



Research Report | 04.04.2024

From halving to soaring: the impact of the Bitcoin halving on the crypto economy

In two weeks' time, the next Bitcoin halving will take place - an event that only takes place every four years and has a lasting impact on the cryptocurrency landscape. An analysis of the mechanisms, effects and historical contexts.

The Bitcoin White Paper, released in 2008 by Satoshi Nakamoto - a pseudonym whose true identity remains a mystery to this day - laid the groundwork for a decentralized cryptocurrency offering an alternative to the traditional fiat currency system.

In it, Nakamoto described a peer-to-peer electronic cash system based on blockchain technology to enable transactions securely and without the need for a central authority. With its own currency and a unique monetary policy - capped at 21 million Bitcoins and supported by periodic halvings - the cryptocurrency provides a stark contrast to fiat currencies by countering inflation and prioritizing value preservation.

Nakamoto's vision was to create a currency not subject to the whims of governments and financial institutions but governed by mathematical principles and decentralized consensus mechanisms.

Bitcoin's halving mechanism

Unlike fiat currencies, whose inflation rates can be influenced by central bank policies, the rate at which new Bitcoins are created is automatically halved every four years.

This process, known as "halving," reduces the reward that miners receive for adding a new block to the blockchain, thereby slowing the growth of the money supply. Miners secure the Bitcoin network and process transactions by solving complex mathematical problems to add new blocks to the blockchain.

The intense use of computing power and energy is compensated by the awarding of newly created Bitcoins and transaction fees in the network as rewards for the miners.

Initially, miners received 50 Bitcoins per block; after the first halving, this number dropped to 25, then to 12.5, and so on. This leads to a decreasing rate of inflation that trends toward zero over time, until the fixed supply limit of 21 million Bitcoins is reached around the year 2140.

Since the inception of the Bitcoin network in 2009, more than 19 million Bitcoins have been produced, accounting for over 90% of the total supply. The 2024 halving will, for the third time in Bitcoin's history, reduce the reward per block from the current 6.25 to 3.125 Bitcoins.

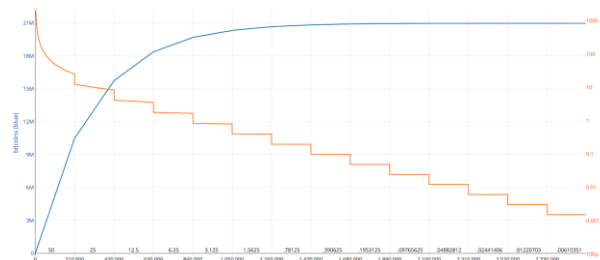


Figure 1: Total Bitcoin supply (blue) and block reward (orange) / Source: Coin Central

Programmed for scarcity

With its fixed limit of 21 million Bitcoins and the halving mechanism, Bitcoin is programmed to become one of the scarcest assets on Earth. This



inherent scarcity positions Bitcoin as a digital form of gold in the world of cryptocurrencies.

Users from countries experiencing high inflation are already recognizing the benefits of Bitcoin, and recently, Wall Street, led by BlackRock, has shown conviction in the digital asset. Institutional investors increasingly view Bitcoin as a safe haven, especially in an era where excessive debt and inflationary monetary policies are commonplace.

Bitcoin as a refuge from inflation

Given the diminishing purchasing power of fiat currencies, due to current macroeconomic conditions such as high inflation driven by expansive central bank monetary policies, more investors are turning to Bitcoin. They see the cryptocurrency as a hedge against the erosion of value in traditional currencies.

Besides the limited total supply of Bitcoins, the halving underscores the effort to ensure its value preservation and scarcity. Price movements around the time of the halvings have been observed: price increases prior to the halving and, particularly, in the six months following, reflecting the impact of the changed supply on demand.



Figure 2: Logarithmic Bitcoin price chart with halving dates (blue) / Source: Tradingview, Digital Asset Solutions

Challenge for the mining industry

While investors look forward to the Bitcoin halving with great anticipation, it marks a critical turning point for the mining industry as the block reward that miners receive for validating transactions is halved. This reduction in revenue forces miners to improve

efficiency and can lead to consolidation within the industry, as only the most competitive players with the lowest operating costs can survive.

Conclusion

Over time, more and more people are recognizing the utility of Bitcoin, as reflected in on-chain data indicating increased activity on the Bitcoin network and the rise in passive investments, which have gained even more momentum since the introduction of US Bitcoin ETFs.

The 2024 halving is bound to increase interest in the "digital gold" through media attention and simultaneously provide a learning effect by highlighting the vulnerability of modern currency systems.

Bitcoin, as the oldest and largest cryptocurrency, is increasingly making its way into traditional investment portfolios. This trend is supported not just by observed capital inflows from ETFs but also by the strategic weighting of Bitcoin in traditional investment portfolios.

Bitcoin's market capitalization of \$1.4 trillion underscores its growth potential compared to traditional asset classes. Even a small allocation in globally managed portfolios could raise Bitcoin's market capitalization to the level of gold (\$15 trillion), with the halving likely to further enhance its upside potential.