The Heating Oil HO Cass Freight Expenditures Signal

Why HO Cass Freight Expenditures delivers a 14.36 pp spread on NYMEX Heating Oil forward 60-day returns via the US trucking freight expenditure demand channel.

David Stendahl · Market Lab Analytics · Nov 09, 2026

What this signal is

Elevated US Cass Freight expenditures signal strong trucking demand that transmits bullish to NYMEX Heating Oil directly, since the Heating Oil contract trades ULSD, the same diesel fuel trucks burn; compressed Cass freight spend signals weak trucking demand and bearish Heating Oil.

The composite is bounded between minus one and plus one through tanh. Positive readings reflect the freight spend up regime state; negative readings reflect the freight spend down regime state.

Today the composite reads +0.936 in the Surge Freight Boom band after 27 trading days in the current phase.

• • •

How the inputs compose

Elevated US Cass Freight expenditures signal strong trucking demand that transmits bullish to NYMEX Heating Oil directly, since the Heating Oil contract trades ULSD, the same diesel fuel trucks burn; compressed Cass freight spend signals weak trucking demand and bearish Heating Oil. The signal takes Cass Freight Index expenditures component, z-scored against 24-month rolling window, tanh-bounded. Cass measures the dollar value of US trucking shipments.

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 1,929 daily observations from the live-window sample. The baseline NYMEX Heating Oil forward 60-day return is mean plus 5.04 percent and median plus 1.06 percent across the live-window sample.

Baseline NYMEX Heating Oil forward 60-day return: mean plus 5.04 percent / median plus 1.06 percent across the live-window sample.

Phase-conditional pattern on NYMEX Heating Oil forward 60-day returns: Phase +1 (Freight spend up, 290 days / 15 percent): plus 12.09 percent fwd60d, edge +7.05 pp above baseline. Phase 0 (Normal, 1,077 days / 56 percent): plus 7.22 percent fwd60d, edge +2.18 pp. Phase −1 (Freight spend down, 562 days / 29 percent): minus 2.27 percent fwd60d, edge −7.31 pp.

14.36 pp Phase +1 minus Phase −1 spread via the US trucking freight expenditure demand channel.

Three cases that frame how to read the signal

Case 1: Freight spend up, 2022 post-COVID trucking boom

US Cass Freight expenditures peaked through Q1-Q2 2022 as post-COVID supply-chain reorganization drove record trucking demand. Signal held Phase +1 territory.

Case 2: Freight spend up, 2008 pre-crisis peak

US Cass Freight expenditures held elevated through 2008 H1 at the supercycle demand peak. Signal held Phase +1 territory.

Case 3: Freight spend down, 2020 COVID lockdown

US Cass Freight expenditures collapsed through April 2020 as lockdowns halted trucking activity. Signal held deep Phase −1 territory.

How to use the signal today

Composite is currently reading +0.936 in the Surge Freight Boom band. Phase Phase 3 firing for 27 trading days.

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

Reader rule: Phase +1 firings reflect freight spend up regime via the US trucking freight expenditure demand channel. Phase −1 firings reflect freight spend down regime. The 14.36 pp spread demonstrates the signal has directional edge via the stated channel.

Methodology notes

The signal takes Cass Freight Index expenditures component, z-scored against 24-month rolling window, tanh-bounded. Cass measures the dollar value of US trucking shipments. 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 1,929 post-warmup daily observations. Phase +1 (Freight spend up) Heating Oil fwd60d plus 12.09 percent, edge +7.05 pp on 15 percent sample. Phase 0 (Normal) Heating Oil fwd60d plus 7.22 percent, edge +2.18 pp on 56 percent sample. Phase −1 (Freight spend down) Heating Oil fwd60d minus 2.27 percent, edge −7.31 pp on 29 percent sample. 14.36 pp spread via US trucking freight expenditure demand channel.

What this signal does not cover

Three limitations. Cass expenditures include rate and volume effects; cannot separate. Monthly data has 15-day publication lag. Signal captures spot-rate trucking, not contract-fleet diesel demand. 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.