



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.**

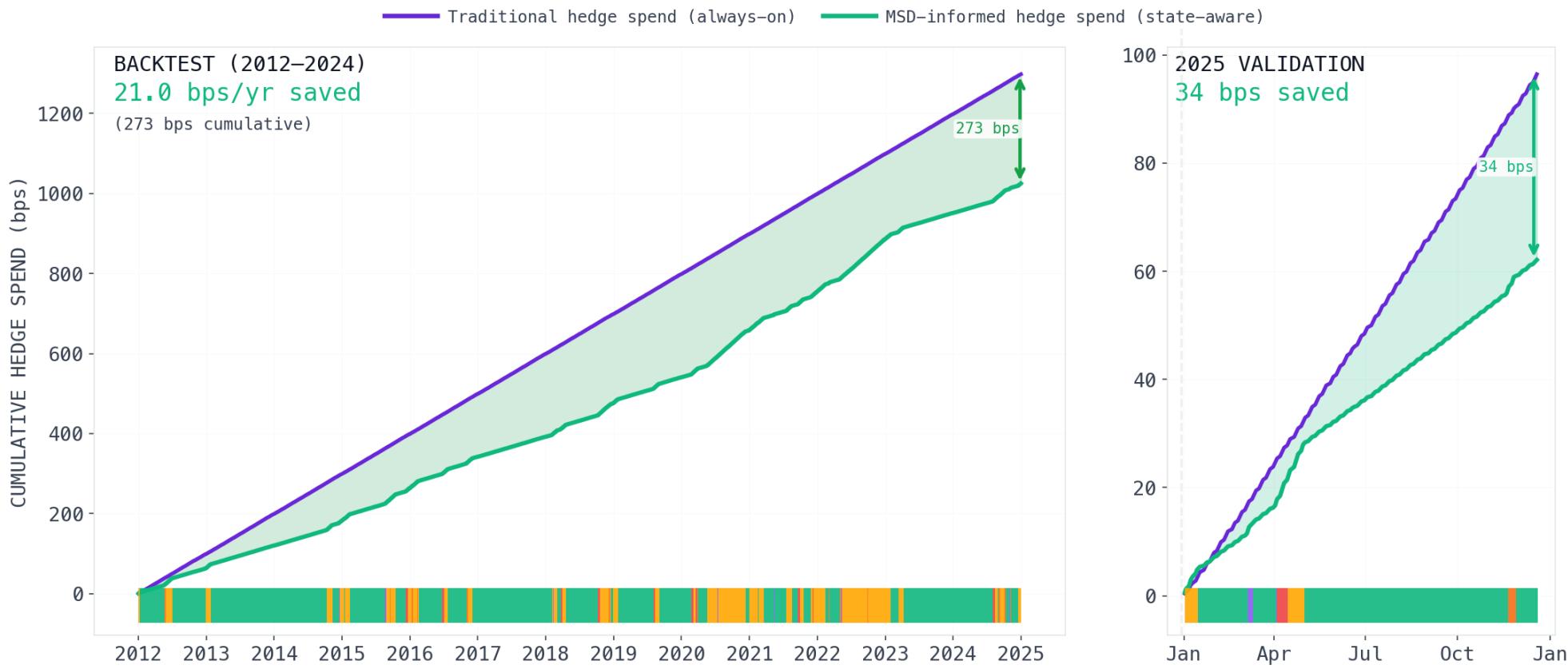
**If you hedged like it wasn't, you overpaid.**

Backtest window: 2012–2024 + 2025 OOS • Median VIX (Calm): 14.3 • Research use only. Not investment advice. [mindforge.tech/terms](https://mindforge.tech/terms)

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## 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

Budget-weighted hedge allocation

## SAVINGS RATE

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

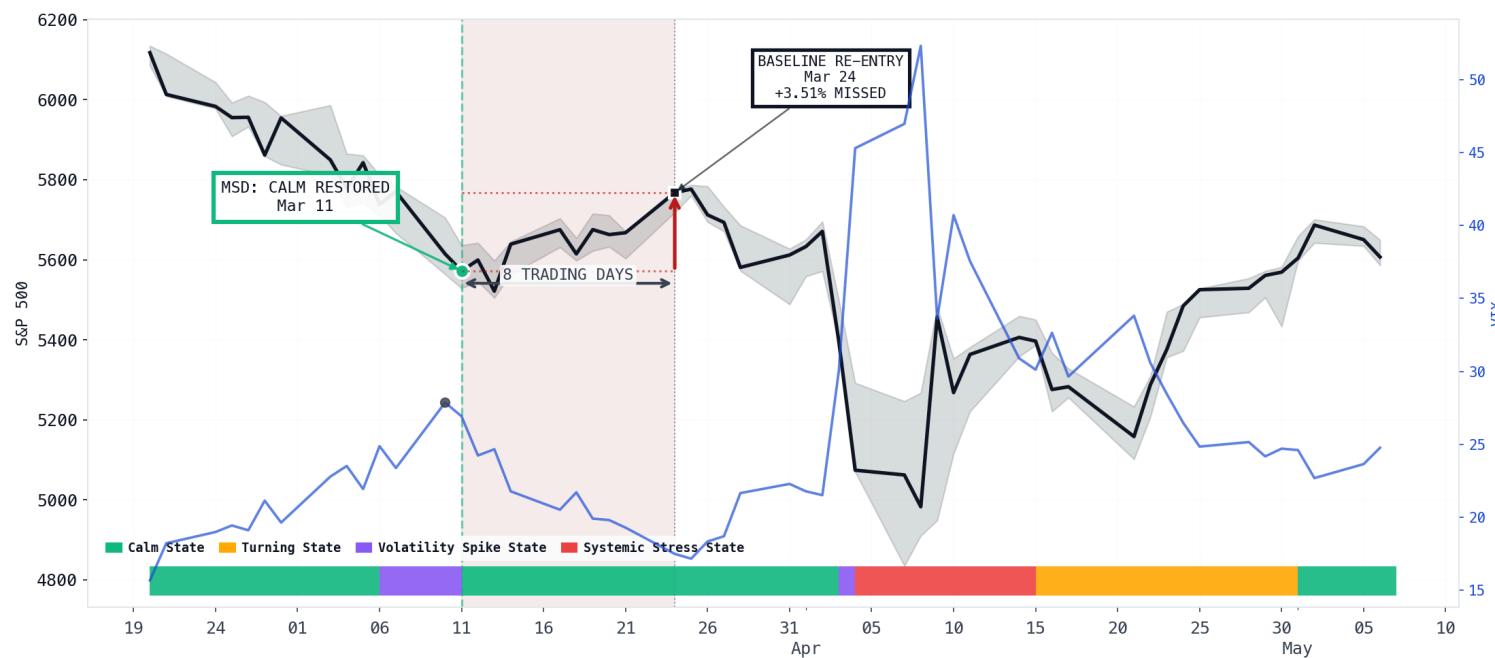
## POLICY CONCEPT

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

VIX peak + 10 trading days

MSD TIMESTAMP

Calm classified (green marker)

DELTA

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

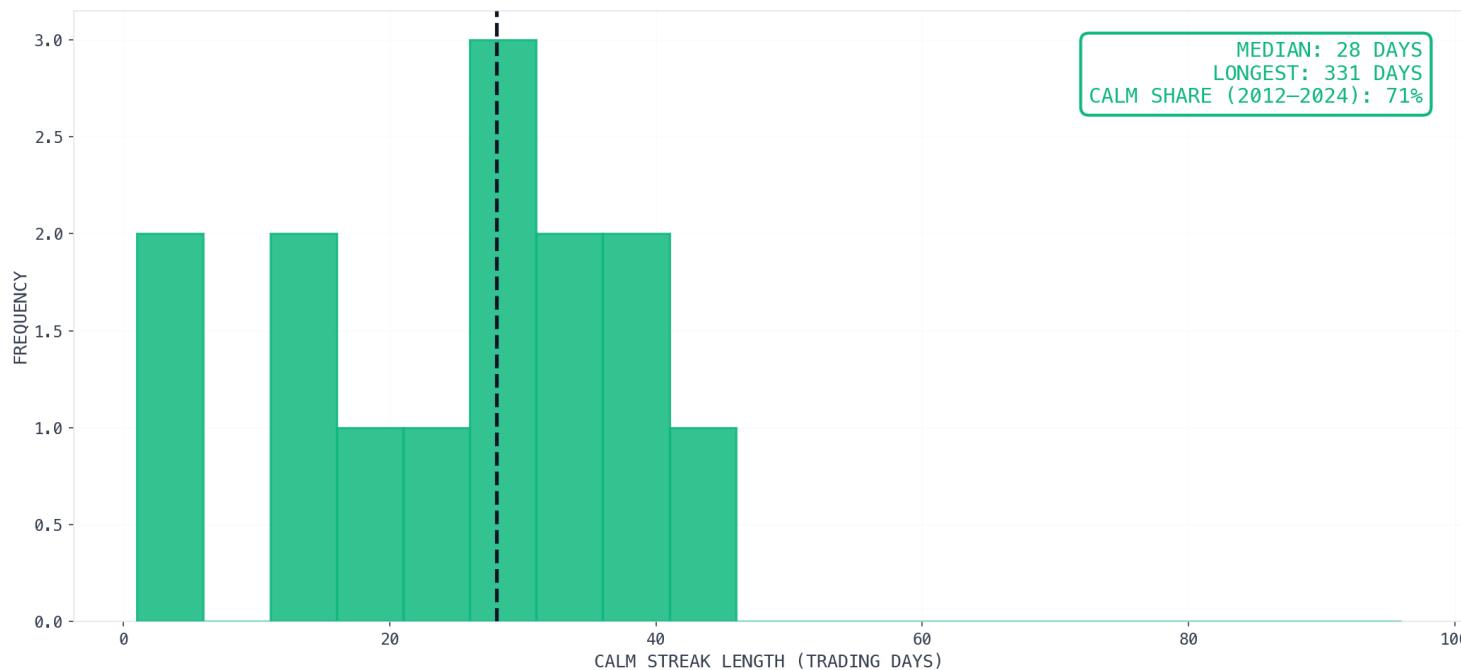
MARKET CONTEXT

VIX level (context), not a hedge cost model

## 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**

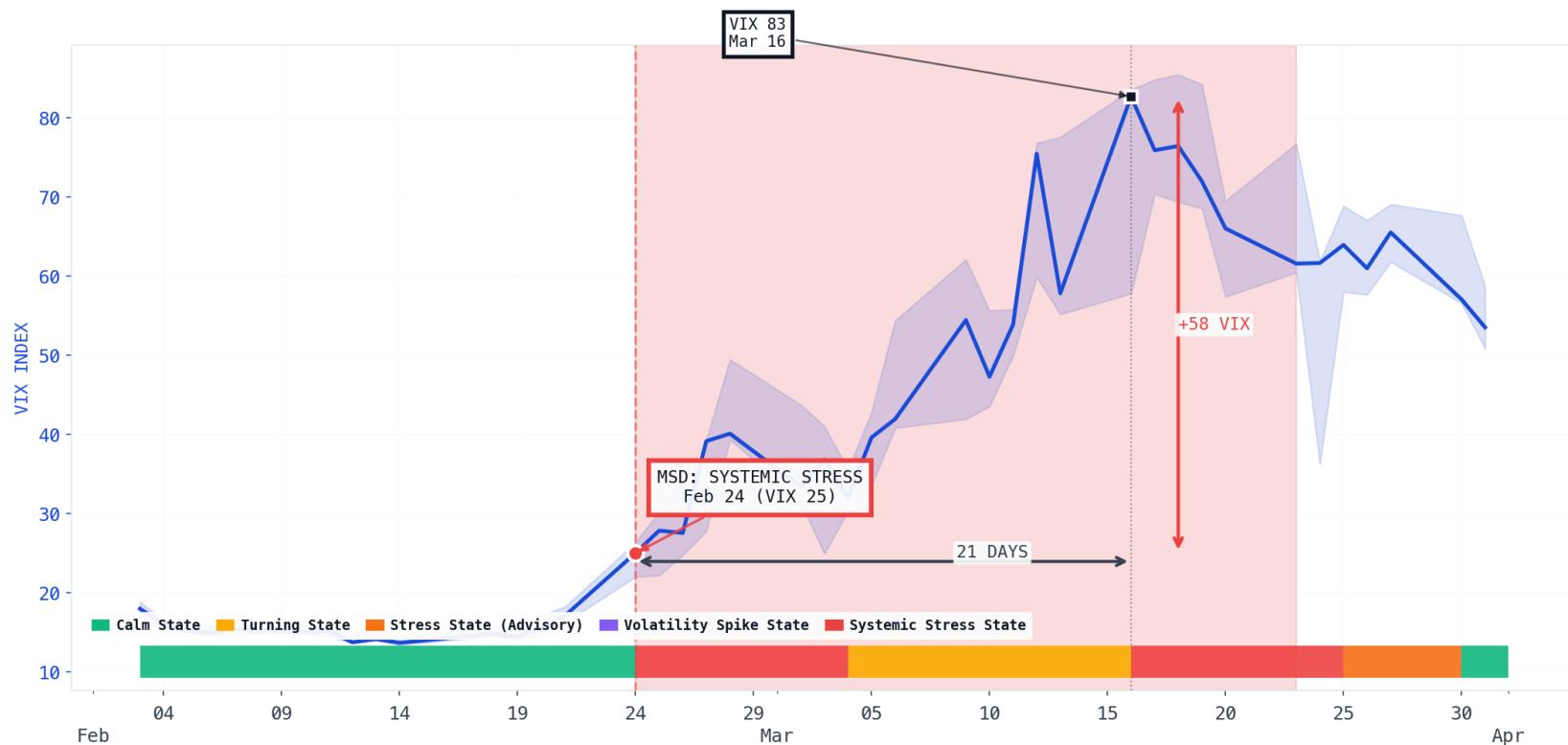
**Proves Calm is a predictable regime, not noise**

## THE REAL RISK: FALSE CALM (COVID 2020)

## 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

ANNUAL COST

16x

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

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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

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