The KC IMF Arabica Benchmark Deviation Signal: Global Reference-Price Regime Lens for ICE Coffee C

Why the IMF Primary Commodity Prices Other Mild Arabica monthly benchmark deviation from longer-term trend delivers a 6.96 pp directional spread on forward 60-day Arabica returns across 34 years.

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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 0.142 at p-value 3.9e-40 on a sample of 8,655 daily observations. Extremely significant. Phase +1 (Above-Trend) delivers plus 2.67 percentage points above baseline across 4,109 trading days (47.1 percent of sample); Phase –1 (Below-Trend) delivers minus 4.28 percentage points across 3,530 days (40.5 percent). 6.96 pp directional spread.

Second, the non-overlapping independence test at 60-day sampling is sign-consistent but not independently significant. Across 145 independent samples the Spearman is plus 0.098 with p-value 0.24.

Third, this IMF benchmark reflects washed-arabica physical trade from Colombia, Honduras, and Central American producers. ICE US Coffee C futures are dominated by Brazil naturals, so the IMF benchmark and ICE Coffee C can diverge in regimes where washed-arabica and Brazil-naturals markets decouple.

The thesis: IMF benchmark reads global washed-arabica regime

The IMF Primary Commodity Prices database publishes monthly reference prices for key global commodities, aggregating physical trade data from major producers. The Other Mild Arabica benchmark (series code PCOFFOTMUSDM, in US dollars) aggregates washed-arabica trade data primarily from Colombia, Honduras, and Central American producers. It serves as the global reference price for washed arabica, distinct from Brazil naturals that dominate ICE Coffee C futures delivery.

When the IMF benchmark runs sustainably above its longer-term trend, the global washed-arabica reference regime is tightening and ICE Coffee C setups tend to track higher. When the benchmark

runs below trend, washed-arabica supply is loose. The signal takes PCOFFOTMUSDM monthly data, 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.

Historical window: IMF PCOFFOTMUSDM available from 1980; engine runs from February 1992.

What the firings have actually done

Computed over 8,715 daily observations post-warmup from February 1992 through November 2026.

> **Baseline Arabica forward 60-day return:** mean plus 2.55 percent / median minus 0.69 percent across the live-window sample.
>
> **Daily Spearman IC (fwd 60d):** plus 0.142, p-value 3.9e-40, N equals 8,655. Extremely significant.
>
> **Daily Pearson IC (fwd 60d):** plus 0.158, p-value 2.1e-50.
>
> **Non-overlap IC (60-day step):** plus 0.098, p-value 0.24, N equals 145. Sign-consistent but not independently significant.
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> **Phase-conditional forward 60-day Arabica returns:** Phase +1 (Above-Trend, 4,109 days / 47.1 pct): plus 5.23 percent, edge plus 2.67 pp. Phase 0 (Near-Trend, 1,076 days / 12.3 pct): plus 6.16 percent, edge plus 3.61 pp (thin bucket, small-sample outlier). Phase −1 (Below-Trend, 3,530 days / 40.5 pct): minus 1.73 percent, edge minus 4.28 pp.
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> 6.96 pp directional spread between Phase +1 and Phase −1.

Three findings. Phase +1 and Phase −1 both deliver significant directional edges in the stated polarity; the pattern is strongly monotone across the extremes. Phase 0 is a thin 12.3 pct bucket with an anomalous plus 3.61 pp edge likely reflecting sampling noise in the transition zone. The 6.96 pp spread between extremes is wide relative to short-lead signals.

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, and the 2019 washed-arabica trough.

Case 1: The 2010-2011 EM-demand supercycle

Above-Trend firing anchored the 2010-2011 softs supercycle as IMF Other Mild Arabica benchmark moved deep above its longer-term trend. China-led emerging-market demand growth and dollar weakness drove sustained reference-price elevation. The composite held in Phase +1 territory through 2010-2011, coinciding with the Arabica rally. Signature anchor for a global-benchmark Above-Trend regime driven by demand and FX.

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

Above-Trend firing followed the 2014 Brazilian drought as the IMF benchmark rose on tightening global arabica supply. The composite held in Phase +1 territory through the 2014-2015 rally. Cross-

validation case showing the reference price confirms ground-truth supply shocks after they feed through to global trade data (which takes some lag relative to Brazil-origin signals).

Case 3: The 2019 washed-arabica trough

Below-Trend firing anchored the 2018-2019 washed-arabica trough as IMF Other Mild Arabica benchmark ran below longer-term trend. The composite held in Phase −1 territory consistent with the loose-supply regime driven by Brazilian harvest recoveries and China tariff-cycle demand softening. Canonical Phase −1 anchor for a global reference-price trough.

How to use this signal today

Composite is currently reading minus 0.835 in the Below-Trend band. The STRESS phase began December 2025, 234 trading days ago, meeting the BTD danger threshold. IMF Other Mild Arabica benchmark has run significantly below its longer-term trend through 2026.

Pair with the following for stacked conviction: the BLS IPI deviation signal (sibling US-import-weighted cost regime with same deviation framing), the ENSO signal (long-lead ocean forcing), the Cecafe realized-price signal (Brazil transaction confirmation), the CONAB Minas signal (official supply forecast), and ICE Europe COT positioning. IMF benchmark leads by multiple months; use for directional bias, use short-lead signals for entry triggers.

Reader rule: Phase +1 firings are multi-month macro bullish setups driven by global washed-arabica tightening. Phase −1 firings are multi-month macro bearish setups.

Methodology

Data source: IMF Primary Commodity Prices database monthly release, specifically the Other Mild Arabica benchmark in US dollars (series code PCOFFOTMUSDM). Computation: deviation of PCOFFOTMUSDM from a longer-term trend, standardized, 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: IMF PCOFFOTMUSDM available from 1980; engine runs from February 1992.

Validation computed on 8,715 post-warmup daily observations. Daily Spearman IC plus 0.142 at p-value 3.9e-40 across 8,655 observations, extremely significant. Phase +1 (Above-Trend) per-day forward return plus 5.23 percent (plus 2.67 pp above plus 2.55 pct baseline). Phase −1 (Below-Trend) per-day forward return minus 1.73 percent (minus 4.28 pp below baseline). 6.96 pp directional spread. Non-overlap IC at 60-day sampling plus 0.098 at p-value 0.24 across 145 samples; sign-consistent with daily IC but not independently significant.

What this signal does not cover

The signal does not cover Brazilian naturals pricing (Brazil is largely unwashed; see Cecafe realized-price signal). It does not cover physical ICE Coffee C futures basis. It does not cover ICE positioning. The washed-arabica benchmark can diverge from Brazil-naturals-dominated ICE Coffee C in specific regimes. Monthly cadence limits short-horizon use. Phase 0 bucket is thin and should not be sized on.

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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