Crypto100 Index Methodology

How we created the Crypto100 index and how each score are calculated.

Eligibility

Before any scoring takes place, each cryptocurrency must pass a set of eligibility filters. Only assets that meet all criteria enter the scoring universe.

Asset type

Only native blockchain coins and protocol-level tokens are considered. NFTs, non-transferable reward points, and similar instruments are excluded.

Automatic exclusions

The following asset categories are excluded regardless of size or score:

- Stablecoins — assets pegged to a fiat currency (USDT, USDC, DAI, etc.)
- Wrapped tokens — representations of another asset on a different chain (WBTC, WETH, etc.)
- Liquid staking tokens — tokenised staking positions (stETH, rETH, etc.)
- Exchange tokens — platform utility tokens issued by centralised exchanges (BNB, etc.)
- Privacy coins — coins with materially unclear regulatory status (XMR, ZEC, DASH, etc.)

Minimum listing age

The asset must have at least 90 days of market data, verified using CoinGecko's `atl_date` field (all-time-low date, the earliest available data point).

Minimum exchange presence

The asset must be listed on at least 2 reputable exchanges, verified via CoinGecko's ticker data.

Minimum liquidity

The asset must have a 30-day average daily trading volume (ADTV) of at least £1,000,000 (converted to USD at the live GBP/USD rate at the time of the quarterly run).

Integrity

Assets subject to active sanctions, confirmed fraud allegations, or major regulatory enforcement actions are blocklisted and excluded.

Quality Scoring (“VALT”)

Every eligible asset receives four sub-scores, each on a scale of 0–100. All scores use percentile ranking within the eligible universe — meaning a score of 80 means the asset ranks better than 80% of its peers on that metric. This ensures the distribution is always uniform regardless of universe size.

The four sub-scores are combined into a single Quality Score:

> Quality Score = Volatility × **50%**+ Adoption × **30%** + Liquidity × **15%** + Tokenomics × **5%**

Volatility Score (50%)

What it measures: How stable the asset's price has been over the past 90 days. Lower volatility receives a higher score.
Why it matters: Highly volatile assets introduce instability into the index. A lower-volatility asset is generally more mature and less prone to speculative swings, making it a more reliable index component.

How it is calculated:

1. Daily closing prices are fetched from CoinGecko (/coins/{id}/market_chart, 90 days)
2. Log returns are computed from the daily price series
3. Returns are annualised: std(log_returns) × $\sqrt{365}$
4. The resulting volatility figure is inverted and percentile-ranked — the least volatile asset scores 100, the most volatile scores 0

5. Assets with fewer than 30 days of price data are penalised by assigning them the 90th-percentile (worst-in-class) volatility

CoinGecko data used: market_chart daily prices

Adoption Score (30%)

What it measures: How widely established and recognised the asset is across the market.
Why it matters: An asset with broad market recognition and presence across many trading venues is more likely to represent genuine, sustained demand rather than speculative interest on a single platform.

How it is calculated:
Two components, equally weighted (50/50):

1. CoinGecko market rank (inverted) — rank 1 (Bitcoin) scores highest; lower-ranked assets score progressively less. This serves as a proxy for overall market standing
2. Exchange count — number of unique exchanges listing the asset

Both components are percentile-ranked within the universe and averaged.

> *Note: on-chain adoption metrics such as active addresses and transaction counts would be more precise but are not available from CoinGecko. This is a known limitation of the current methodology.*

CoinGecko data used: market_cap_rank, tickers (exchange listings)

Liquidity Score (15%)

What it measures: How easily the asset can be bought or sold without significantly moving the market.
Why it matters: A highly liquid asset can be traded efficiently and is accessible to large investors. Illiquid assets carry hidden transaction costs and are more susceptible to manipulation.

How it is calculated:
Two components, equally weighted (50/50):

1. Turnover ratio — 30-day ADTV divided by market cap. This normalises trading volume for size, so a smaller asset trading a high proportion of its market cap can score well against a large but illiquid asset
2. Exchange count — number of unique exchanges listing the asset

Both components are percentile-ranked within the universe and averaged.

CoinGecko data used: market_chart (30-day volume), tickers (exchange listings)

Tokenomics Score (5%)

What it measures: The health and transparency of the asset's token supply design.
Why it matters: Assets where a large proportion of supply is still locked or undistributed introduce future sell pressure risk. A high circulating-to-maximum-supply ratio indicates that most tokens are already in the market.

How it is calculated:
Three components:

- Circulating/max supply ratio (50%) — circulating supply divided by maximum supply (or total supply where no hard cap exists). Clipped to [0, 1]. Assets with a higher ratio (more supply already circulating) score better
- Published vesting schedule (25%) — binary flag (*true* or *false*); assets with a publicly documented vesting schedule receive full marks
- Burn or buyback programme (25%) — binary flag (*true* or *false*); assets with a deflationary mechanism receive full marks

> *Note: the binary flags currently default to false pending integration of a curated data source. The circulating/supply ratio carries the full effective weight at this time.*

CoinGecko data used: circulating_supply, max_supply, total_supply

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Constituent Selection and Weighting

Quality-Adjusted Size

Each asset's Quality Score is multiplied by its free-float market capitalisation to produce a Quality-Adjusted Size (QAS):

> QAS = Market Cap (USD) × Quality Score

This ensures the index is primarily market-cap weighted but adjusted downward for lower-quality assets.

Selection

Assets are ranked by QAS descending. The top 100 form the index.

To reduce unnecessary turnover at each quarterly rebalance, a buffer rule applies:

1. A new asset is only added if its QAS rank is 90 or better
2. An existing constituent is only removed if its QAS rank falls below 110

Weight calculation

Each constituent's initial weight is proportional to its QAS relative to the total QAS of all 100 constituents:

> Weight = QAS_i / Σ QAS

Cap enforcement

Two caps are then applied iteratively until both constraints are satisfied:

1. Single asset cap: 60% — no single asset may exceed 60% of the index
2. Top-10 aggregate cap: 90% — the combined weight of the 10 largest constituents may not exceed 90%

Any weight in excess of a cap is redistributed proportionally to the remaining uncapped constituents.

Rebalancing frequency

The full pipeline (eligibility, scoring, selection, weighting) runs quarterly. Index levels are updated daily at 16:30 London time using closing prices from CoinGecko.

Annexes

ADTV

ADTV stands for Average Daily Trading Volume — the average amount of an asset bought and sold per day, measured in USD, over a set period (in this index, 30 days).

Simple example:
If Bitcoin is traded $30 billion worth on Monday, $28 billion on Tuesday, and $32 billion on Wednesday, the 3-day ADTV would be $30 billion.

Why it matters for eligibility:
The index requires a minimum ADTV of £1,000,000 to ensure every constituent can actually be traded in meaningful size. An asset with a very low ADTV might look attractive on paper but in practice:

- Large buy or sell orders would move the price significantly
- Institutional investors couldn't enter or exit positions without impacting the market
- Price data becomes less reliable

It acts as a basic liquidity floor — filtering out small, thinly traded tokens that don't belong in a serious market index.

Protocol level tokens

A protocol-level token is a token that is native to and inseparable from a blockchain network or decentralised protocol — it has a functional role in how the network operates, not just a commercial or speculative one.

Examples:

- ETH — required to pay transaction fees and run smart contracts on Ethereum
- SOL — used to pay for computation on Solana
- LINK — used to pay Chainlink node operators for oracle data
- AAVE — used for governance and staking in the Aave lending protocol

In practice, CoinGecko's category system does most of the heavy lifting here — the exclusion categories (exchange-based-tokens, wrapped-tokens, etc.) filter out the non-protocol assets automatically. The "protocol-level token" framing is mainly for the methodology document to explain the intent of the inclusion criteria to a human reader.

Stablecoins

A stablecoin is a cryptocurrency designed to maintain a fixed value, almost always pegged to a fiat currency like the US dollar.

Examples:

- USDT (Tether) — $1 peg, backed by cash reserves
- USDC (Circle) — $1 peg, backed by cash and short-term bonds
- DAI — $1 peg, maintained algorithmically through over-collateralisation

Why they are excluded from the index:
The CRYPTO100 is designed to track the performance of the cryptocurrency market. Stablecoins by design do not move in price — holding them in the index would dilute returns and misrepresent what the index measures. Including USDT (the 3rd largest crypto by market cap) would simply drag the index towards zero return with a large weight.

They are excluded both by CoinGecko category (stablecoins) and by a symbol blocklist as a belt-and-braces check in case CoinGecko miscategorises one.

Wrapped tokens

A wrapped token is a cryptocurrency that represents another asset from a different blockchain, created so that asset can be used on a chain it wasn't originally built for.

The most common example:

- WBTC (Wrapped Bitcoin) — Bitcoin doesn't run on Ethereum. To use BTC in Ethereum's DeFi ecosystem, you deposit real BTC with a custodian and receive WBTC in return. 1 WBTC = 1 BTC. When you want your BTC back, you burn the WBTC and receive the underlying Bitcoin.

Other examples:

- WETH — wrapped Ether (used in DeFi protocols that require a standard token format)
- WBNB — wrapped BNB for use on other chains

Why they are excluded:
Wrapped tokens have no independent value — they are purely a derivative of the underlying asset. Including WBTC alongside BTC would mean the index holds

double exposure to Bitcoin under two different tickers. Theindex aims to track distinct assets, not multiple representations of the same one.

Liquid staking tokens

Liquid staking tokens are tokens you receive when you deposit a cryptocurrency into a staking protocol. They represent your staked position and accrue rewards over time, while remaining tradable — hence "liquid".

The most common example:

- stETH (Lido) — you deposit ETH into Lido, you receive stETH in return. stETH slowly increases in value relative to ETH as staking rewards accumulate. You can trade stETH at any time without waiting for the unstaking period.

Other examples:

- rETH — Rocket Pool's staked ETH token
- cbETH — Coinbase's staked ETH token
- wstETH — wrapped stETH

Why they are excluded:
Like wrapped tokens, liquid staking tokens derive their value entirely from the underlying asset. stETH is essentially ETH plus staking yield — including it alongside ETH in the index would again create double exposure to the same underlying asset. The index would be overweight Ethereum without it being apparent from the constituent list.

Exchange tokens

Exchange tokens are cryptocurrencies issued by a centralised exchange (CEX) primarily to benefit their own platform and users — discounted trading fees, voting rights on the exchange, or access to exclusive features.

The most common example:

- BNB (Binance) — issued by Binance, the world's largest exchange. Holding BNB gives you discounted trading fees on Binance and access to Binance's ecosystem products.

Other examples:

- FTT — issued by FTX (now collapsed)

- KCS — issued by KuCoin
- OKB — issued by OKX

Why they are excluded:

- Holding an exchange token means you are effectively taking exposure to the business performance of a centralised company — Binance's revenues, regulatory risk, and competitive position — not to the broader
- cryptocurrency market. This is similar to why a stock market index tracking technology companies wouldn't include the shares of the stock exchange itself.
- There is also a concentration risk: if an exchange faces regulatory action, a hack, or collapses (as FTX demonstrated), its token typically goes to near zero very rapidly, creating an outsized negative event in the index that has nothing to do with the underlying crypto market the index is meant to represent.

Privacy coins

Privacy coins are cryptocurrencies specifically designed to make transactions untraceable and the identities of sender and receiver completely anonymous. Most blockchains like Bitcoin and Ethereum are pseudonymous — transactions are public and can be traced with enough effort. Privacy coins go further by cryptographically hiding transaction details by default.

The most well-known example:

- XMR (Monero) — uses ring signatures and stealth addresses to make transactions completely opaque. No one can see who sent what to whom.

Other examples:

- ZEC (Zcash) — offers optional private transactions using zero-knowledge proofs
- DASH — has an optional mixing feature called PrivateSend
- SCRT (Secret Network) — smart contracts with hidden inputs and outputs

Why they are excluded:

The primary concern is regulatory. Privacy coins have been:

- Delisted by major exchanges in regulated markets (Binance, Kraken, and others have delisted XMR in the EU and UK under regulatory pressure)
- Flagged by financial regulators as incompatible with Anti-Money Laundering (AML) and Know Your Customer (KYC) requirements
- Banned outright in some jurisdictions

Because they are increasingly unavailable on regulated exchanges, they also fail the minimum exchange listing eligibility requirement in practice. Including them would expose the index to assets that institutional investors and regulated platforms cannot legally hold or trade.

The VALT Score

VALT is a proprietary quality framework developed by Crypto100 to measure the fundamental soundness of a cryptocurrency. Rather than relying on market capitalisation alone — which simply rewards size — VALT assesses whether an asset deserves its place in the index based on four dimensions of quality.

The name stands for the four components that make up the score:

Letter	Component	Weight
V	Volatility	50%
A	Adoption	30%
L	Liquidity	15%
T	Tokenomics	5%

Each component is scored from 0 to 100 using percentile ranking within the eligible universe — a score of 80 means the asset ranks better than 80% of its peers on that dimension. The four scores are then combined into a single VALT Score using the weights above.

The VALT Score is not used to rank assets by price performance or growth potential. It is a measure of structural quality — how stable, accessible, established, and well-designed an asset is relative to its peers. An asset with a high VALT Score is one that a serious, rules-based index can hold with confidence.

The VALT Score is then multiplied by the asset's market capitalisation to produce a Quality-Adjusted Size — the figure used to rank assets and determine their weight in the index. This means the CRYPTO100 is fundamentally a market-cap-weighted index, but with a quality filter applied: larger assets with poor fundamentals are scaled down, while smaller assets with strong fundamentals can rank higher than their raw market cap would suggest.