

*Welcome to Morgan Creek Digital's digital asset update. It is comprised of a thought piece from our team. We hope you find this content interesting. Please let us know if you have any comments or questions or if you would like to speak to a member of the [Morgan Creek Digital team](#).*

## **Bitcoin Halving and Ordinals**

### **Analyzing Bitcoin's Consensus Mechanism: Interplay of Supply and Demand**

The Bitcoin protocol, referred to with a capital "B" to denote the system itself, functions as a decentralized software solution. Further, Bitcoin is a programmatic code that mimics the functionalities of a central bank but differs in that it has a predetermined and programmed stock-to-flow growth ratio, whereas central banks are tasked with using monetary policy to control supply production and counterbalance the ebb and flow of the market. The asset, bitcoin (lower case "b"), acts as a liquid commodity with a fixed quantity that cannot be easily increased. In traditional commodities markets an increase in demand typically results in the growth of production, price, and producer return, whereas a decrease in demand results in a supply decrease and stabilizes losses.

In contrast, bitcoin's total supply is permanently capped at 21 million units, as defined by its coding, with the final bitcoin expected to be mined around 2140.<sup>1</sup> Moreover, new bitcoins are systematically mined at a consistent pace of one block every ten minutes. The reward for mining these blocks, which involves verifying and recording new transactions on the blockchain, decreases by 50% approximately every four years due to a process known as the "halving". Initially, miners received 50 bitcoins per block, but this amount is halved every 210,000 blocks or roughly every four years.<sup>2</sup> For instance, following the first halving, the reward dropped to 25 bitcoins, and subsequent halving events reduced it further to 12.5 bitcoins, then 6.25 bitcoins. The upcoming 2024 halving, scheduled for this Friday, will decrease the reward to 3.125 bitcoins per block, diminishing the rate at which new bitcoins enter circulation.

### **Why the 2024 Halving Might Stand Out: Bitcoin's Growth and Institutional Interest**

The 2024 Bitcoin halving could be distinctive from past events due to its timing and the increased adoption by mainstream markets. This significant event coincides with the recent approvals of spot ETFs and growing institutional participation, potentially driving market dynamics not characterized solely by reduced supply but also by increased demand. For example, bitcoin's price reached all-time highs before the

halving, marking a historically significant first, and could have been the result of mainstream financial products creating heightened demand. Further, bitcoin's maturity may counteract the decreasing influence of supply cuts, meaning that the halving effects might be further swayed by broader economic factors rather than purely supply-side changes. Notably, past halving events have front run bitcoin's cycle of price appreciation, lasting about 18 months, and have taken between 518 and 546 days for bitcoin to hit peak prices, potentially suggesting a projected peak around mid-September or October 2025.<sup>3, 4</sup> However, diminishing returns in successive cycles post-halving suggest a potential shift in the impact of these events, as the 2012 halving cycle topped out at 93x return, the 2016 cycle reached 30x returns, and the 2020 peak was 8x return.

### **The Evolution of Bitcoin, a Counter Argument to Bitcoin's Maturity**

A lesser-known development is that in recent years, the Bitcoin network has witnessed a surge in enhancements, introducing Bitcoin Ordinals in 2023, which expanded the utility of the Bitcoin network beyond simple transactions, facilitating the creation of digital art, collectibles, and other unique assets. Bitcoin Ordinals serve the function of Non-Fungible Tokens (NFTs) attaching arbitrary assets to satoshis (sats), the smallest units of Bitcoin, without necessitating additional blockchains or alterations to Bitcoin's core protocol.<sup>5</sup> Ordinals introduce a rarity system by categorizing satoshis based on block occurrences, difficulty adjustments, and halving events, assigning each a unique identifier and serial number, including integer, decimal, degree, and percentile notations.<sup>6</sup> The satoshi's unique serial number is based on its mining order, termed as ordinal, and enables the tracking of individual satoshis and ownership. Through the process of *inscribing*, additional content such as text or images can be embedded onto satoshis, transforming them into scarce and valuable tokens entirely on-chain. To learn more about Ordinals naming convention and counting, check out [\*What is Ordinals?\*](#) newsletter.

Additionally, BRC20 tokens, which are similar to Ethereum's ERC-20 tokens, function within the Bitcoin network, utilizing ordinal inscriptions and enhanced by the Bitcoin Taproot upgrade<sup>7</sup>, offer functionalities such as minting, deploying, and transferring tokens. BRC20 tokens leverage ordinals to imprint unique serial numbers onto satoshis, validate ownership, and prevent duplication.<sup>8</sup> This innovation can facilitate the rise of BTCFi (DeFi utilizing Bitcoin) and the creation of tokenized assets on the Bitcoin blockchain, with the total market cap of BRC-20 tokens alone exceeding \$2 billion.<sup>9</sup> This functionality has contributed to miner revenue, with ordinal inscriptions alone generating over \$400 million in fees, potentially incentivizing further miner participation.<sup>10</sup>

However, the introduction of increasingly complex products has intensified the competition for block space on the network, leading to higher transaction fees. In response to this, new standards for tokens, such as Runes, are being introduced to provide more efficient methods of tokenization on the Bitcoin blockchain. The Runes protocol, which represents a new standard for issuing fungible tokens on the Bitcoin network, aims to simplify token creation, management, and transfer directly on the Bitcoin network. The protocol adopts an Unspent Transaction Output (UTXO) based model for fungible tokens, aimed at enhancing efficiency and optimizing the tokenization process.<sup>11</sup> Simply put, the UTXO model represents the residual digital currency following a transaction, analogous to receiving change post-purchase, where unspent outputs are logged as inputs for subsequent transactions. The Rune protocol is estimated to go live alongside the Bitcoin halving, and developers are spearheading

projects based on its principles, potentially laying the groundwork for integration into diverse applications, including decentralized marketplaces for peer-to-peer transactions of Ordinals.<sup>12</sup> We believe this burgeoning anticipation within the developer community heralds new use cases within the Bitcoin ecosystem and suggests an era of innovative solutions.

## Closing Thoughts

With said innovation, transaction fees can become a primary form of compensation for miners. For example, the first sat mined after the 2024 halving, termed "epic," is expected to be particularly valuable, potentially exceeding a market value of tens of millions of dollars.<sup>13</sup> As a result, bitcoin mining pools and companies are compelled to mine the first block after the halving, which could contain this rare epic sat, and therefore are ramping up their operations to maximize their chances of capturing the coveted asset. Further, the allure of the epic sat extends beyond mining circles, spurring discussions of establishing a futures market for rare and epic sats, offering an innovative approach to asset speculation. Bitcoin's halving event in conjunction with projects built on top of the Ordinals protocol could potentially reshape the dynamics of cryptocurrency mining and introduce new avenues for value creation within the Bitcoin ecosystem, trends that Morgan Creek Digital will closely monitor.

[Click Here to listen to the latest episode of Digital Currents](#)



*Podcast feed:* subscribe to *Digital Currents* in your favorite podcast app, and follow us on [Apple Podcasts](#), or [Spotify](#)

<sup>1</sup><https://cointelegraph.com/news/the-last-bitcoin-btc-mine>

<sup>2</sup><https://cointelegraph.com/learn/bitcoin-halving-how-does-the-halving-cycle-work-and-why-does-it-matter>

<sup>3</sup><https://news.bitcoin.com/predicting-the-peak-analysts-gauge-the-duration-and-climax-of-the-current-bitcoin-bull-run/>

<sup>4</sup>Disclaimer: Historical activity is not indicative of future performance or returns

<sup>5</sup><https://chain.link/education-hub/ordinals-bitcoin-nfts>

<sup>6</sup><https://docs.ordinals.com/overview.html>

<sup>7</sup>The Taproot upgrade was a significant improvement to the Bitcoin protocol that was activated in 2021. It demonstrated the ongoing evolution of the Bitcoin protocol to meet the growing demands and challenges of the digital currency ecosystem. <https://www.theblock.co/learn/271535/what-is-bitcoins-taproot-upgrade>

<sup>8</sup><https://www.coinbase.com/learn/crypto-glossary/what-are-brc-20-tokens#>.

<sup>9</sup><https://www.coindesk.com/consensus-magazine/2024/04/10/ordinals-defy-bitcoins-design-principles-but-offer-miners-huge-post-halving-advantages/>

<sup>10</sup>Ibid.

<sup>11</sup> <https://news.bitcoin.com/runedata-a-runes-protocol-indexer-powered-by-runiclayer2-and-runesbridge/>

<sup>12</sup><https://news.bitcoin.com/runes-protocol-to-debut-alongside-bitcoin-halving-could-boost-btc-ecosystem/>

<sup>13</sup><https://www.coindesk.com/consensus-magazine/2024/04/15/bitcoin-halving-has-crypto-miners-racing-for-epic-sat-potentially-worth-millions/>

---

### **Important Disclosures**

The above information reflects the opinions of Morgan Creek Digital as of the time this is written and all such opinions are subject to change. No representation or warranty, express or implied, is given by Morgan Creek Digital as to the accuracy of such opinions, and no liability is accepted by such persons for the accuracy or completeness of any such opinions.

### **No Warranty**

Neither Morgan Creek Capital Management, LLC nor Morgan Creek Digital warrants the accuracy, adequacy, completeness, timeliness, or availability of any information provided by non-Morgan Creek sources.

This information is neither an offer to sell nor a solicitation of an offer to buy interests in any investment fund managed by Morgan Creek Capital Management, LLC or its affiliates, nor shall there be any sale of securities in any state or jurisdiction in which such offer or solicitation or sale would be unlawful prior to registration or qualification under the laws of such state or jurisdiction. Alternative investments involve specific risks that may be greater than those associated with traditional investments.

### **Forward-Looking Statements**

This presentation contains certain statements that may include "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. All statements, other than statements of historical fact, included herein are "forward-looking statements." Included among "forward-looking statements" are, among other things, statements about our future outlook on opportunities based upon current market conditions. Although the company believes that the expectations reflected in these forward-looking statements are reasonable, they do reflect all assumptions, risks and uncertainties, and these expectations may prove to be incorrect. Actual results could differ materially from those anticipated in these forward-looking statements as a result of a variety of factors. One should not place undue reliance on these forward-looking statements, which speak only as of the date of this discussion. Other than as required by law, the company does not assume a duty to update these forward-looking statements. Past performance is no guarantee of future results. The illustrations are not intended to predict the performance of any specific investment or security.

### **General**

This is neither an offer to sell nor a solicitation of an offer to buy interests in any investment fund managed by Morgan Creek Capital Management, LLC or its affiliates, nor shall there be any sale of securities in any state or jurisdiction in which such offer or solicitation or sale would be unlawful prior to registration or qualification under the laws of such state or jurisdiction. Any such offering can be made only at the time a qualified offeree receives a Confidential Private Offering Memorandum and other operative documents which contain significant details with respect to risks and should be carefully read. Neither the Securities and Exchange Commission nor any State securities administrator has passed on or endorsed the merits of any such offerings of these securities, nor is it intended that they will. This document is for informational purposes only and should not be distributed.

### **Risk Summary**

Interests in the Morgan Creek Digital Fund IV, LP ("Fund") are speculative and involve a significant degree of risk. Cryptocurrencies and related businesses have limited performance histories, can be extremely volatile, and are not

subject to many of the regulatory oversights over which other investable assets are subject. An investment in the Fund is suitable only for sophisticated investors and requires the financial ability and willingness to accept the high risks and limited liquidity inherent in the Units.

There can be no assurance that the Fund will be successful or that losses will not be incurred by the Fund. Each investor in the Fund must have the ability to bear the risk of loss of their entire investment and must be prepared to bear such risks for an extended period of time. Investors are strongly urged to consult with their professional advisors and to carefully review the risk prior to investing.

**Performance Disclosures**

There can be no assurance that the investment objectives of any fund managed by Morgan Creek Capital Management, LLC will be achieved. Past performance is not indicative of the performance that any fund managed by Morgan Creek will achieve in the future. Although Morgan Creek Capital Management, LLC has been presented with co-investment opportunities in the past, there can be no assurance that Morgan Creek will be presented with similar opportunities in the future. Further, there can be no assurance that co-investment opportunities will be available in the future.

Morgan Creek Capital Management | 301 W. Barbee Chapel Road, Suite 200, Chapel Hill, NC  
27517

[Unsubscribe ljacob@morgancreekcap.com](mailto:ljacob@morgancreekcap.com)

[Constant Contact Data Notice](#)

Sent by [mcdigital@morgancreekcap.com](mailto:mcdigital@morgancreekcap.com)