RESEARCH LIBRARY · BITCOIN CYCLE

How to Spot a Bitcoin Cycle Bottom

A field guide to the signals that have historically marked the floor of a Bitcoin bear market — and the honest reasons each one can mislead you.

Alain AI Lab · Research Desk
Published July 3, 2026

A cycle bottom, meaning the lowest price Bitcoin reaches before a new multi-year uptrend begins, is only ever confirmed in hindsight. No indicator rings a bell at the exact low. What experienced analysts do instead is watch a cluster of measures that have lined up near every past bottom, and treat a bottom as more probable when several agree at once. This report is a toolkit for reading those measures — not a prediction of a date or a price. If you want our timing view, that lives in a separate piece on when Bitcoin may bottom this cycle; here we stay on method.

HISTORICAL BOTTOMS AT A GLANCE

–93%	–86%	–84%	–77%
2011 LOW	2015 LOW	2018 LOW	2022 LOW

01

What a "cycle bottom" actually is

Bitcoin has historically moved in long swings often described as a four-year cycle, a rough rhythm loosely tied to the halving, the pre-programmed event every roughly four years that cuts the reward paid to miners in half. Within each swing there is a euphoric top and, twelve to fifteen months later, an exhausted bottom. The bottom is not a single candle; it is usually a months-long basing period, a stretch where price stops falling and grinds sideways at a low level while sellers run out. Recognising that basing period as it forms — rather than the precise low tick — is the realistic goal.

The four documented bottoms tell a consistent story of pain. Bitcoin fell roughly 93% into its late-2011 low near $2, about 86% into its January-2015 low near $150–200, roughly 84%

into its December-2018 low near $3,200, and about 77% into its November-2022 low near $15,500, a low driven lower by the collapse of the FTX exchange. Each figure is measured from that cycle's all-time high down to its eventual floor.

02

Signal one: drawdown depth — and why it keeps shrinking

The most intuitive gauge is drawdown, the percentage fall from the cycle's peak to its current price. Historically, bottoms only formed after brutal drawdowns of 77% or more. But notice the sequence: −93%, −86%, −84%, −77%. Each cycle's bottom has been shallower than the last. This shallowing trend is the single most important caveat in bottom-spotting, because it means the "you must fall 80% to bottom" rule of thumb is weakening as Bitcoin matures and larger, steadier holders enter.

> **Reality check for this cycle.** After the October 6, 2025 all-time high near $126,080, a pullback to the low-$60,000s represents roughly a 50% drawdown — painful, but far shallower than any confirmed historical bottom. Read literally, the classic deep-capitulation thresholds have not been met. That does not guarantee more downside; it simply means the depth signal alone is inconclusive, and the shallowing trend may already be rewriting the old rule.

03

Signal two: on-chain valuation

On-chain metrics, figures calculated directly from the public Bitcoin ledger rather than from price alone, give a second, independent read. Two are foundational at bottoms.

The first is MVRV, short for Market-Value-to-Realized-Value, a ratio comparing Bitcoin's current market price to the average price at which every coin last moved on-chain — a proxy for what holders actually paid. When MVRV falls below 1.0, the average holder is underwater, sitting on a paper loss, a condition present at every major bottom. Analysts often prefer the MVRV Z-Score, a version that measures how statistically extreme that ratio is; a reading below zero has reliably flagged the bottom zone, reaching roughly −2.5 near the mid-2022 low.

The second is realized price, the aggregate cost basis of the network — effectively the average price paid across all coins. Spot price trading below realized price is a hallmark of bear-market bottoms; in the 2022 cycle, that condition persisted for months, and prior cycles spent an average of roughly 200 days beneath it. The logic is simple: when the market as a whole is holding at a loss, weak hands have mostly already sold.

Why lean on on-chain valuation at all when a price chart is free? Because price alone tells you where the market is, not what participants have actually done. Realized price and MVRV are built from the ledger's record of when each coin last moved, so they capture the aggregate behaviour of real holders rather than the mood of one trading session. That is why these measures have clustered so tightly near past bottoms: they reflect capitulation that has genuinely occurred on the network, not merely a scary-looking candle that can reverse by morning.

04

Signal three: capitulation and long-term holders

Capitulation describes the moment when frightened holders finally give up and sell at a loss, the emotional exhaustion that typically clears the way for a bottom. Two measures help you see it.

NUPL, or Net Unrealized Profit/Loss, estimates whether the network as a whole sits in aggregate profit or loss; when it drops below zero — and especially below −0.25 — the market is in a capitulation band, meaning most coins are underwater. Note that NUPL is mathematically tied to MVRV, so treat them as one family of evidence, not two separate votes.

More telling is the behaviour of long-term holders, wallets that have held coins for roughly 155 days or more and historically sell only under extreme stress. A durable bottom usually needs these holders to capitulate too, visible when long-term-holder MVRV drops below 1 alongside long-term-holder SOPR — Spent Output Profit Ratio, a metric that reads above 1 when coins move at a profit and below 1 when they move at a loss — falling under 1. When even the patient money is selling at a loss, the seller base is nearly exhausted.

05

Signal four: miner stress and the moving-average anchors

Miners, the operators who run computers to secure the network and earn newly issued Bitcoin, are forced sellers when prices crater, so their stress often coincides with bottoms.

The Puell Multiple compares miners' daily revenue to its yearly average; readings below 0.5 mark a green zone where mining income is unusually depressed, a condition seen near past floors, though halvings distort it by abruptly cutting revenue. Hash Ribbons, a signal built from short- and long-term averages of the network's total computing power, tries to flag the point where struggling miners have finished capitulating and the strong survive; it has a suggestive record but has fired an inconsistent number of times across data providers, so treat it as supporting colour rather than a guarantee — it has not "never failed," despite that popular claim.

Two moving-average anchors round this out. The Mayer Multiple, price divided by its 200-day moving average, drops below about 0.6 at deep bottoms — but in 2022 it bottomed months before price did, an early-signal risk worth remembering. The 200-week moving average, a very slow trend line spanning roughly four years of price, has historically acted as a floor, though in 2022 price broke beneath it for over a year before recovering.

06

Signal five: sentiment, volume and duration

The Fear & Greed Index, a sentiment gauge scored from 0 (extreme fear) to 100 (extreme greed), typically sinks into single digits near bottoms; it read around 6 in June 2022. It is contextual rather than a trigger, and it only exists from 2018 onward, so it cannot describe the 2011 or 2015 lows.

Structure matters too. Capitulation rarely arrives as one clean flush; bottoms often print multiple violent sell-offs on heavy volume before the real floor holds. And bear markets have shown a fairly consistent duration, running roughly eleven to thirteen months from peak toward trough — a rough clock, not a countdown, given a sample of only three or four cycles.

One structural tell deserves special attention: divergence, meaning price makes a fresh new low while an underlying metric refuses to follow. In mid-2022, for instance, some on-chain gauges reached their most extreme readings weeks before the final price low, hinting that selling pressure was fading even as the headline number still fell. Divergences are not proof — they can persist or resolve the wrong way — but a lower low in price paired with a higher low in a valuation metric is exactly the kind of quiet disagreement that has preceded turns, and it rewards analysts who watch the metrics rather than the price ticker alone.

07

Confluence — and the "cycle is dead" debate

The single most important principle: no one indicator calls a bottom. Each metric above has failed or misfired in isolation. What has historically marked real bottoms is confluence, meaning several independent signals reaching their extremes at roughly the same time — deep drawdown, MVRV under 1, spot below realized price, long-term-holder capitulation, single-digit sentiment. Where we sit in the broader structure is the subject of our Bitcoin cycle map, which tracks these signals together.

Honesty demands one more caveat: a serious debate now questions whether the four-year cycle still governs Bitcoin at all. Prominent voices, including institutional allocators, have argued that steady exchange-traded-fund inflows — buying from regulated funds that hold Bitcoin for investors — and corporate treasuries may be dampening the old boom-and-bust rhythm. That view has been argued forcefully and, in at least one high-profile case, later walked back, which tells you the question is unsettled. The practical takeaway is not to abandon the toolkit but to weight confluence over any single historical analogy.

A balanced way to hold both views: treat the four-year rhythm as a useful prior, a starting assumption, while letting live on-chain confluence confirm or override it. If the structural buyers really have muted the cycle, bottoms may simply arrive shallower and sooner — which is precisely what the shrinking-drawdown sequence already suggests.

08

A practical bottom-spotting checklist

Signal	Bottom condition	Main caveat
Drawdown depth	Historically –77% or deeper	Shrinking each cycle
MVRV Z-Score	Below 0	Tied to NUPL
Realized price	Spot trades below it	Can last months
LTH capitulation	LTH-MVRV & LTH-SOPR under 1	Rare, but decisive
Fear & Greed	Single digits	Only since 2018
Confluence	Several align at once	The real signal

Use the checklist as a scorecard, not a switch. When only one or two boxes are ticked, the market may simply be oversold within an ongoing decline. When most tick together — while sentiment is bleak and long-term holders are finally selling at a loss — the probability of a durable bottom rises. That patient, weight-the-evidence discipline is what separates process from prediction.

> *"For everything there is a season, and a time for every matter under heaven."*
>
> ECCLESIASTES 3:1

METHODOLOGY & SOURCES

Historical drawdowns and bottom prices (2011, 2015, 2018, 2022) and the October 6, 2025 all-time high near $126,080 are drawn from public exchange price history. On-chain measures — MVRV, MVRV Z-Score, realized price, NUPL, SOPR, long-term-holder cohorts, Puell Multiple, Hash Ribbons, Mayer Multiple and the 200-week moving average — follow definitions used by on-chain analytics providers and their originating analysts. The Fear & Greed Index dates from February 2018. Current-price references reflect a low-$60,000s working assumption for mid-2026 and are illustrative, not a live quote. Signal records are described qualitatively because the cycle sample (three to four completed cycles) is too small for statistical certainty; every indicator here has misfired in isolation. This report is educational research, not investment advice.