BITBULLNEWS DATA · BBN INDICES — CRYPTO INDUSTRY HEALTH

VERSION 1

BBN LIQUIDITY INDEX

PUBLIC METHODOLOGY

The BBN Liquidity Index is BitBullNews' monthly measure of crypto market depth, execution quality and liquidity resilience across major trading venues, asset groups and market-structure channels. It shows whether crypto markets are deep, efficient and resilient enough to support real capital movement — not just whether headline prices are rising.

> **HOW TO READ IT**
>
> A reading above 50.0 means liquidity conditions improved month-on-month; below 50.0 means they weakened; exactly 50.0 means no net change. A rising index means liquidity is broadening across venues, instruments and depth tiers, while a falling one points to concentration, thinning books or rising execution cost. Because the reading is a time-weighted monthly aggregate, sharp single-day events register only to the extent they affect the monthly average.

< 50.0	50.0	> 50.0
WEAKENING	NO CHANGE	IMPROVEMENT

Index family	BBN Indices — Crypto Industry Health
Index name	BBN Liquidity Index
Primary objective	Measure month-on-month change in crypto market depth, spreads, execution quality, breadth and concentration across a verified panel of venues, assets and pools
Update frequency	Monthly — time-weighted aggregate over the reference month
Coverage standard	Top 75–150 liquid crypto assets; 15–30 verified centralized venues; 150–400 verified DEX pools
Minimum publication	250 valid series (provisional) / 300 valid series (full headline), subject to sector and venue coverage
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01 WHAT THE INDEX MEASURES

The BBN Liquidity Index measures the quality and resilience of liquidity across the crypto market, not the level of trading volume. Price can rise on fragile liquidity; for institutions, liquidity is what determines whether a position can be entered, exited, hedged and risk-managed without severe slippage or disorderly execution. The index tracks order-book depth, executable volume, spreads, slippage resilience, venue breadth, on-chain pool depth and liquidity concentration, and asks one practical question: is the crypto market becoming easier or harder to trade at scale this month than last?

Reported crypto volume is materially overstated by wash trading; independent research has estimated that 50–95% of reported volume on some major exchanges is not real liquidity. An index built on reported volume would simply become a wash-volume index. BBN Liquidity therefore restricts its centralized-venue universe to venues that pass independent verified-volume screens and uses order-book and trade-microstructure metrics, rather than reported volume, as its primary measurement basis. This is the single most important design choice in the methodology.

02 MONTHLY AGGREGATION AND SNAPSHOT CONVENTIONS

The index is published monthly, but the underlying data is sampled at higher frequency. Each series-level metric is computed at the trade-day level and then aggregated over the reference month using the conventions below; these monthly series-level values are the inputs to the diffusion calculation.

METRIC	SAMPLING FREQUENCY	MONTHLY AGGREGATION
Order-book depth	Snapshots every 5 minutes during the trading day (UTC)	Median of daily medians
Quoted & effective spreads	Per-trade for CEX; per-block for DEX	Volume-weighted mean of daily volume-weighted means
Slippage	Order-book reconstruction (CEX) or AMM math (DEX) at standardized trade sizes	Median of daily medians
Continuity	Per-minute presence of valid quotes inside the depth threshold	Share of sampling points meeting the depth threshold
Funding rates (perps)	Per funding period (typically 8h)	Monthly mean, standard deviation and cross-venue dispersion
Stablecoin peg deviation	Per-hour mid-price vs $1.00	Maximum and mean absolute deviation

Medians are used for depth and slippage to limit the influence of single-day spikes. Because the monthly reading is time-weighted, a single severe one-day event such as a flash crash or short outage will not by itself drive the headline below 50; persistent or repeated fragility, however, shows in both the headline and the Continuity component. BBN Liquidity should be read as a structural monthly thermometer, not a real-time microstructure feed.

03 COVERAGE STANDARD AND VENUE LIST

The index is built from a published, criteria-based universe. It is intentionally restrictive: measuring a verified subset is preferred over including all reported activity.

COVERAGE LAYER	TARGET STANDARD
Eligible assets	Top 75–150 liquid crypto assets by market relevance, after stablecoin, wrapped-asset and duplicate-asset deduplication.
Verified centralized venues	15–30 major spot and derivatives venues meeting at least one of: a CCData Exchange Benchmark rating of AA or higher; inclusion in the Bitwise verified-volume list or its successor; or regulated status in a recognized jurisdiction (US, EU, UK, Singapore, Japan, Hong Kong, UAE) with public disclosure obligations.
Verified decentralized liquidity	150–400 major pools across audited DEX ecosystems, each meeting at least one of: TVL ≥ USD 5M for at least 60 days; backing by a major audited AMM (Uniswap v3, Curve, Balancer and successors); or at least 90 days of continuous operation.
Monthly valid series	400–900 valid market / liquidity series per month after all filters.
Minimum publication threshold	300 valid series, including BTC, ETH, at least one major stablecoin pair, and at least four of the six sleeves.

The current monitored venue list is published as a separate document on an annual review cycle. Exclusion of a venue is not a judgment on its safety, operational quality or compliance status; it reflects only whether the venue meets the verified-volume criteria for measurement purposes. Venues may request inclusion against the criteria above, and inclusion decisions are announced with at least 30 days' notice.

04 MARKET SLEEVES AND STANDARDIZED PARAMETERS

The index is organized into six sleeves so that no single venue, asset or market type can dominate the reading. Each sleeve captures a different dimension of crypto liquidity and is reported separately alongside the headline.

SLEEVE	WEIGHT	WHAT IT REPRESENTS
BTC & ETH spot liquidity	20%	Depth and execution quality for the two base assets across verified spot venues.
Large-cap altcoin spot liquidity	15%	Market quality across major investable assets beyond BTC and ETH (typically ranks 3–30).
Stablecoin & quote-asset liquidity	10%	Depth and usability of stablecoin-denominated pairs, plus a separate peg-deviation component.
Derivatives liquidity	20%	Perpetual depth and funding stability and futures depth, with perpetuals and dated futures treated separately.
DEX & on-chain pool liquidity	15%	Pool depth, slippage and on-chain executable liquidity at standardized trade sizes.
Liquidity breadth & concentration	20%	Distribution of liquidity across venues, assets and channels; concentration is a leading indicator of fragility.

Centralized order-book depth and AMM pool depth are structurally different — CEX depth is two-sided and bounded by quoted size at price levels, while AMM depth is a continuous function of pool reserves. The index does not pool the two into one "depth" number. Each sleeve uses its native measurement convention, and the cross-venue comparability anchor is slippage at a standardized trade size, which is directly comparable across CEX (order-book reconstruction) and DEX (AMM math).

PARAMETER	VALUE	APPLICATION
Depth distance from mid	± 1.0% of mid	CEX order-book depth: USD value of bids and asks within ±1% of mid.
Slippage — small trade	USD 100,000	Slippage for a $100K market buy/sell, from order-book reconstruction or AMM math.
Slippage — large trade	USD 1,000,000	Slippage for $1M notional; tests deep-book execution capacity.
DEX TVL inclusion threshold	USD 5,000,000	Minimum pool TVL (60-day continuous) for the on-chain sleeve.
Stale-quote threshold	5 minutes	A series is flagged stale and excluded for the day after 5 minutes without a quote update in normal hours.

05 CALCULATION FRAMEWORK

BBN Liquidity is a diffusion index. For every eligible series it records the direction of change relative to the prior month and aggregates those directions onto a 0–100 scale, where 50.0 is an equal share of improving and weakening series. A diffusion construction is used rather than a level because crypto liquidity has strong secular growth: a level-based index would be dominated by that trend and by the few largest series in any month. Diffusion measures how broadly conditions are improving or weakening, independent of absolute USD scale, and keeps the index comparable with the rest of the BBN family.

A series is an individual asset–venue combination, for example BTC on a specific verified spot venue, or USDC/ETH in a specific verified pool. Each series carries four core metrics — depth, spread, slippage and continuity.

PER-SERIES DIRECTIONAL SIGNAL

For each series s, metric m and month t, a directional signal is measured against a three-month moving-average baseline. For depth and continuity higher is better; for spread and slippage lower is better, with the sign inverted so that "Improving" always means liquidity got better.

DIRECTIONAL SIGNAL

$$d_m(s, t) = \textbf{direction} \text{ of } [\ m(s, t) - \mathrm{MA3}(\ m(s, t-1)\ )\ ]$$

IMPROVING	UNCHANGED	WEAKENING
1.0	**0.5**	**0.0**
Better than the smoothed baseline by more than the material-change threshold τ.	Within ±τ of the smoothed baseline.	Worse than the smoothed baseline by more than τ.

The threshold τ is metric-specific, set at 2% of the series' trailing 12-month average absolute month-on-month change in that metric, with a 1% floor and a 10% cap. It prevents noise-level moves from registering as direction.

PER-SERIES COMPOSITE

Each series combines its four metric scores, where each $s_m \in \{0, 0.5, 1.0\}$. Slippage and depth carry the largest weights because slippage is the most cross-venue-comparable measure of tradability and depth is the capacity that supports it; continuity reflects that liquidity which disappears under stress is not real liquidity.

SERIES SCORE

$$\text{SeriesScore}(s, t) = 100 \times [\ 0.30 \cdot s_{\text{Depth}} + 0.25 \cdot s_{\text{Spread}} + 0.30 \cdot s_{\text{Slippage}} + 0.15 \cdot s_{\text{Continuity}}\ ]$$

SLEEVE SCORES

For the BTC/ETH spot, large-cap altcoin, stablecoin-and-quote and DEX sleeves, the sleeve score is a capped relevance-weighted average of its series scores. RelevanceWeight(s) is proportional to the series' median 30-day liquidity, and the per-series cap is 12% of total sleeve weight, so no single asset or venue can exceed 12% of an individual sleeve.

SLEEVE SCORE (SLEEVES 1, 2, 3, 5)

$$\text{SleeveScore}(k, t) = \Sigma_s\ \omega_s \cdot \text{SeriesScore}(s, t) \div \Sigma_s\ \omega_s$$

$$\omega_s = \mathbf{min}(\ \text{RelevanceWeight}(s),\ 12\%\ \text{of sleeve weight}\ )$$

DERIVATIVES SLEEVE

Perpetuals and dated futures have different liquidity dynamics, so the sleeve carries explicit subsleeves. The perpetuals score adds a fifth metric, Funding Stability, which is Improving when the cross-venue standard deviation of perpetual funding rates falls below its three-month baseline by more than τ, Weakening when it rises, and Unchanged otherwise. Funding Stability carries 15% inside the perpetuals subsleeve, with the remaining 85% following the depth / spread / slippage / continuity weighting, rescaled. Options are not yet included, as their market structure requires a separate framework planned for a future revision.

DERIVATIVES SLEEVE

$$\text{DerivativesSleeve}(t) = 0.70 \cdot \text{PerpetualsScore} + 0.30 \cdot \text{FuturesScore}$$

STABLECOIN AND QUOTE-ASSET SLEEVE

Stablecoin liquidity is tied to peg stability: a USDT pair on a deep venue is functionally illiquid for institutional purposes if USDT trades at 0.97 in the same period. The peg-stability component is a diffusion read across in-scope stablecoins — Improving if the month's maximum absolute deviation from $1.00 is smaller than the trailing three-month average by more than $\tau_{peg} = 0.001$ (0.1 cent), Weakening if larger, Unchanged otherwise — aggregated as a 0 / 0.5 / 1.0 score on the share of peg-improving stablecoins.

STABLECOIN SLEEVE

$$\text{StablecoinSleeve}(t) = 0.65 \cdot \text{StablecoinPairScore} + 0.35 \cdot \text{PegStabilityScore}$$

BREADTH AND CONCENTRATION SLEEVE

This sleeve measures whether liquidity is becoming more or less broadly distributed, using the Herfindahl–Hirschman Index of venue and asset shares. Higher breadth means a more even distribution; the sleeve's direction is Improving when HHIBreadth(t) exceeds its three-month baseline by more than $\tau_{breadth} = 1.0$, Weakening if smaller, Unchanged otherwise. A reading of 60 supported by broadening venues is more durable than the same reading supported by narrowing concentration.

BREADTH SIGNAL

$$\text{HHI}_{\text{venues}}(t) = \Sigma_v \left(\text{venue v's share of verified liquidity} \right)^2$$

$$\text{HHI}_{\text{assets}}(t) = \Sigma_a \left(\text{asset a's share of verified liquidity} \right)^2$$

$$\text{HHIBreadth}(t) = 100 \cdot [\, (1 - \text{HHI}_{\text{venues}}) + (1 - \text{HHI}_{\text{assets}}) \,] \div 2$$

HEADLINE INDEX

The six sleeve scores combine into the headline. Coefficients sum to 1.00 and the reading is rounded to one decimal place. Each sleeve is bounded in [0, 100] with 50.0 representing no net change, so the headline carries the same interpretation: 50.0 means liquidity across the weighted panel is unchanged versus last month.

HEADLINE

$$\text{BBN Liquidity}(t) = 0.20 \cdot \text{BTC\_ETH} + 0.15 \cdot \text{LargeCap} + 0.10 \cdot \text{Stablecoin} + 0.20 \cdot \text{Derivatives} + 0.15 \cdot \text{DEX} + 0.20 \cdot \text{Breadth}$$

06 WORKED EXAMPLE

SLEEVE	SCORE	WEIGHT	CONTRIBUTION
BTC & ETH spot	58.0	0.20	11.60
Large-cap altcoin spot	54.0	0.15	8.10
Stablecoin & quote	62.0	0.10	6.20
Derivatives	48.0	0.20	9.60
DEX & on-chain	52.0	0.15	7.80
Breadth & concentration	44.0	0.20	8.80

Headline = 52.1 · Modestly above no-change

Spot and stablecoin sleeves are healthy, but the reading is held back by two signals: derivatives liquidity sits just below the no-change line, pointing to elevated funding-rate dispersion or thinning perpetual depth, while a clearly below-50 breadth sleeve indicates liquidity is concentrating into fewer venues or assets. The commentary for this month would flag the breadth deterioration as the leading concern even though the headline remains modestly positive.

07 INTERPRETATION FRAMEWORK

Headline values are rounded to one decimal and classified into non-overlapping bands so that every reading falls into exactly one category.

READING	LABEL
≥ 65.0	**Strong liquidity expansion**
55.0 – 64.9	**Healthy liquidity conditions**
50.1 – 54.9	**Modestly above no-change**
= 50.0	**No net change**
45.0 – 49.9	**Modestly below no-change**
35.0 – 44.9	**Weak liquidity conditions**
< 35.0	**Severe liquidity stress**

The index is best read alongside other BBN indicators — for example an activity reading for operating conditions and a funding reading for capital formation. Liquidity gates the practical tradability of positions; funding shows whether capital is entering the sector. The breadth and concentration sleeve is a leading indicator: deteriorating breadth alongside a stable headline often precedes broader liquidity weakness. Short-term moves should be read in the context of the three-month moving average and the sleeve detail, not in isolation.

08 EXCLUSIONS AND ADJUSTMENTS

The index excludes or adjusts data that may overstate genuine liquidity. All exclusions are rule-based and logged.

ITEM	TREATMENT
Unverified venues	Fully excluded from the centralized-venue universe, because their reported volume is materially overstated by wash trading.
Stale order books	A series is excluded for the day after 5 consecutive minutes without a quote update in normal hours.
Wash-pattern flags	Trade-level filters within verified venues exclude documented wash patterns: rapid round-tripping within an account family, price-time clustering inconsistent with public order flow, and self-cross detection where venue data exposes it.
Duplicate liquidity	Wrapped assets (WBTC, WETH, stETH and similar) are deduplicated against their underlyings, and the same asset across multiple pools is consolidated for breadth and concentration.
Incentivized pools	DEX pools with TVL ≥ 40% supported by active liquidity-mining are flagged and downweighted by 50% in the DEX sleeve, because mercenary liquidity leaves when incentives stop.
Abnormal pricing	Series with intra-month price deviations above 5% from the volume-weighted cross-venue mid are flagged; confirmed cases (frozen pair, broken oracle) are excluded.
MEV-affected DEX	DEX slippage uses post-MEV effective execution where observable on chain; where MEV cannot be quantified it is acknowledged in commentary, and no synthetic penalty is applied.

09 DATA VALIDATION AND CONCENTRATION CAPS

CONTROL	HOW IT WORKS
Minimum observations	300 valid series for a full headline; 250–299 produce a provisional reading; fewer than 250 produce no headline.
Material-change threshold τ	Series-metric moves smaller than τ are treated as Unchanged. Default τ is 2% of the trailing 12-month average absolute month-on-month change, with a 1% floor and 10% cap.
Outlier detection	A component move is flagged when it deviates from the series' trailing 24-month distribution by more than 3 standard deviations. Confirmed events (outage, depeg, fork) are retained; spurious values are held for verification.
Venue-quality monitoring	Verified status is reviewed quarterly; a venue may be temporarily suspended if data quality drops below the inclusion threshold, with suspensions logged and disclosed.
Single-venue cap	No verified venue may contribute more than 25% of any sleeve's weighted contribution in a month; excess weight is downweighted proportionally.
Single-asset cap	No single asset, other than BTC and ETH inside the BTC/ETH sleeve, may exceed 20% of any other sleeve.
Single-pool cap (DEX)	No single DEX pool may exceed 15% of the DEX sleeve.
Survivorship control	Venues that exit the verified list are not silently removed; the affected series' last data feeds that month's diffusion, marked Weakening where cessation indicates liquidity loss.

10 PUBLICATION, REVISIONS AND WHAT IS REPORTED

A full headline is published with at least 300 valid series, including BTC, ETH, one major stablecoin pair, and at least four of the six sleeves at minimum coverage; the preferred monthly standard is 400–900 valid series across all six sleeves. Between 250 and 299 valid series — or 300 or more but fewer than four sleeves — yields a clearly labeled “Provisional” reading that may be revised in the next cycle. Fewer than 250 valid series yields no headline and a short coverage note. A sleeve is published on its own with at least 25 valid series and no single venue above 30% of sleeve weight.

A prior monthly value is restated when accumulated corrections would change the headline by 0.5 points or more; smaller corrections are noted internally without a restated public value. Restatements normally occur in the immediately following release, are accompanied by a revision note giving the original value, the new value and the reason, and are exceptional beyond one cycle. Changes to wash-filter or bot-detection rules are treated as methodology changes, announced with at least 30 days' notice and applied prospectively unless the changelog states otherwise.

Each month the index publishes the headline reading with its month-over-month and twelve-month change, the six sleeve scores, the three-month moving average, the leading and lagging sleeve contributors, a peg-deviation note when stablecoin deviation exceeds one cent, a coverage statement with the valid-series count and venue-list version, panel-change notes for additions or exits, and sleeve commentary for sleeves meeting coverage thresholds.

11 SCOPE, GEOGRAPHY AND LEGAL NOTE

BBN Liquidity is a monthly diffusion indicator of crypto market-quality conditions — depth, spreads, slippage, continuity, breadth and concentration — across verified venues and pools, centered on the no-change line at 50.0. It is not an official statistic, a regulated benchmark, an execution-quality benchmark for any individual venue, a measure of trading volume, a measure of absolute USD liquidity, or a real-time microstructure tool. It is designed for editorial, research and commercial data use, and is not investment advice or a trading signal in isolation.

Crypto liquidity is global but unevenly regulated. The index does not assign a regulatory weight, but the verified-venue list skews toward better-disclosed venues in jurisdictions with public disclosure obligations, and the published list makes the geography of measured liquidity transparent. Users with regulated-venue-only mandates should consult the sleeve and venue detail rather than the headline. Over-the-counter liquidity — bilateral trades, structured products, RFQ flows and dark pools — sits outside the scope of the index, which measures observable market depth, not total tradable liquidity.

LEGAL NOTE