

xStocks Hard Assets & Digital Gold Index

Index code XTHA | Total Return, USD, base 100 | xStocks Thematic Index Series | Methodology v4.1 - 2 September 2026

1. Index thesis

The debasement trade in one ticket. Persistent fiscal deficits, negative real-rate episodes and reserve diversification support the monetary hedges - gold (35%) and bitcoin (25%) - while silver, platinum-group metals, copper and uranium add the real-asset kickers levered to electrification and supply deficits. All exposure is held through tokenized ETFs (GLD/IAU, IBIT, SLV/SIL, PPLT/PALL, CPER/COPX, URA), governed by a sleeve regime rather than single-name bands. Designed as the portfolio ballast of the series and the natural first allocation for a crypto investor diversifying out of pure crypto without leaving the rails.

2. Composition (launch portfolio)

Constituent	Ticker	Weight	Tier	Token(s) / venue
SPDR Gold Shares	GLD	20%	Core	GLDon (Ondo file) / GLDx (Kraken)
iShares Bitcoin Trust	IBIT	25%	Core	IBITon (Ondo file)
iShares Gold Trust	IAU	15%	Core	IAUon (Ondo file)
iShares Silver Trust	SLV	12%	Core	SLVon (Ondo file)
Global X Silver Miners	SIL	3%	Satellite	SILon (Ondo file)
abrdn Physical Platinum	PPLT	5%	Satellite	PPLTon / PPLTx (Kraken)
abrdn Physical Palladium	PALL	5%	Satellite	PALLon / PALLx (Kraken)
US Copper Index Fund	CPER	6%	Satellite	CPERon (Ondo file)
Global X Copper Miners	COPX	4%	Satellite	COPXon (Ondo file)
Global X Uranium ETF	URA	5%	Satellite	URAon (Ondo file)

Watchlist / reserves (zero weight): iShares Ethereum Trust (ETHA) - V - ETHAon; optional 10% variant; GLTR (precious-metals basket) - V - GLTRon; alternative to GLD+SLV+PGM lines; DBC / PDBC / FTGC (broad commodities) - V - available; USO / BNO / UNG (energy) - V - available; excluded from the store-of-value concept; Gold miners (GDX) - U - not tokenized; FGDLon (physical gold) available

3. Weighting methodology (summary)

Fixed strategic sleeve targets - gold 35% (GLD 20 / IAU 15), bitcoin 25% (IBIT), silver 15% (SLV 12 / SIL 3), PGMs 10% (PPLT 5 / PALL 5), copper 10% (CPER 6 / COPX 4), uranium 5% (URA). Within-sleeve split by ETF liquidity; sleeve weights reviewed semi-annually by the Index Committee.

Rebalancing parameters for this index: Sleeve regime, no name bands: 20% relative band per sleeve (BTC trades <20%/>30%); sleeve weights reviewed semi-annually (P6 / Annex A).

4. Full methodology

1. Universe eligibility

U1 - Instrument type. Token must be a 1:1 backed tokenized share/ETF of a security listed on NYSE, NASDAQ or another Approved Exchange, issued by an Approved Issuer (Backed Assets JE / xStocks, Ondo Finance, Dinari) with published proof-of-reserves or transfer-agent attestation. Pre-IPO names (e.g. SPCX) only where the issuer holds the underlying.

U2 - Venue availability. Available on ≥ 1 Approved Venue. Tier A = CEX order book or issuer primary market with continuous quotes; Tier B = DEX-only liquidity (eligible for Satellite only).

U3 - Size. Underlying float-adjusted market cap $\geq$ USD 2bn to enter; exit if $<$ USD 1bn at review (50% buffer, 2 consecutive reviews). (*Buffered thresholds stop borderline churn.*)

U4 - Underlying liquidity. Underlying 3-month median daily traded value $\geq$ USD 20m. (*Mint/redeem arbitrage needs a liquid underlying.*)

U5 - Token liquidity. 30-day median token traded value across venues $\geq$ USD 100k to enter; exit if $<$ USD 50k for 2 consecutive months, unless issuer same-day mint/redeem is active and unsuspended for 30 days.

U6 - Price integrity. 30-day median $|\text{token price} / \text{underlying reference} - 1| \leq 1.0\%$; no single day $> 5\%$ for more than 2 consecutive days.

U7 - Exclusions. Leveraged/inverse ETFs, preferreds and bond ETFs excluded from single-stock themes. ETF-based indices are governed by Annex A. No pending delisting/bankruptcy/near-complete take-private.

2. Theme eligibility

T1 - Thematic purity. Theme Relevance Score (TRS) 0-100 = 60% revenue exposure to the theme taxonomy + 40% classification/keyword fit. Constituent requires TRS ≥ 50 (Core) / ≥ 25 (Satellite); recognized primary infrastructure providers qualify at TRS ≥ 50 .

T2 - Purity floor. Basket weighted-average TRS ≥ 50 at each reconstitution, else the theme moves to Incubation.

T3 - Structure. Target structure 5 Core (60%, max 15% each) + Satellites (40%). Equity themes target 15 constituents (min 8, max 20); Compute Infra currently 12. Satellite weights: equal-weight at reset within the 40% block.

3. Reconstitution (entries & exits)

RC1 - Frequency. Per theme - see Section 5: fast themes (Compute Infra, Digital Finance) quarterly; standard themes semi-annual (Jun & Dec, effective 3rd Friday); Hard Assets sleeve review semi-annual. Selection Date = last business day of the prior month; pro-forma announced ≥ 5 business days ahead.

RC2 - Fast-entry (new tokens / IPOs). A newly tokenized listing may enter at the NEXT quarter-end (any theme) if it ranks top-5 in-theme by Selection Score and passes all U/T screens - without waiting for scheduled reconstitution. The lowest-ranked Satellite exits to keep the count. (*Captures CRCL/FIG-type events.*)

RC3 - Exit triggers (scheduled). Removed at reconstitution if: rank falls below count+3 buffer; U-screen failure under the buffered thresholds (U3/U5); TRS < 25 or fundamental business shift out of theme.

RC4 - Exit triggers (fast-track, any time). Removed with 2 business days' notice if: token delisted from all Approved Venues; issuer suspends mint/redeem > 5 business days; underlying delisted, acquired (completion) or bankrupt; U6 breach $> 5\%$ for 5 consecutive days. Weight redistributed pro-rata to remaining constituents until the next review; replacement = next highest-ranking eligible name at that review.

RC5 - Core promotion / demotion. Satellite $\rightarrow$ Core only if top-3 by Selection Score for 2 consecutive reviews (replaces the weakest Core). Core $\rightarrow$ Satellite if rank < 8 . Prevents boundary flip-flop.

4. Weight rebalancing (band-based)

RB1 - Principle. Weights are NOT reset on the calendar. Bands are monitored on the theme's check frequency (Section 5); a trade occurs only on a band breach, and breaching names are reset to the BAND EDGE, not to target. Full reset to target weights happens only at reconstitution. (*Band-edge resets roughly halve turnover vs full resets and avoid selling trending winners early.*)

RB2 - Bands. Core: +/-5% absolute (15% target trades at 10%/20%). Satellite: relative band per theme (Section 5), calibrated ~2x the name's monthly volatility - high-vol themes get wider bands. *(A one-size 25% relative band would fire monthly on 5-8% daily-vol names.)*

RB3 - Minimum-trade filter. Ignore breaches whose correction is < 0.25% of index weight. Tokenized-stock spreads run 10-50bps - wider than the underlying - so micro-trades destroy value despite instant settlement.

RB4 - Circuit breaker. No band-triggered trading in a name on any day it moves > 20%, is halted on the primary exchange, or has mint/redeem suspended. Trades execute during US cash hours (reference-price window), when token quotes track NAV tightest. *(Never rebalance into a dislocation.)*

RB5 - Fully invested / no cash. The index holds no cash or stablecoin: it is a fully-invested paper portfolio calculated with a divisor. Any USDC operating buffer (suggested 1-2%) lives at the PRODUCT (vault/xETF) level and is reported as tracking difference, not inside the index. *(A 2-5% in-index stablecoin sleeve = 40-100bps/yr drag and an unhedgeable benchmark.)*

RB6 - Turnover budget. Soft cap: one-way turnover <= 20% per quarter per theme (ex fast-track events). If band trading would exceed it, only the largest breaches are corrected, in size order.

5. Per-theme parameters

P6 - Hard Assets & Digital Gold. No 5/25 and no name bands - sleeve regime (Annex A): sleeve targets gold 35 / BTC 25 / silver 15 / PGMs 10 / copper 10 / uranium 5; a sleeve trades only outside a 20% RELATIVE band (BTC trades < 20% or > 30%); within-sleeve split by ETF liquidity. Sleeve weights reviewed semi-annually. Trimming BTC at +5% abs would defeat the product.

6. Annex A - ETF-based indices

A1 - Scope. Hard Assets & Digital Gold (and future commodity/crypto baskets): U7 single-stock exclusion waived; constituents are tokenized ETFs/ETPs (physical, futures, miners, spot crypto).

A2 - Weighting & rebalancing. Fixed strategic sleeve weights set by the Committee, reviewed semi-annually; 20% relative drift band per sleeve (RB3/RB4 filters apply); band-edge resets between reviews, full reset at review.

A3 - ETF eligibility. Underlying ETF AUM >= USD 500m, expense ratio <= 0.95%, tokenized on an Approved Venue; U5/U6 token screens unchanged.

7. Calculation & governance

G1 - Calculation. Laspeyres chain-linked, divisor-based, base 100. Total Return on the underlying's 4pm ET reference price (tokens auto-reinvest dividends); indicative 24/7 on-chain variant published separately. Corporate actions: splits share-adjusted; special dividends via divisor; spin-offs retained if eligible else removed at first close.

G2 - Committee. Index Committee: scheduled meetings before each Selection Date, ad-hoc for RC4. Publishes methodology, taxonomy, change log and pro-forma files. Data: issuer attestations, venue APIs, exchange reference prices, filings.

5. Backtest protocol

The historical simulation uses the exchange price history of each constituent's UNDERLYING security (tokens track 1:1; Ondo and xStocks tokens auto-reinvest dividends, so adjusted-close total-return series are the correct reference). Method: daily total-return series per constituent; weights reset to target after the close of the 3rd Friday of Mar/Jun/Sep/Dec; constituents enter the simulation when listed, with weights renormalised among available names at each rebalance; benchmark SPY. IBIT lists Jan-2024; before that the BTC sleeve is absent from the ETF-based backtest (renormalised) - for a longer study substitute spot BTC as a proxy series and disclose it. Backtest figures are produced by the accompanying script (xstocks_toolkit/backtest.py) directly into this index's workbook (Backtest_Levels / Backtest_Stats sheets and chart); no performance figures are printed in this document so that published numbers always come from the reproducible run.

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