The FC LC Ratio Lag60d Signal, Grade A Directional Read with the Strongest IC in the Cohort

Why log(LC/FC) z-scored on 252 days and lagged 60 trading days is a Grade A directional signal with the strongest IC in the FC signal cohort after the US Herd Inventory anchor – daily IC plus 0.214 and non-overlap IC plus 0.231 at p-equals-0.004 both independently significant.

David Stendahl · Market Lab Analytics · November 1, 2026

The signal and why it matters today

The log LC/FC ratio z-scored on 252 days captures the relative pricing between finished and feeder cattle. This signal takes that z-score and lags it 60 trading days – the composite today reads where the ratio was approximately three months ago. The mechanism: the relative-pricing information embedded in LC/FC takes time to flow through the feedlot pipeline back to feeder cattle.

High LC/FC 60 days ago (deferred finished-cattle firmness) predicts bullish FC today as feedlot demand pulls feeder prices forward. Low LC/FC 60 days ago (deferred finished-cattle weakness) predicts bearish FC today as feedlot demand pulls back.

Daily Spearman IC against FC fwd60d is plus 0.214 at p-value less than 1e-94 across 9,173 trading days – the strongest IC in the FC signal cohort after the US Herd Inventory anchor. Non-overlapping (every-60-day) IC is plus 0.231 at p-value 0.004 across 153 independent samples – INDEPENDENTLY SIGNIFICANT.

Phase +1 (FC Bull Lag High) delivers plus 3.40 percent fwd60d at 66 percent hit rate, plus 2.17 pp above the plus 1.22 percent baseline. Phase +2 (Strong FC Bull) delivers plus 2.96 percent. Phase −1 (FC Bear Lag Low) delivers minus 1.30 percent at 43 percent hit rate, minus 2.52 pp below baseline. Phase −2 (Strong FC Bear) delivers minus 0.47 percent. 5.92 pp spread between Phase +1 and Phase −1 tails.

The engine runs a 5-state regime map at thresholds plus or minus 0.3 and plus or minus 0.7. The live regime table on the signal page collapses to 3 rows (Phase +2 folded into FC Bull Lag High, Phase −2 folded into FC Bear Lag Low) for reader simplicity.

Current reading: Neutral regime at composite minus 0.124, 9 trading days running. The lagged LC/FC ratio is near zero. The signal is DORMANT. Watch for transition to Phase +1 (strongly bullish) or Phase −1 (strongly bearish) for an actionable high-conviction read.

How the lagged-ratio mechanism composes

The log LC/FC ratio captures relative pricing between finished and feeder cattle. The 60-day lag is the distinctive feature of this signal – it captures the time it takes for relative-pricing information to flow through the finished-cattle market to the feedlot and ultimately back to the feeder-cattle market.

High Lagged LC/FC (positive composite, Phase +1 or +2) means the LC/FC ratio was high 60 days ago – finished cattle were trading firm relative to feeders at that moment. This regime historically coincides with:

- Finished-cattle leadership windows where packer demand pulls LC prices up
- Cycle-rebuild phases where firm beef demand supports deferred finished pricing
- Feedlot absorption surges that have had 60 days to work through to feeder demand

Historical pattern: Phase +1 delivers plus 2.17 pp above baseline (hit 66 percent). Phase +2 delivers plus 1.74 pp above baseline. The lag captures the pass-through from finished-cattle leadership to feeder-cattle rally.

Low Lagged LC/FC (negative composite, Phase −1 or −2) means the LC/FC ratio was low 60 days ago – finished cattle were trading soft relative to feeders. This regime historically coincides with:

- Finished-cattle weakness windows where packer demand compresses
- Cycle-decline phases where soft beef demand compresses deferred pricing
- Feedlot pullback periods that have had 60 days to work through

Historical pattern: Phase −1 delivers minus 2.52 pp below baseline (hit 43 percent). Phase −2 delivers minus 1.69 pp below baseline. The lag captures the pass-through from finished-cattle weakness to feeder-cattle drag.

Normal regime (Phase 0) is the equilibrium zone where the lagged ratio was near its 252-day rolling mean 60 days ago. Historical pattern: near baseline (plus 0.80 pp).

The strongest asymmetry: Phase −1 (minus 2.52 pp) is deeper than Phase −2 (minus 1.69 pp). The deepest-lagged readings often coincide with mean-reversion inflection points.

What the state-conditional returns have actually done

> **Reference baseline – FC fwd60d (unconditional)**
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> CME Feeder Cattle back-adjusted continuous (FC_110ARD) forward-60-day return baseline (unconditional): mean plus 1.22 percent, median plus 1.60 percent, standard deviation 7.8 percent, percent negative 42 percent. Sample window 1990-11-29 through 2026-10-30, 9,173 trading days with observable fwd60d.

Per-day sampling (used for daily Spearman IC), full 5-state breakdown:

Phase plus 2 (Strong FC Bull, composite greater than plus 0.7) covers 1,251 trading days – 13.6 percent of the sample. Per-day mean fwd60d plus 2.96 percent, hit rate 67 percent. OUTPERFORMS baseline by plus 1.74 pp.

Phase plus 1 (FC Bull Lag High, composite between plus 0.3 and plus 0.7) covers 1,854 trading days – 20.2 percent of the sample. Per-day mean fwd60d plus 3.40 percent, hit rate 66 percent. OUTPERFORMS baseline by plus 2.17 pp.

Phase 0 (Normal, composite within plus or minus 0.3) covers 2,365 trading days – 25.8 percent of the sample. Per-day mean fwd60d plus 2.02 percent, hit rate 58 percent. Near baseline (plus 0.80 pp).

Phase minus 1 (FC Bear Lag Low, composite between minus 0.7 and minus 0.3) covers 2,227 trading days – 24.3 percent of the sample. Per-day mean fwd60d minus 1.30 percent, hit rate 43 percent. UNDERPERFORMS baseline by minus 2.52 pp.

Phase minus 2 (Strong FC Bear, composite less than minus 0.7) covers 1,476 trading days – 16.1 percent of the sample. Per-day mean fwd60d minus 0.47 percent, hit rate 47 percent. UNDERPERFORMS baseline by minus 1.69 pp.

5.92 pp directional spread between Phase +1 and Phase −1. The signal fires meaningfully in 74 percent of the sample (phases plus or minus 1 or 2).

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Three cases that frame how to read this signal

Case 1: Q2 2004. Strong FC Bull – post-BSE lagged recovery.

Context: Q1 2004 LC rallied strongly as finished-cattle demand firmed post-BSE discovery. The 60-day lag carried that information into Q2 2004 Strong FC Bull Phase +2 at composite near plus 0.85. Feeder cattle responded with a sustained rally through Q2. Canonical Strong FC Bull anchor.

Case 2: Q4 2015. Strong FC Bear – 2015 lagged cycle unwind.

Context: Q3 2015 LC/FC collapse as the 2014-2015 cycle highs unwound. The 60-day lag carried that information into Q4 2015 Strong FC Bear Phase −2 at composite near minus 0.90. Feeder cattle fell firmly through Q4. Canonical Strong FC Bear anchor.

Case 3: Q3 2022. FC Bull Lag High – 2022 LC leadership.

Context: LC rallied through Q2 2022 as post-COVID beef demand peaked. The 60-day lag carried that information into Q3 2022 FC Bull Lag High Phase +1 at composite near plus 0.60. Feeder cattle rallied firmly through Q3. Modern-era FC Bull Lag High anchor.

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How to use the signal today

As of November 1, 2026, the composite reads minus 0.124 – Neutral regime, 9 trading days running. The lagged LC/FC ratio is near zero. CME Feeder Cattle trades the 330 to 340 dollar range.

The signal is DORMANT in the Neutral band. Normal regime delivers plus 0.80 pp above baseline historically – modest tailwind. Watch for transition to Phase +1 (FC Bull Lag High, plus 2.17 pp bullish) or Phase −1 (FC Bear Lag Low, minus 2.52 pp bearish) for an actionable high-conviction read.

Pair with four confirming reads for direction:

- **FC US Herd Inventory Signal (Z6637)**. Strongest-IC structural supply anchor.
- **FC Light Placement Pace Signal (Z3769)**. Grade A with widest spread in FC library.

- **FC LC/FC Ratio Signal (Z6634)**. Current LC/FC ratio (no lag) – Grade B+.
- **FC Term Structure Curve Signal (Z3302)**. Market consensus on forward FC supply.

The lagged ratio is complementary to the current LC/FC Ratio signal. Current LC/FC reads where the ratio is TODAY; lagged LC/FC reads where the ratio was 60 days ago. The two signals in combination can distinguish between a trend that is already playing through versus a trend that is just starting.

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Methodology notes

Data source. CME Live Cattle and CME Feeder Cattle back-adjusted continuous closes from continuous data provider. LC_110ARD and FC_110ARD.

Signal construction. Composite = log(LC/FC), z-scored on 252-day rolling window with 63-day minimum sample. Tanh-bounded to [−1, +1]. The z-score is then LAGGED 60 trading days – today reads what the ratio was approximately 3 months ago. Engine uses 5-state regime map at thresholds plus or minus 0.3 and plus or minus 0.7. Phase +2 above +0.7, phase +1 between +0.3 and +0.7, phase 0 within +/- 0.3, phase −1 between −0.7 and −0.3, phase −2 below −0.7. Target: CME Feeder Cattle back-adjusted continuous (FC_110ARD). Daily release.

Validation statistics. Daily Spearman IC plus 0.214 at p-value less than 1e-94 across 9,173 observations – strongest IC in the FC signal cohort after the US Herd Inventory anchor. Phase +1 per-day mean fwd60d plus 3.40 percent (plus 2.17 pp above plus 1.22 percent baseline, hit 66 percent). Phase +2 per-day mean plus 2.96 percent (plus 1.74 pp above baseline). Phase 0 per-day mean plus 2.02 percent (plus 0.80 pp above baseline). Phase −1 per-day mean minus 1.30 percent (minus 2.52 pp below baseline, hit 43 percent). Phase −2 per-day mean minus 0.47 percent (minus 1.69 pp below baseline). 5.92 pp spread between Phase +1 and Phase −1 tails.

Independence test. Non-overlapping (every-60d) sampling yields Spearman IC plus 0.231 at p-value 0.004 across 153 independent observations – INDEPENDENTLY SIGNIFICANT.

Regime-table collapse. The live signal page regime table displays 3 rows (FC Bull Lag High combines Phase +1 and +2; FC Bear Lag Low combines Phase −1 and −2) for reader simplicity. The 5-state breakdown is in the per-day statistics above.

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What this signal does not cover

First, the 60-day lag means the signal reads history that has already played through the feedlot pipeline. In sharp inflection moments the lag can misalign – a sudden shift in beef demand that happens today will not show up in the signal for 60 trading days.

Second, Phase 0 Neutral (25.8 percent of sample) is dormant – the signal only fires actionable reads at Phase +/- 1 or +/- 2. The current reading is in the dormant zone.

Third, the asymmetry between Phase −1 (minus 2.52 pp) and Phase −2 (minus 1.69 pp) means the deepest-lagged readings do NOT provide the deepest bearish lean. The deepest readings often coincide with mean-reversion inflection points where the trend reverses. Treat Phase −2 as a WEAKER bearish signal than Phase −1.

Broader caveat: Grade A directional signal with strongest IC in the FC cohort after the US Herd Inventory anchor. The signal provides a high-conviction tactical lean on FC positioning when Phase +1 or −1 fires. Pair with FC US Herd Inventory, FC Light Placement Pace, FC Term Structure Curve, and the LC fundamental stack for stacked confirmation.

This research brief is for informational purposes only and does not constitute investment advice. Past performance is not indicative of future results. Signal reads reflect historical state-conditional statistics; any decision to act on signal readings is the reader's responsibility. Data sources: CME Live Cattle and CME Feeder Cattle back-adjusted continuous closes from continuous data provider. State-conditional statistics computed through 2026-10-30.