# The KC BLS Import Price Deviation Regime Signal: A Cost-Cycle Macro Lens for Arabica

*Why BLS Import Price Index deviation from longer-term trend delivers one of the widest monotone phase patterns in the KC signal library, with 7.72 percentage points of spread between Phase +1 Cost-Push and Phase −1 Cost-Deflation.*

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 0.167 at p-value 4.0e-57 on a sample of 8,947 daily observations. Extremely significant. Phase +1 (Cost-Push Regime) delivers plus 3.62 percentage points above baseline across 4,325 trading days (48.0 percent of sample); Phase −1 (Cost-Deflation) delivers minus 4.10 percentage points across 3,664 days (40.7 percent). 7.72 pp directional spread, one of the widest in the KC library.

Second, the non-overlapping independence test at 60-day sampling is near-significant. Across 150 independent samples the Spearman is plus 0.156 with p-value 0.057. Sign-consistent with daily IC and close to the 5 percent threshold.

Third, this signal is a sibling to Z6530 (BLS Softs Basket Import Price YoY) using the same underlying BLS IR000 data. The deviation framing captures multi-quarter regime persistence; the YoY framing captures recent momentum. Use both together for a stacked cost-cycle view, not one as a replacement for the other.

## The thesis: cost regimes have multi-quarter persistence

The BLS Import Price Index end-use series IR000 (Green Coffee plus Cocoa plus Sugar) tracks wholesale import costs across the soft commodities complex. Deviation from longer-term trend separates cost-push regimes (above-trend costs) from cost-deflation regimes (below-trend costs).

Cost-push regimes historically coincide with: emerging-market demand surges, dollar weakness that amplifies import costs, supply shocks that tighten availability. Cost-deflation regimes coincide with: emerging-market demand slowdowns, dollar strength, or excess supply across the complex.

The multi-quarter persistence of these regimes makes this a durable macro cost lens. Where a year-over-year framing captures recent change, the deviation framing captures how far the current level sits from longer-term equilibrium, and regimes can persist at these deviations for many quarters.

The signal takes BLS IR000 monthly data from March 1982 onward, computes deviation from a longer-term trend, standardizes, and tanh-bounds to plus or minus one. 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 close.

## What the firings have actually done

The phase pattern is strongly monotone. Computed over 9,007 daily observations post-warmup from December 1990 through November 2026.

> **Baseline Arabica forward 60-day return:** mean plus 2.32 percent / median minus 0.96 percent across the live-window sample.
>
> **Daily Spearman IC (fwd 60d):** plus 0.167, p-value 4.0e-57, N equals 8,947. Extremely significant.
>
> **Daily Pearson IC (fwd 60d):** plus 0.185, p-value 2.3e-69.
>
> **Non-overlap IC (60-day step):** plus 0.156, p-value 0.057, N equals 150. Near-significant at 5 pct and sign-consistent with daily IC.
>
> **Phase-conditional forward 60-day Arabica returns:** Phase +1 (Cost-Push Regime, 4,325 days / 48.0 pct): plus 5.94 percent, edge plus 3.62 pp. Phase 0 (Costs Near Norm, 1,018 days / 11.3 pct): plus 1.44 percent, edge minus 0.88 pp. Phase −1 (Cost-Deflation Regime, 3,664 days / 40.7 pct): minus 1.78 percent, edge minus 4.10 pp.
>
> 7.72 pp directional spread between Phase +1 and Phase −1.

Three findings. The pattern is strongly monotone across phases, consistent with the stated cost-regime mechanism. The 7.72 pp spread is one of the widest in the KC library and larger than Z6530 (3.97 pp), suggesting deviation-regime framing captures more signal than YoY-change framing. The non-overlap test is near-significant despite the slow monthly cadence.

## Three cases that frame how to read the signal

The canonical anchors are the 2010-2011 EM-demand supercycle, the 2014-2015 Brazil drought cost-push regime, and the 2019 cross-soft trough.

### Case 1: The 2010-2011 EM-demand supercycle

Cost-Push Regime firing anchored the 2010-2011 softs supercycle. BLS Import Price Index moved deep above its longer-term trend as China-led EM demand surged and dollar weakness amplified import costs. The composite held in Phase +1 territory through 2010-2011, coinciding with the Arabica rally. Signature anchor for a macro cost-push regime driven by EM-demand growth and dollar weakness.

### Case 2: The 2014-2015 Brazil drought cost-push regime

Cost-Push Regime firing followed the 2014 Brazilian drought as the Import Price Index rose on the tightening soft-complex supply. The composite held in Phase +1 territory through the 2014-2015 Arabica rally. Cross-validation case showing the cost-regime signal confirms ground-truth supply shocks after they feed through to the import price index.

### Case 3: The 2019 cross-soft trough

Cost-Deflation Regime firing anchored the 2018-2019 softs trough as cross-soft imports contracted through the China tariff cycle and strong-dollar environment. The composite held in Phase −1 territory consistent with the loose-supply regime. Canonical Phase −1 anchor for a cost-deflation regime.

## How to use this signal today

Composite is currently reading minus 0.644 in the Cost-Deflation Regime band. The STRESS phase began July 2025, 340 trading days ago, meeting the BTD danger threshold. BLS Import Price Index for Green Coffee plus Cocoa plus Sugar has run significantly below its longer-term trend through 2026.

Pair with the following for stacked conviction: Z6530 (sibling signal, same BLS data with YoY-change framing), the ENSO signal (long-lead ocean forcing), the Cecafe realized-price signal (short-lead transaction confirmation), and ICE Europe COT positioning. Deviation-regime framing leads by multiple quarters; use for directional bias and sizing, use short-lead signals for entry triggers.

Reader rule: Phase +1 firings are multi-quarter macro bullish setups; Phase −1 firings are multi-quarter macro bearish setups; Phase 0 readings are infrequent and should not be sized on.

## Methodology

Data source: US Bureau of Labor Statistics Import Price Index for End-Use series IR000 (Green Coffee plus Cocoa plus Sugar), monthly from March 1982 onward. Computation: deviation of IR000 from a longer-term trend, standardized, and tanh-bounded to plus or minus one. 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 close.

Historical window: BLS IR000 available from 1982-03; engine runs from December 1990.

Validation computed on 9,007 post-warmup daily observations. Daily Spearman IC plus 0.167 at p-value 4.0e-57 across 8,947 observations; extremely significant. Phase +1 per-day forward return plus 5.94 percent (plus 3.62 pp above plus 2.32 pct baseline). Phase −1 per-day forward return minus 1.78 percent (minus 4.10 pp below baseline). 7.72 pp directional spread. Non-overlap IC at 60-day sampling plus 0.156 at p-value 0.057 across 150 samples; near-significant at 5 pct and sign-consistent with daily IC.

## What this signal does not cover

The signal does not cover idiosyncratic Arabica supply shocks (Brazilian frost, Vietnamese Robusta flows, policy changes). It does not cover ICE futures positioning. It does not resolve short-horizon moves; the lead horizon is multi-quarter. It does not cover other commodity-complex cost regimes (energy, metals, grains). It is a cost-regime macro lens for the softs complex.

The signal is a long-lead cost-regime lens for Arabica. Use as part of a stacked view with ENSO, water-deficit, realized-price, and YoY-change sibling signals.

## 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

US Bureau of Labor Statistics, Import Price Index End-Use Series, series IR000 Green Coffee plus Cocoa plus Sugar, monthly releases at bls.gov.

ICE Futures US, Coffee C first-nearby continuous contract (ticker KC), end-of-day settlement.

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