

ALTCOINERA

Contrarian crypto research

AltcoinEra Momentum Index

A rules-based, cycle-aware crypto index on BNB Chain

ABSTRACT**Abstract**

The AltcoinEra Momentum Index is a transparent, fully rules-based crypto index that rotates between a Bitcoin core and a diversified altcoin sleeve (Ethereum and all other eligible names) according to the trend in Bitcoin dominance, and raises a defensive stablecoin buffer at cycle-top extremes. It is issued as a single, permissionlessly mintable and redeemable token on BNB Smart Chain using Reserve's Decentralized Token Folio (DTF) architecture, and is fully collateralized by on-chain assets at all times. Unlike static market-capitalization indices — which are structurally dominated by their largest constituents and cannot adapt to market regime — the index follows confirmed shifts in capital between Bitcoin and the broader market, while protecting holders against the predictable drawdowns of cycle euphoria. This paper sets out the problem, the design philosophy, the index construction, the technical architecture, and a candid account of the risks and limitations.

SECTION 1**The Gap in Crypto Indexing**

Index investing reshaped traditional markets by letting investors own a whole market through a single instrument. Crypto has begun to follow, with on-chain index tokens that bundle the largest assets by market capitalization into one token. These products solve a real problem — the complexity of holding and rebalancing many assets across many chains — but they inherit a structural flaw.

A market-capitalization-weighted crypto index is, by construction, dominated by its largest constituents. Bitcoin and Ethereum routinely account for the majority of such an index, diluting the broad altcoin exposure many holders are actually seeking. More importantly, these indices are *static in logic*: they apply the same proportional rule at the euphoric top of a cycle as at the capitulation low of a bear market. They do not adapt to regime.

Yet crypto is visibly cyclical. Capital rotates between Bitcoin and altcoins in identifiable regimes, measurable through Bitcoin dominance — Bitcoin's share of total market value. And the market moves through repeating cycles of accumulation and euphoria, measurable through on-chain valuation indicators that have historically marked extremes. Capturing this manually means continuously tracking dominance, rebalancing across many assets, and resisting emotional decisions at precisely the wrong moments — costly, error-prone, and out of reach for most participants.

No widely available on-chain product rotates with the cycle while remaining transparent, non-custodial, and mechanical. The AltcoinEra Momentum Index is built to fill that gap.

SECTION 2**Design Philosophy**

The index rests on four principles.

Rules over discretion

Every weight is set by a published formula. No manager decides allocations. This makes the index reproducible, independently auditable, and resistant to the behavioral errors that quietly erode returns.

Momentum, with protection

The index follows confirmed trends rather than predicting reversals. It increases altcoin exposure once a rotation out of Bitcoin is underway, and retreats to the core when capital flees back to Bitcoin. It does not try to catch the bottom. The single deliberate exception is a contrarian de-risking rule at cycle-top extremes.

Transparency and self-custody

Holdings, weights, and the governing signal are public and on-chain. The token is fully collateralized and redeemable at all times. There is no custodian and no gate on redemption.

Honest constraints

The index is bounded by on-chain liquidity and by the durability of the cycle patterns it follows. These limits are stated plainly throughout this paper, not hidden behind the design.

Why momentum, not contrarian

A public index is held by other people, which changes which failure mode it can survive. Momentum's failure mode is being *late* — it lags reversals and gives back some gains. Holders forgive lagging gains. A contrarian rule that buys altcoins while they are still falling has a different failure mode: it can be visibly wrong for months, accumulating losers in full public view. In a held product that triggers redemptions, this liquidity, and widens tracking error in a self-reinforcing decline — a failure that can arrive long before the thesis is vindicated. Momentum also buys strength, where on-chain liquidity is deepest, whereas contrarian buys weakness, where it is thinnest and execution is worst. The index therefore enters on momentum and reserves contrarian logic for the one place asymmetry clearly favors it: protecting capital at the top.

SECTION 3

Index Construction

This section summarizes the construction. The full, parameter-level specification is published separately in the companion *Methodology* document, which governs in case of any difference.

3.1 Universe and eligibility

The index begins from the top 20 cryptocurrencies by market capitalization, excluding stablecoins, wrapped or pegged assets, and assets with limited investability (material legal or liquidity constraints). It then applies a BNB-Chain investability filter: a constituent qualifies only if it has a canonical, freely-transferable BEP-20 representation and on-chain depth above a stated minimum. Assets that qualify by market cap but lack usable on-chain liquidity are excluded, and their weight is redistributed across the eligible set. This filter is the binding constraint on the index — it can hold only what is genuinely tradable on-chain at size.

3.2 Two sleeves

Eligible constituents are split into a **Core** sleeve (Bitcoin) and an **Alt** sleeve (Ethereum and all other eligible names). The momentum signal sets the split between the two; weighting within each sleeve is fixed by rule.

Why Ethereum sits in the alt sleeve. The governing signal is Bitcoin dominance — Bitcoin measured against the entire rest of the market. Placing Ethereum in the alt sleeve makes the index's own structure mirror that signal exactly: the Core is the numerator of dominance (Bitcoin), and the Alt sleeve is the denominator's remainder (everything else, Ethereum included). The index is therefore a clean expression of one idea — Bitcoin versus the field — rather than a blend that partially pre-commits to Ethereum regardless of regime. Ethereum is not treated as special; it competes for weight inside the alt sleeve like any other constituent, and because it is typically the largest name there, the sleeve's per-asset cap ordinarily binds on it.

The consequence: a sharper, more volatile instrument

This choice deliberately makes the index more aggressive than a Bitcoin-and-Ethereum core would be. When dominance falls and the index rotates toward alts, it now moves toward Ethereum and the broader market together, with only Bitcoin held back — so altseason exposure is larger and swings are wider. At a cycle-top extreme, the defensive core is pure Bitcoin, with no Ethereum cushion. The upside is a truer, more legible dominance bet; the cost is greater volatility and a heavier dependence on the dominance signal being right. Holders should weigh this alongside the risks in Section 7, and the calibration of the regime bands (Section 3.4) carries more weight as a result.

3.3 The signal: smoothed Bitcoin dominance

The governing signal is Bitcoin dominance computed *excluding stablecoins*, so that stablecoin flows do not mechanically distort it, then smoothed with a short exponential moving average. The index acts on the smoothed value, never on the noisy daily print.

3.4 Regime bands

The smoothed dominance level maps to a target Core/Alt split. As dominance trends down — a confirmed rotation into altcoins — alt exposure rises; as it trends up, the index retreats to the core. The bands below are illustrative and are calibrated to historical dominance ranges before launch.

Regime	Smoothed BTC dominance	Core	Alt
Bitcoin strongly dominant	above 62%	75%	25%
Bitcoin-leaning	55 – 62%	65%	35%
Balanced	48 – 55%	50%	50%
Alts trending (altseason)	below 48%	35%	65%

3.5 Hysteresis: the anti-whipsaw rule

Band membership alone would cause flip-flopping near a boundary. The index therefore moves between bands only when the smoothed signal crosses a boundary by a set margin *and* the cross still holds at the next scheduled evaluation. While the signal stays inside its current band, weights drift naturally and no trade occurs. The result is responsiveness to genuine regime change with turnover closer to a handful of rotations per year — critical given on-chain liquidity costs.

3.6 Euphoria de-risk overlay

Independent of the dominance bands, the index raises a defensive stablecoin buffer when on-chain valuation indicators — the Bitcoin MVRV Z-Score and the Pi Cycle Top indicator — signal a cycle-top extreme. This is the one contrarian rule, and the one protective move a static market-cap index structurally cannot make. The overlay releases once both indicators normalize.

3.7 Weighting within sleeves

The Core sleeve holds Bitcoin only and receives the full core allocation. The Alt sleeve — Ethereum included — is market-cap weighted across eligible alts subject to a per-asset cap, so that no single name (Ethereum included) can turn the sleeve into a market-cap echo — preserving genuine breadth of altcoin exposure.

SECTION 4

Technical Architecture

The index is implemented as a Reserve Decentralized Token Folio (DTF) on BNB Smart Chain. A DTF is a single token fully backed by a redeemable basket of assets held in an audited core contract. Constituents are held as Binance-Peg BEP-20 tokens, the practical on-chain representation of multi-chain assets on BNB Chain.

- **Permissionless mint and redeem at NAV.** Anyone can mint by supplying the basket (or a single token through a zapper) and redeem for the underlying assets at any time. Arbitrage keeps the token's market price aligned to net asset value without relying on deep secondary liquidity.
- **Auction-based rebalancing.** Rebalances execute through on-chain Dutch auctions that source liquidity from decentralized exchanges and solver networks, minimizing slippage and MEV.
- **No oracles in the core.** The folio holds and redeems real assets in proportion; it does not depend on a price oracle to remain collateralized.

The signal-to-execution pipeline

The separation between the rule and its execution is the heart of the design:

- **1. Compute.** An off-chain engine reads public market and on-chain data and derives the active band, the hysteresis state, the euphoria triggers, and the resulting target weights.
- **2. Publish.** The signal values, target weights, and the trade-or-hold decision are written to a timestamped, public log *before* any execution — making every rebalance independently reproducible.
- **3. Submit.** The index multisig submits the published target weights to the folio. It executes the published output; it has no discretion to alter weights.
- **4. Settle.** On-chain auctions move the basket to target. Mint and redemption remain open at NAV throughout.

SECTION 5

The Index Token and Fees

The index token is the DTF share itself. Its supply is elastic: tokens are created on mint and destroyed on redemption, and each token is a proportional claim on the underlying basket. There is no fixed maximum supply — the token tracks the value of its collateral rather than a scarcity schedule.

Two fee parameters, set transparently at deployment, fund the operation of the index:

- **Streaming management fee** — a small annualized fee (proposed in the region of 1–2%, within the protocol's cap) that accrues continuously in the token to the index treasury.
- **Mint fee** — proposed at zero initially, to keep inflows frictionless.

A portion of fees is retained by the underlying protocol under its standard terms. Net fees fund signal operations, independent reviews, liquidity, and ongoing maintenance. All fee parameters are disclosed and any change follows the governance process in Section 6.

SECTION 6

Governance and Transparency

- **Rules and execution are separated.** The published methodology is the rule set; execution is a multisig that submits the rule's output and holds no discretion over weights.
- **The signal is public.** Every evaluation's inputs, outputs, and decision are published, so any holder can reproduce the index for any date.
- **Changes are versioned and pre-announced.** Methodology changes increment a version, are recorded in a public changelog, and are announced ahead of taking effect. Parameters are not changed in reaction to a single period's performance.

This separation is precisely what distinguishes a transparent, mechanical index from an actively managed fund — operationally, reputationally, and in how the product is represented.

SECTION 7

Risk Factors

Prospective holders should weigh the following. This list is not exhaustive.

- **Market risk.** Crypto assets are highly volatile. The index can lose substantial value, including in scenarios where its rules behave exactly as intended.
- **Concentration and design aggressiveness.** Because Bitcoin is the sole core asset and Ethereum sits in the alt sleeve (Section 3.2), the index takes a sharper, less hedged view than a Bitcoin-and-Ethereum core would. Altseason exposure and drawdowns are correspondingly larger, and at a cycle top the defensive core is pure Bitcoin with no Ethereum cushion. This amplifies both the payoff and the penalty of the dominance signal being right or wrong.
- **Momentum is late by design.** The index confirms trends before acting. It gives back value at reversals and is slow to re-enter altcoins at a major bottom, where dominance is still high. This lateness is the accepted cost of avoiding value traps.
- **Liquidity ceiling.** Achievable size is capped by on-chain Binance-Peg depth, which is a fraction of each asset's true market capitalization. Larger holdings widen tracking error.
- **Turnover cost.** Each executed rotation trades through on-chain pools and incurs slippage. The hysteresis and conditional-execution rules reduce, but cannot eliminate, this drag.
- **Signal limitations.** Bitcoin dominance can shift for structural reasons unrelated to the cycle, and the multi-year cycle the index relies upon may weaken or break. Indicators can give false or late signals.
- **Overfitting.** Parameters are deliberately set loose rather than tuned to past cycles. No calibration guarantees future behavior; past performance does not predict results.
- **Smart-contract and wrapper risk.** Funds depend on the integrity of the Reserve folio contracts and of the Binance-Peg tokens held in the basket.
- **Regulatory risk.** Digital-asset regulation is evolving and varies by jurisdiction. The index is made available only where permitted and is not offered to persons in excluded jurisdictions. Nothing in this paper is an offer or solicitation where prohibited.

SECTION 8

Roadmap

The sequence below describes intended phases, not a guaranteed timeline. Each phase gates the next.

Phase	Milestone
0	Methodology and whitepaper published (this document set).
1	Signal engine and a transparent, reproducible backtest harness released publicly.
2	Folio deployed on BNB Chain via Reserve's factory; small seeded basket.
3	Independent review of the deployment configuration and operational controls.
4	Liquidity bootstrapping and DeFi integrations.
5	Progressive decentralization of governance and signal submission.

SECTION 9**Conclusion**

The index translates a simple and durable observation — that capital rotates between Bitcoin and altcoins in measurable regimes, and that cycles end in measurable euphoria — into a transparent, mechanical, self-custodied product. It does not promise to beat the market. It promises to follow a stated rule, visibly, and to protect at the top. Its edge is discipline and transparency, not prediction.

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