LIGHTHOUSE MACRO

INSTITUTIONAL CHARTBOOK

Proprietary Macro Intelligence & Analytics

50 Institutional-Grade Charts

12 Proprietary Indicators (LCI, YFS, LFI, LDI, CLG, EMD, MRI)

6 Cross-Asset Sections with Full Framework Analysis

Generated: November 22, 2025

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SECTION 1

LIQUIDITY & FUNDING STRESS

Framework: The Liquidity Foundation

The plumbing matters more than the narrative. While markets obsess over Fed meetings and inflation prints, the real story plays out in overnight repo markets, the RRP facility, and bank reserve levels. This section tracks the system's shock-absorption capacity—the cushion that determines whether volatility spikes get contained or cascade into crisis.

Key Indicators:

1. Liquidity Cushion Index (LCI) - Are reserves + RRP sufficient to absorb stress?
2. Yield-Funding Stress (YFS) - Is the plumbing cracking?
3. Repo Rate Dispersion - Are some participants getting locked out?

The Transmission Mechanism:

• High LCI + Low YFS = Ample liquidity, markets can absorb shocks
• Low LCI + Rising YFS = Vulnerable system, small shocks → big moves
• Repo dispersion widening = Funding fragmentation, crisis precursor

What to Watch:

• RRP drawdown below $500B (critical threshold)
• BGCR-EFFR spread > +15 bps (funding stress)
• Repo dispersion 99th-1st percentile > 50 bps (fragmentation)

Takeaway:

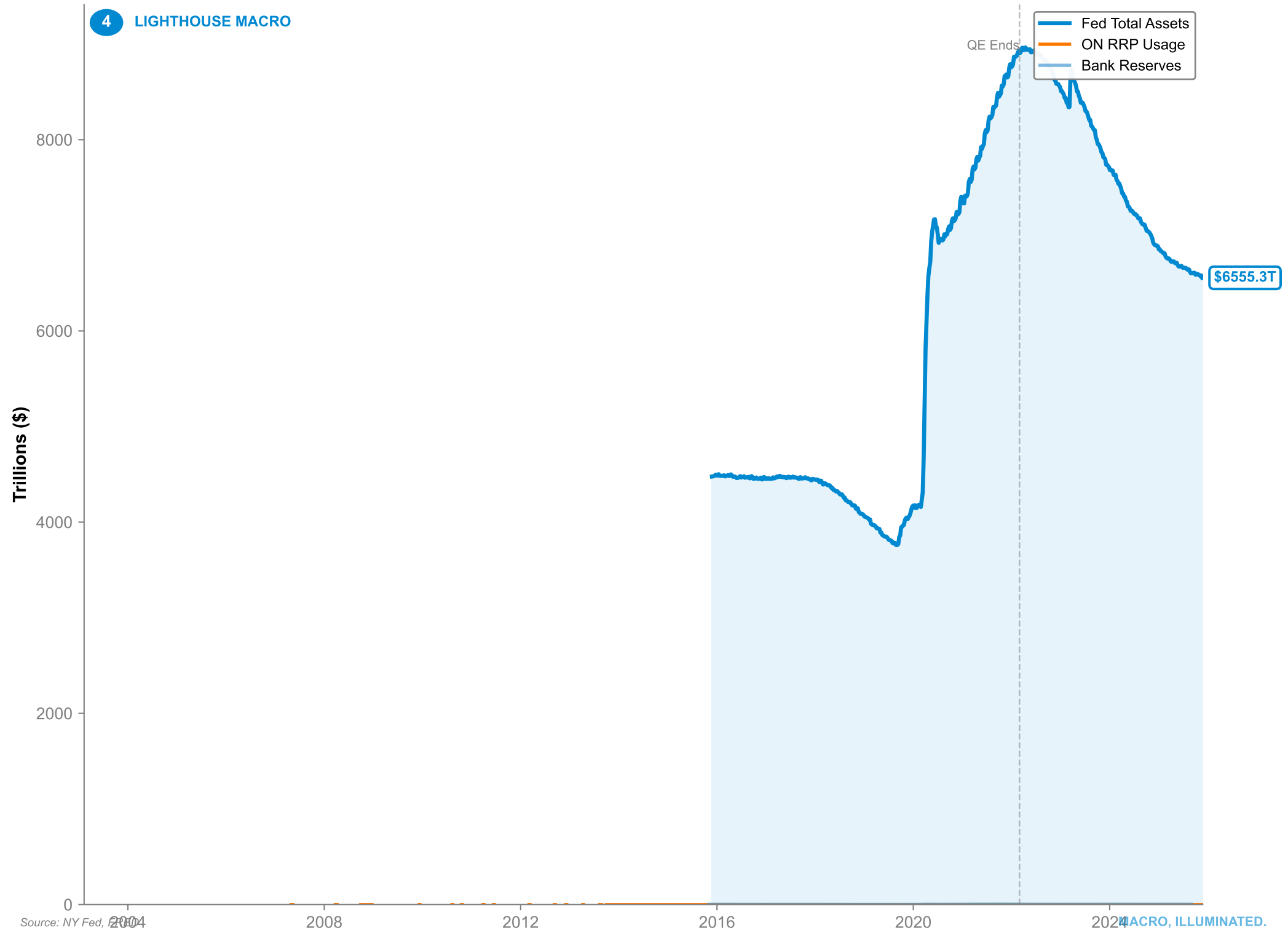
The 2008 crisis taught us: liquidity is binary. You have it until you don't. These charts track the transition from ample to scarce—the most important regime shift in markets.

Liquidity Cushion Index (LCI): System Shock-Absorption Capacity

Repo Rate Dispersion Index: Funding Fragmentation

Source: NY Fed (Requires BGCR Percentile Data)

Fed Balance Sheet Components: Assets, RRP, Reserves



Treasury Market Liquidity: Bid-Ask Spreads & Market Depth

Swap Spreads: Interbank Credit Health

Primary Dealer Net Treasury Positions: Market-Making Capacity

SECTION 2

LABOR MARKET DYNAMICS

Framework: Labor as Leading Indicator

The unemployment rate is a lagging indicator. By the time it spikes, the recession is already here. We focus on flow variables—quits, hires, hours worked—that deteriorate 6-12 months before headline payrolls turn negative.

Key Indicators:

1. Labor Fragility Index (LFI) - How hard is it to find a job once unemployed?
2. Labor Dynamism Index (LDI) - Are workers confident enough to quit and upgrade?
3. Hours vs Employment Divergence - Are firms cutting hours before headcount?

The Sequence of Deterioration:

1. Quits decline (workers stop job-hopping)
2. Hours cut (reduce overtime, shift to part-time)
3. Temp workers laid off (easiest to cut)
4. Hiring freezes (stop backfilling attrition)
5. Permanent layoffs (unemployment rate rises)

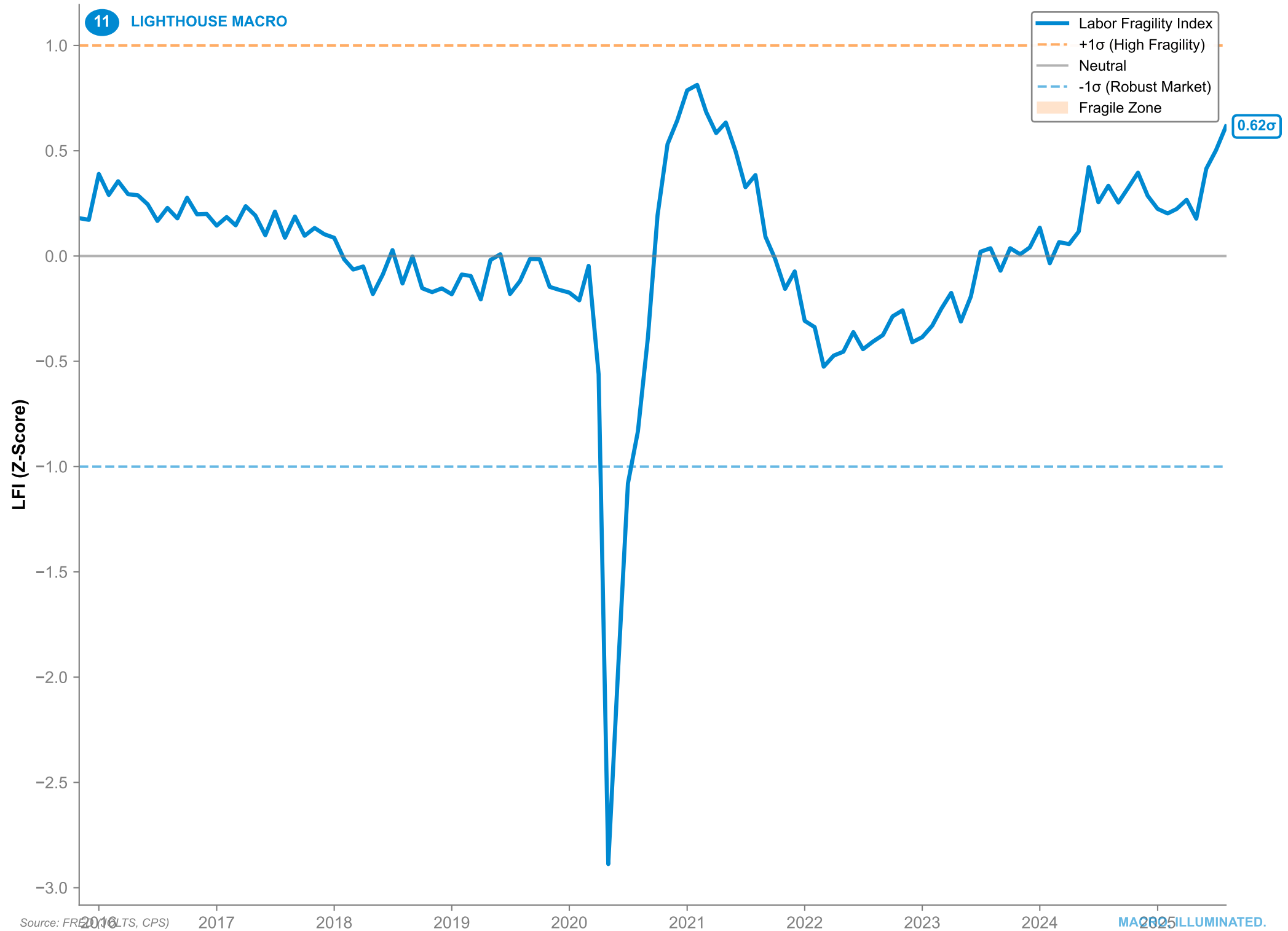
What to Watch:

• Quits rate < 2.0% (vs 3.0% peak) = Late cycle
• Hours YoY < Employment YoY = Layoffs coming
• LFI rising while unemployment stable = Hidden deterioration

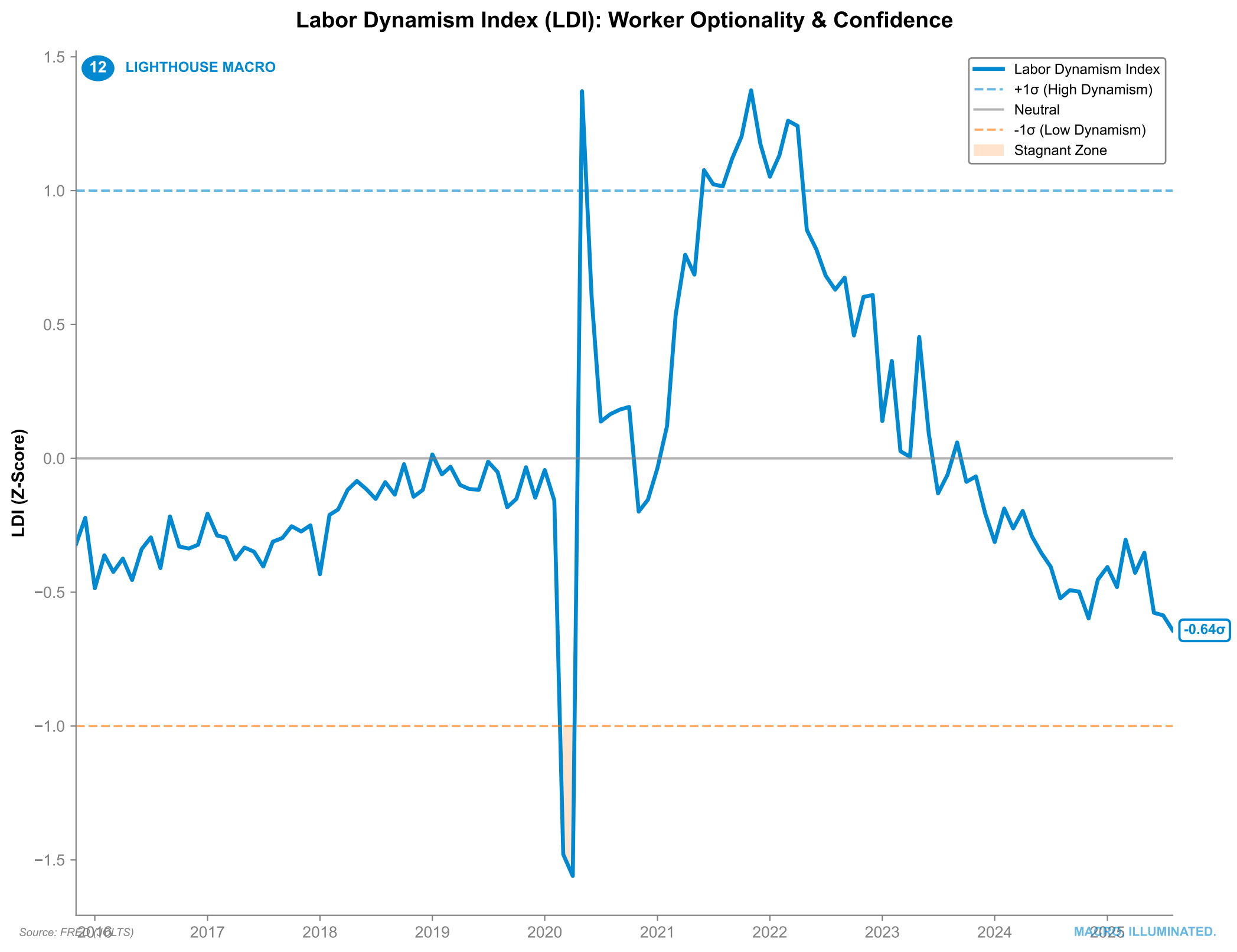
Takeaway:

"Payrolls can stay positive while quits slide—that's a late-cycle tell."
Don't wait for unemployment to spike. By then, the damage is done.

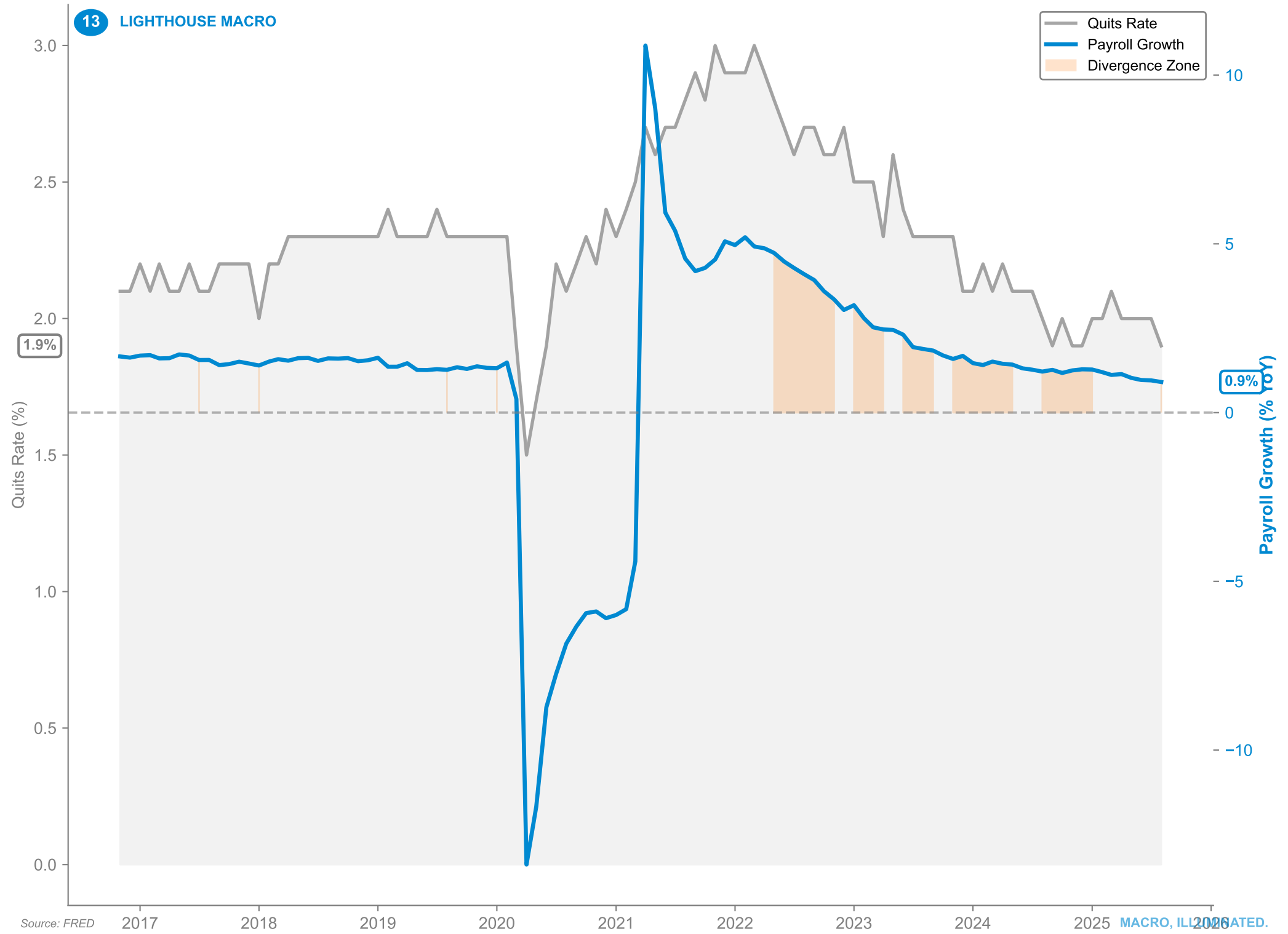
Labor Fragility Index (LFI): Job-Finding Effectiveness



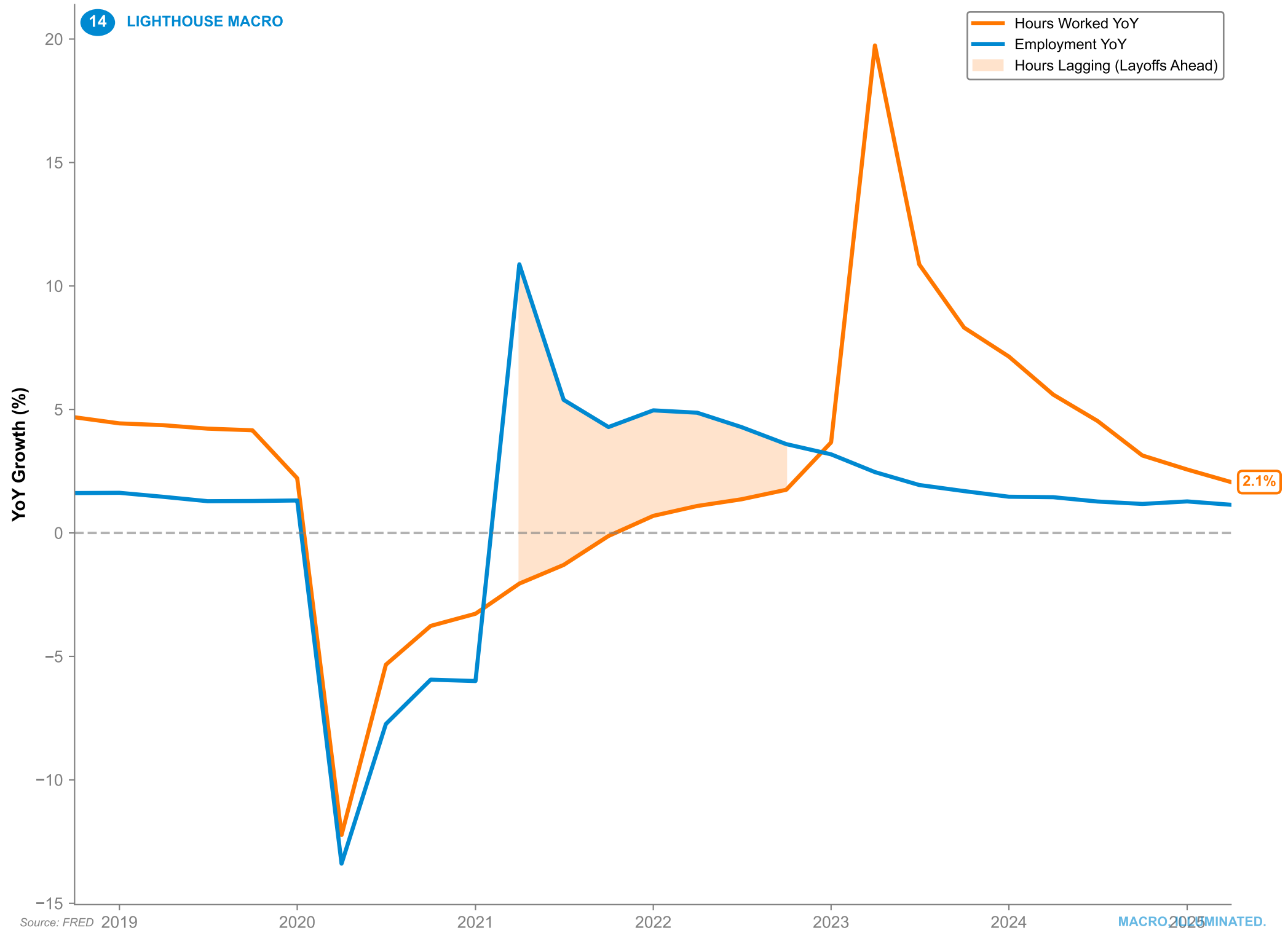
Labor Dynamism Index (LDI): Worker Optionality & Confidence



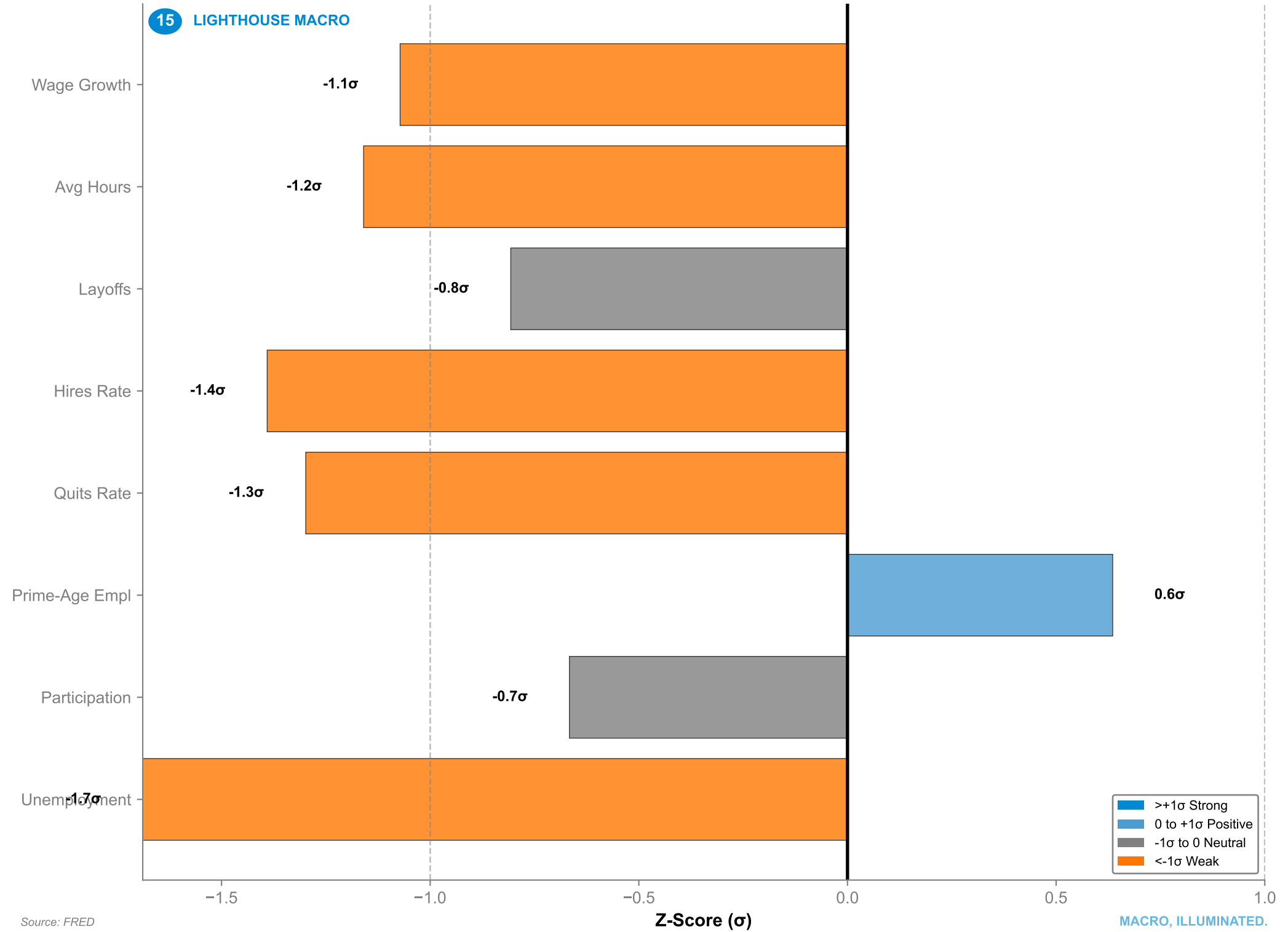
Payroll-Quits Divergence: Late-Cycle Labor Signal



Hours vs Employment Divergence: Leading Layoff Indicator



Labor Market Health Heatmap: 8-Metric Z-Score Composite



Source: FRED

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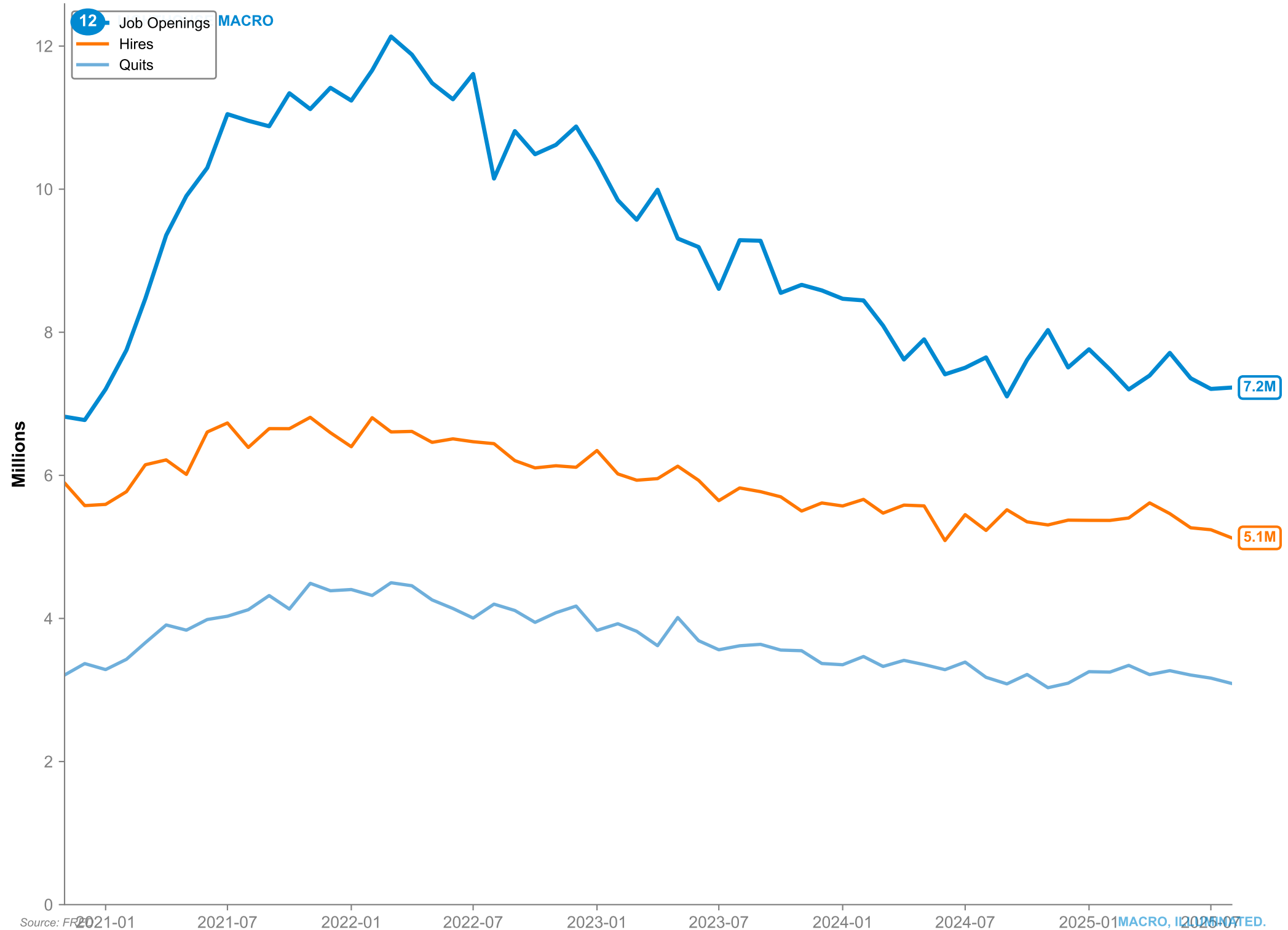
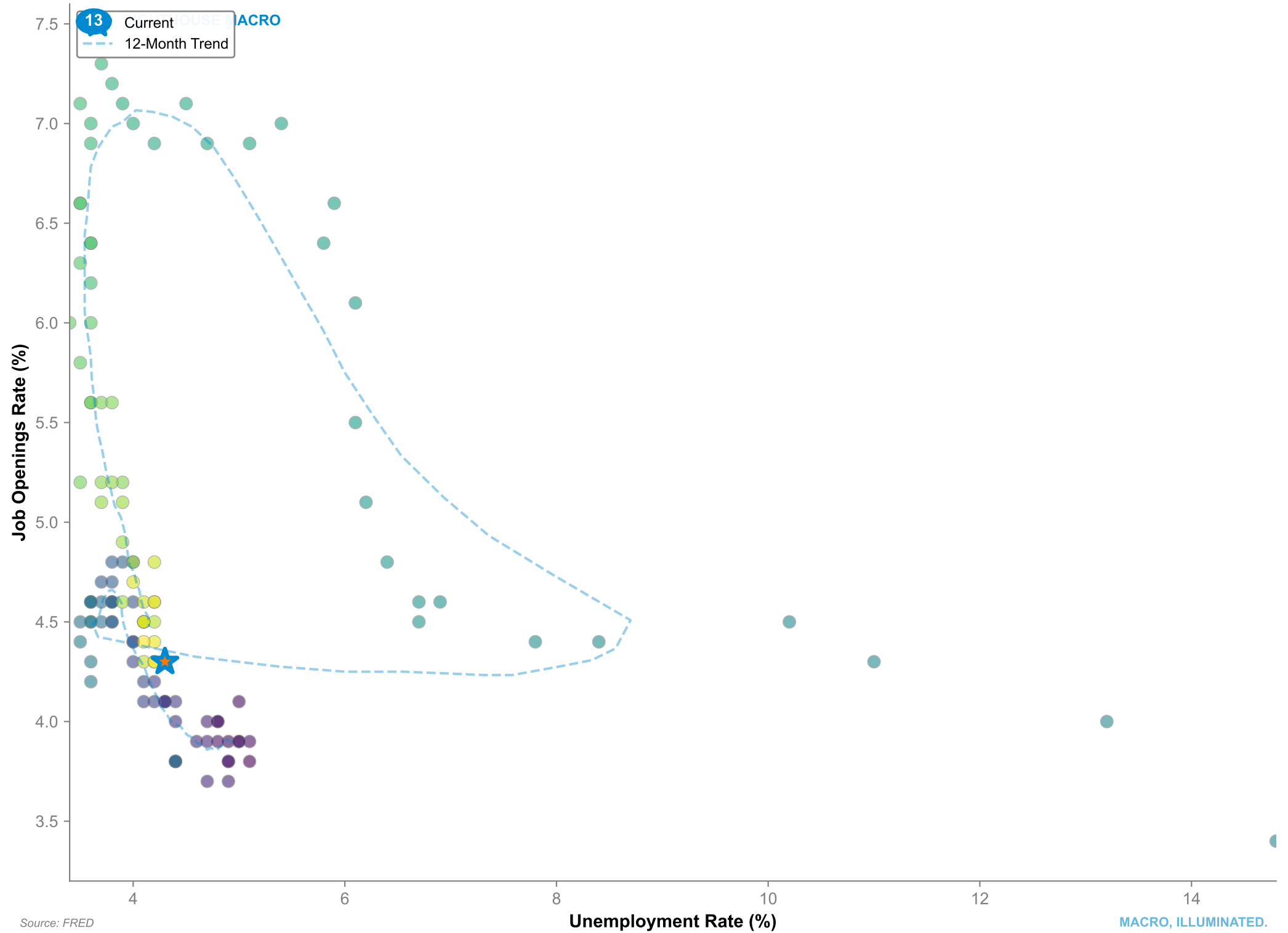
JOLTS Indicators: Openings, Hires, Quits



Beveridge Curve: Labor Market Efficiency



SECTION 3

CREDIT MARKETS & RISK APPETITE

Framework: Credit Leads, Equities Follow

Credit markets price risk. Equity markets price narratives. When the two diverge—spreads widening while stocks rally—credit is usually right. This section tracks not just spread levels, but spread adequacy relative to macro fragility.

Key Indicators:

1. Credit-Labor Gap (CLG) - Are spreads too tight given labor market stress?
2. HY Spread vs Volatility Imbalance - Are spreads compensating for volatility?
3. Excess Bond Premium (EBP) - Risk aversion above default risk alone

The Credit Cycle Stages:

- Early Cycle: Spreads wide, defaults peaking, opportunity emerging
- Mid Cycle: Spreads normalizing, credit profitable
- Late Cycle: Spreads tight, covenant-lite deals, complacency
- Crisis: Spreads blow out >1000 bps, credit markets freeze

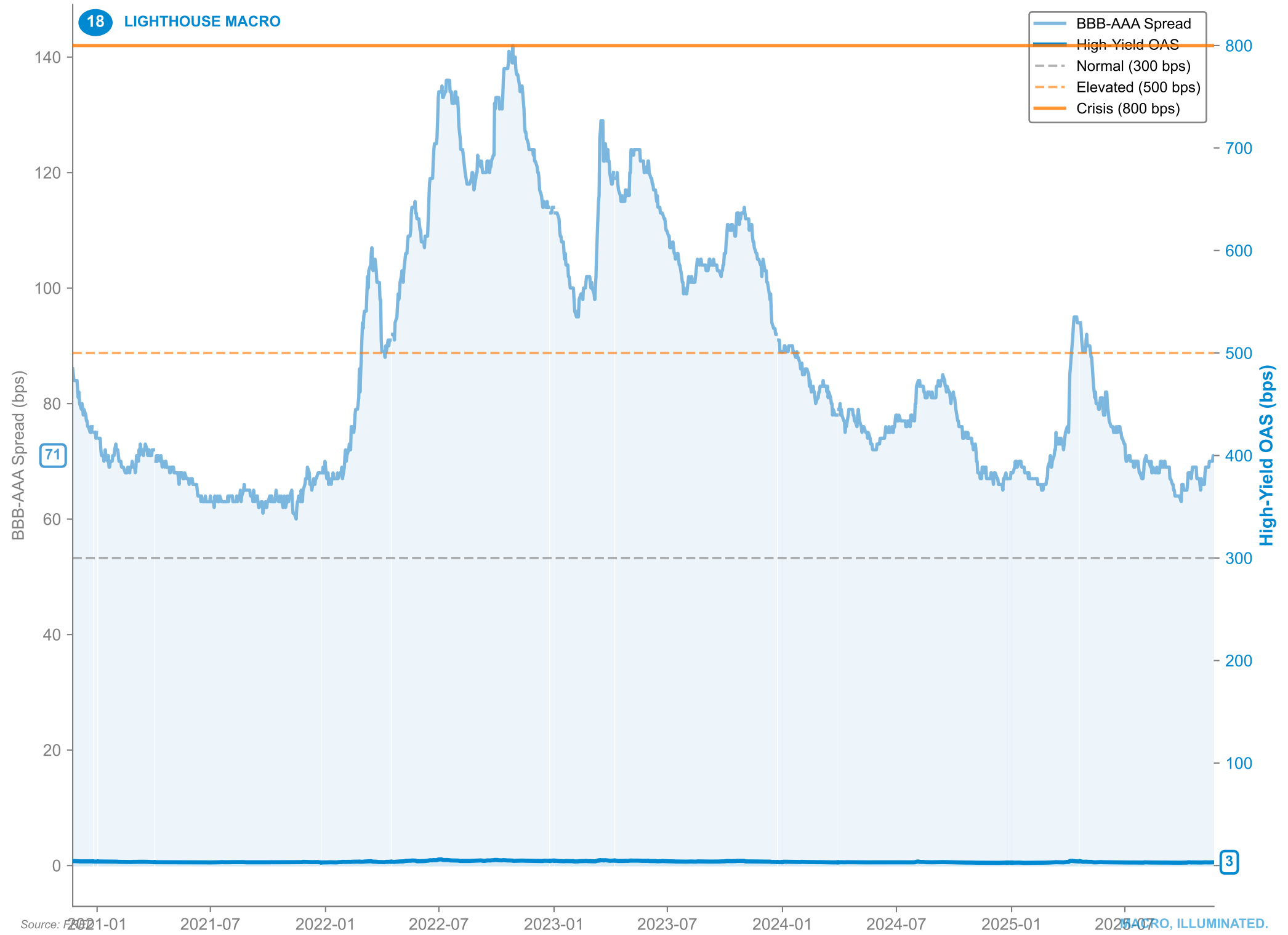
What to Watch:

- HY OAS < 300 bps = Late cycle, reduce credit
- CLG negative (spreads < labor stress) = Pre-widening setup
- EBP rising = Risk aversion building

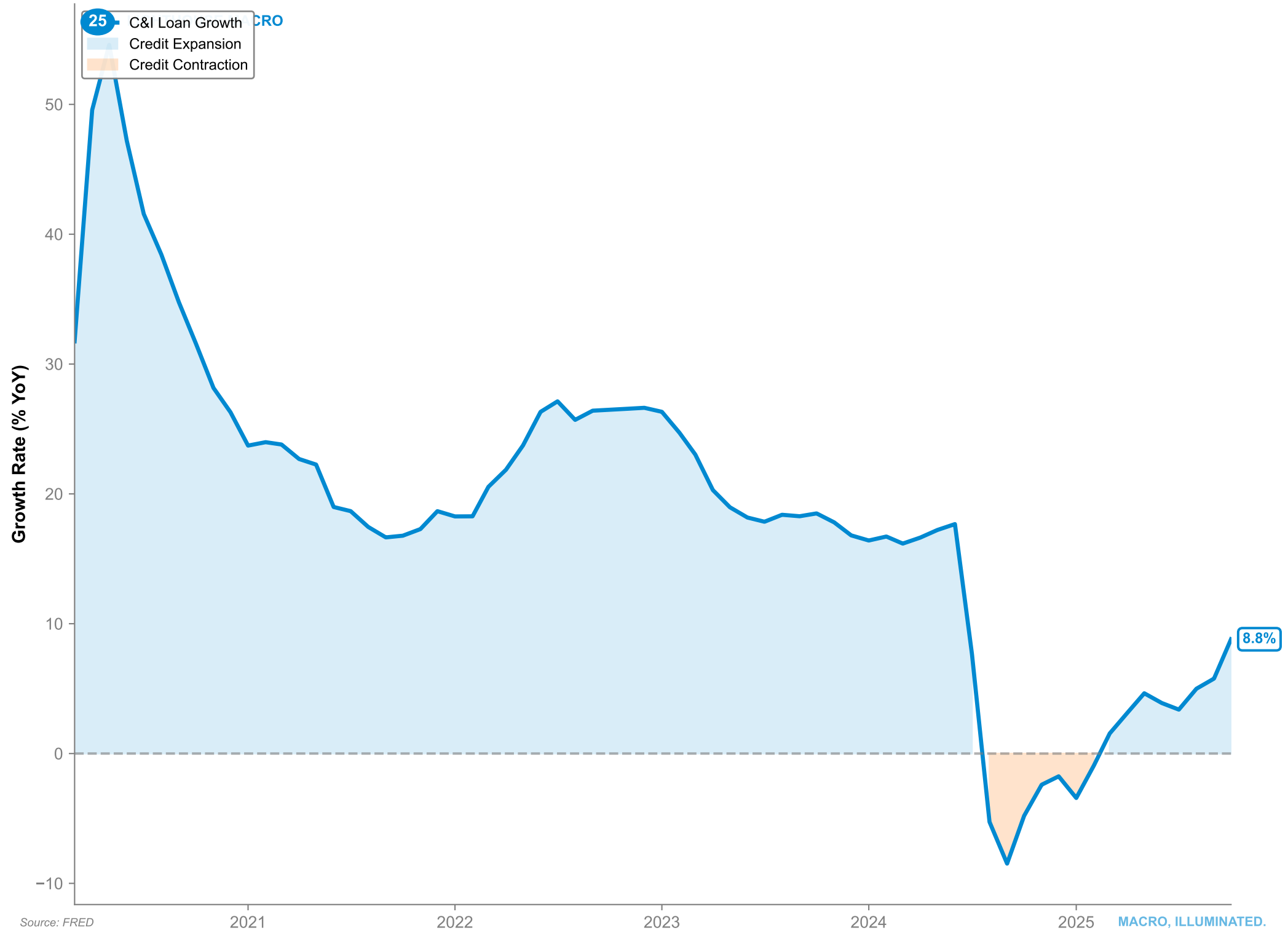
Takeaway:

"Historically a pre-widening configuration" when CLG goes negative.
Don't confuse tight spreads with safety. Spread adequacy matters more than levels.

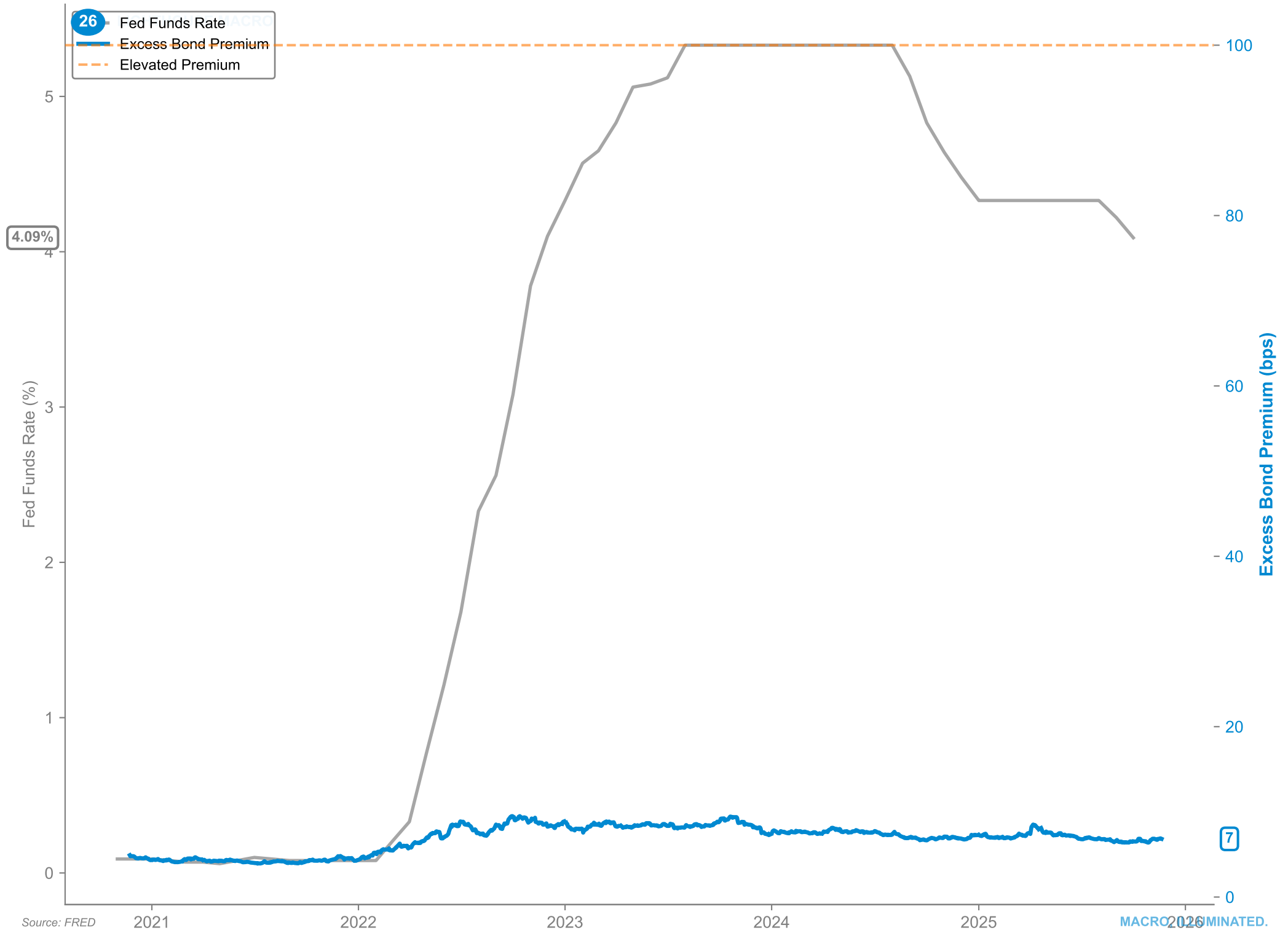
Credit Spreads: High-Yield OAS & Investment Grade Differential



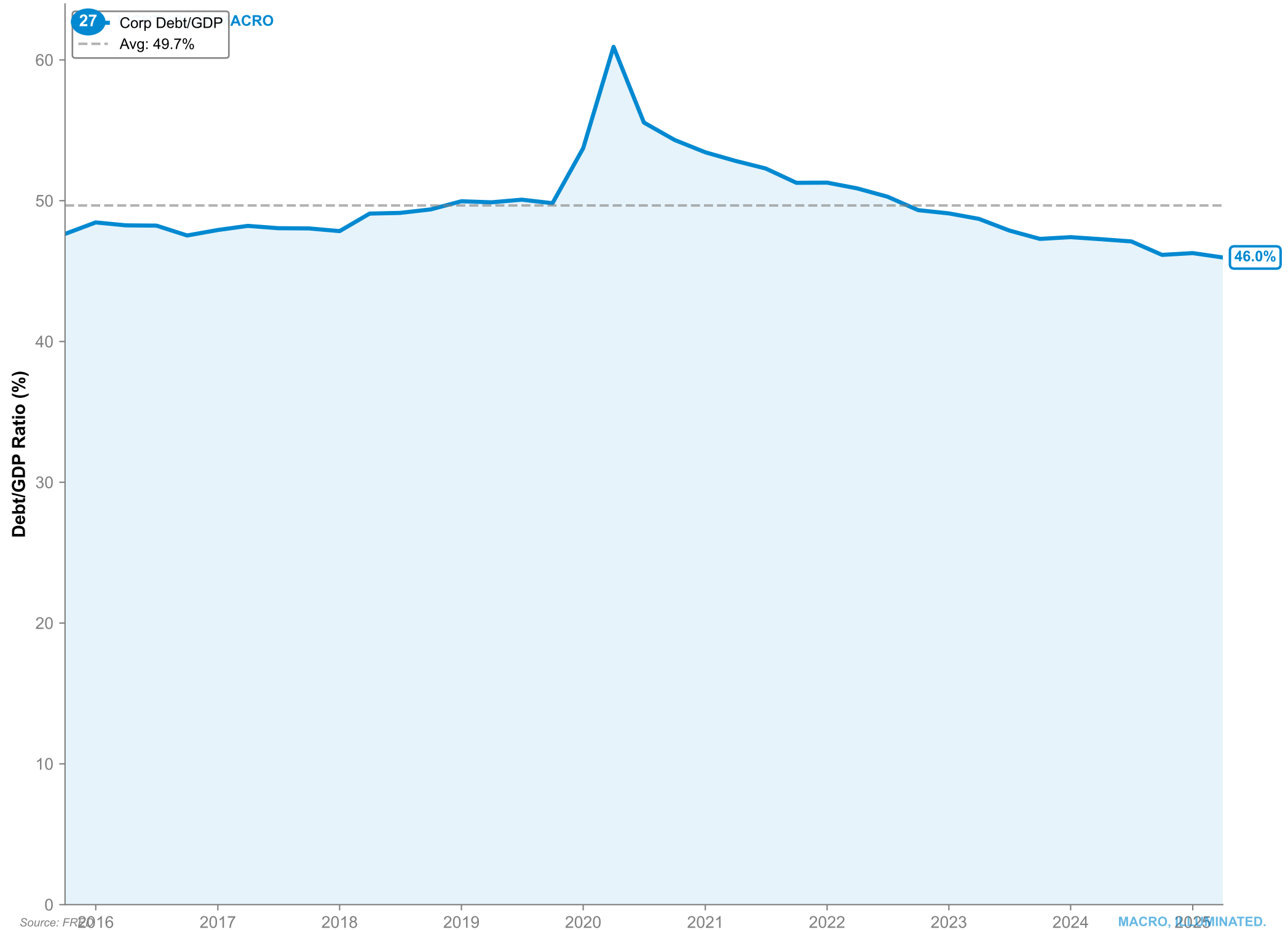
Credit Cycle: C&I Loan Growth (YoY)



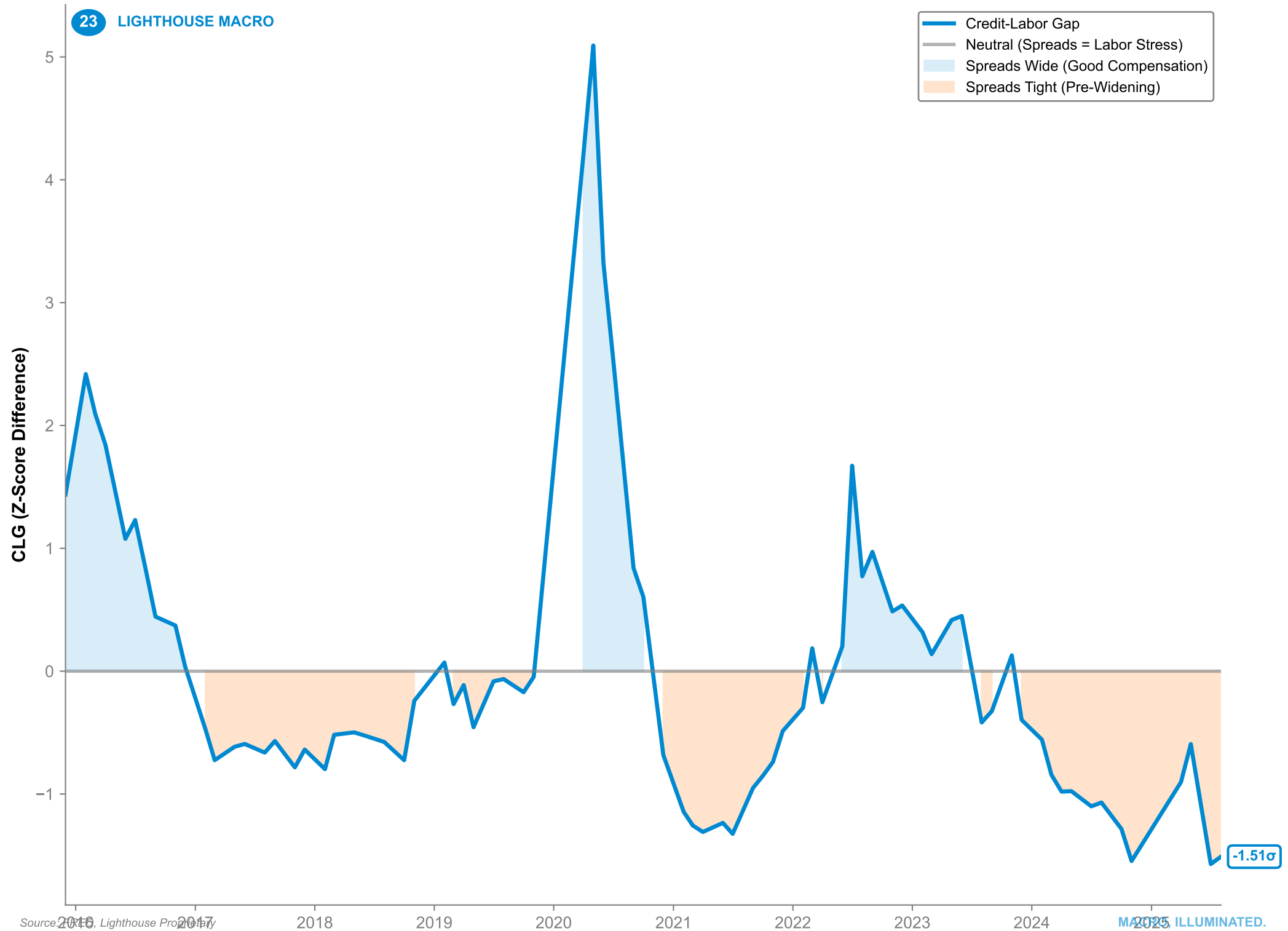
Excess Bond Premium vs Fed Funds: Policy Transmission



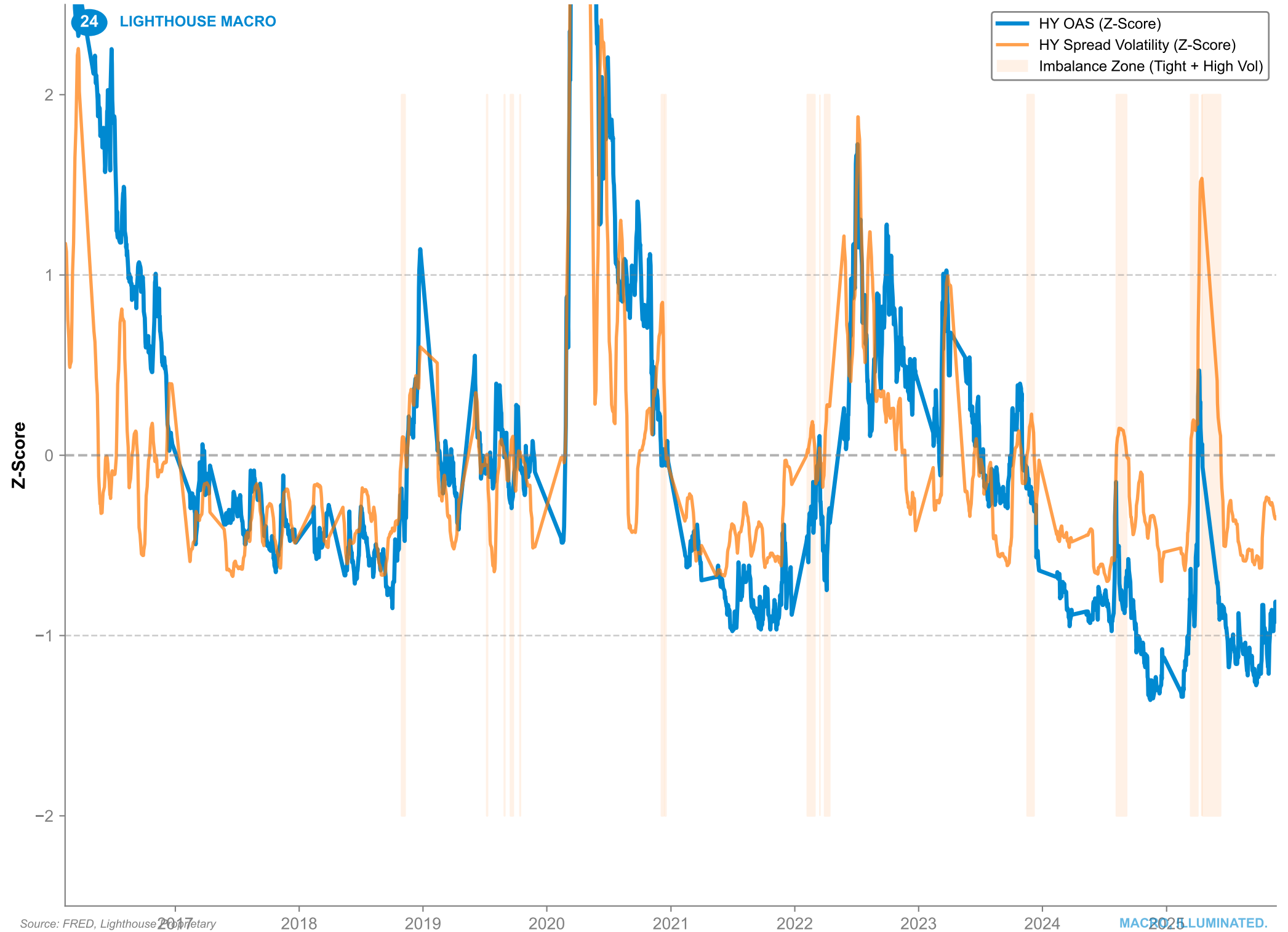
Corporate Leverage: Nonfinancial Debt to GDP

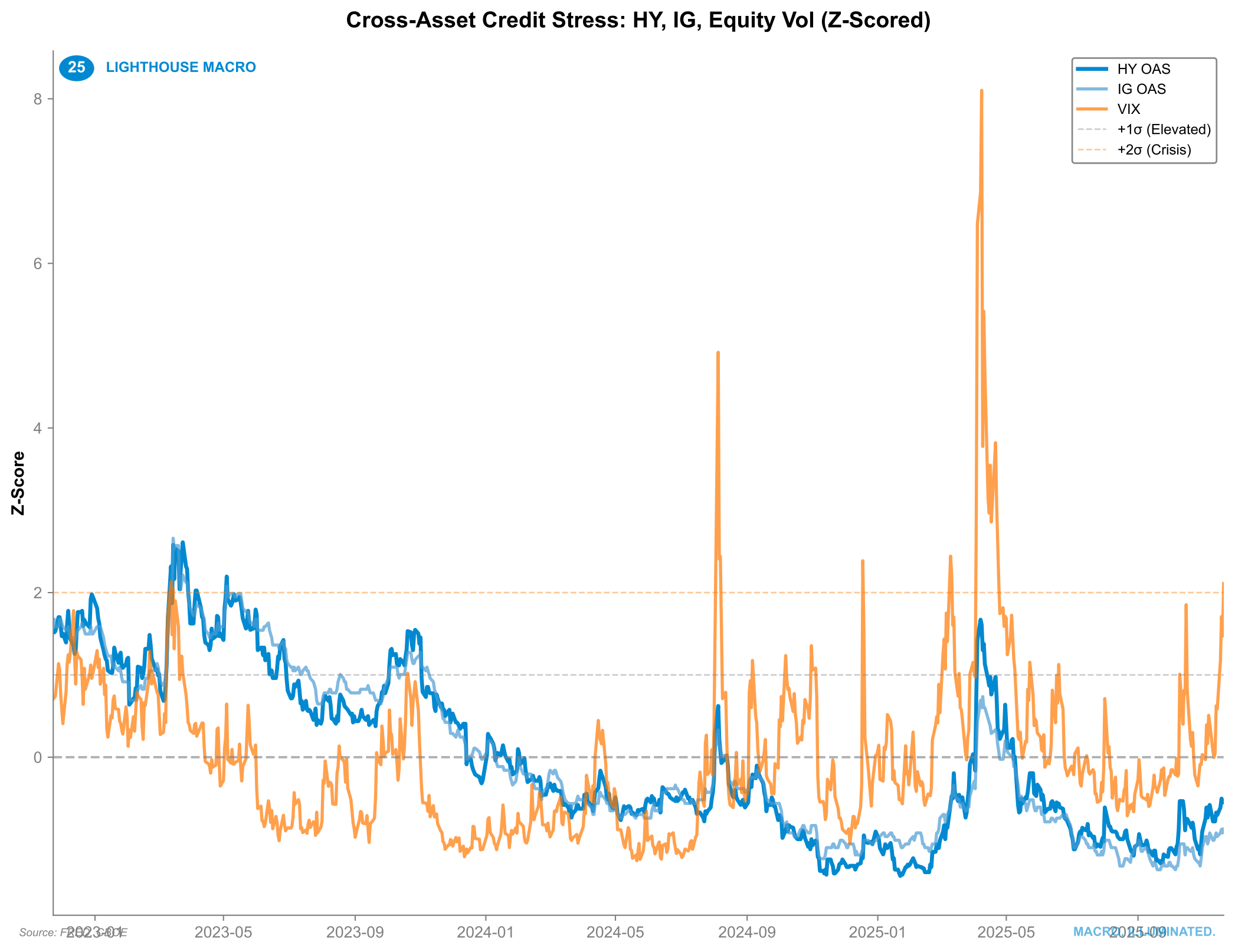


Credit-Labor Gap (CLG): Spread Adequacy vs Macro Fragility



HY Spread vs Volatility Imbalance: Risk Compensation Check




Cross-Asset Credit Stress: HY, IG, Equity Vol (Z-Scored)
25
LIGHTHOUSE MACRO
HY OAS
IG OAS
VIX
+1σ (Elevated)
+2σ (Crisis)
Z-Score
8
6
4
2
0
2023-01
2023-05
2023-09
2024-01
2024-05
2024-09
2025-01
2025-05
2025-09
Source: FRED
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SECTION 4

EQUITY POSITIONING & MOMENTUM

Framework: Momentum Matters, Until It Doesn't

Equity markets can stay irrational longer than you can stay solvent. But stretched momentum + macro deterioration = fragile setup. This section tracks not just price levels, but positioning, quality preferences, and shock-absorption capacity.

Key Indicators:

1. Equity Momentum Divergence (EMD) - How stretched is momentum vs volatility?
2. Quality vs Risk (QUAL/SPY) - Flight to quality or junk rally?
3. Macro Risk Index (MRI) - Are equities pricing in macro risk?

The Late-Cycle Pattern:

- Equities grind higher (FOMO, passive flows)
- Volatility compressed (low VIX)
- Quality underperforms (junk rally)
- Macro deteriorates (labor, credit weakening)
- Result: Thin shock absorption, prone to air pockets

What to Watch:

- EMD > +1σ = Stretched momentum, reduce beta
- QUAL/SPY at cycle lows = Maximum risk appetite
- MRI rising + SPX rising = Markets under-pricing risk

Takeaway:

"Currently at cycle lows despite macro deterioration; signals late-stage bull market behavior." When everyone's bullish, be careful.

Equity Momentum Divergence (EMD): Volatility-Adjusted Overbought

Source: FRED, Lighthouse Proprietary

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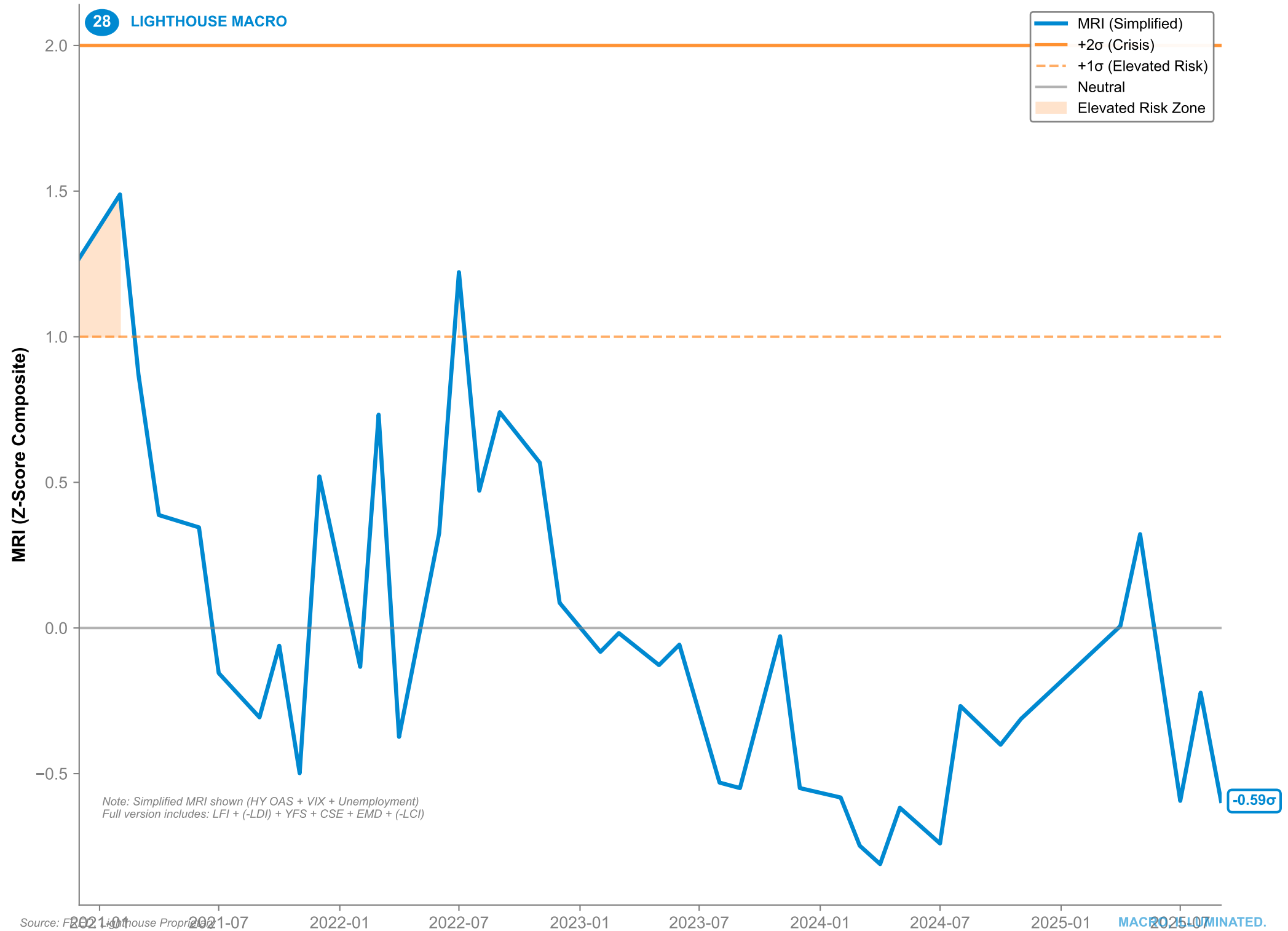
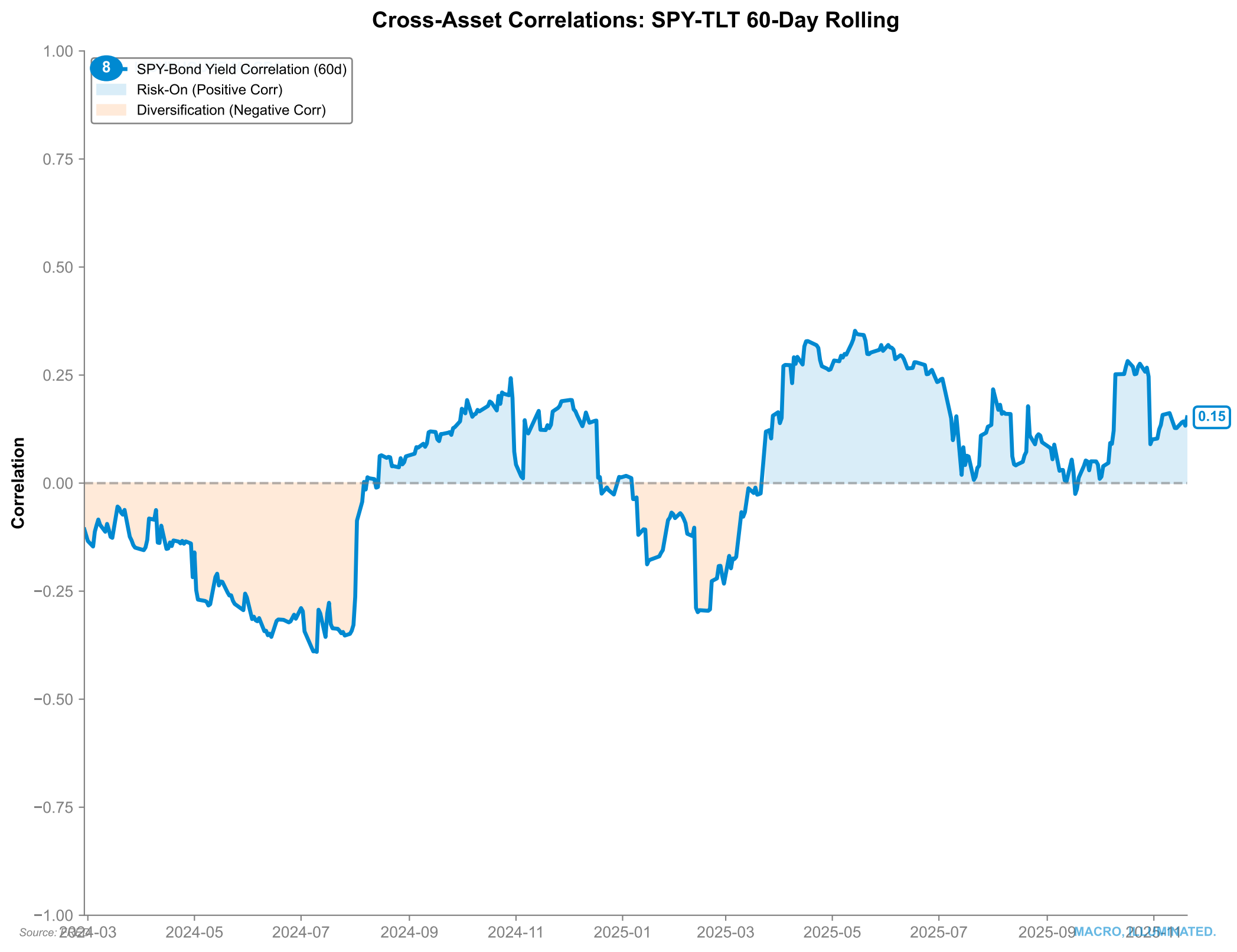
Quality vs Risk (QUAL/SPY): Market Preference Signal

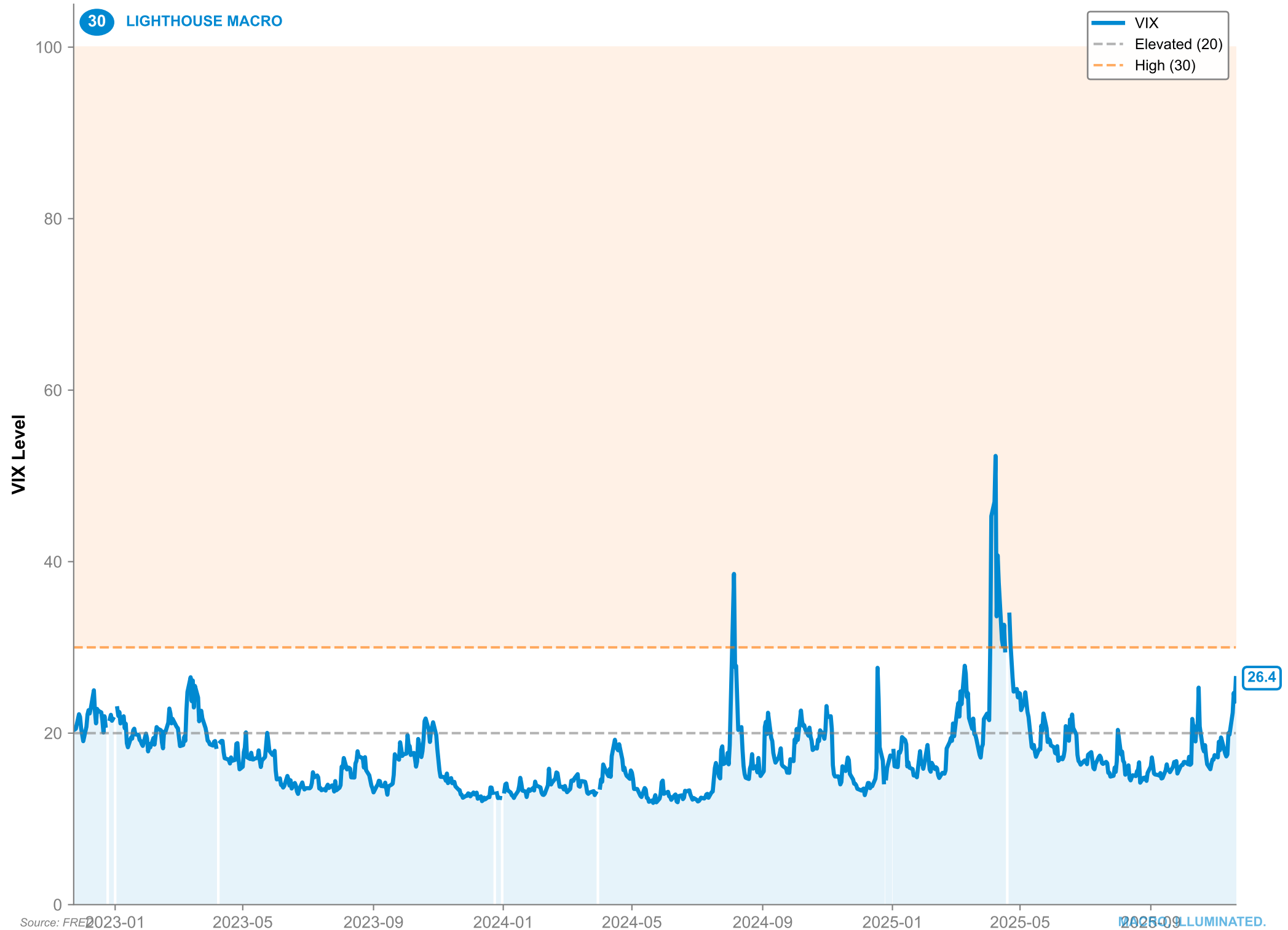
Source: TradingView (Manual Data Required)

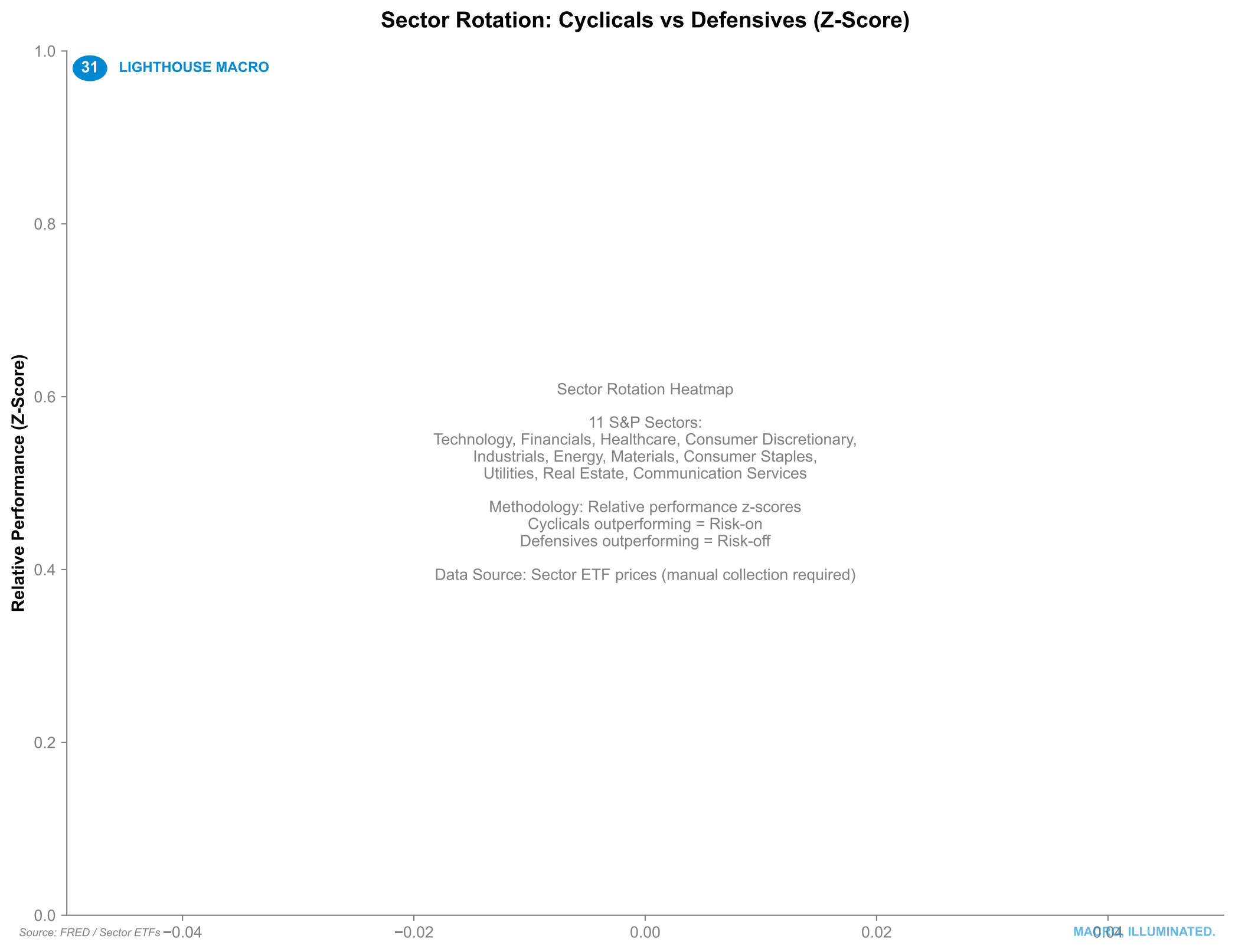
Macro Risk Index (MRI): Aggregate Cross-Asset Risk




Cross-Asset Correlations: SPY-TLT 60-Day Rolling
8
SPY-Bond Yield Correlation (60d)
Risk-On (Positive Corr)
Diversification (Negative Corr)
Correlation
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
0.15
2024-03
2024-05
2024-07
2024-09
2024-11
2025-01
2025-03
2025-05
2025-07
2025-09
2025-11
Source:
MACRO, ILLUMINATED.

VIX: Equity Market Volatility




Sector Rotation: Cyclicals vs Defensives (Z-Score)
31
LIGHTHOUSE MACRO
Relative Performance (Z-Score)
1.0
0.8
0.6
0.4
0.2
0.0
Sector Rotation Heatmap
11 S&P Sectors:
Technology, Financials, Healthcare, Consumer Discretionary,
Industrials, Energy, Materials, Consumer Staples,
Utilities, Real Estate, Communication Services
Methodology: Relative performance z-scores
Cyclicals outperforming = Risk-on
Defensives outperforming = Risk-off
Data Source: Sector ETF prices (manual collection required)
−0.04
−0.02
0.00
0.02
0.04
Source: FRED / Sector ETFs
MACRO ILLUMINATED.

Equity Risk Premium: S&P 500 Earnings Yield - 10Y Treasury

SECTION 5

CRYPTO & DIGITAL ASSETS

Framework: Crypto as Macro Barometer

Bitcoin is no longer an isolated asset. When BTC trades 80%+ correlated with Nasdaq, it's a risk-on/risk-off instrument. Stablecoins represent on-chain liquidity—'dry powder' that precedes rallies. This section tracks crypto-traditional integration.

Key Indicators:

1. Stablecoin Supply - On-chain liquidity, leads BTC price
2. BTC Correlation to Nasdaq/Gold - Risk-on or safe haven?
3. Stablecoin vs MMF - Digital dollar gaining share?

The Crypto Liquidity Framework:

• Rising stablecoin supply = Capital entering, bullish 3-6M
• Falling stablecoin supply = Off-ramping, bearish
• BTC corr to Nasdaq > 0.6 = Risk-on asset
• BTC corr to Gold > 0.5 = Safe haven narrative

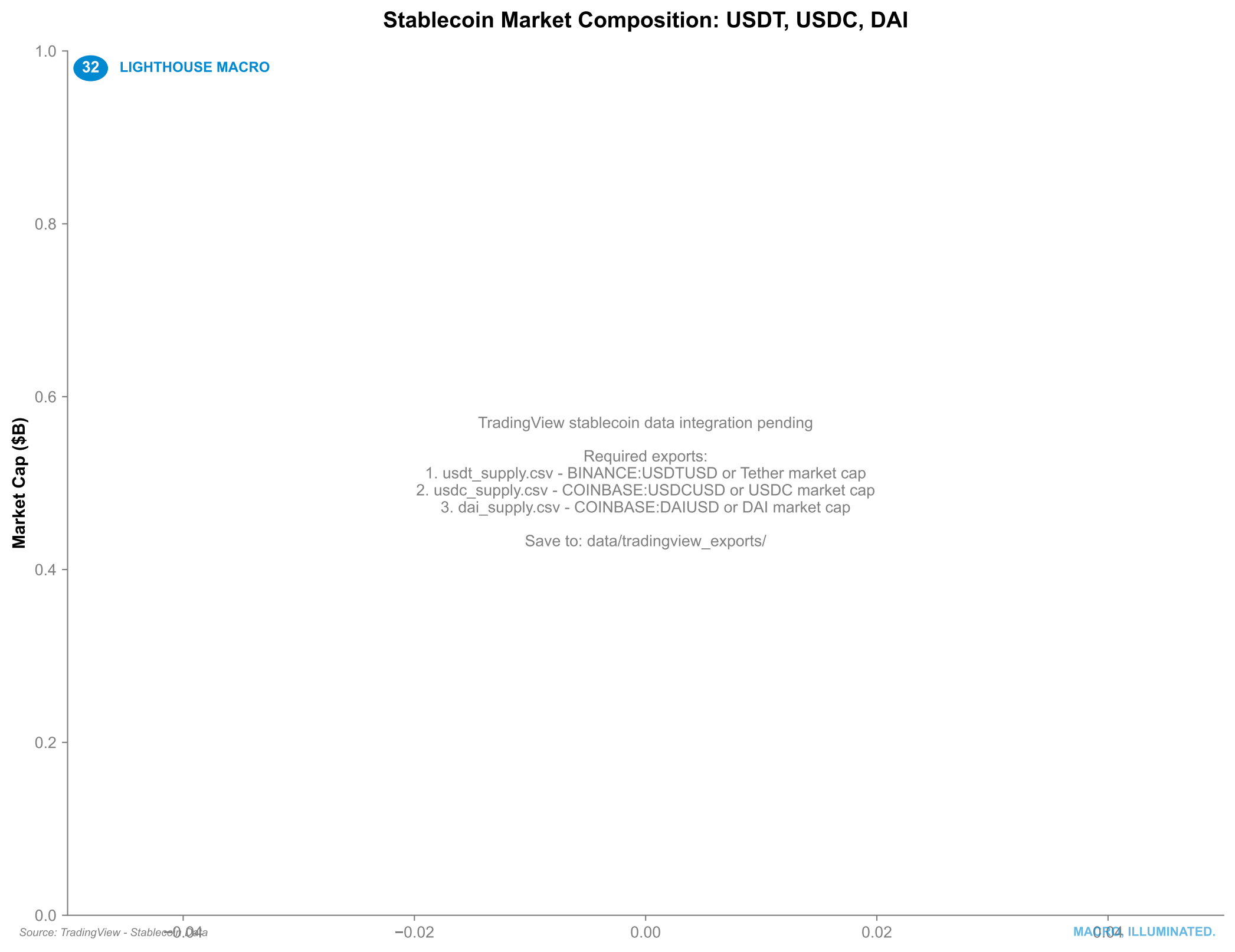
What to Watch:

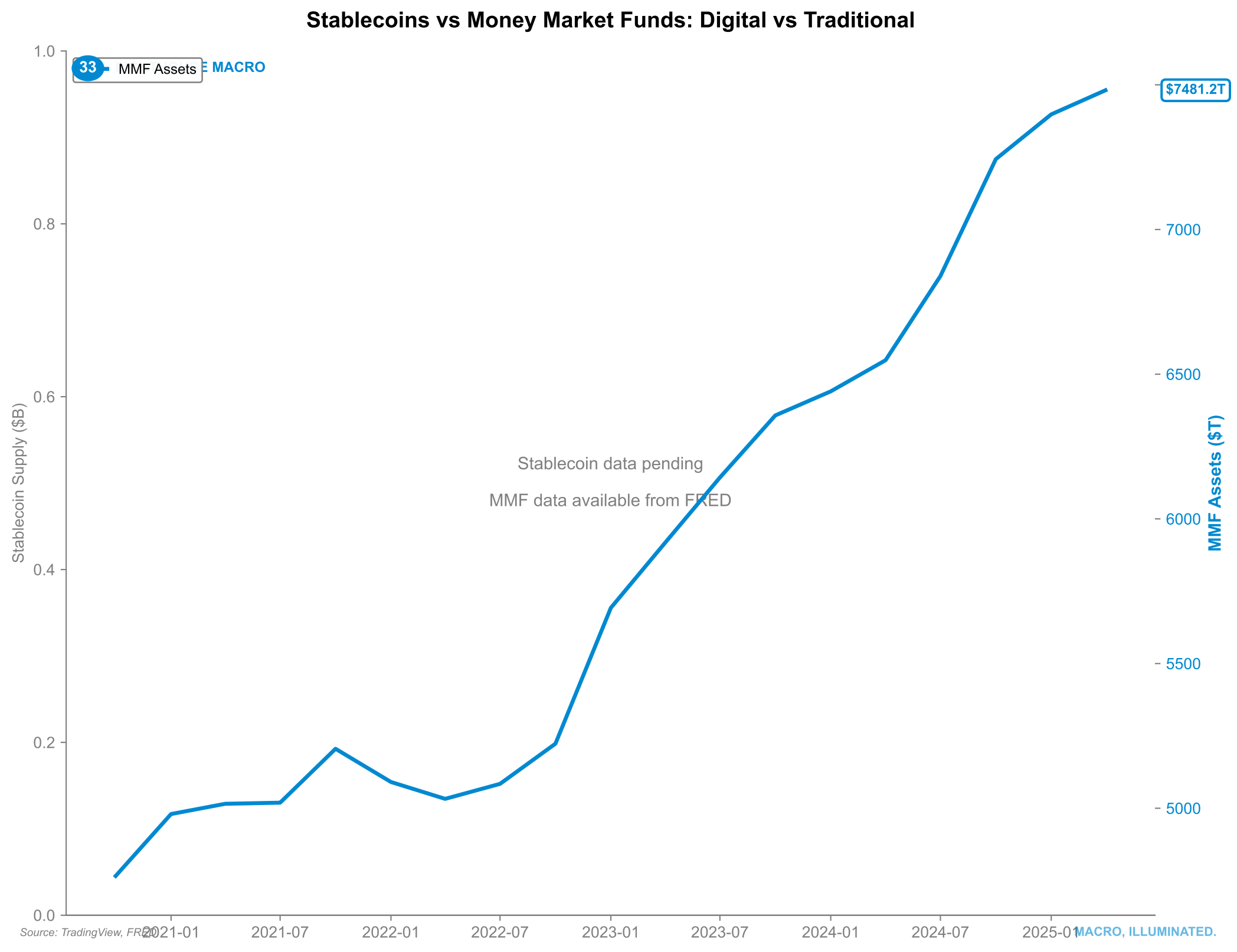
• Stablecoin supply growth accelerating = BTC rally ahead
• BTC realized vol converging to equity vol = Maturation
• Stablecoin/MMF ratio rising = Structural shift

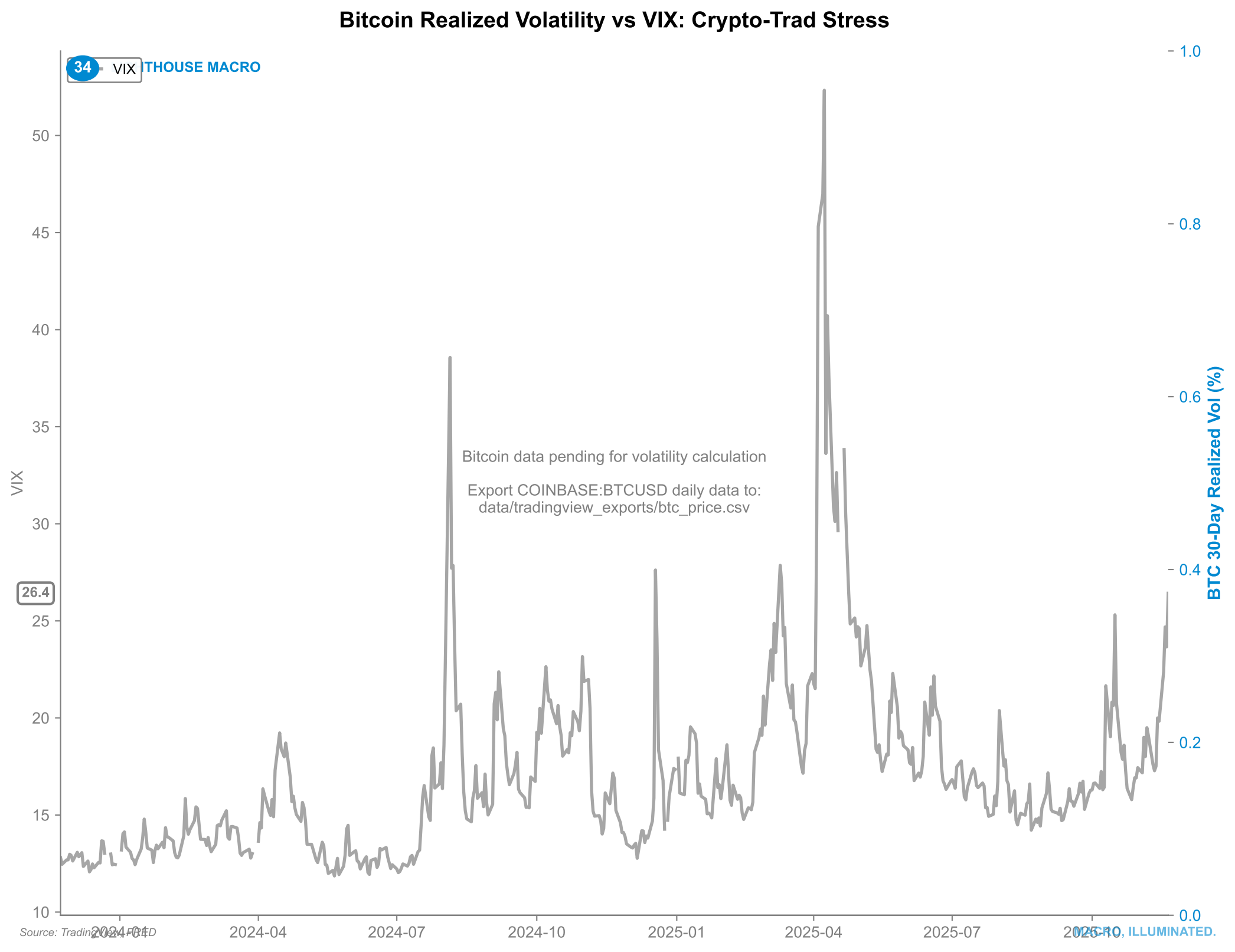
Takeaway:

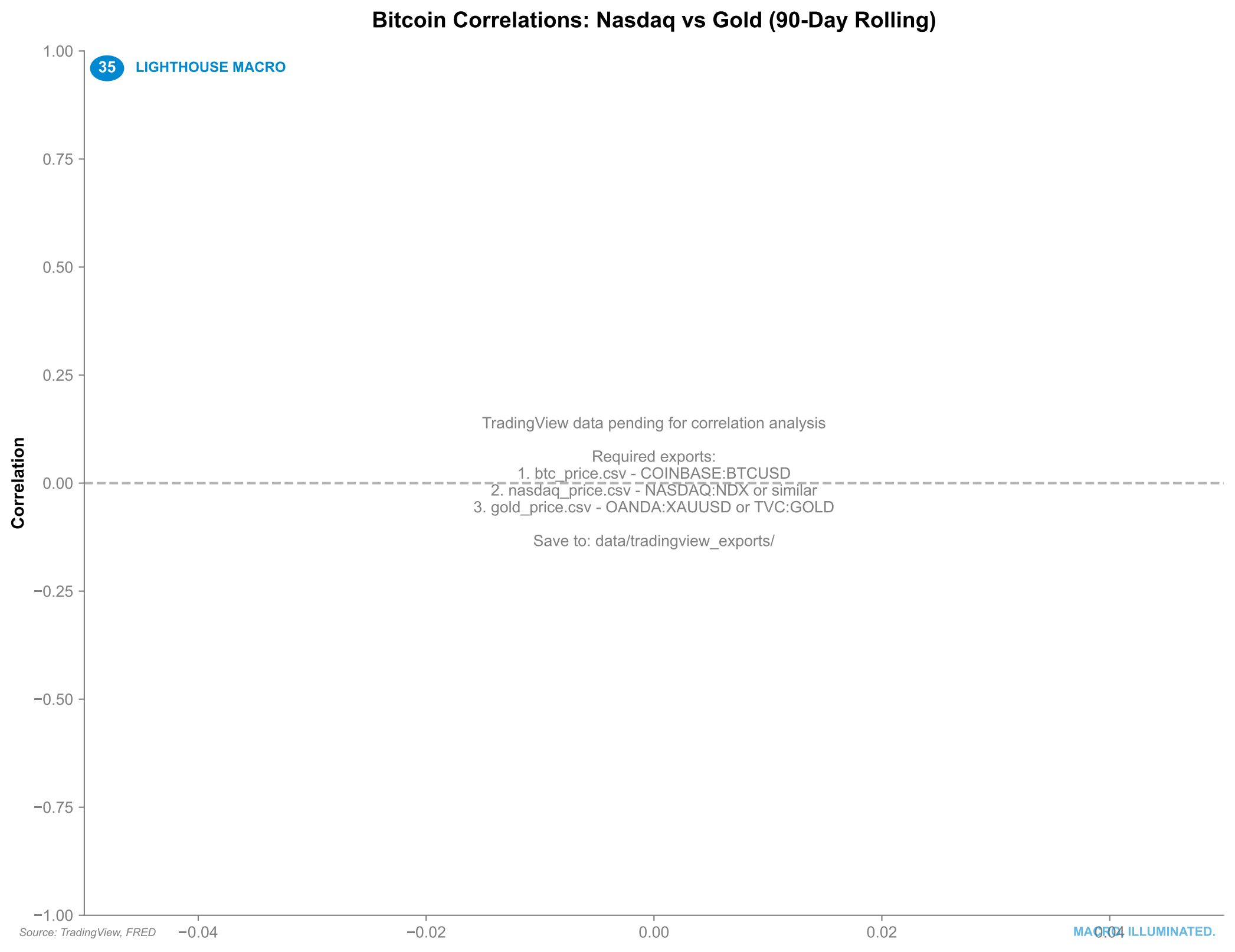
Stablecoins backed by Treasuries compete with MMFs for same collateral.
Crypto is eating TradFi from the inside.

Bitcoin vs Stablecoin Supply: Crypto Liquidity Dynamics


Stablecoin Market Composition: USDT, USDC, DAI
32
LIGHTHOUSE MACRO
Market Cap ($B)
1.0
0.8
0.6
0.4
0.2
0.0
TradingView stablecoin data integration pending
Required exports:
1. usdt_supply.csv - BINANCE:USDTUSD or Tether market cap
2. usdc_supply.csv - COINBASE:USDCUSD or USDC market cap
3. dai_supply.csv - COINBASE:DAIUSD or DAI market cap
Save to: data/tradingview_exports/
−0.04
−0.02
0.00
0.02
0.04
Source: TradingView - Stablecoin data
MACRO ILLUMINATED.


Stablecoins vs Money Market Funds: Digital vs Traditional
33
MMF Assets
MACRO
$7481.2T
Stablecoin Supply ($B)
MMF Assets ($T)
1.0
0.8
0.6
0.4
0.2
0.0
7000
6500
6000
5500
5000
Stablecoin data pending
MMF data available from FRED
2021-01
2021-07
2022-01
2022-07
2023-01
2023-07
2024-01
2024-07
2025-01
Source: TradingView, FRED
MACRO, ILLUMINATED.


Bitcoin Realized Volatility vs VIX: Crypto-Trad Stress
34
VIX
THOUSE MACRO
Bitcoin data pending for volatility calculation
Export COINBASE:BTCUSD daily data to:
data/tradingview_exports/btc_price.csv
VIX
BTC 30-Day Realized Vol (%)
26.4
50
45
40
35
30
25
20
15
10
1.0
0.8
0.6
0.4
0.2
0.0
2024-01
2024-04
2024-07
2024-10
2025-01
2025-04
2025-07
2025-10
Source: TradingView, FRED
ILLUMINATED.


Bitcoin Correlations: Nasdaq vs Gold (90-Day Rolling)
35
LIGHTHOUSE MACRO
1.00
0.75
0.50
0.25
0.00
−0.25
−0.50
−0.75
−1.00
Correlation
TradingView data pending for correlation analysis
Required exports:
1. btc_price.csv - COINBASE:BTCUSD
2. nasdaq_price.csv - NASDAQ:NDX or similar
3. gold_price.csv - OANDA:XAUUSD or TVC:GOLD
Save to: data/tradingview_exports/
−0.04
−0.02
0.00
0.02
0.04
Source: TradingView, FRED
MACRO ILLUMINATED.

SECTION 6

AI INFRASTRUCTURE & CAPEX CYCLE

Framework: AI CapEx as Leading GDP Indicator

The Magnificent 7 are spending $200B+ annually on AI infrastructure. This CapEx cycle drives semiconductor demand, foundry capacity, and IT investment—all of which feed into GDP with a lag. This section tracks the build-out and identifies inflection points.

Key Indicators:

1. Mag 7 CapEx Trends - Are they still spending or cutting?
2. Semiconductor Equipment Exports - Leading indicator of chip production
3. IT Investment Contribution to GDP - How much is AI driving growth?

The CapEx Cycle:

1. Early Stage: Hyperscalers announce massive budgets
2. Build-Out: Equipment orders surge, NVDA/TSM rally
3. Peak CapEx: Spending plateaus, utilization still low
4. Digestion: CapEx cuts, equipment names correct
5. Payoff: Utilization rises, revenue justifies spending

What to Watch:

• Mag 7 CapEx growth decelerating = Peak AI spending
• Taiwan semi exports declining = Chip demand rolling over
• IT investment/GDP flattening = CapEx not flowing to GDP yet

Takeaway:

Follow the CapEx, not the hype. When spending slows, NVDA is a sell regardless of revenue beats.

Magnificent 7 CapEx Trends: AI Infrastructure Spend

Image not found:
mag7_capex.png

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Source: MacroMicro

AI Software RPO Growth: Remaining Performance Obligations

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ai_software_rpo.png

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/Users/bob/lighthouse_paywall_deck/macromicro_charts

Source: MacroMicro

Global Semiconductor Equipment vs Taiwan Exports

Image not found:
semi_equipment_exports.png

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/Users/bob/lighthouse_paywall_deck/macromicro_charts

Source: MacroMicro

US IT Investment Contribution to Real GDP Growth

Image not found:
it_investment_gdp.png

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/Users/bob/lighthouse_paywall_deck/macromicro_charts

Source: MacroMicro

NVDA: AI Infrastructure Leader (vs SMH Benchmark)

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nvda_3panel.png

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Source: TradingView - 3-Panel Analysis

MSFT: Cloud/AI Software Leader (vs QQQ Benchmark)

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msft_3panel.png

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Source: TradingView - 3-Panel Analysis

TSM: Foundry Capacity Bottleneck (vs SMH Benchmark)

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tsm_3panel.png

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Source: TradingView - 3-Panel Analysis