THEMATIC RESEARCH · BITCOIN · IBIT · VOO

Same finish, very different ride

What the "Bitcoin is a dud" argument gets right, and what it is most likely missing

TON618 CAPITAL RESEARCH · AS OF SEPTEMBER 1, 2026 · BITCOIN $78,534 · IBIT $44.67 · VOO $704.89 (31 AUG 2026 CLOSES)

168 *vs* **166**

IBIT | VOO, DIVIDENDS REINVESTED

Growth of $100 since the spot Bitcoin ETFs launched. The finish is a tie. The question is what the ride was measuring.

Every figure in this note is computed from daily closing prices and is reproducible from the Sources and Method appendix. Where a number depends on a choice we made, the choice is stated next to the number.

THE CLAIM

The claim

Since the spot Bitcoin ETFs launched in January 2024, $100 in IBIT (BlackRock's Bitcoin fund) and $100 in VOO (Vanguard's S&P 500 fund) have ended up in almost the same place. Bitcoin got there with three times the swings. A longer version of the same argument starts in early 2021, when Bitcoin divided by ten first matched the S&P 500's level, and notes the two are level again today. The conclusion: an asset that returns the same as the index, with far more risk and a meaningful correlation to it, is by the textbook a dud.

The chart is the whole argument in one picture, and it is accurate. This note takes it seriously: first the critics' case, stated as strongly as the data allows; then five things a reader would need to add before drawing the conclusion; then the one question none of this data can settle, and what would change our view.

THE CRITICS' CASE, FIRST

What the criticism gets right

The numbers are real. From the ETF launch on 11 January 2024 to the 31 August 2026 close, IBIT is up 68% and VOO is up 66% with dividends reinvested. Since the 7 January 2021 crossing, Bitcoin and the S&P 500 are both up almost exactly 100%. Nobody is fudging the arithmetic.

Bitcoin's risk-adjusted return over these windows is poor. The Sharpe ratio, which is return above cash divided by volatility, is the standard yardstick for whether you were paid for the risk you took. Over the ETF era it is 0.35 for IBIT against 1.11 for VOO. Since the 2021 crossing it is 0.18 for Bitcoin against 0.62 for the S&P. On that yardstick, held alone, Bitcoin lost.

The drawdowns were brutal. IBIT fell 53% from its high inside the ETF window. Bitcoin fell 77% from its 2021 high. VOO's worst fall in the ETF window was 19%, and the S&P's worst fall since 2021 was 25%. Anyone who held Bitcoin through those stretches earned the same money as an index holder and had a much worse time doing it.

Bitcoin does not protect you on the worst days. The strongest form of the critics' correlation point is not the average correlation but what happens when stocks fall hard. Since 2021, on the 177 days the S&P fell 1% or more, Bitcoin fell too on 77% of them, and fell harder: an average of 2.4% against the index's 1.7%. On the 42 days the S&P fell 2% or more, Bitcoin fell 83% of the time, by 4.8% on average. Whatever else Bitcoin is, it is not a hedge against a bad day in stocks.

Dividends make it worse for Bitcoin, not better. Most versions of this comparison use price only. Adding the S&P's dividends back in takes roughly 5 points off Bitcoin's ETF-era lead and about 8 points off its since-2021 standing.

Of these, this note tests the return, Sharpe ratio, drawdown and correlation claims on the critics' own windows and on the windows the critics did not choose. It does not test, and cannot settle inside any window this short, whether Bitcoin's return premium has faded for good.

168 / 166

$100 in IBIT and in VOO with dividends, 11 Jan 2024 to 31 Aug 2026

0.38

Daily correlation to the S&P 500 since the 2021 crossing

77%

Of the S&P's 1%-down days on which Bitcoin also fell

0.56x

Today's price as a multiple of Bitcoin's power-law curve; the last three cycle lows: 0.44x to 0.47x

---

WHAT IS MISSING

What is most likely missing

1. Both endpoints were chosen, and both favor the index. The comparison starts on the day Bitcoin crossed above the index, which by construction is a day Bitcoin had just outrun it. Bitcoin had tripled in the three months into that day. The comparison ends today, when the S&P sits 1% from its all-time high and Bitcoin sits 37% below its own. The ratio of the two has ranged from 0.40 to 1.91 since the crossing and spent 52% of days above 1. The "equal" reading is one point on that path.

Run the identical test from the same start date to July 2025 and Bitcoin is up 206% against the S&P's 65%. Run it to November 2022 and Bitcoin is down 60% while the S&P is up 4%. Move the start back one quarter and Bitcoin wins by 500 points. Move it forward one quarter and the index wins. A verdict that flips with a one-quarter nudge is a date, not a finding. That cuts both ways, and section 4 turns the same test on the windows that favor Bitcoin.

2. "High correlation" is not what the data shows on ordinary days. Correlation measures how much two assets move together, from 1 (in lockstep) through 0 (unrelated) to -1 (in opposite directions). Since 2021, Bitcoin's correlation to the S&P has been 0.38 on daily moves and 0.26 on weekly moves. Nor does the figure rise on bad days: on days the S&P fell 1% or more it was 0.34, and in the worst tenth of weeks it was 0.23. A correlation measured only on down days runs low by construction, because it strips out the index's own variation, which is why the hit rate in the previous section, Bitcoin falling on 77% of those days, is the fairer stress measure. Put the two together and the picture is consistent: Bitcoin usually falls when stocks fall hard, and on the other 90% of days it goes its own way. That moderate correlation is one of the two numbers the "dud" claim rests on, the other being the return, and it is the one that decides what Bitcoin does inside a portfolio.

3. The textbook rule gives the opposite answer. Portfolio management does not judge an asset on its own Sharpe ratio. It judges what the asset does to the portfolio. The table runs the critics' own windows, with the index carrying its dividends, and adds a Bitcoin slice rebalanced daily. Daily rebalancing credits the volatile sleeve with a rebalancing gain that a buy-and-hold slice would not earn, so the blend rows lean slightly in Bitcoin's favor by construction.

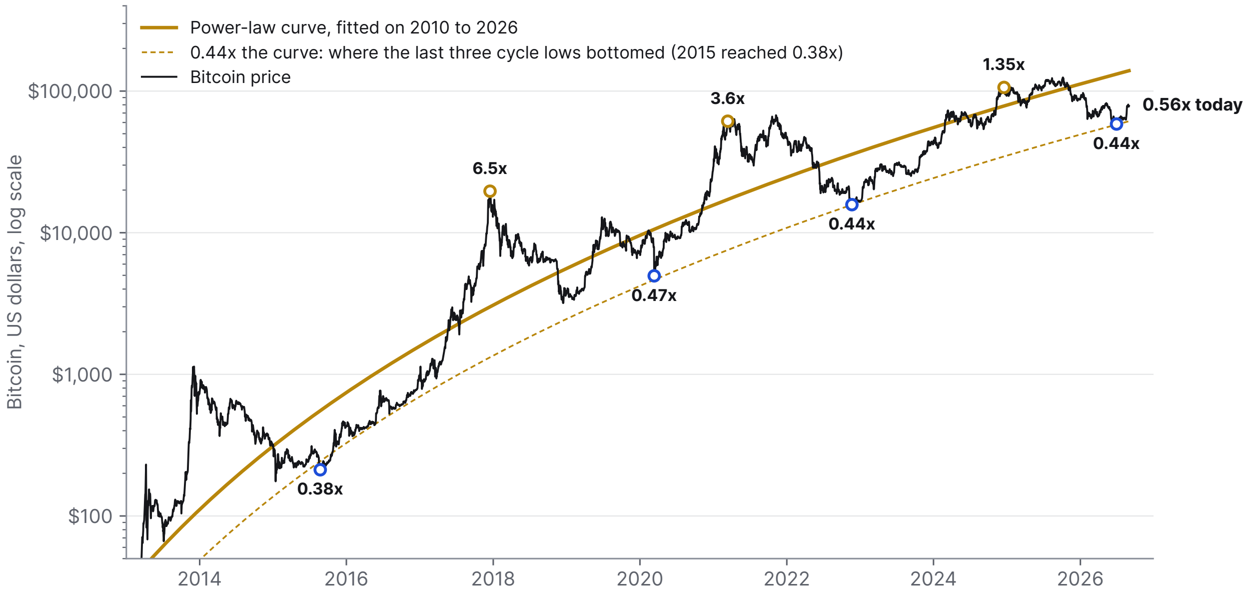
WINDOW AND PORTFOLIO	ANNUAL RETURN	VOLATILITY	SHARPE	WORST DRAWDOWN
ETF era: IBIT alone	21.8%	49%	0.35	-53%
ETF era: VOO alone	21.4%	15%	1.11	-19%
ETF era: VOO + 3% IBIT	21.8%	15%	1.11	-19%
ETF era: VOO + 5% IBIT	22.0%	16%	1.12	-19%
ETF era: VOO + 10% IBIT	22.6%	16%	1.10	-19%
Since Jan 2021: S&P alone	13.3%	17%	0.62	-25%
Since Jan 2021: S&P + 5% Bitcoin	14.0%	17%	0.65	-27%
Since Jan 2021: S&P + 10% Bitcoin	14.7%	18%	0.65	-30%
Since Nov 2021 peak: S&P alone	10.8%	17%	0.45	-25%
Since Nov 2021 peak: S&P + 5% Bitcoin	11.0%	18%	0.45	-27%

In the ETF window the 3% slice that the live debate keeps mentioning changes nothing to two decimals, a 5% slice raises the portfolio's Sharpe ratio and leaves its worst drawdown unchanged, and a 10% slice adds return but gives the Sharpe gain back. Since the 2021 crossing both slices raise return and Sharpe and cost two to five points of drawdown. Start instead at Bitcoin's November 2021 peak, the worst start the critics could pick, and the Sharpe gain disappears while the drawdown cost stays. That is the honest range: an asset with the same return and a correlation near 0.4 improves a stock portfolio a little, at a small cost in the worst stretch, and the improvement disappears if you buy it at a cycle top. None of that is a dud. A dud is an asset with the same return and a correlation near 1.

4. The window length picks the answer, in both directions. Bitcoin has historically moved in roughly four-year cycles. A 2.6-year window catches part of one. Even the 5.6-year window since 2021 starts at a peak. Stretch the test to 8 years, with the index carrying its dividends, and Bitcoin's Sharpe ratio is 0.52 against the index's 0.60, still behind. At 10 years it is 0.92 against 0.68. At 5 years, a window that starts ten weeks before the November 2021 peak, it is 0.15 against 0.58, the worst reading of the three. The 8- and 10-year windows start near Bitcoin's 2018 and 2016 lows, so they carry the mirror of the critics' start-date problem. Applying the same nudge test to them: of the 33 eight-year windows that start in each month from January 2016 to September 2018, Bitcoin's Sharpe ratio beat the index's in two-thirds, and lost in the third that start near the 2017 and 2018 peaks. No single window settles this. What the grid shows is that a third of eight-year starts produce the critics' answer, and that the starts which do are the ones at or near a peak. The critics' windows are shorter and start at one. The reader should know that before adopting their answer.

5. Measured against its own long-run trend, Bitcoin is sitting where past cycle lows sat, not where highs sat. The four points above are about the windows. This one is about where in its own cycle Bitcoin was when the critics measured it, and it needs a short explanation of the tool. Bitcoin's price has not grown at a steady percentage each year. It has grown along a curve called a power law: price rises as a fixed power of the asset's age, so each year's percentage gain is a little smaller than the last, but the curve never flattens out. Fit that curve to sixteen years of daily prices and it explains about 96% of the variation. The fitted exponent is about 5.6, and it has barely moved whether you fit it on data ending in 2017, 2020, 2023 or today. Nobody knows for certain why Bitcoin has followed this shape. The usual explanation is that a network's value grows with the square of its users, and its user count has grown as a power of time. Whatever the cause, the curve has held long enough to be a useful yardstick for asking whether a given price is high or low for its date.

The price does not sit on the curve. It swings around it in cycles, running far above the curve at each cycle's peak and well below it at each trough. The gap between price and curve is what tells you where in the cycle you are.



CYCLE	PEAK, AS A MULTIPLE OF THE CURVE	LOW, AS A MULTIPLE OF THE CURVE
2013 to 2017	6.5x (Dec 2017)	0.38x (Aug 2015)
2017 to 2021	3.6x (Mar 2021)	0.47x (Mar 2020)
2021 to 2024	1.35x (Dec 2024)	0.44x (Nov 2022)
Current		0.44x (Jun 2026); 0.56x today

The last three cycle lows bottomed between 0.44x and 0.47x the curve, and the 2015 low reached 0.38x. The June 2026 low was 0.44x. Today's 0.56x is lower than 83% of all trading days since 2013 and lower than 91% of days since 2017. That is the basis for saying Bitcoin is in the lower part of its range: not a feeling, but the price sitting at the depth where the last three cycle troughs sat.

That is also what the ETF-era comparison is actually measuring. Bitcoin started the ETF window at 0.83x the curve, rose to 1.35x at the December 2024 peak, and ended it at 0.56x, below where it started. The curve itself rose 149% over those 2.6 years. The price rose 69%. The critics measured Bitcoin during a stretch when it was losing ground against its own trend, and that stretch happened to end level with an index sitting 1% from its all-time high.

One more fact cuts the other way, and it belongs here. The peaks are getting lower: 6.5x, then 3.6x, then 1.35x. The 2025 cycle never got far above the curve at all. That is consistent with a maturing asset whose swings are shrinking, and it means a reader should not expect the next peak to look like 2017. The lows, though, have held their depth. If the lows keep holding while the highs compress, the curve is still the right yardstick and today sits near its floor. If the next low breaks well below the 2015 mark, the yardstick is broken.

WHAT THIS NOTE CANNOT CLAIM

What the counter-argument cannot claim

The power-law curve is a fit to history, not a law of nature, and being below it proves nothing on its own. The price has spent 53% of all days since 2013 below the curve, and once stayed below it for 870 days straight, from January 2015 to May 2017. The current stretch below the curve is 301 days. The shrinking peaks may mean the exponent is flattening as the asset matures, and the ETF era is exactly where that would first show. The long-window Sharpe ratios are carried by early years when Bitcoin was tiny, and those may never repeat. The extra drawdown a Bitcoin slice adds to a portfolio is a real cost, and on the worst days in stocks Bitcoin has not helped. And whether the return premium has faded for good or is simply mid-cycle is the one question none of this data can settle.

THE TRIPWIRES

What would change our view

Each of these is observable, and each would move this note toward the critics' reading:

— If Bitcoin's weekly correlation to the S&P 500 held above 0.7 for a full year, the diversification case would be gone and the critics' framing would be right.

— If the price closed below 0.38x the power-law curve, the lowest point against the curve since 2013, or stayed below the curve longer than the 870-day record set in 2015 to 2017, the "lower part of the range" reading would fail and "trend broken" would be the better explanation.

— If IBIT still trails VOO with dividends reinvested over the full four years from launch, on 11 January 2028, the mid-cycle explanation fails on its own terms.

APPENDIX

Sources and method

Prices. Daily closes for IBIT, VOO and the S&P 500 index (symbol $SPX) from Schwab market data, split-adjusted, pulled 1 September 2026, last close 31 August 2026. VOO dividends from the fund's distribution history as carried by Yahoo Finance (ten distributions, $17.61 per share over the ETF window), reinvested on the ex-date to build the total-return series. For the 5-, 8- and 10-year windows and the 8-year start-date grid, the dividend-adjusted VOO series from Yahoo Finance is used directly. Bitcoin daily reference price from CoinMetrics (community API, PriceUSD), 18 July 2010 to 31 August 2026, held in the house daily cache.

Return statistics. Annual return is the geometric average over the window. Volatility is the standard deviation of daily returns times the square root of 252. Sharpe ratio is annual return minus a cash rate, divided by volatility. Cash rate assumed at 4.5% for the ETF window and 3.0% for every window starting in 2021 or earlier, both flat; these are assumptions, not observed series. Worst drawdown is the largest peak-to-trough fall in the cumulative series. Blended portfolios are rebalanced daily to the stated weight. Annualization uses trading days (observations divided by 252) for the ETF window and calendar days (divided by 365.25) for the windows anchored in 2021 and earlier; volatility uses the population standard deviation.

Correlation. Pearson correlation of daily, weekly and monthly percentage returns since 7 January 2021. Stress figures condition on days the S&P fell 1% or 2% or more, and on the worst tenth of weekly S&P returns. Rolling 90-day correlation is reported for its range only.

Endpoints. The 2021 crossing is the first trading day of 2021 on which Bitcoin divided by ten exceeded the S&P 500 close (7 January 2021: Bitcoin $39,216, S&P 3,804). Distance from all-time high uses each series' own highest close in the data. Range position uses each series' own closes since the crossing and over the trailing year.

Power law. Ordinary least squares of log price on log days since 3 January 2009 over the full CoinMetrics history; exponent 5.65, R-squared 0.96. Exponent stability is tested by refitting on data ending 31 December 2017, 2020 and 2023. The multiple of the curve is price divided by the fitted value on that date. Cycle peaks are the highest multiple between successive troughs; cycle lows are the lowest multiple between successive peaks (December 2013, December 2017, March 2021, December 2024). Percentiles of today's multiple use all days since 1 January 2013 and all days since 1 January 2017. "Below the curve" means the multiple is under 1; the stretch counts are consecutive trading days.

Scripts. All computations are in the note's data folder: ibit_vs_voo.py, btc10_vs_spx.py, powerlaw_residual.py, gate_fixes.py and charts.py, each of which writes the CSV it reads from.

DISCLOSURES Disclosures