

Monthly Market Recap

November 2025

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Market Performance

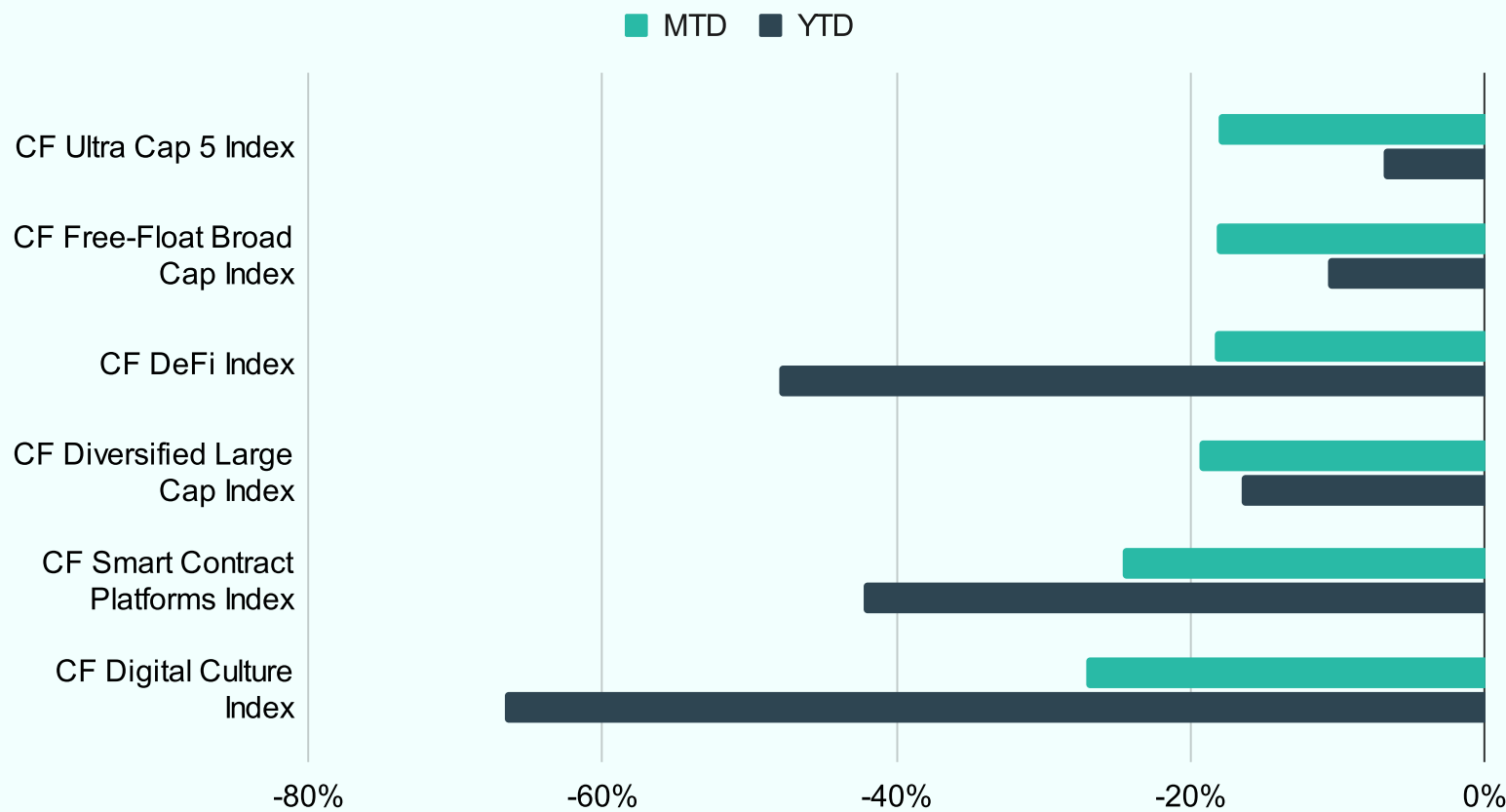
Sell-Off Intensifies Amid Fed Uncertainty

Market Summary

November 2025 extended the risk-off turn, pushing digital assets deeper into correction territory. With December Fed cut odds fading, risk appetite deteriorated further, Bitcoin pulled back (falling into the lower \$80K range), and crypto ETPs recorded some of their heaviest weekly outflows of the year. Volatility climbed sharply, and CME and CF Benchmarks delivered a timely launch of the CME CF Bitcoin Volatility Indices (BVX/BVXS)—providing allocators a standardized 30-day implied-vol gauge as hedging demand intensified. Meanwhile, market access and infrastructure progressed as the "second wave" of U.S. spot ETFs broadened access beyond BTC and ETH, even as hawkish policy signals dominated the downturn.

Major benchmarks posted steep declines: the CF Ultra Cap 5 fell 18.1% MTD (YTD -6.9%), the CF Free-Float Broad Cap dropped 18.2% (YTD -10.7%), and the CF Diversified Large Cap slid 19.5% (YTD -16.5%). Higher-beta segments led the selloff, with CF Smart Contract Platforms down 24.6% MTD (YTD -42.2%), CF DeFi off 18.4% (YTD -48.0%), and CF Digital Culture plunging 27.1% (YTD -66.6%). Performance dispersion widened as mega-cap cohorts proved relatively more resilient than niche segments. While month-end levels stabilized off intramonth lows, the indices closed November decisively lower across the board.

Benchmark Performance

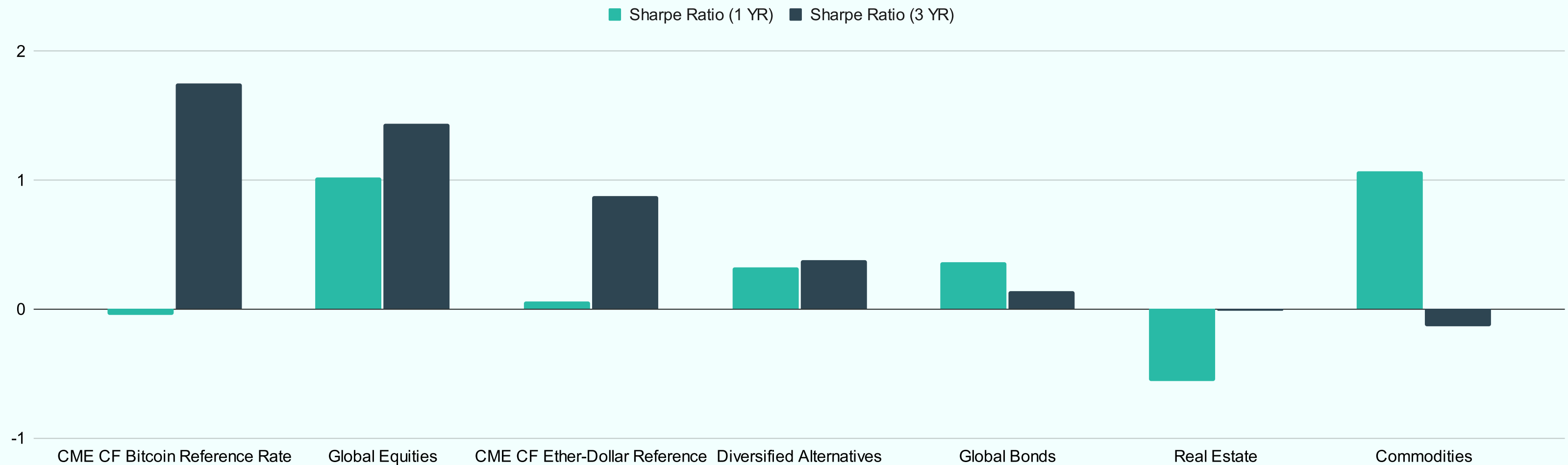


All index performance is rebased to 100.
Source: CF Benchmarks, Bloomberg, as of November 30, 2025

Trailing Risk-Adjusted Returns

The Sharpe ratio measures the return of an asset relative to the risk taken. Both Bitcoin and Ether currently demonstrate strong risk-adjusted performance, positioning them favorably relative to many traditional asset classes.

Sharpe Ratio



Source: CF Benchmarks, Bloomberg, total return indices are referenced in USD, as of November 30, 2025

Major Crypto-Pairs

Name	Category	Sub-Category	Segment	1 Month	3 Month	1 Year	30 D Volatility
Internet Computer	Settlement	Programmable	General Purpose Smart Contract Platforms	36.5%	-15.8%	-67.9%	167.39
Filecoin	Services	Utility	Information & Data Management	5.8%	-29.4%	-77.3%	219.86
Uniswap	Sectors	Finance	Trading	5.6%	-37.9%	-53.3%	122.37
Bitcoin Cash	Settlement	Non-Programmable	Store Of Value And Payment	-4.3%	-4.8%	-1.4%	76.92
Maker	Sectors	Finance	Stablecoin Issuance & Management	-4.8%	-17.6%	-31.0%	101.62
Synthetix	Sectors	Finance	Derivatives	-10.2%	-42.1%	-15.4%	99.26
Litecoin	Settlement	Non-Programmable	Store Of Value And Payment	-12.0%	-23.9%	-18.4%	90.86
Ripple	Settlement	Non-Programmable	Store of Value and Payment	-12.1%	-21.4%	14.8%	74.48
Curve DAO Token	Sectors	Finance	Trading	-12.1%	-44.4%	-38.2%	95.90
Ethereum Classic	Settlement	Programmable	General Purpose Smart Contract Platforms	-13.7%	-34.8%	-58.4%	86.43
Tezos	Settlement	Programmable	General Purpose Smart Contract Platforms	-13.8%	-31.5%	-63.8%	82.75
Vechain	Settlement	Programmable	General Purpose Smart Contract Platforms	-14.1%	-44.4%	-70.8%	86.12
Stellar	Settlement	Non-Programmable	Store Of Value And Payment	-16.6%	-28.0%	-51.6%	63.67
Bitcoin	Settlement	Non-Programmable	Store Of Value And Payment	-16.8%	-16.6%	-6.0%	43.72
Cosmos	Settlement	Programmable	General Purpose Smart Contract Platforms	-17.1%	-45.1%	-71.1%	86.65
Dogecoin	Settlement	Non-Programmable	Store Of Value And Payment	-19.9%	-31.6%	-65.2%	72.30
Aave	Sectors	Finance	Borrowing & Lending	-19.9%	-42.1%	-13.8%	92.59
Algorand	Settlement	Programmable	General Purpose Smart Contract Platforms	-21.1%	-39.6%	-68.5%	77.19
Polkadot	Settlement	Programmable	General Purpose Smart Contract Platforms	-21.2%	-40.5%	-75.2%	98.51
Avalanche	Settlement	Programmable	General Purpose Smart Contract Platforms	-21.6%	-39.0%	-68.2%	70.68
Ether	Settlement	Programmable	General Purpose Smart Contract Platforms	-22.4%	-32.8%	-19.5%	67.27
Fantom	Settlement	Programmable	General Purpose Smart Contract Platforms	-22.4%	-65.3%	-90.0%	128.49
Stacks	Services	Infrastructure	Computing	-23.6%	-50.1%	-86.6%	84.69
Chainlink	Services	Utility	Oracles	-24.1%	-44.9%	-32.2%	76.61
EOS	Settlement	Programmable	General Purpose Smart Contract Platforms	-24.4%	-59.2%	-78.7%	91.92
Solana	Settlement	Programmable	General Purpose Smart Contract Platforms	-27.0%	-33.4%	-44.2%	76.68
Polygon	Services	Infrastructure	Scaling	-27.0%	-53.0%	-77.9%	77.64
Decentraland	Sectors	Culture	Vr And Ar	-27.0%	-42.8%	-74.7%	70.47
Hedera	Settlement	Programmable	General Purpose Smart Contract Platforms	-28.7%	-34.6%	-16.0%	84.46
Cardano	Settlement	Programmable	General Purpose Smart Contract Platforms	-31.3%	-49.7%	-61.8%	74.95
Apecoin	Sectors	Culture	Social	-33.5%	-53.1%	-82.4%	80.35

Source: Returns are based in USD terms, CF Benchmarks, Bloomberg, as of November 30, 2025

Leaders

Internet Computer (ICP) led the pack with a 36.5% monthly gain, driven primarily by aggressive token burns and sustained momentum for the AI narrative. Filecoin (FIL) followed, up 5.8% after announcing the Filecoin Onchain Cloud on November 18th. Uniswap (UNI) rounded out the top performers with a solid 5.6% advance, fueled by the fee-switch proposal and a 100 million UNI burn.

Laggards

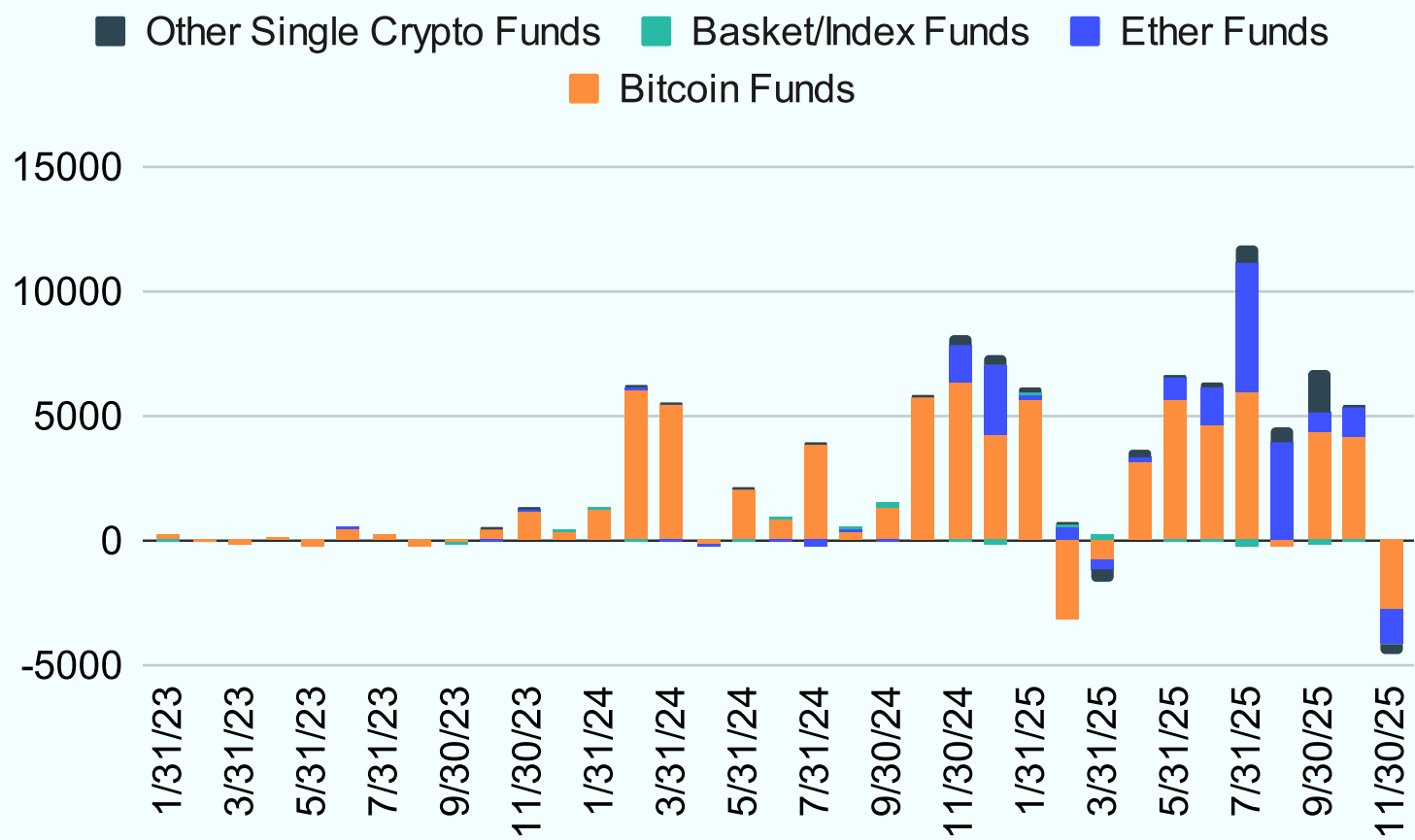
Apecoin (APE), Cardano (ADA), and Hedera (HBAR) were the weakest performers over the past month, down 33.5%, 31.3%, and 28.7%, respectively. APE faced ongoing token unlocks, Cardano struggled with a brief outage, and Hedera was hit by continued liquidations in the alt-coin market.

Investor Activity & Sentiment Positioning

Fund Flows

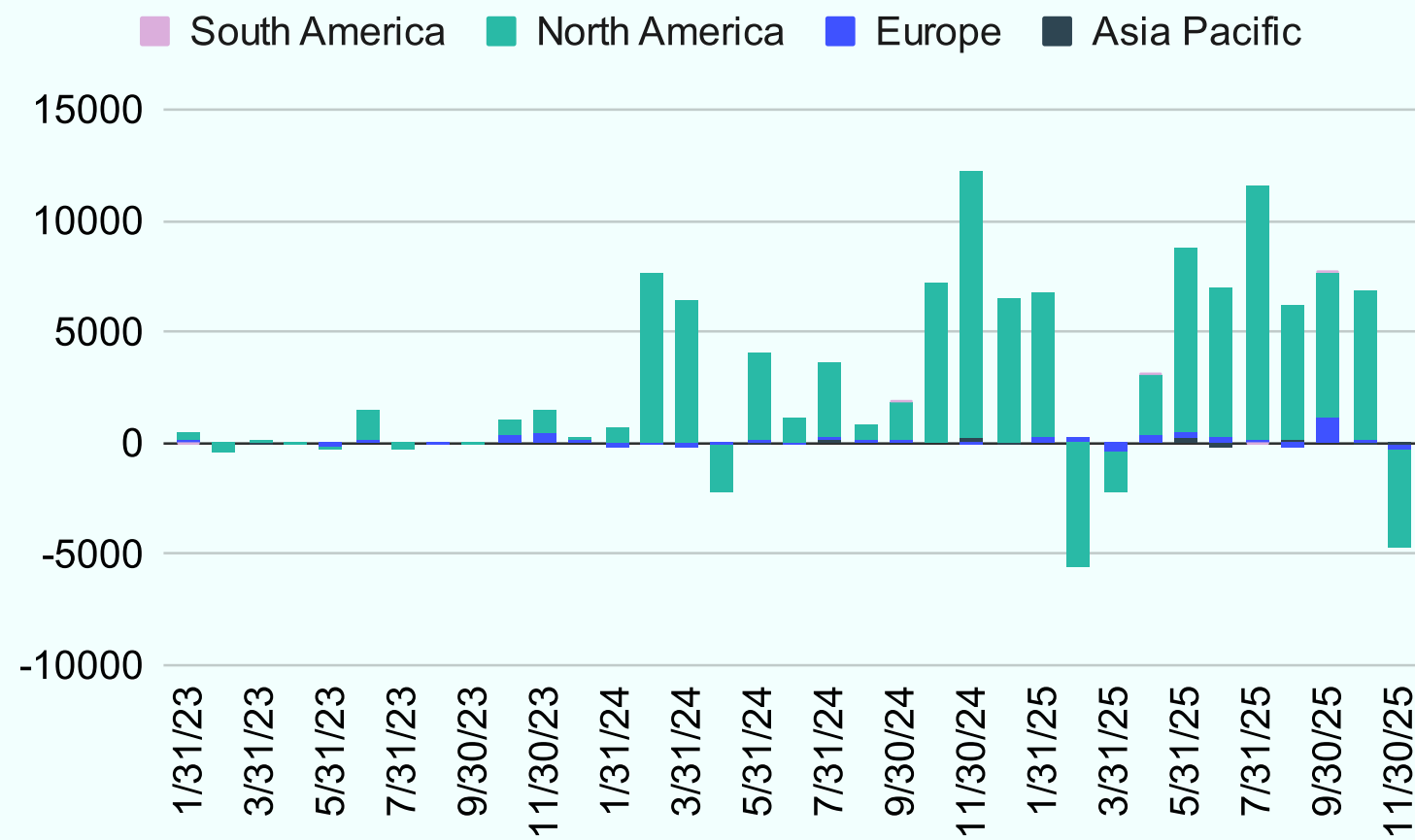
November recorded significant outflows from digital asset funds, with investors redeeming roughly \$4.5 billion. Bitcoin represented the lion's share at \$2.8 billion, while Ether trailed at \$1.4 billion. Regionally, North America drove the bulk of redemptions at approximately \$4.4 billion, compared with Europe's \$213 million, underscoring the concentration of selling pressure in U.S. markets.

Fund Flows by Asset (\$m)



Source: CF Benchmarks, Bloomberg, as of November 30, 2025

Regional Fund Flows (\$m)

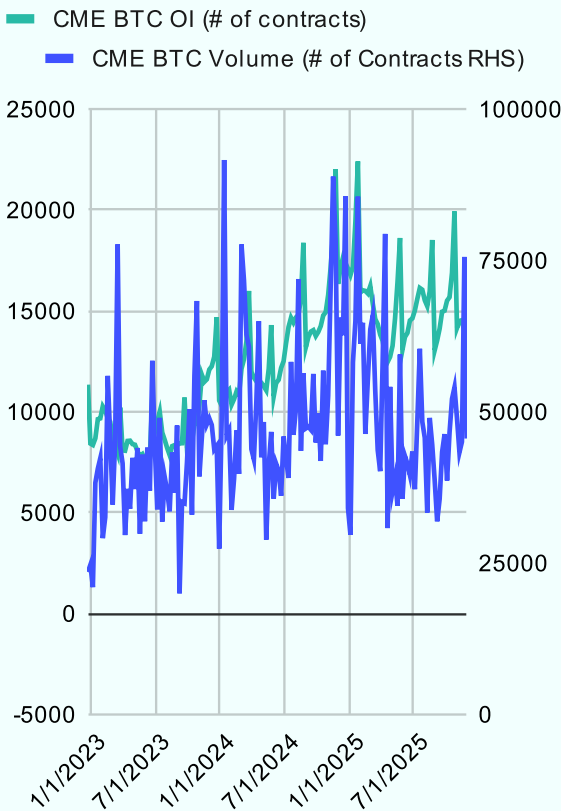


Source: CF Benchmarks, Bloomberg, as of November 30, 2025

Futures Positioning and Open Interest

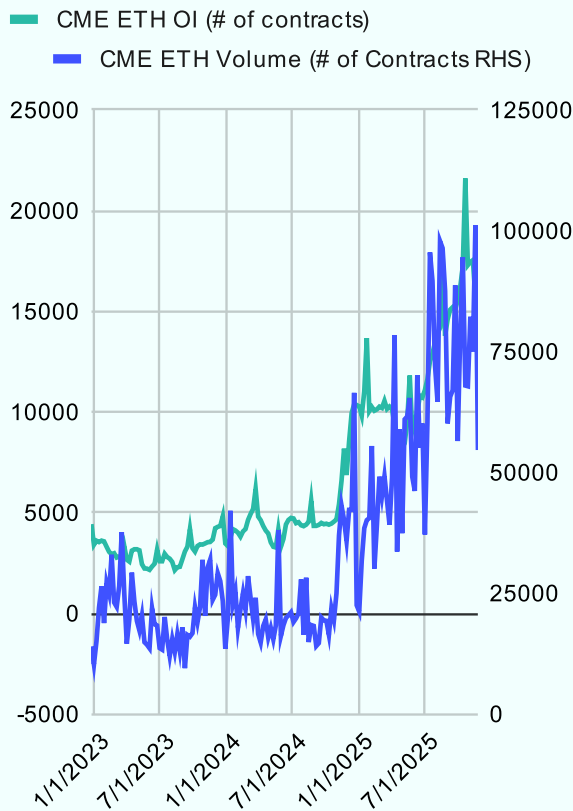
Bitcoin futures saw a modest decline in open interest during November, slipping 0.8% from 14,157 to 14,029 contracts. Ether futures registered a steeper drop, with open interest falling 14.9% to 14,708 contracts despite robust trading activity that peaked at 101,130 contracts toward month-end. Meanwhile, Solana and XRP futures posted similar pullbacks following a record October: Solana's open interest declined 19.4% to 10,509 contracts as volumes exceeded 38,000 contracts, while XRP's open interest fell 13.3% to 5,745 contracts with volumes ticking modestly higher.

CME Bitcoin Volume and Open Interest



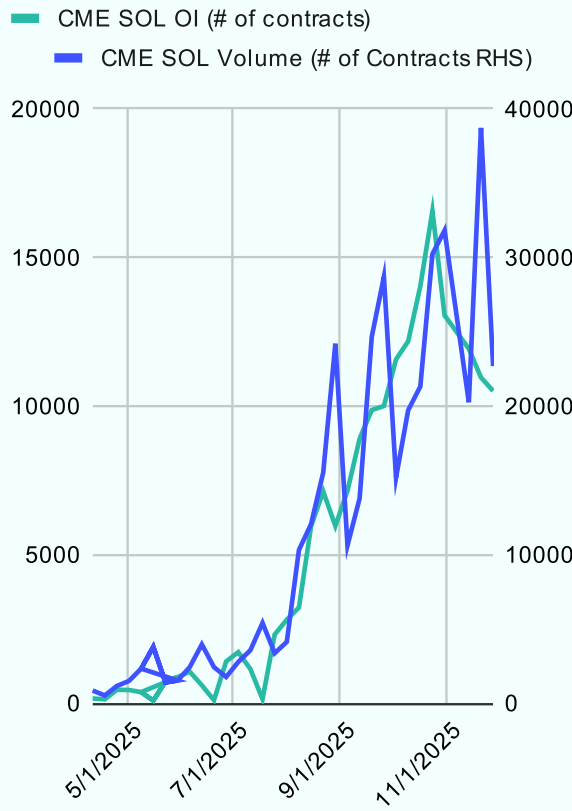
Source: CF Benchmarks, CFTC, Bloomberg, as of November 30, 2025

CME Ether Volume and Open Interest



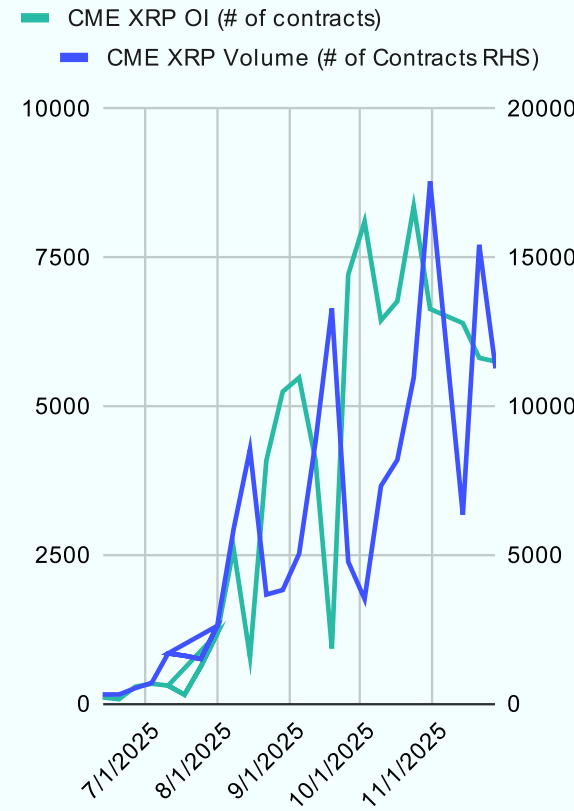
Source: CF Benchmarks, CFTC, Bloomberg, as of November 30, 2025

CME Solana Volume and Open Interest



Source: CF Benchmarks, CFTC, Bloomberg, as of November 30, 2025

CME XRP Volume and Open Interest



Source: CF Benchmarks, CFTC, Bloomberg, as of November 30, 2025

CF Bitcoin Volatility Index (BVX)

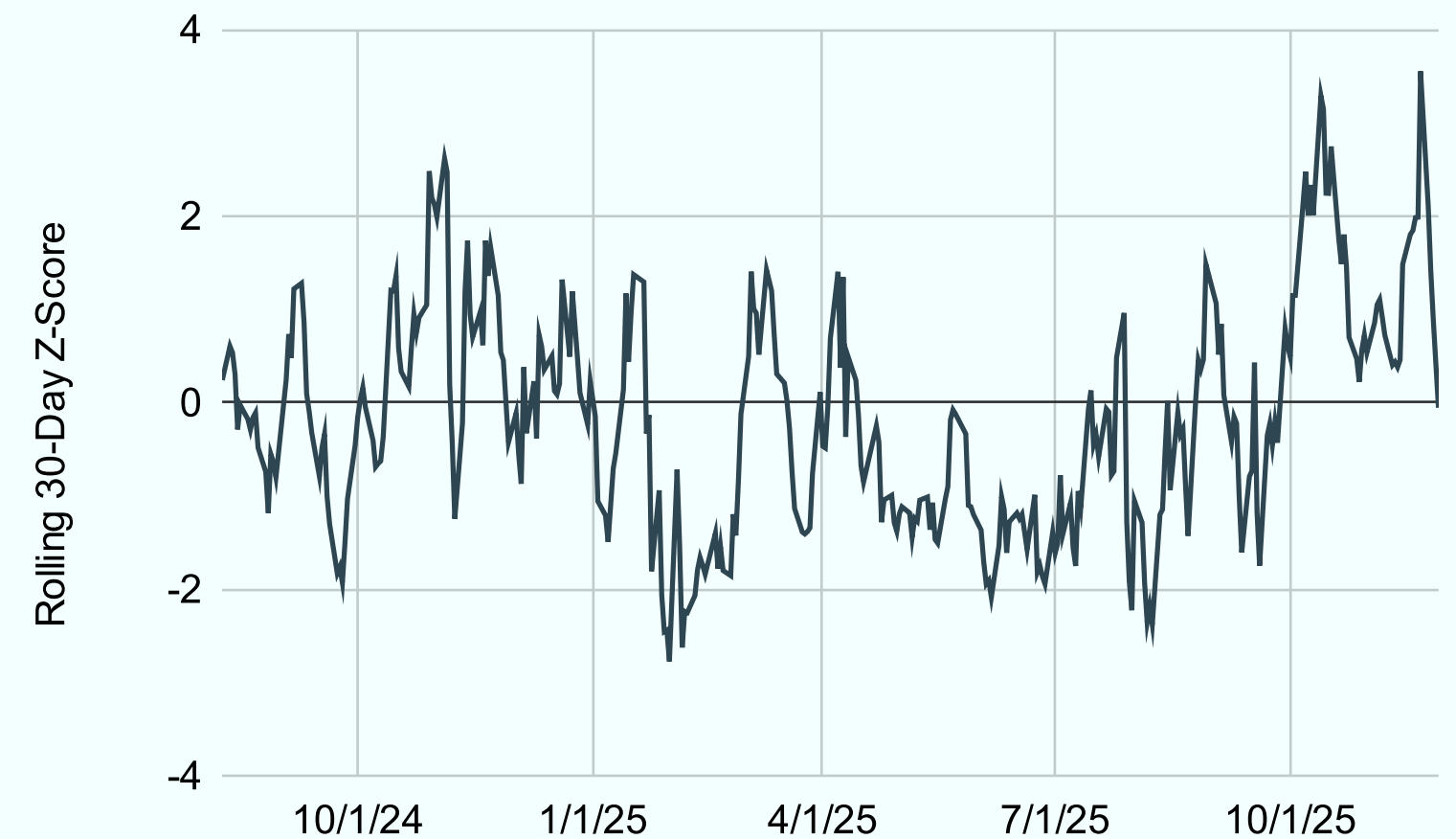
The CF Bitcoin Volatility Index Settlement Rate (BVXS) is a daily benchmark that provides a forward-looking, 30-day constant-maturity measure of implied volatility, derived from CFTC-regulated Bitcoin option contracts traded on the CME. The BVX reflects the fair strike of a variance swap. Over the past month, the BVX ranged between 46.6 and 60.2. During this period, volatility increased materially, with the BVX recording a 3.5 sigma move (based on our rolling 30-day z-score) around mid-month.

BVX Index



Source: CF Benchmarks, Bloomberg, as of November 30, 2025

Rolling 30-Day Z-Score



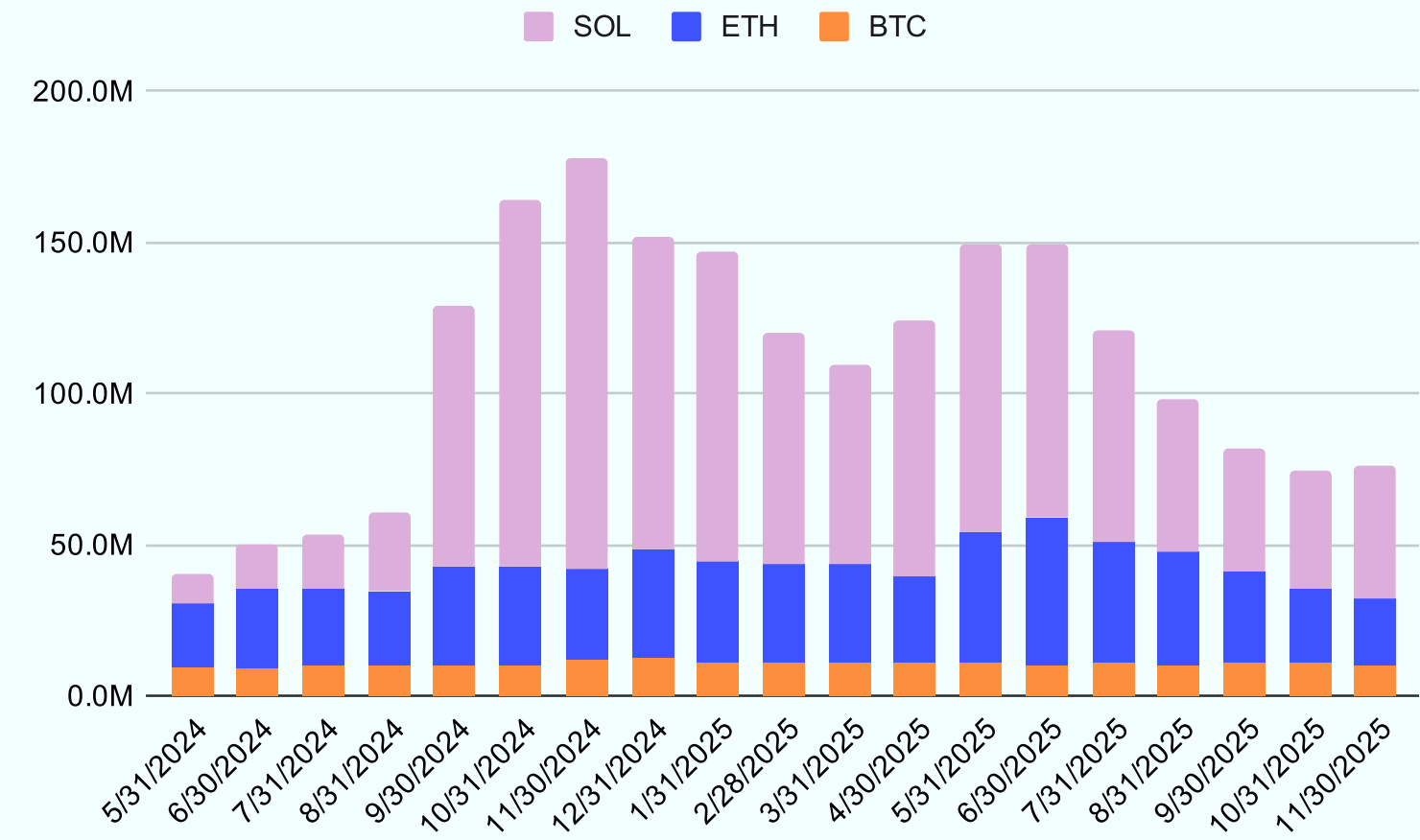
Source: CF Benchmarks, Bloomberg, as of November 30, 2025

Network Fundamentals & Reward Rates

Monthly Active Addresses

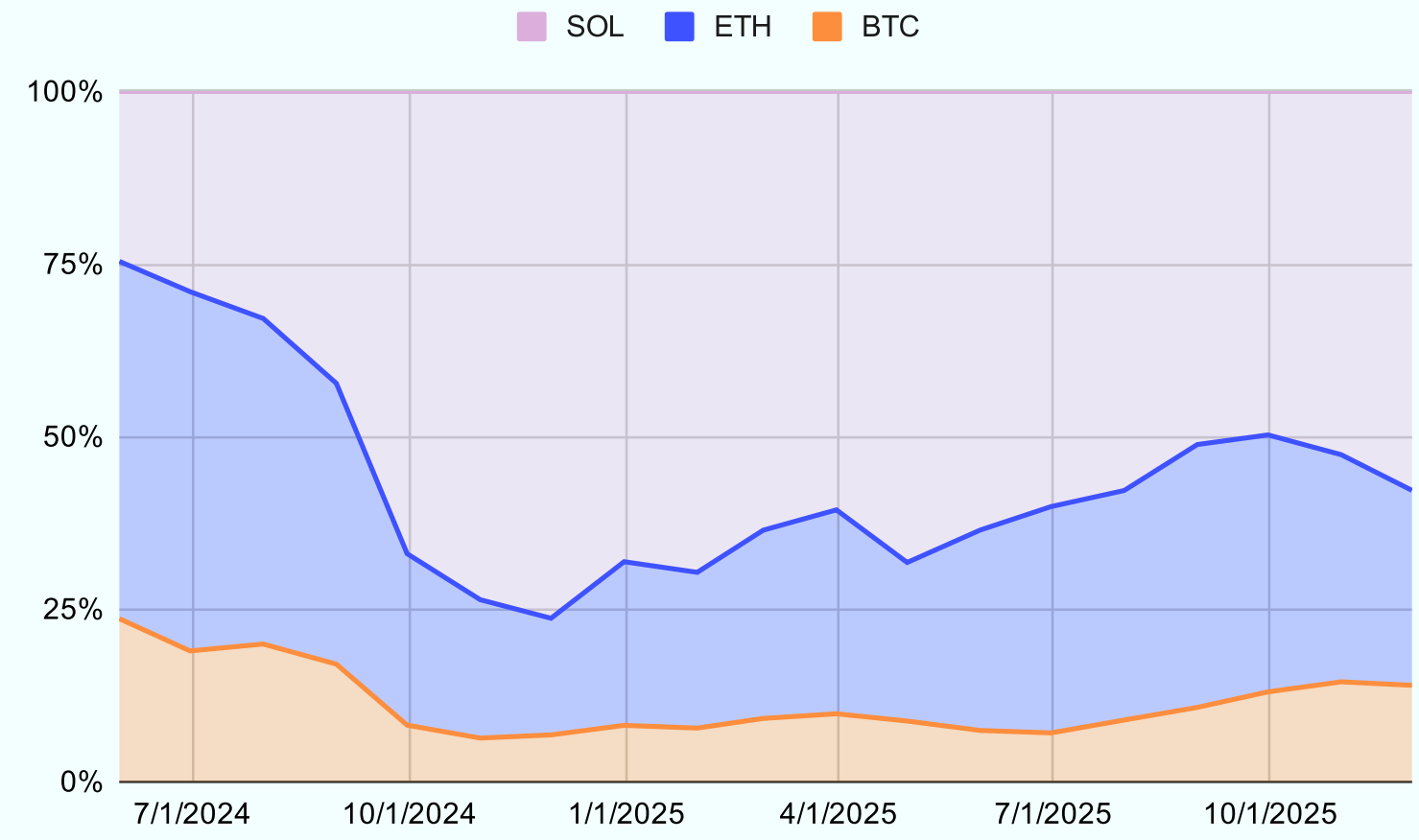
Bitcoin’s active addresses remained stable in November at approximately 10.7 million, indicating steady network activity. Ethereum experienced a steep decline, with active addresses falling from 24.4 million to 21.6 million (-11.4%), reflecting weaker on-chain engagement. Solana saw notable growth, as active addresses grew from 39.0 million to 44.3 million (+13.4%).

Active Addresses



Source: CF Benchmarks, Token Terminal, as of November 30, 2025

Share of Active Addresses



Source: CF Benchmarks, Token Terminal, as of November 30, 2025

Total Value Locked (TVL) in DeFi Protocols

Total Value Locked (TVL) in decentralized finance (DeFi) represents the aggregate value of assets deposited across DeFi protocols, expressed in U.S. dollars. It serves as a key indicator of the sector's overall health and growth. Over the past month, total DeFi TVL declined by 21.2% to approximately \$322 billion, as momentum continued to slow amid pullbacks in Ether and Solana following their summer rallies.

Total TVL



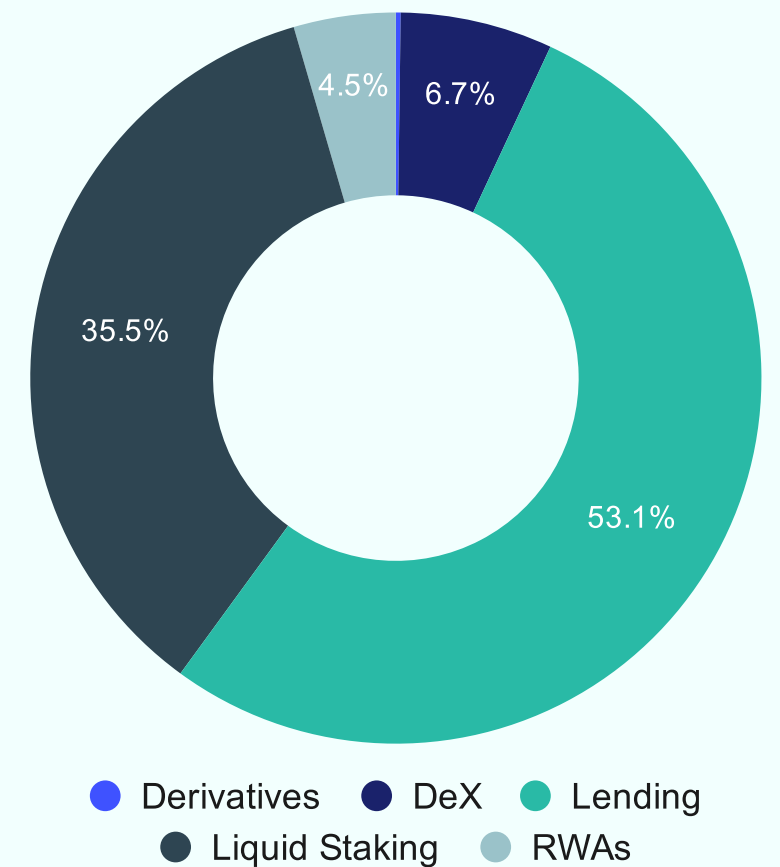
Source: CF Benchmarks, Token Terminal,
as of November 30, 2025

TVL by Chain



Source: CF Benchmarks, Token Terminal,
as of November 30, 2025

TVL By Segment

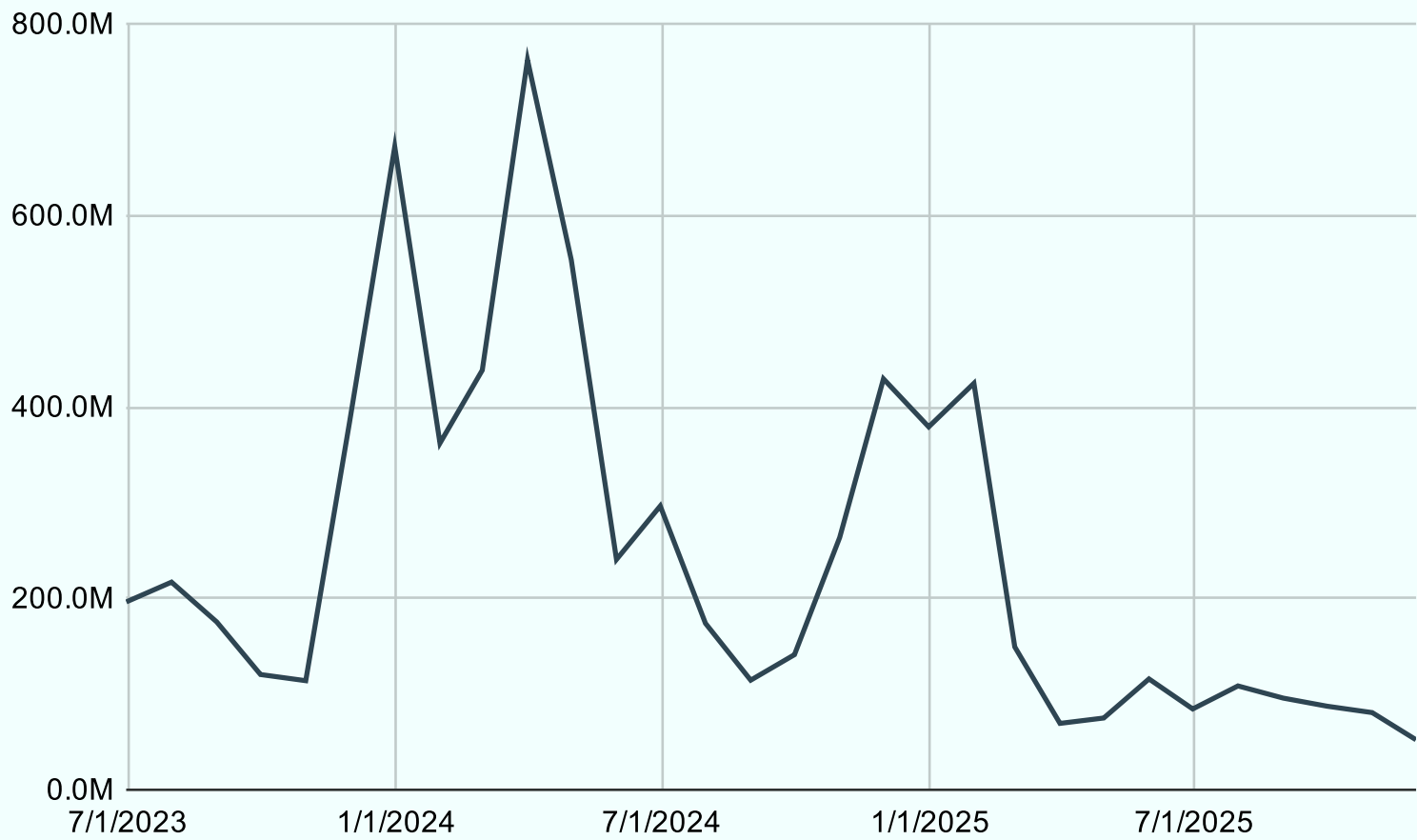


Source: CF Benchmarks, Token Terminal,
as of November 30, 2025

Layer-1 Fee Overview

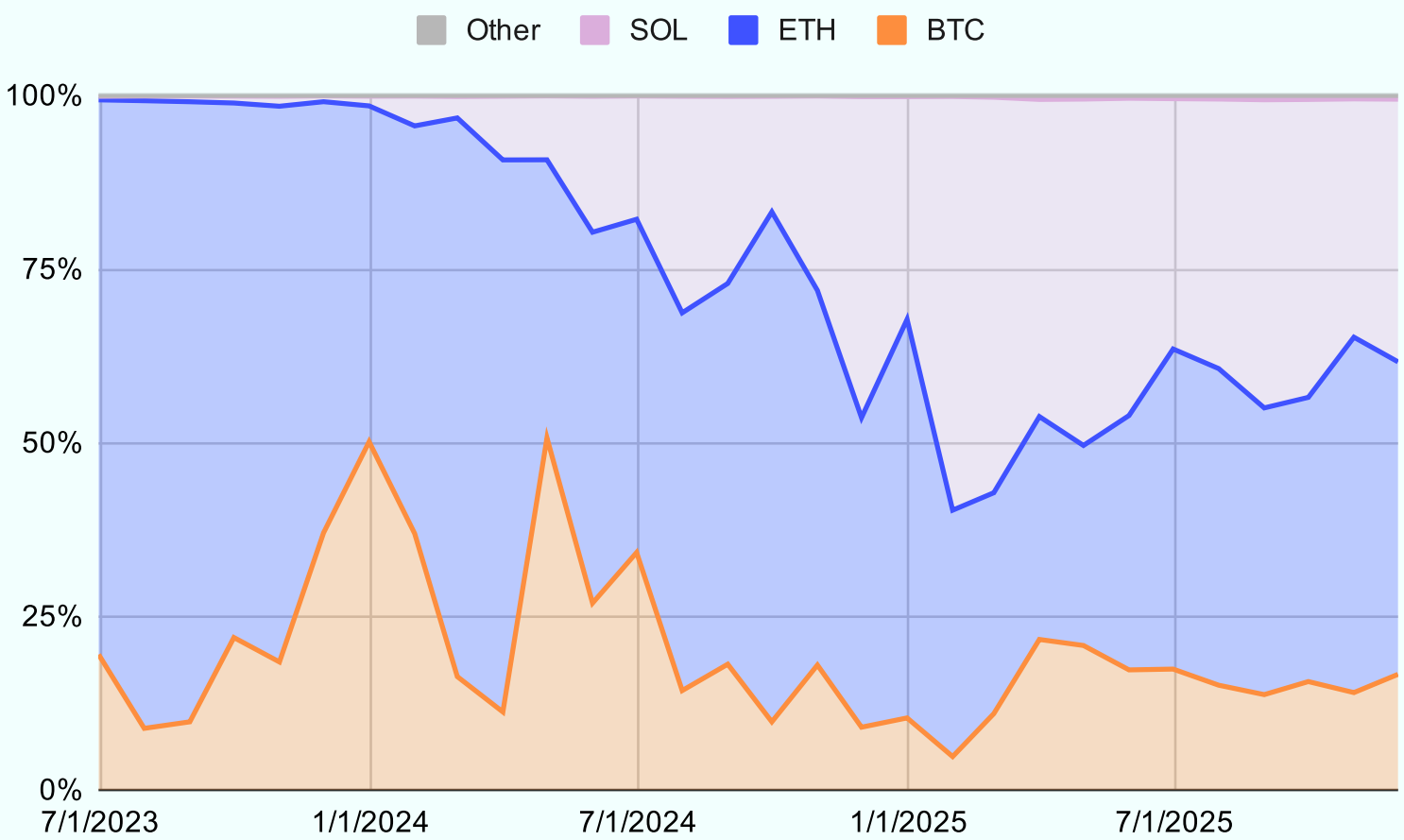
Fees are the charges users pay to record transactions and data on a blockchain and act as a gauge for demand to use these networks. They tend to rise when there is an influx of new users on-chain and can fall when activity wanes or scaling upgrades reduce costs. In November, aggregate layer-1 fees across Bitcoin, Ethereum, and Solana pulled back to \$52.2 million, from \$80.5 million in October. Ethereum led with a 45.0% share, Solana accounted for 37.8%, and Bitcoin contributed 16.6%.

Monthly L1 Fees Paid



Source: CF Benchmarks, Dune Analytics, as of November 30, 2025

Share of Layer 1 Fees

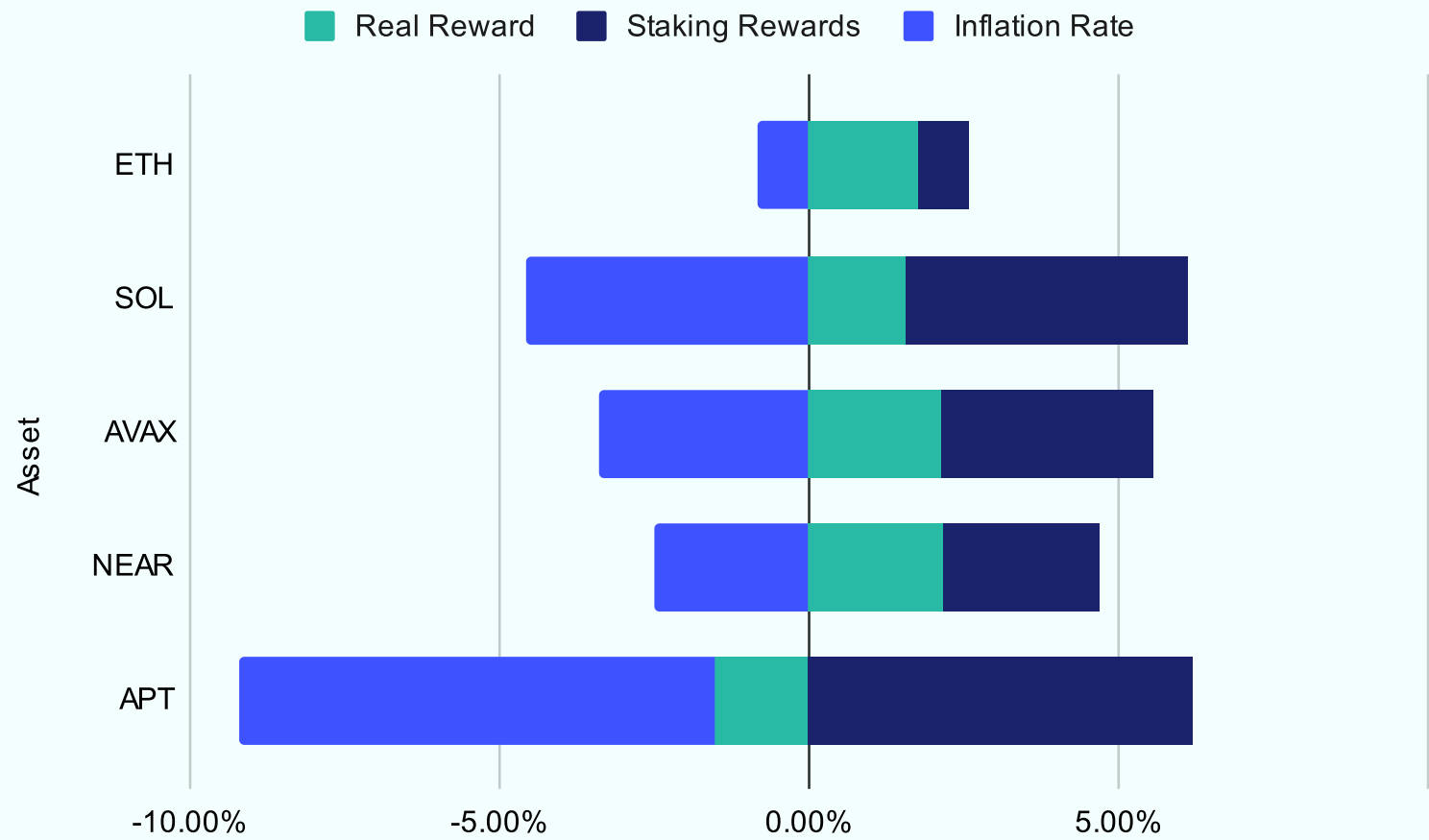


Source: CF Benchmarks, Dune Analytics, as of November 30, 2025
"Other" Represents the sum of the fees on Cardano, DOGE, Sui, and XLM

Staking Rewards & Inflation Rates

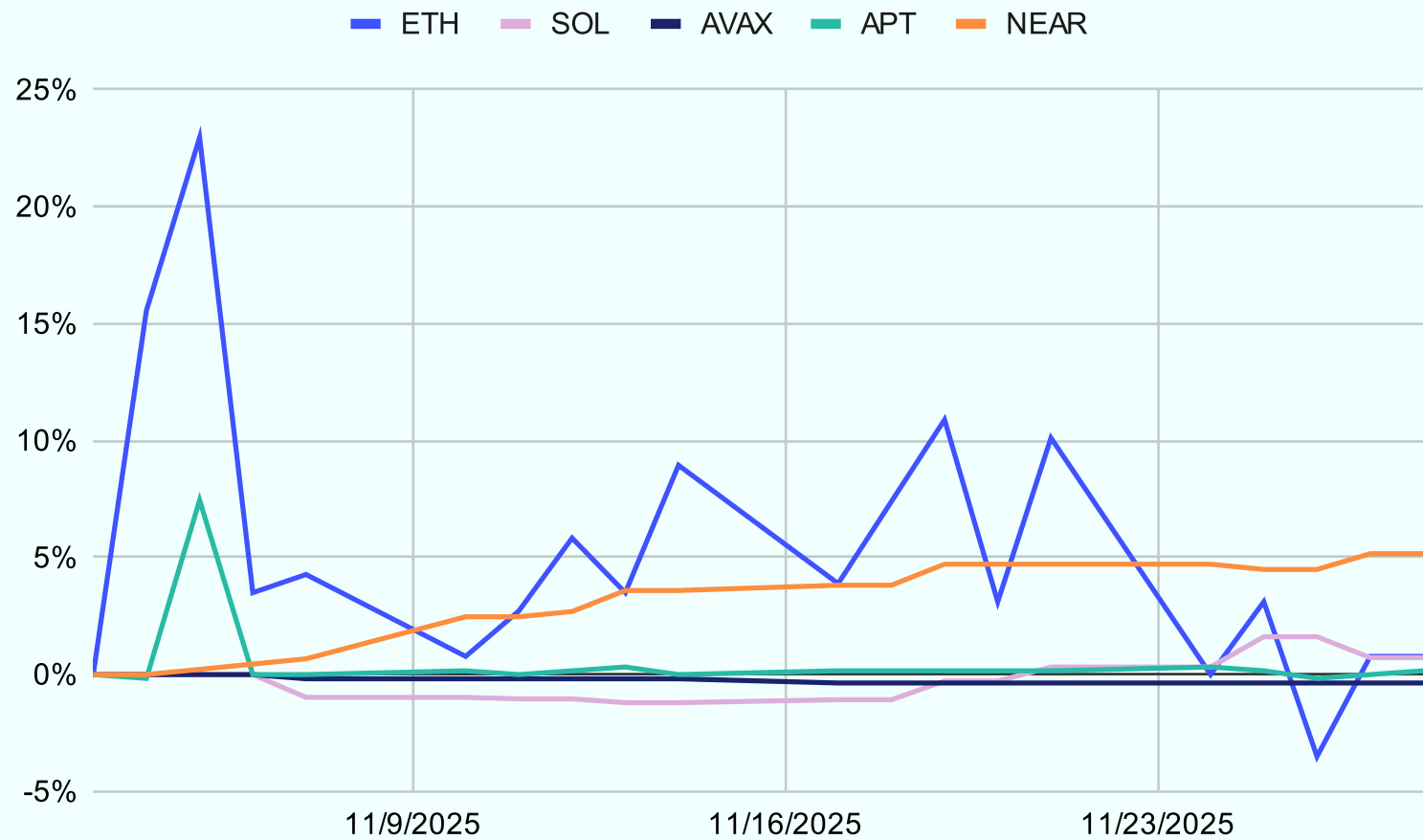
The reward rate in a Proof-of-Stake (PoS) blockchain is the annual return validators earn for staking, typically expressed as a percentage. It depends on factors such as total staked tokens, network yield, and protocol incentives. Inflation and staking participation strongly influence real returns: higher inflation raises nominal rewards but dilutes token value, while greater staking participation reduces individual yields yet strengthens network security and decentralization.

Staking Real Yields



Source: CF Benchmarks, stakingrewards.com as of November 30, 2025

Monthly Change in Reward Rate



Source: CF Benchmarks, Dune Analytics, stakingrewards.com as of November 31, 2025

CF Staking Reward Rates as of 30th November

ETH	SOL	AVAX	APT	NEAR
2.59%	6.11%	5.54%	6.18%	4.68%

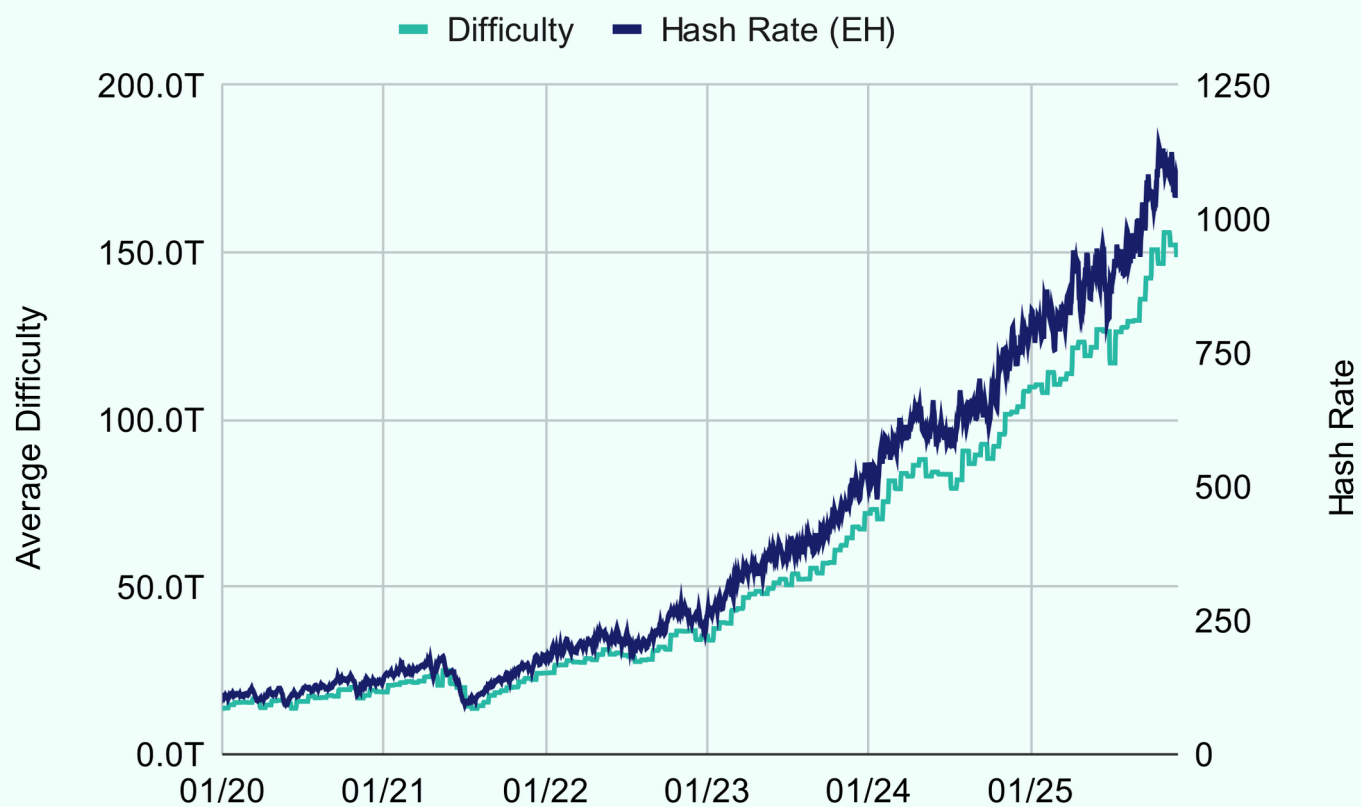
Mining Metrics

Bitcoin's Hash Rate & Mining Revenue

Bitcoin's hash rate edged lower in November, slipping 4.6% to 1,098 exahashes per second. Mining difficulty, which measures the computational effort required to mine a new block and adjusts to maintain consistent block times, decreased by 4.2% following a period of slower block production in mid-November. The next difficulty adjustment, expected in the second week of December, is currently projected to be a 2.1% increase.

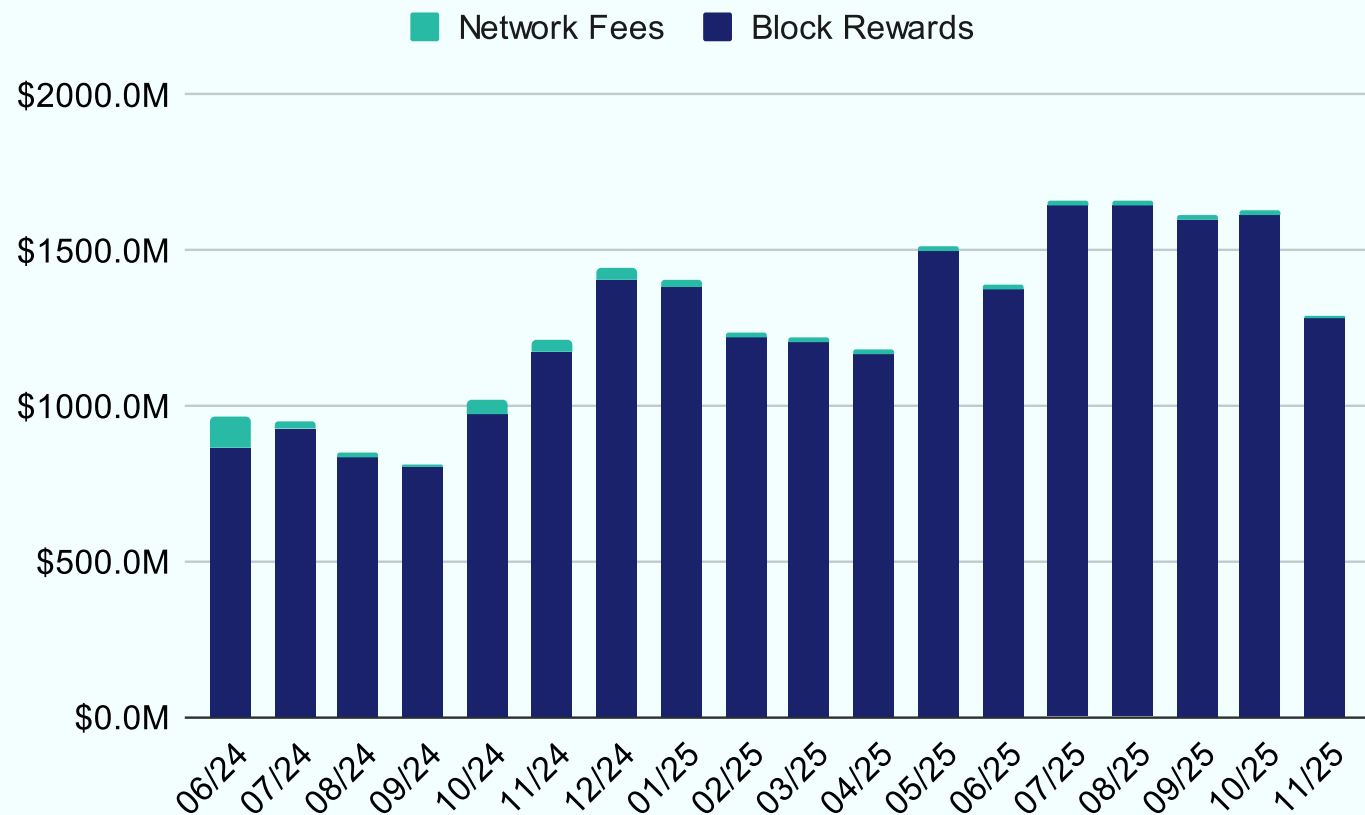
Bitcoin miners saw a 20.5% decrease in revenue in November. Of the total rewards earned during the month, 0.6% came from transaction fees, down from 0.7% in October. The steep decline in revenue was driven primarily by Bitcoin's price movements during the period.

Hash Rate and Difficulty



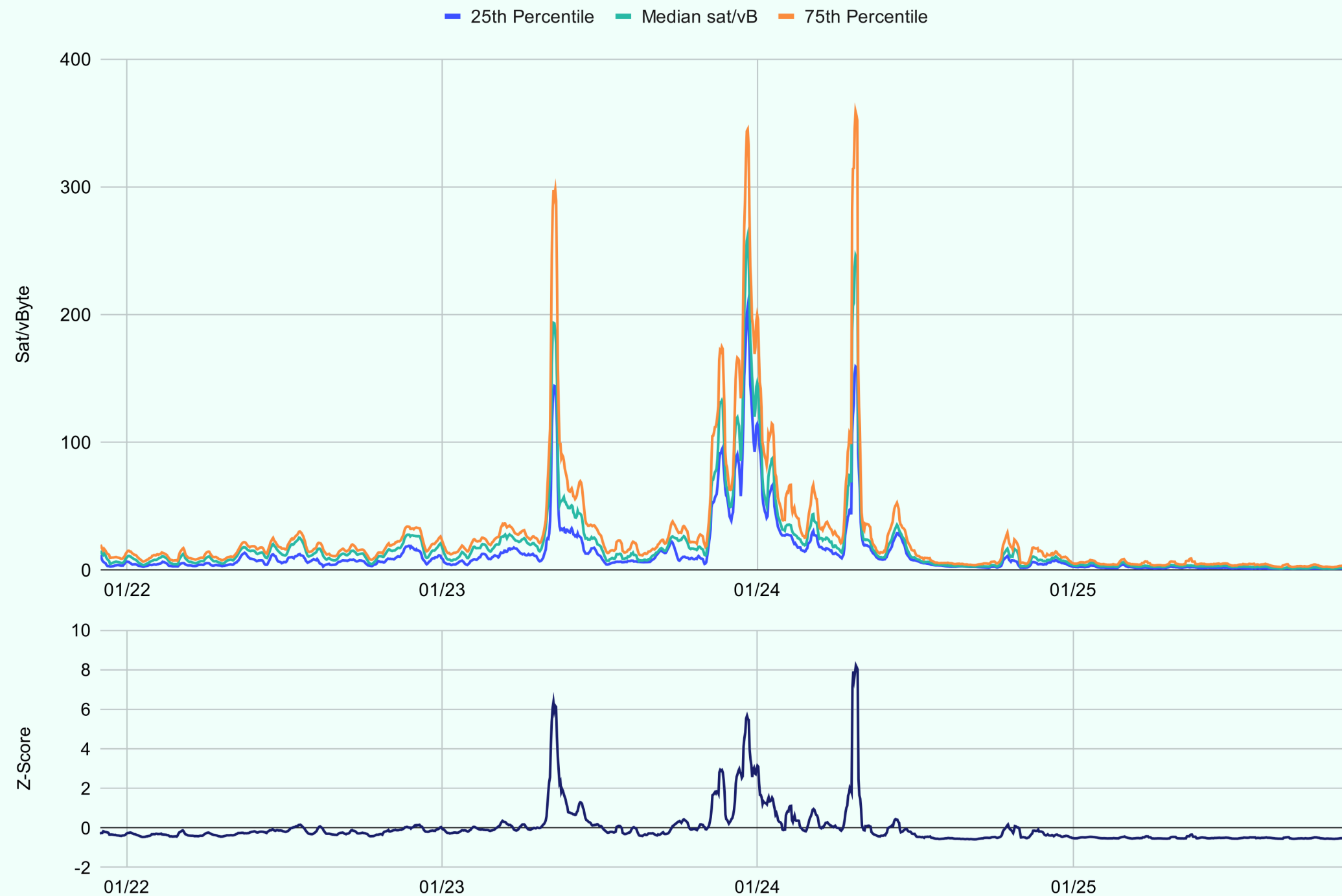
Source: CF Benchmarks, Dune Analytics as of November 30, 2025

Bitcoin Mining Revenues by Month



Source: CF Benchmarks, Dune Analytics as of November 30, 2025

Bitcoin Network Fees



Source: CF Benchmarks, Dune Analytics, as of November 30, 2025

- As Bitcoin's block subsidy decreases, network fees make up a larger 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

- 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 \$67.50 per MWh, as reported by the EIA in September 2025.
- 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.

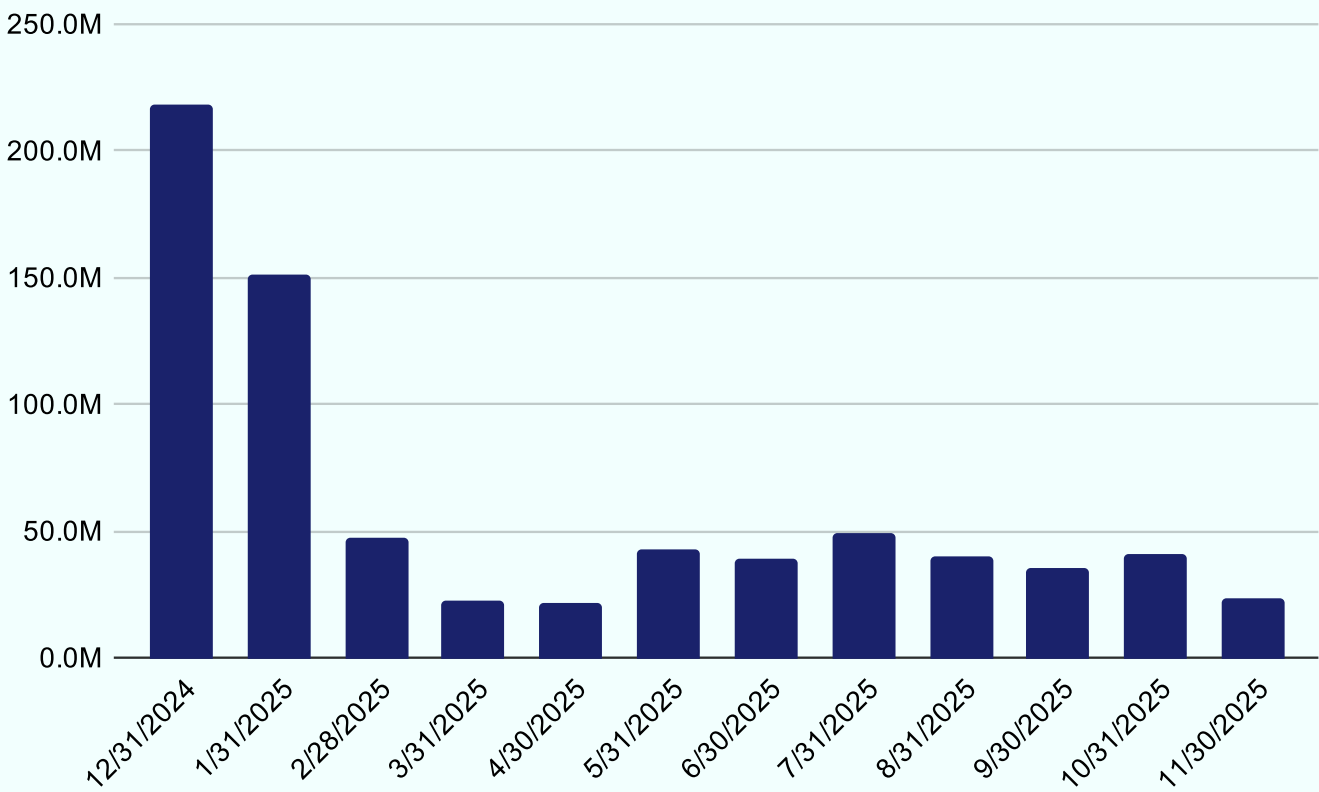
		Bitcoin Price (USD)								
Efficiency (Watts /TH)		\$74,434.09	\$78,351.67	\$82,475.44	\$86,816.25	\$91,385.53	\$95,954.81	\$100,752.55	\$105,790.17	\$111,079.68
	29.5	\$44.51	\$46.85	\$49.32	\$51.91	\$54.65	\$57.38	\$60.25	\$63.26	\$66.42
	24	\$54.71	\$57.59	\$60.62	\$63.81	\$67.17	\$70.53	\$74.05	\$77.76	\$81.65
	21.5	\$61.07	\$64.29	\$67.67	\$71.23	\$74.98	\$78.73	\$82.67	\$86.80	\$91.14
	18.5	\$70.98	\$74.71	\$78.64	\$82.78	\$87.14	\$91.50	\$96.07	\$100.87	\$105.92
	17.5	\$75.03	\$78.98	\$83.14	\$87.51	\$92.12	\$96.72	\$101.56	\$106.64	\$111.97
	15	\$87.54	\$92.14	\$96.99	\$102.10	\$107.47	\$112.85	\$118.49	\$124.41	\$130.63
	13.5	\$97.26	\$102.38	\$107.77	\$113.44	\$119.41	\$125.38	\$131.65	\$138.24	\$145.15
	9.5	\$138.22	\$145.49	\$153.15	\$161.21	\$169.69	\$178.18	\$187.09	\$196.44	\$206.26

Network & On-chain Updates

Ethereum Revenue Dashboard

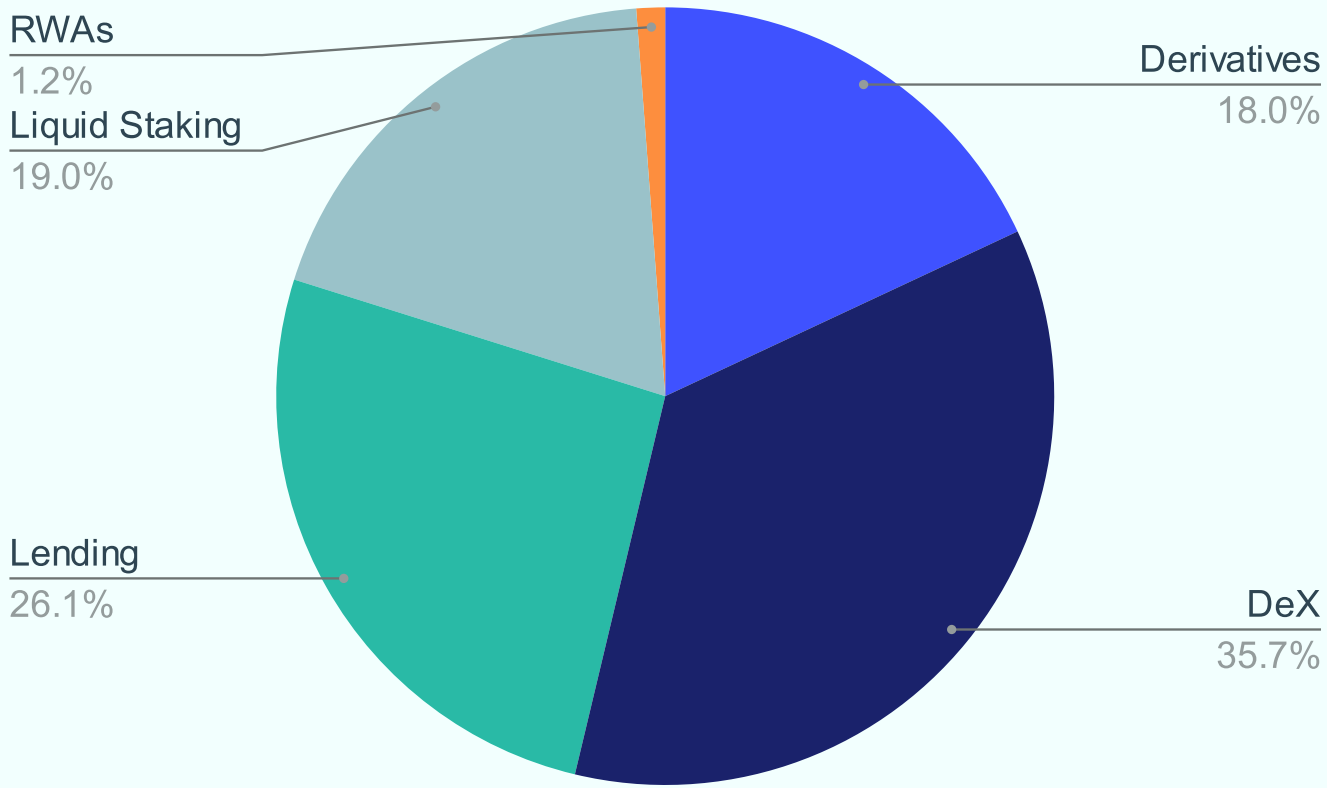
Analyzing Ethereum’s total fees and their sector composition provides insight into the use cases driving network revenue. Ethereum layer-1 fees dropped 43.0% month-over-month, falling to \$23.6 million in November from \$41.4 million in October. Decentralized exchanges accounted for the largest share at 35.7%, followed by lending protocols at 26.1% and liquid staking at 19.0%. Derivatives contributed 18.0%, while real-world asset tokenization represented just 1.2%, underscoring the continued dominance of DEX activity in network fee generation.

Trailing Twelve Month Fees, ETH



Source: CF Benchmarks, Dune Analytics as of November 30, 2025

Fees by Sector

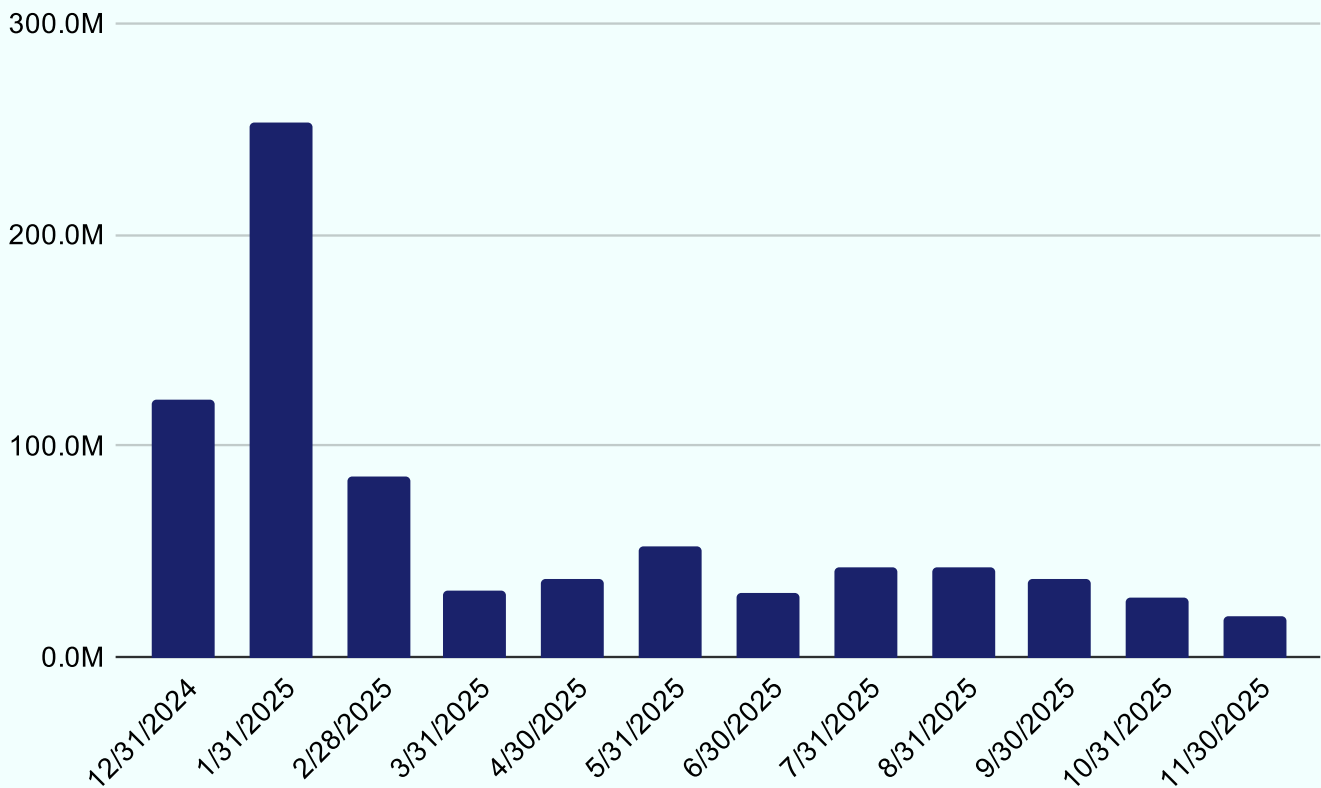


Source: CF Benchmarks, Dune Analytics as of November 30, 2025

Solana Revenue Dashboard

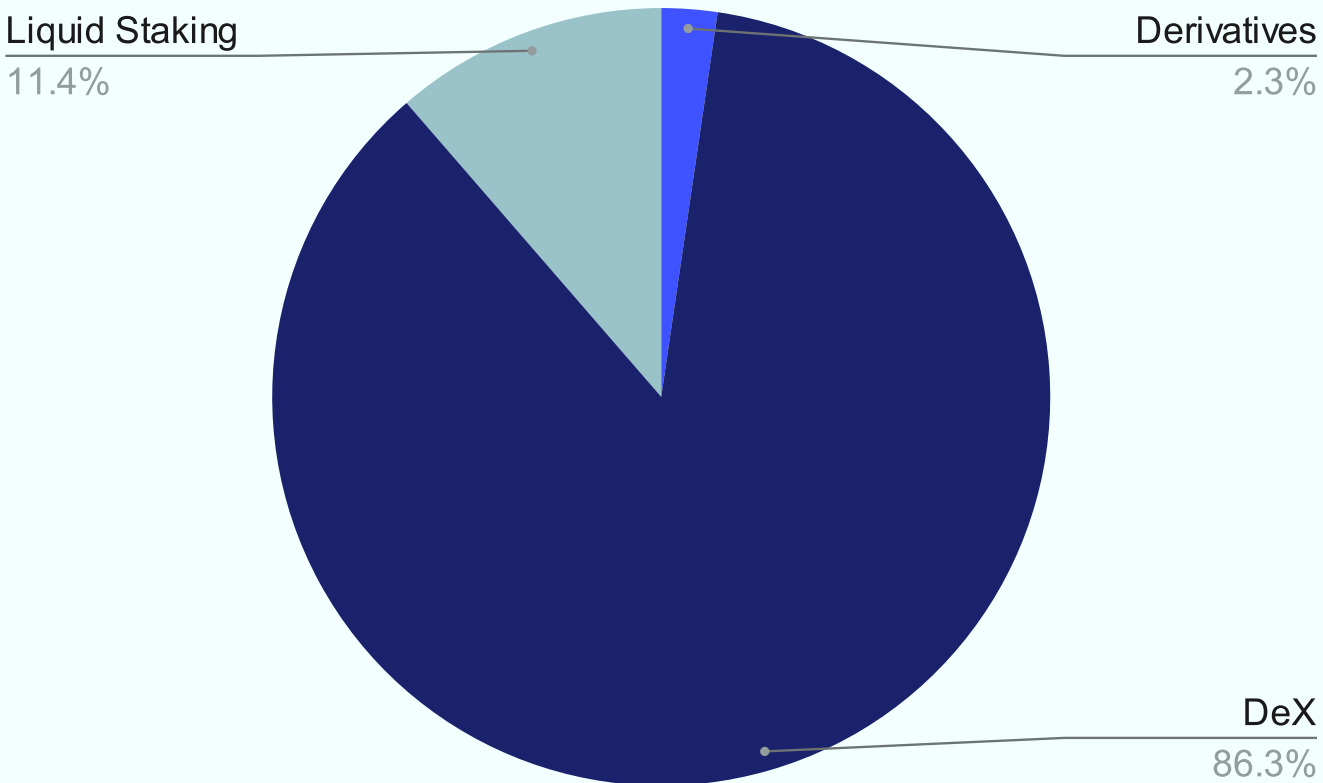
Similar to Ethereum, examining Solana’s fee revenue and its sector composition helps identify the applications driving network demand and value capture. In November, Solana’s layer-1 fees declined 28.5%, falling from \$27.8 million to \$19.8 million. Decentralized exchanges generated the majority of fee revenue at 86.3%, while liquid staking and derivatives contributed 11.4% and 2.3%, respectively.

Trailing Twelve Month Fees, SOL



Source: CF Benchmarks, Dune Analytics as of November 30, 2025

Fees by Sector



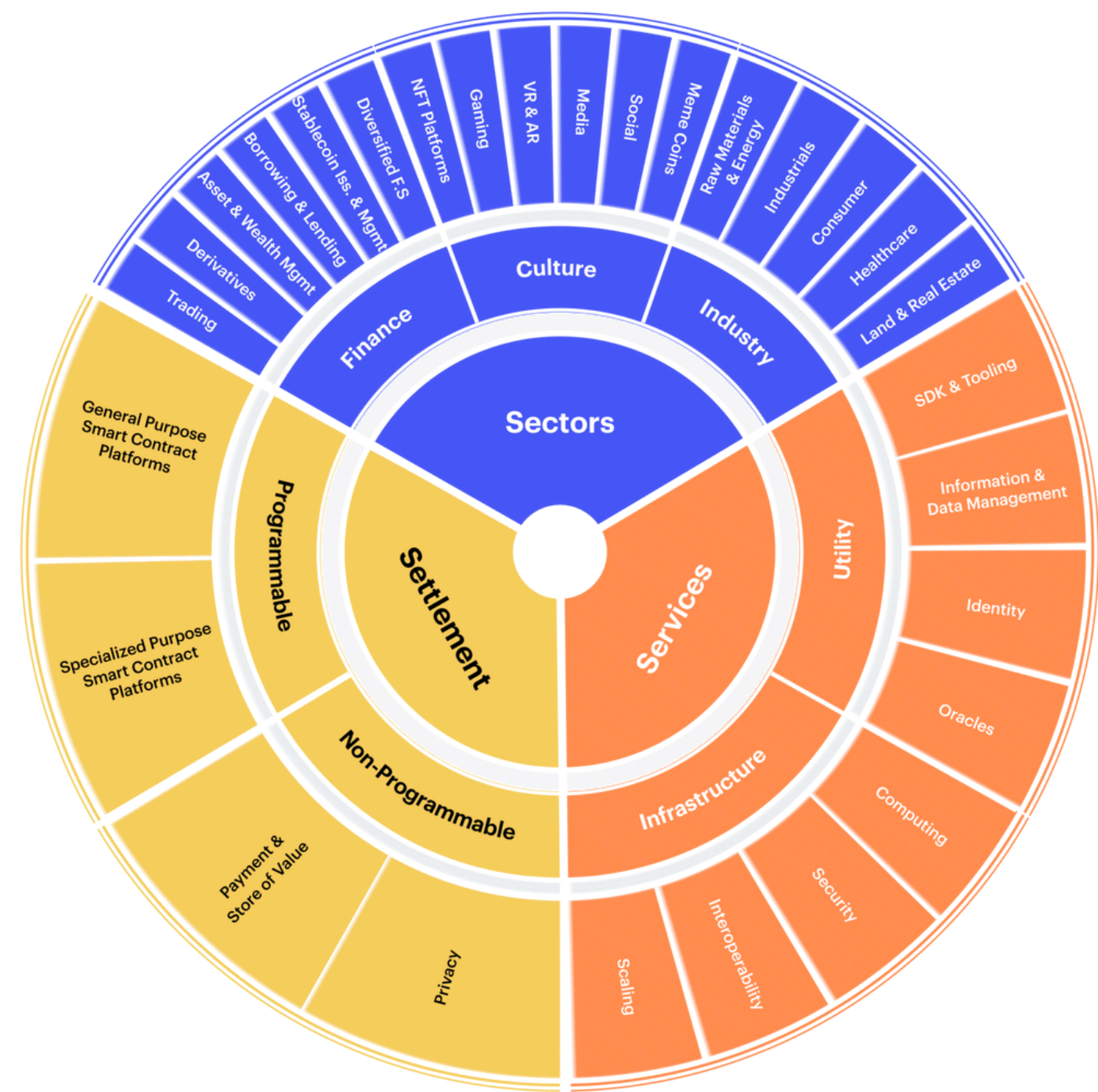
Source: CF Benchmarks, Dune Analytics as of November 30, 2025

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.



Additional Resources

Index 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 Cryptocurrency Ultra Cap 5 Index](#)
- [CF Broad Cap Index Market Cap Weight](#)
- [CF Broad Cap Index Diversified Weight](#)

Contact us

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

info@cfbenchmarks.com

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