

# Long-run Uncovered Interest Parity in Emerging Markets

*Rebucci, Toraman & Valente (2026)*

**Discussion by**

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Bank for International Settlements

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***Disclaimer:** The views expressed do not necessarily reflect those of the Bank for International Settlements.  
All errors are my own.*

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- **Contribution:**
  - **Novel** empirical findings that enhance our understanding of UIP deviations in EME currencies.

# UIP deviations: Empirical Approach

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$$\Delta s_{t,t+k} = \alpha + \beta_k (i_{t,k}^* - i_{t,k}^{USD}) + \varepsilon_{t,t+k}$$

realized FX change

under UIP:  $\alpha = 0$ ,  $\beta_k = 1$

interest rate differential

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- $\hat{\beta}_k < 0$  implies high-interest-rate currencies tend to *appreciate further*, rather than depreciating to offset the interest differential.
- $\Rightarrow$  **carry trades earn positive average excess returns** — the forward premium puzzle.

## Positioning in the literature

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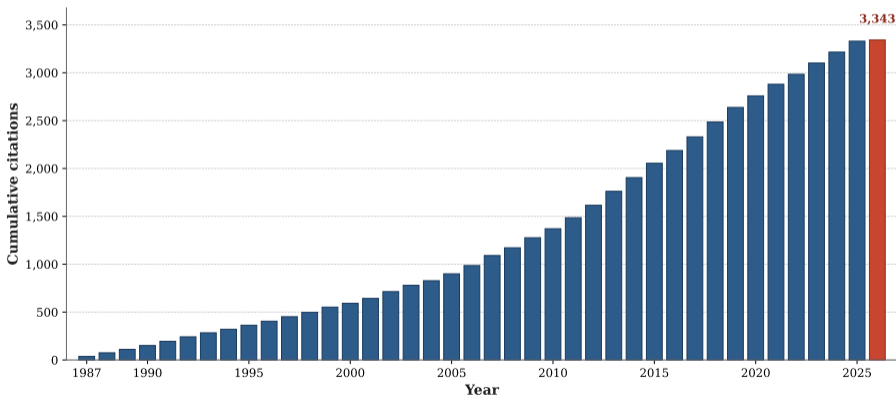
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Cumulative citations of Fama (1984), "Forward and spot exchange rates"



Source: Google Scholar, cumulative citations as of each year-end.

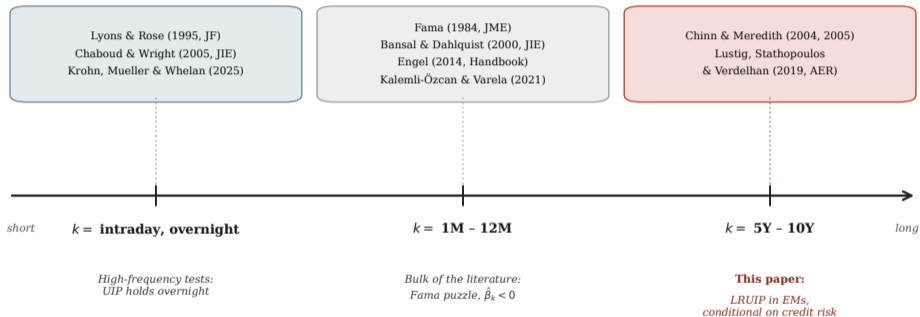
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- Same regression, three horizons — three different empirical stories.
- Almost all of the literature lives at **monthly to annual** horizons, where  $\hat{\beta}_k < 0$  is the canonical puzzle.
- This paper extends **long-horizon** evidence (where AE evidence supports UIP) to **EMs**.

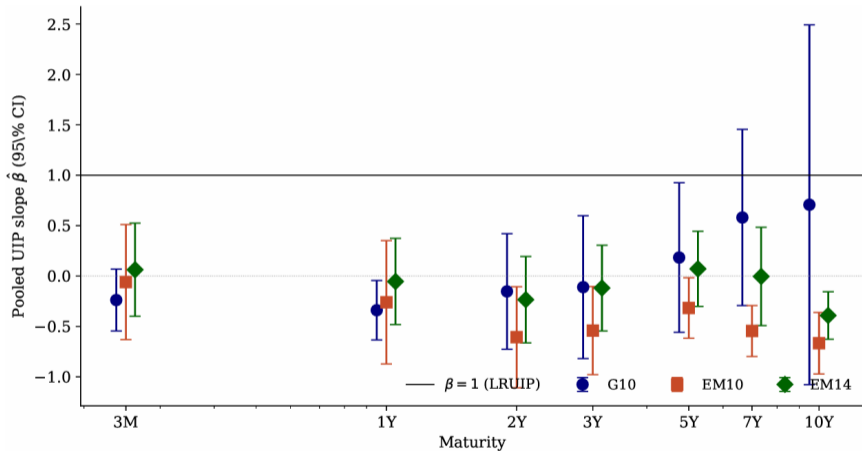
# Replication Exercise: Long-run UIP Dynamics

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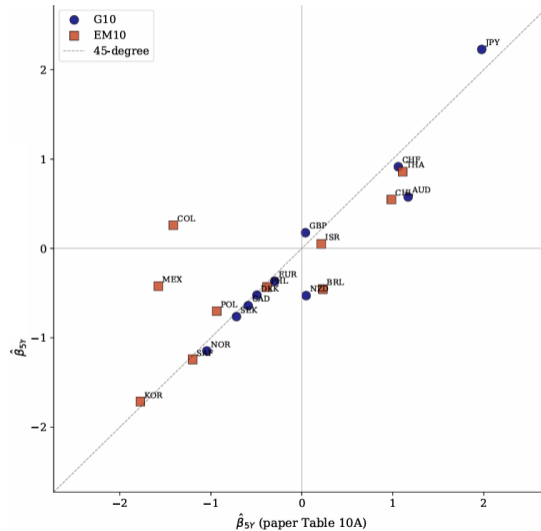
Pooled $\hat{\beta}$	2Y	3Y	5Y	7Y	10Y
G10	-0.15	-0.11	+0.18	+0.58	+0.71
EM10	-0.69***	-0.63***	-0.39***	-0.47***	-0.57***
EM10 extended through 2026M4	-0.59***	-0.57***	-0.36***	-0.48***	-0.66***

- **Authors provide thorough and detailed documentation of empirical approach.**
- Replication exercise matches empirical findings
- EM10 5Y point estimate
  - Paper: -0.39
  - Replication: -0.36

# Replication: Long-run UIP, by country-group

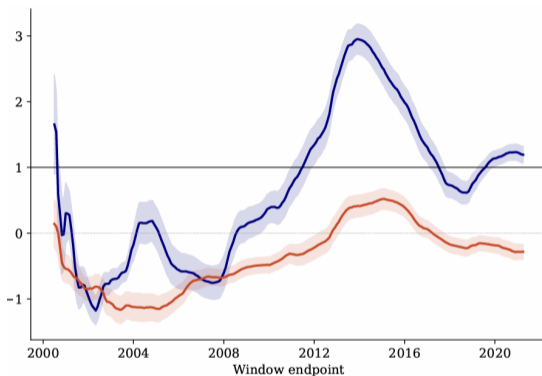


# Replication: Long-run UIP, by country



## Replication: Long-run UIP, over time

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- Pattern is robust over time
- “New Fama Puzzle” is not there for EME currencies

## Comment #1: EME yields and credit risk

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- **The headline result.** Adding CDS to the Fama regression moves  $\beta_1$  from  $-0.43$  to roughly unity (Table 9, col. 6). The authors' reading: credit risk was the missing variable.
- **Concern.** In EM, the foreign yield itself already contains a default-compensation component:

$$y_t^* \approx r_t^{f,*} + \pi_t^* + \underbrace{\text{credit premium}_t}_{\approx \text{CDS}_t^*}$$

- Du & Schreger (2013) attribute about 25% of yields to credit risk
- This, the augmented regression  $\Delta s = \beta_1(i^* - i^\$) + \gamma \text{CDS}^* + \varepsilon$  might be close to a *decomposition*
  - $\beta_1$  captures the response to the non-credit component of the differential
  - $\gamma$  absorbs the credit-risk component.

## Comment #1: EME yields and credit risk - Suggestion

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### Two-stage decomposition.

1. **Stage 1.** Regress  $(i^* - i^{\$})$  on  $\log \text{CDS}^*$ . Report stage-1  $R^2$  country-by-country.
2. **Stage 2.** Run the Fama regression of  $\Delta S$  on the *residualized* differential.

### What the diagnostic tells us.

- If stage-1  $R^2$  is modest (say  $< 30\%$ ) and residualized stays near unity  $\Rightarrow$  the augmentation is isolating a genuine non-credit interest-rate channel. Paper's interpretation strengthened.
- If stage-1  $R^2$  is high and residualized collapses toward zero with a wide standard error  $\Rightarrow$  the regression is partitioning shared variance.

### Win-Win

The first defends the headline. The second sharpens it into a cleaner statement about *which* component of the rate differential predicts FX changes.

## Comment 2: Credit Risk or Common Factor

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Group	PC1	PC2	PC3
EM10	<b>62.4%</b>	15.4%	6.7%
G10	80.5%	11.4%	3.5%

- All 10 EM10 PC1 loadings have the same sign, suggesting a common “EM dollar / global cycle” factor.
- Country-specific credit risk can explain *at most the residual 38%* of EM 5Y excess return variance.
- Adding the dollar broad index (BBDXY) or VIX to the augmented regression would discipline how much of the explanatory power is country-specific (potentially credit risk) vs. common (likely global financial cycle).

## Comment 2: Credit Risk or Common Factor (cont.)

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The paper's own Table 9 is informative on this:

Specification	EM10 5Y <sub>1</sub>
Baseline Fama (col. 1)	-0.43
+ FX risk-premium proxy, no CDS (col. 4)	+0.81
+ FX risk-premium proxy + CDS (col. 6)	+0.73
<i>Marginal contribution of CDS</i>	<i>-0.08</i>

- **Reading.** A generic risk-premium control already does most of the work (-0.43 → +0.81).
- Credit risk probably has a higher component than shown in this table, as FX RP is forward looking by construction.

## Comment #3: Within-EUR currencies - a quasi-natural experiment

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- Italy, Greece, Germany, Netherlands, France share **the same currency, the same ECB policy rate, and the same broad monetary regime.**
- They differ substantially in **sovereign credit risk**
- If credit risk is the binding force, *within-EUR* sovereign yield differentials should map into Fama-regression patterns that look “EM-like” for high-spread members.
- Greece and Italy show monotonically negative  $\hat{\beta}$  across maturities
- Convenience-yield-vs-US is shared across EUR members — so cross-sectional differences in  $\hat{\beta}$  are plausibly attributable to credit risk.

## Comment #3: Within-EUR currencies - a quasi-natural experiment (cont.)

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**Build a within-EUR panel.** DE, NL, FR, BE, AT, IT, ES, PT, IE, GR.

**Step 1 — Country-specific slopes**

$$\Delta s_{\text{EURUSD},t,t+60} = \sum_i \alpha_i \mathbb{1}_i + \sum_i \beta_{1,i} \mathbb{1}_i \cdot (y_{5Y,t}^i - y_{5Y,t}^{\text{USD}}) + \sum_i \gamma_i \mathbb{1}_i \cdot \text{cds}_{5Y,t}^i + \varepsilon_{i,t}$$

⇒ recover  $\hat{\beta}_{1,i}$  for each member; plot against average CDS or S&P rating.

**Step 2 — Define group averages:**

$$\bar{\beta}_{\text{core}} = \frac{1}{|C|} \sum_{i \in C} \beta_{1,i}, \quad \bar{\beta}_{\text{periph}} = \frac{1}{|P|} \sum_{i \in P} \beta_{1,i}$$

where  $C = \{\text{DE, NL, FR, BE, AT}\}$  and  $P = \{\text{IT, ES, PT, IE, GR}\}$ .

**Step 3 — Run Wald test:**

$$H_0 : \bar{\beta}_{\text{periph}} - \bar{\beta}_{\text{core}} = 0$$

## Comment #4: Greenwood–Hanson–Stein–Sunderam (QJE 2023) decomposition

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**Setup.** Split the 5Y rate differential into a short-end (1Y) component and a term-spread component — a model-free identity:

$$(i_{5Y}^* - i_{5Y}^{\$}) = \underbrace{(i_{1Y}^* - i_{1Y}^{\$})}_{\text{short-end differential}} + \underbrace{[(i_{5Y}^* - i_{1Y}^*) - (i_{5Y}^{\$} - i_{1Y}^{\$})]}_{\text{term-spread differential}}.$$

Then run augmented Fama on the two components separately:

$$\Delta S_{i,t,t+60} = \beta_{\text{short}} \cdot (i_{1Y}^* - i_{1Y}^{\$}) + \beta_{\text{term}} \cdot [(i_{5Y}^* - i_{1Y}^*) - (i_{5Y}^{\$} - i_{1Y}^{\$})] + \alpha_i + \varepsilon.$$

**What the theory predicts.** If credit risk is the binding force, its compensation should load on the long end of the curve — so the failure should concentrate in  $\text{term}$  rather than  $\text{short}$ .

## Comment #5: Changes in Credit Ratings

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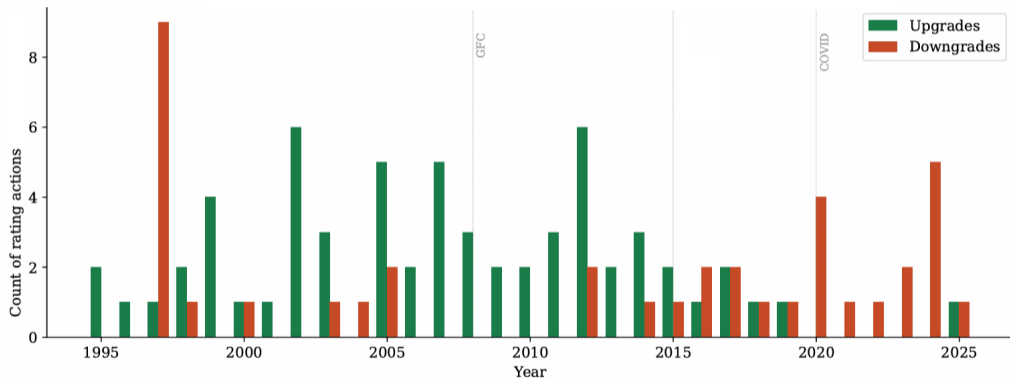
**Conceptual point.** The paper uses spreads as the credit-risk proxy. Innovations are continuous and conflate credit risk with risk premia, liquidity, and global financial cycle.

**Sovereign rating actions are a sharper credit-risk shock.**

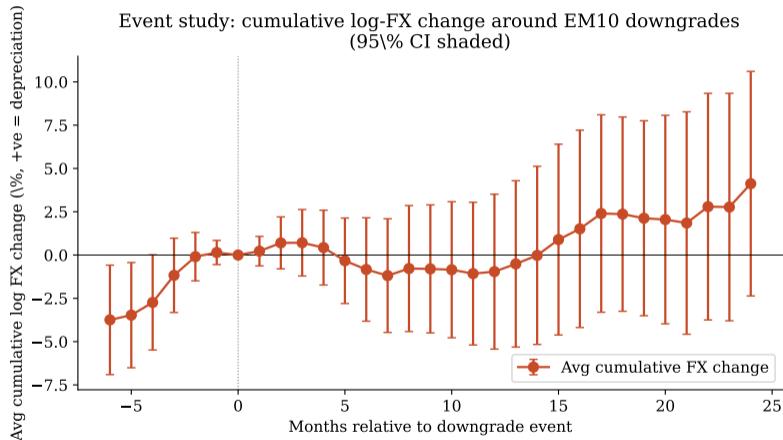
- Discrete, well-dated events.
- Reflect agency reassessment of *credit fundamentals*.
- Less polluted by market sentiment / liquidity / VIX.
- **The authors already have this data.** Table 4 of the paper uses S&P ratings as a level covariate; an event-study version is a natural extension.

## Comment #5: Changes in Credit Ratings (cont.)

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## Comment #5: Changes in Credit Ratings (cont.)



Credit risk  $\uparrow \Rightarrow$  rating downgrade  $\Rightarrow y^* \uparrow \Rightarrow (i^* - i^{\$}) \uparrow \Rightarrow \Delta s > 0$  (under  $\beta = 1$ ).

## Comment #6: CDS Measure

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**The Fama regression uses local-currency yields. The credit-risk control uses USD-denominated .**

The paper acknowledges this (p. 24): “*Data on spreads on local currency foreign bonds are not available [. . . ] hence we measure credit risk with spreads on countries’ foreign currency bonds denominated in USD.*”

### Why this matters

- USD prices the risk of *hard-currency* default — political risk, FX-reserve exhaustion, redenomination.
- Local-currency default has happened (Russia 1998) but is rare; sovereigns typically inflate.
- The relevant risk for a local-currency test is the risk that inflation erodes the real value of the foreign coupon and principal. **USD does not price this.**

## Comment #6: CDS measure

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**Quanto-CDS spread** = USD CDS – EUR for the same sovereign and tenor.

Della Corte, Sarno, Schmeling, Wagner (*Mgmt Sci* 2022) and Della Corte, Jeanneret, Patelli (*JFE* 2023): the quanto component isolates the sovereign-default–FX covariance — precisely the “twin-default” term  $q_t$  in the paper’s set up.

Liquid quanto-CDS exist for: **BRL, MEX, COL, KOR, POL, ISR, CHL, TUR.**

### Concrete proposal

1. Re-run the augmented regression for the EM subset with liquid quanto-CDS.
2. Better still: horse race — USD-CDS, quanto-CDS, both — and let the data say which is doing the work.

# Conclusion

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- An interesting and carefully executed paper
- Provides valuable insights into the long-run UIP dynamics in emerging market economies.
- Strongly recommend to read the paper.
- Good luck!

**Thank you**