What Is the Puell Multiple?

A cycle indicator that watches the people paid to secure the network — and asks whether miners are earning far more, or far less, than their own recent history.

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AT A GLANCE

WHAT IT IS
Daily coin issuance in USD ÷ its own 365-day average

WHAT IT TRACKS
Miner revenue relative to its yearly norm

LOW READINGS
Historically cluster near cycle bottoms

HIGH READINGS
Historically cluster near cycle tops

ORIGIN
Created by David Puell, ~2019

THE HONEST CAVEAT
Few cycles, shrinking issuance — a guide, not a trigger

Bitcoin's security has a price, and that price is paid, block by block, to the miners who keep the network running. Each day the protocol mints a fixed quantity of new coins and hands them to those miners as reward. When priced in dollars, that daily stream of freshly issued bitcoin is a measurable flow of income — and like any income, it can run hot or run cold relative to what came before. The Puell Multiple is the metric that captures exactly this. It takes the dollar value of daily coin issuance and compares it to its own yearly average, producing a single oscillator that has, across Bitcoin's short history, tended to run low near major bottoms and high near major tops. This report explains what the Puell Multiple measures, the arithmetic behind it, why miners sit at the center of it, how to read its extremes, how the halving distorts it, and the honest limits of a tool built on very few cycles.

01 — What the Puell Multiple actually measures

The Puell Multiple, introduced by analyst David Puell around 2019, is a ratio with a deliberately simple construction. The numerator is the daily coin issuance valued in US dollars — the number of new bitcoin minted that day multiplied by the day's price. The denominator is the 365-day moving average of that same daily issuance value. Divide the first by the second and you have the Puell Multiple: a dimensionless number that expresses how today's miner issuance income compares to its own trailing-year norm. A reading of 1.0 means daily issuance revenue is sitting exactly at its yearly average. A reading well above 1.0 means miners are earning far more, in dollar terms, than they typically have over the past year; a reading well below 1.0 means they are earning far less. In one number, it asks whether the economics of mining are stretched to an extreme in either direction. The choice of a 365-day baseline is deliberate: a full year smooths out the seasonal noise and short bursts that would otherwise dominate a raw revenue chart, leaving a stable yardstick against which any given day can be judged. It also means the metric is inherently comparative rather than absolute — it never claims miners are earning "a lot" or "a little" in isolation, only a lot or a little relative to their own recent past, which is what makes readings from different eras loosely comparable.

02 — Why miners sit at the heart of it

The metric places miners at its center for a structural reason: they are consistent, non-discretionary sellers. Miners incur real costs — electricity, hardware, staff — that must be paid largely in fiat, which means a meaningful share of the coins they earn is eventually sold to cover expenses. Their issuance income is therefore a proxy for a recurring source of natural sell pressure on the market. When that income spikes far above its yearly norm, as it does when price rises sharply, miners are suddenly flush, holding coins worth vastly more than their cost of production, and the incentive to realize those gains grows. When issuance income collapses below its norm, the opposite holds: revenue is thin, weaker operations struggle, and selling that stems from distress rather than profit tends to exhaust itself. This miner-revenue lens makes the Puell Multiple a close relative of **miner capitulation**, which studies the same population under acute financial stress.

03 — Reading the number: highs, lows, and the norm at one

Interpretation follows from the construction. Because 1.0 marks the yearly average, the metric is really a measure of distance from that norm. High readings say issuance revenue is running hot relative to the past year — a condition that has historically coincided with periods of market froth, when price has climbed fast enough to inflate the dollar value of a

fixed coin reward. Low readings say issuance revenue is running cold, which has historically coincided with the deep, discouraged phases near cycle lows. The metric is usually plotted on a logarithmic scale precisely because these swings are so large; the extremes on either side compress the middle. What matters for a reader is less any single threshold and more the sheer distance travelled: a Puell Multiple pressed to a historic low or stretched to a historic high is the signal, not a modest wobble around the average.

> A subtle point often missed: the numerator moves almost entirely with price, because the coin count issued each day is fixed by the protocol between halvings. The Puell Multiple is therefore, in the short run, a cleverly normalized way of asking how far and how fast price has moved relative to the past year — expressed through the economics of the people forced to sell into that move.

04 — The extremes: bottoms, tops, and the historical bands

The reason the Puell Multiple earned a place in the cycle toolkit is the behavior of its extremes. In past cycles, deeply depressed readings have clustered around major bear-market bottoms, the moments when miner revenue was most starved and weaker miners were being forced out. Elevated readings have clustered around major tops, when soaring price had swollen issuance income to unsustainable heights. Analysts commonly shade a low zone and a high zone on the chart to mark these historical extremes. It is important to treat any specific boundary values with caution: the exact numbers cited for “the bottom zone” or “the top zone” vary between data providers and are drawn from only a handful of past cycles, so they are best read as rough historical bands rather than precise triggers. The durable observation is directional — extreme lows have marked exhaustion, extreme highs have marked euphoria — not any single magic figure. There is also a behavioral logic underneath the pattern that gives it more substance than a coincidence. At a genuine bottom, the miners still standing are those with the lowest costs and strongest balance sheets, and even they are barely profitable, so the marginal seller has largely been washed out; at a genuine top, soaring revenue tempts even long-committed miners to bank extraordinary gains, adding supply precisely when speculative demand is most stretched. The extremes, in other words, describe moments when the natural sellers of the network are either fully exhausted or maximally motivated.

05 — The halving problem

The single most important complication in reading the Puell Multiple is the halving. Roughly every four years, Bitcoin's protocol cuts the coin issuance per block in half, an event that instantly halves the number of coins in the numerator. Because the 365-day denominator still reflects the higher pre-halving issuance for a full year afterward, a halving mechanically drops the Puell Multiple by about half overnight, then lets it slowly renormalize as the average catches up. This is not a market signal at all — it is an artifact of the metric's own construction meeting Bitcoin's supply schedule. Any honest use of the indicator has to account for it, which is why the metric is best read with the **halving** calendar firmly in mind, discounting the sharp step-down that follows each one rather than mistaking it for a genuine collapse in demand.

06 — Where the Puell Multiple sits among the metrics

The Puell Multiple is one instrument in a wider panel of cycle-timing tools, and it earns its keep by looking at the market from an angle the others do not. Where **MVRV** measures aggregate unrealized profit by comparing market value to cost basis, and realized price supplies that cost basis directly, the Puell Multiple ignores holders entirely and watches only the income side — the flow of new coins into miner hands. It is a supply-and-revenue oscillator sitting alongside valuation oscillators. That difference is its value: a low Puell Multiple confirming a low MVRV means both the valuation and the miner-economics lenses are flashing undervaluation at once, a confluence that carries more weight than either alone. On-chain desks rarely lean on one metric; they read Puell as a corroborating voice within a chorus that includes valuation ratios, holder cohorts, and miner-stress indicators.

07 — Strengths and blind spots

The Puell Multiple's strengths are real. It is simple, transparent, and grounded in a genuine economic force — miner selling — rather than an abstract chart pattern. Its self-normalizing design, dividing by a trailing year, lets it flag extremes across very different price regimes. But its blind spots are equally real and must be stated plainly. It captures only issuance, not transaction fees, so as fees become a larger share of miner income the metric sees a shrinking slice of the true revenue picture. Each halving structurally shrinks issuance further, meaning the block subsidy the metric tracks matters less to miners with every cycle. And the whole edifice rests on a tiny sample — Bitcoin has lived through only a few halving cycles — so any claim that a specific reading "always" marks a top or bottom is overfitting a pattern to sparse data. It describes conditions; it does not guarantee outcomes.

08 — How to use it honestly

Used with discipline, the Puell Multiple is a useful gauge of one specific thing: whether miner issuance revenue is at a historical extreme. That is worth knowing, because those extremes have tended to align with the emotional extremes of the market. But it should never be read as a standalone timing trigger. The honest approach is to treat a historic low as evidence that miner economics are deeply stressed — a condition consistent with, though not proof of, a cycle bottom — and a historic high as evidence that they are euphorically stretched, consistent with a top. Always adjust for the most recent halving before trusting a low reading. Always confirm against valuation and holder metrics before acting. And always remember the sample is small and the future need not rhyme with a handful of past cycles. Read this way — as one honest lens among several, not an oracle — the Puell Multiple keeps its usefulness without pretending to a precision it does not possess.

“The labourer is worthy of his hire.”

LUKE 10:7

METHODOLOGY & SOURCES

This explainer synthesizes the standard definition of the Puell Multiple — daily coin issuance valued in US dollars divided by the 365-day moving average of that daily issuance value — as introduced by David Puell around 2019 and documented by on-chain data platforms including Glassnode and CryptoQuant. The interpretation (1.0 as the yearly-average norm, high readings signalling elevated miner revenue and potential froth, low readings signalling depressed revenue near historical bottoms) reflects widely documented, standard usage. The halving mechanic — a 50% cut to issuance producing an immediate step-down in the numerator while the denominator lags for a year — is a direct consequence of Bitcoin’s fixed supply schedule.

Cycle behavior is described qualitatively. Specific threshold bands sometimes cited for “bottom” and “top” zones are deliberately not stated as precise figures, because they vary by data provider and are derived from only a few historical cycles; they are presented here as approximate historical observations, not causal laws or trading signals. Limitations — exclusion of transaction-fee revenue, the diminishing role of issuance across halvings, backward-looking construction, and a small sample — are stated explicitly, and the metric

is framed as best used alongside valuation and miner-stress indicators. Nothing here is investment advice.