

# Monthly Market Recap

*August 2024*

# Market Performance

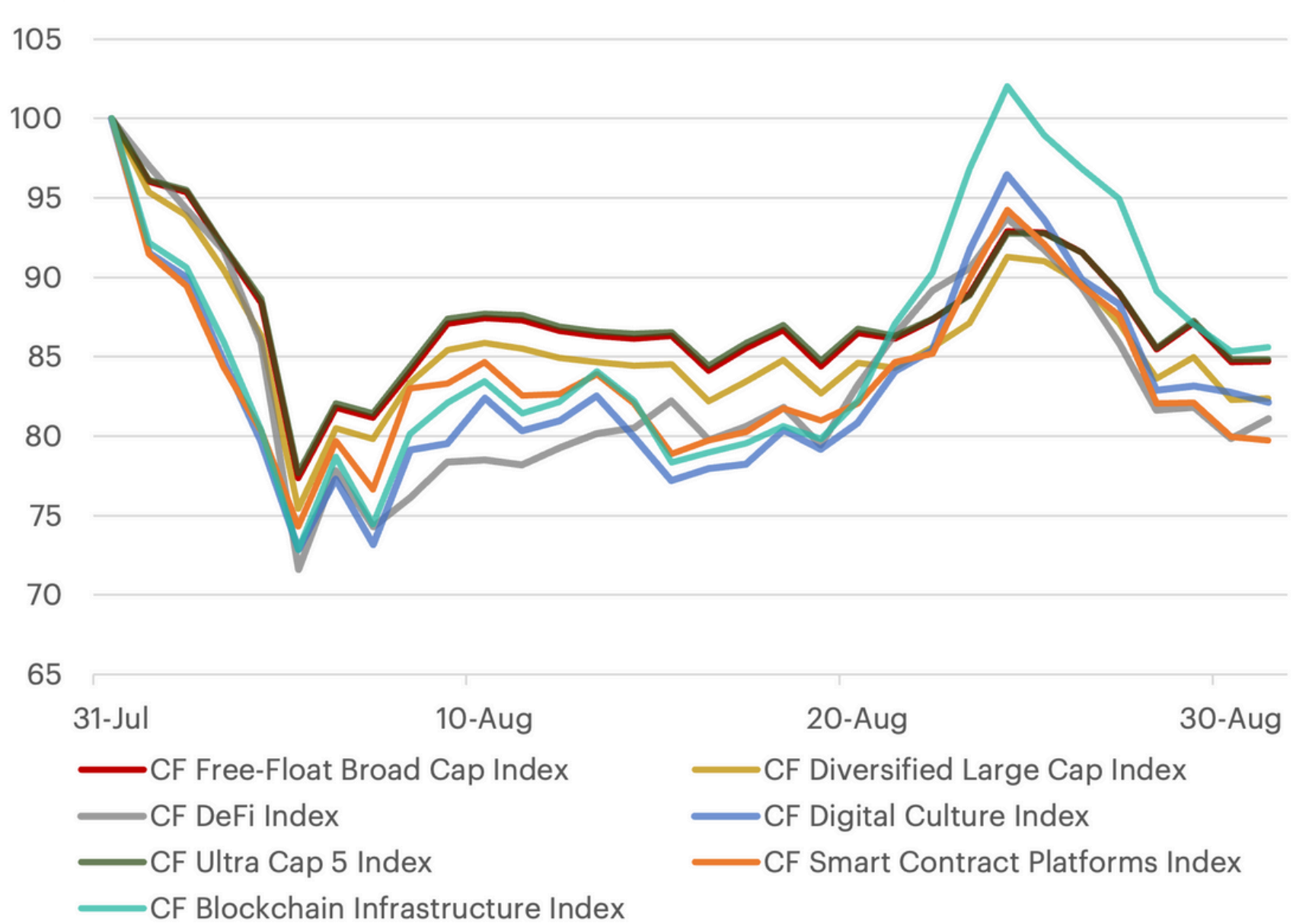


# Macro Influences Rekindle Market Uncertainty



## Monthly Index Performance

### Multi-token indexes



- Volatility returned for digital assets in August, driven by the unwinding of the "Yen Carry Trade," which negatively impacted risk appetite across the broader array of markets. Among other major macroeconomic factors, the Federal Reserve announced a dovish pivot at their annual Jackson Hole Symposium, which helped pare some of the earlier losses. Ether, while initially lagging, continued to see inflows into the newly launched U.S. spot ETFs, signaling long-term institutional interest despite a lower debut of inflows. Bitcoin prices also responded to these potential rate-cut signals, with Bitcoin benefiting from its perceived inverse relationship with interest rates.
- Our cryptocurrency indices displayed broadly negative performance, with the CF Free-Float Broad Cap Index falling over 15%. This decline was led by the CF Smart Contract Platforms Index and CF DeFi Index, falling over 18% and 20% respectively. Conversely, the CF Blockchain Infrastructure Index emerged as the relative leader by posting a sub-15% decline.

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

# Major Crypto-Pairs

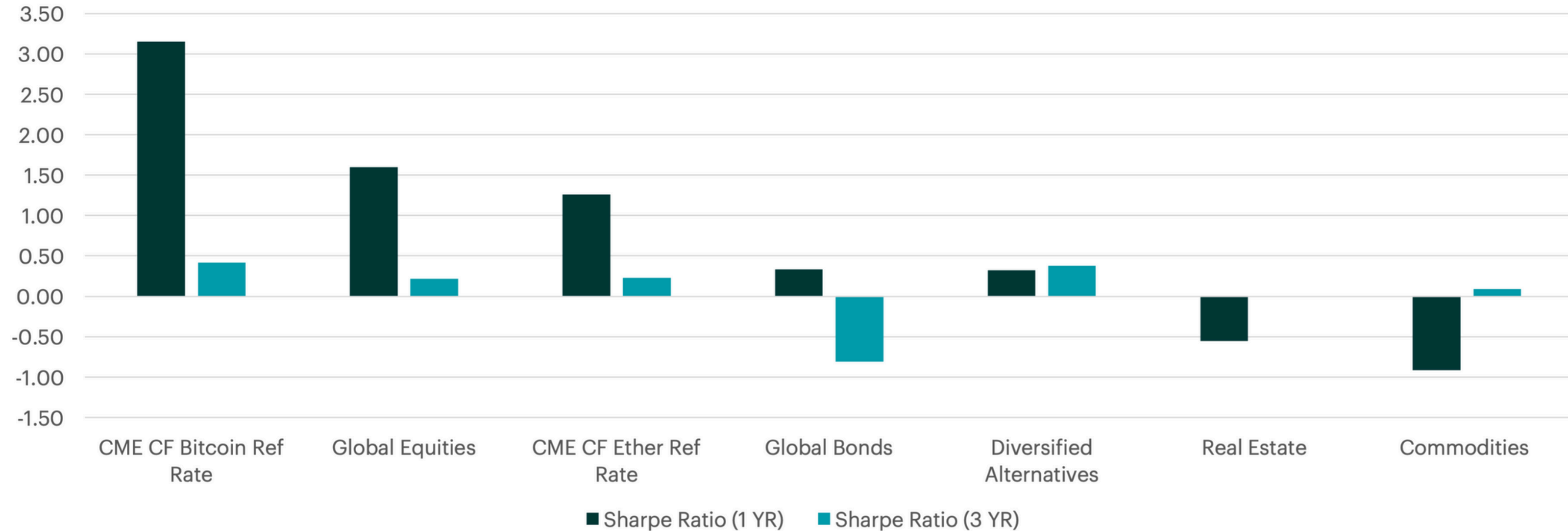


Name	DACS Level 1	DACS Level 2	DACS Level 3	1 Day	1 Week	1 Month	3 Month	1 Year	30 D Volatility
Aave	Sectors	Finance	Borrowing & Lending	-1.6%	-5.5%	20.6%	24.9%	134.2%	92.77
Synthetix	Sectors	Finance	Derivatives	0.0%	-9.4%	11.5%	-37.0%	-38.3%	123.77
Curve DAO Token	Sectors	Finance	Trading	-3.0%	-19.9%	7.9%	-39.1%	-36.8%	99.93
Fantom	Settlement	Programmable	General Purpose Smart Contract Platforms	0.8%	-18.8%	3.1%	-46.6%	108.7%	101.33
Litecoin	Settlement	Non-Programmable	Store Of Value And Payment	0.6%	-3.4%	-7.4%	-22.1%	1.7%	38.79
Stellar	Settlement	Non-Programmable	Store Of Value And Payment	-0.6%	-9.7%	-7.9%	-12.8%	-19.2%	45.31
Bitcoin	Settlement	Non-Programmable	Store Of Value And Payment	-0.2%	-8.1%	-8.7%	-12.8%	126.6%	45.63
Ripple	Settlement	Non-Programmable	Store of Value and Payment	0.9%	-8.7%	-9.0%	9.6%	11.5%	65.46
Algorand	Settlement	Programmable	General Purpose Smart Contract Platforms	-3.1%	-16.0%	-9.1%	-35.0%	33.2%	60.47
Tezos	Settlement	Programmable	General Purpose Smart Contract Platforms	0.0%	-9.5%	-9.5%	-30.2%	-2.9%	57.48
Cardano	Settlement	Programmable	General Purpose Smart Contract Platforms	-0.4%	-12.9%	-11.1%	-23.1%	36.2%	50.94
Avalanche	Settlement	Programmable	General Purpose Smart Contract Platforms	-2.1%	-16.0%	-11.2%	-36.6%	128.5%	77.49
Stacks	Services	Infrastructure	Computing	-2.9%	-17.0%	-12.5%	-17.1%	208.7%	88.13
Decentraland	Sectors	Culture	Vr And Ar	-0.5%	-15.7%	-13.1%	-39.6%	-8.4%	60.12
Chainlink	Services	Utility	Oracles	-0.3%	-11.4%	-13.9%	-40.5%	89.0%	59.30
Filecoin	Services	Utility	Information & Data Management	-0.9%	-15.8%	-14.7%	-37.6%	12.1%	77.50
Polygon	Services	Infrastructure	Scaling	-0.6%	-28.2%	-15.4%	-40.1%	-23.8%	81.87
Ethereum Classic	Settlement	Programmable	General Purpose Smart Contract Platforms	-0.8%	-11.9%	-15.8%	-38.5%	18.7%	38.55
Dogecoin	Settlement	Non-Programmable	Store Of Value And Payment	0.5%	-11.5%	-16.9%	-36.6%	59.4%	46.29
EOS	Settlement	Programmable	General Purpose Smart Contract Platforms	-1.2%	-13.6%	-17.3%	-40.9%	-18.2%	52.50
Uniswap	Sectors	Finance	Trading	1.2%	-15.5%	-17.4%	-42.0%	36.5%	74.78
Internet Computer	Settlement	Programmable	General Purpose Smart Contract Platforms	-1.5%	-13.7%	-17.5%	-36.6%	124.6%	72.07
Chiliz	Sectors	Culture	Social	0.0%	-8.5%	-18.2%	-62.2%	-14.3%	84.24
Hedera	Settlement	Programmable	General Purpose Smart Contract Platforms	-2.9%	-18.2%	-20.5%	-50.1%	-3.3%	70.87
Apecoin	Sectors	Culture	Social	-3.9%	-22.5%	-20.6%	-51.5%	-57.8%	78.44
Polkadot	Settlement	Programmable	General Purpose Smart Contract Platforms	-0.2%	-15.8%	-20.9%	-39.3%	-0.6%	49.33
Solana	Settlement	Programmable	General Purpose Smart Contract Platforms	-1.9%	-15.8%	-21.2%	-18.2%	590.9%	73.32
Bitcoin Cash	Settlement	Non-Programmable	Store Of Value And Payment	-0.4%	-11.8%	-22.0%	-29.5%	56.6%	47.19
Ether	Settlement	Programmable	General Purpose Smart Contract Platforms	-0.5%	-10.2%	-22.2%	-33.9%	52.0%	49.92
Cosmos	Settlement	Programmable	General Purpose Smart Contract Platforms	0.0%	-5.8%	-23.2%	-44.8%	-35.8%	70.85
Maker	Sectors	Finance	Stablecoin Issuance & Management	-0.7%	-17.9%	-37.9%	-35.1%	53.7%	76.44

- Aave's AAVE token (+20.6%) and Synthetix's SNX token (+11.5%) were the top performers in August. Aave reached a record 40,000 weekly borrowers in mid-August, surpassing its 2022 highs, driven by the launch of new lending markets on Base and Scroll.
- Maker's MKR token (-37.9%) and Cosmos's ATOM token (-23.2%) were the month's bottom performers. Maker rebranded to Sky ahead of the August launch of a new stablecoin, USDS, which includes a feature allowing Sky to remotely freeze assets, sparking backlash from the community.

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

# Trailing Risk-Adjusted Returns



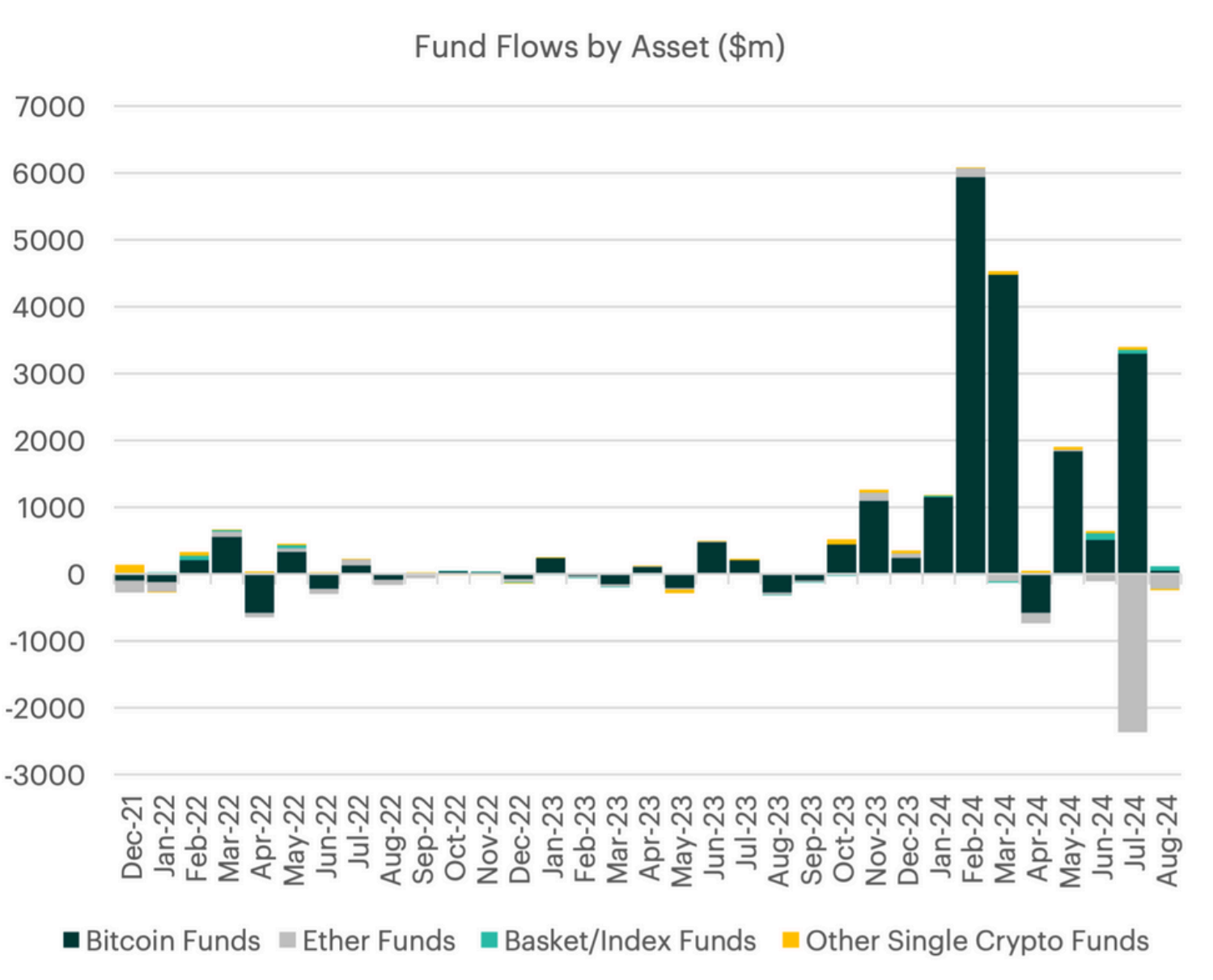
- When compared to traditional asset classes, both Bitcoin and Ether have delivered above average risk-adjusted performance over both shorter and longer time horizons.

Source: CF Benchmarks, Bloomberg, total return indices are referenced in USD, as of September 3, 2024

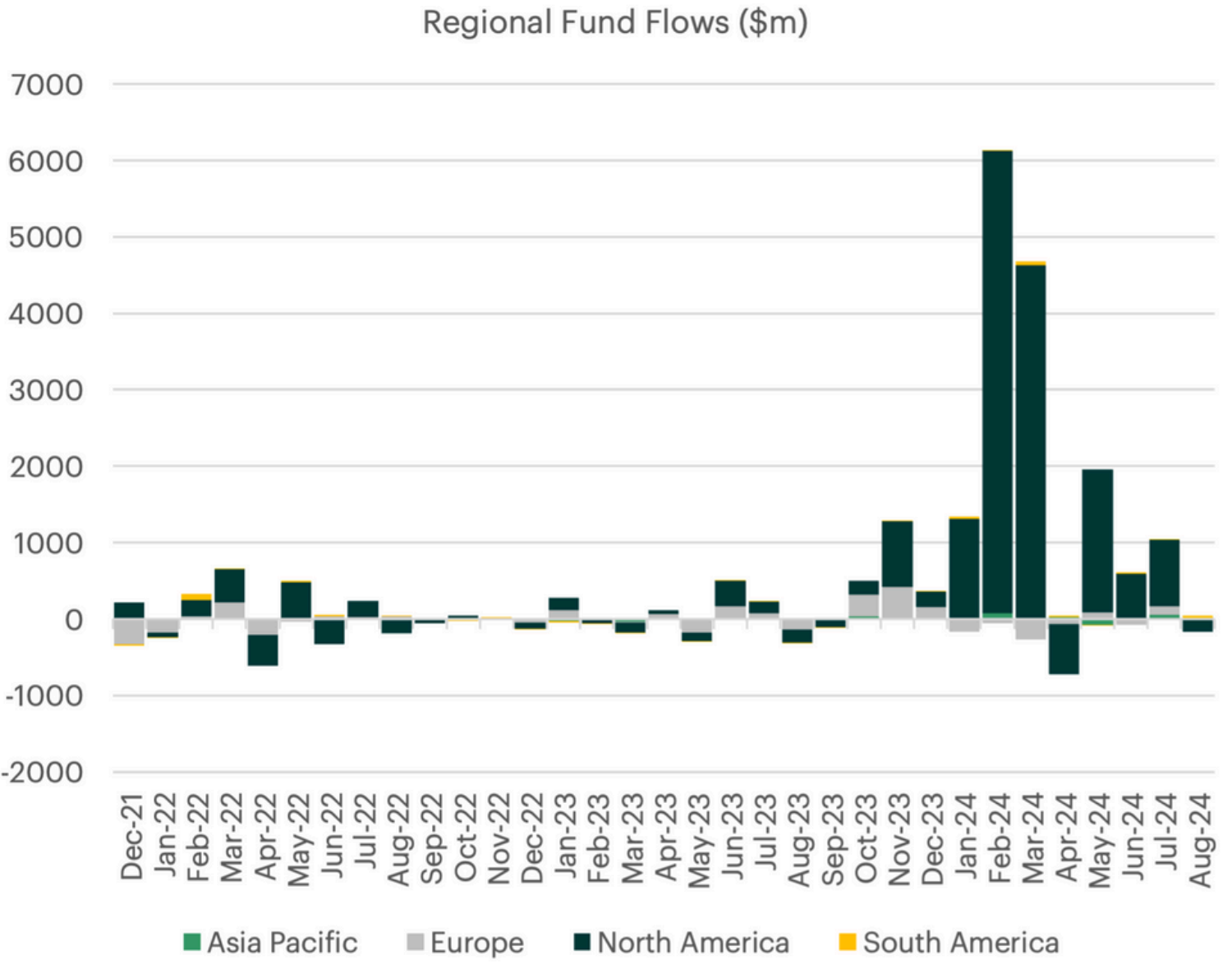


# Investor Activity & Sentiment Positioning

# Currency of Flows



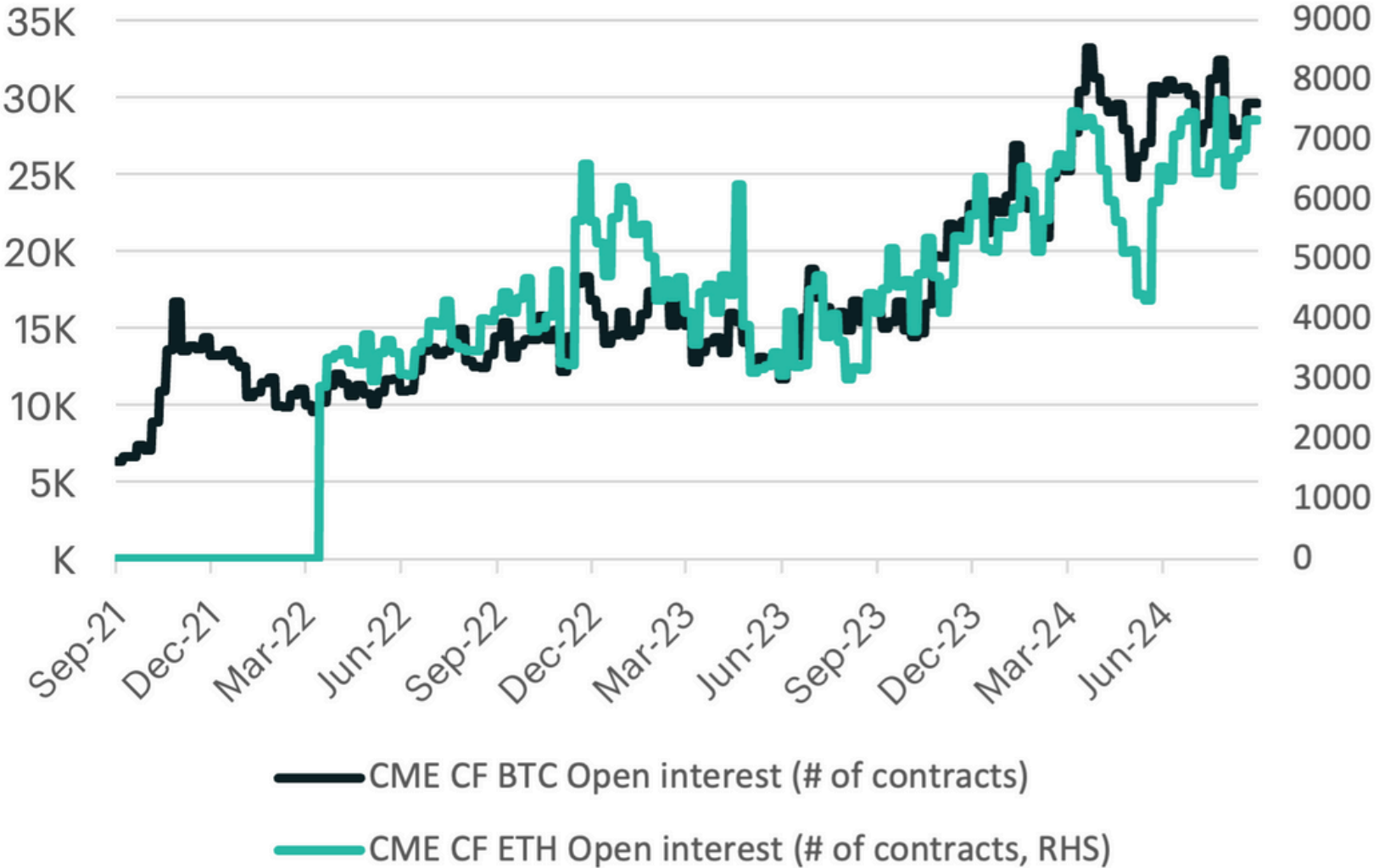
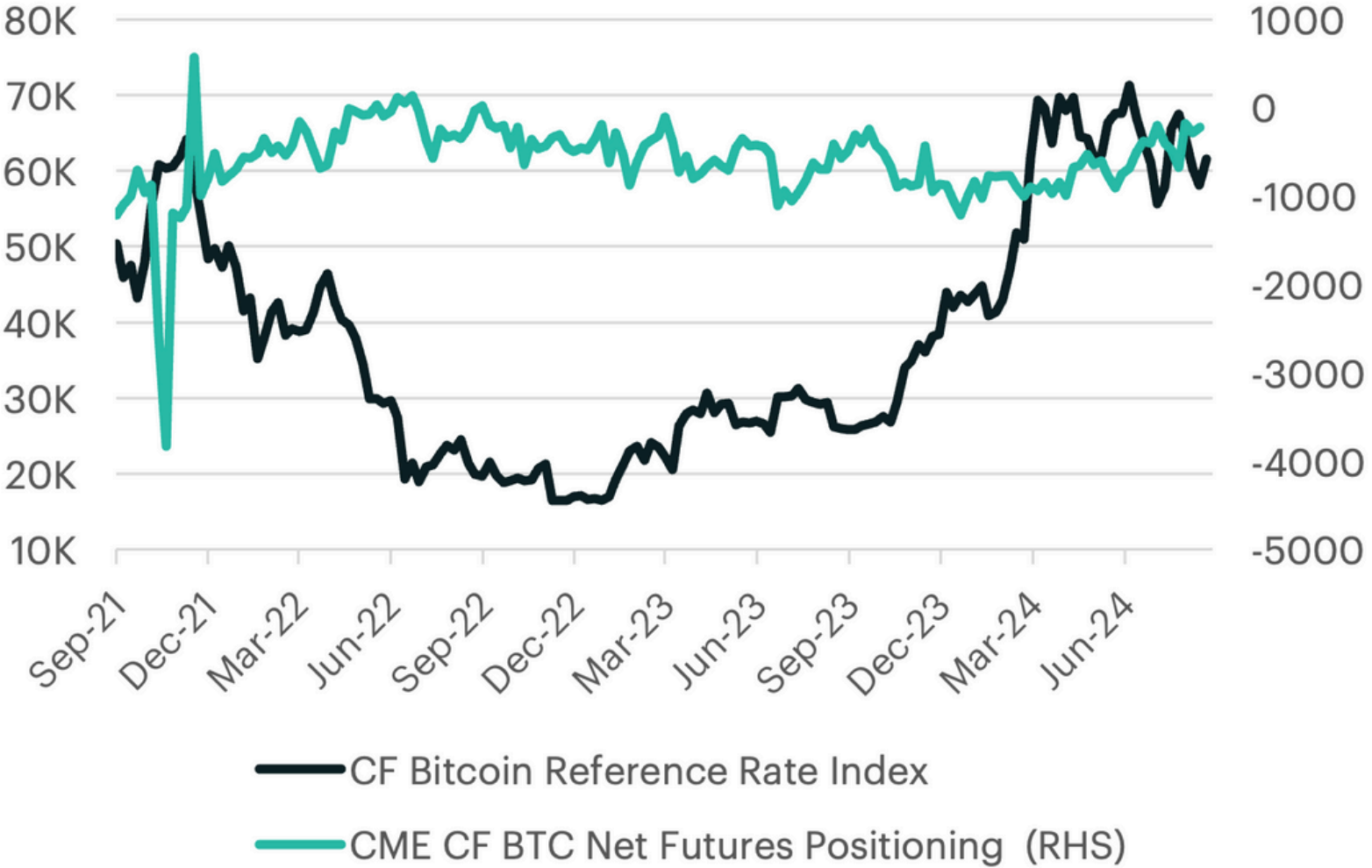
- August saw the first monthly outflows since April, with Ether accounting for \$213 million in outflows, while Bitcoin experienced slight inflows of \$57 million.



- From a regional perspective, the majority of the outflows were concentrated in North America (-\$162 million). South America saw \$33 million in inflows, the highest since March.

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

# Futures Positioning and Open Interest



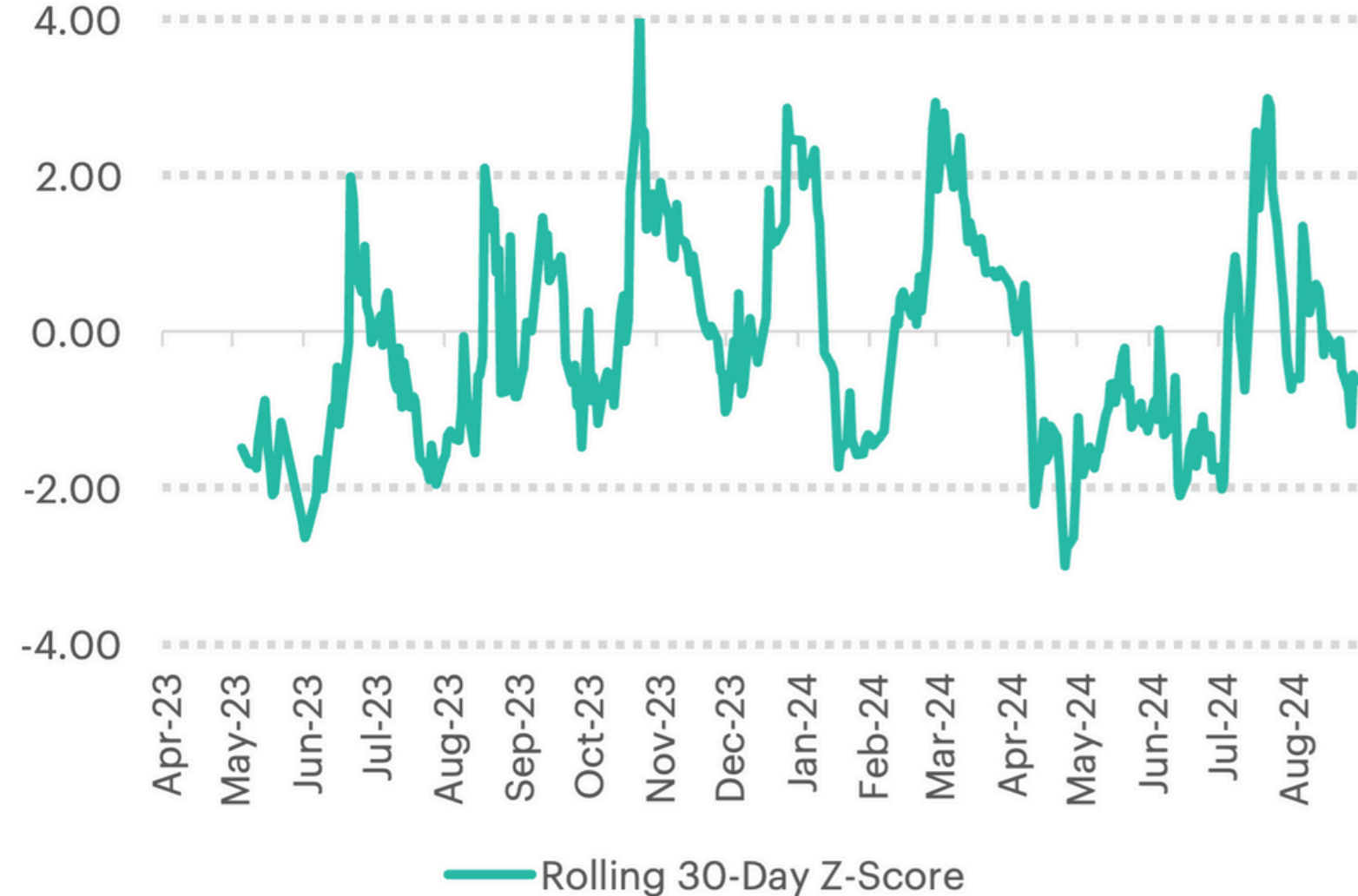
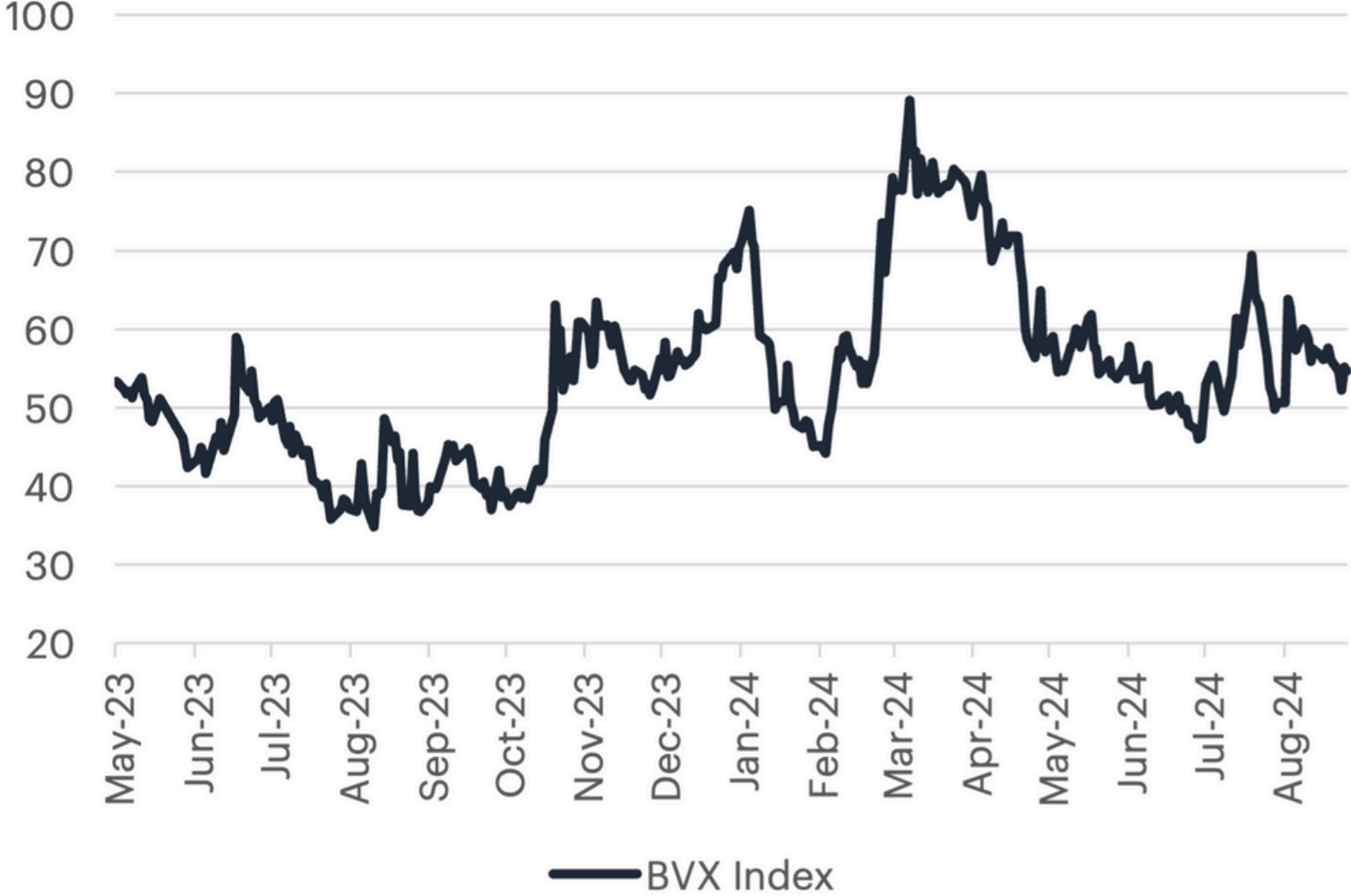
- Net sentiment positioning in Bitcoin increased slightly in August, with long positions outpacing shorts. This resulted in net futures positioning on the CME increasing to -226 from -675 contracts.

- Total open interest for Bitcoin grew 3.6% from a month prior, while Ether saw a 17.5% increase.

Source: CF Benchmarks, CFTC, Bloomberg, as of August 27, 2024



# CF Bitcoin Volatility Index (BVX)

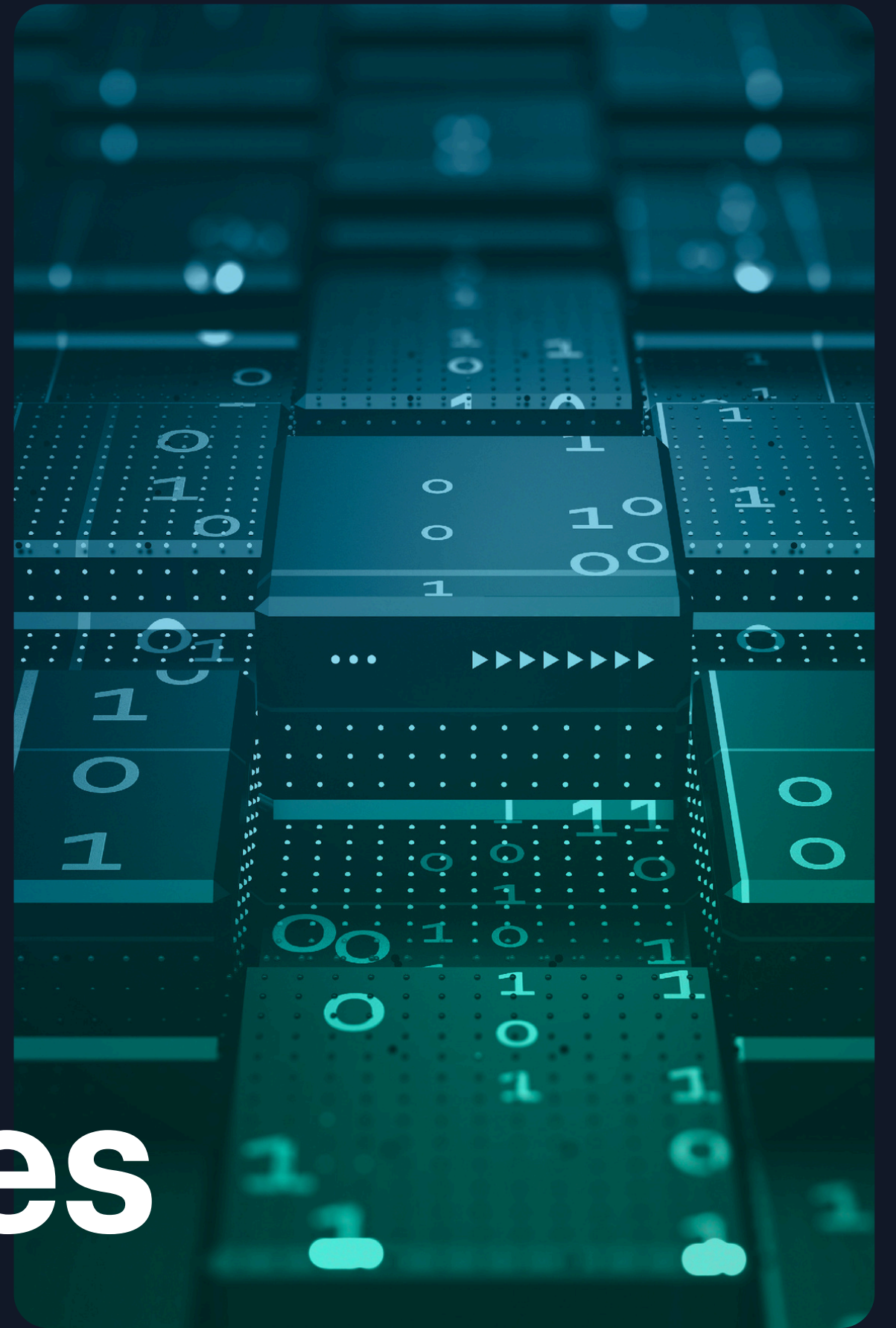


- The CF Bitcoin Volatility Index Settlement Rate (BVXS) is a once a day benchmark representing a forward looking, 30-day constant maturity measure of implied volatility based on CFTC regulated Bitcoin option contracts traded on the CME. The BVX represents the fair strike of a variance swap.
- The BVX ranged from a low of 49.72 to a high of 63.73 over the most recent month. This period saw some extreme swings, with the index posting a +1.4-sigma move (as measured by our rolling 30-day z-score) after the market sold off on August 5th, before declining to the sub-50 level to end the month.

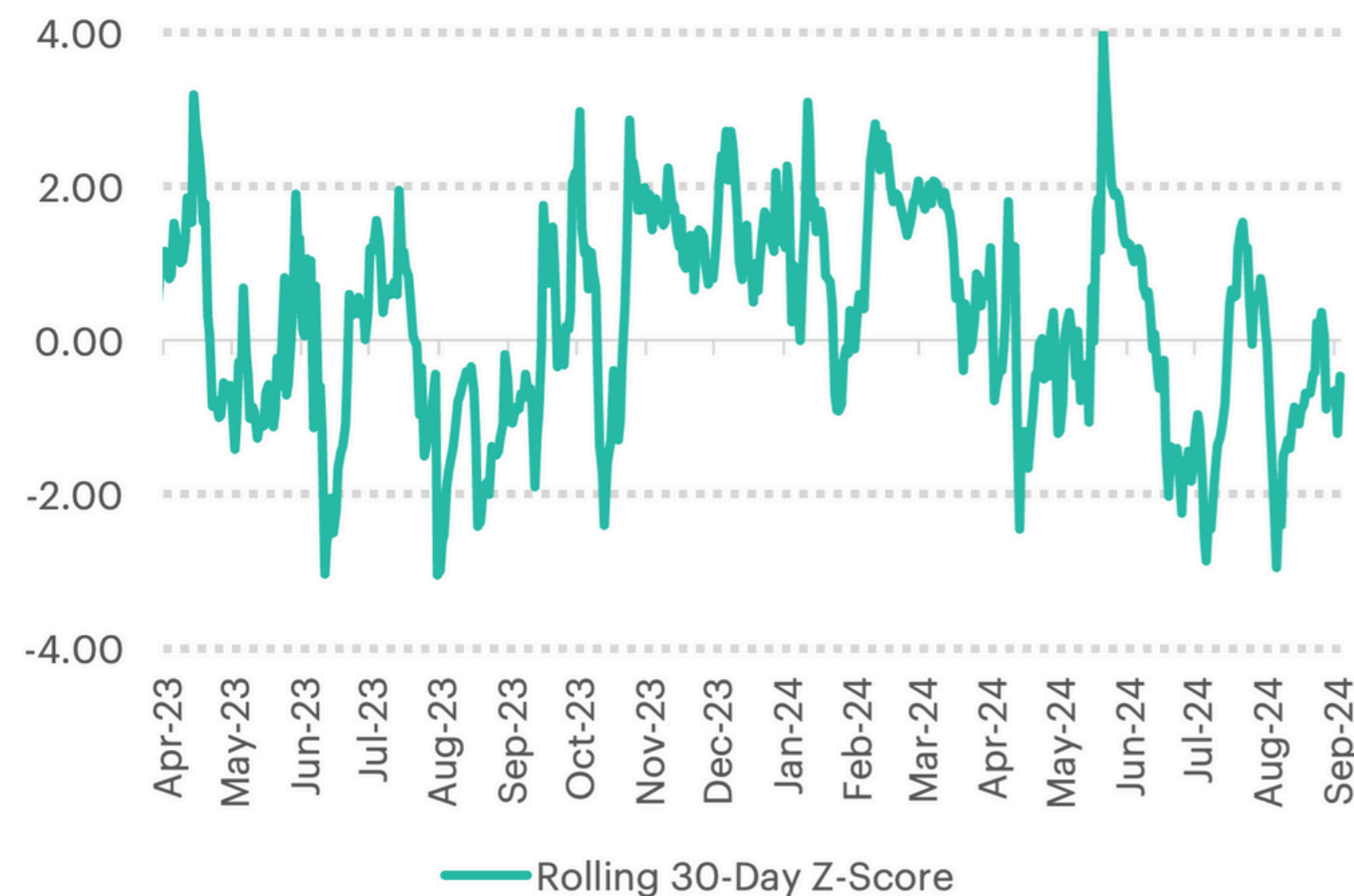
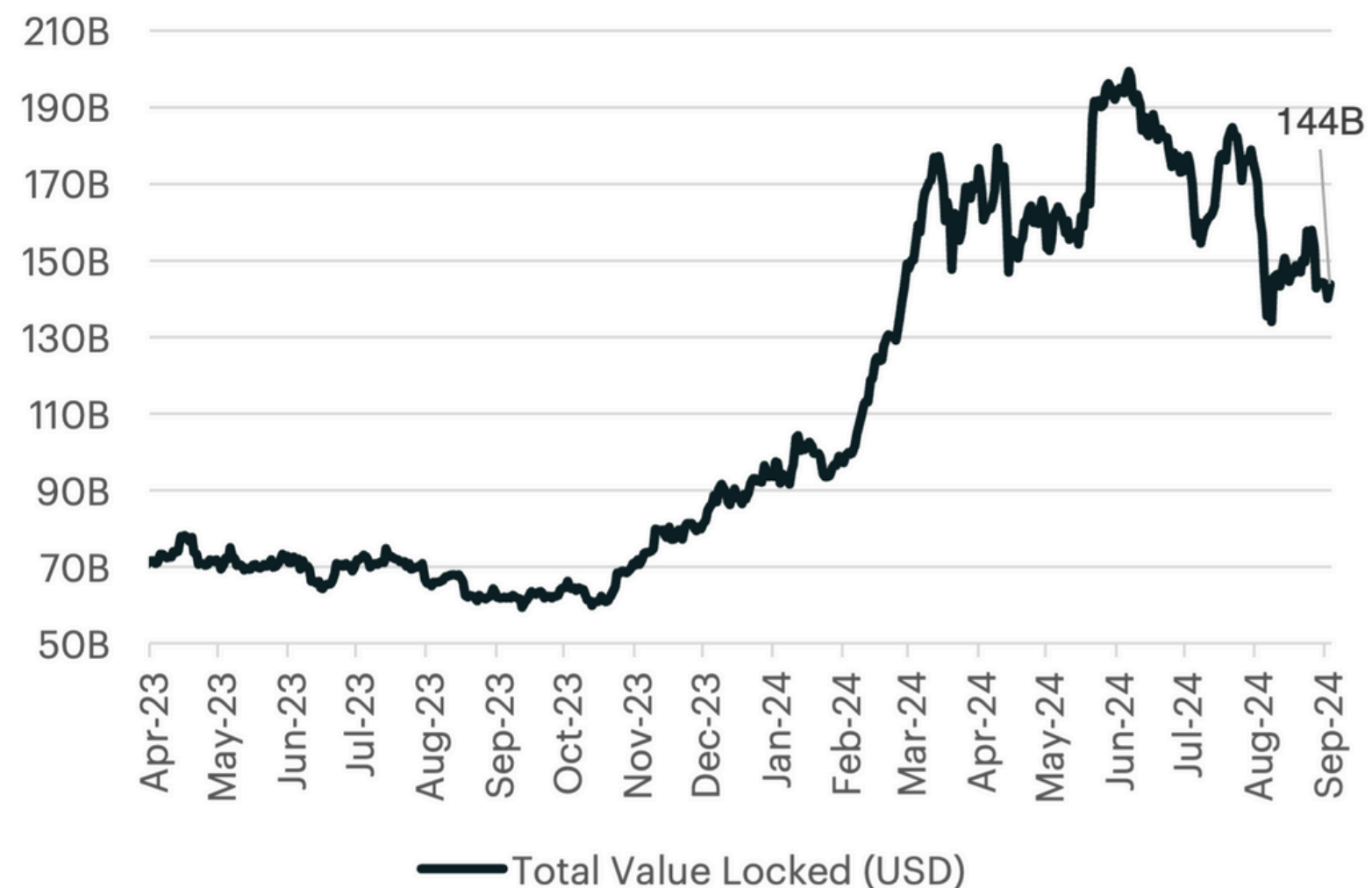
Source: CF Benchmarks, Bloomberg, as of August 29, 2024



# Network & On-chain Updates



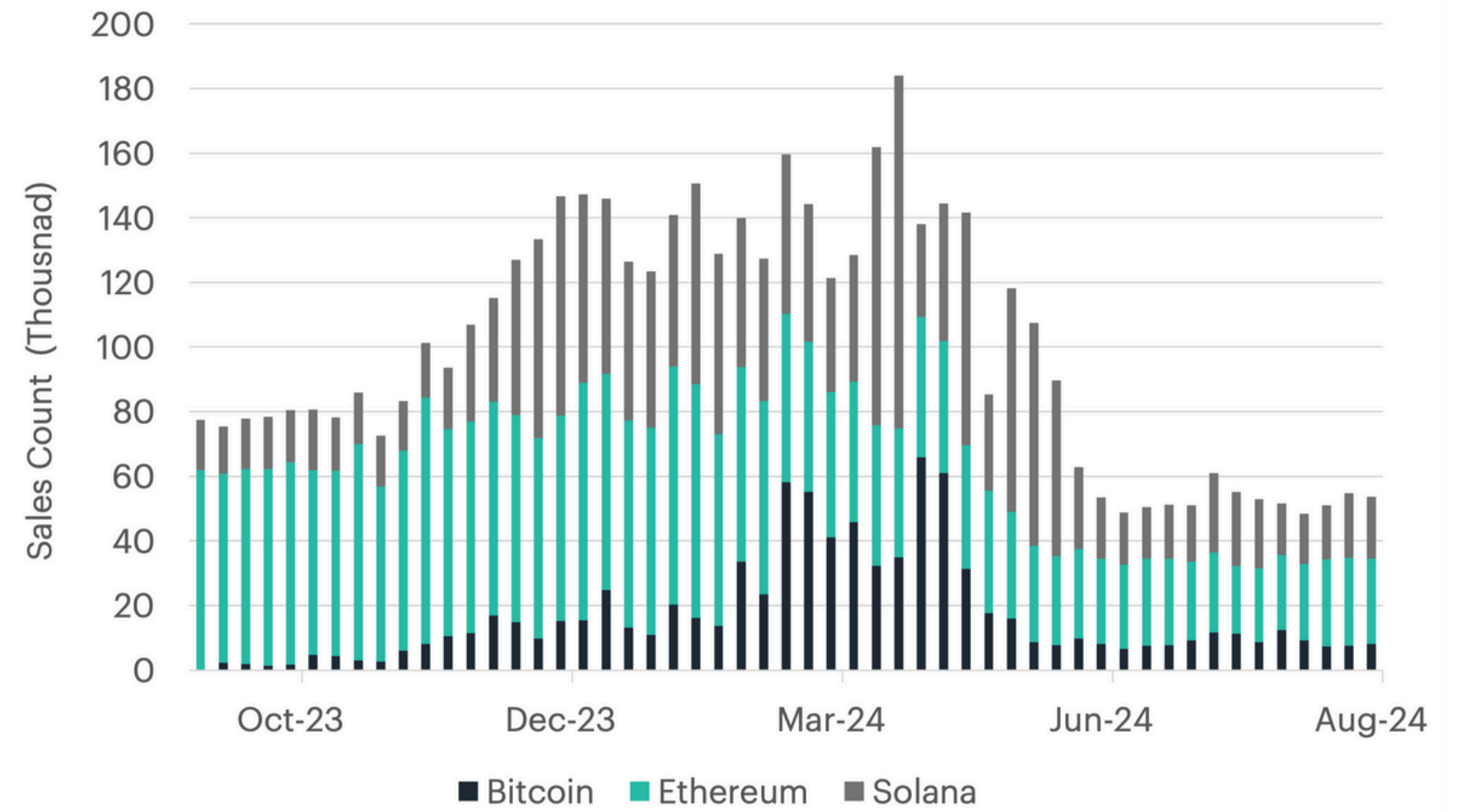
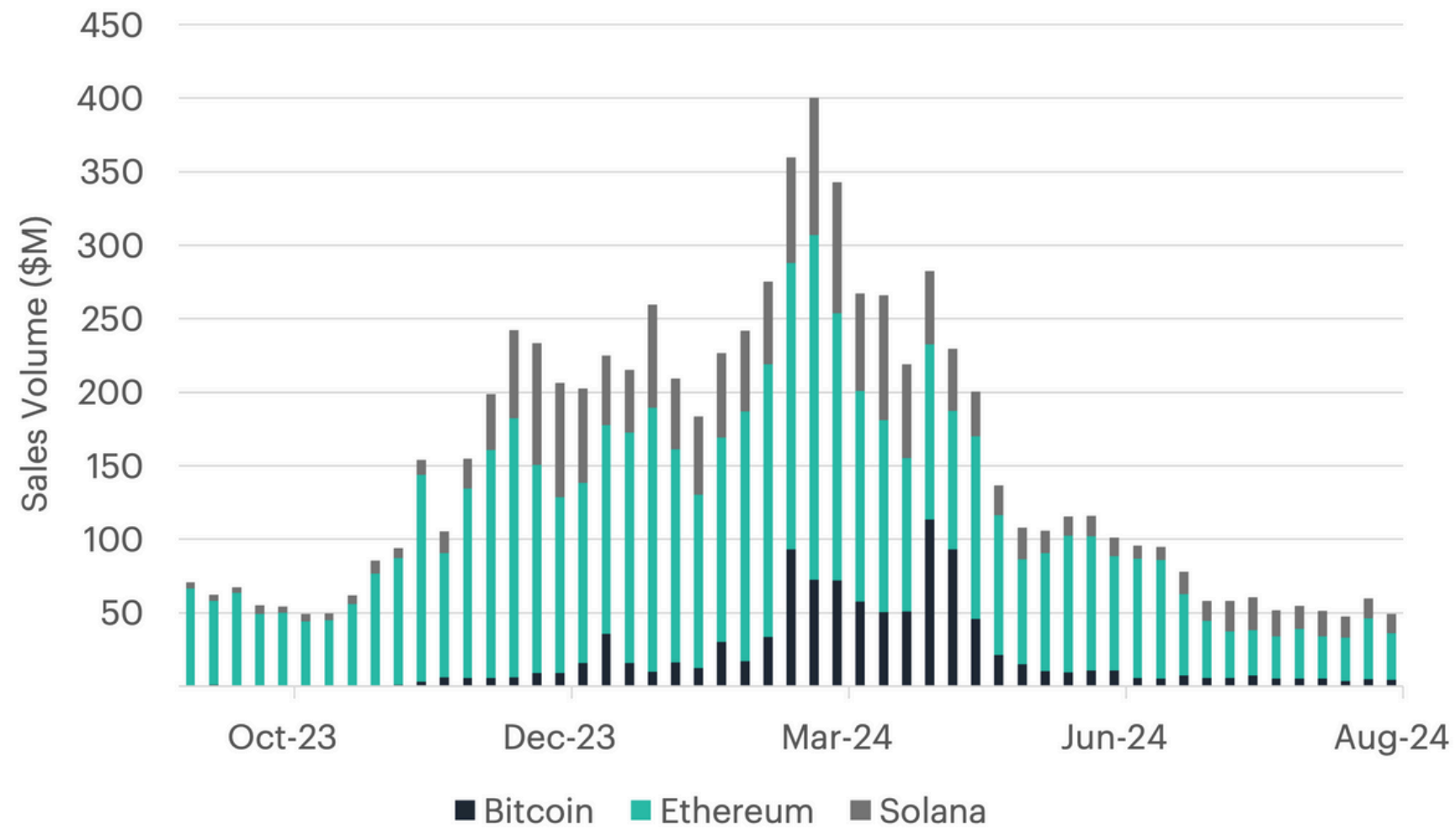
# Total Value Locked (TVL) in DeFi Protocols



- 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 decline over the past month, falling from \$170 billion to approximately \$144 billion. The most significant contributors to this drop were liquid staking protocols on Ethereum, as the value of Ether continued to fall in August.

Source: CF Benchmarks, DeFiLlama, as of September 3, 2024

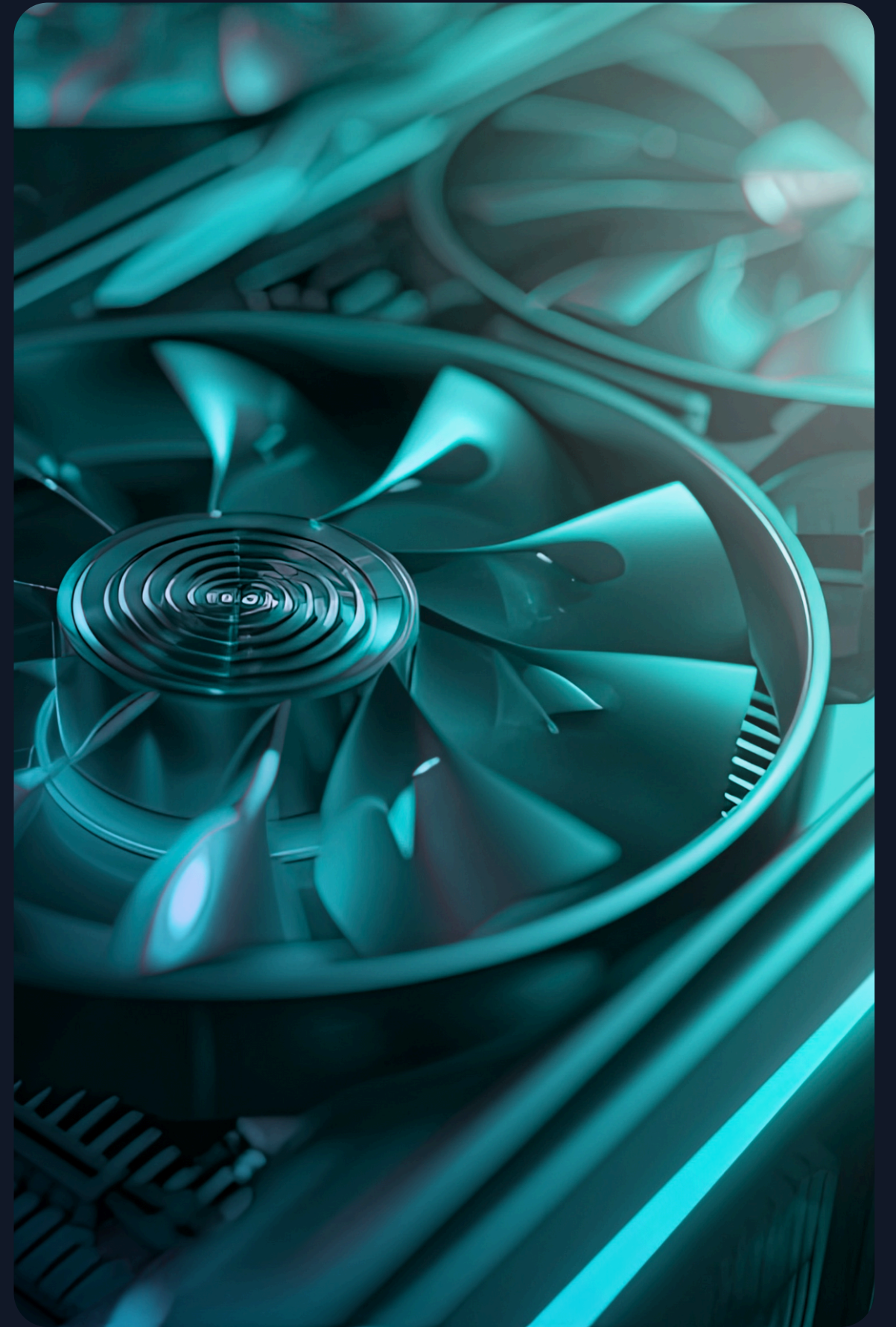
# Weekly NFT Sales by Blockchain



- Ethereum has taken the top position on the NFT sales volume leaderboard in August, despite a 20.4% decrease in sales, as transaction counts fell by 10.1%. In addition, both Bitcoin and Solana saw declines in sales volume. Bitcoin's sales volume fell by 35.2% amid a 39% decrease in ordinal transactions. Meanwhile, Solana also saw a 35% decrease in sales as NFT demand cooled.

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

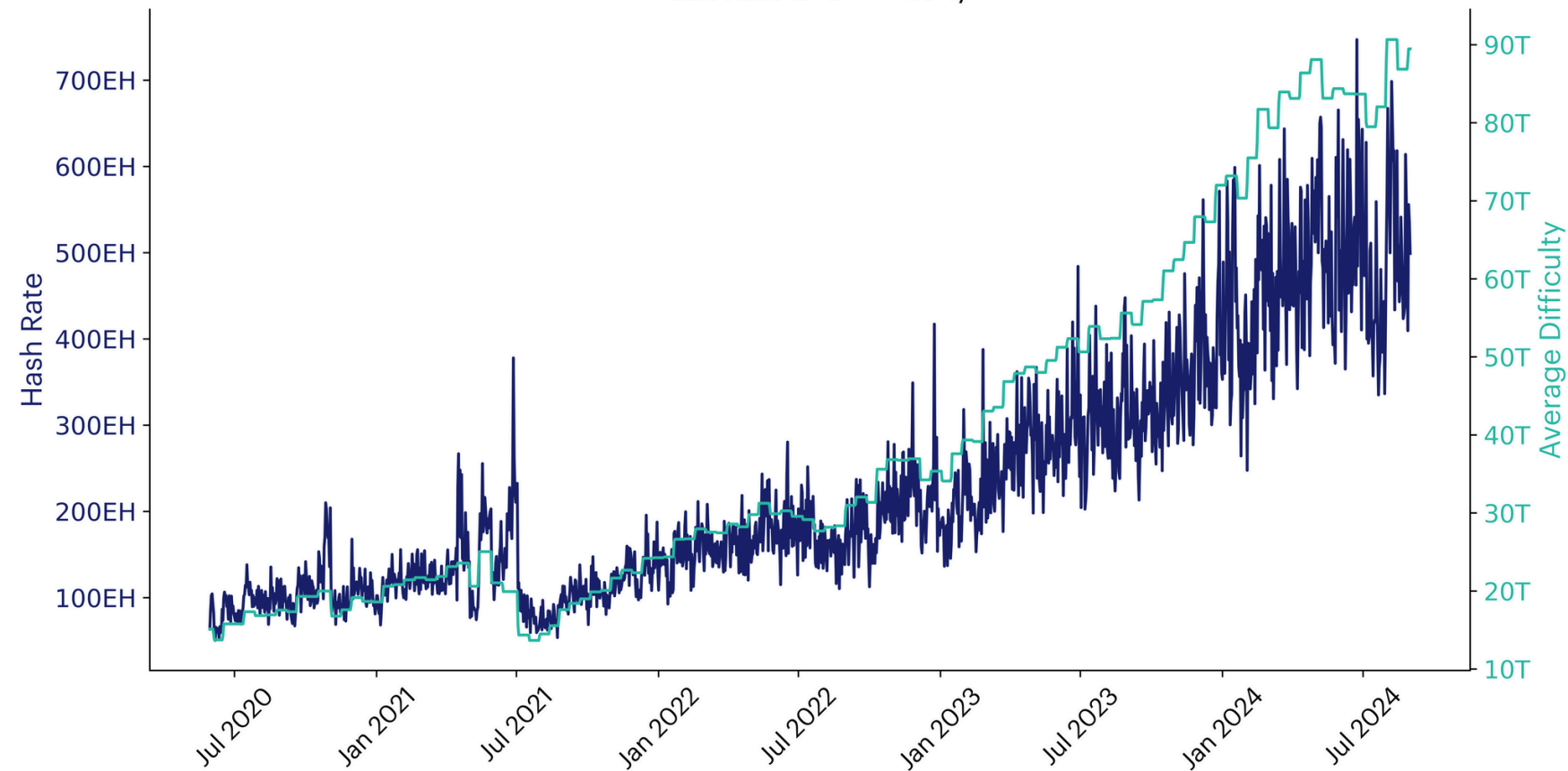
# Mining Metrics



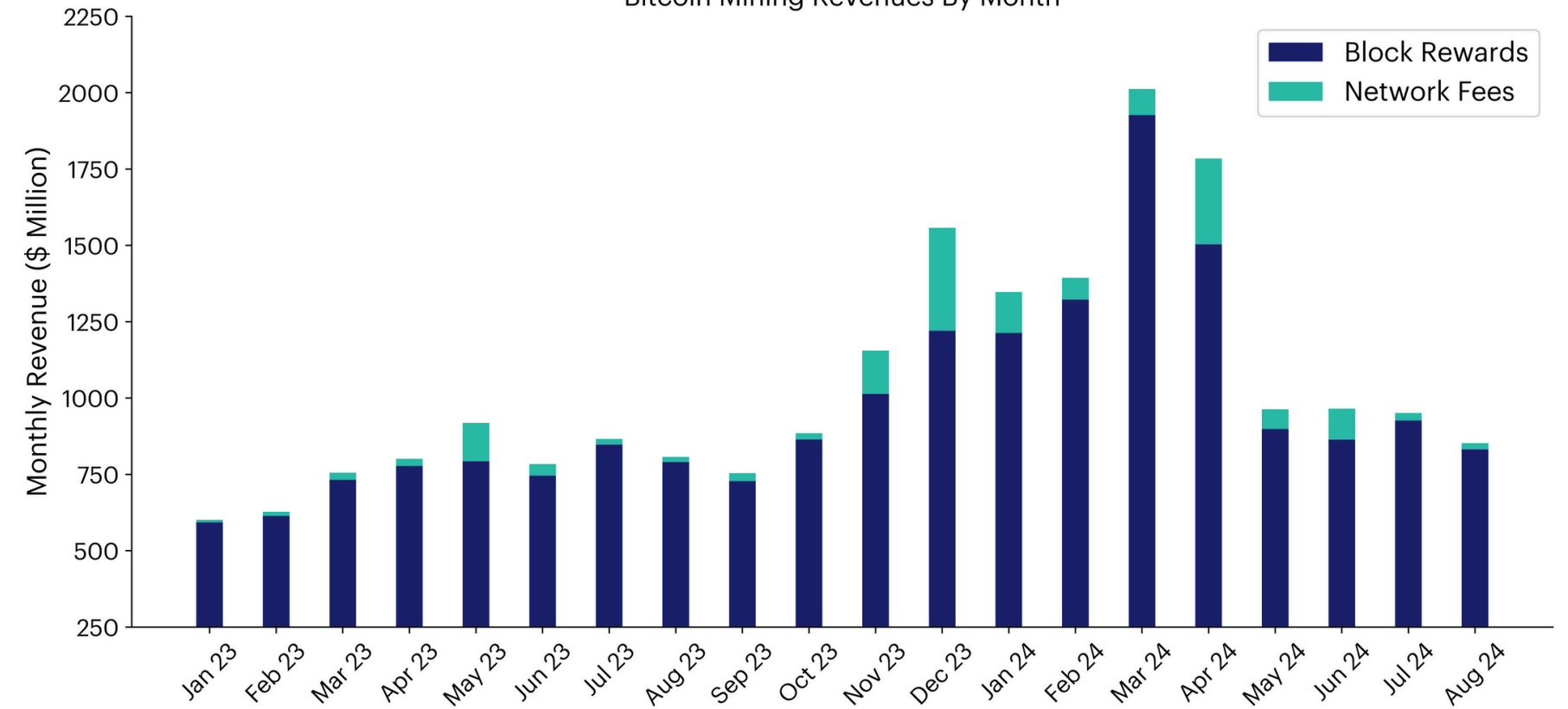
# Bitcoin's Hash Rate & Mining Revenue



Hash Rate and Difficulty



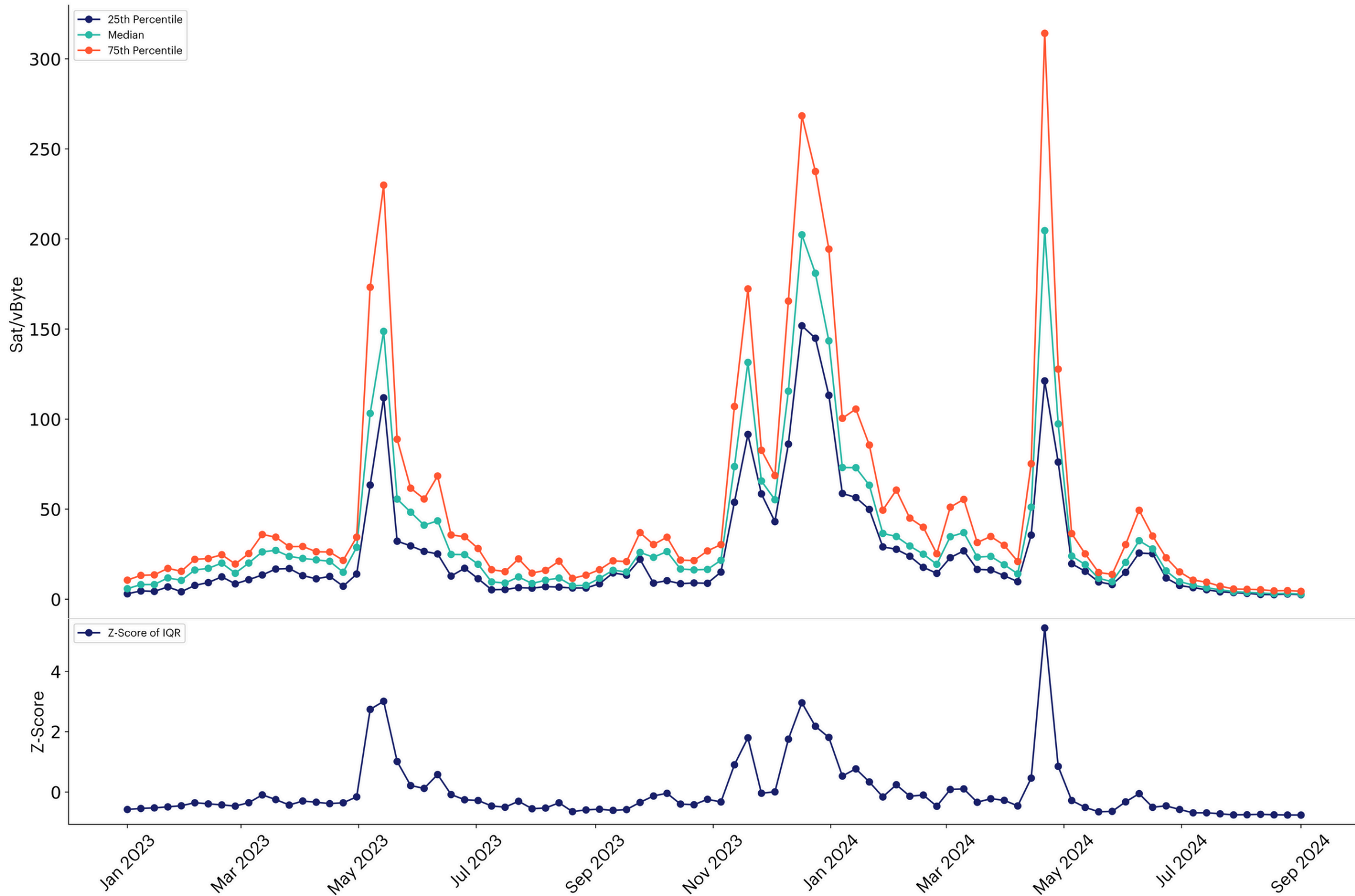
Bitcoin Mining Revenues By Month



- Bitcoin's network hash grew slightly in the past month, gaining 0.7% to reach 499 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 2.2% during the month. The next difficulty adjustment will likely be in the second week of September and is trending towards a 1.6% increase.

- A slight decrease in network fees contributed to mining revenues declining by 10.3% in August. Of the miner rewards during the month, 2.4% came from fees, down from 2.6% in July. As on chain activity decreased in August, Bitcoin's 8.9% monthly decline further reduced the value of block rewards.

# Bitcoin Network Fees



- 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.

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

# Bitcoin Mining Matrix



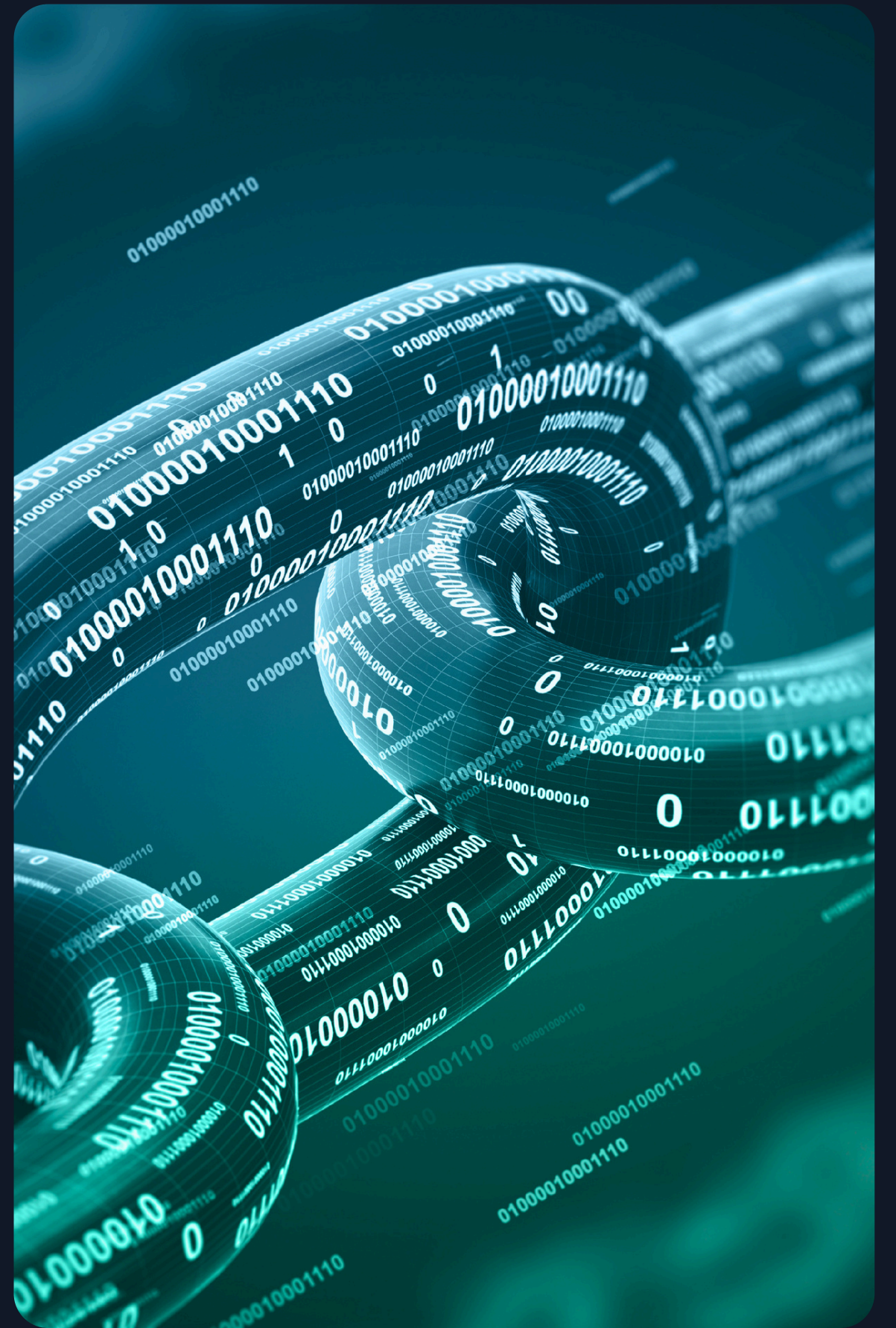
		Bitcoin Price (USD)								
		\$47,962.31	\$50,486.64	\$53,143.83	\$55,940.87	\$58,885.13	\$61,829.39	\$64,920.86	\$68,166.90	\$71,575.24
Efficiency (Watts /TH)	34.0	\$42.01	\$44.22	\$46.55	\$49.00	\$51.58	\$54.16	\$56.87	\$59.71	\$62.70
	29.5	\$48.42	\$50.97	\$53.65	\$56.48	\$59.45	\$62.42	\$65.54	\$68.82	\$72.26
	24.0	\$59.52	\$62.65	\$65.95	\$69.42	\$73.07	\$76.73	\$80.56	\$84.59	\$88.82
	21.5	\$66.44	\$69.93	\$73.62	\$77.49	\$81.57	\$85.65	\$89.93	\$94.43	\$99.15
	18.5	\$77.21	\$81.28	\$85.55	\$90.06	\$94.80	\$99.54	\$104.51	\$109.74	\$115.22
	17.5	\$81.62	\$85.92	\$90.44	\$95.20	\$100.21	\$105.22	\$110.48	\$116.01	\$121.81
	15.0	\$95.23	\$100.24	\$105.52	\$111.07	\$116.91	\$122.76	\$128.90	\$135.34	\$142.11
	13.5	\$105.81	\$111.38	\$117.24	\$123.41	\$129.91	\$136.40	\$143.22	\$150.38	\$157.90

- 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 \$62.21 per MWh, as reported by the EIA in June 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.

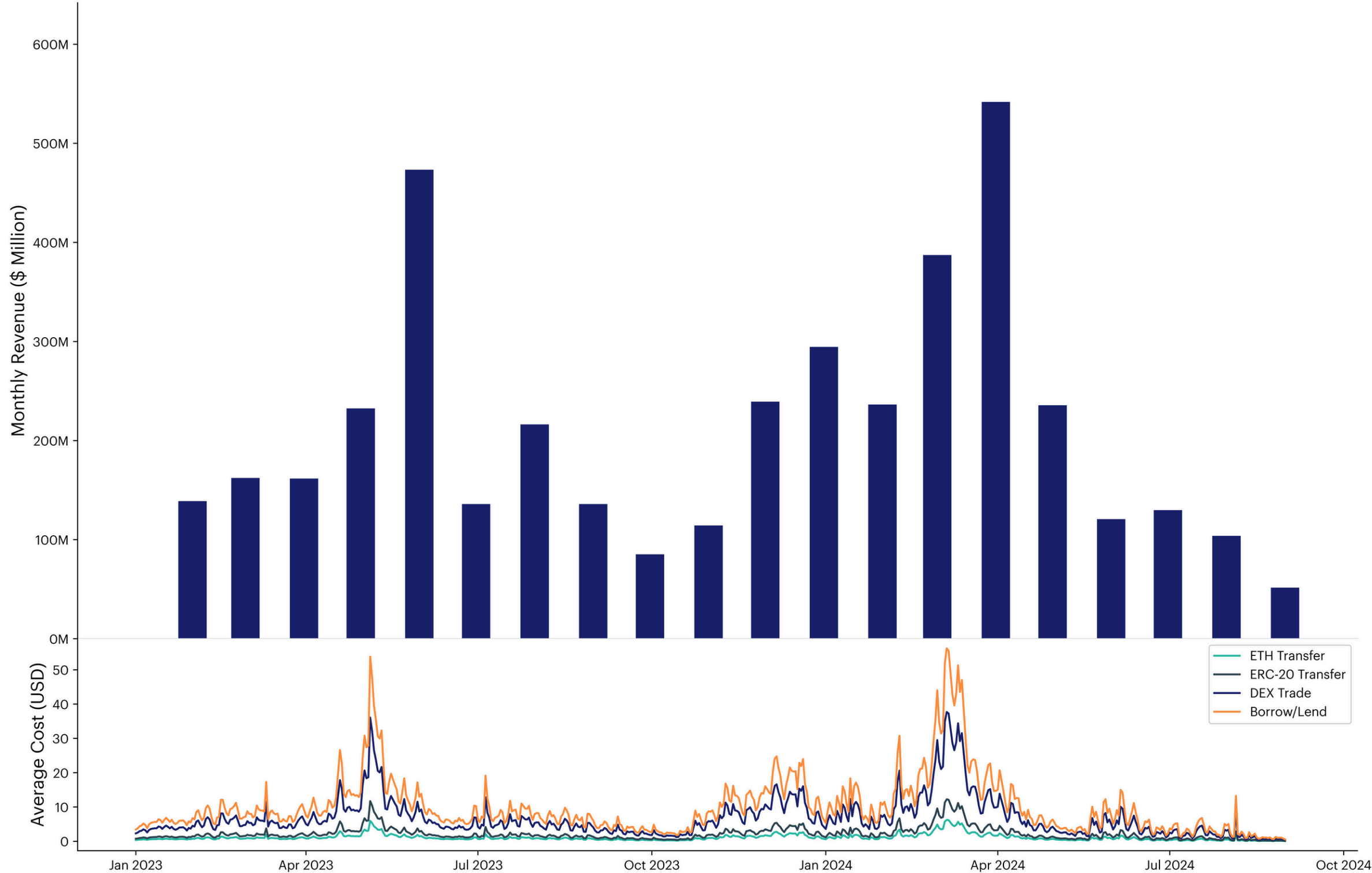
Source: CF Benchmarks, Dune Analytics, as of August 31, 2024  
 EIA.gov as of June 30, 2024



# Network Fundamentals & Reward Rates



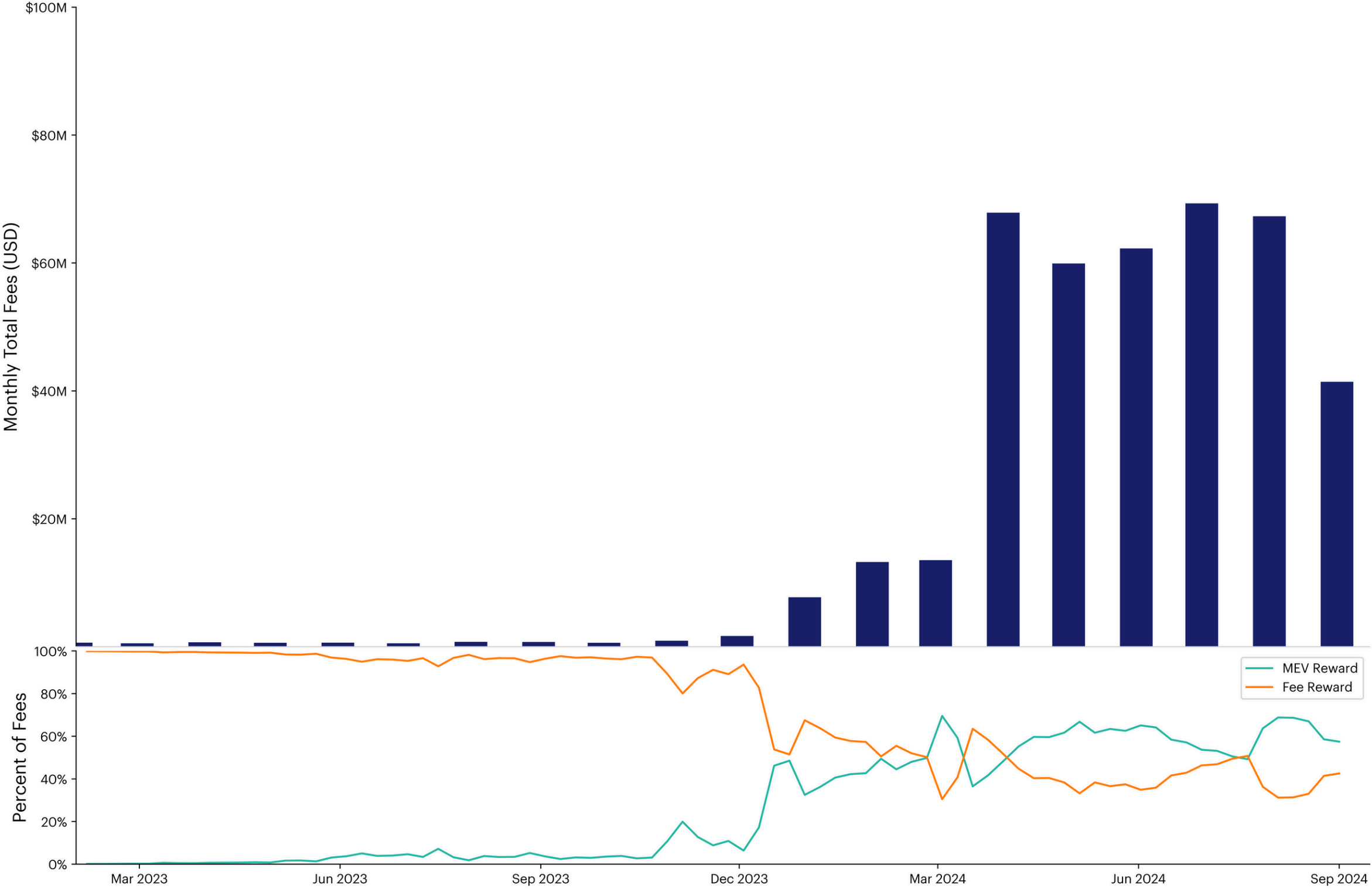
# Ethereum Network Fees & Revenue



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

- 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 August, the Ethereum network saw total fees paid decrease 50% from the prior month to \$51.6M. The average fee per interaction with the Ethereum network fell by 84.9% over the period, indicating that overall transaction volumes were up during the month.

# Solana Network Fees & Revenue



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

- Solana’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 analyzing the percentage of fees derived from MEV (Maximum Extractable Value) versus base fees, we can gauge the health of Solana's fee market. A higher proportion of MEV fees may indicate increasing competition and demand for block space.
- In August, the Solana network saw total fees paid decrease 38.4% from the prior month to \$41.4M. MEV made up approximately 66.2% of the total fees, reflecting a high demand for block space despite the overall decline in fee revenue, suggesting that competitive, value-extractive activities continue to drive network usage.

# Staking Rewards & Inflation Rates



Network	Staking Reward Rate	Inflation Rate	Participation Rate	Real Reward Rate
Ethereum <i>(1-Month Change)</i>	2.74% <i>-0.27%</i>	0.68% <i>0.11%</i>	28.51% <i>0.19%</i>	2.06% <i>-0.38%</i>
Solana <i>(1-Month Change)</i>	7.12% <i>0.13%</i>	4.35% <i>0.08%</i>	68.01% <i>-0.02%</i>	2.77% <i>0.05%</i>
Cardano <i>(1-Month Change)</i>	2.78% <i>-0.08%</i>	2.29% <i>-0.07%</i>	63.04% <i>-0.47%</i>	0.49% <i>-0.01%</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 August 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

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## 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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Have a question or would like to chat? If so, please drop us a line to:

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