The Corn Dec-Nearby Carry Signal, A Futures-Structure Supply Lens

Reading the CBOT corn December-nearby calendar spread, z-scored and polarity-inverted. The state-to-corn-forward-return pattern is CONTRARIAN: deep carry readings (supply abundance priced in) deliver positive forward returns; carry inversion (scarcity priced in) delivers negative. Pre-priced-tail dynamics on both sides.

David Stendahl · Market Lab Analytics · November 2, 2026

What this signal is, with the limits stated upfront

The CBOT corn December-nearby calendar spread captures the market's assessment of supply tightness through the futures-structure lens. When the December contract trades well above the first-nearby, the market is paying holders to store corn through the harvest window: that is DEEP CARRY, the signature of abundant supply. When the first-nearby trades above December, scarcity is pulling demand into the immediate contract: that is CARRY INVERSION.

The signal reads the Dec-nearby spread, z-scores on a long rolling window, and polarity-inverts so inversion reads positive composite. Composite above plus 0.5 is Carry Inverted (Scarcity). Composite below minus 0.5 is Deep Carry (Storage Incentive). The middle band is Normal Carry.

Current reading, as of October 30, 2026: composite minus 0.76 (deep Deep Carry band). CBOT December trades well above the first-nearby, consistent with abundant 2025 supply priced in. The parallel Z4393 Stocks Loosening signal confirms the fundamental supply-abundance picture.

CONTRARIAN INTERPRETATION. Daily Spearman IC against CBOT Corn fwd 60-day return is minus 0.061 at p-value 6.1e-09 across 8,984 observations. State-conditional per-day means: Deep Carry delivers plus 1.10 percent (edge plus 0.81 pp above the plus 0.29 percent baseline), Normal Carry plus 0.27 percent (edge minus 0.03 pp), Carry Inverted minus 0.66 percent (edge minus 0.95 pp). The sign direction is OPPOSITE the naive "deep carry = bearish, inverted = bullish" reading. The pre-priced-tail interpretation applies: by the time the futures structure prices scarcity (or abundance), the directional move is already in; forward returns tend to mean-revert.

Limits upfront: the signal is driven by futures-market structure, not fundamentals directly. It captures the MARKET'S interpretation of supply tightness as encoded in calendar spreads; use alongside the direct supply signals (Ending Stocks, phenology) for fundamental context.

How the Dec-nearby carry composite composes

Direct observation: CBOT corn December contract and first-nearby contract daily closing prices. Dec-nearby spread = Dec close - first-nearby close.

Derived comparison: long rolling z-score of the Dec-nearby spread. Polarity-inverted (inversion reads positive). Tanh-bound to minus 1 to plus 1.

State thresholds. Composite above plus 0.5 is Carry Inverted (Scarcity). Composite below minus 0.5 is Deep Carry (Storage Incentive). The middle band is Normal Carry.

The signal's power comes from its pre-priced-tail CONTRARIAN signature. Markets that have fully priced abundance (deep carry) or scarcity (inversion) tend to mean-revert as the real supply picture resolves either direction.

What the state-conditional returns have actually done

> **Reference baseline, CBOT Corn fwd 60-day unconditional**
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> CBOT Corn back-adjusted continuous forward-60-day return baseline over the full sample window of 1990-11-29 through 2026-10-30: mean plus 0.29 percent, median minus 1.01 percent, standard deviation 10.89 percent, percent negative 56.6 percent.

Deep Carry (Storage Incentive) (composite below minus 0.5) covers 47.2 percent of the sample. Per-day mean plus 1.10 percent, edge plus 0.81 pp above baseline. The pre-priced-abundance state; forward returns run modestly positive on mean reversion.

Normal Carry (composite between minus 0.5 and plus 0.5) covers 19.2 percent of the sample. Per-day mean plus 0.27 percent, edge minus 0.03 pp (essentially baseline).

Carry Inverted (Scarcity) (composite above plus 0.5) covers 33.6 percent of the sample. Per-day mean minus 0.66 percent, edge minus 0.95 pp below baseline. The pre-priced-scarcity state; forward returns run modestly negative on mean reversion.

Directional spread: plus 1.76 pp from Carry Inverted to Deep Carry. The CONTRARIAN monotone pattern is clean.

Three cases that frame how to read this signal

Case 1: 2016-2017. Deep Carry during the record-crop downdraft.

The record 2016 US corn crop drove abundant stocks and deep carry structure. The signal fired into Deep Carry throughout 2016 and much of 2017. Corn initially drifted lower from 400 to 350 cents, then stabilized and rallied modestly through 2018 — consistent with the pre-priced-abundance mean-reversion signature.

Case 2: 2012. Carry Inverted during the drought.

The 2012 drought drove US corn stocks to multi-decade lows; carry inverted sharply as scarcity pressured the nearby. The signal fired into deep Carry Inverted. Corn front-month rallied through 2012 (consistent with the fundamental), but the forward-60-day returns FROM each firing were mixed — the market had already priced the scarcity, and forward moves depended more on realized supply (which continued to tighten).

Case 3: Current. Deep Carry consistent with abundant 2025 supply.

As of October 30, 2026, the signal reads composite minus 0.76 (deep Deep Carry band). The CBOT December trades well above the first-nearby. The parallel Z4393 Stocks Loosening signal confirms the fundamental supply-abundance. Historical pattern suggests modest-positive corn fwd 60-day as the market mean-reverts from the pre-priced-abundance state.

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How to use the signal today

As of November 2, 2026, the composite reads minus 0.76 and the state is Deep Carry (Storage Incentive). Historical Deep Carry firings deliver plus 1.10 percent per-day mean fwd 60-day (edge plus 0.81 pp above baseline) — mildly supportive of corn via the pre-priced-abundance mean-reversion mechanism.

Pair with three confirming reads:

- **Z4393 US Corn Ending Stocks YoY.** The direct supply-balance signal. Currently Stocks Loosening confirms the abundant-supply fundamentals the carry structure is pricing.
- **Z4652 US vs IMF Global Corn Price Ratio.** The relative-value export-precursor signal. Deep carry + US cheap vs global = classic export-pull-absorbing-abundance setup.
- **Z4470 CFTC Corn Commercials Net Position.** The informed-flow positioning signal.

Use the carry signal as a futures-structure confirmation of the fundamental supply balance.

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Methodology notes

Data sources. CBOT corn December contract and first-nearby contract daily closing prices.

Signal construction. Dec close - first-nearby close. Long rolling z-score (3-5 year window). Polarity-inverted. Tanh-bound to minus 1 to plus 1. State thresholds plus or minus 0.5 extreme and plus or minus 0.2 moderate. Target: CBOT Corn back-adjusted continuous. INTERPRETATION: contrarian (pre-priced-tail mean reversion).

Validation statistics. Daily Spearman IC against CBOT Corn fwd 60-day return is minus 0.061 at p-value 6.1e-09 across 8,984 live-signal days. Three-regime per-day means: Deep Carry plus 1.10 percent (edge plus 0.81 pp vs plus 0.29 percent baseline), Normal Carry plus 0.27 percent (edge minus 0.03 pp), Carry Inverted minus 0.66 percent (edge minus 0.95 pp). Directional spread 1.76 pp, contrarian direction.

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What this signal does not cover

First, the signal reads futures-market structure, not fundamentals directly. Use with the direct supply signals (Ending Stocks, phenology) for context.

Second, the Dec-nearby spread is affected by calendar effects (contract roll timing, delivery notice periods). The long rolling z-score partially normalizes but residual seasonality remains.

Third, during macro liquidity events (2020 COVID), calendar spreads can disconnect from supply-demand fundamentals as positioning flow dominates.

Fourth, the contrarian interpretation is MECHANISM, not a trading rule. Trading the carry signal in isolation ignores the fundamental context that drives both the structure and the forward return.

This research brief is for informational purposes only and does not constitute investment advice. Data sources: CBOT corn December and first-nearby contract daily closing prices, CBOT Corn back-adjusted continuous target. State-conditional statistics computed through 2026-10-30.