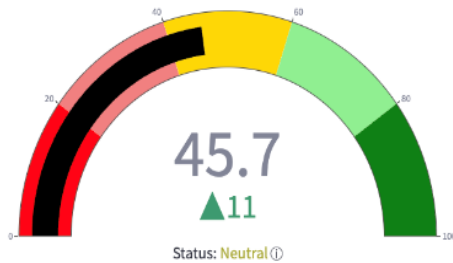


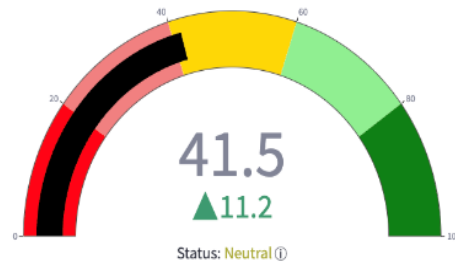
Digital Pulse Report: Altcoins Await

FUNDAMENTAL PULSE – WEEKLY NETWORK PERFORMANCE

TOP 10 ASSETS NETWORK SCORE



BTC & ETH NETWORK SCORE



WEEKLY NETWORK PERFORMANCE OF THE TOP 10 ASSETS

TOTAL USERS	ACTIVE USERS	TRANSFERS	MARKET CAP	ONCHAIN VOLUME
211,496,257.0 ↑ 0.3%	2,103,262.0 ↑ 13.51%	3,090,689.0 ↑ 22.13%	1,008,907,204,308.77 ↑ 19.52%	30,696,751,332.65 ↑ 36.71%

The Pulse surged on optimism of a Bitcoin ETF approval in the United States. It driven by increased onchain volumes and user growth, indicating enhanced liquidity and greater network utilization.

ASSETS	ASSET SCORE	7D CHANGE	30D CHANGE	VOLUME	TRANSFERS	ACTIVE USERS	USER GROWTH	VALUATION	NETWORK DISTRIBUTION	VELOCITY
Top 10 Assets	46	11	7	49	53	40	40	59	67	11
BTC & ETH	41	11	5	47	51	39	40	62	47	5
Bitcoin	50	12	3	43	42	55	51	67	91	0
Ethereum	33	10	7	51	60	23	28	56	3	10
Ripple	49	12	16	43	83	21	43	48	100	2
Dogecoin	48	11	15	68	53	24	34	57	99	2
Cardano	51	5	3	51	30	14	20	39	100	100
Polygon	34	11	10	44	43	36	23	42	52	1
Litecoin	44	6	8	83	27	26	35	37	97	0
Bitcoin Cash	45	14	15	44	61	66	74	68	2	1
Chainlink	79	19	15	86	86	86	37	88	76	98
Stellar	56	4	3	38	91	69	35	46	100	11

*Snapshot from the Coinbase Asset Management Pulse on 10/26/2023. Pulse Report includes the top ten assets by market capitalization. More than 70 assets and risk management tools are available for demonstration on request.

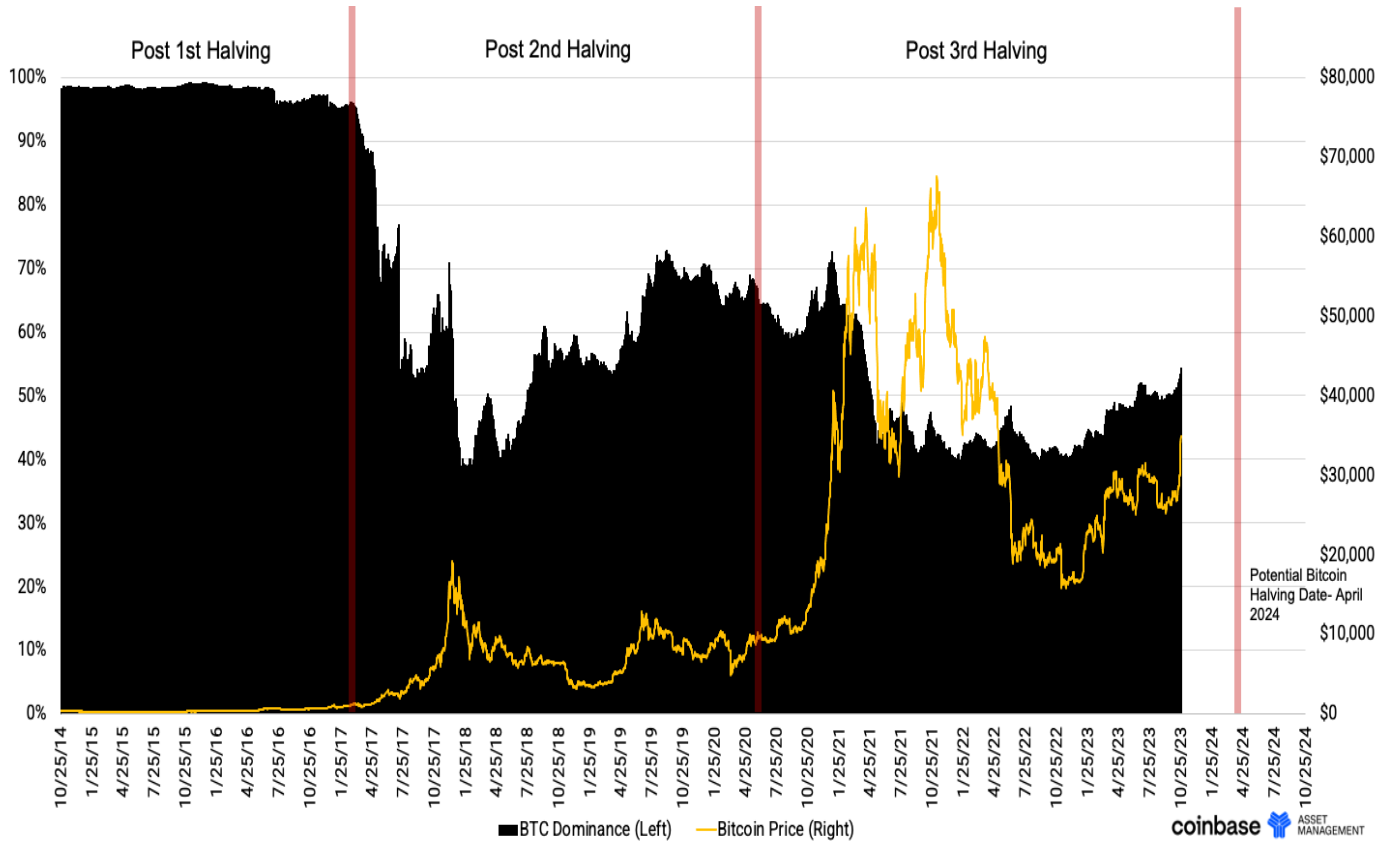
Notes: The Scores are 12-month trailing percentile values. Changes on the gauge chart represent the seven-day change. "Top 10 Assets" are size-tilt weighted, the square root of market capitalization. "BTC & ETH" are equally weighted. High > 60, Neutral 40 to 60, Low < 40. A score of 41.8 means the score is better than 41.8% of its values in the past 365 days. Asset Scores are unique and sensitive to changes in a particular asset. Readers should not compare Asset Scores across assets.

Please see metric descriptions endnotes for details.

Altcoins Wait. In the realm of technology, burning questions emerge: Does technology always evolve beyond pioneers? And if so, how soon? Think Altair 8800, the first personal computer that is now a distant memory. Flash forward to Bitcoin. Once accounting for a staggering [96%](#) of the crypto market in 2017, it's now just one player in a busy field. Bitcoin still has a sizable [54%](#) market share and is the go-to barometer for investor sentiment. This cycle's rise in bitcoin dominance signals caution, with less risk appetite for altcoins. Is it a waiting game for altcoins? Historically, altcoins pick up after capital inflows into Bitcoin and Ethereum when a niche catalyst emerges. In the 2021 bull market, that niche was [DeFi and NFTs](#). Today, an altcoin catalyst is absent. Attention is squarely on how crypto assets enter the regulatory mainstream. Visa and PayPal occupy the headlines, not MakerDAO or Bored Apes. The Digital Network Pulse points out a noticeable altcoin gap. It cites slow onchain volumes and weak stablecoin trading volumes as indicators of low buying pressure. User growth among the top 10 assets, excluding Bitcoin, is below 50 on the 0-100 Pulse scale. But be attentive to subtle shifts. Bitcoin's dominance still trails its 2018-2019 highs, indicating a maturing, diversified market. The previous cycle's catalysts are still in effect. Altair 8800 needed user-friendly successors to make personal computing mainstream. Altcoins wait for their catalyst.

BITCOIN DOMINANCE AND THE HALVING EVENT

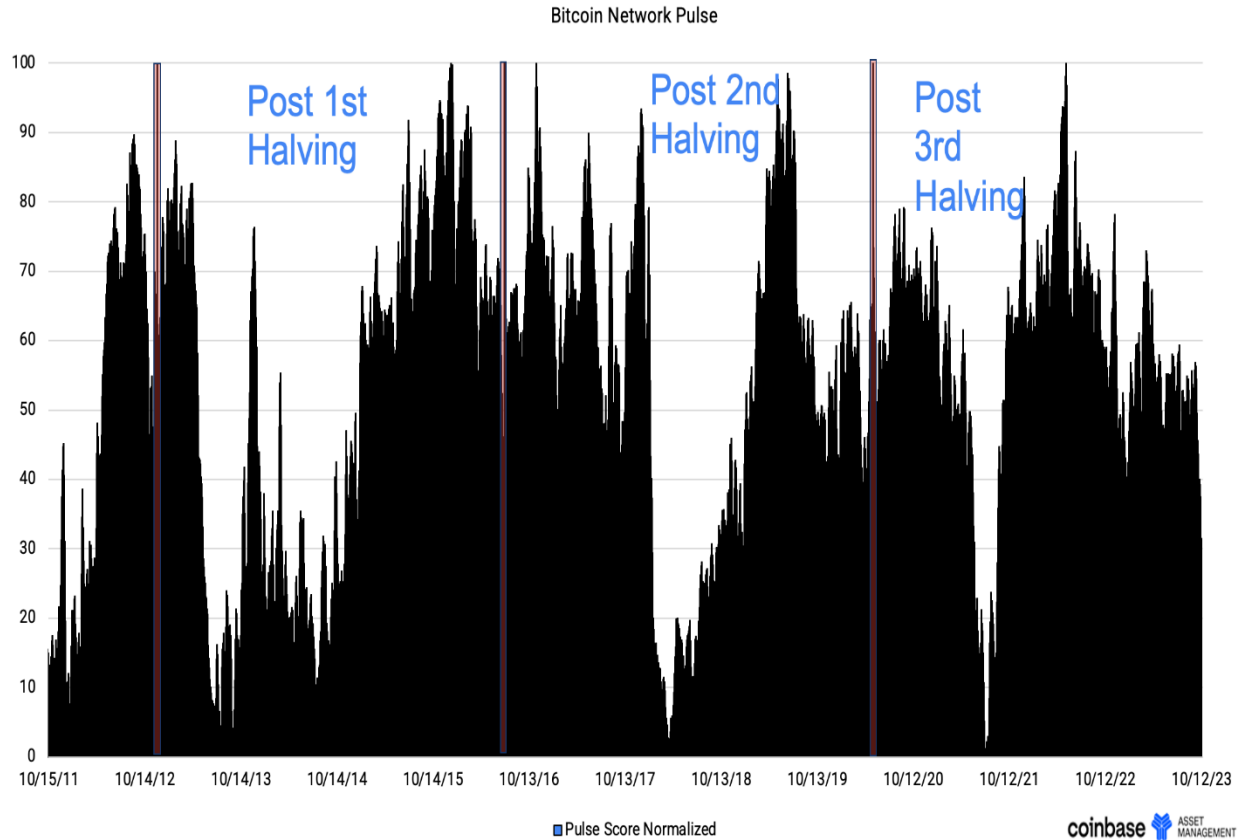
Bitcoin dominance is rising ahead of the April 2024 halving. But a closer look at the numbers reveals a shift in influencers. The 19% price spike in the past three months contrasts with the 29% drop in a similar timeframe before the 2020 halving. This suggests a stronger influence from potential US ETF approval.



Source: TradingView. CBAM Calculations.

BITCOIN NETWORK ACTIVITY INTO THE HALVING

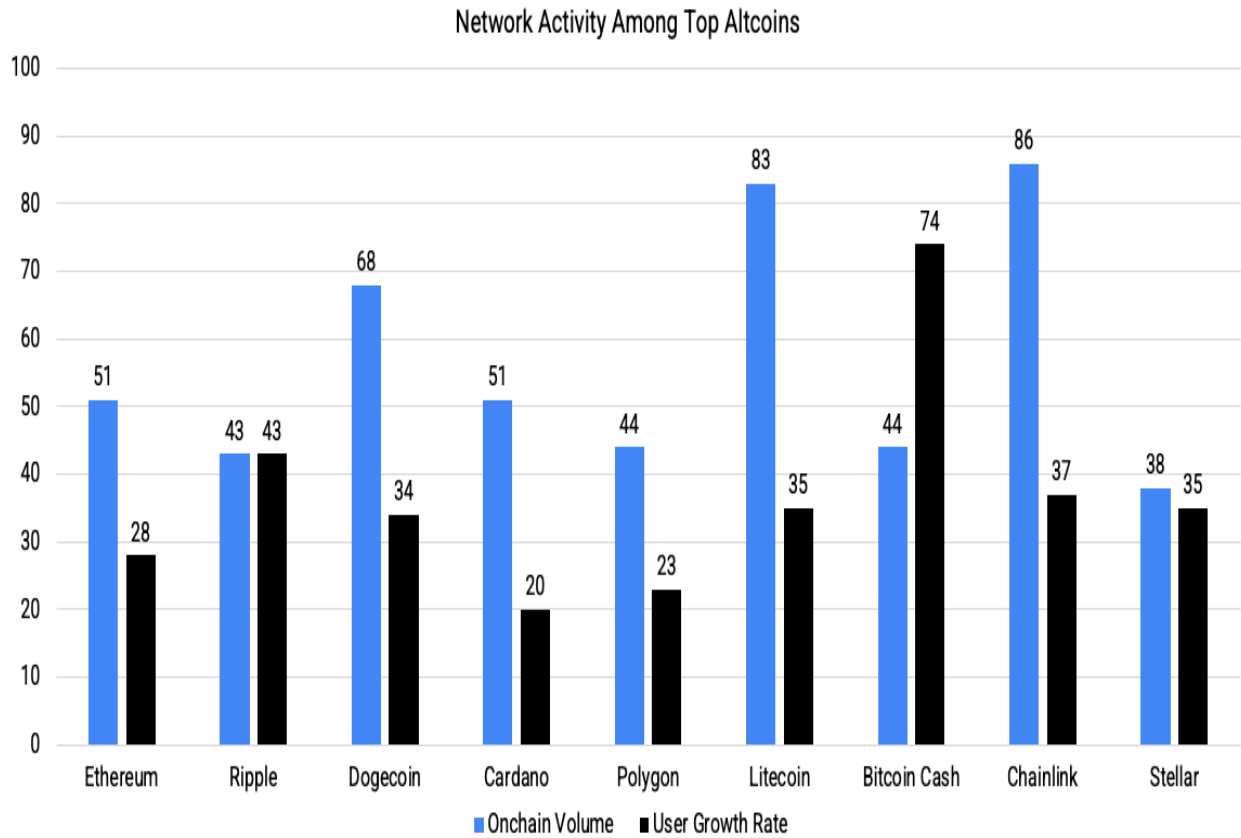
Although price behavior leading up to the 2020 and 2024 halvings may vary, Bitcoin has exhibited a consistent network activity. Currently, network activity is neutral. If historical patterns hold, one can anticipate increased activity following the halving event.



Source: Coinbase Asset Management Digital Pulse. Pulse Scores are from 0 to 100. Scores are re-normalized within the halving range for ease of historical comparison.

ALTCOINS AND NETWORK ACTIVITY

Despite substantial progress made by altcoins, network activity has largely remained either at or below historical averages. Unlike previous cycles, there is currently an absence of niche catalysts to drive an altcoin bull market at the moment. Consequently, altcoins are anticipated to follow Bitcoin's lead, with hopes of an altcoin bull market on the horizon.



Source: Coinbase Asset Management Pulse.

Metric Definitions

1. Volume – The aggregated value of native units transferred between addresses on-chain.
2. Transfer Count – The sum count of transfers between addresses. It becomes more valuable when used in conjunction with Volume.
 - 2.1 Low Transfer Count & High Volume: High volume but transferred by a few addresses.
 - 2.2 High Transfer Count & Lower Volume: Indicates higher retail activity or exchanges amongst small accounts.
 - 2.3 Lower Transfer Count & Lower Volume: Indicates slower network usage and low network demand.
 - 2.4 High Transfer Count & Higher Volume: Indicates high network usage. A persistent trend is substantial.
3. Active Users: Number of addresses active in the network as recipients or originators of ledger change. This includes value transfers, signing blocks, and other forms of ledger change activity.
 - 3.1 High Value: High network usage and high demand.
 - 3.2 Low Value: Low network usage and low demand.
4. User Growth Rate: The rate at which new addresses with non-zero balances are added to the network.
 - 4.1 High Value: Indicates users being added to the network at an increasing rate.
 - 4.2 Low Value: Indicates users being added to the network at a slower pace.
5. Valuation: This metric compares the on-chain volume to the realized capitalization representing the value of the network. Realized capitalization is a revised form of market capitalization that accounts for the value of the coin at the time the coin was last spent. A lower volume compared to the high value of the network indicates the network could be overvalued and vice versa.
 - 5.1 High Value: Indicates the network is closer to its real value based on the on-chain volume.
 - 5.2 Low Value: Indicates the network is very close to being overvalued considering the activity on the network.
 - 5.3 Medium value: Asset is reasonably valued—sustainable demand for transactions.
6. Velocity: This indicator shows the turnover of coins in the network as measured by on-chain volume divided by active supply. The primary use of this metric in this instance is to help assess an asset's market-relevant supply.
 - 6.1 High Value: There is greater circulation of coins in the network and use for payments.
 - 6.2 Lower Value: There is lower circulation of coins in the network and use for payments.
7. Network distribution: The metric used, the SER ratio, compares the smallest accounts (sum held by accounts with a balance less than 0.00001% of the supply) against the richest accounts (sum held by the top 1% addresses).
 - 7.1 High Value: Signifies high distribution of supply and higher decentralization.
 - 7.2 Low Value: Low supply distribution and heavy concentration amongst a few wallets.

Disclaimer

This communication, including any attachments, is intended only for the use of the addressee and may contain information that is confidential or otherwise protected from disclosure. Any unauthorized use, distribution, modification, forwarding, copying or disclosure is strictly prohibited. If you have received this communication in error, please delete this message, including any attachments, and notify the sender immediately. The information and any disclosures provided herein do not constitute a solicitation or offer to purchase any security or other financial product or investment and is not intended as investment, tax, or legal advice. Unless otherwise noted, all information is estimated, unaudited and may be subject to revision without notice. Past results are not indicative of future results.

This communication may contain statements of opinion, including but not limited to, the author's analysis and views with respect to: digital assets, projected inflation, macroeconomic policy, and the market in general. Statements of opinion herein have been formulated using the author's experience, research, and/or analysis, however, such statements also contain elements of subjectivity and are often subjective in nature. In addition, when conducting the analyses on which it bases statements of opinion, the author(s) will incorporate assumptions, which in some cases may be shown to be inaccurate in the future, including in certain material respects. Nothing in this presentation represents a guarantee of any future outcome. The author(s) are under no obligation to update this document, notify any recipients, or re-publish the content contained herein in the event that any factual assertions, assumptions, forward-looking statements, or opinions are subsequently shown to be inaccurate.

This report contains speculative observations focused largely on potential ETF approvals, a subject still under regulatory review. As of the latest information, the SEC has postponed reviews of several spot ETF applications from October to January 24. Given the uncertainties, all statements herein should be considered informational, not financial advice.

Certain information contained in this Communication constitutes "forward-looking statements," which can be identified by the use of forward-looking terminology such as "may", "will", "should", "expect", "anticipate", "target", "project", "estimate", "intend", "continue" or "believe" or the negatives thereof or other variations thereon or comparable terminology. Forward-looking statements made in this communication are based on current expectations, speak only as of the date of this communication, as the case may be, and are susceptible to a number of risks, uncertainties and other factors. Assumptions relating to the foregoing involve judgments with respect to, among other things, projected inflation, the regulation of digital assets and macroeconomic policy, all of which are difficult or impossible to predict accurately and many of which are beyond our control. In light of the significant uncertainties inherent in the forward-looking statements included herein, the inclusion of such information should not be regarded as a representation to future results or that the objectives and plans expressed or implied by such forward-looking statements will be achieved.

Generative AI is an emerging category of machine learning that identifies patterns and structures within existing data and uses them to generate new and original content. This technology may pose risks, including uncertain accuracy of generated content, privacy risk to user input data, and intellectual property protections. References to generative AI herein are for illustrative purposes only.

Certain information contained herein may have been obtained from third party sources and such information has not been

independently verified by the author(s). References herein to third parties are for illustrative purposes and are not an endorsement or recommendation for products or services. No representation, warranty, or undertaking, expressed or implied, is given to the accuracy or completeness of such information. While such sources are believed to be reliable, the author(s) do not assume any responsibility for the accuracy or completeness of such information.

The information and any disclosures provided herein do not constitute a solicitation or offer to purchase any security or other financial product or investment and is not intended as investment, tax, or legal advice. Unless otherwise noted, all information is estimated, unaudited and may be subject to revision without notice. Past results are not indicative of future results.