



MINDFORGE INTELLIGENCE

MARKET STATE DETECTOR

THE CALM DIVIDEND

[HEDGING COST OPTIMIZATION]

SYSTEM CONTEXT

Market State Detector (MSD) — Daily regime classification. Delivered pre-market. Research tool, not trading signal.

CALM — Default state. Stable conditions, low implied volatility. Historically 71% of trading days.

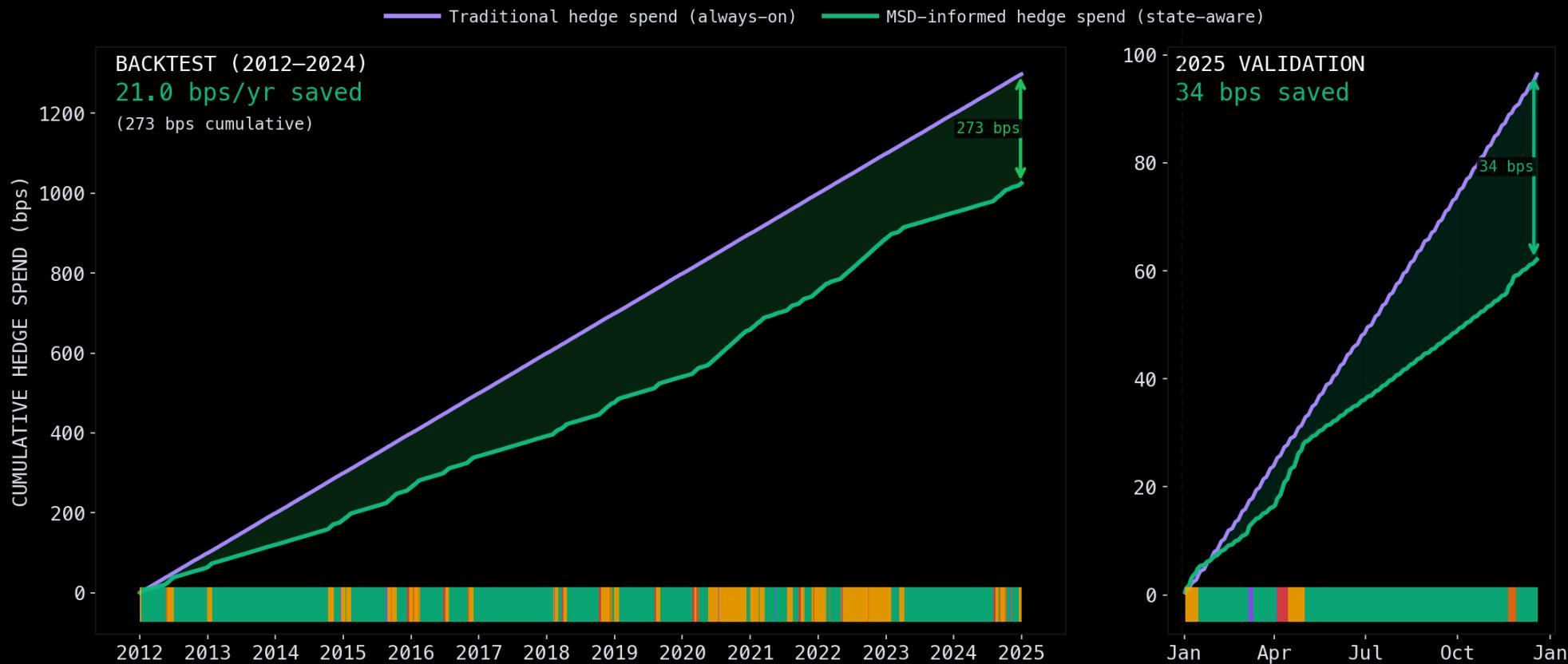
CORE FINDING

The market was Calm 71% of the time.

If you hedged like it wasn't, you overpaid.

CALM IS EXPENSIVE IF YOU HEDGE LIKE IT ISN'T.

Historically, reducing hedge spend during Calm classifications saved 21.0 bps/yr.



Savings from reducing hedge notional 50% during Calm and increasing 150% during Stress vs. static always-on hedging.
Left: 13-year historical backtest (2012–2024). Right: Most recent complete year (2025).
Research use only. Not investment advice. Past performance does not guarantee future results.

CALM IS EXPENSIVE IF YOU HEDGE LIKE IT ISN'T.

MODEL

SAVINGS RATE

POLICY CONCEPT

Budget-weighted hedge allocation

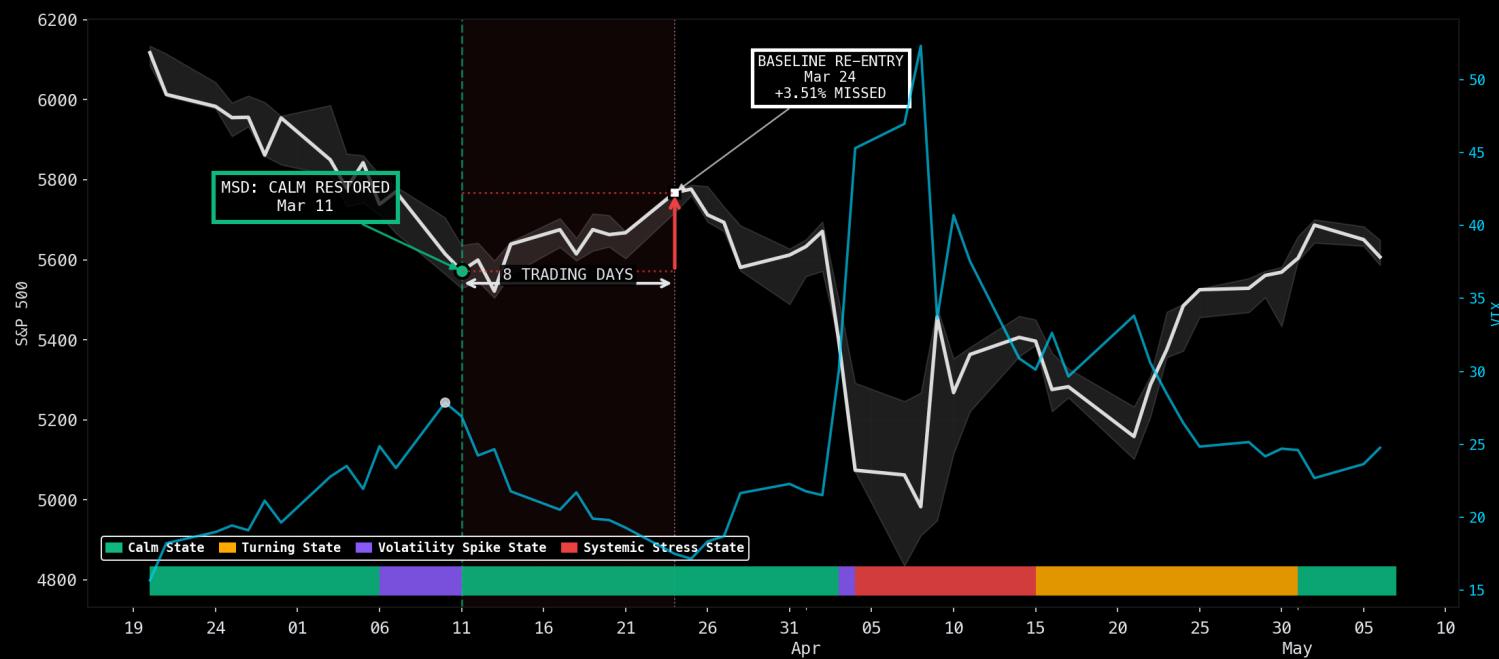
26.2% of hedge budget (2012–2024 baseline) • 35.6% in 2025 OOS

50% spend in Calm, 150% in Stress — savings scale with Calm frequency

AFTER A SPIKE, BASELINES WAIT. MSD TIMESTAMPS RE-ENTRY.

2025-02-20 to 2025-05-06

BASELINE: +10 Trading days from VIX peak * MISSED MOVE: +3.51% (8 DAYS AFTER MSD CALM)



Baseline rule: +10 trading days from VIX peak (VIX peaked at 28 on Mar 10) = re-entry Mar 24. MSD classified Calm on Mar 11. MSD provides regime classification (research); sizing decisions remain desk-specific.

AFTER A SPIKE, BASELINES WAIT. MSD TIMESTAMPS RE-ENTRY.

BASELINE RULE

MSD TIMESTAMP

DELTA

MARKET CONTEXT

VIX peak + 10 trading days

Calm classified (green marker)

Participation window: SPX move between MSD re-entry and baseline re-entry

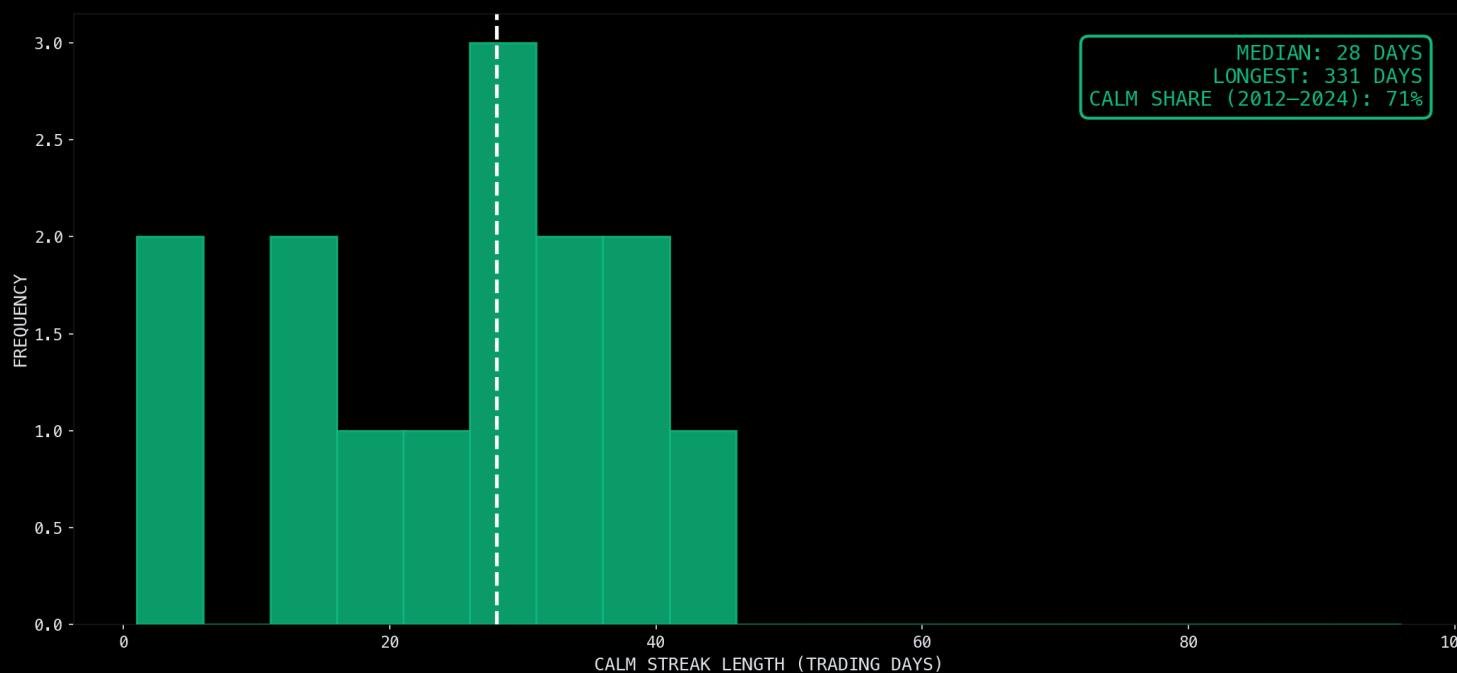
VIX level (context), not a hedge cost model

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CALM IS STABLE, NOT RANDOM

2020-01-02 to 2024-12-31

Median Calm streak: 28 trading days – long enough to reduce hedge drag



Calm periods are sustained regimes, not noise. Over 2020-01-02 to 2024-12-31, the median Calm streak lasted 28 trading days. This stability allows desks to confidently reduce hedge notional during Calm.

CALM IS STABLE, NOT RANDOM.

WHAT IT SHOWS

Distribution of Calm streak lengths (trading days)

KEY STAT

Median Calm streak – long enough for sustained hedge reduction

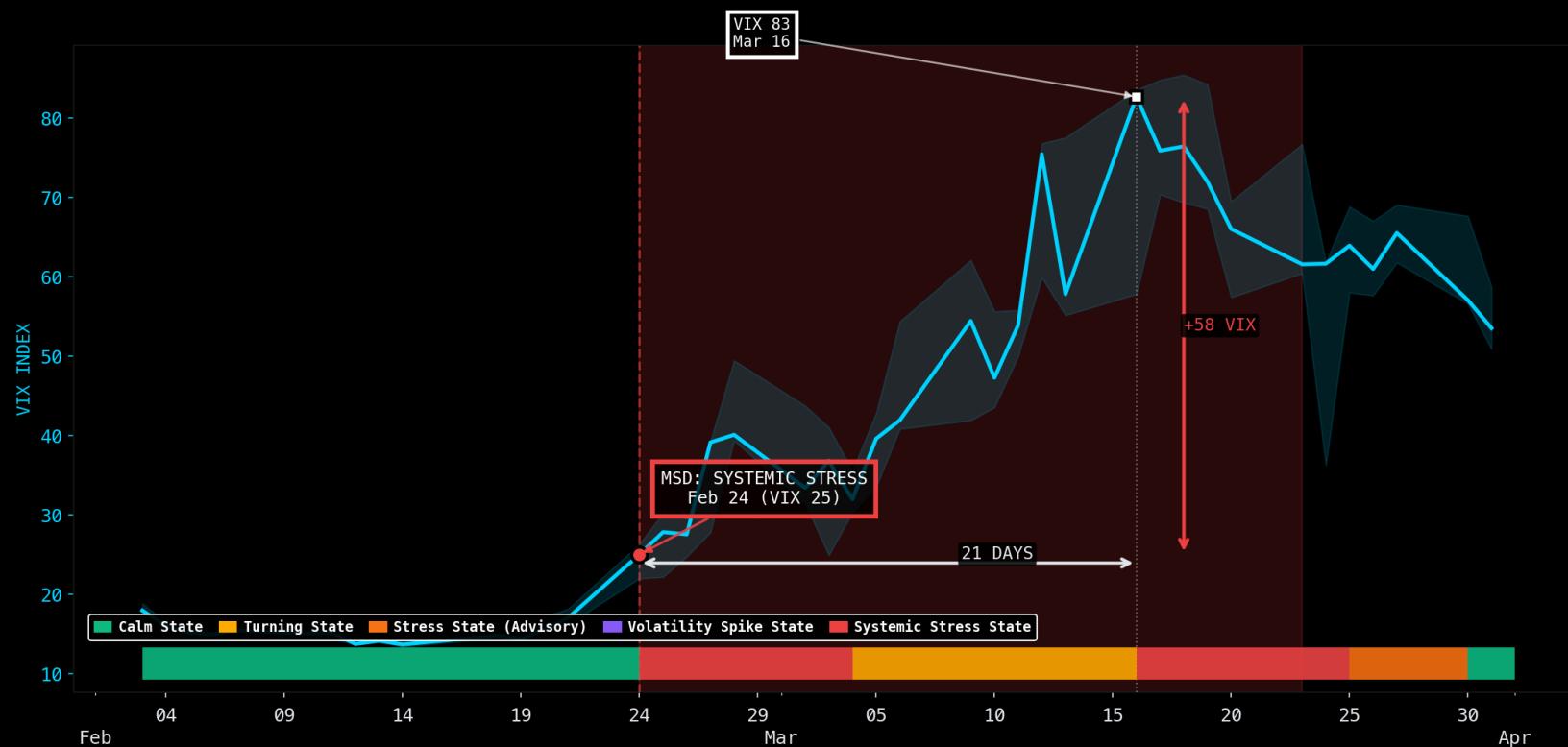
PURPOSE

Proves Calm is a predictable regime, not noise

THE REAL RISK: ASSUMING CALM DURING SYSTEMIC STRESS

2020-02-03 to 2020-03-31

VIX expanded 25 → 83 in 21 days after classification



On Feb 24, 2020, MSD classified Systemic Stress when VIX was 25. By Mar 16, VIX hit 83—a 58-point expansion in 21 days. A desk assuming 'Calm' on Feb 24 faced catastrophic mispricing.

ASSUMING CALM DURING SYSTEMIC STRESS IS THE CATASTROPHE.

MSD TIMESTAMP

Systemic Stress classification

DELTA

VIX expansion shown (Feb 24 → Mar 16)

PURPOSE

Show catastrophic cost of misclassification

HISTORICAL NOTE

MSD has never classified Calm during a Systemic Stress episode (2012–2024 backtest).

$$\$500M \times 100\text{bps} \times 26.2\% = \$1.31M/\text{yr}$$

AUM

HEDGE BUDGET

SAVINGS RATE

ANNUAL SAVINGS

\$80,000

16×

ANNUAL COST

SAVINGS ÷ COST

Net annual benefit: +\$1.23M

THE SUBSCRIPTION PAYS FOR ITSELF.

MSD SUBSCRIPTION

\$80,000/year (early adopter pricing, subject to change)

ILLUSTRATIVE SCENARIO

\$500M AUM • 100 bps hedge budget

SAVINGS RATE

26.2% of hedge budget

HOW THE 20.7% BASELINE IS
DERIVED

Savings rate = Calm share – 50%. Calm share (2012–2024) = 70.7% → 70.7% – 50.0% = 26.2% • 2025 OOS: 35.6%

ANNUAL SAVINGS
(ILLUSTRATIVE)

\$1.310M/year

NET BENEFIT (ILLUSTRATIVE) \$1.230M/year (16.4x ROI)

WITH MSD

- ✓ Classify Calm (~70% of days) → reduce hedge notional
- ✓ Timestamp re-entry after volatility spikes
- ✓ Maintain full hedge when Stress/Systemic active

WITHOUT MSD

- ✗ Hedge every day at baseline
- ✗ Over-hedge during Calm regimes
- ✗ Pay premium drag in low-vol periods
- ✗ Miss re-entry timing after spikes

Research use only. Not investment advice. Past performance ≠ future results. Full terms: mindforge.tech/terms
MSD provides regime classification. Sizing decisions remain with portfolio management and risk governance.

VERIFY IT LIVE

90 DAYS. FULL ACCESS.

INCLUDES

- Daily classification via email or API
- 5+ year historical classification access

QUALIFICATION

Complimentary evaluation for qualified institutional research teams.

RESTRICTED TO INSTITUTIONAL USE

CALM + CRISIS

This brief: **how MSD-informed sizing reduces hedge costs during Calm.**

To see how MSD timestamps regime shifts pre-market, see [The Crisis Classification Brief](#).

EVALUATION PORTAL

mindforge.tech/evaluate

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