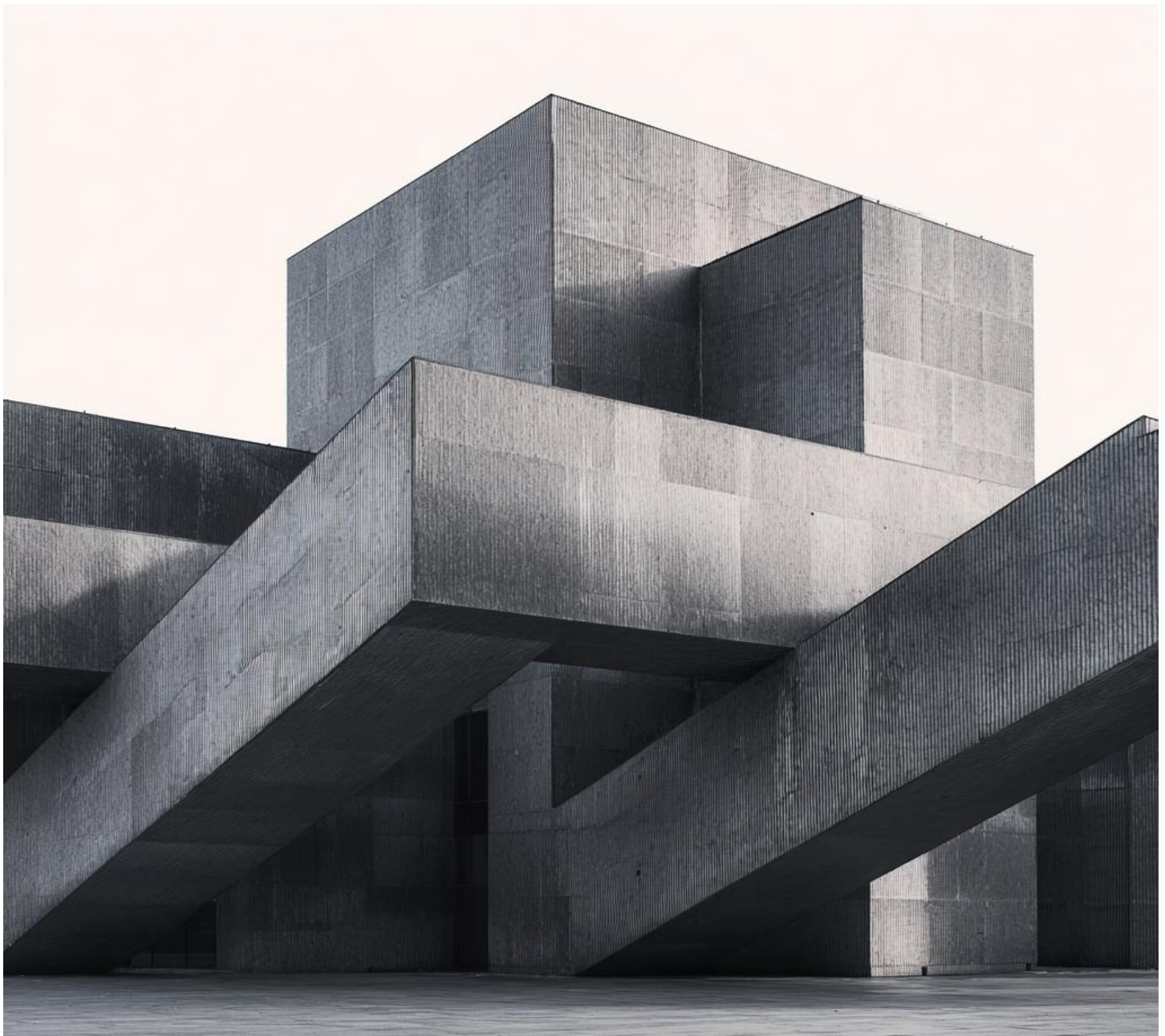




FREEPORT MARKETS

QUANTITATIVE FRAMEWORK & INVESTMENT THESIS

FREEPORT MARKETS, INC.

PREPARED BY LIHONG WANG

1. INTRODUCTION

1.1 PRODUCT PURPOSE

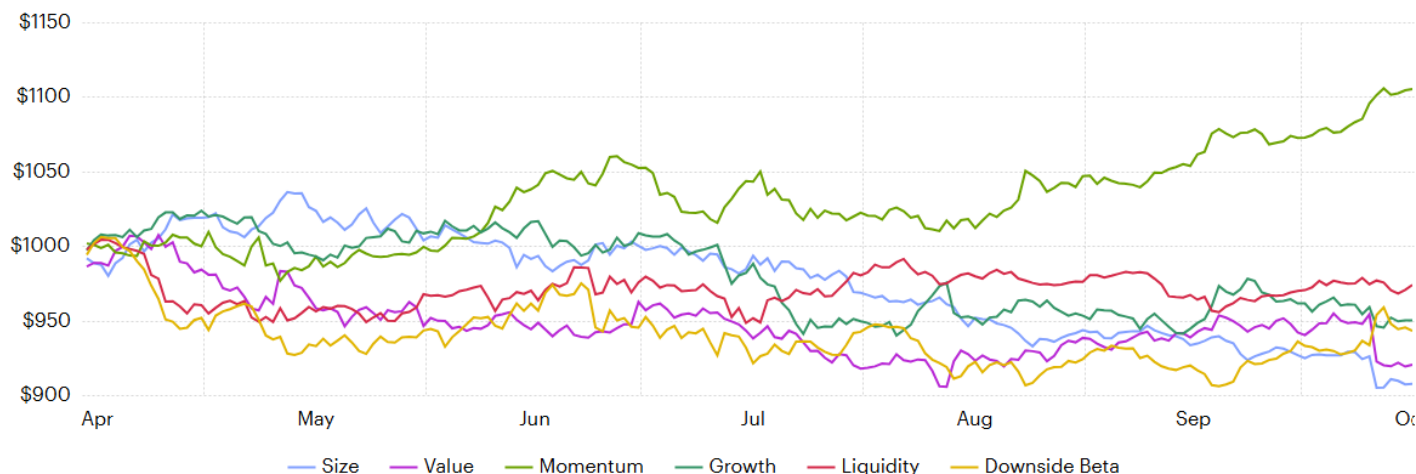
Freeport's thesis is simple to state and rigorous to execute: help crypto investors hold fewer mistakes and more exposures. Most portfolios leave yield idle, fail to distinguish quality from noise, lean too hard into BTC or ETH, and ignore factor models that have compounded advantages for decades in traditional finance. Our platform fixes these gaps with a rules-based, sector-aware investable universe, factor tilts that emphasize what works most reliably in digital assets, and a recommender that turns the framework into concrete trades. The result is a multi-factor, multi-sector portfolio that spreads risk across independent drivers of return while assuming a quality bar for the assets themselves.

1.2 WHAT WE SOLVE FOR

Crypto portfolios frequently suffer four structural problems. First, investors hold base assets when yield-bearing wrappers are available; we surface those wrappers and quantify the forgone carry so stables and ETH family assets earn their keep. Second, investors struggle to separate “signal” assets from speculative detritus; we gate the investable universe with liquidity, operability and durability rules so only replicable, legitimate assets enter consideration. Third, portfolios are typically over-concentrated in BTC or ETH; we map the asset class into economic sectors and target ranges so capital migrates toward under-owned return drivers.

Fourth, investors underuse factor models; we import the language of size, value, momentum, growth, liquidity and downside beta and bias our tilts to the factors with the strongest, best-documented premia in digital assets, with momentum carrying the heaviest weight and value applied with measured conviction. Evidence from an institutional-grade factor study underpins these choices and informs our guardrails and expectations.

Out-of-Sample Factor Returns, per CF Benchmarks



2. OUR INVESTABLE UNIVERSE

2.1 A RULES-BASED INVESTABLE SET

Our investable set is defined before any portfolio math happens. At each review we snapshot the market, compute a rank table by full market capitalization using fungible (not merely “circulating”) supply, and operate within two concentric cohorts: top-50 as Core and the next 200 as the Extended bench. All subsequent screens act inside these bands, and variant representations resolve to a canonical form using exchange support and liquidity concentration tests. This rule-driven approach makes the universe replicable rather than discretionary.

2.2 LIQUIDITY, TURNOVER, AND TRADABILITY

We require demonstrable tradability with a venue-agnostic Relative Liquidity Ratio computed from median daily traded value on qualifying markets. Our minimum threshold of about one-tenth of one percent of the top asset’s median value is deliberately stricter than broad-universe conventions, and we also insist on a turnover floor so functionally static floats do not pass the screen

2.3 ETH/SOL AVAILABILITY AND OPERABILITY

Because mainstream self-custody and hot-wallet support concentrate around Ethereum and Solana, a candidate must be natively available on either chain or supported by a canonical, redeemable representation there. The requirement reduces “paper holdings” risk and shrinks operational friction for real users moving real assets.

2.4 LEGITIMACY AND DURABILITY

Passing liquidity still isn’t enough. We operationalize a Durability Score combining age and cycle survival, sustained on-chain activity normalized by size, developer continuity, and social persistence across drawdowns. Assets must clear this bar or meet enterprise-utility materiality tests to be considered investable. The goal is to avoid confusing transient attention with durable adoption.

3. OUR MAP OF CRYPTO

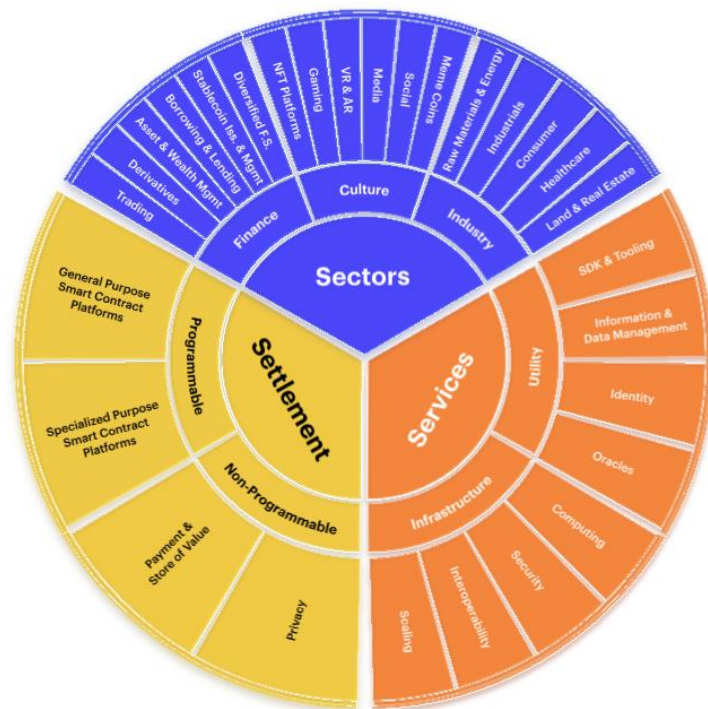
3.1 OUR SECTOR TAXONOMY

We classify the asset class by function—what is actually being adopted—so portfolio bets correspond to distinct economic engines. At the core sit Settlement systems, split into programmable execution and scaling platforms versus non-programmable currencies and stores of value. Around that core is Infrastructure & Interoperability—the shared services developers and institutions buy to build and connect applications. And at the edge are Applications: spanning decentralized finance and centralized finance, culture and entertainment, and DePIN & resource network that coordinate real-world compute, storage, bandwidth, energy and mobility supply. We separate Stablecoins and tokenized real-world assets because their value references off-chain instruments rather than endogenous crypto cycles. The taxonomy is mutually exclusive at any evaluation point, explicitly supports reclassification as real usage shifts, and is universal enough to cover the entire investable set as new segments emerge.

3.2 INDEPENDENT DRIVERS OF RETURNS

Economic drivers differ by layer. Settlement systems monetize blockspace and monetary premia; infrastructure prices connectivity, data and verification; DeFi and CeFi monetize financial intermediation under very different risk surfaces; culture assets monetize attention and IP; DePIN prices work and collateralizes service quality; stablecoins and tRWA import rates and credit. That heterogeneity is the point: we want sector exposures that behave differently so risk is not just a collage of tickers that all move on the same story. The taxonomy lets us assign target ranges, measure concentration, and attribute returns to specific demand surfaces.

Sector Mapping, per CF Benchmarks



4. FACTOR INVESTING

4.1 ACKNOWLEDGEMENT OF SOURCES

Our methodology and results are derived from *A Factor Model for Digital Assets* by Cristian et al. published by CF Benchmarks Ltd. November 2024. While we have made adjustments to our proprietary algorithm based on independent research, we feel that it is important to acknowledge that the core of our quantitative framework is based on the aforementioned document.

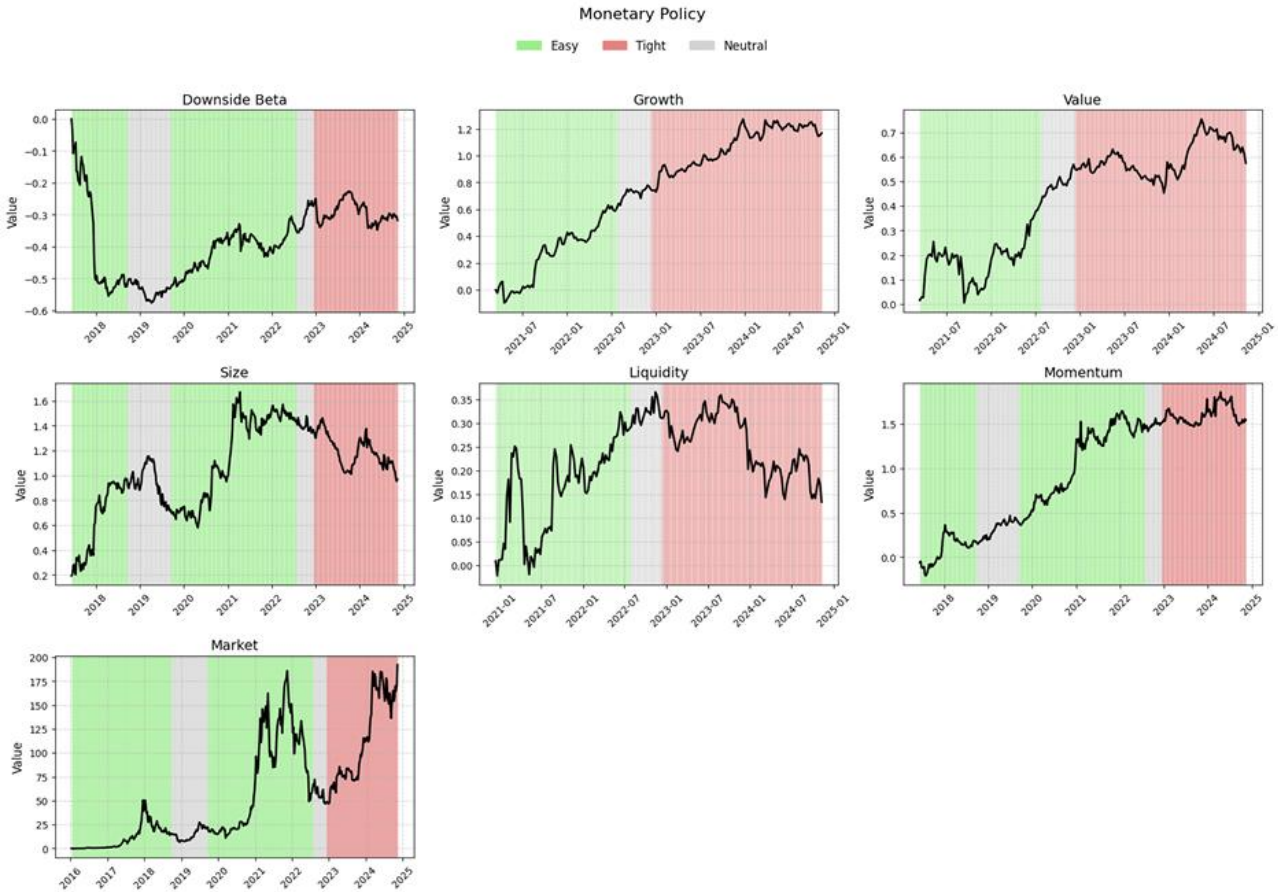
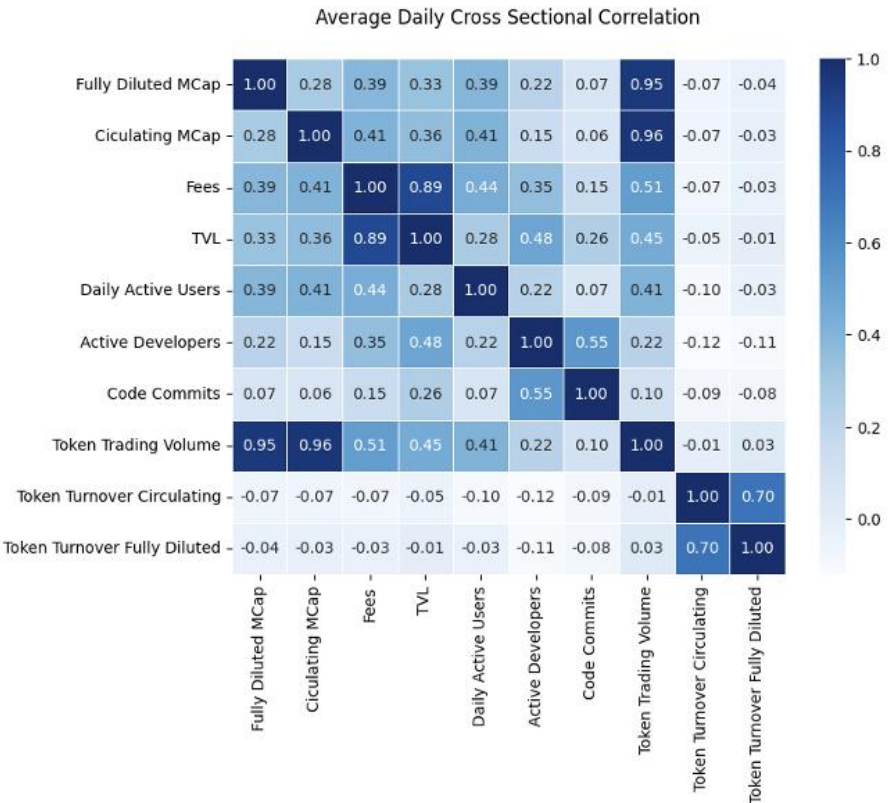
4.2 METHODOLOGY & CORE RESULTS

Factors impacts are estimated by first constructing an estimation universe by ranking coins and enforcing a liquidity threshold, then builds factor portfolios and runs both time-series (Fama-French) and cross-sectional (Fama-MacBeth) regressions. This method isolates seven factors with meaningful premium and explanatory power: market, size, value, momentum, growth, downside beta, and liquidity. Value blends protocol efficiency and user engagement using Fees to TVL and Daily Active Users to Market Cap; momentum uses short-horizon performance with risk adjustment; growth uses one-month fee and user growth; size inverts fully diluted market cap; downside beta measures sensitivity in negative market weeks; liquidity proxies for turnover.

4.4 WHY WE PRIORITIZE MOMENTUM

Momentum's strength and persistence in digital assets, particularly out-of-sample, make it our most confident tilt. We complement momentum with value and growth, but we do so with less aggressiveness given measurement uncertainty and a premium that, while material, is more variable across universes and rebalances. Growth joins the set as a corroborating signal for adoption. Factor correlations are low to moderate—the heatmap shows near-zero correlation between value and growth and manageable overlap elsewhere—so combining them improves diversification rather than doubling exposures.

Core Statistical Results, per CF Benchmarks



5. COMBINING FACTORS & SECTORS

5.1 TARGETING INDEPENDENT DRIVERS

We allocate across sectors using ranges that reflect each segment's structural role—currencies as monetary beta, execution and scaling as throughput beta, CeFi and DeFi as opposing financial architectures, infrastructure as connective tissue, DePIN as resource supply, and culture as attention beta—then we tilt within sectors to assets with superior factor profiles and sufficient liquidity. The sector map gives us orthogonal demand curves; the factor model gives us pricing lenses to choose constituents and weights inside each curve.

5.2 GUARDRAILS ON PORTFOLIO CONSTRUCTION & RECOMMENDATIONS

All constituents must pass the investable-universe gates first. That means full-cap ranking within the Top-50 table, relative-liquidity and turnover floors, ETH/SOL operability, and a Durability Score that rules out short-lived attention spikes. Variant exposures on multiple chains resolve to the form with real deposits/withdrawals and denser liquidity. We also enforce live liquidity and slippage checks at trade time so factor tilts never demand illiquid exits.

5.3 RECOMMENDER STRATEGIC OVERVIEW

Under the hood, the recommender is a unified, single-pass portfolio engine. It reads the user's holdings, computes portfolio metrics, runs our proprietary engine identifying trade opportunities based on our factor and sector model, deduplicates near-duplicates and reverse pairs, then returns a small set of ranked, actionable suggestions. The suggestions deliberately cover the four common investor gaps described earlier: put idle assets to work, balance sector exposure, deploy cash responsibly, and riding factor exposures on value, growth, and momentum. The system is opinionated but conservative: it always tries to help, and it prefers safety, diversification, and explanatory copy over concentrated bets.

When a portfolio holds base assets that have safe wrapper equivalents—stables into synthetic cash with transparent backing, ETH into liquid staked forms—the engine recommends yield upgrades by family, quantifies the annualized benefit, and avoids spamming variants. When sector weights drift, the engine proposes from-to pairs that move capital from over-owned sectors into under-owned ones. When cash piles exceed thresholds, the engine proposes deploying from the largest stablecoin into a liquid, trending blue-chip with explicit liquidity and slippage checks. When users are under-allocated in factor space, we suggests modest trades that improves trend/value/growth exposure.

5.4 BACKED BY SCIENCE

Freeport's approach couples a disciplined investable universe and sector taxonomy with an evidence-backed factor lens and a humane recommender that turns the theory into the next right trade. The universe gate keeps out what cannot be owned responsibly; the taxonomy ensures diversification is economic, not cosmetic; the factor model supplies tilts that have earned a premium in digital assets—led by momentum, supported by value and growth; and the engine operationalizes all of it with yield capture, sector balance, cash deployment and momentum fallbacks. This is how we move portfolios away from idle balance, category confusion, single-asset concentration and factor neglect, and toward a repeatable, explainable, multi-factor, multi-sector discipline.

6. NOTICES AND DISCLAIMERS

This document describes Freeport’s rules-based approach for defining an investable universe of digital assets within rank-constrained cohorts and applying additional quality, liquidity, operability, and legitimacy screens. It is provided for informational purposes only to explain methodology design and governance.

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