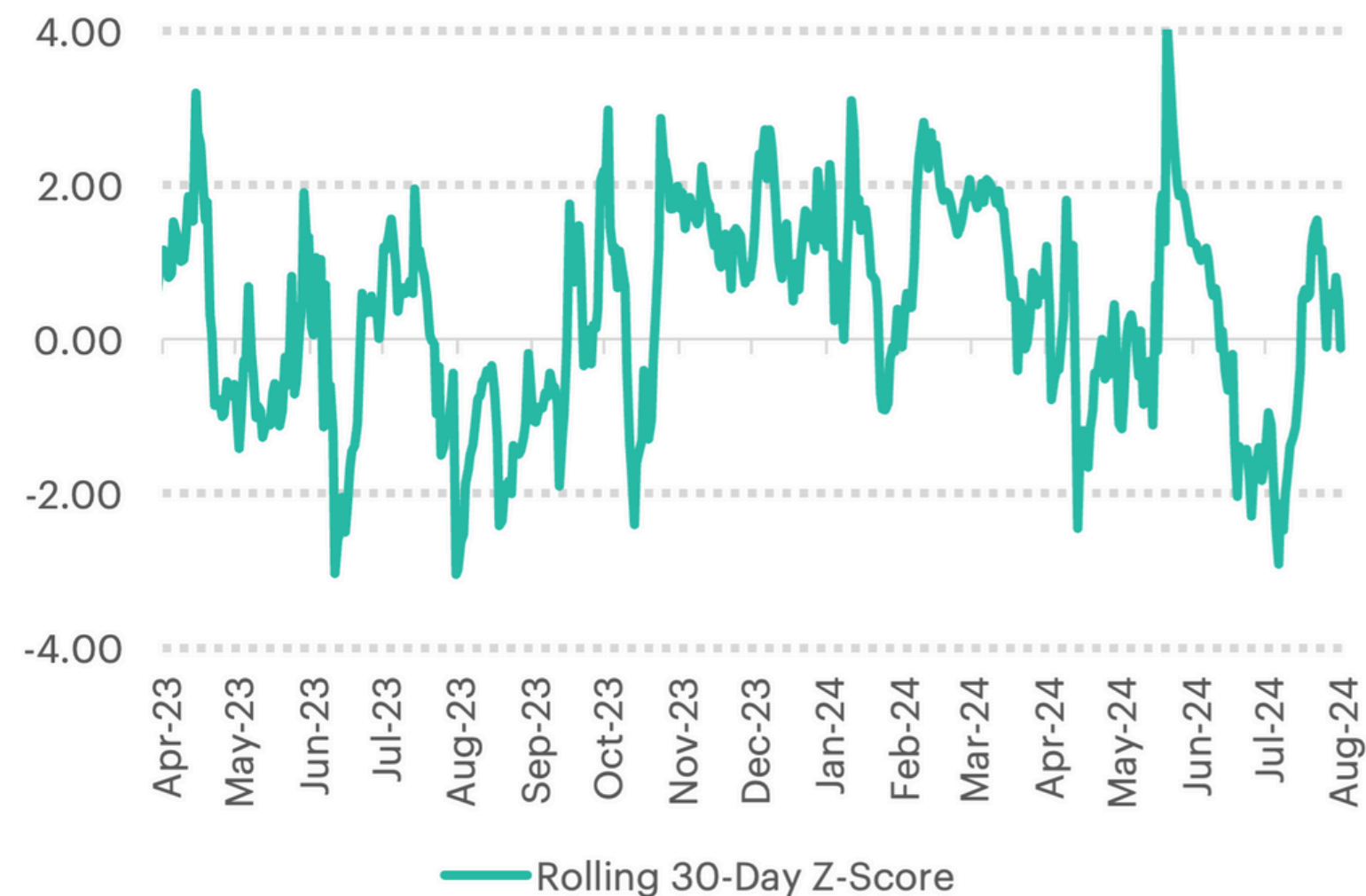
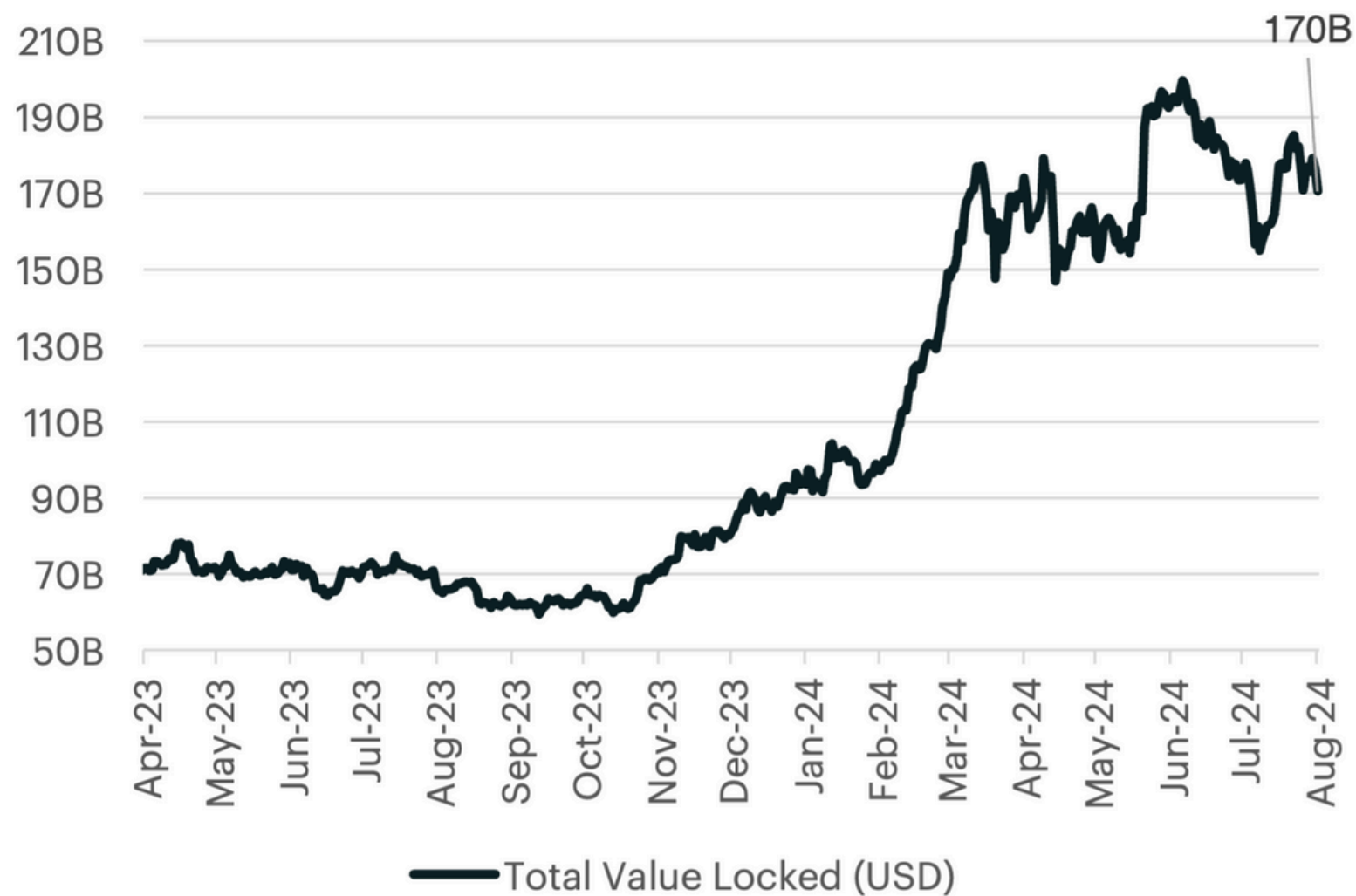
Source: CF Benchmarks, Bloomberg, as of August 1, 2024



Network & On-chain Updates



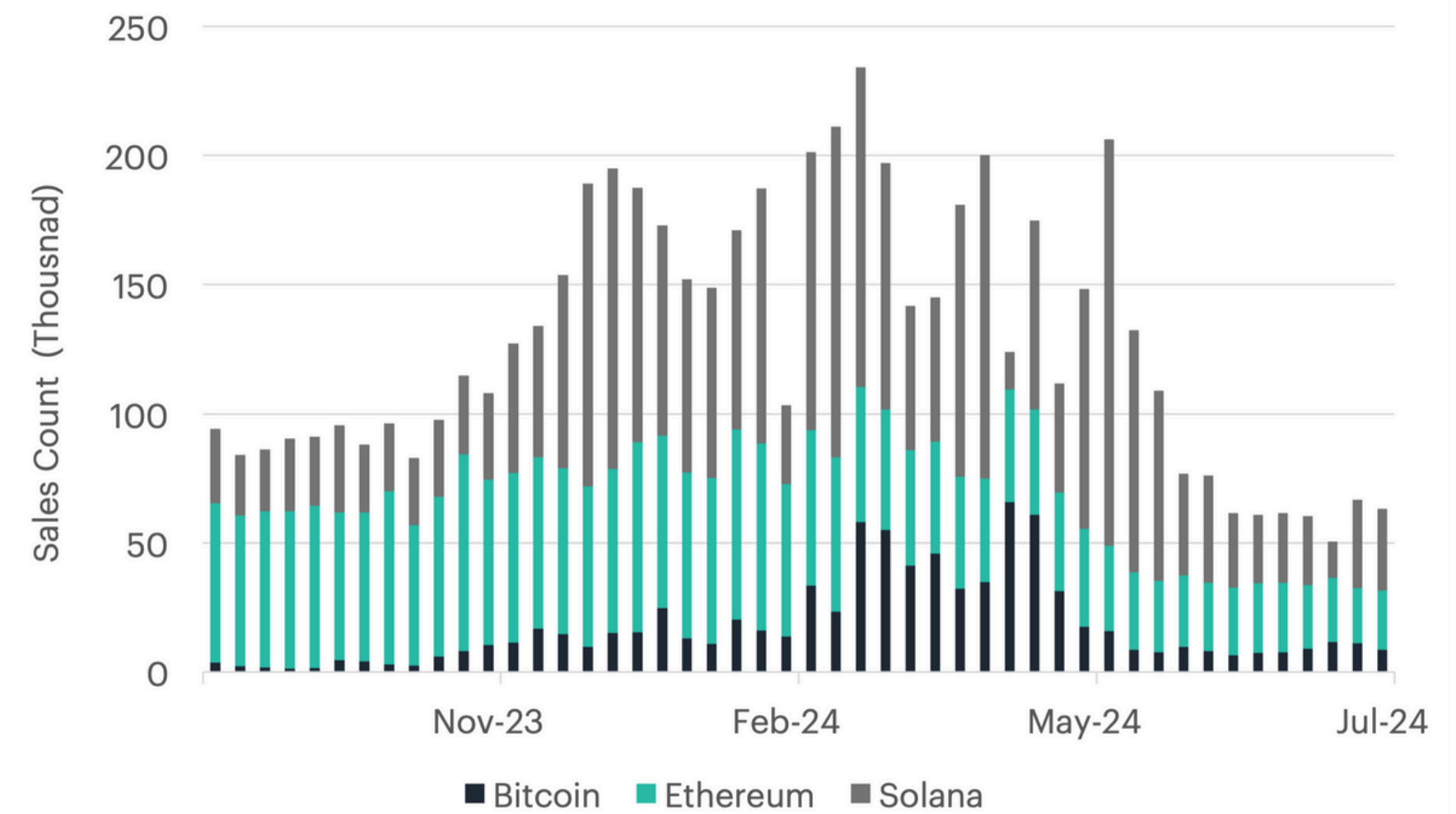
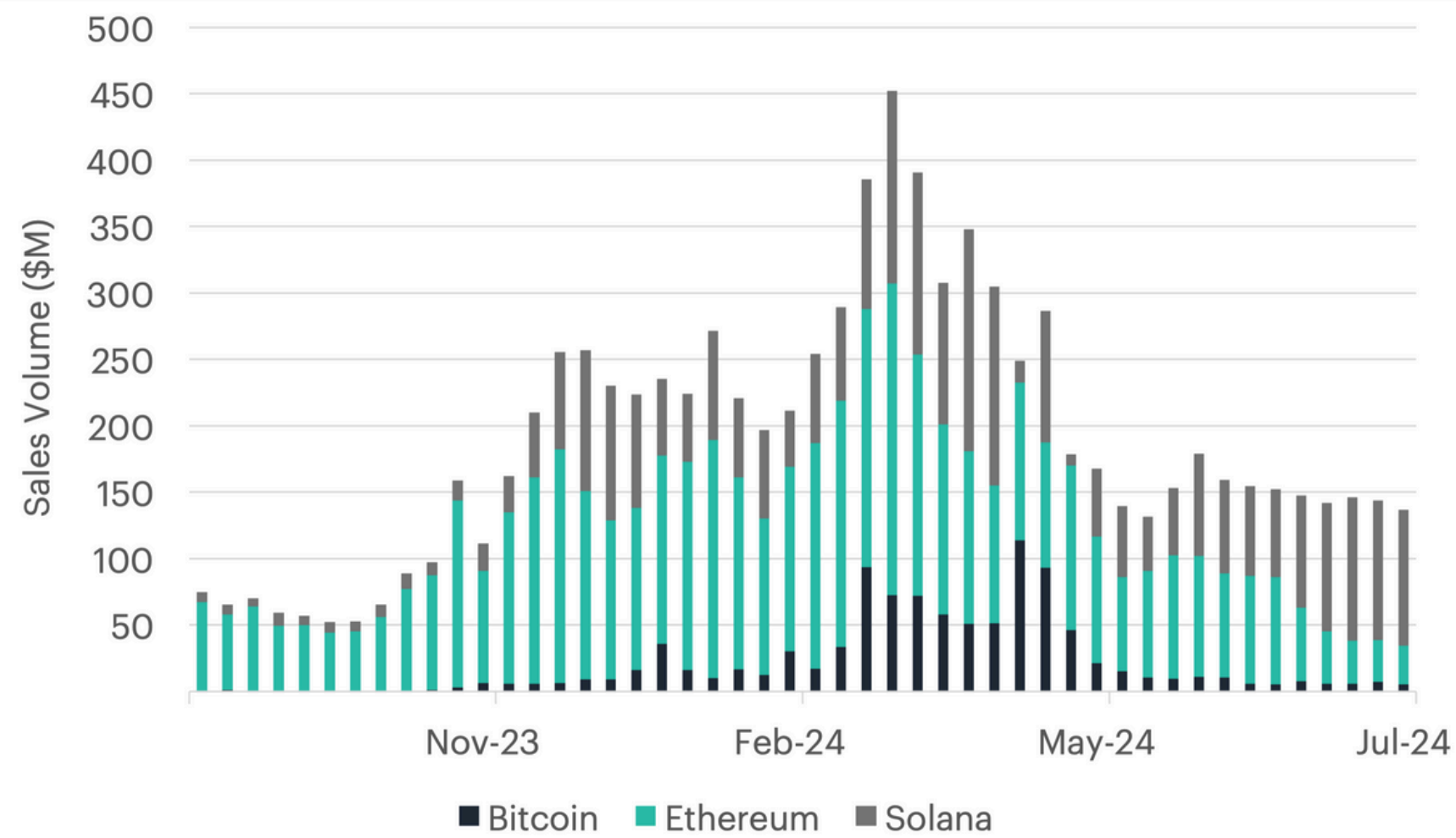
Total Value Locked (TVL) in DeFi Protocols



- TVL (Total Value Locked) in DeFi represents the total amount of assets deposited in decentralized finance protocols expressed in USD. It serves as a key metric to gauge the health and growth of the DeFi ecosystem.
- Total value locked (TVL) in decentralized finance (DeFi) protocols experienced a slight decline over the past month, falling from \$173 billion to approximately \$170 billion. The most significant contributors to this drop were liquid staking protocols on Ethereum, as the value of Ether fell in July.

Source: CF Benchmarks, DeFiLlama, as of August 1, 2024

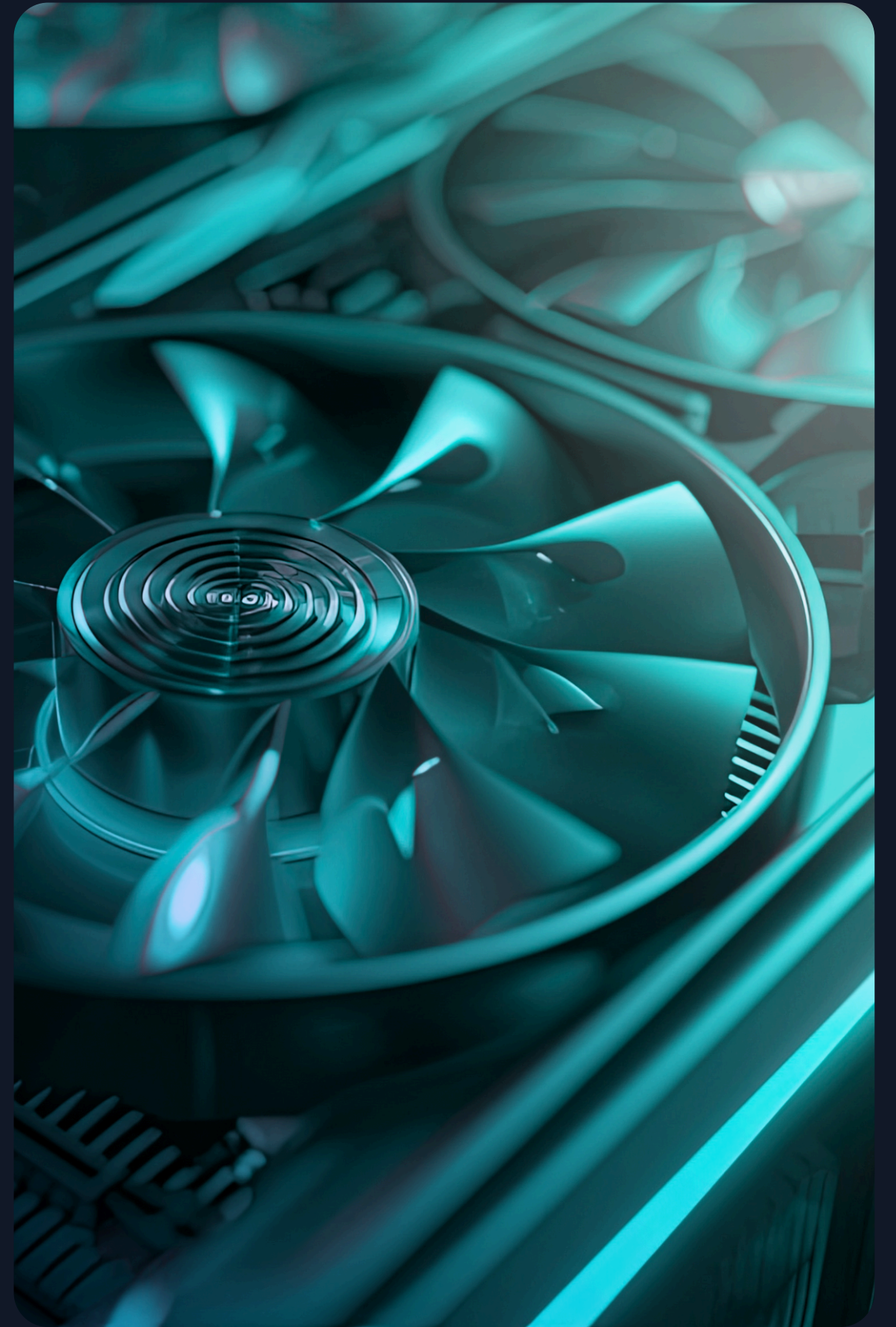
Weekly NFT Sales by Blockchain



- Solana has taken the top position on the NFT sales volume leaderboard in July, with a 26.7% increase in sales, even as transaction counts fell by 9.4%. In contrast, both Bitcoin and Ethereum saw declines in sales volume. Bitcoin's sales volume fell by 32.4% despite a 21% increase in ordinal transactions. Meanwhile, Ethereum saw a 63% decrease in sales as more volume moved to Solana.

Source: Dune Analytics, as of July 31, 2024

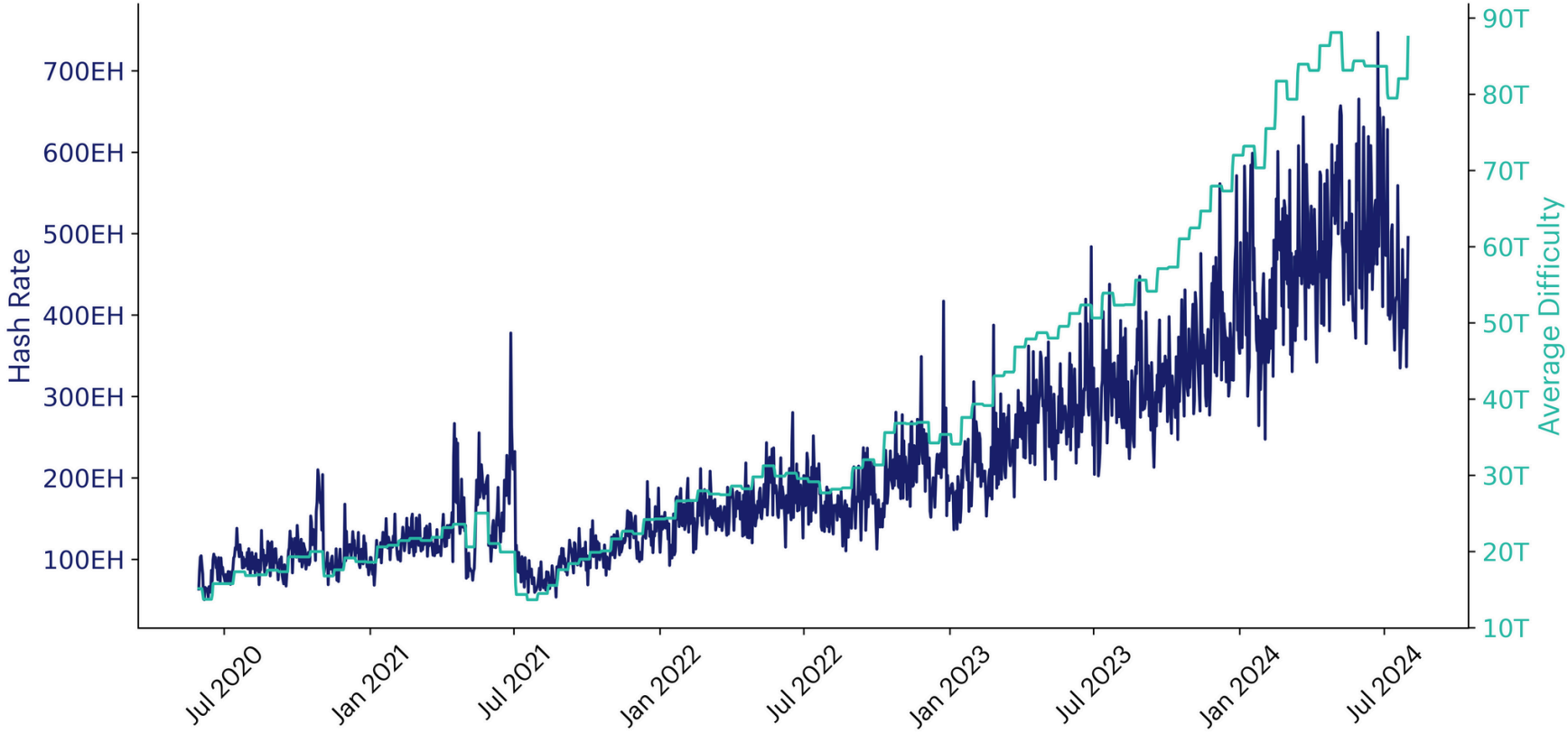
Mining Metrics



Bitcoin's Hash Rate & Mining Revenue

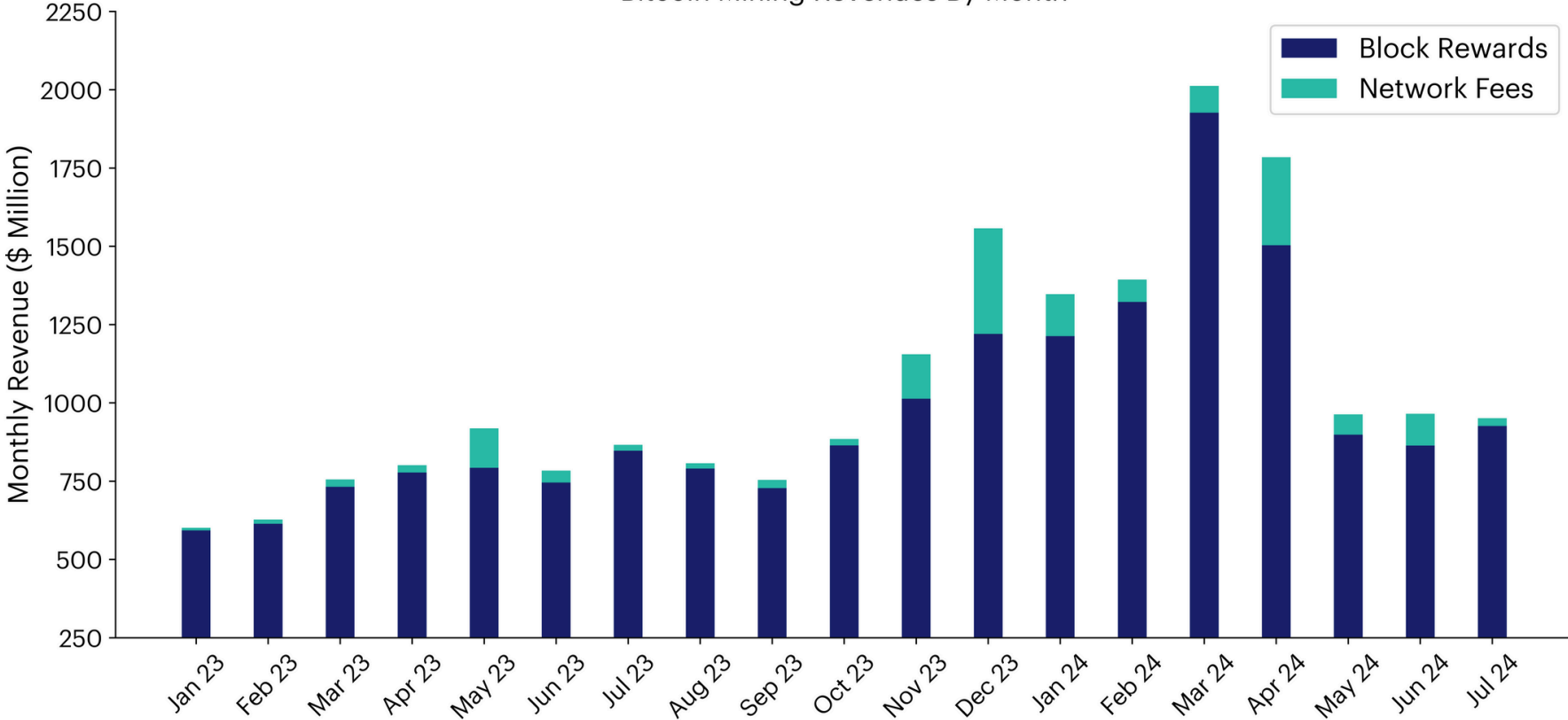


Hash Rate and Difficulty



- Bitcoin's network hash grew significantly in the past month, gaining 20.7% to reach 495 exahashes per second. The mining difficulty, which measures how hard it is to find a new block and thus adjusts to maintain a consistent block creation time, increased by 4.5% during the month. The next difficulty adjustment will likely be in the second week of August and is trending towards a 2.0% increase.

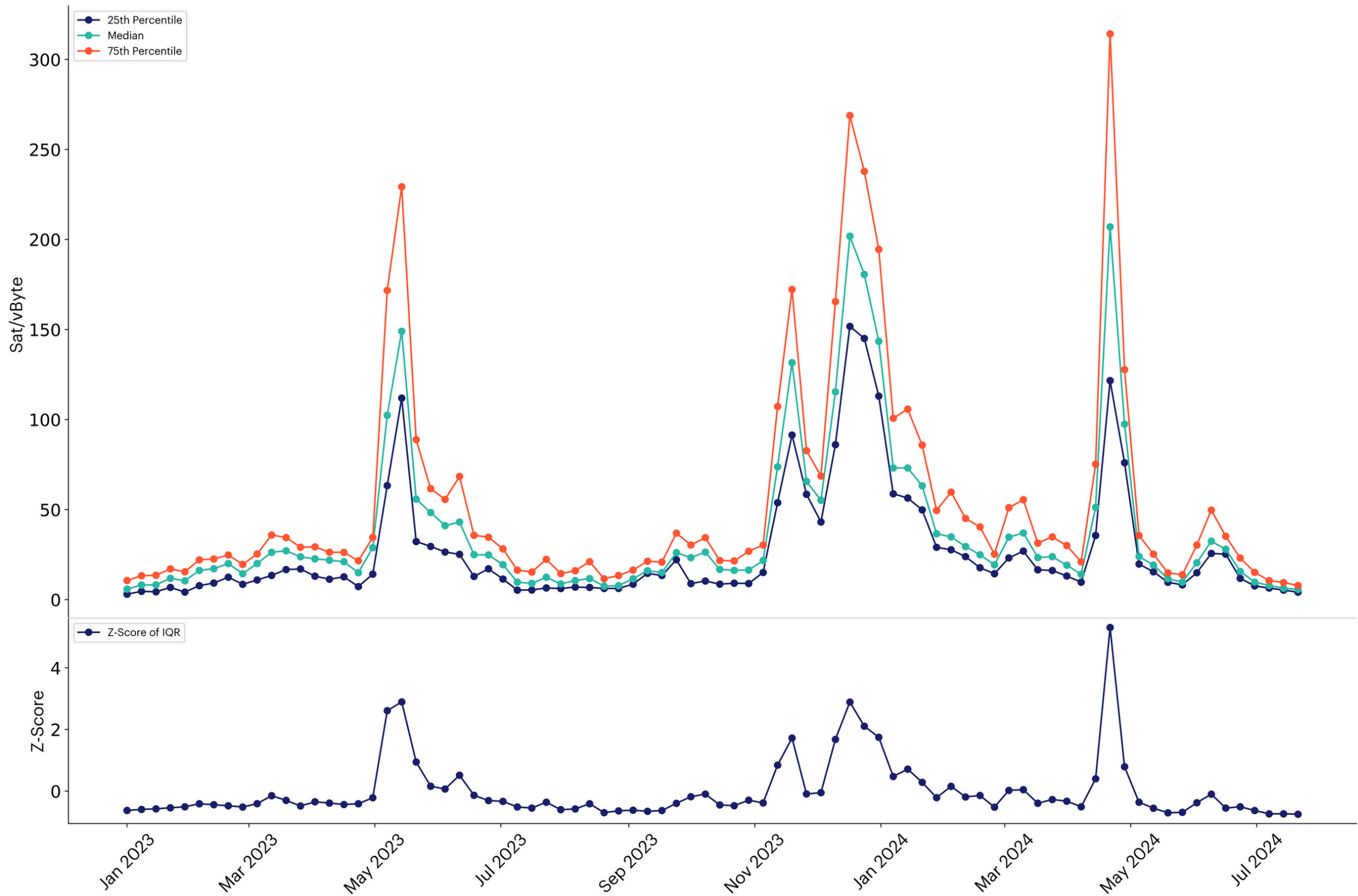
Bitcoin Mining Revenues By Month



- A decrease in network fees resulted in mining revenues declining by 1.4% in July. Of the miner rewards during the month, 2.6% came from fees, down from 10.5% in June. Although on chain activity decreased in July, Bitcoin's 4.3% monthly gain boosted the value of the block rewards to partially offset the decrease in fees.

Source: CF Benchmarks, Dune Analytics as of July 31, 2024

Bitcoin Network Fees



Source: CF Benchmarks, Dune Analytics, as of July 31, 2024

- As Bitcoin’s block subsidy decreases, network fees make up a larger share share of miners’ revenue. The behavior of these fees, especially during periods of high demand for block space, can provide insights into the sustainability of fee increases.
- The data shows that during periods of high demand, the 75th percentile transaction fees surge significantly higher than the median and 25th percentile fees, indicating a subset of transactions paying much higher fees to ensure prompt inclusion in blocks.
- When the Z-score of the interquartile range exceeds 2, it signals substantial increases in the 75th percentile relative to the 25th percentile, highlighting times of significant network congestion and temporarily elevated fees.

Bitcoin Mining Matrix

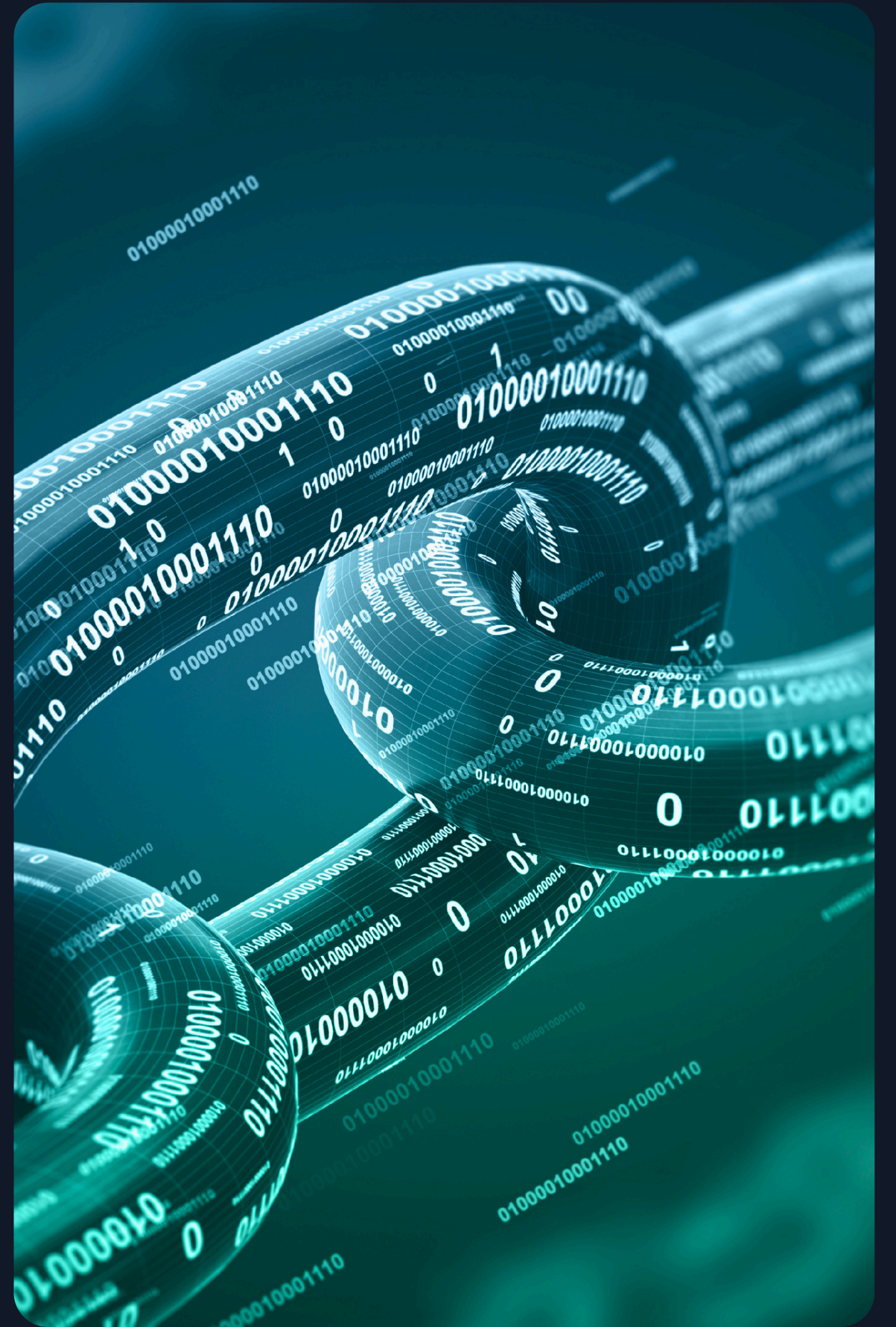


		Bitcoin Price (USD)								
		\$53,637.92	\$56,460.97	\$59,432.60	\$62,560.64	\$65,853.30	\$69,145.97	\$72,603.26	\$76,233.43	\$80,045.10
Efficiency (Watts /TH)	34.0	\$46.62	\$49.08	\$51.66	\$54.38	\$57.24	\$60.10	\$63.11	\$66.27	\$69.58
	29.5	\$53.74	\$56.56	\$59.54	\$62.68	\$65.97	\$69.27	\$72.74	\$76.37	\$80.19
	24.0	\$66.05	\$69.53	\$73.19	\$77.04	\$81.09	\$85.15	\$89.41	\$93.88	\$98.57
	21.5	\$73.73	\$77.61	\$81.70	\$86.00	\$90.52	\$95.05	\$99.80	\$104.79	\$110.03
	18.5	\$85.69	\$90.20	\$94.94	\$99.94	\$105.20	\$110.46	\$115.99	\$121.78	\$127.87
	17.5	\$90.58	\$95.35	\$100.37	\$105.65	\$111.21	\$116.77	\$122.61	\$128.74	\$135.18
	15.0	\$105.68	\$111.24	\$117.10	\$123.26	\$129.75	\$136.24	\$143.05	\$150.20	\$157.71
	13.5	\$117.42	\$123.60	\$130.11	\$136.96	\$144.17	\$151.37	\$158.94	\$166.89	\$175.23

- The following sensitivity table illustrates the revenue a miner will generate per megawatt hour consumed at the current difficulty, considering different levels of miner efficiency and varying Bitcoin prices, providing a comprehensive view of potential earnings under different market conditions. The table is color-coded to reflect profitability based on the 10th percentile industrial electricity rate in the United States of \$60.26 per MWh, as reported by the EIA in May 2024.
- This table helps miners compare revenues under various operational conditions, aiding in evaluating the useful life of their equipment. By comparing projected revenues at different Bitcoin prices to electricity costs, miners can determine whether they can continue running their current fleet or if they need to upgrade to maintain profitability.
- As income per MWh increases, miners are more likely to fund additional capital expenditures, which can increase the overall network hashrate. However, this increase in hashrate can subsequently reduce the income each individual miner earns.

Source: CF Benchmarks, Dune Analytics, as of July 31, 2024
 EIA.gov as of May 31, 2024

Staking Metrics



Staking Rewards & Inflation Rates

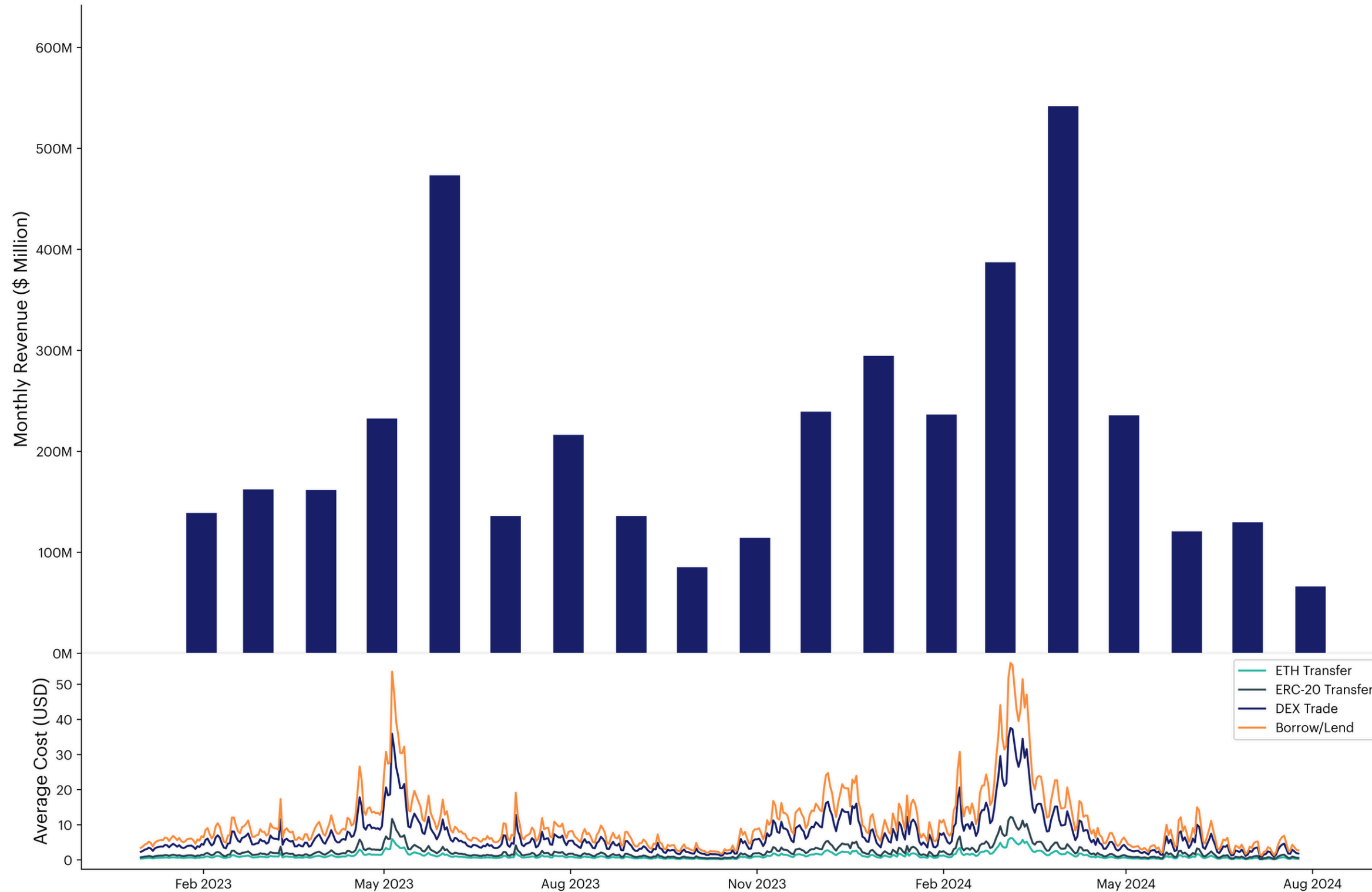


Network	Staking Reward Rate	Inflation Rate	Participation Rate	Real Reward Rate
Ethereum <i>(1-Month Change)</i>	3.00% <i>0.20%</i>	0.57% <i>-0.14%</i>	28.32% <i>0.65%</i>	2.43% <i>0.34%</i>
Solana <i>(1-Month Change)</i>	6.99% <i>-0.30%</i>	4.27% <i>-0.06%</i>	68.03% <i>0.13%</i>	2.72% <i>-0.24%</i>
Cardano <i>(1-Month Change)</i>	2.86% <i>-0.04%</i>	2.36% <i>-0.01%</i>	63.51% <i>-0.61%</i>	0.50% <i>-0.03%</i>

- The reward rate for a Proof of Stake (PoS) blockchain represents the annual return validators earn for staking their tokens, often expressed as a percentage. This rate is determined by factors such as the total number of staked tokens, the network's overall staking yield, and any additional incentives provided by the blockchain protocol.
- Inflation rate and staking participation rate significantly influence real staking rewards. A higher inflation rate typically increases the nominal reward rate but can dilute the value of staked tokens, resulting in lower real returns. The staking participation rate, which is the proportion of tokens being staked, also impacts rewards: as more tokens are staked, the rewards per validator may decrease, potentially lowering individual returns but contributing to network security and decentralization.

Source: CF Benchmarks, Dune Analytics, stakingrewards.com as of July 31, 2024

Ethereum Network Fees & Revenue



- Ethereum’s block space is the capacity to include transactions in each block. When more transactions are posted to the blockchain than can be processed, fee rates increase as users compete to have their transactions included in the next block.
- By comparing average fee rates to total fee revenue, we can evaluate Ethereum's scalability. If fee rates remain low while total revenue remains stable or increases, it indicates effective scaling.
- In July, the Ethereum network saw total fees paid decrease 49% from the prior month to \$66.2M. The average fee per interaction with the Ethereum network fell by 27.5% over the period, indicating that overall transaction volumes were down for the month.

Source: CF Benchmarks, Dune Analytics as of July 31, 2024

Appendix



CF Digital Asset Classification Structure



CF Digital Asset Classification Structure



The CF Digital Asset Classification Structure (CF DACS) classifies coins and tokens based on the services that the associated software protocol delivers to end users, grouping assets by the role they play in delivering services to end users. The CF DACS powers CF Benchmarks' sector composite and category portfolio indices and allows users to perform attribution analysis to better understand the fundamental drivers of returns within their digital asset portfolios.

CF Digital Asset Classification Structure



Additional Resources

For more information about our CF Benchmark indices and our methodologies, please visit the respective web links below:

- [CF Diversified Large Cap Index](#)
- [CF DeFi Composite Index](#)
- [CF Web 3.0 Smart Contract Platforms Index](#)
- [CF Digital Culture Composite Index](#)
- [CF Blockchain Infrastructure Index](#)
- [CF Cryptocurrency Ultra Cap 5 Index](#)
- [CF Broad Cap Index Market Cap Weight](#)
- [CF Broad Cap Index Diversified Weight](#)

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