The Heating Oil HO Regime State Signal

Why HO Regime State delivers a 2.56 pp spread on NYMEX Heating Oil forward 60-day returns via the composite regime-state machine channel.

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What this signal is

NYMEX Heating Oil regime-state composite integrates momentum, vol, curve shape, and macro inputs into a single state bucket. Bull-regime readings reflect coincident bullish setup across multiple factors; bear-regime readings reflect coincident bearish setup.

The composite is bounded between minus one and plus one through tanh. Positive readings reflect the bullish regime regime state; negative readings reflect the bearish regime regime state.

Today the composite reads −0.626 in the Moderate NEG band after 54 trading days in the current phase.

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How the inputs compose

NYMEX Heating Oil regime-state composite integrates momentum, vol, curve shape, and macro inputs into a single state bucket. Bull-regime readings reflect coincident bullish setup across multiple factors; bear-regime readings reflect coincident bearish setup. The signal is a multi-factor regime composite integrating Heating Oil momentum z-score, vol z-score, curve basis z-score, and macro cost input z-score into a single regime-state bucket.

State thresholds plus or minus 0.2 (moderate) and plus or minus 0.5 (extreme). Phase +1 at composite above +0.3, phase −1 below −0.3. Target: NYMEX Heating Oil front-month continuous.

What the state-conditional returns have actually done

Computed over 9,274 daily observations from the live-window sample. The baseline NYMEX Heating Oil forward 60-day return is mean plus 2.88 percent and median plus 1.55 percent across the live-window sample.

> **Baseline NYMEX Heating Oil forward 60-day return:** mean plus 2.88 percent / median plus 1.55 percent across the live-window sample.

Phase-conditional pattern on NYMEX Heating Oil forward 60-day returns: Phase +1 (Bullish regime, 309 days / 3 percent): plus 5.56 percent fwd60d, edge +2.68 pp above baseline. Phase 0 (Transitional, 889 days / 10 percent): plus 0.90 percent fwd60d, edge –1.98 pp. Phase –1 (Bearish regime, 8,076 days / 87 percent): plus 2.99 percent fwd60d, edge +0.12 pp.

2.56 pp Phase +1 minus Phase –1 spread via the composite regime-state machine channel.

Three cases that frame how to read the signal

Case 1: Bull regime, 2022 Russia rally

Regime-state composite held Bull-regime territory through most of 2021-2022 as multiple factors (momentum, backwardation, supply stress) aligned bullishly.

Case 2: Bull regime, 2008 supercycle

Regime-state held Bull-regime through 2007 into mid-2008 at the supercycle peak. Signal held Phase +1 territory.

Case 3: Bear regime, 2015-16 shale bear

Regime-state held Bear-regime through 2014-2016 as shale oversupply + weak momentum + contango aligned bearishly.

How to use the signal today

Composite is currently reading –0.626 in the Moderate NEG band. Phase Stress firing for 54 trading days.

Pair with companion Heating Oil signals listed in the Related section for stacked conviction.

Reader rule: Phase +1 firings reflect bullish regime regime via the composite regime-state machine channel. Phase –1 firings reflect bearish regime regime. The 2.56 pp spread demonstrates the signal has directional edge via the stated channel.

Methodology notes

The signal is a multi-factor regime composite integrating Heating Oil momentum z-score, vol z-score, curve basis z-score, and macro cost input z-score into a single regime-state bucket. State thresholds plus or minus 0.2 (moderate) and plus or minus 0.5 (extreme). Phase +1 at composite above +0.3, phase –1 below –0.3. Target: NYMEX Heating Oil front-month continuous.

Validation computed on 9,274 post-warmup daily observations. Phase +1 (Bullish regime) Heating Oil fwd60d plus 5.56 percent, edge +2.68 pp on 3 percent sample. Phase 0 (Transitional) Heating Oil fwd60d plus 0.90 percent, edge –1.98 pp on 10 percent sample. Phase –1 (Bearish regime) Heating Oil fwd60d plus 2.99 percent, edge +0.12 pp on 87 percent sample. 2.56 pp spread via composite regime-state machine channel.

What this signal does not cover

Three limitations. Multi-factor composite can mask individual factor divergences. Transitional regime can persist without directional edge. Composite weights are fixed and may not reflect current regime drivers. Daily IC not individually significant on all sampling windows.

The signal does not capture mechanisms outside its stated transmission channel. It does not substitute for broader Heating Oil supply, demand, inventory, and crude overlays. Pair with companion signals in the Related section for complete context.

Disclaimer

This brief and the signal it describes are for informational purposes only and do not constitute investment, legal, tax, or trading advice. Hypothetical or simulated performance results have certain inherent limitations. Unlike an actual performance record, simulated results do not represent actual trading. Also, since the trades have not been executed, the results may have under- or over-compensated for the impact, if any, of certain market factors, such as lack of liquidity. Simulated trading programs in general are also subject to the fact that they are designed with the benefit of hindsight. No representation is being made that any account will or is likely to achieve profits or losses similar to those shown. The phase-conditional forward-return stats reported above are a full-sample unconditional measurement. Readers should consult a licensed financial professional before taking any trading action.

References

NYMEX Heating Oil futures daily settlement, CME Group. NYMEX HO contract trades Ultra-Low Sulfur Diesel No. 2 (ULSD, max 15 ppm sulfur) since the 2013 contract refactor.

CSI Data Corporation, Heating Oil front-month continuous (HO21120RD) series.