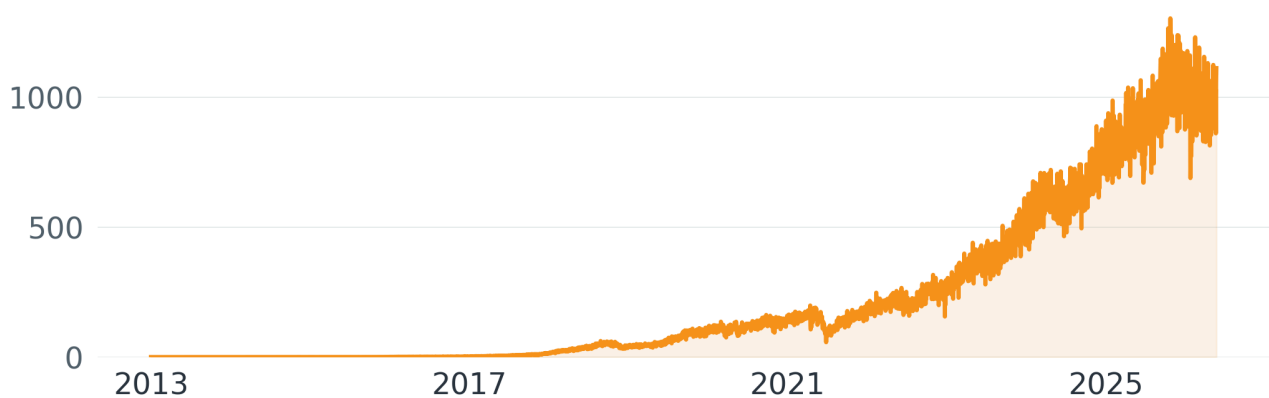


THE BITCOIN HASHRATE STUDY

Does faster mining growth come before better Bitcoin returns?

The full tables, price-trend comparison and limitations behind the carousel.

Estimated network hashrate (EH/s)



4,526

Daily starting dates

365 days

Forward return window

May 2026

Last outcome data

Published October 27, 2026. Historical study with start dates from January 1, 2013 to May 23, 2025. It is not a live mining signal.



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MINING ACTIVITY AND PRICE FORECASTS

Hashrate estimates the computing power miners use to secure Bitcoin. It is inferred from mining difficulty and the pace of block production. It does not directly measure investor demand.

Daily estimates can move because block discovery is random. A one-day jump is not necessarily a matching change in installed machines. This study uses the existing raw daily series, without smoothing.

WHAT WE MEASURED	EXACT DEFINITION
Past mining growth	$100 \times (\text{hashrate on the start date} / \text{hashrate 365 days earlier} - 1)$
Future price return	$100 \times (\text{BTC price 365 days later} / \text{BTC price on the start date} - 1)$
Price trend	Start-date BTC price above, or at/below, its trailing 200-day simple average
Typical result	The median return, the middle result when returns are sorted

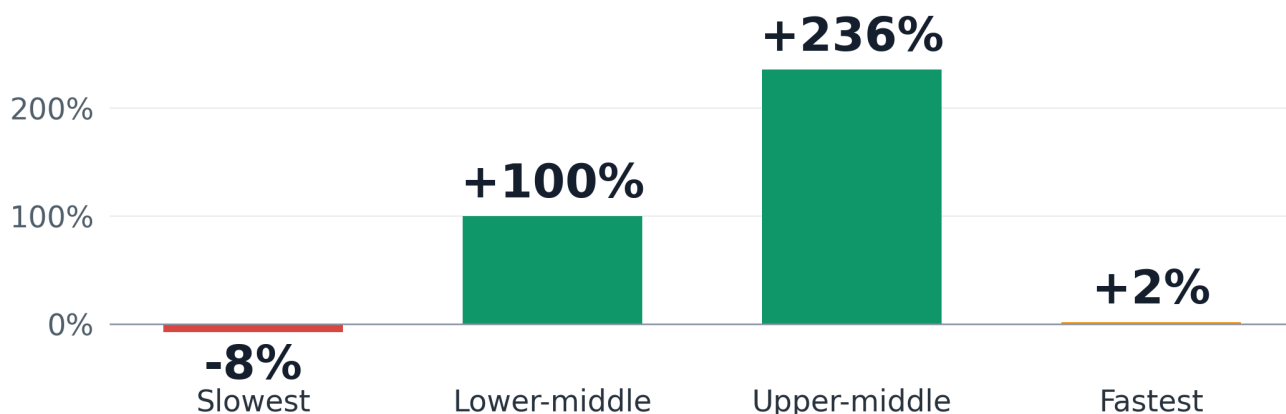
The dataset has one usable observation for every calendar day. Each eligible start date needs a full year of earlier mining data and a full year of later price data.

We asked whether faster hashrate growth came before stronger one-year BTC returns. We did not test whether a new hashrate record predicts tomorrow's price.

Primary definitions from Coin Metrics and Blockchain.com. Source links appear on page 9.

THE FASTEST GROWTH WAS **NOT** THE BEST GROUP

Median BTC return over the following 365 days



Hashrate-growth groups | Overlapping start dates, Jan 2013-May 2025

GROWTH GROUP	TRAILING GROWTH RANGE	DAILY DATES	MEDIAN RETURN
Slowest	Up to 59.31%	1,132	-7.68%
Lower-middle	59.31% to 124.15%	1,131	+100.02%
Upper-middle	124.15% to 418.00%	1,131	+236.43%
Fastest	Above 418.00%	1,132	+1.94%

Median BTC return over the next 365 days. Cutoffs shown rounded; calculations use full precision. Lower band edges are exclusive except the first group.

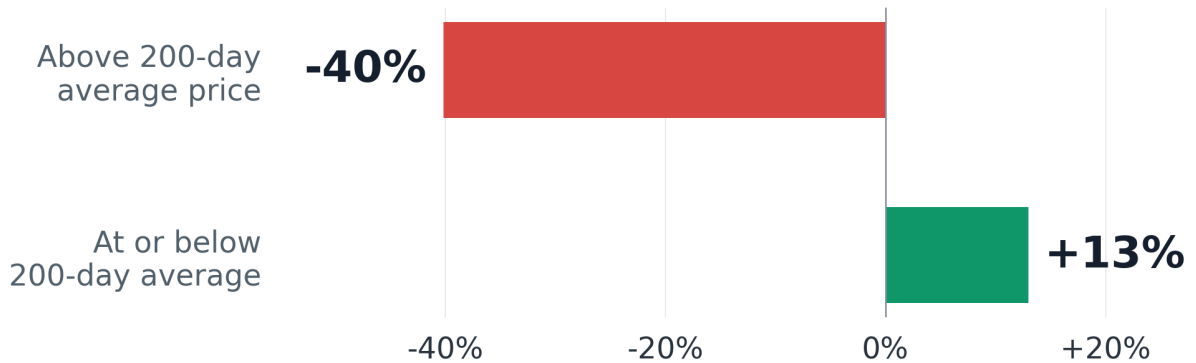
The middle two groups had higher median returns than the fastest group. That does not turn either middle group into a validated trading rule. These bins were chosen using the entire historical sample.

The descriptive pattern is not a simple ladder where more hashrate growth means more future price growth.

Start dates January 1, 2013 to May 23, 2025. Outcomes through May 23, 2026. All windows overlap.

ONE GROWTH GROUP, TWO VERY DIFFERENT RESULTS

Fastest-growth group | Median next-year BTC return



527 dates above; 605 at or below | Overlapping observations

Keep the fastest-growth cutoff fixed, then separate the dates by their price trend. The median next-year BTC return was -40.17% for 527 dates above the 200-day average and +12.97% for 605 dates at or below it.

The trend label uses information available on the starting date. The quartile cutoff still comes from the full sample, so this remains a historical comparison rather than a deployable backtest.

The same mining-growth label can contain different price environments. An overall median can hide those differences.

A 200-day average is the mean price over 200 daily observations, including the starting date. These are trend labels, not complete definitions of bull and bear markets.

THE COMPLETE EIGHT-ROW TABLE

GROWTH GROUP	STARTING PRICE	DAILY DATES	MEDIAN NEXT YEAR
Slowest	Above 200-day	715	+12.70%
Slowest	At/below 200-day	417	-20.04%
Lower-middle	Above 200-day	723	+101.73%
Lower-middle	At/below 200-day	408	+96.03%
Upper-middle	Above 200-day	878	+300.31%
Upper-middle	At/below 200-day	253	+138.60%
Fastest	Above 200-day	527	-40.17%
Fastest	At/below 200-day	605	+12.97%

The same four full-sample growth bands are used in every row. Daily counts are not independent trades.

For example, the slowest-growth group had a +12.70% median return above the average but -20.04% at or below it. The direction of the trend split is not the same across all growth groups.

That is a reason to resist one-line rules. Different years, mining technologies and market cycles are mixed into these rows. A trend filter does not remove every historical difference.

Read all rows together. Selecting the strongest row after seeing its result is not evidence that it will work on new data.

MOVING TOGETHER AND MOVING FIRST

+0.406

Growth vs same-year BTC return

-0.125

Growth vs next-year BTC return

Pearson correlation measures straight-line association on a scale from -1 to +1. Positive values mean higher readings tend to pair with higher readings. Negative values mean the association points in the other direction.

In this sample, trailing hashrate growth was positively associated with trailing BTC returns. Its association with the next year's returns was weakly negative.

A value near zero does not rule out every possible relationship. Curved patterns, different lookback lengths and other mining indicators are separate questions. The quartile table itself is not monotonic.

THIS RESULT SUPPORTS	THIS RESULT DOES NOT ESTABLISH
The same-year and next-year associations differ	That mining growth causes price changes
No simple positive linear lead in this sample	That price always changes before hashrate
More context is needed for a forecast	That every possible mining indicator fails

Correlation is not a percentage chance of a rally. Neither +0.406 nor -0.125 is a trading probability.

THOUSANDS OF DATES, FAR FEWER CYCLES

A January 1 starting date and a January 2 starting date share almost the entire next year. Counting both is useful for describing the historical path, but it does not create two independent experiments.

START YEAR	DATES IN FASTEST-GROWTH GROUP
2013	274
2014	365
2015	130
2016	4
2017	64
2018	295

Only years with at least one fastest-growth observation are shown. The total is 1,132 dates.

This table shows where the fastest-growth sample comes from. Hashrate growth is not evenly spread across Bitcoin's history. The age and composition of a group matter when trying to apply its median to a later market.

4,526 observations are not 4,526 separate market cycles. Treat these returns as a description of this sample, not as precise odds for the next trade.

No statistical confidence interval or independent-trial win rate is claimed.

ASK BETTER QUESTIONS BEFORE USING A SIGNAL

- 1 Check what actually rose. The hashrate level, its annual growth rate and a smoothed crossover are different signals.
- 2 Match the time horizon. A study of the following 365 days cannot justify a forecast for tomorrow or next week.
- 3 Read the sample dates. This edition uses outcomes through May 23, 2026 and makes no live October 27 trend claim.
- 4 Look for comparable conditions. Ask which years and price trends contributed to the result.
- 5 Check independence and hindsight. Overlapping windows and full-sample cutoffs can make a pattern look more dependable than it is.
- 6 Require a fresh test before turning the pattern into a rule. Freeze definitions first, then evaluate later data that did not set those definitions.

A future validation could use smoothed hashrate, fixed training-period cutoffs and non-overlapping evaluation windows. It should also account for the number of rules tried. None of those follow-up tests is presented as completed here.

Use this guide to evaluate the claim, not to infer a buy or sell instruction from one mining statistic.

Educational research, not personalized financial advice. Historical outcomes do not guarantee future results.

FOLLOW THE NUMBERS

Coin Metrics public Bitcoin data

PriceUSD and HashRate are the source columns in the archived dataset. A fresh upstream download may produce a different sample or revised values.

Coin Metrics hashrate documentation

How mining difficulty and block timing are used to estimate computing power. Bitcoin HashRate is measured in TH/s; charts convert it to EH/s.

Blockchain.com hashrate explanation

Why raw daily estimates can vary even if computing power is unchanged.

Download the study tables

Frozen price/hashrate inputs, all eligible observations, group tables and the reproducible calculation script.

Frozen sample. Source data July 18, 2010 to May 23, 2026. Eligible start dates January 1, 2013 to May 23, 2025. There are no duplicate or missing days in the usable source sample.

Method. Simple price returns, 365-day lookback and look-forward windows, full-sample quartiles and a trailing 200-day simple average. Median tables show two decimals; slides round to whole percentages.

Edition October 27, 2026. Calculations by Bitcoin Daily. No causal claim, live price forecast or out-of-sample performance claim is made.

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