VERSION 1

BBN THROUGHPUT INDEX

PUBLIC METHODOLOGY

A monthly measure of the aggregate scale and breadth of value movement across the crypto economy. The index shows whether trading, derivatives, lending, cross-chain transfer and settlement-related flows are actually moving through the system — not just whether prices are appreciating or narratives are improving. It is a diffusion index: 50.0 marks no net month-on-month change, above 50 means flow expanded, below 50 means it contracted.

HOW TO READ IT

Above 50.0 means aggregate flow expanded month-on-month; below 50.0 means it contracted; exactly 50.0 means no net change. A rising index means activity is broadening across venues, instruments and use cases; a falling one points to narrowing flow or concentration in fewer rails.

< 50.0	50.0	> 50.0
CONTRACTION	NO CHANGE	EXPANSION

INDEX FAMILY	BBN Indices · Crypto Industry Health
INDEX NAME	BBN Throughput Index
PRIMARY OBJECTIVE	Measure month-on-month change in aggregate crypto-economic flow across trading, derivatives, lending, cross-chain transfers and settlement
UPDATE FREQUENCY	Monthly
HEADLINE SCALE	Diffusion index, 0–100 · 50.0 = no net change
COVERAGE STANDARD	350–700 eligible monthly flow series across chains, protocols, venues and infrastructure categories
PUBLICATION THRESHOLDS	130 valid series (provisional) · 175 valid series (full headline), subject to sleeve coverage
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POSITIONING

Published as an industry indicator, it is not an official statistic, a regulated benchmark, or a measure of total crypto GDP, user adoption, profitability, sentiment or investment performance, and some private exchange flows, bilateral OTC activity, internal venue transfers and off-chain settlement remain outside public measurement. It is designed for editorial, research and commercial data users.

HOW TO READ IT

The index measures the scale of movement through the system, not price appreciation — tracking aggregate USD-equivalent flow across centralised and decentralised spot trading, derivatives, lending and credit, cross-chain transfers, settlement-related value movement and transaction-utilisation breadth. It is best read alongside BBN Liquidity (execution quality), BBN Revenue (monetisation of the same flows) and BBN Settlement (stablecoin payment rails). The diffusion construction is set out in full in Section 4.

> **THROUGHPUT IS NOT AUTOMATICALLY BULLISH**
>
> Rising throughput is not by itself a positive signal. Higher flow may reflect healthier usage and broader adoption — but it may equally reflect volatility, leverage cycles, liquidation cascades, MEV intensity or short-lived speculative crowding. Falling throughput is just as ambiguous: it can mark calmer markets as easily as weakening activity. Throughput is therefore a directional flow indicator, not a market-direction signal, and should always be read with Liquidity, Revenue and Settlement.

01 OBJECTIVE AND THE BBN FAMILY

Throughput answers a narrower, more operational question than the other BBN indices: is the crypto ecosystem moving more value, supporting more market activity and processing more meaningful financial flow than it did last month? It intentionally overlaps with components measured separately in Liquidity, Revenue and Settlement, but views them from a different angle — gross flow rather than execution quality, monetised output or a payment-rail subset — so the indices are complementary rather than independent and should be read side by side.

BBN INDEX	WHAT IT MEASURES	HOW IT RELATES TO THROUGHPUT
Liquidity	Quality of market execution — depth, spreads, slippage, breadth.	How good execution is, versus how much volume actually moves. A market can deepen while Throughput stays flat, or get busier while Liquidity weakens.
Revenue	Monetisation of crypto activity — protocol revenue, user-paid fees.	The monetised output of throughput. Throughput is the input (gross flow); rising flow with falling take rates produces strong Throughput but weak Revenue.
Settlement	Stablecoin-based value transfer — payment-like activity.	A subset of broader throughput. To avoid double-counting, Throughput uses a capped settlement-flow proxy (10% sleeve weight), not full stablecoin volume.
Activity	Operating conditions across crypto businesses — survey-based.	Business pulse from direct company responses, versus observable market and on-chain flows. The two can diverge in periods of speculative flow without operating expansion.

The 10% cap on the settlement-flow sleeve is the primary tool preventing stablecoin transfer activity from dominating the headline; the same discipline on the CEX and DEX sleeves comes from the verified-venue universe (Section 4) shared with Liquidity and Revenue.

02 COVERAGE AND THE ELIGIBLE UNIVERSE

The index is built from a monitored universe of public, repeatable and economically meaningful flow series across the major crypto activity channels. The aim is not to count every transaction, but to capture a representative, high-signal view of real economic movement. The monitored universe runs to 350–700 eligible monthly series, targeting 250–500 valid series after quality filters, with an objective of 65–80% estimated coverage of observable activity in the largest measurable sleeves where public-data quality permits.

PUBLICATION STANDARD	REQUIREMENT
Full publication	At least 175 valid series across no fewer than five (of seven) sleeves.
Provisional publication	130–174 valid series, or 175+ series with fewer than five sleeves covered. Carries a clear “Provisional” label.
No publication	Fewer than 130 valid series. A brief coverage note is issued in place of the release.

WHAT IS ELIGIBLE

A series must represent observable economic movement rather than cosmetic activity, with priority given to sources that have historical continuity, transparent definitions and reasonable resistance to double-counting. To be included, a series must carry USD-equivalent flow with a repeatable history of at least 12 months, a clear category mapping to one of the seven sleeves, and a verifiable timestamp, source attribution and classification. Centralised-venue data must come from the verified-venue universe; DEX volume must come from documented aggregators (DeFiLlama, Dune-indexed, or native protocol dashboards). Excluded are one-off promotional volume that cannot be separated from organic activity, duplicate routes counted at multiple aggregation layers, stale or discontinued feeds, unreconciled methodology breaks, and known wash-trading, circular-flow or incentivised-volume programs that cannot be cleanly separated.

VERIFIED-VENUE UNIVERSE

Centralised-venue flow in the CEX spot, derivatives and lending sleeves is restricted to venues meeting at least one of: a CCData Exchange Benchmark rating of AA or higher; inclusion in the Bitwise verified-volume list or successor; or regulated status in a recognised jurisdiction (US, EU, UK, Singapore, Japan, Hong Kong, UAE) with public disclosure obligations. Reported volume from unverified venues is structurally compromised by wash trading and is not used as primary input. The current verified-venue list is published as a companion document and updated on the annual review cycle. This universe is shared with BBN Liquidity and BBN Revenue.

DOUBLE-COUNTING CONTROLS

- CEX-to-CEX arbitrage round-trips are identified through the maintained hot/cold wallet list (shared with BBN Settlement); round-trips completing within 24 hours are de-duplicated.
- Bridge lock-and-mint pairs — a lock on chain A paired with a mint on chain B within 24 hours through a recognised bridge — are counted as one cross-chain transfer, not two.

- CCTP burn-and-mint is treated as a single economic transfer between source and destination chains.
- DEX-aggregator router internals (1inch, Paraswap, 0x, CoW) are counted once at the aggregator level during a single user swap, not at each pool hop.
- Stablecoin transfers that are part of a DEX swap are counted in the DEX sleeve only, not separately in the settlement proxy.
- MEV bot patterns — sandwich, atomic-arb and front/back-run transactions identified by trade-level analysis — are excluded from all flow components.

03 COMPONENT STRUCTURE

The index is divided into seven sleeves, each capturing a different channel of crypto-economic movement. The headline is a weighted composite of the seven sleeve scores; the weights are fixed and sum to 100%.

SLEEVE	WEIGHT	PRIMARY SIGNAL AND ELIGIBLE INPUTS
CEX spot flow	15%	Spot trading on verified centralised venues.
DEX spot flow	20%	Verified DEX volume, aggregator-adjusted spot volume and chain-level DEX activity, with wash patterns removed.
Derivatives flow	20%	Risk transfer, speculation and hedging. Perpetuals are 70% of the sleeve; dated futures and options 30% combined. Notional volume is preferred over open interest.
Lending and credit flow	15%	Borrowed and supplied value, loan origination flow and utilisation-adjusted lending across DeFi and CeFi venues.
Cross-chain transfer flow	10%	Bridge volume, cross-chain transfer value, CCTP and interop-protocol flow, with the settlement double-counting rules applied.
Settlement flow proxy	10%	A capped sub-input drawn from the BBN Settlement Adjusted Settlement Value. The 10% cap prevents stablecoin transfers from dominating the headline.
Transaction utilisation breadth	10%	Whether flow is broadening beyond one or two large venues — active protocol count, active chain count and panel-level diffusion of growing series.

REQUIRED INPUT FIELDS

Each eligible series is mapped into a standardised structure before calculation so that flow can be compared across chains, protocols and activity types without treating all raw volume as equally reliable. Every series carries an observation month (UTC), a unique source/series ID, its component sleeve, a cleaned USD-equivalent flow value (converted at transaction-day prices for non-USD flow) and the original native-unit value for verification. Each also carries a source tier — Tier 1 on-chain direct, Tier 2 verified-venue official, Tier 3 recognised aggregator, Tier 4 other — that drives its data-confidence weight; a quality flag (normal, adjusted, provisional, revised or excluded); and a log-scale coverage weight, capped at 15% of sleeve weight per series.

04 CALCULATION FRAMEWORK

For every eligible flow series the index records the direction of change relative to a smoothed baseline and aggregates those directions into a single 0–100 reading. A reading of 50.0 means an equal share of expanding and contracting series across the panel — no net change month-on-month. The construction follows established diffusion-index practice and the rest of the BBN family.

STEP 1 — PER-SERIES DIRECTIONAL SIGNAL

DIRECTION

$$d(i, t) = \text{direction of } [\ \text{Flow}(i, t) - \text{MA3}(\ \text{Flow}(i, t-1)\ )\ ]$$

FLOW(I,T) IS CLEANED USD-EQUIVALENT FLOW FOR SERIES I · MA3 IS THE TRAILING THREE-MONTH BASELINE ENDING AT T−1

EXPANDING	UNCHANGED	CONTRACTING
1.0	**0.5**	**0.0**
Flow above the smoothed baseline by more than the threshold τ.	Flow within ±τ of the smoothed baseline.	Flow below the smoothed baseline by more than τ.

The material-change threshold τ is series-specific, set at 5% of the series' trailing 12-month average absolute month-on-month change, with a floor of 2% and a cap of 15%. The tolerances are wider than for some other BBN indices because flow data swings sharply on news, liquidations and single-venue events. Threshold parameters are reviewed annually.

STEP 2 — SLEEVE COMPOSITE

Each sleeve is scored on two dimensions: a weighted Flow Diffusion (how much weighted flow is improving) and an unweighted Breadth Diffusion (how many series are improving — whether activity is spreading or concentrating).

FLOW DIFFUSION

$$\text{FlowDiffusion}(s, t) = 100 \times \Sigma\ \omega_i \cdot d(i, t) \div \Sigma\ \omega_i$$

OVER SERIES I IN SLEEVE S · $Ω_I$ IS THE LOG-SCALED, CAPPED SERIES COVERAGE WEIGHT

BREADTH DIFFUSION

$$\text{BreadthDiffusion}(s, t) = 100 \times \text{ShareUp}(s, t) + 50 \times \text{ShareFlat}(s, t)$$

SHAREUP AND SHAREFLAT ARE THE UNWEIGHTED, EQUAL-SERIES SHARES OF IN-SLEEVE SERIES EXPANDING AND UNCHANGED

SLEEVE SCORE

$$\text{SleeveScore}(s, t) = 0.70 \times \text{FlowDiffusion}(s, t) + 0.30 \times \text{BreadthDiffusion}(s, t)$$

BOTH DIFFUSIONS ARE BOUNDED IN [0,100] WITH 50 = NO NET CHANGE

The 70/30 split puts primary weight on weighted-flow diffusion — Throughput is fundamentally a volume measure — and uses unweighted breadth as a supporting signal of whether a move is broad or concentrated. The transaction-utilisation-breadth sleeve is itself a panel-wide breadth measure rather than a flow channel. Its score is a diffusion of active protocols and chains: 100 × ShareActiveExpanding(t) + 50 × ShareActiveFlat(t), where ShareActiveExpanding is the share of monitored protocols and chains above their trailing three-month baseline by more than τ. It is the primary signal of whether throughput growth is broad-based or concentrated.

STEP 3 — HEADLINE

HEADLINE INDEX

$$\text{BBN Throughput}(t) = \Sigma\ \text{SleeveWeight}(s) \times \text{SleeveScore}(s, t)$$

SEVEN SLEEVE WEIGHTS (15 + 20 + 20 + 15 + 10 + 10 + 10) SUM TO 1.00 · REPORTED TO ONE DECIMAL PLACE

Each sleeve score is bounded in [0,100] with 50.0 = no net change, so the headline carries the same interpretation. Diffusion is used in preference to a level-based USD index because crypto flow is heavily right-skewed, structurally non-stationary and cyclical: a level index would be dominated by secular growth and by the few largest series in any month, whereas a diffusion index measures how broadly conditions are expanding or contracting regardless of absolute scale, and keeps Throughput directly comparable to the rest of the BBN family.

05 WORKED EXAMPLE

An illustrative month, with each sleeve score already computed from its own Flow Diffusion and Breadth Diffusion.

SLEEVE	SCORE	WEIGHT	CONTRIBUTION
CEX spot flow	58.0	0.15	8.70
DEX spot flow	61.0	0.20	12.20
Derivatives flow	65.0	0.20	13.00

SLEEVE	SCORE	WEIGHT	CONTRIBUTION
Lending and credit flow	51.0	0.15	7.65
Cross-chain transfer flow	55.0	0.10	5.50
Settlement flow proxy	53.0	0.10	5.30
Transaction utilisation breadth	49.0	0.10	4.90
BBN Throughput headline (Σ contributions = 57.25, rounded)			**57.3**

The reading of 57.3 falls in the "Moderate expansion" band. Derivatives and DEX flow lead the move, supported by CEX spot, while Lending and the settlement proxy are positive but moderate. Transaction utilisation breadth just below 50 is a yellow flag: the strength of the headline is being driven by a subset of venues and protocols rather than a broad expansion across the panel. Read alongside Liquidity and Revenue, this pattern would typically point to a leverage-and-volatility-driven flow regime rather than broad-based growth in usage — exactly the distinction the "throughput is not automatically bullish" caveat is built to surface.

06 WEIGHTING, CAPS AND INTERPRETATION

Controlled weighting at the sleeve and series levels keeps the index broadly representative and prevents dominance by a small number of series. Public sleeve weights set each sleeve's contribution and are not changed in-cycle. Series coverage weight is log-scaled — ln(1 + trailing-12-month median flow) — giving larger series more influence without letting one crowd out the rest. No single series may exceed 15% of its sleeve's coverage weight, and no single venue may exceed 12% of total headline weight across all sleeves it appears in. The settlement-flow proxy is capped at 10% of the headline by design. By source tier, Tier 1 and Tier 2 series receive 1.0× weight, Tier 3 receive 0.85× and Tier 4 receive 0.7×. Series with documented definition breaks (chain migration, fee-schedule overhaul, indexing change) are flagged and may be held out of the directional signal until at least six months of post-break data accumulate, while remaining in breadth components throughout.

INTERPRETATION BANDS

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

READING	LABEL	PRACTICAL MEANING
≥ 60.0	Strong expansion	Flow expansion is broad across most sleeves and series; materially above the no-change line.
55.0 – 59.9	Moderate expansion	Throughput is improving with confirmation across several sleeves.
50.1 – 54.9	Modestly above no-change	Activity modestly broader than contraction; trend confirmation needed.

READING	LABEL	PRACTICAL MEANING
= 50.0	No net change	Expansion and contraction evenly balanced across the weighted panel.
45.0 – 49.9	Modestly below no-change	Activity modestly narrower than expansion; not yet a clear contraction signal.
40.0 – 44.9	Moderate contraction	Flow is weakening across multiple segments.
< 40.0	Severe contraction	Broad activity stress or a sharp decline in ecosystem movement.

The headline number alone is not sufficient interpretation. High Throughput with low Liquidity suggests speculative or volatile flow without depth — the classic crowded-trade pattern; high Throughput with low Revenue suggests flow that is not being monetised as take rates compress; and high Throughput with weak utilisation breadth points to concentration in a few venues rather than a broad expansion.

07 QUALITY CONTROL, PUBLICATION AND SCOPE

DATA VALIDATION AND QUALITY CONTROLS

All controls run on documented rules rather than in-the-moment judgment. The verified-venue filter keeps non-verified centralised flow out of the directional signal (it may stay in breadth with a low-confidence flag); the threshold τ stops noise-level moves counting as direction; duplicate-route detection and the wash-trading filter remove double-counting, circular flow, MEV patterns and incentivised volume through trade-level analysis. A series is flagged for outlier review when its month-on-month change exceeds the 99th percentile of its trailing 24-month distribution, or when a single series contributes more than 2.5 points of headline movement in one month; flagged items are checked against documented events and retained or excluded by rule. Survivorship is explicit: a discontinued series is recorded with its cessation month, that month counts as Contracting, and where attrition exceeds 5% of the panel in a month the release carries commentary. Documented source-methodology breaks trigger the continuity adjustment above, and a public revision log accompanies every release.

PUBLICATION AND REVISION POLICY

The index is monthly, referenced to a UTC calendar month, and normally published in the second half of the following month after reconciliation and quality checks. Full headline publication requires at least 175 valid series across five or more sleeves; a provisional release (130–174 series, or 175+ with fewer than five sleeves) is clearly labelled; below 130 valid series a coverage note is issued instead. A prior monthly value is restated when late-validated data, source restatements, methodology corrections or duplicate-route reclassification would move the headline by 0.5 points or more; smaller corrections are noted internally only. Restatements normally occur in the immediately following release, with anything beyond one cycle treated as exceptional and explained. Each restatement carries a revision note giving the original value, the new value and the reason.

WHAT IS PUBLISHED EACH MONTH

Every release carries the headline reading with month-over-month and twelve-month change; the seven sleeve scores; a three-month moving average as a trend smoother; the sleeve-level Flow Diffusion and Breadth Diffusion split so users can see whether a move is flow- or breadth-driven; the top sleeve contributors; concentration commentary whenever one or two sleeves drive more than 70% of the headline move; a coverage statement (valid series, sleeve coverage, any provisional labels); a panel-change note recording material additions or exits including venue-list changes; a link to the public methodology and current verified-venue list; and a revision note whenever a prior value is restated.

SCOPE AND LIMITATIONS

BBN Throughput is a monthly diffusion indicator of aggregate crypto-economic flow across major channels, combining CEX spot, DEX spot, derivatives, lending, cross-chain, a settlement proxy and utilisation breadth, centred on the no-change line at 50.0 and drawn from a curated, verified-venue-filtered universe. It is not an official statistic or a regulated benchmark, not a measure of total crypto GDP, user adoption or economic output, and not a USD figure — the published value is a scaled score. It is not a complete census: private exchange flows, bilateral OTC, internal venue transfers and off-chain settlement remain outside scope. It complements but does not replace Liquidity, Revenue and Settlement, and it is a directional flow reading, not a market-direction or trading signal — rising throughput can reflect speculative crowding as easily as healthy expansion.

VERSIONING AND LEGAL NOTE

This is the inaugural publication, Version 1. The document is identified by its version number; material changes — to sleeve weights, the verified-venue universe (shared with Liquidity and Revenue), the verified DEX aggregator list, the duplicate-route rules, the threshold τ or the calculation formulas — are announced with at least 30 days' public notice before they take effect, and each release states its version, effective date and a short summary of changes. Editorial corrections that do not change meaning may be made without a notice period but are recorded in the version history. BBN Throughput is proprietary to BitBullMedia Pte. Ltd. (trading as BitBullNews); public disclosure of the methodology grants no right to reproduce the index, clone it, scrape or redistribute historical data, build derivative products or use the BBN brand commercially without prior written permission. Short-form quotation with clear attribution may be permitted. Nothing here is investment, legal, accounting or tax advice, and users are responsible for their own interpretation and decisions.