

BITCOIN THEMATIC · JPM · BTC

Is J.P. Morgan Asset Management Right About Bitcoin?

Every asset's correlations change, Bitcoin's more than most. A covariance matrix only has the rear-view mirror.

Every correlation in a covariance matrix is an estimate drawn from the past, and even the most important one moves: stocks and bonds moved in opposite directions for two decades before 2022 and together since, and stayed in every matrix, on about a century of data against Bitcoin's fifteen years. J.P. Morgan Asset Management's 2027 capital market assumptions give Bitcoin, as reported, the highest return forecast of any liquid asset in their US-dollar tables, and leave it out of the matrices that set allocations, citing its volatility and unstable correlations. Run through the test JPM's own Sharpe ratio implies, using its own cash rate and balanced portfolio, the exclusion would follow only if the forecast were about 1.3% rather than 10% (5.6% under a stricter stress), or if Bitcoin's correlation with a balanced portfolio climbed back past its 2023 peak.

TON618 CAPITAL RESEARCH · AS OF 20 OCTOBER 2026

10%

JPM's base-case compound return for Bitcoin, as reported:
the highest of the liquid assets in its USD tables

the test between them, on JPM's own inputs
----->
passes unless the forecast is below 1.3% (5.6% under a stricter stress)
at the correlation measured over the past year (0.45)



its weight in the main allocation tables

On 19 October 2026, J.P. Morgan Asset Management published the 31st edition of its Long-Term Capital Market Assumptions, the 10- to 15-year return, volatility and correlation estimates it builds, in its own words, "to aid investors with strategic asset allocation or policy-level decisions." For the first time, the report puts a range on Bitcoin; as reported from the gated chapter, the base case is a 10% compound annual return, ahead of every stock, bond and gold forecast in its US-dollar tables. In the same edition, Bitcoin stays out of the main covariance matrices, the tables an optimizer reads to decide how much of each asset to hold, so its allocation in any portfolio built from those tables is zero. This note asks whether the second decision follows from the first, using JPM's own figures wherever they are public and saying plainly where they are not.

THE QUESTIONS

What this note answers

1. **What does the report say about Bitcoin, and how much of it can a reader check?** Three passages in the open executive summary, two lines in the press release, and a set of numbers from a chapter that is not public.

2. **On JPM's own inputs, does a small Bitcoin position help or hurt a balanced portfolio?** The standard test, run on JPM's published cash rate and balanced portfolio and under a stricter stress, and the forecast at which the answer flips.
3. **Is an unstable correlation a reason to leave an asset out?** What the stock-bond record shows.
4. **Why do Bitcoin's correlations move?** A hypothesis that it plays two roles, growth platform and hard money, tested against a synthetic asset with one fixed relationship.
5. **What does risk management do with an estimate it does not trust?** Worst-case sizing, and how the report treats the same questions elsewhere: debasement, gold, technology adoption and the firm's own lending.
6. **What would make the exclusion the right call?** The observables that would settle it.

1.3%

THE COMPOUND RETURN AT WHICH JPM'S EXCLUSION WOULD FOLLOW FROM ITS OWN TEST, ON JPM'S OWN FIGURES AND BITCOIN'S CORRELATION WITH A 60/40 PORTFOLIO OVER THE PAST YEAR (5.6% UNDER A STRICTER STRESS); JPM FORECASTS 10%, AS REPORTED

The reading. Most of JPM's caution is borne out by the record: Bitcoin's volatility is several times that of equities, its correlations do not hold still, and it fell 64% in 2022 while moving with stocks. The exclusion is a different matter. On JPM's base case and its own cash rate and balanced portfolio, a small Bitcoin position raises that portfolio's Sharpe ratio unless Bitcoin's correlation with it exceeds 0.83 (0.60 under a stricter stress); over the past year it was 0.45, and no one-year reading since 2016 has crossed 0.6. In the main matrices, the zero follows from leaving Bitcoin out, not from that test; the public record does not show whether the gated chapter runs another. The margin is real but not wide: at the 2023 peak and under the stricter stress the break-even sits half a point under JPM's forecast, shorter windows have crossed that stricter break-even, and on JPM's bear case the test fails outright.

10.0%

JPM's base-case compound annual return for Bitcoin over 10–15 years, as reported: the highest of the liquid assets in its US-dollar tables (Japanese equity about 9%, read from JPM's chart; US large caps 7.5%; gold 5.5%), with 55% volatility and no place in the main covariance matrices

0.45

Bitcoin's correlation with a 60/40 portfolio over the past year, measured on daily returns; on JPM's own figures the test fails above 0.83, or above 0.60 under a stricter stress

0.6 pts

The spread in portfolio volatility, for a 2% Bitcoin position in a portfolio with JPM's 11.5% balanced-portfolio volatility, between the 0.45 correlation measured over the past year and the worst case of no diversification at all

9.5%

The break-even forecast at the 2023 peak correlation (0.58) under the stricter stress, half a point below JPM's 10%: the narrowest one-year margin the note found, and the strongest number on JPM's side

Terms used throughout, defined once. **Covariance matrix:** the table of volatilities and pairwise correlations an optimizer uses to combine assets; an asset left out of it receives no weight. **Correlation:** how closely two assets' returns move together, from –1 to +1. **Compound and arithmetic return:** the compound return is the growth rate an investor actually earns over the horizon; the arithmetic return is the average of yearly returns, higher than the compound, by roughly half the variance when volatility is modest (at Bitcoin's volatility the note uses a lognormal conversion); it is the figure portfolio math uses. **Sharpe ratio:** in JPM's own definition, forecast arithmetic return less the cash return, divided by volatility. **The add-a-position test:** a small position in an asset raises a portfolio's Sharpe ratio when the asset's Sharpe ratio is greater than its correlation with the portfolio multiplied by the portfolio's Sharpe ratio. **Break-even:** the correlation, or the forecast, at which that test flips.



THE OTHER SIDE, FIRST

The case that Bitcoin belongs outside the matrix, in JPM's terms

The strongest version of the case for JPM's treatment, in the terms its proponents would use:

1. **The correlations are unstable, and they move the wrong way when it matters.** Bitcoin's correlation with a 60/40 portfolio has run from -0.17 to 0.58 on a one-year window since 2016, and higher on shorter windows: 0.69 over three months in March 2020 and 0.63 over six months in September 2022. In 2022, the year stocks and bonds fell together, Bitcoin fell 64% with a correlation to stocks of 0.58. In both of the sample's worst markets its link to the Nasdaq-100 dominated, the state in which it moves most with a balanced portfolio. JPMorgan's Private Bank finds the same in its own data: over the past decade, in four-week stretches when global equities fell 5% or more, Bitcoin fell 93% of the time and gold 55%, and Bitcoin's long-run correlation with global equities, about 0.2, "tends to spike during periods of market turmoil." A diversifier that arrives only in calm years is not one a policy portfolio can count on.
2. **Variance understates the risk.** Bitcoin has fallen 77% to 93% from peak to trough four times, and 53% in the most recent decline, from October 2025 to June 2026. Its daily returns have fat tails: 52 days moved more than three standard deviations in the 2015–2026 sample, against about 8 under a normal distribution. A test built on volatility and correlation, including the one in this note, cannot see that.
3. **The expected return itself is uncertain.** Bitcoin has no cash flows, so its forecast is built from proxies: money supply, gold and adoption. JPM's scenarios, as reported, run from a bear case of about -10% to -11% a year to a bull case of about +17%. Optimizers are notoriously sensitive to errors in expected returns, and a reference matrix feeds many portfolios at once.
4. **The history is short.** Stocks and bonds have about a century of data across many regimes; Bitcoin has about fifteen years, and fewer than three since US spot exchange-traded funds began trading in January 2024.
5. **JPM did not ignore it.** The report publishes a return range, a volatility and a separate covariance matrix against a subset of assets, and, as reported, names the conditions under which it would revisit: lower volatility, more stable correlations, clearer regulation and deeper market infrastructure. One outlet reports that the authors do not assume those conditions will hold over the forecast horizon, and that they ask for any allocation to be stress-tested against both the bull and bear scenarios. The firm's own Private Bank, writing in February 2026, also stopped short: "We don't currently recommend it as part of a core allocation," citing regulation that is only beginning to solidify, volatility that remains relatively high for a standalone asset, and history suggesting "bitcoin could contribute outsize risk to a portfolio": by its measure, a 5% position beside a 60/40 portfolio would have contributed 13% of portfolio risk since January 2024, against 2% for the same position in gold. The exclusion is from the main matrix, not from analysis.
6. **The matrices set policy, not trades.** JPM says its assumptions aid "strategic asset allocation or policy-level decisions over a 10- to 15-year investment horizon." An asset whose weight would swing on small changes in its inputs is a poor fit for a reference table that portfolios are built from.
7. **A matrix does not stop at a small position.** The add-a-position test covers the first sliver. An optimizer reading the main matrix solves for the whole weight, and that weight changes several-fold across the settings this note tests, several of which go beyond JPM's inputs. On JPM's inputs alone, the weight moves less with the correlation than with the forecast, and on either reported bear case it falls to zero for a portfolio that cannot short. A table used as a starting point would pass that instability to every portfolio built from it.

Of these, this note tests (1), by running the add-a-position test across every one-year correlation measured since 2016, reporting the shorter-window peaks against the same break-evens, and testing in §4 whether the instability has a structure; (3), by solving for the forecast at which the test flips and running JPM's bear case; (4) in §3; and (5), (6) and (7) in part, in §2 and §5. **It cannot test** (2), because the test is built on volatility and correlation and says nothing about drawdowns or tails.

What J.P. Morgan said, and what a reader can check

3 + 2 Bitcoin passages in the open executive summary, and lines in the press release; the detailed section sits in a chapter readers must sign in to see

The open executive summary discusses Bitcoin in three passages. In its key insights: "And for the first time, we put a range on bitcoin returns, though we do not yet include bitcoin in our main covariance matrices." In the public-markets summary: "We debut bitcoin coverage, but unstable correlations to other assets impair a strategic allocation." And in the section on how capital flows are being rewired, after arguing that a cheaper dollar does not diminish the dollar's reserve status, the report calls the idea that currency debasement will "precipitate a rush into crypto assets" "wide of the mark," and continues: "The volatility and unstable correlation of assets like bitcoin (BTC) remain an obstacle to their widespread inclusion in portfolios. Nevertheless, we initiate a long-term return forecast for BTC this year while stopping short of its full inclusion in our covariance matrices." The press release flags "a first look at bitcoin" and puts the decision in one line: "A range on bitcoin return is introduced, but bitcoin is not included as an allocation."

The numbers are in the public-markets chapter, behind a sign-in for institutional investors. Press coverage on 20 October agrees on the core figures and splits on the scenarios.

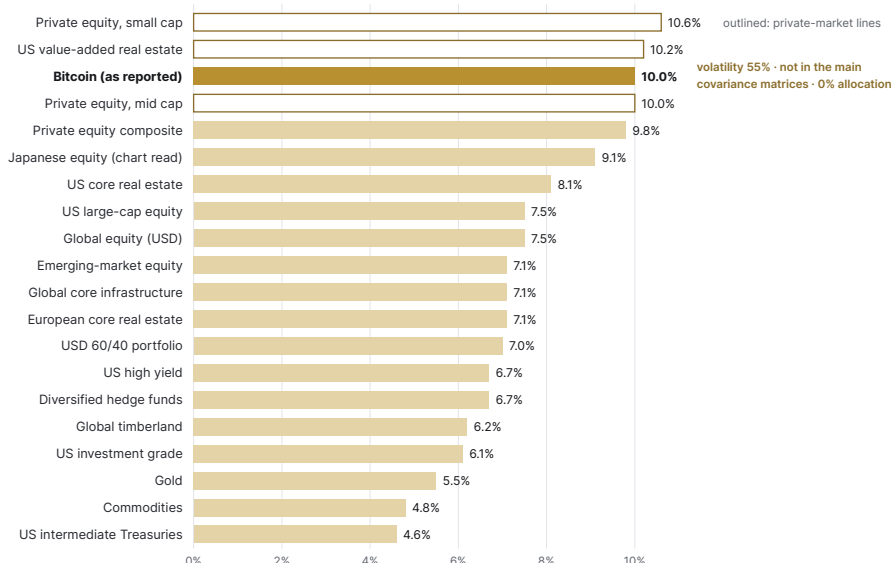
FIGURE	VALUE	SOURCING
Base case, compound annual return	10.0%	reported across outlets
Arithmetic (average annual) return	20.9%	several outlets; consistent with 10% compound at 55% volatility
Volatility	55% (US large caps about 18%)	reported across outlets
Bear / bull case, annualized	-11.2% / +16.6%	CryptoSlate, Crowdfund Insider, TFTC
Bear / bull case, as CoinDesk reports it	-9.7% / +17.0%	CoinDesk; unresolved until the chapter is public
Three factors	supply growth relative to money supply, 65% weight, 10.7%; competition with gold for allocations, 30%, 10.7%; network adoption, 5%, -3.2%	CryptoSlate, Crowdfund Insider; the weighted blend reproduces 10.0%
Reference price	near \$83,000; Crowdfund Insider dates it 30 September 2026	CryptoSlate, Crowdfund Insider

Two of the figures check out arithmetically. A 20.9% arithmetic return at 55% volatility implies a compound return of 10.05%, and the three factors, weighted, give 10.00%. From the 30 September close of \$83,580, the base case implies about \$217,000 in ten years; the bull cases about \$388,000 to \$402,000; either bear case a loss of roughly two-thirds over ten years (64% to 70%), and about four-fifths over fifteen.

The access gap matters for what can be said. JPM announced a range in a public release and the press carried it the next day, but the evidence for it sits behind a sign-in, and the reported bear and bull cases already disagree, with no public source to settle them. The gate is common practice for institutional material; the consequence for readers is that the most-reported number in the report cannot be checked against its source. This note uses the scenario figures only where the conclusion does not depend on which pair is right.

EXHIBIT 1 — JPM'S 2027 RETURN ASSUMPTIONS: BITCOIN AT THE TOP OF THE LIQUID ASSETS, AT ZERO WEIGHT

JPM's 2027 compound annual return assumptions, 10–15 years, USD, selected liquid and private assets



How to read it. One bar per asset, sorted by JPM's 2027 compound annual return assumption for the next 10 to 15 years in US dollars; the scale runs along the bottom in percent. Bitcoin is the dark gold bar, at its reported 10.0%; the three outlined bars above or level with it are private-market lines from JPM's alternatives table; the pale bars are the other assets, liquid and private, and a 60/40 portfolio. The nearest liquid forecast in the open exhibits is Japanese equity, at about 9.1% read from JPM's frontier chart. Compare lengths only: the chart shows returns, not risk. Volatility (55% for Bitcoin, roughly three times US large caps) and unstable correlation are the two reasons JPM gives for holding the top liquid bar at zero, and that trade-off is what Exhibit 2 tests.

THE TEST

The test the main matrix cannot run

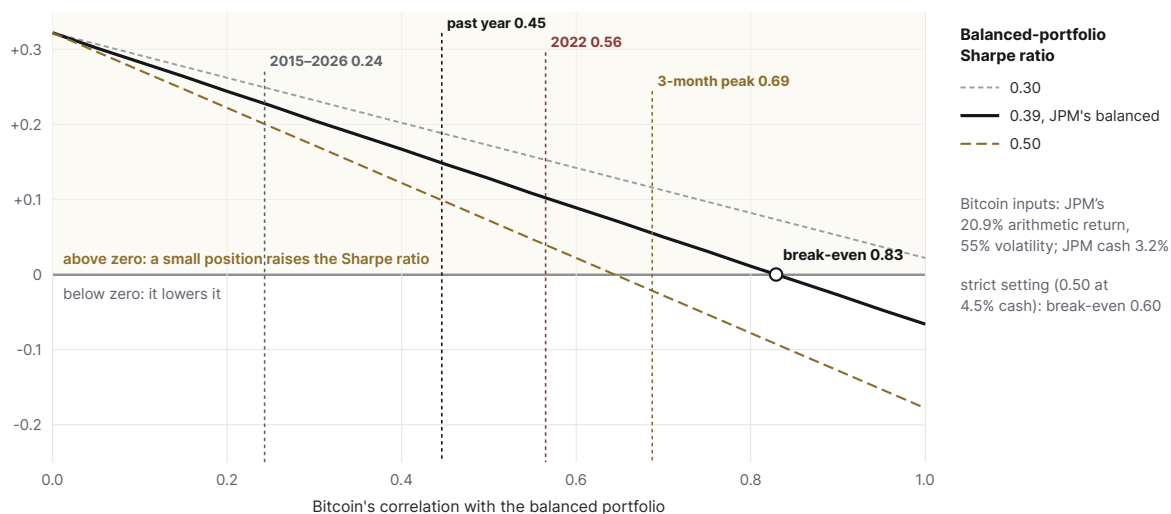
0.32 Bitcoin's Sharpe ratio on JPM's own definition, return, volatility and 3.2% cash: level with JPM's US large caps, below its bonds, credit, core real estate and private equity

JPM defines the Sharpe ratio as forecast arithmetic return less cash, divided by volatility, and publishes its US-dollar cash assumption: 3.2%. On its Bitcoin figures (20.9% and 55%), that gives Bitcoin a Sharpe ratio of about 0.32, the same as JPM's own figure for US large caps in its Sharpe-ratio exhibit, and below its figures for US aggregate bonds (about 0.53), US core real estate (0.48), investment-grade and high-yield credit (about 0.44) and private equity (0.41). Gold, at 5.5% compound and about 17% volatility, comes out near 0.22 on the same arithmetic. Gold holds a 10% place in two of the report's illustrative diversified portfolios.

A Sharpe ratio alone does not earn an allocation; the asset also has to diversify. The add-a-position test combines the two. A small Bitcoin position raises a balanced portfolio's Sharpe ratio when Bitcoin's 0.32 exceeds its correlation with the portfolio times the portfolio's own Sharpe ratio. JPM's frontier exhibit places its balanced 60/40 portfolio at about 7.0% compound return and 11.5% volatility, a Sharpe ratio of about 0.39 by JPM's definition; at that figure the break-even correlation is 0.83. Under a stricter stress the note also runs, a 4.5% cash rate and a portfolio Sharpe ratio of 0.50 (the strict setting, used from here on), it is 0.60. Bitcoin's correlation with a 60/40 portfolio, measured on daily returns, was 0.45 over the past year, 0.34 over three years and 0.24 since 2015. In 2022 it was 0.56; at its highest, in February 2023, the one-year figure reached 0.58. One outlet reports JPM's historical estimate at 0.33 against US large caps. Every one of those sits below every break-even tested.

EXHIBIT 2 — THE ADD-A-POSITION TEST ON JPM'S INPUTS, ACROSS EVERY CORRELATION

Does a small Bitcoin position raise a balanced portfolio's Sharpe ratio? Margin of the test against Bitcoin's correlation with the portfolio



How to read it. The horizontal axis is Bitcoin's correlation with a balanced portfolio, from 0 to 1. The vertical axis is the test's margin: Bitcoin's Sharpe ratio on JPM's 20.9% return, 55% volatility and 3.2% cash, minus the correlation times the portfolio's Sharpe ratio. Above the zero line, a small Bitcoin position raises the portfolio's Sharpe ratio; below it, it lowers it. The solid line uses JPM's balanced portfolio (Sharpe ratio about 0.39), the dotted and dashed lines 0.30 and 0.50 for comparison; the open circle marks where the solid line crosses zero, at 0.83, and the strict setting (0.50 at 4.5% cash, not drawn) crosses at 0.60. The dotted verticals are measured correlations with a 60/40 portfolio: the full 2015–2026 sample, the past year, calendar 2022 and the three-month peak of March 2020. Read where each vertical meets each line: every one-year or longer reading sits above zero on every line; the three-month peak falls below the dashed line.

The same test can be turned around to ask what forecast would justify a zero. At the correlation measured over the past year, the exclusion follows from JPM's test only if Bitcoin's compound return forecast were below about 1.3% on JPM's own figures, or 5.6% under the strict setting. JPM forecasts 10%. The margin narrows when correlation rises: at the 2023 peak of 0.58, the break-even is 4.3% on JPM's figures and 9.5% under the strict setting, half a point under JPM's number.

Two limits apply. The result rests on one-year windows, the horizon closest to the way a strategic matrix is estimated. On shorter windows the correlation has gone higher: 0.69 over three months in March 2020 and 0.63 over six months in September 2022, both above the strict break-even of 0.60, though never the 0.83 on JPM's own figures, and above 0.60 on fewer than one three-month window in twenty. And the break-even forecast sits inside JPM's own scenario range: the result holds on its base case, not its bear case. On either reported bear case, Bitcoin's arithmetic return (about 1% to 2.5%) falls below JPM's 3.2% cash, its Sharpe ratio turns negative, and the test fails at any positive correlation.

This is the center of the note's argument. JPM's caution about volatility is already in the 55% the test uses. Its caution about correlation is a question of which correlation to use, and the test passes at every one-year correlation the record offers. In the main matrices, the zero comes from leaving Bitcoin out before that calculation can run; JPM's stated position is that the inputs are unreliable, not that a small position lowers the Sharpe ratio, and whether the gated chapter runs another test, the public record does not show.

Every correlation is a look in the mirror

 **-0.33 → +0.54** the stock-bond correlation over 2000–2021 against 2022–2026, on monthly returns

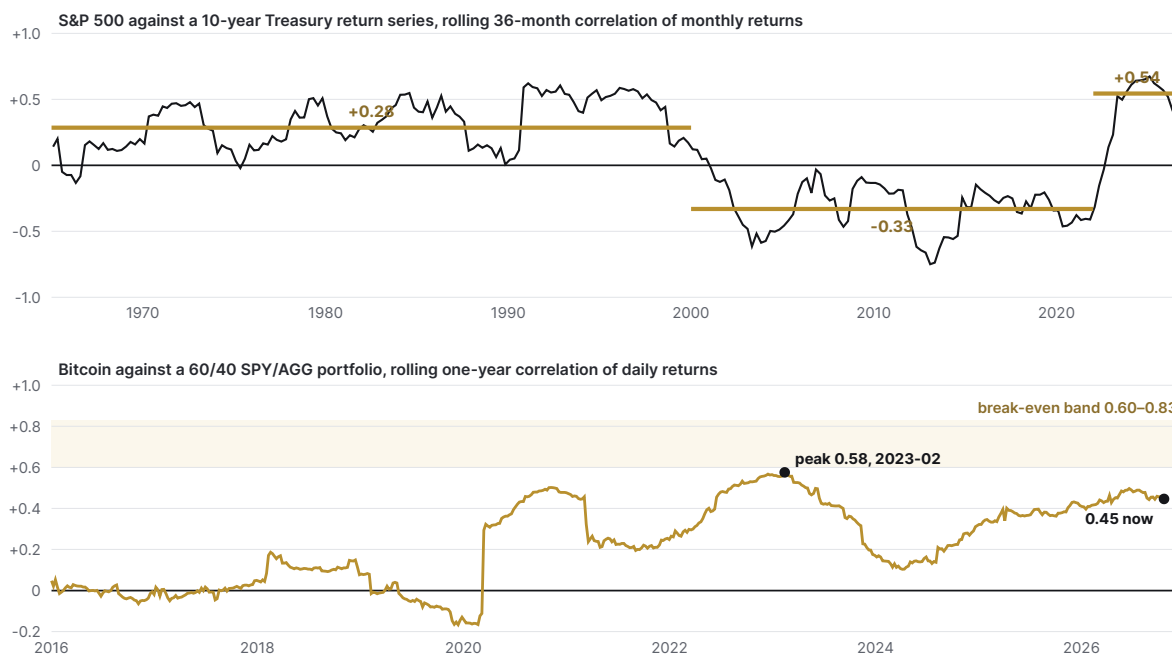
JPM gives two reasons for the exclusion: volatility, which the test above already prices, and unstable correlation. Bitcoin's correlations are unstable; the house's own factor study found no relationship between Bitcoin and other assets that held steady across windows. But every correlation in a covariance matrix is an estimate drawn from the past, and some of the most important ones in finance have moved further than Bitcoin's.

Stocks and bonds are the clearest case. On monthly returns, the S&P 500 and a 10-year Treasury return series (approximated from yields) moved together from 1965 to 1999 (a correlation of +0.29 over the era), in opposite directions from 2000 to 2021 (-0.33, and negative in every rolling 36-month window from 2003 to 2021), and together again since 2022 (+0.54, with rolling windows peaking at 0.68). JPM's own press release says "higher stock-bond correlations demand further diversification." That shift did not take stocks or bonds out of the matrix. They stayed in, with a new estimate.

Warren Buffett described the problem in his 1991 letter to Berkshire Hathaway shareholders, writing about why no one saw the decline of the media businesses coming. In the business world, he wrote, "unfortunately, the rear-view mirror is always clearer than the windshield". A covariance matrix is a rear-view mirror. It cannot show a structural change until the change is in the data. That cuts both ways: it is as true of a break against Bitcoin as of one in its favor, and projecting Bitcoin's own past growth forward is the same mistake. What it does not support is treating unstable correlation as disqualifying for one asset when the matrix already carries others whose correlations have changed sign.

EXHIBIT 3 — CORRELATIONS MOVE: STOCKS AND BONDS SINCE 1965, BITCOIN AND A 60/40 PORTFOLIO SINCE 2016

Correlations move: stocks against bonds since 1965, and Bitcoin against a 60/40 portfolio since 2016



How to read it. Top panel: the black line is the rolling 36-month correlation between monthly returns on the S&P 500 (price) and on a 10-year Treasury return series approximated from yields, 1965 to October 2026; the gold horizontal segments are the correlation over each of three eras, labeled. Bottom panel: the gold line is the rolling one-year correlation between daily returns on Bitcoin and on a 60/40 portfolio of SPY and AGG, sampled weekly from January 2016; the shaded band is the break-even range from Exhibit 2 (0.60 to 0.83), and the dots mark the February 2023 peak and the latest value. Compare the range each line travels, not its level: the stock-bond correlation turned negative in late 2000 and positive again in 2022, the two sustained changes among twelve crossings, and stayed in every matrix; Bitcoin's one-year correlation has stayed below the band throughout.

The fair reply is about degree. Stocks and bonds have about a century of data and many regimes behind their estimates; Bitcoin has about fifteen years. Its correlation estimate is genuinely less reliable. The next question is whether its instability is noise, or has a structure.

XX TWO ROLES, OR ONE

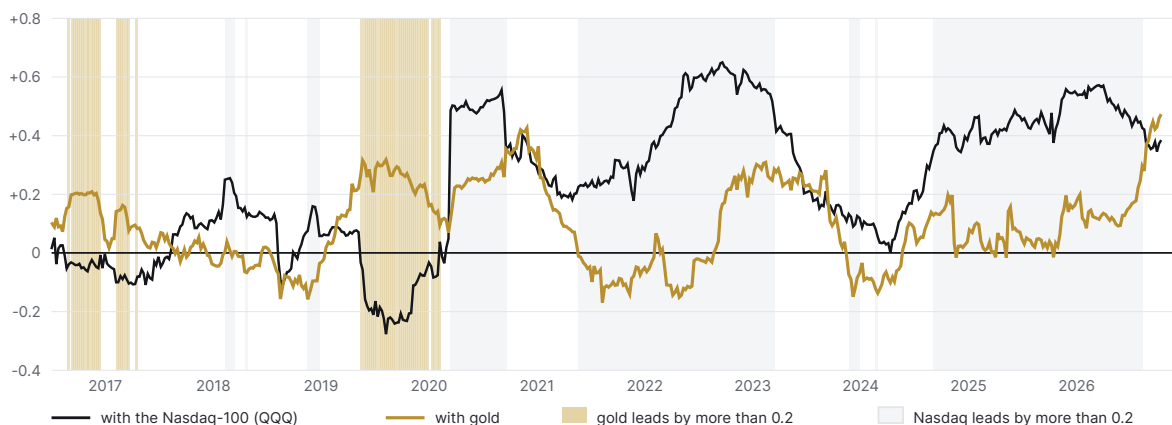
Two roles, or one?

- **11%** share of six-month windows since 2016 in which Bitcoin tracked gold more closely than the Nasdaq-100, by more than 0.2; a fixed-relationship asset almost never does, even with Bitcoin's clustered volatility

One explanation offered for why Bitcoin's correlations move is that it plays two roles. At times it trades like a technology platform scaling with adoption, moving with growth stocks; at other times it trades like hard money, moving with gold. If that is right, the instability JPM cites is a shift between two relationships rather than noise around one. A plainer reading is one asset with a steady equity link and occasional stretches of tracking gold, or a link that has drifted as its holders changed. The test below can reject a fixed relationship; it can only partly tell these readings apart.

EXHIBIT 4 — BITCOIN'S CORRELATION WITH THE NASDAQ-100 AND WITH GOLD, 2016–2026

Bitcoin's rolling six-month correlation with the Nasdaq-100 and with gold, 2016–2026, shaded where one leads by more than 0.2



How to read it. The black line is Bitcoin's rolling six-month (126-trading-day) correlation with the Nasdaq-100 fund QQQ, on daily returns; the gold line is its correlation with gold futures over the same windows, from mid-2016 to 20 October 2026. Gold shading marks windows where the gold correlation exceeds the Nasdaq-100 correlation by more than 0.2; gray shading marks the reverse. Compare which line sits higher and for how long: gold led mainly before 2021, the Nasdaq-100 for most of the time since, and the two lines have crossed back in the latest windows.

The note set out one test before running it, on daily returns from 2016 and six-month rolling windows. The benchmark is a synthetic Bitcoin with a fixed relationship to the Nasdaq-100 (through the QQQ fund) and to gold, built on their actual price paths with Bitcoin's own leftover volatility, and run 1,000 times. Real switching had to show two things: more gold-led time than the synthetic asset produces, and a trade-off between the two links. It showed the first and not the second, so the test as set did not pass.

The first condition holds clearly. Bitcoin spent 11% of all six-month windows tracking gold more closely than the Nasdaq-100 by more than 0.2; the synthetic asset did so in under 3% of windows even at its 95th percentile, and none of the 1,000 runs reached 11%. The Nasdaq-led share, 45% of windows, is inside what the fixed-relationship asset produces (49% at its 95th percentile): the equity link looks like Bitcoin's baseline, and the gold-led stretches are what is unusual. A check added after the test was set points the same way: Bitcoin's correlation with the Nasdaq-100 swings across windows with a standard deviation of 0.23, against no more than 0.14 in 95% of the synthetic runs, and its correlation with gold by 0.14, against 0.13. Because Bitcoin's volatility clusters, which by itself widens these swings, the comparison was re-run against a block bootstrap that keeps the clustering; the gold-led share and the Nasdaq-100 swings still exceed every one of the 1,000 runs; the trade-off condition still fails and the Nasdaq-led share stays inside its range.

The second condition fails. Across non-overlapping six-month blocks, a stronger link to gold does not come with a weaker link to the Nasdaq-100 (the correlation between the two across blocks is +0.12, well inside the synthetic range). So the record rejects a fixed relationship but does not show the two links trading places, and because the note required that condition before running the test, the test as set stands as failed. In hindsight the seesaw was the strongest version of the idea, and a two-role asset need not have one: a rally driven by liquidity can lift both links at once. But a common liquidity driver is also what the plainer reading predicts, so this explains the result without rescuing the two-role reading; only a test set in advance and run on new data could separate them. One descriptive cut hints at conditions: both six-month blocks led by gold came in periods when the 10-year real yield fell, but two blocks are too few to lean on.

The record also says which state has dominated. The gold-led stretches cluster before 2021, the longest from May to December 2019. Since 2021 the Nasdaq-100 link has led most of the time, from May 2021 to March 2023 and from September 2024 to July 2026. Bitcoin's six-month correlation with gold has exceeded its correlation with the Nasdaq-100 on only 8% of days since 2021, although it has done so continuously since 24 August 2026, by 0.09 on 20 October (0.47 with gold, 0.38 with the Nasdaq-100), well inside the 0.2 margin the note uses for a lead.

The finding cuts both ways. Whatever the explanation, the state decides the diversification: in Nasdaq-led windows, Bitcoin's six-month correlation with a 60/40 portfolio averaged 0.42 and peaked at 0.63; in gold-led windows it averaged

-0.13. As a description, the two-state view still earns a place on what did survive the test: gold-led stretches that no fixed relationship produces. Two further facts are descriptive and were not tested against the benchmark: the states persist (the longest gold-led stretch ran 228 days on these overlapping six-month windows; the longest Nasdaq-led one, 693 days, comes from the state whose share a fixed relationship also produces), and diversification differs sharply between them. The first plainer reading is itself a two-state description; on the drift reading, one correlation fits the recent record but not the whole of it. Either way, a single correlation drawn from the full history misdescribes Bitcoin.

That supports JPM's reluctance to put a single number in a reference table, all the more because the state that appeared in the sample's two worst markets, March 2020 and 2022, was the Nasdaq-led one. It also raises a question for the chapter. JPM's model, read through this lens, has a term for each role: the gold term (30% weight) for hard money and the adoption term (5%, with a negative return) for the platform, with a money-supply term (65%) that can be read either way, as scarcity against an expanding money stock or as sensitivity to liquidity. The weights build a return forecast, not a risk model, so this is a question for the chapter, not an inconsistency. And an asset whose relationships move is what regime-dependent and scenario covariance methods are built for; on one-year windows even the Nasdaq-led correlations stayed under both break-evens, while on six-month windows they crossed the strict one (0.63).

SIZE, NOT ZERO

Unstable sets the size, not the zero

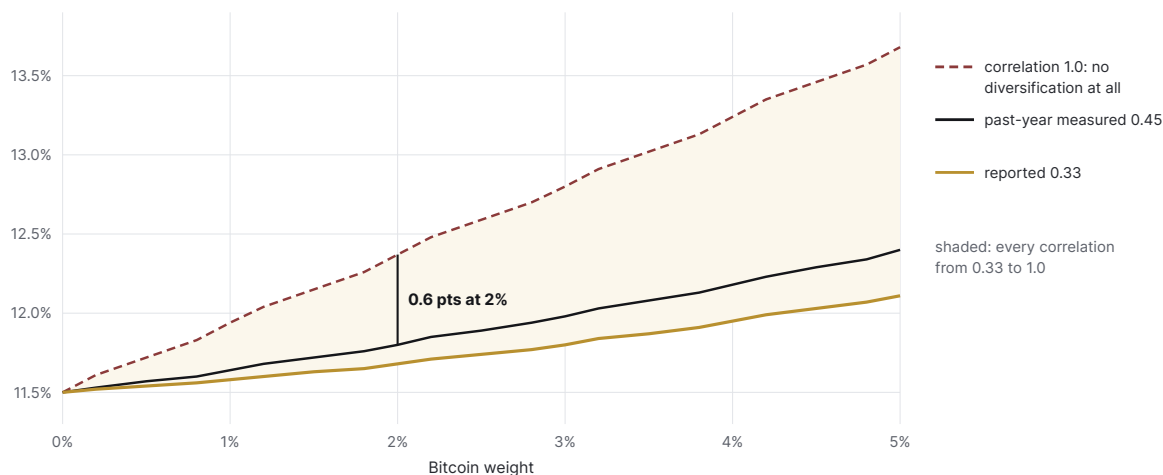
 **0.6 pts** the most a 2% Bitcoin position adds to the volatility of JPM's 11.5%-volatility balanced portfolio between the 0.45 correlation measured over the past year and a correlation of 1.0

When a parameter cannot be trusted, a risk manager sizes the position as if the worst case were true. For correlation, the worst case is 1.0: Bitcoin offers no diversification at all and adds its full volatility. In JPM's balanced portfolio, at 11.5% volatility, a 2% position raises portfolio volatility to about 11.8% at the 0.45 correlation measured over the past year and to about 12.4% at 1.0, a band of 0.6 points. For a 1% position the band is 0.3 points; for 5%, 1.3 points. Measured from the 0.33 one outlet reports, the 2% band is 0.7 points.

The cost of being wrong is small and known in advance. Taking JPM's balanced portfolio at a Sharpe ratio of about 0.39, a 2% Bitcoin position lifts it to about 0.40 at the correlation measured over the past year; at the worst case of 1.0, it lowers it to 0.38. A small position therefore trades a bounded downside against an upside of the same order, on JPM's base case. These weights are illustrations of the arithmetic, not a recommendation of any size.

EXHIBIT 5 — PORTFOLIO VOLATILITY AS BITCOIN REPLACES PART OF JPM'S BALANCED PORTFOLIO, AT THREE CORRELATIONS

Portfolio volatility as Bitcoin replaces part of JPM's balanced portfolio (11.5% volatility), at three correlations



How to read it. The horizontal axis is the Bitcoin weight, from 0 to 5%, taken from a balanced portfolio at JPM's 11.5% volatility; the vertical axis is the resulting portfolio volatility. The black line uses the 0.45 correlation measured over the past year, the dashed red line a correlation of 1.0, meaning no diversification, and the gold line the 0.33 one outlet reports. The shaded area covers every correlation from 0.33 to 1.0. Read the vertical gap at any weight: at 2%, the gap between black and red is 0.6 percentage points, the full cost of not knowing the correlation.

The industry has standard tools for exactly this. Estimates can be pulled toward a neutral value (shrinkage), blended with a neutral starting point (the Black-Litterman method), re-run across many plausible values (resampling), or capped by a risk budget. Each exists because every correlation is uncertain. The evidence here supports a narrower claim than any particular weight: that the entry need not be zero. An unconstrained optimizer would push further, and its answer moves several-fold across the settings tested, which is the instability the seventh point in JPM's case describes. JPM's own illustrative portfolios meet the same problem for gold and hedge funds with fixed 10% sleeves rather than unconstrained weights. JPM's wording is careful: unstable correlations "impair" a strategic allocation and are an "obstacle" to "widespread inclusion." Neither word means impossible. The critique is that, in the main matrix, impaired became zero.

THE STANDARD ELSEWHERE

The standard elsewhere in the same report

5% the weight the report's Bitcoin model, as reported, gives network adoption, the one factor specific to Bitcoin

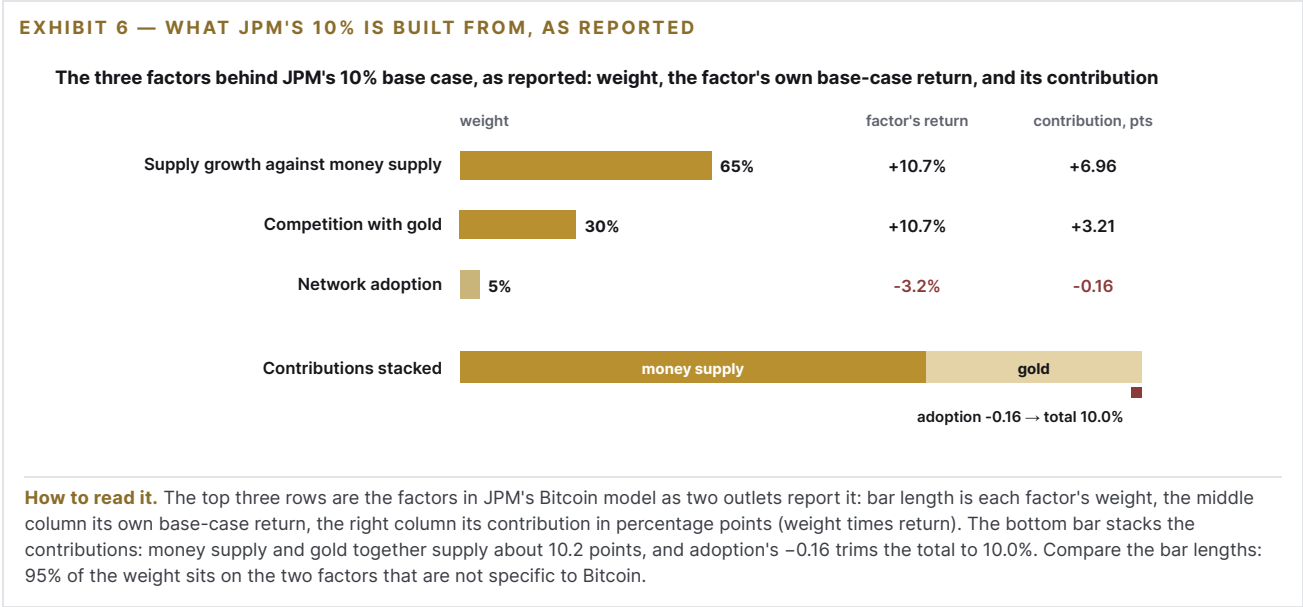
Three places where the report treats Bitcoin differently from the way it treats the same question elsewhere, and one place in the wider firm that touches part of it.

Debasement. The capital-rewiring section calls the debasement case for crypto "wide of the mark," by analogy with the dollar keeping its reserve status as it weakens. The press release, describing alternatives in general, names "ongoing risk of currency debasement" as one reason they belong in portfolios. And, as reported, 65% of the Bitcoin forecast's weight rests on Bitcoin's supply growth relative to growth in money supply, and the authors describe Bitcoin as a hedge against monetary easing. Debasement can drive returns without causing a "rush," so the positions are reconcilable, but the open summary does not reconcile them.

Gold. On JPM's Sharpe definition, Bitcoin's ratio (about 0.32) is above gold's (about 0.22). On compound return per unit of volatility the order reverses: gold about 0.33, Bitcoin about 0.18, US large caps about 0.42; the test uses arithmetic returns because portfolio math does. Gold has the lower correlation with a 60/40 portfolio (0.10 since 2015, 0.30 over the

past year, against Bitcoin's 0.24 and 0.45). Both pass the add-a-position test. Gold holds a 10% place in two of the report's illustrative diversified portfolios; Bitcoin is not in the matrix those portfolios are built from.

Technology adoption. One of the edition's three organizing themes is technology adoption, which JPM calls "the fair wind filling the global economy's sails," with an AI investment cycle "extending to 2040" behind its growth and equity upgrades. That theme is about productivity in the real economy, a different quantity from user growth on a single network, so the comparison is about emphasis, not a like-for-like inconsistency. In the Bitcoin model, as reported, adoption is the only factor specific to Bitcoin; it carries 5% of the weight and a negative return (–3.2%), moving the blended forecast by –0.16 points. The other two factors return the same 10.7% each, so the forecast is in effect a view on money supply and gold applied to Bitcoin. The –3.2% may reflect a deliberate view, such as adoption saturating, that cannot be assessed without the chapter; once it is public, the chapter's explanation of the negative sign is the thing to read first.



The firm's own lending. JPMorgan's Private Bank wrote in February 2026 that "J.P. Morgan has started lending against bitcoin," without saying whether against Bitcoin held directly or against shares of exchange-traded funds. A JPMorgan spokesperson had confirmed in June 2025 that the bank would accept Bitcoin fund shares as loan collateral, and the Financial Times (July 2025) and Bloomberg (October 2025) reported, citing people familiar with the plans, a further step: accepting Bitcoin and ether themselves, held with a third-party custodian. JPMorgan has not published terms such as haircuts or custodians, none of its four earnings calls since October 2025 mentions the lending, and the details that circulate appear only in outlets that cite no primary source. A bank that lends against an asset sets a haircut: a quantified estimate of how far the price can fall before a loan is at risk. A haircut covers days of price movement, not a decade, and needs no long-run correlation; a haircut wide enough to absorb Bitcoin's swings is itself consistent with JPM's caution about volatility; and a lending desk and an asset-allocation team answer different questions for different clients. The comparison is therefore narrow: another part of the same firm lends against Bitcoin, and so must set a haircut on its short-run volatility.

WHAT WOULD CHANGE IT

What would make the exclusion right

0.83 the correlation with a balanced portfolio above which JPM's own inputs would support a zero (0.60 under a stricter stress)

The exclusion is a defensible call on some states of the world, and the note names them. The first is a correlation that rises and stays risen: if Bitcoin's one-year correlation with a 60/40 portfolio holds above 0.6, the test fails under the strict setting, and above 0.83 it fails on JPM's own figures too. It reached 0.58 in early 2023 and is 0.45 now; §4 shows that the

Nasdaq-led state, when it dominates, is where that risk lives. The second is a lower forecast: if a future edition cuts the compound forecast below about 6% while correlations sit near today's, the exclusion follows under the strict setting, and on JPM's bear case it already does. The third is the one the test cannot see: if JPM's case rests on drawdown and tail risk rather than variance, the right test is a drawdown- or tail-based one, and the chapter may hold it.

The correlations will keep moving, and the record so far does not say which way. Bitcoin's correlation with a 60/40 portfolio is higher on recent windows than on the full record: 0.24 across 2015–2026, 0.34 over three years and 0.45 over the past year. The recent readings are higher than in 2016–19 but no higher than in 2020–23, when the one-year figure reached 0.58, so the record shows no steady trend; the note does not test what drives the level, and a sustained rise is the direction that would support JPM's exclusion. Over the latest 90 days the figure was 0.33, and the six-month link to gold has run ahead of the Nasdaq-100 link since late August, but readings that short have reached 0.69, and the gold link has exceeded the Nasdaq-100 link on only 8% of days since 2021 and has not led it by more than 0.2 on any of them, so neither is yet a turn. JPMorgan's Private Bank made a related point in February about volatility, which it measured at 36.1% over the year to January 2026, down from 52.6% a year earlier: the decline "could reflect growing institutional acceptance and the maturation of the asset," though it added in the next sentence that Bitcoin's one-year volatility was "still more than twice that of broad equities and gold," a reading the note does not test either. JPM's reported conditions for revisiting (more stable correlations, deeper market infrastructure) are the observables to watch, and one outlet reports the authors do not assume they will be met; either way, the test can be re-run each edition rather than treating the zero, or its removal, as settled.

What would change this reading. The note would read JPM's exclusion as consistent with its own inputs if any of four observables appears. First, Bitcoin's one-year correlation with a 60/40 portfolio of SPY and AGG, measured on daily returns, closes above 0.60 at two consecutive quarter-ends; it was 0.45 on 20 October 2026 and 0.58 at its February 2023 peak. Second, the 2028 edition of JPM's assumptions, due in the fall of 2027, cuts the Bitcoin compound forecast below 6% while that correlation stays above 0.45. Third, the public-markets chapter, once readable, shows a tail- or drawdown-based allocation test that Bitcoin fails. Fourth, the chapter's own Bitcoin correlations, cash rate or portfolio Sharpe ratio put the break-even below the correlation measured at the time. Absent those, the note reads the zero in the main matrices as a choice the report's public numbers do not require.

Nothing here makes Bitcoin a safe asset or JPM's bear case unrealistic: a loss of roughly two-thirds over ten years is a scenario any allocator should plan for, and it is in JPM's own range. The argument is narrower. JPM's forecast looks through the windshield; the main matrices are set by the mirror. On JPM's base case and its own cash rate and balanced portfolio, and at every one-year correlation measured since 2016, a small Bitcoin position improves a diversified portfolio. The main matrices assign zero because Bitcoin is not in them, and the public record does not show whether the gated chapter runs another test.

SOURCES

Sources and Method

J.P. Morgan documents. J.P. Morgan Asset Management, *2027 Long-Term Capital Market Assumptions*, executive summary, institutional edition, am.jpmorgan.com (data as of 30 September 2026; read 20 October 2026); every quotation from the report in this note is from that page, word for word. Its open exhibits, served as images from cdn.jpmorganfunds.com and read on 20 October 2026: Exhibit 2 (USD cash 2027 expected return 3.2%), Exhibit 4 (alternative-asset returns, including private equity small cap 10.6%, US value-added real estate 10.2%, private equity mid cap 10.0%), Exhibit 7A (Sharpe ratios; values read from the chart to about ± 0.01) and Exhibit 8A (the USD stock-bond frontier, with the balanced portfolio at about 7.0% compound return and 11.5% volatility and Japanese equity at about 9.1% compound return, read from the chart; and the illustrative portfolios with 10% gold, 48/32/10/10 and 42/28/10/10/5/5). J.P. Morgan Asset Management press release, "J.P. Morgan Releases 2027 Long Term Capital Market Assumptions Projecting 7.0% Return for 60/40 Portfolio Over 10–15 Years," 19 October 2026, on am.jpmorgan.com and PR Newswire (identical text); source of the comparison returns (US large caps 7.5%, gold 5.5%, USD 60/40 7.0%, private equity composite 9.8%, US core real estate 8.1%, global equity 7.5%, emerging-market equity 7.1%, global core infrastructure 7.1%, European core real estate 7.1%, US high yield 6.7%, diversified hedge funds 6.7%, global timberland 6.2%, US investment grade 6.1%, commodities 4.8%, US intermediate Treasuries 4.6%) and of the press-release quotations. The full report and its public-markets chapter, which hold the Bitcoin section, the scenario table and the separate Bitcoin covariance matrix, sit behind a sign-in for institutional investors and were not read.

Press-reported figures from the chapter. Pulled 20 October 2026: CoinDesk, The Block, CryptoSlate, Crowdfund Insider, TFTC, Yahoo Finance (Forkast News), Decrypt, news.bitcoin.com, KuCoin News, crypto.news, CryptoTimes and the Newscord outlet comparison. Figures reported by several outlets (10.0% compound, 20.9% arithmetic, 55% volatility) are used as JPM's. The three-factor weights and returns rest on two outlets with independent wording (CryptoSlate, Crowdfund Insider); the gold factor is described by one as competition with gold for investment allocations and by the other as a partial portfolio complement to gold. The scenario pairs conflict ($-11.2\%/+16.6\%$ at CryptoSlate, Crowdfund Insider and TFTC; $-9.7\%/+17.0\%$ at CoinDesk); the bear-case test is run on both. A 0.33 historical correlation with US large caps, the statement that the revisit conditions are not assumed to hold over the horizon, and the stress-test instruction are each reported by one outlet and appear only as reported figures. The description of Bitcoin as a speculative asset and a hedge against monetary easing is reported by three outlets as the authors' and is paraphrased, not quoted. The outlet ledger is archived with the note.

Market data. Bitcoin: daily USD reference rate (CoinMetrics community metric PriceUSD), from the house daily cache, 18 July 2010 to 19 October 2026; 30 September 2026 close \$83,579.67; last close \$81,918.20 on 19 October 2026. QQQ, SPY, AGG and gold front-month futures (GC=F) daily closes, 2 January 2014 to 20 October 2026; the S&P 500 index (^GSPC), January 1960 to 20 October 2026; and IEF adjusted closes, 30 July 2002 to 20 October 2026, from the Yahoo Finance chart API. FRED series DGS10 (10-year Treasury constant-maturity yield), January 1962 to 19 October 2026, and DFII10 (10-year Treasury inflation-indexed yield), January 2003 to 19 October 2026. All pulled 20 October 2026.

Method. Correlations use simple daily returns on US trading days from 2 January 2015 (from 4 January 2016 for \$4); Bitcoin's price is carried to the next trading day, so weekend moves fold into Monday. The 60/40 portfolio is 60% SPY and 40% AGG, rebalanced daily. Windows: point estimates use the full sample and the last three years, one year and 90 calendar days to 20 October 2026; rolling windows use 252, 126 and 63 trading days (one year, six months and three months); calendar 2022 for the 2022 figure; rolling one-year windows sampled weekly for Exhibit 3. Volatility is the annualized standard deviation of daily returns ($\times \sqrt{252}$). Drawdowns are peak-to-trough declines in the daily Bitcoin series within each episode. Tail count: days whose return deviates from the sample mean by more than three standard deviations, against 0.27% of days under a normal distribution. The stock-bond series uses month-end S&P 500 price returns and a 10-year Treasury return approximated as $-7 \times$ the monthly change in the DGS10 yield plus one month of carry; correlations are rolling 36-month windows and correlations over each era on monthly returns. Checked against IEF total returns from September 2002: the proxy's monthly correlation with IEF is 0.99, and the 2002–2021 and 2022–2026 stock-bond correlations are -0.32 and $+0.54$ on the proxy against -0.31 and $+0.55$ on IEF.

The two-roles test (\$4), set before running. Rolling 126-day correlations of Bitcoin with QQQ and with GC=F, 4 January 2016 to 20 October 2026. A window is gold-led when the gold correlation exceeds the QQQ correlation by more than 0.20, Nasdaq-led in the reverse case; the threshold and window were fixed in advance. One test with two conditions, both required: (a) the share of gold-led windows beyond the 95th percentile of a null of 1,000 synthetic Bitcoin series built as constant full-sample betas on the actual QQQ and gold returns (0.75 and 0.31) plus Gaussian noise at the full-sample residual volatility (3.96% a day), seed fixed; and (b) the correlation between the QQQ and gold correlations across 21 non-overlapping 126-day blocks below the null's 5th percentile. Condition (a) held and (b) did not, so the test as set did not pass. The dispersion comparison and the Nasdaq-led share were computed in the same run but were not pass criteria. Added after the test was scored, not pre-registered: the same statistics against a circular block bootstrap of the actual regression residuals (blocks of 63 and 126 days, 1,000 runs each), which preserves volatility clustering; the gold-led share's 95th percentile is 3.0% and 2.7%, and no run reaches 11%; the trade-off condition still fails and the Nasdaq-led share stays inside its range. The real-yield cut (DFII10 change over each block) and the 60/40 correlation by state are descriptive. Episode dates are the end dates of the trailing six-month windows, so each episode's data begins about six months before its first date. The roles are proxies: QQQ for growth and technology, gold for hard money.

The tests. The Sharpe ratio follows JPM's stated definition: arithmetic return less cash, divided by volatility. Bitcoin's inputs are JPM's reported 20.9% and 55%; cash is JPM's 3.2%. JPM's balanced-portfolio Sharpe ratio is derived from its frontier exhibit: $(7.0\% + \frac{1}{2} \times 11.5\%^2 - 3.2\%) / 11.5\% \approx 0.39$. The add-a-position condition is the standard first-order result: adding a small weight of asset b to portfolio p raises the portfolio's Sharpe ratio when $SR_b > \rho_{bp} \times SR_p$. Break-even correlation = SR_b / SR_p . Break-even forecast: the arithmetic return $\mu = \text{cash} + \rho \times SR_p \times 55\%$, converted to a compound return at 55% volatility under a lognormal approximation, $(1+\mu) \times \exp(-\frac{1}{2} \ln(1 + 0.55^2/(1+\mu)^2)) - 1$; the bear cases are converted the other way by solving the same expression. Worst-case sizing: portfolio volatility $\sqrt{[(1-w)\sigma_p]^2 + (w\sigma_b)^2 + 2(1-w)w\sigma_{p,bp}}$. The several-fold range of the unconstrained weight is the two-asset tangency weight across the settings tested. The gold arithmetic return is approximated as compound plus half the variance.

Settings and estimates, labeled. "JPM's figures" means JPM's published 3.2% cash, its balanced portfolio's 7.0% return, the portfolio's 11.5% volatility read from JPM's frontier chart, and the 0.39 Sharpe ratio derived from those three. JPM's balanced portfolio is 60% MSCI ACWI and 40% Bloomberg US Aggregate; the note measures Bitcoin's correlation against 60% SPY and 40% AGG, a US-equity proxy for it. The "strict" setting, a 4.5% cash rate and a 0.50 portfolio Sharpe ratio, is a stress beyond JPM's published figures; the comparison lines at 0.30 and 0.50 bracket them. Gold volatility is 16.8%, the house's measurement over 2015–2026 (one outlet reports JPM's figure as 17.2%; the gold Sharpe ratio rounds to 0.22 either way). The test is a mean-variance result: it does not model drawdowns, fat tails or estimation error in the expected return, and it says nothing about any position size beyond the arithmetic shown.

Other sources. Warren E. Buffett, Chairman's Letter, Berkshire Hathaway Inc. 1991 Annual Report, [berkshirehathaway.com/letters/1991.html](https://www.berkshirehathaway.com/letters/1991.html) (read 20 October 2026). J.P. Morgan Private Bank, "Bitcoin's role in investing: What you need to know," Dana Harlap and William Smith, published 13 February 2026, privatebank.jpmorgan.com (read 20 October 2026); the lending statement (a footnote), the core-allocation statement and its reasons, the risk-contribution and risk-off figures, and the 36.1% and 52.6% volatility figures. The JPMorgan spokesperson's confirmation that the bank would accept Bitcoin fund shares as collateral ("We can confirm the contents of the Bloomberg story are accurate"), as reported by Decrypt, 4 June 2025. The plan to accept Bitcoin and ether directly: Financial Times, July 2025, as reported by Decrypt on 22 July 2025, and Bloomberg, "JPMorgan to Allow Bitcoin, Ether as Collateral in Crypto Push," 24 October 2025, as carried by CoinDesk and Decrypt the same day, each citing people familiar with the plans. JPMorgan Chase earnings-call transcripts for the fourth quarter of 2025 and the first three quarters of 2026 (jpmorganchase.com), searched for references to Bitcoin, crypto, digital assets and lending against them; JPMorgan's SEC filings since October 2025, searched through EDGAR full-text search, which returned structured-note prospectuses, 13F holdings and the 2025 annual report, and no lending terms. Reports of haircuts, custodians and a March 2026 start appear only in outlets that cite no primary source and are not used.

Prior TON618 research. What Actually Drives Bitcoin (June 2026) holds the house's factor and correlation study, including the instability of Bitcoin's correlations across windows. Context, never a prerequisite.

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