SIGNAL RESEARCH NOTE

Managed Futures ETF Trend Replication Variant

CTA-style replication diagnostics across liquid macro ETF exposures.

FAMILY	UNIVERSE	RESEARCH HORIZON
Listed ETF CTA replication research	**Liquid macro ETF exposure panel**	**Full sample**

Executive Summary

This note reviews a modified managed-futures ETF replication variant using historical return, correlation and tracking-error diagnostics. The objective is replication research, not a current positioning view.

Primary diagnostic	**Daily correlation**
Full-sample correlation	**0.647**
Post-2020 correlation	**0.637**
Tracking error	**8.34%**
Annualized cost estimate	**82.3 bps**

Observations

1. Full-sample and post-2020 replication correlations are both positive and comparable.
2. The recent 2023-2026 window is weaker than the full sample, but it does not erase the broader replication evidence.
3. The variant is best read as a CTA-style replication diagnostic, not a standalone product.

Data and Research Setup

The replication setup compares the ETF-based variant against the reference CTA-style return series over consistent sample windows.

Universe

Liquid macro ETF exposure panel used for listed ETF CTA replication research.

Inputs

Daily price and return inputs with historical strategy and reference return comparisons.

Windows

Full sample, pre-2020, post-2020, 2022 rates/inflation window and recent 2023-2026 window.

Exclusions

Current weights, latest tickers and live exposure views are intentionally excluded.

Signal Methodology

Without disclosing the exact functional, the construction proceeds along three conceptual steps.

STEP 1

Trend-state measurement

The construction forms a broad CTA-style trend state across liquid macro ETF exposures.

STEP 2

Exposure translation

The trend state is translated into an ETF-based diagnostic return stream for historical comparison.

STEP 3

Replication evaluation

Correlation, beta, tracking error and window-level behaviour are reviewed against the reference series.

> The description is intentionally conceptual. Formula details, exact construction rules and implementation parameters are not disclosed.

Results and Horizon Context

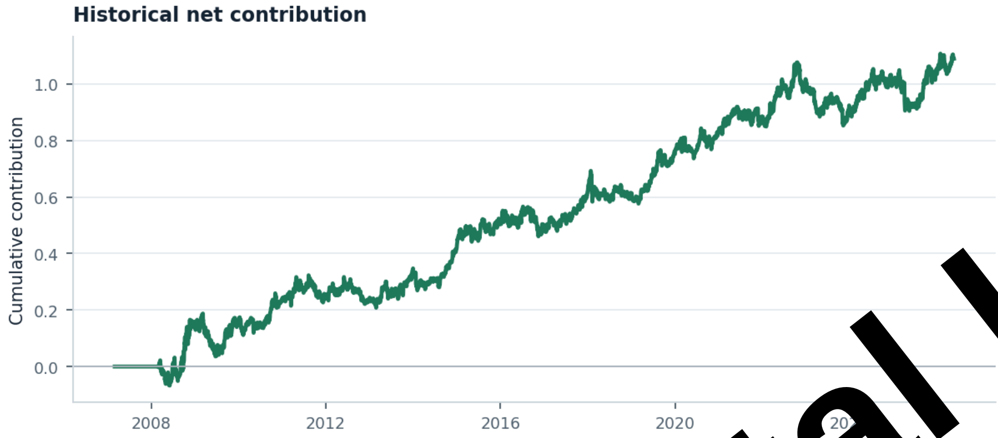

Figure 1. Cumulative net contribution, normalised to zero at the first research date. The series is a historical simulation diagnostic, not a standalone portfolio NAV.

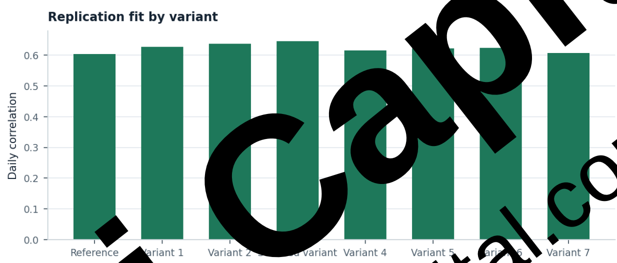

Figure 2. Full-sample daily correlation across tested replication variants. Variant labels are intentionally non-parameterised.

WINDOW	DAILY CORR	BETA	TRACKING ERROR	STRATEGY CAGR
Full Sample	0.647	0.8[illegible]9	8.34%	5.80%
Pre 2020	0.653	0.892	7.91%	6.04%
Post 2020	0.6[illegible]7	0.836	9.14%	5.34%
Rates [illegible]	0.806	0.927	6.88%	25.04%
Recent [illegible] 2026	0.543	0.733	10.41%	2.02%

Correlation and tracking error are replication diagnostics. They are not a performance promise or a current positioning view.

Stability and Robustness

Stability is assessed through replication fit across sample windows rather than through one terminal return number.

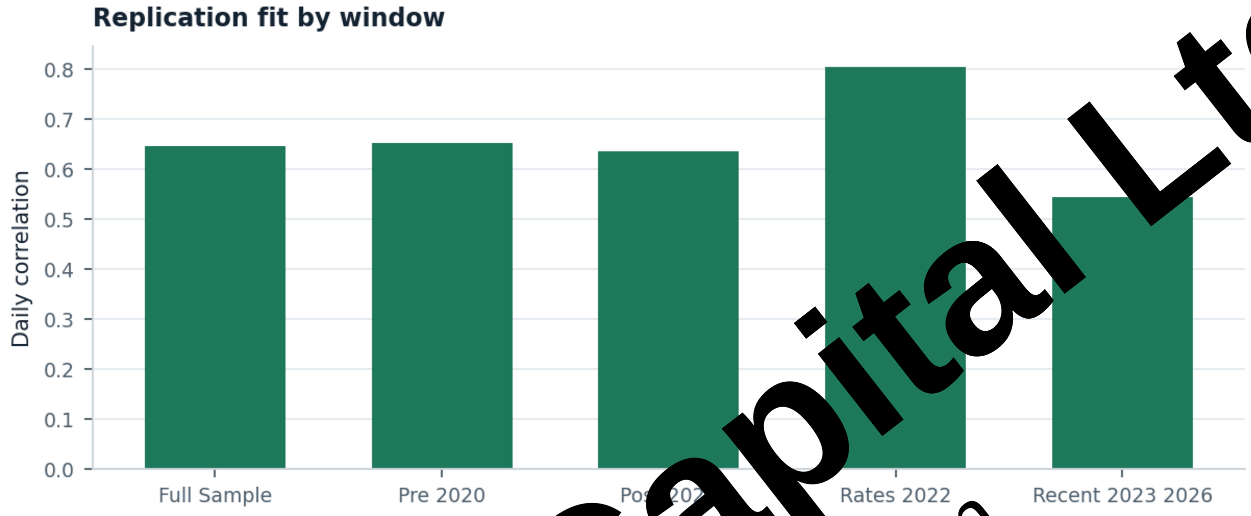

Figure 3. Daily correlation by historical evaluation window.

The replication fit is strongest in the 2022 rates-inflation window and weaker in the recent window. That pattern supports retaining the variant as research evidence, with regime variation kept visible.

Research Interpretation

The balanced interpretation is to treat the variant as an ETF-based CTA replication component in the research library.

Role in library

CTA-style liquid macro ETF replication diagnostic.

Captures

Medium-term trend behavior across broad ETF exposures, evaluated against a managed-futures reference stream.

Where useful

Useful as a comparison component for liquid macro trend and CTA replication research.

Known limitations

Replication fit varies across regimes. Formula details, exact construction rules and current exposure weights are not disclosed.