The KC ICO ICIP Composite Price YoY Signal: Global Benchmark as a Directional Lens for Arabica

Why the ICO International Coffee Indicator Price year-over-year delivers a 10.93 pp directional spread on Arabica forward 60-day returns across 11 years.

David Stendahl · Market Lab Analytics · November 5, 2026

The signal with the limits stated upfront

Three things the reader must know before the rest of this brief lands.

First, the full-distribution daily Spearman information coefficient against Arabica forward 60-day returns is plus 0.305 at p-value 2.9e-61 on a sample of 2,795 daily observations spanning 2015 through 2026. Strongly significant on the 11-year window. This is the highest-conviction leading indicator currently shipped in the KC library.

Second, Phase +1 (Global Rising) delivers plus 6.65 percentage points above baseline across 901 trading days (32.2 percent of sample) and Phase −1 (Global Falling) delivers minus 4.28 percentage points across 1,413 days (50.6 percent). 10.93 pp directional spread.

Third, the non-overlap independence test at 60-day sampling is INDEPENDENTLY significant. Across 47 independent samples the Spearman is plus 0.295 with p-value 0.04. However, the signal is a near-identity relationship with Arabica because the ICIP is a weighted composite that includes Arabica benchmarks; the high IC partially reflects construction overlap not pure external leading-indicator value.

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The thesis: global coffee price benchmark

The International Coffee Organization publishes the International Coffee Indicator Price as the official global composite coffee price benchmark. The ICIP is a weighted average of the four major coffee-type indicators: Colombian Milds, Other Milds, Brazilian Naturals, and Robustas. It serves as the single most-watched global reference price for coffee and is the index that producer country finance ministries and roaster trade associations track as the industry benchmark.

When the ICIP runs above prior-year levels the global coffee complex is in a rising-price regime that supports Arabica strength via macro commodity momentum, speculator inflow, and cross-coffee demand rotation. When it runs below prior year, global weakness pulls Arabica with it. The signal captures this regime with a monthly year-over-year z-score.

The signal takes the ICO ICIP monthly year-over-year percent change, z-scores on a rolling window, and tanh-bounds. 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: ICE US Coffee C first-nearby back-adjusted close.

Historical window: ICO ICIP series from 1990 but reliable monthly reporting for YoY z-score computation from 2015 onward in the current database; engine runs from 2015 with 504-bar warmup.

What the firings have actually done

Computed over 2,795 daily observations post-warmup from 2015 onward. The baseline Arabica forward 60-day return is mean plus 3.04 percent and median plus 0.42 percent across the live-window sample.

> **Baseline Arabica forward 60-day return:** mean plus 3.04 percent / median plus 0.42 percent across the live-window sample.
>
> **Daily Spearman IC (fwd 60d):** plus 0.305, p-value 2.9e-61, N equals 2,795. Strongly significant.
>
> **Non-overlap IC (60-day step):** plus 0.295, p-value 0.04, N equals 47. INDEPENDENTLY significant.
>
> **Phase-conditional forward 60-day Arabica returns:** Phase +1 (Global Rising, 901 days / 32.2 pct): plus 9.69 percent, edge plus 6.65 pp. Phase 0 (On Trend, 481 days / 17.2 pct): plus 3.16 percent, edge plus 0.12 pp. Phase −1 (Global Falling, 1,413 days / 50.6 pct): minus 1.24 percent, edge minus 4.28 pp.
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> 10.93 pp directional spread between Phase +1 and Phase −1. Clean monotone phase pattern.

Three findings. The daily IC is strongly significant and the non-overlap test clears the 5 percent threshold independently (rare in the KC library). The monotone phase pattern cleanly separates Global Rising from Global Falling with 10.93 pp spread, one of the widest in the KC book. The mechanism is clear but the signal is partly a near-identity relationship with its target; readers should respect this caveat.

Three cases that frame how to read the signal

The canonical anchors are the 2021-2022 global rally, the 2016-2017 global rally, and the 2018-2019 global trough.

Case 1: The 2021-2022 global rally

Global Rising firing anchored the 2021-2022 global coffee rally as the ICO ICIP broke above prior year by year-on-year double digits through the Brazilian frost period. Composite held in Phase +1 territory

through the full rally. Arabica delivered material forward returns through the regime consistent with the empirical Phase +1 edge; KC traded from roughly 1.20 per pound pre-frost to above 2.40 at the 2022 peak.

Case 2: The 2016-2017 global rally

Global Rising firing through late 2016 and early 2017 as global supply tightness drove the ICO ICIP above prior-year levels. Composite held in Phase +1 territory through the period. Arabica rally through 2017 confirmed the Phase +1 edge in the 2015-onward sample and demonstrated that the global benchmark signal fires on non-Brazil-frost tightness episodes too.

Case 3: The 2018-2019 global trough

Global Falling firing through 2018-2019 as the ICO ICIP collapsed year-over-year into the global coffee complex trough. Composite held deep in Phase −1 territory through the extended weak-price regime. Arabica underperformed through the trough period consistent with the Phase −1 edge; KC traded sub 1.00 per pound through the trough.

How to use this signal today

Composite is currently reading minus 0.829 in the Global Falling band. The STRESS phase began January 2026, 276 trading days ago. ICO ICIP monthly year-over-year has run deeply below prior year through 2026 consistent with global coffee complex in falling-price regime.

Pair with the following for stacked conviction: USDA PSD (systemic supply anchor), ENSO dipole (weather structural), Cecafe realized price (short-lead transaction confirmation), CFTC positioning (speculator flow), and macro overlay signals. This global benchmark gives the global-regime context; pair with independent supply and positioning signals for the full read.

Reader rule: Global Rising firings flag bullish regimes with Arabica strength historically following at 60-day horizon. Global Falling firings flag bearish regimes. The signal is near-identity with Arabica so treat the edge as regime confirmation rather than independent prediction.

Methodology

Data source: International Coffee Organization Coffee Marketing Report monthly ICIP release. Computation: ICO ICIP monthly year-over-year percent change, z-scored on a rolling window, tanh-bounded. 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: ICE US Coffee C first-nearby back-adjusted close.

Historical window: ICO ICIP series from 1990 but reliable monthly reporting for YoY z-score computation from 2015 onward in the current database; engine runs from 2015 with a 504-bar warmup for the rolling z-score.

Validation computed on 2,795 post-warmup daily observations. Daily Spearman IC plus 0.305 at p-value 2.9e-61 across 2,795 observations, strongly significant on 11-year sample. Phase +1 per-day forward return plus 9.69 percent (plus 6.65 pp above plus 3.04 percent baseline). Phase −1 per-day forward return minus 1.24 percent (minus 4.28 pp below baseline). 10.93 pp directional spread. Non-overlap IC at 60-day sampling plus 0.295 at p-value 0.04 across 47 samples, INDEPENDENTLY significant.

What this signal does not cover

The signal does not capture Arabica supply directly (see USDA PSD, ENSO, CHIRPS). It does not capture speculator positioning (see CFTC DCOT, CFTC CFTC-COT). It does not capture macro overlay (see CPI, DXY, real yields). The signal is a near-identity relationship with Arabica by construction; readers should not treat it as an independent leading indicator but as a global regime overlay.

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

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