Five Facts about the UIP Premium

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First draft: July 2019

This draft: May 2025

Abstract

We use survey-based expectations of exchange rates to measure the UIP premium and examine the sources of currency risk premia in emerging markets. We show that local risk shocks—especially those linked to policy uncertainty—are key drivers of both cross-country and time-series variation in the UIP premium, even after accounting for global risk factors. We document five facts, showing that the premium in emerging markets is consistently positive, more volatile, and closely tied to interest rate differentials, which reflect local risk. Policy uncertainty emerges as a primary predictor of local risk, influencing both expectations of currency depreciations and the UIP premium.

JEL: F21, F32, F41.

Keywords: Currency returns, risk premia, exchange rate expectations, policy risk.

*Şebnem Kalemli-Özcan: Brown University, NBER and CEPR. Liliana Varela: London School of Economics and CEPR. First draft of this paper has been presented at NBER SI-IFM in 2019 with the following title: "The Exchange Rate and Interest Rate Disconnect: The Role of Capital Flows and Risk Premia." We thank Pat Kehoe, Oleg Itskhoki, Dmitry Mukhin, Vania Stavrakeva, and Adrien Verdelhan for lengthy conversations and extensive comments. We thank Manuel Amador, Mark Aguiar, Pablo Becker, Javier Bianchi, Menzi Chinn, Wenxin Du, Pierre de Leo, Charles Engel, Jeffrey Frankel, Tarek Hassan, Hanno Lustig, Arvind Krishnamurthy, Ian Martin, Emi Nakamura, Jesse Schreger, Ken Rogoff, Alessandro Rebucci, Hélène Rey, Jenny Tang, and other participants at several seminars and conferences for helpful comments. We are grateful to Jun Hee Kwak, Alvaro Silva, Jose Cristi, Vahid Ahmadi for their excellent research assistance. Liliana Varela thanks funding from UK Research and Innovation (UKRI) under the UK government's Horizon Europe funding guarantee [grant number EP/X020916/1].

1. Introduction

The announcement of the "Liberation Day" tariffs on April 2, 2025, triggered a depreciation of the U.S. dollar against the euro and a simultaneous rise in yields on 10- and 30-year U.S. Treasury bonds (Bloomberg, 2025*b*,*a*). A comparable episode occurred in the United Kingdom on September 6, 2022, when the government unveiled its new growth plan and fiscal budget. This announcement led to a sharp depreciation of the pound and a spike in gilt yields, including on shorter five-year maturities—an event that came to be known as the "moron premium" (The Economist, 2022; Ashworth, 2022; Giles and Parker, 2022), a label now also used for America (See Financial Times (2025*a*) for America's rising moron premium). What these episodes share is the surge in policy uncertainty caused by inconsistent or poorly communicated monetary, fiscal, or trade measures, as argued by the IMF during both events. The erratic policymaking and perceived governance incompetence unsettles global investors, prompting them to demand a risk premium for holding long-term dollar- and pound-denominated sovereign debt as argued by several financial outlets (Bloomberg, 2025*a*; Financial Times, 2025*b*).

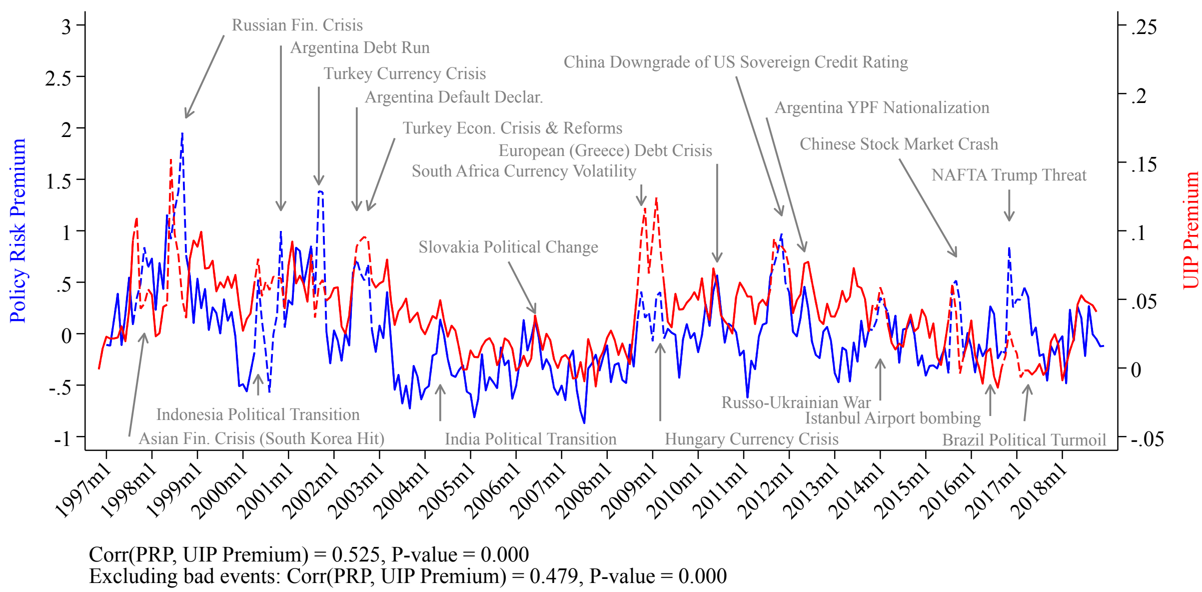


Figure 1. Policy Risk and UIP Premium For Emerging Markets, 1997–2018

While such events are rare for countries like the U.K. and the U.S., these dynamics are well-documented in the context of emerging markets—typically resulting in even larger currency depreciations and heightened sovereign default risk. Our paper shows that policy risks linked to frequent occurrence of these type of events also play a significant role in driving both the cross-sectional and time-varying components of short-term currency risk premia in emerging markets, captured by the uncovered interest parity (UIP) wedge. Notably, we find that these policy-driven shocks increase yields even on short-term debt instruments with maturities of 3, 6, and 12 months, which are generally considered free of any credit and sovereign default risk. The frequency of such episodes contributes to highly volatile and persistent excess returns on emerging market currencies, both in terms of expected returns based on ex-ante expectations of exchange rates and ex-post returns based on actual realizations.

In Figure 1, for 22 emerging markets (EMs), we plot unconditional correlations between a measure of policy uncertainty—policy risk premium (PRP)—that we construct by extending the news-based measures of Baker, Bloom and Davis (2016) and the average UIP premium, vis-a-vis the USD.[1] The correlation between the two series is highly significant and it is striking that even after large financial events such as emerging market crises are dropped it stays so (53 vs 48 percent).

To compare to the recent events mentioned at the opening paragraph, we plot in Figure 2 the UIP premia for the pound and the dollar vis-a-vis the euro during aforementioned episodes of policy uncertainty: September 6, 2022 announcement of growth plan in the U.K. and April 2nd, 2025 announcement of tariffs in the U.S. The UIP premia for these currencies also go up, although at a scale that is an order of magnitude smaller compared to that of emerging markets shown in Figure 1 (0.1 percentage points vs 0.01 percentage points). In Figure 2, together with the UIP premia based on future expectations of exchange rates (black line), we also plot the widely used measure of the UIP premia, or excess currency returns, that is based on realized exchange rates (blue line). Both measures are highly and significantly correlated with each other, 84 and 65 percent, in the case of pound and dollar respectively.

A key question is then as follows. Is the rise in UIP premium around such events of policy uncertainty driven by spot depreciations, expected appreciations or higher yields? It is important to understand which component drives the increase in the UIP premium as this would imply different narratives for its rise. Why is this the case? Consider a U.S. investor choosing between bonds denominated in dollars and pesos. The return on the peso bond is risky from the perspective of the dollar investor because the exchange rate for the next period is uncertain. As a result, the investor may demand a risk premium as compensation for holding the peso bond. In logarithmic terms, the risk premium associated with exchange

[1] UIP premium is calculated in logs as: $\lambda^e_{t+h} = i^j_t - (s^e_{t+h} - s_t) - i^{US}_t$, where j is a given EM and s^e_{t+h} measures the average expectations of global investors of a given EM/USD exchange rate over h-horizon (12-months) from current period t onwards, taken from Consensus Forecast. s is the spot exchange rate for EM/USD at period t. Both i^j and i^{US} are short-term market rates (short term bonds or money market) with maturity of h-horizon (12 month).

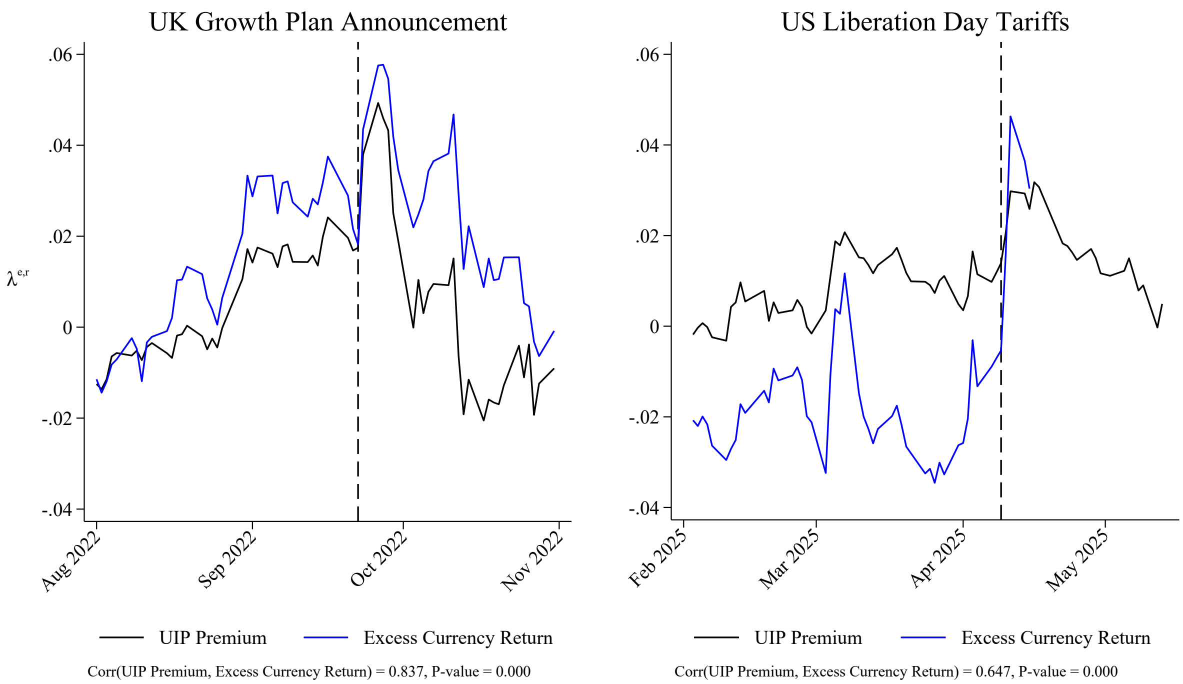


Figure 2. UIP Premia and Policy Shocks in the U.K. and U.S.

Notes: UIP Premium is calculated as $\lambda^e_{t+h} = i_t^{UK/US} - (s^e_{t+h} - s_t) - i_t^{Euro}$. Exchange rates defined as pound or dollar over euro. For expectations of the exchange rates, we use mean financial analyst expectations of the exchange rate over 12 month horizon from month of September, 2022 onwards in the case of U.K., and from month of April, 2025 onwards in the case of the U.S. The interest rate are rates on 1-year government bonds for gilts (U.K.), treasuries (U.S.) and German bunds for i^{Euro}. Source: Bloomberg.

rate risk is equal to the expected log dollar return on the peso bond $(i_t^{peso} - (s^e_{t+h} - s_t))$ minus the log dollar return on the dollar-denominated bond (i_t^{US}), that is:

$$\lambda^e_{t+h} = i_t^{peso} - (s^e_{t+h} - s_t) - i_t^{US}. \tag{1}$$

Generalized to any currency:

$$\lambda^e_{t+h} = \underbrace{(i_t - i_t^{US})}_{\text{IR Differential}} - \underbrace{(s^e_{t+h} - s_t)}_{\text{ER Adjustment}}, \tag{2}$$

If $\lambda^e_{t+h} = 0$, UIP holds and the difference in nominal interest rates (IR) across currencies is entirely explained by the expected change in the exchange rate (ER) between those currencies. The UIP premium, λ^e_{t+h}, for emerging markets is plotted in Figure 1, showing UIP does not hold. With a non-zero wedge ($\lambda^e_{t+h} \neq 0$), how interest rate differentials move with the expected changes in exchange rates depends on whether the risk premia captured by the wedge is constant or vary over time: if risk premium is constant, then higher interest rate differentials means expected depreciation (both terms move together). If risk premia is time varying, then the observed variation in interest rate differentials might be driven by fluctuations in the risk premia, whereas expected changes in exchange rates can be constant. A large literature argues that this would be the case if exchange rates are hard to predict, that is they are close to random walk. In this scenario, a *forward-looking* investor would *expect* higher interest rates on currencies that are *expected* to depreciate, i.e., whose values are expected to fall. We document that survey expectations for emerging market currencies capture such *forward-looking* UIP premium that aligns with the intuition that currencies *expected* to depreciate are those for which investors demand higher interest rates.

It is well known that forecasting movements in exchange rates is a difficult task. A large part of the empirical exchange rate literature is based on predicting the exchange rates using the UIP condition and shows that this theoretical UIP relationship between exchange rates and interest rate differentials is not supported in the data. By asserting that countries with relatively high interest rates should experience subsequent currency depreciations to ensure zero excess returns from cross-border financial investments, in spite of its failure in the data, the UIP condition remains to be the fundamental no-arbitrage equation in open economy macro models. Thus, the empirical and theory literatures are at odds with each other as starting with Fama (1984), numerous papers have shown that there is a UIP puzzle. The puzzle is such that high interest rate currencies, regardless of appreciation or depreciation, exhibit higher realized excess returns as exchange rate movements does not offset the interest rate differentials. Fama (1984) showed that forward rates are biased predictors of exchange rates by decomposing the forward premium and interpreting the bias as evidence of a time-varying currency risk premium, where UIP deviations may reflect compensation for bearing currency risk, and not just market inefficiency. Accordingly, many open-economy models argue that fluctuations in nominal exchange rates are largely disconnected from fundamentals and instead attribute them to an exogenous wedge in the UIP condition.

Our paper shows that UIP wedge connects exchange rates to financial markets risk pricing through fundamental local policy risk. To support our argument that an expectations-based UIP wedge can capture this narrative and dominate the forward-rate based measures for emerging markets in terms of capturing the forward-looking UIP premium, we undertook a systematic empirical analysis using a monthly panel of 34 currencies going back to late 1990s. Our analysis generalizes the tight link we showed in above figures between policy uncertainty and the currency risk premia. We show that local risk shocks in emerging markets are important drivers of the UIP wedge as they are good predictors of both exchange rates expectations and realized exchange rates. We document this key result in five building blocks (five facts) that establishes robust unconditional and conditional correlations between local policy shocks, exchange rate expectations, exchange rate changes, interest rate differentials and the UIP premia. We compare each new fact we document for emerging markets to the facts established for advanced countries, where we measure the UIP wedge of the advanced countries also using expectations from survey data.

Our approach is akin to that of Kremens and Martin (2019), who back-out expectations of currency returns from prices of quanto-contracts. For emerging markets, we do not observe those market prices but we show that survey-based expectations of the emerging market exchange rates do a good job in predicting market's expectations. Those authors use monthly data from mostly advanced country currencies, running both pooled and panel regressions with currency fixed effects from 2009 to 2017 for 24-month horizon and show that the quanto-implied risk premium can be interpreted as the expected excess return on a currency perceived by an investor whose wealth is fully invested in the stock market. Similarly, we interpret that policy uncertainty implied risk premium can be interpreted as the expected excess return on emerging market currencies perceived by global investors who have investment in these countries. This view is also consistent with Burnside, Eichenbaum, Kleshchelski and Rebelo (2011), who argue that the observed carry trade may reflect the possibility of peso events, where investors' concerns about such events should be reflected in currency risk premia. We show that emerging markets' currencies are more vulnerable to future peso events in investors' minds, since their expectations are highly correlated with local policy risk in these countries.

To make sure we are not identifying our results from actual peso events, where countries switch from being fixed to floating exchange rates, we work with a monthly panel for 22 emerging markets and 12 advanced countries between 1996 and 2018 who are all floating exchange rate regimes, based on the classification of Ilzetzki, Reinhart and Rogoff (2017). Our analysis reveals five new insights into cross-sectional and time-series properties of the UIP premium that provides evidence that our measure captures time-varying currency risk in emerging markets that is largely linked to local risk factors stemming from policy uncertainty, on top of the standard global risk factors.

Our first fact documents that the UIP premium is persistently positive, higher and more volatile than its counterpart for advanced countries, reflecting a persistent expectations of higher currency returns from investing in emerging markets. The unconditional mean is statistically significantly different in emerging markets and advanced economies, a 3.3 percentage points difference. Interestingly, this number is similar to the risk premium found in previous studies in emerging markets using ex-post realizations of exchange rates (e.g. Gilmore and Hayashi (2011)).

The second fact, focusing on the conditional mean of the UIP premium, both in cross-section of countries and over time, reveals that the UIP premium is predictable by a variety of local risk factors, even when conditioned on the typical measures of global risk factors, such as the VIX and convenience yield of the dollar. We show that local risk factors in emerging markets (both time-invarying such as currency fixed effects and time-varying such as policy risk) have a key role, with a partial R-square of 26%, while global factors can explain only 12%. This is a robust result that is conditional on allowing country-specific loadings on global risk factors following the work of Lustig, Roussanov and Verdelhan (2011). Global and local risk factors do not overpower each other, as their correlation is low, only 22%.[2] We also orthogonalize local risk factor to global risk factors to make sure they do not overlap.

The third fact shows that the interest rate differential component of the UIP premium in emerging markets is more volatile and strongly correlated with local risk factors. The average correlation between UIP premium and the interest rate differential in emerging markets registers a statistically significant 70%, while the same correlation is statistically could not be differentiated from zero for advanced economies. Interestingly, for advanced economies, the correlation between the UIP premium and the expected changes in the exchange rates component (the ER term in the above equation) is 93%. This finding does not imply that expectations of exchange rates are not important for the UIP premium of emerging markets. On the contrary, our fourth fact reveals that both local and global risk factors influence exchange rate expectations in emerging markets and expectations of exchange rates are good predictors of actual exchange rate movements in emerging markets. Combining third and fourth facts, we show that the predictive power of local and global risk factors on the expectations of exchange rates, in turn, also predicts the interest rate differentials in emerging markets. Our interpretation of this result is similar to the asset pricing literature, that is when perceived asset risk is high, the return to invest in that asset is high (e.g. Pflueger, Siriwardane and Sunderam (2020)). As a result, the interest rate differential that is highly correlates with the UIP wedge picks up *expected* currency risk in emerging markets.

Our fifth fact establishes the strong link between the local risk factor and country-specific policy shocks, in emerging markets, where such policy uncertainty also predicts persistent *expectations* of depreciations. We use several variables to capture policy shocks and policy uncertainty, both reduced form and direct measures. By using local projections, we show that, our wide range of policy shock and uncertainty measures predict persistent expected depreciations for emerging market currencies. These results are the *expectations* version of the overshooting literature (e.g. Dornbusch (1976), Eichenbaum and Evans (1995)). We

[2]There is large variation in this correlation across countries. For example, Turkey has a correlation between global risk and local risk factor of 2%, whereas Chile's correlation is 47% (a commodity exporter) and that of Brazil is 18%.

show that interest rate fluctuations linked to policy shocks lead to a change in expectations of exchange rates that lasts almost 20 months that leads to a persistent expected depreciation over the same horizon.

We are not the first paper that uses survey-based expectations to measure the UIP premium, but we are the first to use it for emerging markets to back-out the currency risk premia both in cross-section and time-series. There is a large literature, focusing on advanced country currencies that argues that the opposite sign of the 'Fama-coefficient' (high interest rate currencies appreciating) can be explained by a risk premium (e.g. Lustig and Verdelhan (2007), Lustig, Roussanov and Verdelhan (2011), Hassan and Mano (2019)). The literature that uses survey-based expectations to measure the UIP premium that comes before us also focuses on these advanced country currencies and decomposes the wrong signed 'Fama-coefficient' into risk premia and forecast error components. This literature suggests that realized exchange rates reflect a bias in the expectations of market participants and/or information frictions (e.g. Frankel and Froot (1987) , Froot and Frankel (1989), Stavrakeva and Tang (2020), Ito (1990), Chinn and Frankel (1994), Bacchetta and Wincoop (2006), Burnside, Eichenbaum and Rebelo (2007)). Although this literature does not mix emerging markets and advanced country currencies and focuses mostly on the latter, there is early work with a focus on emerging markets such as Bansal and Dahlquist (2000), who use data spanning from 1976 to 1998 across 28 mixed emerging and advanced country currencies. These authors argue that including emerging markets in the sample is crucial for the finding of high interest rate currency depreciations, but they do not use expectations of emerging market currency exchange rates as we do.[3]

The paper is structured as follows. Section 2 presents our data and measurement. Section 4 undertakes the benchmark analysis. Section 5 presents an extensive robustness analysis. Section 6 concludes.

2. Data and Measurement

We briefly describe our variables here, where Appendix A discusses in detail the construction of all the series and samples.

[3] Bansal and Dahlquist (2000) writes: "The forward premium puzzle, contrary to popular belief, not a pervasive phenomenon. It is confined to developed economies." Extending their sample, Frankel and Poonawala (2010) also shows a positive but small Fama coefficient in a combined sample of EMs and AEs.

2.1. UIP, Exchange Rates and Survey Expectations

We employ monthly data from IMF, Bloomberg and Consensus Economics. Our sample includes 34 currencies and excludes country-month observations when there is a fixed exchange rate regime based on the classification of Ilzetzki, Reinhart and Rogoff (2017), as in these cases the exchange rate does not move or covary with the interest rate by construction. Our sample consists of 22 emerging markets (EM) and 12 advanced economies (AE) over 1996m11-2018m12.

We obtain the deposit interest rates, money market rates and government bond rates from Bloomberg, the spot exchange rate from IFS, and the exchange rate expectations come from Surveys of Consensus Economics. For the Euro Area, we employ individual series for countries before they join the Euro and, after they join, we use Euro level series. We measure inflation with CPI. We further use CDS data for default risk from Bloomberg and default episodes from Reinhart, Rogoff, Trebesch and Reinhart (2021).

Consensus conducts a monthly survey about expectations on future exchange rates at 1, 3, 12 and 24 months horizons of major participants in the foreign exchange rate market. Appendix A.2 discusses thoroughly the details of this dataset. The coverage is extensive and includes 55 investors on average for AEs' currencies. Some currencies –as the Euro, Japanese Yen and UK Pound– include more than hundreds. Albeit with a lower number of investors, the survey is also comprehensive in EMs and includes on average 17 investors per currency. These investors surveyed are typically global banks and investors that actively participate in the FX market. Notably, the same set of investors are present in both AEs and EMs.

Having the same set of agents surveyed for both set of economies is important because it implies that different results between AEs and EMs should not arise from such heterogeneity. To provide an example, in September 2012, for the Japanese Yen 96 agents included: Goldman Sachs, HSBC, JP Morgan, Citigroup, Bank of Tokio Mitsubishi, IHS Global Insight, General Motors, ING Financial Markets, Barclays Capital, and Morgan Stanley. These ten were also surveyed for the Euro and the UK pound, which included a total of 103 and 81 that month. The main agents surveyed for the Korean Won (22) were: Goldman Sachs, HSBC, JP Morgan, Citigroup, Bank of Tokio Mitsubishi, IHS Global Insight, General Motors, ING Financial Markets. Similarly, for the Turkish Lira (28). Other EM currencies (as the Argentinean Peso, Brazilian Real, Chilean Peso, Colombian Peso, Hungarian Forint, Indian Rupee, Malaysian Ringgit, Mexican Peso, Polish Zloty and Russian Rouble) also included these, as well as other global investors like Barclays Capital, BNP, ABN Amro, Allianz, Royal Bank of Canada, UBS and Royal Bank of Scotland.[4]

[4]In follow-up work, Kremens, Martin and Varela (2025) show that survey expectations can predict AE

We calculate the UIP premium as stated in the introduction ($\lambda^e_{t+h} = (i_t - i^{US}_t) - (s^e_{t+h} - s_t)$). The base currency is always the dollar. Instead of deposit and money market rates, one can also use short-term local currency government bond rates for each country. We opt for using the closest rate possible to a "risk-free rate" on local currency borrowing/return to saving one can obtain in EM that is deposit/money market rates given the default risk on short-term EM bonds. Our definition is identical to textbook. It is important to use short-term rates as the UIP tends holds at longer maturities and focusing on rates for less than 1 year maturity also helps us to separate UIP premia from term premia.

2.2. Global, U.S. and USD Factors

Since we calculate the UIP always vis-à-vis the U.S. dollar, we also construct variables that aim to capture the predominant role of the U.S. dollar in financial markets, such as the convenience yield of the dollar and the dollar's liquidity premium. In addition to this dollar specific variables, we also employ the VIX. We calculate the dollar specific variables exactly as in the literature following Jiang, Krishnamurthy and Lustig (2021), Bianchi, Bigio and Engel (2021), and Obstfeld and Zhou (2022). Following Miranda-Agrippino and Rey (2020), we interpolate all capital flow series from IMF, IFS, to monthly frequency.

To construct global variables, let us first define the CIP deviation for country c at time t relative the U.S. at horizon h, $\lambda^{CIP}_{c,t+h}$, as:

$$\lambda^{CIP}_{c,t+h} = (i_{c,t} - i^{US}_t) - (f_{c,t+h} - s_{c,t}), \tag{3}$$

where $f_{c,t+h}$ is a (log) forward exchange rate for the local currency vis-a-vis the dollar h periods ahead, and spot exchange rate, s, is defined same as before, local currency per dollar. Using different interest rates — such as LIBOR, government bonds, deposit rates or money market rates — the literature calculate the aforementioned variables. For example, the *Convenience Yield* of the U.S. dollar relative to a given country c at time t will use the LIBOR rate in country c and in the U.S. We follow the literature and average the convenience yield of the dollar relative to country c across G10 countries.[5] Defined this way, the convenience yield on the U.S. dollar (relative to G10 countries) measures how much investors are willing to forego higher returns in G10 in exchange for the convenient low returns from the U.S. dollar.

To measure the *Liquidity Premium* on U.S. government bonds, we follow the literature

exchange rates in long horizons (24-months).

[5]The G10 countries we consider are Australia, Canada, Germany, Japan, New Zealand, Norway, Sweden, Switzerland, and United Kingdom.

and define $Liquidity\ Premium_{ct} = i^L_{c,t} - i^G_{c,t} - (i^{US,L}_t - i^{US,G}_t)$, where $i^G_{c,t}$ and $i^{US,G}_t$ are interest rates on short-term government bonds in the home country and the U.S., respectively, where rates denoted with L are LIBOR rates. As with the convenience yield, we construct a single measure of liquidity premium by averaging across G10 countries, since the literature argues that this premium is only about the U.S. treasuries.

2.3. Local Risk Factors

We have three sets of variables that we use to measure local risk factors. First is a news-based variable, second set uses survey based variables, and third set looks at outcome-based variables such as capital flows. Overall these variables try to capture local risks related to policy volatility so that we can separate high frequency local risks from long-run fundamental default risk of government. We describe each in turn.

We first compute the news-based policy risk premium (PRP) index for our sample following the methodology in Baker, Bloom and Davis (2016). This index is constructed by counting the number of journal articles containing words reflecting policy uncertainty and, as such, is a good proxy for foreign investors' risk sentiment on government and central bank policies. In particular, we use the online platform Factiva, which reports journal articles. Our list of words follows Baker, Bloom and Davis (2016) to which we add new words to capture additional policy uncertainty characteristic of emerging markers (e.g expropriation, nationalization and corruption). Because we are interested in the perspective of all investors, we focus both domestic news and the news reported in international newspapers (such as Financial Times, Reuters and the Wall Street Journal, among others).

We construct the high frequency policy risk premium (PRP) index for each currency and month as follows, $PRP_{ct} = X_{ct}/Y_t$, where X_{ct} is the number of articles referring to episodes in country c at month t, $Y_t = \sum_c Y_{ct}$ is the total number of articles written at month t (i.e. the sum of articles across countries), and Y_{ct} is total number of articles referring to country c at month t. We normalize the index to 100. Appendix A.3 reports a detailed description of the methodology to create this index.[6]

As shown in Figure 1, our news-based measure for policy risk premium moves very closely with the UIP risk premium, calculated as before. We plot the averages for EMs. The tight

[6] Our methodology to construct the index follows Barrett, Appendino, Nguyen and de Leon Miranda (2022) and is an adaptation of Baker, Bloom and Davis (2016) to include international news. In particular, the difference with Baker, Bloom and Davis (2016) is that their index includes a non-minor proportion of local newspapers, which allows them to first compute the share of news for each individual newspaper within a country and then add up the total sum for each country. Instead, Barrett, Appendino, Nguyen and de Leon Miranda (2022) methodology adds the total number of articles in a country and pools all the newspapers together for each country.

connection between the two series is remarkable. All the important EM events and crises are picked up by spikes in both premia, as expected, but more importantly, when we exclude those types of bad events, shown with dashed lines, we still record a high and significant correlation between the UIP premium and PRP. Notice that we do not need this measure to be a "pure" policy uncertainty measure: it can be both connected to bad events, and also connected to worse and uncertain future outcomes. Both can shape foreign investors' perceptions.

Since the pioneering work of Baker, Bloom and Davis (2016), who show that news-based economic policy uncertainty reduces investment and output in the U.S., this literature mainly focused on closed economies, mostly the U.S., and research has shown that policy uncertainty leads to inefficiencies through market pricing. We contribute to this literature in terms of measurement as we hand-collect or news data from each country's own newspapers together with global English newspapers. Our measure covers –but it is not limited to –news-mentions of uncertainty around: monetary policy, taxation, fiscal deficit, central bank independence, labor regulations, competition law, capital controls, nationalization, corruption, etc.

For the survey based variables, we use the commonly used indicators from International Country Risk Guide (ICRG), which reports detailed information of the components of policy risk for each country over time. According to these ICRG measures, that are used by foreign investors according to ICRG documentation, political risk contributes 50% to the composite policy risk index, and financial and economic risks contribute to the remaining 50%. To pin down the main elements entailing policy risk, we focus on two key elements of the political risk component: *government policy risk* and *confidence risk*. Both capture expropriation risk, risk of not being able to repatriate profits and government accountability, the degree of freedom that a government has to impose policies to its own advantage, together with confidence in economic policies. For example, Azzimonti and Mitra (2023) relate government accountability with a country's default probability.[7]

The literature has put particular emphasis on the uncertainty of "monetary policy", for pricing of risky assets, using measures of inflation expectations or forecasts errors or text-based measures trying to detect uncertainty in central banks' statement. For example, Cieslak, Hansen, McMahon and Xiao (2023) show that Fed-driven policy uncertainty reduces the impact of monetary policy on real outcomes due to market volatility. Hence we also use those measures. Nevertheless, our paper goes beyond specific policies, and show that policy uncertainty in general affects global investors' risk sentiments and cost of borrowing for EMs.

[7]These two indexes come directly from the ICRG data. Our measure of government policy risk is the average of the variables investment profile and democratic accountability, and our measure of confidence risk is the socioeconomic risk variable. We pool investment profile and democratic accountability together as, despite both variables capture different types of risk, they are highly correlated in data.

Our findings might be confused with the classical "peso problem" but they are quite different. The peso problem is about the credibility of a fixed exchange regime. For example, during 1970s, investors expected a depreciation of Mexican peso that did not materialize and, hence, created a gap between the U.S. and the Mexican interest rates. Our results are not based on comparing different regimes, on the contrary, we use only floating exchange rate regimes and how uncertainty surrounding non-exchange rate monetary, fiscal and regulatory policies lead to fluctuations in UIP premium and hence currency risk.

2.4. Summary Statistics

We present summary statistics of the UIP premium and its components of equation (2) in Table 1. The column 1 of Panels A and B in Table 1 shows that there is a striking contrast between AEs and EMs. While in EMs there is a positive UIP premium that reaches – on average – 4 percentage points, the UIP premium in AEs is small and lower than 1 percentage point. The median values presented in column 2 confirm this finding. We show below that this is a statistically significant difference using test of means.

The decomposition between the interest rate differential and the exchange rate adjustment terms, second and third lines of Panel A show that, in EMs, the mean interest rate differential accounts for the bulk of the UIP premium, while the exchange rate adjustment term is negligible. Instead, in AEs (shown in Panel B), the mean interest rate differential and exchange rate adjustment terms are close to each other, which is consistent with a UIP premium being on average close to zero in these economies. All other variables such as capital flows show quite a bit of variation. We report U.S. specific and global variables in the last panel.

Table 1. Summary Statistics

	Mean	Median	Std. Dev.	p25	p75	Observations
	(1)	(2)	(3)	(4)	(5)	(6)
	Panel (A): Emerging Markets					
UIP Premium						
UIP premium%	4.2	3.5	6.0	0.6	7.0	3,397
Interest Rate Differential%	5.1	3.5	7.9	1.2	6.6	3,397
Expected Exchange Rate Adjustment%	1.0	0.4	6.3	-2.6	3.4	3,397
Other variables						
Capital Inflows/GDP	7.1	1.7	55.8	-0.4	4.7	3,290
PRP	-0.1	-29.3	97.4	-63.9	33.5	3,397
Expected Inflation Differential	2.4	1.6	2.5	0.7	3.7	2,605
Sovereign Default Risk	0.02	0.01	0.02	0.01	0.02	2,297
Composite Risk	-0.39	-0.43	0.44	-0.71	-0.13	3,397
Government Policy Risk	-0.58	-0.62	0.61	-1.07	-0.27	3,397
Confidence Risk	-0.28	-0.35	0.71	-0.77	0.29	3,397
	Panel (B): Advanced Economies					
UIP Premium						
UIP premium%	0.9	0.7	4.6	-2.2	3.5	2,260
Interest Rate Differential%	0.3	0.2	2.2	-0.9	1.6	2,260
Expected Exchange Rate Adjustment%	-0.6	-0.3	5.0	-3.6	2.8	2,260
Other variables						
Capital Inflows/GDP	5.9	3.7	10.8	0.3	9.2	2,212
PRP	2.4	-17.4	85.9	-57.8	37.1	2,260
Expected Inflation Differential	-0.3	-0.2	0.8	-0.7	0.2	1,968
Sovereign Default Risk	0.00	0.00	0.00	0.00	0.01	370
Composite Risk	-1.18	-1.18	0.40	-1.42	-0.94	2,260
Government Policy Risk	-1.28	-1.47	0.35	-1.57	-1.17	2,055
Confidence Risk	-1.45	-1.41	0.46	-1.84	-1.20	2,055
	Panel (C): Global/US Specific Variables					
Convenience Yield%	0.1	0.1	0.2	-0.0	0.2	264
Liquidity Premium%	-0.0	0.0	0.3	-0.2	0.1	264
VIX	2.94	2.95	0.35	2.66	3.18	264

Notes: 34 currencies, 22 EMs, 12 AEs. Period 1996m11:2018m10. Source: Consensus Forecast, Bloomberg, FRED, IMF, ICRG. Capital Inflows/GDP is the ratio of capital flows to GDP. PRP measures economic policy uncertainty related policy risk premium based on local and international newspaper articles. The UIP premium at 12 month horizon based on average investor expectations of exchange rate over 12 month horizon and deposit/money market interest rates over the same horizon. Expected inflation differential compute the difference between expected inflation in the home country relative to the U.S. Sovereign default risk refers to Credit Default Swap (CDS). The Convenience Yield and the Liquidity Premium measures follows the literature and defined as explained above. Other Risk variables are from ICRG.

3. The Tale of Two Countries: An Event Study of Argentina and the U.K.

Before documenting our five facts of the UIP premium, let us illustrate the intuition behind the five facts with two famous events: the nationalization of pension funds in Argentina in October 2008, and Brexit referendum in the United Kingdom in June 2016. Both countries experienced a sharp increase in the UIP premium during these events, as shown in Figure 3, implying their local currencies (peso and pound) expected to deliver higher dollar returns to investors over dollar assets in the future, once these policy shocks realized. These events are unexpected policy shocks increasing future uncertainty.[8]

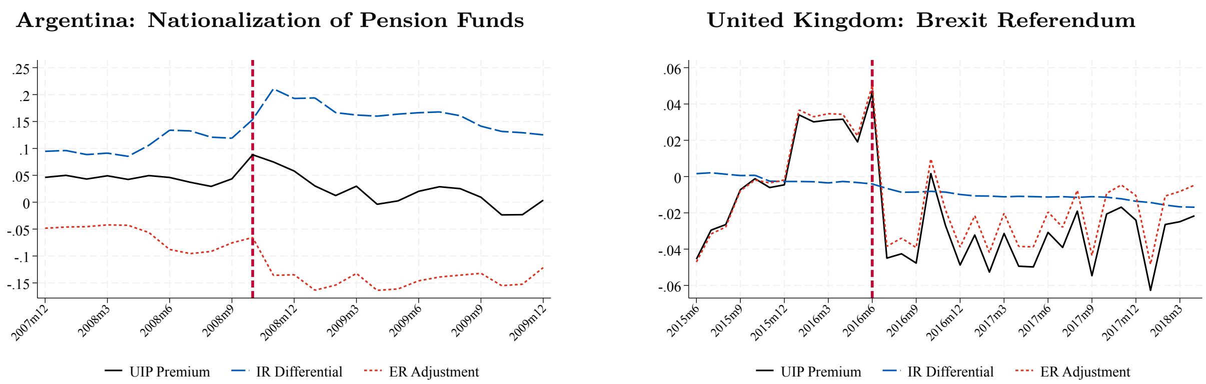


Figure 3. UIP Premium Decomposition During Policy Shocks

Notes: UIP Premium is calculated as $\lambda^e_{t+h} = i_t - (s^e_{t+h} - s_t) - i^{US}_t$, where survey data for future expectations of exchange rate s^e_{t+h} is used. The UIP premium at 12 month horizon based on average investor expectations of exchange rate over 12 month horizon and deposit/money market interest rates over the same horizon.

Figure 3 plots the UIP premium in both countries together with its decomposition. The vertical red line in the figure denotes the month of the policy change announcement. Interestingly, by the end of this month, the UIP premium increased “only” by 4 percentage points in the U.K., whereas the increase in the UIP premium in Argentina was much higher, 8 percentage points. As can be seen from the equation above, the UIP premium is the sum of IR and ER terms.[9] In Argentina, the higher UIP premium is solely captured by the higher interest differentials. Even though there was a slight expected appreciation of the peso in

[8]The nationalization of pension funds in Argentina was taken as a surprise. As Webber (November 2008) in the *Financial Times* writes *"the sudden way in which the president announced the nationalisation plan, and its speedy course through Congress, have done nothing to calm fears among investors that the government will flout property rights (...)*. In similar manner, senator Sanz said *"We have no doubt that here the right to private property is being violated. Not just for us but for society and the world, this is a clear confiscation"*. As well known, the results of the Brexit referendum was also a surprise.

[9]We revert the sign on the ER term in the figure for better visualization so an increase in ER is expected appreciation in the figure, instead of expected depreciation the way it is defined in the equation.

the future given the large depreciation at the time of the shock, it is so small to drive an 8 percentage point spike in the UIP premium. The higher UIP premium in the U.K., on the other hand, was solely driven by the large 4.2 percentage point expected appreciation of the pound, over the next 12-months, as there is no significant movement in the interest rate differentials in the month of the policy shock. What happens after the policy shock is equally interesting. In both countries, as of next and subsequent months, currencies expected to depreciate over the next 12-months, 4 percentage points in the U.K., and 12 percentage points in Argentina. Hence, a total surprise policy shock leads to expected depreciation in the next 12-months in both countries, in spite of the actual depreciation-led expected appreciation during the month of the shock. Expectations are not constant it seems and can flip quickly. The future expected depreciation is at a rate 3 times that of the U.K. in Argentina and more persistent. This means that the UIP premium goes down slowly in Argentina, compared to the U.K., given the higher interest rate differentials over the expected depreciation, leading to a more persistent UIP premium in Argentina than the U.K.

4. The Five Facts

4.1. The UIP Premium in Emerging Markets

Fact 1*: The UIP premium for emerging markets is consistently positive, higher, and more volatile, implying persistent expected excess currency returns.*

Figure 4, left panel, shows our new measure of currency risk, the UIP premium, measured with survey-based expectations of exchange rate in black for the average EM using consensus forecast (using average of all forecasters' exchange rate expectations). We also plot in the same figure the average EM UIP premium using expectations of only five big global investors/FX traders, both into emerging market and advanced economy currencies, in orange line. These are Goldman Sachs, HSBC, ING, JP Morgan, BNP Paribas. Although the UIP premium based on "big five" is more volatile, the qualitative message, as given in our Fact 1, is the same. The correlation between the two series (black and orange) is very high (62% for EMs and 76% for AEs). The right panel plots the UIP premium for the AEs, which shows more of a mean-reverting process, on average.

A simple test of different means reported in Table 2 below shows that the UIP premium in EM is three times larger than in AEs.

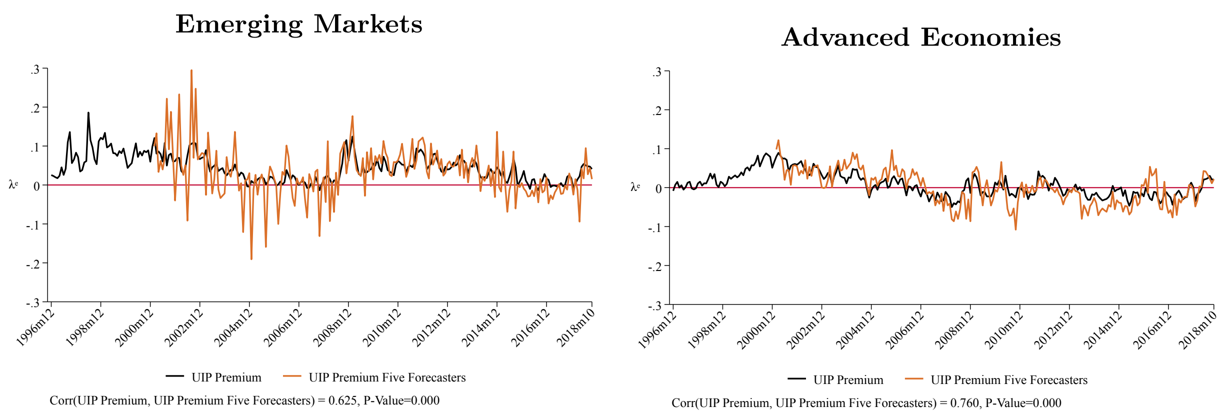


Figure 4. The UIP Premium: Expectations of Major Investors vs. Average Investor

The UIP premium at 12 month horizon for 22 EMs and 12 AEs, over 1996m11:2018m10, plotted in black line and based on average investor expectations of exchange rate over 12 month horizon and deposit/money market interest rates over the same horizon. The version that uses only five investors' forecasts is plotted in orange line.

Table 2. UIP Premium Mean Test

	EMs	AEs	Diff
	(1)	(2)	(3)
λ^e_{t+12} (%)	4.2***	0.9***	3.3***
	(0.1)	(0.1)	(0.1)
Observations	3,397	2,260	5,657

Notes: This table shows the average UIP premium for EMs and AEs. Column (3) correspond to the difference in the mean. Standard errors in parentheses. * $p < 0.10$ ** $p < 0.05$ *** $p < 0.01$

We further check the correlation between UIP premium in EM and the same premium, after taking out the credit default swap (CDS) spread. The correlation is 83 percent (and statistically significant) for the smaller EM sample where CDS data is available. Thus, since CDS data starts after 2008 and only available for a smaller subset of our EMs, we do not plot this line in a figure that shows the EM UIP premium that starts in 1996 as they will not be directly comparable. But basically the UIP Premium EM-CDS line is still larger and more volatile than the AE premium, when we restrict them in the same time period. Thus, our new measure shows that, even without default risk, EM currency risk premia are larger than that of AE currency risk premia. Table 3 shows that actual excess currency returns also statistically differ, based on test of means, between emerging markets and advanced country currencies.

Table 3. Excess Currency Returns Mean test

	EMs	AEs	Diff
	(1)	(2)	(3)
λ_{t+12} (%)	3.0***	0.8***	2.2***
	(0.2)	(0.2)	(0.3)
Observations	3,397	2,260	5,657

Notes: This table shows the average Excess Currency Returns for EMs and AEs. Column (3) correspond to the difference in the mean. Standard errors in parentheses. * p < 0.10 ** p < 0.05 *** p < 0.01

4.1.1. Fama Regressions in EM

In this section, we put our fact (1) in the context of the UIP-puzzle/Fama literature. This literature runs the following Fama regression,

$$s_{ct+h} - s_{ct} = \beta^F (i_{ct} - i_t^{US}) + \mu_c + \varepsilon_{ct+h}, \tag{4}$$

and finds $\beta^F < 1$, which implies that there are ex-post excess currency returns since actual depreciation does not offset the interest rate differentials.

We run a 'Fama w/Expctations' regression using data that underlines our new UIP premium measure, that is *exchange rate expectations*:

$$s^e_{ct+h} - s_{ct} = \beta (i_{ct} - i_t^{US}) + \mu_c + \varepsilon_{ct+h}, \tag{5}$$

where s^e_{ct+h} is the expected exchange rate for country c in period $t+h$. The interpretation of the estimated coefficient, β, in our regression is different than the standard Fama-regression. If $\beta = 1$, interest rate differentials and *expected* exchange rate changes offset each other. If $0<\beta < 1$, the *expected depreciation* is lower than implied by the interest rate differential, leading to positive *expected* currency returns, that is a UIP premium. If $\beta < 0$, then excess currency returns are driven by an *expected appreciation*.

The results of the standard Fama regression are shown in column (3) and results of our 'Fama' regression is shown in (1) of Table 4. There are several surprising findings here. First, the estimated β and β^F coefficients are very similar in emerging markets (approx. 0.4). Second, the Fama coefficient (β^F) is positive, not negative.

These regressions are panel regressions and use country (currency) fixed effects in order to be able to capture the time-varying risk premia. However, the influential work by Hassan and Mano (2019) argue that using country/currency fixed effects will absorb a large part of

Table 4. Fama, UIP, and Excess Returns Regressions

	Emerging Markets			
	(1) Fama w/Expectations	(2) UIP w/Expectations	(3) Standard Fama	(4) Standard Excess Returns
β^F	0.480***	0.520***	0.374***	0.626***
	(0.075)	(0.075)	(0.118)	(0.118)
p-value ($H_0 : \beta^F = 1$)	0.0000		0.0000	
Observations	3577	3577	3577	3577
Number of Countries	22	22	22	22
Adjusted R^2	0.4935	0.4484	0.1291	0.1057
Country (currency) FE	Yes	Yes	Yes	Yes

Notes: * p < 0.10 ** p < 0.05 *** p < 0.01. Currency-time two-way clustered standard errors in parentheses. 22 EMs currencies. Period 1996m11:2018m10.

time-invarying country risk premia. Thus, we have run same regressions without country fixed effects and we plot these results in Figure 5 for visual representation that can be compared to standard textbooks: the fitted line for the expected (left) and realized (right) rate of depreciation on the interest rate differentials in EMs. The estimated coefficients as shown in figures are similar to the ones reported in the regression Table using country fixed effects (little higher). The figures are also in stark contrast to the well-known undergraduate textbook version of this figure, given in Appendix Figure B.1, where figure on the right with realized exchange rates will be a cloud of points with either zero or slight negative and no significant relation.

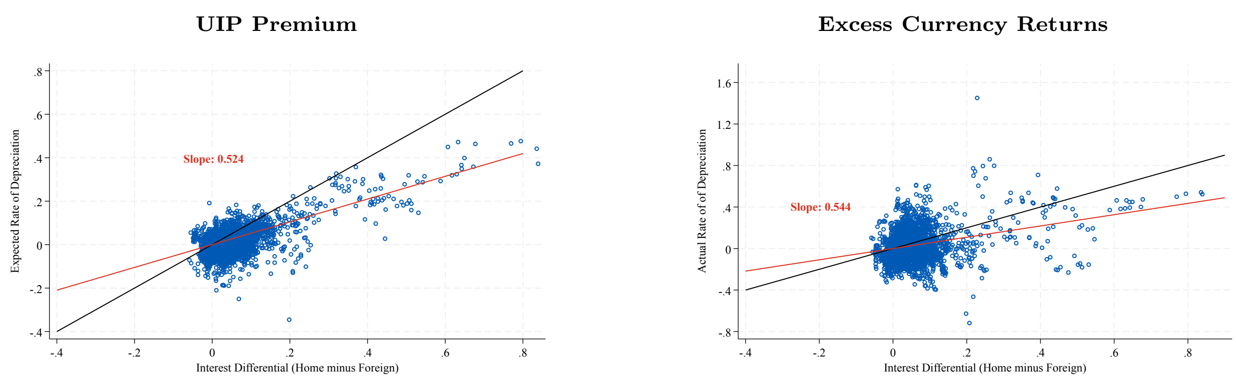


Figure 5. UIP Premium vs Excess Currency Returns in Emerging Markets
The expected and ex-post rate of depreciation at 12 month horizon and the interest rate differentials.

Finally, the third surprising finding, which follows from the first two, is that the fact that average *realized* excess returns are same magnitude to average *expected* excess returns. To show this, we run:

$$\lambda^e_{ct+h} = \beta_1(i_{ct} - i^{US}_t) + \mu_c + \varepsilon_{1ct+h}, \tag{6}$$

$$\lambda_{ct+h} = \beta_2(i_{ct} - i^{US}_t) + \mu_c + \varepsilon_{1ct+h}, \tag{7}$$

where λ^e_{ct+h} denotes "expected" excess returns, that is our new measure of currency risk UIP premium, whereas λ_{ct+h} denotes ex-post realized excess returns. $\beta_2 = 0$ implies the absence of predictable excess returns. Note that $\beta_1 = 1 - \beta$ and $\beta_2 = 1 - \beta^F$. Table 4 reports β_1 in column (2) and β_2 in column (4). Interestingly, in EMs, there are ex-ante and ex-post excess returns from investing in these currencies, and both are predictable and similar magnitude.

In relation to the Fama literature, our findings show that approximately half of the variation in interest rate differentials is attributable to variations in the risk premium, while the other half is linked to expectations not fully predicting exchange rate depreciations—though the prediction is very successful compared to advanced countries, consistent with what we have shown in the data section plotting expectational changes in exchange rates against actual exchange rate realizations. The regressions above show that interest rate differential based prediction of actual exchange rate and expected exchange rate changes are both in the right direction picking up half of the expected and actual depreciation.[10]

4.2. The UIP Premium and Local Risk Factors in Emerging Markets

Fact 2*: A significant portion of both cross-sectional and time-series variation in the emerging market UIP premium is driven by local risk factors, whereas in advanced economies, global risk factors dominate*

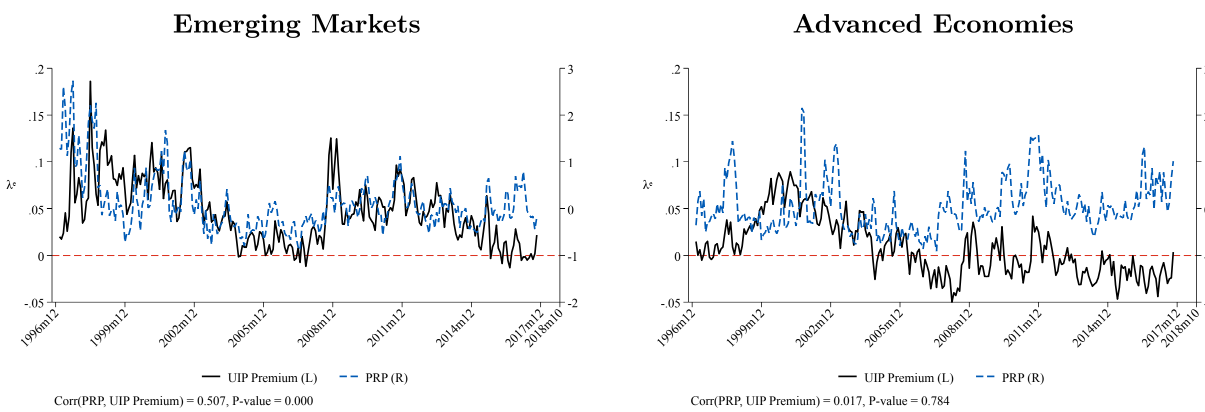
Figure 6 summarizes our Fact 2. Top panel shows that the UIP premium in EMs is highly and statistically significantly correlated with policy risk premium PRP (one of our local risk factor measures), where the same correlation in advanced countries is basically zero. In the bottom panel, we show that the UIP premium in both set of countries is also highly and statistically significantly correlated with the global risk factor, VIX. This is not surprising. The surprising fact is that local risk factor is almost as strongly correlated with the UIP premium in emerging markets (51%) as it is with the VIX (68%).

Next we run a panel regression to analyze the conditional correlation of the UIP premium and local risk factors. To put this regression in a framework, we follow Obstfeld and Zhou (2022) and write the UIP premium as a combination of factors as:

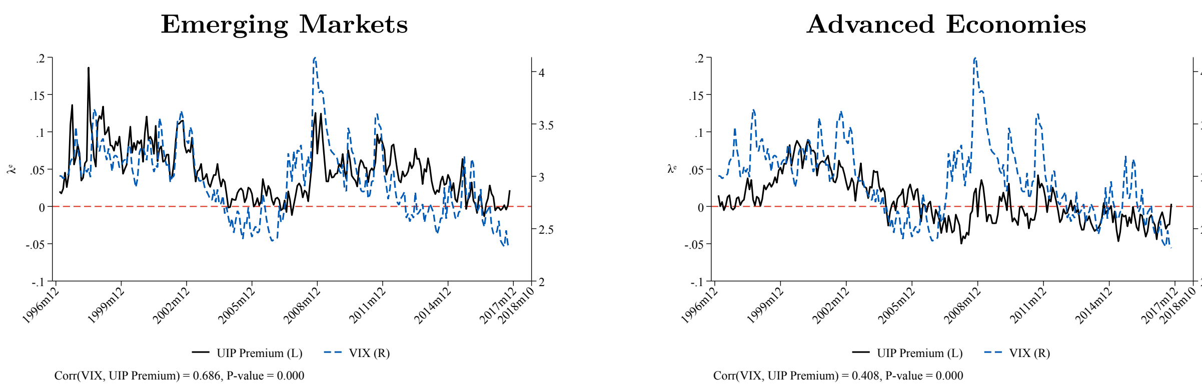
$$\lambda^e_{t+h} = \underbrace{\gamma_t^{US}}_{\text{US convenience yield}} + \underbrace{\gamma_t^{US,GOV}}_{\text{US liquidity premium}} + \underbrace{\rho_t^{Global}}_{\text{global risk factor}} + \underbrace{\rho_t^{PRP}}_{\text{local risk factor}}. \tag{8}$$

As discussed by Obstfeld and Zhou (2022), γ_t^{US} and $\gamma_t^{US,GOV}$ can be highly correlated and, hence, be difficult to disentangle one from another. Hence, we enter sum of these variables

[10] As additional supporting evidence, we have run the standard decompositions used in the literature in Appendix B, showing similar results. Table B.2. shows that in emerging markets the bias of the Fama coefficient is mainly driven by a time-varying risk premium.



a) UIP Premium and Local Risk Factor



b) UIP Premium and Global Risk Factor

Figure 6. Global and Local Risk Premia and the UIP Premium in Emerging Markets and Advanced Economies

in the regression. To capture, ρ_t^{Global} as the global risk sentiment, we employ the VIX and for the local risk factor, ρ_t^{PRP}, we use policy risk premium PRP and also capital inflows into the given country. Later we also show results with other proxies for local risk factor. We estimate panel regressions with currency/country-fixed effects, where we introduce the covariates sequentially to understand the effect of each factor.[11]

We estimate:

$$\begin{aligned} Y_{ct} = {} & \gamma_1 \log(\text{Capital Inflows/GDP}_{ct-1}) + \gamma_2 \text{Convenience Yield/Liquidity Premium}_{t-1} \\ & + \gamma_3 \log(VIX_{t-1}) + \gamma_4 \, \text{PRP}_{ct-1} + \mu_c + \varepsilon_{ct}, \end{aligned} \tag{9}$$

where c is currency/country, t is month, Y_{ct} is the UIP premium, the interest rate differential term or the exchange rate adjustment term, i.e. $Y_{ct} = \{\lambda^e_{ct+h}, \text{IR Diff}_{ct}, \text{ER Adj}_{ct+h}\}$, and

[11]Note that currency and country is the same as we treat Euro area countries as a group.

the independent variables are lagged one month. μ_c are currency fixed effects that allow assessing the UIP condition 'within' currencies/countries across time. We double cluster the standard errors across at month and country/currency level. We present the results for the EM-UIP premium but also for actual excess returns.[12]

Column 1 shows that higher capital inflows associate with a decrease in the UIP premium. We interpret this as a proxy for low local risk. So high capital inflows is associated with low local risk and low UIP premium. It is interesting that the relation stays when column 2 adds the convenience yield/liquidity premium as a control, and also in column 3, when we include the VIX. VIX makes the convenience yield/liquidity premium term, that was positive before, insignificant. This means that safety and liquidity of the US dollar and risk aversion of the global intermediaries are highly correlated variables. The coefficient on the VIX is positive and highly statistically significant, suggesting that higher global risk associates with higher UIP premia in EMs.

Column 4 assesses our other news-based local risk factor, policy risk premium PRP. The coefficient is positive and highly statistically significant indicating that increases in a country's policy uncertainty associate with higher a UIP premium. The effect is also economically important. The coefficient implies that if PRP increases from the p25 to p75 (for example, from China to South Korea in 2016m10), the UIP premium raises by one percentage point. Importantly, once we include the PRP into the regression, the coefficient for the outcome-based local risk factor, capital inflows, drops substantially in size, indicating that both local risk factors are capturing similar variation.

To compare our new currency risk measure the UIP premium, to the classic measure of excess currency returns, we run those regressions. Columns 5-8 report the estimated coefficients. Interestingly local risk factors are also positively associated with excess currency returns and in fact global risk factor, the VIX, has no role on excess currency return in EMs.

For comparison, we also present the results for advanced countries in Panel B of Table 7. Once all variables are included in the analysis, only VIX remains statistically significant to explain both our new measure the UIP premium and the standard excess currency return measure in AEs. These results make sense since if investors who hold AEs' assets are well diversified, then only global risk will matter. In the case of EMs result, local risk factors affect currency risk and hence investors' returns. Going back to our Argentina nationalization of pension funds example, if such erratic policies are truly idiosyncratic, then investors would be able to diversified them away, unless the marginal investor is either a domestic Argentinean bank, or EMs, as an asset class, is big enough in the segmented market that U.S. bank is

[12]We have to drop Colombia, going down to 21 EM as PRP index is not available for Colombia.

Table 5. Determinants of the UIP Premium: 1996m11–2018m10

	Panel A: Emerging Markets							
	(i) UIP Premium				(ii) Excess Currency Returns			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Inflows/GDP$_{ct-1}$	-0.005***	-0.005***	-0.002**	-0.001	-0.023***	-0.023***	-0.021***	-0.020***
	(0.002)	(0.001)	(0.001)	(0.001)	(0.004)	(0.004)	(0.003)	(0.003)
Convenience Yield/Liquidity Premium$_{t-1}$		3.917***	0.168	0.163		7.269**	4.154	4.147
		(1.269)	(1.092)	(1.040)		(3.204)	(3.992)	(3.943)
$\log(VIX_{t-1})$			0.058***	0.053***			0.049*	0.041
			(0.009)	(0.008)			(0.027)	(0.027)
PRP_{ct-1}				0.010***				0.012*
				(0.003)				(0.006)
Observations	3288	3288	3288	3288	3288	3288	3288	3288
Adjusted R^2	0.2089	0.2296	0.3259	0.3468	0.0459	0.0595	0.0721	0.0785
Number of Countries	21	21	21	21	21	21	21	21
Country (currency) FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

	Panel B: Advanced Economies							
	(i) UIP Premium				(ii) Excess Currency Returns			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Inflows/GDP$_{ct-1}$	0.019	0.024	0.035	0.034	-0.045	-0.044	-0.017	-0.017
	(0.034)	(0.029)	(0.027)	(0.027)	(0.051)	(0.051)	(0.048)	(0.049)
Convenience Yield/Liquidity Premium$_{t-1}$		3.704**	1.810	1.687		0.569	-4.009	-3.998
		(1.417)	(1.327)	(1.324)		(3.203)	(3.341)	(3.360)
$\log(VIX_{t-1})$			0.030*	0.032**			0.073***	0.073**
			(0.014)	(0.014)			(0.023)	(0.025)
PRP_{ct-1}				-0.002				0.000
				(0.002)				(0.006)
Observations	2209	2209	2209	2209	2209	2209	2209	2209
Adjusted R^2	0.1582	0.1914	0.2331	0.2346	0.0305	0.0302	0.0726	0.0722
Number of Countries	12	12	12	12	12	12	12	12
Country (currency) FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

* $p < 0.10$ ** $p < 0.05$ *** $p < 0.01$. Currency-time two-way clustered standard errors in parentheses.

investing in that local risk factor of EM affects the networth of the U.S. banks. There is empirical evidence for both of these channels (e.g. For Turkey, see di Giovanni, Kalemli-Özcan, Ulu and Baskaya (2021) for marginal investor being Turkish banks, and Morelli, Ottonello and Perez (2022) for U.S. banks networth linked to EMs default risk).

4.2.1. Explanatory Power of Local Risk Factors in EMs

How much explanatory power local risk factors have? We report R^2 by adding variables one by one and, hence, the difference between columns refer to partial R^2 for each variable in the Table 8 below. As shown in column (1) where we only include global risk factors, these factors explanatory power for our new currency risk measure, the UIP premium, is only 11.75%. When we add local risk factors, both time in-varying and time varying in columns

2 and 3 (taking out global risk factors), we see that they explain much more, 26%. When we add back the global factors, all together global and local risk factors explain 35% of the variation in EM UIP premia.

These results are robust to allowing for country-specific loadings to VIX and country-specific slopes to local risk factors (columns 5 and 6). Both types of heterogeneity together adds an additional 7% (column 7). Consistent with the international finance literature showing the importance of a dollar factor, adding a time (month) fixed effect brings the total explanatory power to 56% (column 8).

Therefore, more than 50% of the explained variation in our currency risk measure can be explained by local and global risk time-varying factors and country-time invariant heterogeneity. Importantly, local risk factors remain to be the single most important contributor to the explanatory power of the regression.

Table 6. R^2 for Local and Global Risk Factors

	UIP Premium							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Adjusted R^2	0.1175	0.0462	0.2570	0.3468	0.3836	0.3177	0.4214	0.5615
Inflows/GDP$_{ct-1}$	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Convenience Yield/Liquidity Premium$_{t-1}$	Yes	No	No	Yes	Yes	Yes	Yes	Yes
$\log(VIX_{t-1})$	Yes	No	No	Yes	Yes	Yes	Yes	Yes
PRP_{ct-1}	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
$\log(VIX_{t-1}) \times$ country dummy	No	No	No	No	Yes	No	Yes	Yes
$PRP_{ct-1} \times$ country dummy	No	No	No	No	No	Yes	Yes	Yes
Currency FE	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Month FE	No	No	No	No	No	No	No	Yes

Next, we present same panel regressions and partial R^2 table after we orthogonalize local risk factor PRP fully to VIX. It is clear that results stay the same.

Table 7. Determinants of the UIP Premium: Orthogonalized by VIX

	Panel A: Emerging Markets							
	(i) UIP Premium				(ii) Excess Currency Returns			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Inflows/GDP$_{ct-1}$	-0.005***	-0.005***	-0.002**	-0.004***	-0.023***	-0.023***	-0.021***	-0.022***
	(0.002)	(0.001)	(0.001)	(0.001)	(0.004)	(0.004)	(0.003)	(0.003)
Convenience Yield/Liquidity Premium$_{t-1}$		3.917***	0.168	3.888***		7.269**	4.154	7.232**
		(1.269)	(1.092)	(1.301)		(3.204)	(3.992)	(3.214)
$\log(VIX_{t-1})$			0.058***				0.049*	
			(0.009)				(0.027)	
PRP$_{ct-1}$ $\perp$VIX				0.010***				0.013*
				(0.003)				(0.006)
Observations	3288	3288	3288	3288	3288	3288	3288	3288
Adjusted R^2	0.2089	0.2296	0.3259	0.2517	0.0459	0.0595	0.0721	0.0662
Number of Countries	21	21	21	21	21	21	21	21
Country (currency) FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

* p < 0.10 ** p < 0.05 *** p < 0.01. Currency-time two-way clustered standard errors in parentheses.

Table 8. R^2 for Local and Global Risk Factors: PRP orthogonalized by VIX

	UIP Premium							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Adjusted R^2	0.1175	0.0213	0.2313	0.3468	0.3836	0.2942	0.4214	0.5615
Inflows/GDP$_{ct-1}$	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Convenience Yield/Liquidity Premium$_{t-1}$	Yes	No	No	Yes	Yes	Yes	Yes	Yes
$\log(VIX_{t-1})$	Yes	No	No	Yes	Yes	Yes	Yes	Yes
PRP_{ct-1}	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
$\log(VIX_{t-1})$ × country dummy	No	No	No	No	Yes	No	Yes	Yes
PRP_{ct-1} × country dummy	No	No	No	No	No	Yes	Yes	Yes
Currency FE	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Month FE	No	No	No	No	No	No	No	Yes

4.3. The UIP Premium and Interest Rate Differentials in Emerging Markets

Fact 3*: The interest rate differential component of the UIP premium in emerging markets is more volatile and strongly correlated with local risk factors, in contrast to advanced economies*

Figure 7 plots the UIP premium decomposition for the average AE and EM. In AEs, the UIP premium and the exchange rate adjustment term overlap most of the time, with a correlation over 90%, while movements in the interest rate differential term are negligible. In contrast, in EMs, interest rate differentials almost perfectly co-move with the UIP premium, a 70% correlation, whereas the exchange rate adjustment term barely correlates with the UIP premium.

The figure 8 below shows that the distributions of UIP, IR and ER are consistent with these time series patterns. Panel (a) plots the distribution of interest rate differentials for

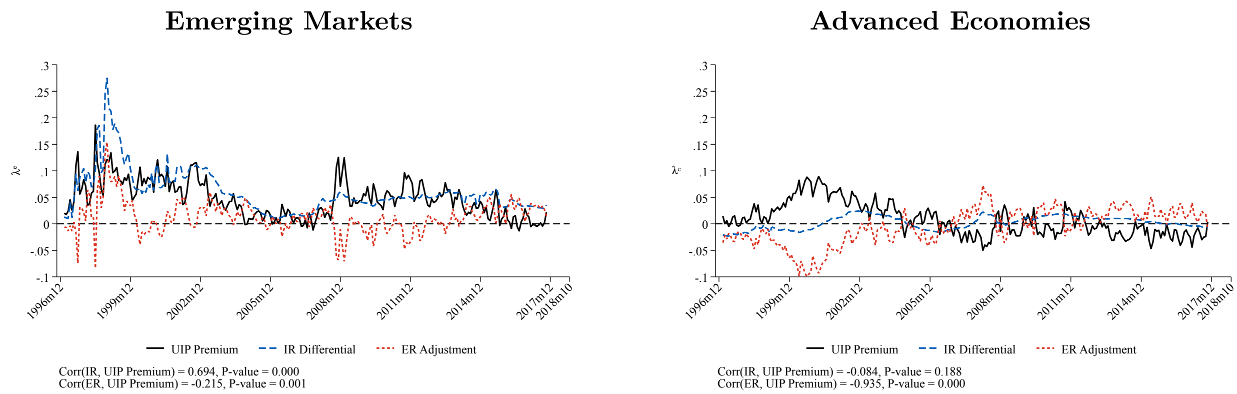


Figure 7. Interest Rate Differential and Exchange Rate Adjustment in AEs and EMs
UIP premium decomposition into interest rate differential and exchange rate adjustment at 12-month.

EMs and AEs and panel (b) plots the distribution of exchange rate changes, where panel (c) plots the distribution of the UIP premium. In each figure the dotted line denote the AEs. Panel (a) shows a long right tail for interest rate differentials (vis-a-vis the U.S.) for EMs, so they are positive for most, where they are basically zero for most AEs. This is interesting since the mean interest rate differentials is similar on both countries and most countries are clustered around the mean. Panel (b) shows that there are more expected depreciations in EMs, whereas this is not a characteristic of the data for AEs at all. Panel (c) shows the distribution of the UIP premium is tilted to right in EMs compared to AEs due to higher interest rate differentials from panel (a) in spite of the expected depreciations shown in panel (b).

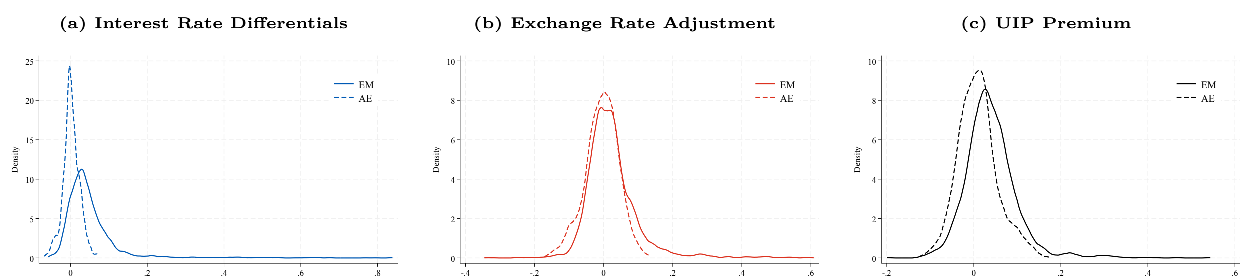


Figure 8. IR Differential, ER Adjustment, and UIP Distribution
Distributions: interest rate differentials (a), exchange rate adjustment ($s^e_{t+1} - s_t$, (b)), UIP (c).

Finally, we show that, there is a strong association with local risk factors and the interest rate differentials.Table 9 presents these results for three different set of interest rates. We re-estimate our key equation that we used to identify conditional correlations of the UIP premium and risk factors, now for UIP premium and its two components: interest rate differential and exchange rate adjustment. For expositional simplicity, column 1 reproduces our result on the UIP premium of column 4 in Table 7. As shown in columns 2 and 3, all the local risk factors are related to the UIP premium via IR term, whereas the global risk factors affect the UIP premium via both terms. Interestingly and different than the local risk factors, higher VIX is associated with an expected appreciation of the local currency vis-a-vis dollar in the future. This result can be mechanical via the fact that higher VIX on impact leads to dollar appreciations, and hence it is not surprising that it is also associated with expected dollar depreciations in the future (which means expected appreciation of the other country's currency. With higher local risk factors, the opposite is true and there is an expected deprecation of the local currency. Given the low correlation between local and global risk factors, this result is not surprising as it is likely that foreign investor behavior towards local and global risk factors is different .

Table 9. UIP Premium in EMs: Decomposition and Robustness with Interest Rates

	(A) Deposit Rates			(B) Government Bonds			(C) Money Market Rates		
	(1) UIP Premium	(2) IR Diff.	(3) ER Adj.	(4) UIP Premium	(5) IR Diff.	(6) ER Adj.	(7) UIP Premium	(8) IR Diff.	(9) ER Adj.
Inflows/GDP$_{ct-1}$	-0.001	-0.002*	-0.001	-0.009**	-0.005***	0.005	-0.001	-0.002***	-0.001
	(0.001)	(0.001)	(0.001)	(0.003)	(0.001)	(0.003)	(0.001)	(0.000)	(0.001)
$\log(VIX_{t-1})$	0.053***	0.034***	-0.018**	0.049***	0.018***	-0.031***	0.045***	0.024***	-0.021***
	(0.008)	(0.011)	(0.009)	(0.009)	(0.005)	(0.009)	(0.007)	(0.005)	(0.007)
Convenience Yield/Liquidity Premium$_{t-1}$	0.163	-0.117	-0.279	-1.034	-0.627	0.407	-0.166	-0.900	-0.734
	(1.040)	(1.185)	(1.147)	(1.133)	(0.463)	(0.897)	(1.061)	(0.541)	(1.018)
PRP_{ct-1}	0.010***	0.006***	-0.004	0.007**	0.003**	-0.003	0.010**	0.006**	-0.004
	(0.003)	(0.002)	(0.003)	(0.003)	(0.002)	(0.004)	(0.004)	(0.002)	(0.003)
Observations	3288	3288	3288	1761	1761	1761	2665	2665	2665
Adjusted R^2	0.3468	0.4860	0.3255	0.3655	0.7045	0.2332	0.3534	0.5521	0.2075
Number of Countries	21	21	21	21	21	21	21	21	21
Country (currency) FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Two-way currency-time clustered standard errors in parenthesis. *,**,*** denotes statistical significance at the 10, 5, and 1 percent respectively.

4.4. Local Risk Factors and Exchange Rate Expectations in Emerging Markets

Fact 4*: Local and global risk factors influence exchange rate expectations, which closely align with actual exchange rate movements in emerging markets;*

We create two measures for volatility of exchange rate expectations to link the expectations to local and global risk factors. The first measure is the standard deviation of the exchange rate expectations among different agents. The second measure is similar, the difference between lowest and highest value for the expected exchange rate, by different agents. We kept the horizon constant at 12-months for both of these measures. In this sense, these measures we use to proxy for volatility in currency risk perceptions are similar to risk perception measures for high and low volatility assets as calculated in Pflueger, Siriwardane and Sunderam (2020). Not surprisingly, similar to the high correlation between expected and actual changes in the exchange rate that was shown above in Figure **??**, the correlation of these volatility measures of expectations are also highly correlated with the actual volatility of the nominal exchange rate (96 percent).

Using these measures, we run a two-stage regression as shown below in Table 10. In the first stage, we regress the newly constructed measures of volatility in exchange rate expectations on local and global risk factors. As clear, when we use both global risk factor VIX and local risk factor PRP, we have a strong first stage with significant predicting power of volatility of expectations on interest rate differential as shown in second stage (top panel) in columns (2) and (3) and (5) and (6). This second stage regresses interest rate differentials only on the "risk-factors-predicted" volatility in exchange rate expectations.[13]

Table 10. Expectations Channel in Emerging Markets

	Second Stage: Interest Rate Differential					
	(1)	(2)	(3)	(4)	(5)	(6)
$s^e_{a^{high}t+1}$-$s^e_{a^{low}t+1}$	0.141*	0.075***	0.101***			
	(0.077)	(0.015)	(0.029)			
Std Dev s^e_{at+1}				0.073	0.050***	0.057***
				(0.045)	(0.015)	(0.015)
RHS variable in First Stage	VIX	PRP	VIX & PRP	VIX	PRP	VIX & PRP
Observations	3279	3279	3279	2155	2155	2155
	First Stage: Dispersion in ER Expectations					
	$s^e_{a^{high}t+1} - s^e_{a^{low}t+1}$			Std Dev s^e_{at+1}		
$\log(VIX_{t-1})$	0.267***		0.205**	0.215**		0.170*
	(0.080)		(0.084)	(0.096)		(0.094)
PRP_{ct-1}		0.119***	0.101***		0.136***	0.124***
		(0.024)	(0.028)		(0.028)	(0.030)
Cragg-Donal Wald F statistic	137.75	197.70	141.16	58.72	120.99	80.29
Kleibergen-Paap Wald F statistic	11.06	24.46	20.89	5.01	23.57	10.71

4.5. Policy Shocks, Local Risk Factors and Expectations in Emerging Markets

Fact 5*: The emerging markets' local risk factor is associated with country-specific policy shocks, where such policy uncertainty can predict persistent expectations of depreciations in emerging markets well into the future, but has no such effect in advanced economies.*

Our final fact is on how factors such as policy uncertainty underlies local risk factors and relates to exchange rate expectations. To do this dynamically, we run local projections for the response of expected exchange rate changes to an interest rate differential shocks at time t:

$$s^e_{c,t+h} - s_{c,t} = \beta_h(i_{c,t} - i^{US}_t) + \mu_c + \epsilon_{c,t+h}, \tag{10}$$

[13] The AE version of this table is given in Table B.1 in the Appendix B, with no predictive power of local risk factors for volatility in expectations.

where the coefficient of interest is β_h and reports the response of expected exchange rate change for the next 12-month to interest rate differential shocks for each month h, conditional on currency fixed effects (μ_c).

Figure 9 plots the response of expected change in the exchange rate (for the next 12 month from the given month) to one percentage point interest rate differential shock on the left panel, and the response of expectations on the right panel. Interestingly, we do not observe a U-shaped dynamic as the overshooting literature documented for realized exchange rates, neither a delayed overshooting (see Dornbusch (1976), Eichenbaum and Evans (1995)). We rather observe an inverted U-shaped, where the exchange rate is expected to initially depreciate. This pattern will lead to persistent UIP premium even the initial shock is transitory. This is because, when there is a one-time IR shock, investors expect depreciation to last in EMs, as shown. This implies that the expectations increases on impact relative to current spot rate, as shown in the second panel of the figure.

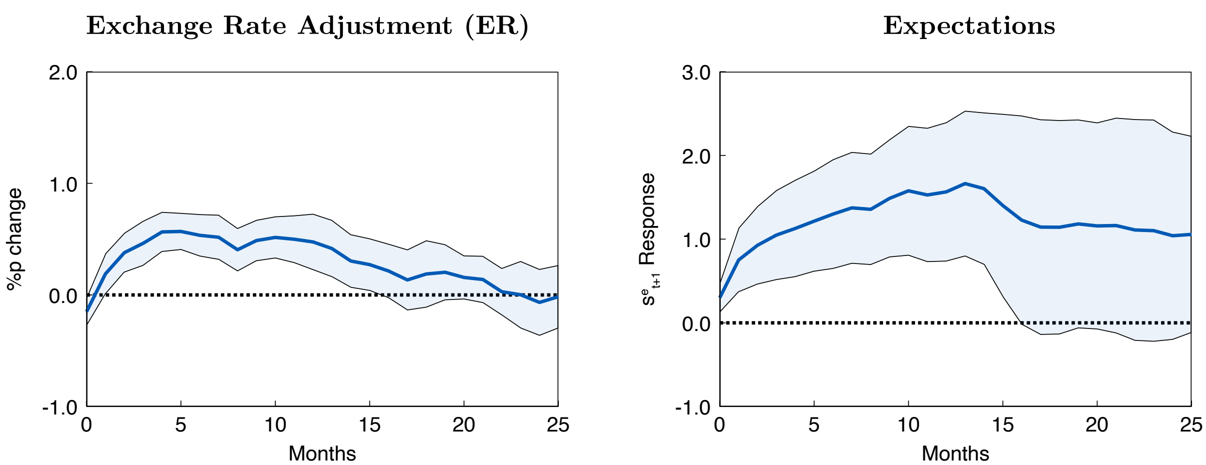


Figure 9. Emerging Markets: Response of ER and Expectations to an IR Shock
95% confidence intervals, using Driskoll-Kraay standard errors with a bandwidth lag $h + 1$ for horizon h.

Next, similar to previous exercise we did for Fact number 4, we use a "local risk factor predicted" interest rate differential shock, instead of a simple one percentage point shock to interest rate differentials. We use PRP variable (policy risk premium) and scale it properly that it corresponds to one percentage point shock in IR. Results are reported in Figure 10. There is a striking quantitative resemblance between the two exercises, which constitutes the cornerstone of our fact 5, that is emerging markets' local risk factor is associated with country-specific policy shocks and can predict persistent expectations of depreciations in emerging markets.

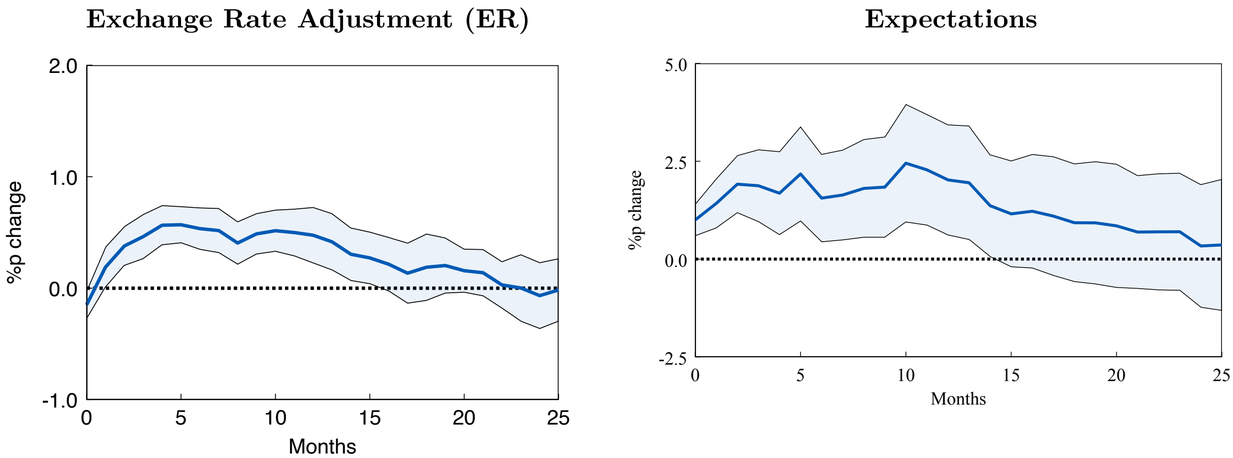


Figure 10. Emerging Markets: Response of ER and Expectations to a Local Risk Factor predicted-IR Shock

95% confidence intervals, using Driskoll-Kraay standard errors with a bandwidth lag $h + 1$ for horizon h.

4.6. Other Measures of Local Risk Factors

We employ three additional variables reflecting local risk factors: *composite country risk*, *government policy risk* and *confidence risk*. [14]

The left graph of the Appendix Figure B.3 plots the average composite risk index (gray-dashed line) and UIP premium (black line) for EMs. Notably, these two lines track each other very closely and their comovement reaches 58%. In the right graph, we plot the correlation of the composite risk index with the two components of the UIP premium. Confirming our previous findings, in EMs, the composite risk highly correlates with the interest rate differential.

To unpack the elements implied in the composite risk, we revisit our previous panel regressions. In Table 11, the coefficient for the composite risk index is positive and highly statistically significant indicating that increases in a country-specific risk associates with a higher UIP premium on its currency (column 1). The size of the coefficient is economically important: if composite risk increases from the p25 to p75 (from Chile to Russia in the 2016m6), the UIP premium increases by 4 percentage points. As before, composite risk is associated with the interest rate differential (columns 2 and 3). It is worth noting that the composite risk does not overpower the VIX coefficient – which remains similar in magnitude and highly statistically significant –, but it overpowers capital inflows, as before.

Columns 4-6 presents the results for the other measures that make up composite risk.

[14]The ICRG further decompose political risk into other sub-components, such as corruption, law and order, bureaucracy quality, internal and external conflicts, among others. These sub-components capture elements of policy risk that are not significantly related to foreign investors' risk sentiments and these results are available upon request.

Table 11. UIP Deviations in EMs: A Granular View

	Panel (A): Composite Risk			Panel (B): Unpacking Composite Risk		
	(1)	(2)	(3)	(4)	(5)	(6)
	UIP Premium	IR Diff.	ER Adj.	UIP Premium	UIP Premium	UIP Premium
Inflows/GDP$_{ct-1}$	-0.001	-0.001**	-0.000	-0.001	-0.002*	-0.001
	(0.001)	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)
$\log(VIX_{t-1})$	0.052***	0.029***	-0.023***	0.058***	0.054***	0.055***
	(0.005)	(0.003)	(0.005)	(0.005)	(0.005)	(0.005)
Convenience Yield/Liquidity Premium$_{t-1}$	-0.328	-0.750	-0.422	-0.203	-0.273	-0.388
	(0.749)	(0.587)	(0.719)	(0.757)	(0.727)	(0.712)
Composite Risk$_{ct-1}$	0.052***	0.089***	0.037***			
	(0.006)	(0.006)	(0.006)			
Government Policy Risk$_{ct-1}$				0.020***		0.014***
				(0.005)		(0.005)
Confidence Risk$_{ct-1}$					0.023***	0.020***
					(0.004)	(0.004)
Observations	3427	3427	3427	3427	3427	3427
Adjusted R^2	0.3639	0.3639	0.3639	0.3316	0.3396	0.3435
Number of Countries	245	245	245	245	245	245
Country (currency) FE	Yes	Yes	Yes	Yes	Yes	Yes

* $p < 0.10$ ** $p < 0.05$ *** $p < 0.01$. Time clustered standard errors in parentheses. Note that given low clusters due to data availability, we cannot double cluster in this regression. 22 EMs currencies. Period 1996m11:2018m10.

Column 4 shows that increases in government policy risk associates higher UIP premium and column 5 confirms a similar correlation for confidence risk. Importantly, column 6 includes both variables together and shows that both variables remain positive and highly statistically significant. Furthermore, both coefficients remain similar in size as those estimated in columns 4 and 5, which indicates that both variables are capturing different forms of policy shocks.

5. Robustness Analysis

5.1. Sovereign Default and Inflation

There has been a large literature showing that default risk is the key reason for emerging markets higher borrowing costs in their own currency or inability of their borrowing in their own currency. Although we showed before the high correlation between the UIP premium and the UIP premium adjusted by subtracting the CDS spread, we still revisit our regressions controlling for default risk in this robustness section. The appendix Table B.3 presents the results. Another potential concern of the analysis is that high interest rate currencies might correlate with high inflation rates and, thus, the UIP premium observed in nominal terms might vanish in real terms. To assess this, we re-estimate our panel regressions and add inflation differentials as a control. These results are consistent with our original findings and shown in the appendix Table B.4.

5.2. Implications for Exchange Rate Predictability

Our results have implications for exchange rate predictability which constitutes a vast literature. Our new measure of currency risk premium, that is the UIP premium, also relates to realized exchange rates via the information in exchange rate expectations that is partly reflected in the interest rate differentials.

To explain this point, we start with the standard regression run in the literature on predicting the exchange rates, using interest rate differentials, a shown in Table 12. We regress realized exchange rate changes ($s_{ct+h} - s_{ct}$) on expectational changes ($s^e_{ct+h} - s_{ct}$) and the interest rate differentials. term. For EMs currencies, the coefficient on the interest rate differential for EM becomes close to zero when expected exchange rate is included in the regression (columns 1 and 2). This suggests that the interest rate differential does not contain more information than investors' expectations or, alternatively, it could be interpreted as investors' expectations of future exchange rate already incorporated in the interest rate differential. In contrast in AE currencies, interest rate differentials have some role on top of expectations, yet their joint within R^2 is only 4%. In addition, both expectations and interest rate differentials become non-significant when time fixed-effects are in included in AE currencies, but this does not occur in EMs currencies, consistent with the previous results on the power of global risk factors for AEs but the need for local risk factors for EMs.

Table 12. Exchange Rate Predictability

	Realized Exchange Rate Changes					
	Emerging Markets			Advanced Economies		
	(1)	(2)	(3)	(4)	(5)	(6)
Expected Exchange Rate changes		0.500***	0.528***		0.493***	0.113
		(0.155)	(0.109)		(0.158)	(0.086)
Log Interest Differential	0.374***	0.134	-0.039	-0.399	-1.001*	0.188
	(0.118)	(0.141)	(0.118)	(0.377)	(0.486)	(0.254)
Observations	3577	3577	3571	2285	2285	2285
Adjusted R^2	0.1291	0.1537	0.5271	0.0098	0.0468	0.6080
Number of Countries	22	22	22	12	12	12
Country (currency) FE	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	No	No	Yes	No	No	Yes

Notes: * p<0.10 **p<0.05 *** p<0.01. Currency-time two-way clustered standard errors in parentheses.

In time series, we have the similar result, further strengthening our argument of the importance of dynamic policy shocks in EMs. We calculate the correlation between the time-series prediction of interest rate differentials of actual exchange rate changes and expected exchange rate changes to be 0.55, whereas the same correlation with the actual exchange rate changes is 0.16. Hence, this is the time series version of the finding in the table above that, in EMs, exchange rate expectations are better predictors of actual exchange rate changes than the interest rate differentials and interest rate differentials have the same information as expectations.

6. Conclusion

We use survey-based expectations of exchange rates to measure the UIP premium and examine the sources of currency risk premia in emerging markets. We show that local risk shocks—especially those linked to policy uncertainty—are key drivers of both cross-country and time-series variation in the UIP premium, even after accounting for global risk factors. We document five facts, showing that the premium in emerging markets is consistently positive, more volatile, and closely tied to interest rate differentials, which reflect local risk. Policy uncertainty emerges as a primary predictor of local risk, influencing both expectations of currency depreciations and the UIP premium. Our results echoes results from the macro-finance literature, where U.S. investors' risk-perceptions are endogenous to local events and shown to be important for risky assets' pricing (e.g. Bauer, Pflueger and Sunderam (2024)).

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FOR ONLINE PUBLICATION: APPENDIX

A. Data

In this section, we first present in detail the source of the data used in this paper and the construction of the individual series. We then provide further details about the Consensus Forecast data on exchange rate expectations.

A.1. Source of Data and Construction of Individual Series

Table A1 lists variables that we employ in this paper. We obtain spot exchange rate from IMF International Financial Statistics (IFS). IFS provides both period end and period average of daily exchange rates for monthly, quarterly, and yearly frequency.

We collect market interest rates (bond, treasury bill, money market, and deposit rate) from the Bloomberg terminal. We choose interbank offered rate as a money market rate. For a given country and an interest rate, there are various tickers in Bloomberg. We choose the most reliable and long-spanning ticker after checking whether interest rates are in annual percentage rate with the same maturity and denominated in local currency. Interest rates are with maturities of 1, 3, and 12 months in the dataset. As Bloomberg provides daily values for most series, we can get both period end and period average for monthly, quarterly, and yearly frequency. When interest rates are missing from Bloomberg, we obtain data from IMF IFS. Though IFS usually gives interest rates with mixed maturities, some series are with fixed maturity. We refer to country notes of IFS database to check whether the interest rate is of the same maturity, denominated in local currency and calculated as period end or average of daily values. If the series has the same characteristics in all these criteria, we add that series to our database. For some interest rate series, only period end of period average data is available. Aggregate variables including GDP are downloaded from IMF IFS.

Exchange rate forecasts are available only at the end of period. Consensus forecast (mean average) at 1 month, 3 months, 12 months, and 24 months from the survey date. More precisely, the survey form which is usually received on the Survey Date (often the second Monday of the survey month), requests forecasts at the end of the month at 1 month, 3 months, 12 months and 24 months. Thus the forecast periods may be slightly longer than these monthly horizons.

Forward rates come from Bloomberg. After downloading forward rates, we convert data into unit of local currency per US dollar. Daily forward rates are available. We download monthly, quarterly, and yearly data for both period end and average of daily values . We get exchange rate forecasts from Consensus Economics. We convert forecasts into local currency per US dollar forecasts using appropriate currency forecasts. We get Emerging Markets Bond Index (EMBI global) from J.P. Morgan. We employ the exchange rate regime classification by Ilzetzki, Reinhart and Rogoff (2017) to exclude countries with fixed exchange rate regimes.

We proxy global risk with the VIX, which is obtained from Federal Reserve Economic Data (FRED). We obtain detailed information about policy risk from the International Country Risk Guide (ICRG). The International Country Risk Guide (ICRG) rating comprises 22 variables in three subcategories of risk: political, financial, and economic. We normalize these risk indices x using the following formula: $-(x - \mu_x)/\sigma_x$ where μ_x is the mean and σ_x is the standard deviation of a variable x in a full sample. We add the minus sign so that higher normalized indices mean higher risk.

Our sample consists of 12 currencies of AEs and 22 of EMs over the period 1996m11 and 2018m12. Table A2 presents the sample of countries.

Interest Rates for UIP Calculation

We obtain interest rates to calculate the UIP deviations as follows. First, we replace deposit rates with money market rates of the same maturity if the data coverage for deposit rates is shorter than 5 years in a given country. If the data coverage for market rates is shorter than 5 years in a given country, we replace deposit rates with government bond rates of the same maturity in a given country. Table A3 shows country-year observations of deposit rates that are replaced with money market rates or government bond rates.

Interpolation of Quarterly Capital Flows

We interpolate quarterly capital flows to get monthly flows using a cubic spline built in Stata. More precisely, we use the following Stata command: `by id: mipolate ‘var’ date , gen(‘var’i) spline`, where `id` is country group, `‘var’` is flows data, and `date` is a variable denoting months. The interpolated flows are generated with a variable name `‘var’i`. This Stata module can be installed by using the command `ssc install mipolate`. Before running this command, quarterly flows are imported into the median month of each quarter. For example, the first quarter flows are imported into February, which is the median month of the first quarter. Then, the command fills remaining empty months with a cubic spline interpolation.

We plot averages of raw data and interpolated data across AEs and EMs in Figure A1. We plot both raw quarterly flows (blue solid line with diamond labels) and monthly flows interpolated using raw quarterly flows (red solid line). We find that interpolated monthly flows closely track raw quarterly flows with small deviations (the correlation between these two series is 0.99).

Table A1. List of Variables

Variable	Description	Frequency	Source
Spot exchange rate	local currency/US dollar, period end and average	month / quarter / year	IMF IFS
Interest rates:			
Treasury bill rate Money market rate Deposit rate	annual percentage rate, denominated in local currency, maturity: 1, 3, 12 month, period end and average	month / quarter / year	Bloomberg, IMF IFS
Capital inflows	capital inflows by sector	quarter / year	Avdjiev, Hardy, Kalemli-Özcan and Servén (2022)
Aggregate variables:			IMF IFS
GDP	local currency (million), real and nominal, non-seasonally-adjusted and seasonally-adjusted series	quarter / year	
Industrial production	index 2010=100, non- and seasonally-adjusted series	month / quarter / year	
Consumer price index	2010=100	month / quarter / year	
Producer price index	2010=100	month / quarter / year	
GDP deflator	2010=100, non- and seasonally-adjusted series	quarter / year	
Current account	million US dollars	quarter / year	
Capital account	million US dollars	quarter / year	
Forward Rates	local currency/US dollar, maturity: 1, 3, 12 month, period end and average	month / quarter / year	Bloomberg
Exchange rate forecasts	local currency/US dollar, period end, forecast horizon: 1, 3, 12, 24 month	month / quarter / year	Consensus Economics
VIX	Chicago Board Options Exchange volatility index	month / quarter / year	FRED
EMBI	Emerging Markets Bond Index (EMBI global)	month	J.P. Morgan
Country Risk	22 variables in three subcategories of risk: political, financial, and economic.	month / year	ICRG
Exchange Rate Regime	Exchange Rate Regime Coarse Classification (1–6)	month / year	Ilzetzki, Reinhart and Rogoff (2017)

Table A2. List of Currencies

Advanced Economies (1)	Emerging Markets (2)
Australia	Argentina
Canada	Brazil
Denmark	Chile
Euro	China, P.R.: Mainland
Germany	Colombia
Israel	Czech Republic
Japan	Hungary
New Zealand	India
Norway	Indonesia
Sweden	Republic of Korea
Switzerland	Malaysia
United Kingdom	Mexico
	Peru
	Philippines
	Poland
	Romania
	Russian Federation
	Slovak Republic
	South Africa
	Thailand
	Turkey
	Ukraine

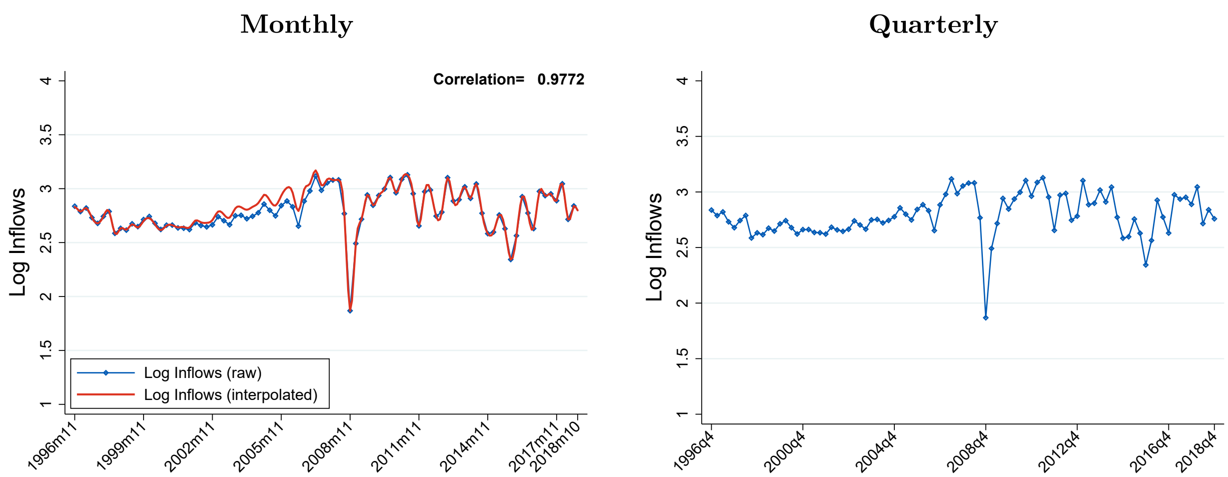
A.2. Exchange Rate Expectations from Survey Data: Consensus Forecasts

This section provides additional descriptive statistics about the Consensus Forecasts database. Table A4 presents the average number of forecasters per year for currencies of AEs and EMs, separately. As shown in this table, the number of forecasters surveyed is vast in both set of economies, albeit it is smaller in EMs. Table A5 reports the average number of forecasters for each country across time.

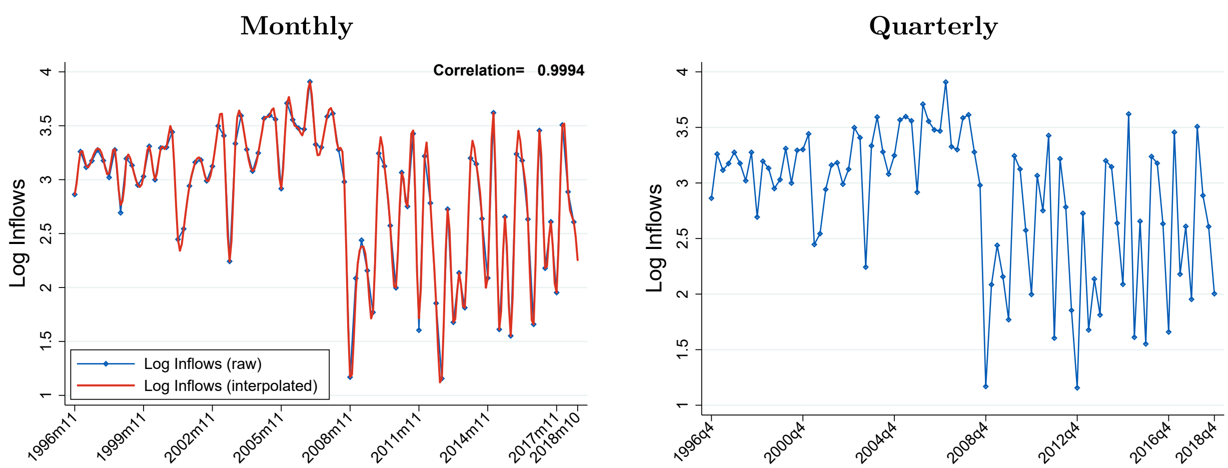
Table A6 presents examples of the main forecasters for the Euro, Yen, UK Pound, Korean Won, Turkish Lira and other emerging markets in September 2012. The first thing to notice is that these forecasters are also the main global investors and the investor-forecasters surveyed for EMs' currencies were also top investor-forecasters in AEs. We also collect individual forecasts from printed monthly reports created by Consensus Forecasts. These reports do not provide a complete list of forecasters for each currency. For this reason, the empty cells

Table A3. Replaced Deposit Rates: Country-year Observations (1996-2018)

Country	Year	Country	Year
Austria	2008-14	Ireland	1999-2016
Canada	1996-2005, 2007-18	Italy	1996, 2014-16
Chile	2001-18	South Korea	2004-18
Colombia	2001-18	Netherlands	2001-14
Finland	1999, 2005-14	Portugal	2002-16
France	1996, 2000-16	Spain	1996-2015
Germany	1996, 2000-14		



(a) Emerging Markets



(b) Advanced Economies

Figure A1. Average Capital Inflows: Raw vs. Interpolated Data
The interpolation of capital inflows at monthly frequency for AEs and EMs.

Table A4. Number of Forecasters in Consensus Forecasts (all years)

	Advanced Economies (1)	**Emerging Markets** (2)
1996	62	26
1997	63	21
1998	54	14
1999	58	13
2000	57	15
2001	53	14
2002	55	13
2003	58	15
2004	59	16
2005	62	16
2006	61	16
2007	58	15
2008	57	16
2009	50	15
2010	50	17
2011	52	17
2012	56	17
2013	54	16
2014	53	16
2015	54	17
2016	43	19
2017	43	18
Mean	55	17

in Table A6 indicate the absence of information about whether the forecaster was surveyed for that currency and, hence, they do *not* indicate that the forecaster was *not* surveyed for that currency. It could easily be the case that the forecaster was also surveyed, but we do not know it.

A.3. Policy Risk Premium Measure

We construct the PRP measure following the methodology of Baker, Bloom and Davis (2016). In particular, we use the online platform Factiva, which reports journal articles of main international newspapers. We employ the same search procedure as Baker, Bloom and Davis (2016). Our list of words contains 218 words and follows closely theirs. Since Baker, Bloom and Davis (2016) list of words is mostly conceived for AEs, we include four additional words to better capture policy uncertainty characteristics in emerging markers (i.e. capital controls, expropriation, nationalization and corruption). We report below the list of words

Table A5. Number of Forecasters By Currency

Average Number of Forecasters			
Advanced Economies		**Emerging Markets**	
Australia	37	Argentina	11
Canada	77	Brazil	13
Denmark	25	Chile	12
Euro Area	101	China, P.R.: Mainland	26
Germany	107	Colombia	10
Israel	11	Czech Republic	12
Japan	98	Hungary	11
New Zealand	31	India	20
Norway	24	Indonesia	23
Sweden	30	Republic of Korea	23
Switzerland	27	Malaysia	24
United Kingdom	84	Mexico	12
		Peru	9
		Philippines	17
		Poland	11
		Romania	8
		Russian Federation	11
		Slovak Republic	9
		South Africa	22
		Thailand	24
		Turkey	23
		Ukraine	4
Average 1996-2018	55		17

used in this paper.

Because we are interested in the perspective of the U.S. international investor, we focus on news reported in international newspapers (see below the complete list of newspapers). Given the lower availability of international newspapers, we follow the methodology of Barrett, Appendino, Nguyen and de Leon Miranda (2022) to construct our PRP measure. This methodology adds total number of articles in a country and pools all the newspapers together for each country.[15] More precisely, define X_{ct} the number of articles referring to policy risk episodes in country c at time t, Y_{ct} total number of articles referring to country c at time t, and $Y_t = \sum_c Y_{ct}$ the total number of articles written at each time t (i.e. the sum of articles across countries). We replicate Barrett, Appendino, Nguyen and de Leon Miranda (2022) index as follows

[15]The difference with Baker, Bloom and Davis (2016) is that their index includes a non minor proportion of local newspapers. Higher heterogeneity across newspapers allows them to first compute the share of news for each individual newspaper within a country and then add up the total sum for each country. In other words, they do not pool all articles within a country together.

Table A6. Example: Main Forecasters in Advanced Economies and Emerging Markets, September 2012

Advanced Economies			**Emerging Markets**		
Euro	**Yen**	**UK Pound**	**Korean Won**	**Turkish Lira**	**Other EMs***
(1)	(2)	(3)	(4)	(5)	(6)
Goldman Sachs	Goldman Sachs	Goldman Sachs	Goldman Sachs	Goldman Sachs	Goldman Sachs
HSBC	HSBC	HSBC	HSBC	HSBC	HSBC
General Motors	General Motors	General Motors	General Motors	General Motors	General Motors
ING Financial Markets	ING Financial Markets	ING Financial Markets	ING Financial Markets		ING Financial Markets
BNP Paribas	BNP Paribas	BNP Paribas		BNP Paribas	BNP Paribas
JP Morgan	JP Morgan	JP Morgan	JP Morgan	JP Morgan	JP Morgan
Allianz	Allianz	Allianz			Allianz
Oxford Economics	Oxford Economics	Oxford Economics		Oxford Economics	Oxford Economics
Morgan Stanley	Morgan Stanley	Morgan Stanley		Morgan Stanley	Morgan Stanley
Bank of Tokio Mitsubishi	Bank of Tokio Mitsubishi	Bank of Tokio Mitsubishi	Bank of Tokio Mitsubishi	Bank of Tokio Mitsubishi	Bank of Tokio Mitsubishi
Credit Suisse	Credit Suisse	Credit Suisse		Credit Suisse	
Citigroup	Citigroup	Citigroup	Citigroup	Citigroup	Citigroup
Societe Generale	Societe Generale	Societe Generale		Societe Generale	Societe Generale
Royal Bank of Canada	Royal Bank of Canada	Royal Bank of Canada			Royal Bank of Canada
Royal Bank of Scotland	Royal Bank of Scotland	Royal Bank of Scotland			Royal Bank of Scotland
ABN Amro	ABN Amro	ABN Amro			ABN Amro
Barclays Capital	Barclays Capital	Barclays Capital		Barclays Capital	Barclays Capital
Commerzbank	Commerzbank	Commerzbank			Commerzbank
UBS	UBS	UBS	UBS	UBS	UBS
IHS Global Insight	IHS Global Insight	IHS Global Insight	IHS Global Insight	IHS Global Insight	IHS Global Insight
Nomura Securities	Nomura Securities	Nomura Securities	Nomura Economics	Nomura Securities	Nomura Securities
			Macquarie Capital		Macquarie Capital
			ANZ Bank		ANZ Bank

*Other EM currencies' include: Argentinean Peso, Brazilian Real, Chilean Peso, Chinese Renminbi, Colombian Peso, Czech Koruna, Hungarian Forint, Indian Rupee, Indonesian Rupiah, Malaysian Ringgit, Mexican Peso, Peruvian Sol, Polish Zloty, Romanian Leu, Russian Rouble, South African Rand, Ukrainian HRYVNIA. Note that non-filled cells indicate the absence of information about whether the forecaster was surveyed for that currency (i.e. they do *not* indicate that the forecaster was not surveyed for that currency). Source: Consensus Forecast.

$$PRP_{ct} = \frac{X_{ct}}{\frac{1}{12}\sum_{j=1}^{12} Y_{t-j}}$$

where $X_c = \frac{1}{T}\sum_{t=1}^{T} X_{ct}$ and $Y = \frac{1}{T}\sum_{t=1}^{T} Y_t$. We normalize the index to 100 by estimating

$$PRP_{ct}^{N} = \frac{PRP_{ct}}{\overline{PRP}_c} \times 100,$$

where $\overline{PRP}_c = \frac{1}{T}\sum_{t=1}^{T} PRP_{ct}$ is the average of policy risk news for each country across time. We construct the monthly PRP for the Euro area as follows. We use real GDP data for France, Germany, Greece, Italy and Spain. This real GDP is expressed in local currency and it is reported at a quarterly frequency. Prior to 2000, we transform this real GDP measures to US dollars using the observed average exchange rate in the quarter. From 2000 onward, we assume that all countries use the euro as the relevant currency, so that there is no need for us to convert them to a common currency. We linearly interpolate the real GDP of each country to get GDP at a monthly frequency. As a result, we can aggregate GDP across countries in the eurozone to construct a GDP measure for the entire eurozone. We then construct the Euro Area PRP measure as $PRP_t = \sum_{c=1}^{N} \omega_{ct} PRP_{ct}$, where $\omega_{ct} = RGDP_{ct} / \sum_{c=1}^{N} RGDP_{ct}$ is the share of the eurozone GDP accounted for by country c, PRP_{ct} is the PRP measure for country c at time t, and N is the number of countries in the eurozone for which we observe a value for PRP_{ct} and their GDP.

List of Words

Our list of words from comes from Baker, Bloom and Davis (2016). In particular, we use the following list of words from their list: tax, taxation, taxes, policy, government spending, federal budget, budget battle, balanced budget, defense spending, defence spending, military spending, entitlement spending, fiscal stimulus, budget deficit, federal debt, national debt, debt ceiling, fiscal footing, government deficit, fiscal policy, federal reserve, the fed, money supply, open market operations, quantitative easing, monetary policy, fed funds rate, overnight lending rate, the fed, Bernanke, Volker, Greenspan, central bank, interest rates, fed chairman, fed chair, lender of last resort, discount window, central bank, monetary policy, health care, health insurance, prescription drugs, drug policy, medical insurance reform, medical liability, , national security, war, military conflict, terrorism, terror, 9/11, armed forces, base closure, military procurement, military embargo, no-fly zone, military invasion, terrorist attack, banking (or bank) supervision, thrift supervision, financial reform, basel, capital requirement, bank stress test, deposit insurance, union rights, card check, collective bargaining law, minimum wage, closed shop, workers compensation, advance notice requirement, affirmative action, overtime requirements, antitrust, competition policy, merger policy, monopoly, patent, copyright, unfair business practice, cartel, competition law, price fixing, healthcare lawsuit, tort reform, tort policy, punitive damages, medical malpractice, energy policy, energy tax, carbon tax, drilling restrictions, offshore drilling, pollution controls, environmental restrictions, immigration policy, illegal immigration, sovereign debt, currency crisis, currency crises, currency crash, crisis, crises, reserves, tariff, trade, devaluation, capital controls, expropriation, nationalization, corruption.

The list of words used in Baker, Bloom and Davis (2016) is mostly conceived for AEs.

To better capture that policy uncertainty characteristics of emerging markers, we include five additional words: capital controls, expropriation, nationalization and corruption.

List of Newspapers

We include the following newspapers: ABC Network, Agence France Presse, BBC, The Boston Globe, CBS Network, Chicago Tribune, Financial Times, The Globe and Mail, Houston Chronicle, Los Angeles Times, NBC Network, The New York Times, The San Francisco Chronicle, The Telegraph (U.K), The Wall Street Journal, The Times (U.K), USA Today, Washington Post, Reuters, The Dallas Morning News, The Miami Herald, The Guardian (U.K), and The Economist.

A.4. ICRG: Composite and Political Risks

Our measures of composite and policy risks come from the International Country Risk Guide (ICRG) dataset which provides data on country's political, economic and financial risks for more than than 140 countries at monthly frequency. We describe below the definition of each variable used in the paper and then present the correlation of the sub-components of political risk with the UIP premium.

A.4.1 Definition of Variables

In our analysis, we employ the composite risk variable to proxy for overall country risk – political, economic and financial risks–, and socioeconomic conditions to capture confidence risk. We pool investment profile and democratic accountability together to measure government policy risk (i.e. the average of both variables). Additionally, we use separately investment profile to proxy for expropriation risk and democratic accountability to capture anti-democratic risk. We describe below all the variables in detail.

-*Composite risk*. It is a composite of political, financial and economic risk. Political risk contributes 50% of the composite rating, while financial and economic risk ratings each contribute 25%. Political risk has 12 components and the assessment is made on the basis of subjective analysis of the available information. Financial and economic risk each have five components and their assessments are made solely on the basis of objective data. The components of political, economic and financial risks are:

-Political risk: government stability*, socioeconomic conditions*, investment profile*, internal conflict*, external conflict*, democratic accountability$^+$, corruption$^+$, military in politics$^+$, religious tensions$^+$, law and order$^+$, ethnic tensions$^+$, and bureaucracy quality. The components with $*$ are given up to 12 points and, hence, have a higher weight, the components with $^+$ are given up to 6 points, and the last component (bureaucracy quality) is given only 4 points.

- Government stability: this index assesses both of the government's ability to carry out its declared programs, and its ability to stay in office. It has three subcomponents that describe government unity, legislative strength and popular support.

- Socioeconomic conditions: this index assesses the socioeconomic pressures at work in society that could constrain government action or fuel social dissatisfaction. It has three subcomponents: unemployment, consumer confidence and poverty.

- Investment profile: this index assesses factors affecting the risk to investment that are not covered by other political, economic and financial risk components. It has three components: contract viability/expropriation, profits repatriation and payment delays.

- Internal conflict: assesses political violence in the country and its actual or potential impact on governance. The subcomponents are: civil war/coup threat, terrorism/political violence and civil disorder.

- External conflict: this index is an assessment both of the risk to the incumbent government from foreign action, ranging from non-violent external pressure (diplomatic pressures, withholding of aid, trade restrictions, territorial disputes, sanctions, etc) to violent external pressure (cross-border conflicts to all-out war). External conflicts can adversely affect foreign business in many ways, ranging from restrictions on operations to trade and investment sanctions, to distortions in the allocation of economic resources, to violent change in the structure of society. The subcomponents are: war, cross-border conflict and foreign pressures.

- Democratic accountability: it is a measure of how responsive and accountable government is to its people. As such, it captures the degree of freedom that a government has to impose policies to its own advantage. It evaluates several types of government from more to less democratic, considering whether it is alternating democracy, dominated democracy, de facto one-party state, de jure one-party state, and autarchy.

- Corruption: assessment of corruption within the political system. Such corruption is a threat to foreign investment for several reasons: it distorts the economic and financial environment; it reduces the efficiency of government and business by enabling people to assume positions of power through patronage rather than ability; and, last but not least, introduces an inherent instability into the political process. The measure considers financial corruption in the form of demands for special payments and bribes connected with import and export licenses, exchange controls, tax assessments, police protection, or loans. It also considers potential corruption in the form of excessive patronage, nepotism, job reservations, 'favor-for-favors', secret party funding, and suspiciously close ties between politics and business.

- Military in politics: considers involvement of militaries in politics,
- Religious tensions: measures the relevance of a single religious group that seeks to replace civil law by religious law and to exclude other religions from the political and/or social process; the desire of a single religious group to dominate governance; the suppression of religious freedom; the desire of a religious group to express its own identity, separate from the country as a whole.
- Law and order: this refers to the strength and impartiality of the legal system and the popular observance of the law.
- Ethnic tensions: refers to the degree of tension within a country attributable to racial, nationality, or language divisions.
- Bureaucracy quality: measures the strength and quality of the bureaucracy. High points are given to countries where the bureaucracy has the strength and expertise to govern without drastic changes in policy or interruptions in government services.

-Economic risk: it includes GDP per capita, real GDP growth, inflation rate, budget balance over GDP, current account over GDP.

-Financial risk: it includes foreign debt over GDP, foreign debt service over exports of goods and services, current account over exports of goods and services, net international liquidity as months of import cover, exchange rate stability.

Eurozone ICRG Risk Variable Construction. We construct a monthly eurozone ICRG risk indexes as follows. We use real GDP data for the 19 countries that compose the eurozone. This real GDP is expressed in local currency and it is reported at a quarterly frequency. Prior to 2000, we transform this real GDP measures to US dollars using the observed average exchange rate in the quarter. From 2000 onward, we assume that all countries in the Eurozone use the Euro as the relevant currency, so that there is no need for us to convert them to a common currency. We linearly interpolate the real GDP of each country to get GDP at a monthly frequency. As a result, we can aggregate GDP across countries in the eurozone to construct a GDP measure for the entire Eurozone. We then construct the Eurozone Composite Risk Index as

$$ECR_t = \sum_{c=1}^{N_t} \omega_{ct} CR_{ct},$$

where $\omega_{ct} = RGDP_{ct} / \sum_{c=1}^{N_t} RGDP_{ct}$ is the share of the Eurozone GDP accounted for by country c, CR_{ct} is the ICRG risk index for country c at time t, and N_t is the number of countries in the eurozone for which we observe a value for CR_{ct} and their GDP. This latter number can change over time due to reporting issues. However, starting in 1999 all 19 countries in the eurozone have information on both their GDP and the composite risk index.

B. Additional Analysis

Below Table B.1 is the AE version of our expectations channel shown in Table 10 for EM.

Table B.1. Mechanism: Advanced Economies

	Second Stage: Interest Rate Differential					
	(1)	(2)	(3)	(4)	(5)	(6)
$s^e_{a^{high}t+1}$-$s^e_{a^{low}t+1}$	0.026*	0.059	0.027*			
	(0.013)	(0.043)	(0.013)			
Std Dev s^e_{at+1}				0.031**	0.051	0.031*
				(0.013)	(0.058)	(0.013)
RHS variable in First Stage	VIX	PRP	VIX & PRP	VIX	PRP	VIX & PRP
Observations	2167	2167	2167	1260	1260	1260
	First Stage: Dispersion in ER Expectations					
	$s^e_{a^{high}t+1} - s^e_{a^{low}t+1}$			Std Dev s^e_{at+1}		
$\log(VIX_{t-1})$	0.288***		0.284***	0.257***		0.261***
	(0.041)		(0.048)	(0.042)		(0.047)
PRP_{t-1}		0.040**	0.005		0.031	-0.005
		(0.019)	(0.023)		(0.020)	(0.024)
Cragg-Donal Wald F statistic	285.68	29.66	143.09	194.84	13.40	97.56
Kleibergen-Paap Wald F statistic	49.40	4.42	26.77	38.20	2.41	19.21

We present the standard Froot and Frankel (1989) decomposition that is used in the literature on UIP deviations.

First, note that the probability limit of the coefficient β^F in equation (4) is

$$plim\hat{\beta}^F = \frac{cov(\Delta s_{it+h} - \Delta\overline{s}_i, IR_{it} - \overline{IR}_i)}{var(IR_{it} - \overline{IR}_i)}, \tag{11}$$

where $IR_{it} = i_{it} - i_t^{US}$ denotes the interest rate differential, and the over-line denotes the average of the variable for each currency across months – $\overline{X}_i = \frac{1}{T}\sum_{t=1}^{T} X_{it}$ – and corresponds to the currency fixed effects. We can define the forecast errors as

$$\eta^e_{it+h} = \Delta s_{it+h} - \Delta s^e_{it+h}, \tag{12}$$

and rewrite $plim\beta^F$ as:

$$plim\hat{\beta}^F = 1 - b_{RE} - b_{RP} \tag{13}$$

where $b_{RE} = -\frac{cov(\eta^e_{it+h} - \overline{\eta}^e_i, IR_{it} - \overline{IR}_i)}{var(IR_{it} - \overline{IR}_i)}$ and $b_{RP} = \frac{var(\lambda^e_{it+h} - \overline{\lambda}^e_i) + cov(\Delta s^e_{it+h} - \Delta\overline{s}^e_i, \lambda^e_{it+h} - \bar{\lambda}^e_i)}{var(IR_{it} - \overline{IR}_i)}$

The first term b_{RE} represents the covariance between the forecast errors and the interest rate differential. The Fama coefficient would be biased downward if higher interest rate differentials lead agents to expect a larger exchange rate change than the change observed ex-post in data. That is, whenever $b_{RE} > 0$. The second term b_{RP} represents a risk premium as is determined by the volatility of the expected excess return and its covariance with the expected exchange rate change. The Fama coefficient would be downward biased – $b_{RP} > 0$ – if there is a time-varying expected excess return and the volatility of the excess return is higher than the comovement between the expected excess return and the expected exchange rate change.

Table B.2 below shows the results. Column 1 reports the results for AEs and 2 for EMs. For AEs, b_{RE} term is more than an order of magnitude higher than the b_{RP}. For EMs, in contrast, the b_{RP} term is substantially larger than the b_{RE} term.

In column 1 of Table B.3, we run robustness analysis for sovereign default and we present a highly stringent test by only keeping 6 countries that never defaulted since World War II and, thus, removing countries that investors could perceive as high default risk. In column 2, we employ data from Reinhart, Rogoff, Trebesch and Reinhart (2021) on monthly episodes of sovereign debt crises and control these episodes with a dummy. Table B.3 shows that none of these controls overpower the local and global risk factors measured with PRP and VIX.

Consistently with these findings, the correlation between CDS spreads and policy risk

Table B.2. Decomposition of Fama Coefficient into Risk Premium and Expectational Error Components

	Advanced Economies	Emerging Markets
	(1)	(2)
	Panel A:Decomposition of Bias Fama Coefficient	
(i) β_{RE}	1.62	.106
(ii) β_{RP}	-.2202	.5198
implied β^F from (i) and (ii)	-.3998	.3742
	Panel B: Components of β_{RE} and β_{RP}	
$\text{cov}(\eta^e_{ct+h} - \bar{\eta}_c, IR_{ct} - \bar{IR}_c)$	-.04046	-.03421
$\text{var}(IR_{ct} - \bar{IR}_c)$	.02498	.3228
$\text{var}(\lambda^e_{ct+h} - \bar{\lambda}^e_c)$	.1798	.2836
$\text{cov}(\Delta s^e_{ct+h} - \Delta \bar{s}^e_c, \lambda^e_{ct+h} - \bar{\lambda}^e_c))$	-.1853	-.1158

Table B.3. The Role of Sovereign Default

	UIP premium	
	(1)	(2)
Inflows/GDP$_{ct-1}$	0.001	-0.005
	(0.032)	(0.046)
$\log(VIX_{t-1})$	0.024*	0.036***
	(0.012)	(0.009)
Convenience Yield/Liquidity premium$_{t-1}$	-0.433	-0.555
	(1.452)	(0.951)
PRP$_{ct-1}$	0.009***	0.012***
	(0.002)	(0.003)
Expected Inflation Differential$_{ct-1}$	1.737***	1.423***
	(0.340)	(0.184)
No Sovereign Default		0.003
		(0.016)
Observations	797	2224
Adjusted R^2	0.4851	0.4421
Number of Countries	6	16
Country (currency) FE	Yes	Yes

Notes: Two-way currency-time clustered standard errors in parenthesis. *,**,*** denotes statistical significance at the 10, 5, and 1 percent respectively.

premium is very low, 22 percent. Table below shows additional robustness analysis for inflation.

Table B.4. Inflation Differential

	Emerging Markets		
	(1)	(2)	(3)
	UIP Premium	IR Diff.	ER Adj.
Inflows/GDP$_{ct-1}$	-0.001	-0.002*	-0.001
	(0.001)	(0.001)	(0.001)
log(VIX_{t-1})	0.048***	0.028***	-0.020**
	(0.008)	(0.008)	(0.007)
Convenience Yield/Liquidity premium$_{t-1}$	-0.126	-0.352	-0.226
	(0.987)	(1.025)	(1.102)
PRP$_{ct-1}$	0.009***	0.005**	-0.004
	(0.003)	(0.002)	(0.003)
Inflation Differential$_{ct-1}$	1.840***	2.517	0.677
	(0.457)	(1.592)	(1.215)
Observations	3203	3203	3203
Adjusted R^2	0.4015	0.5239	0.2620
Number of Countries	20	20	20
Country (currency) FE	Yes	Yes	Yes

Notes: * p < 0.10 ** p < 0.05 *** p < 0.01. Currency-time two-way clustered standard errors in parentheses. Inflation differential are the difference between CPI in the home economy relative to the U.S.

C. Additional Figures

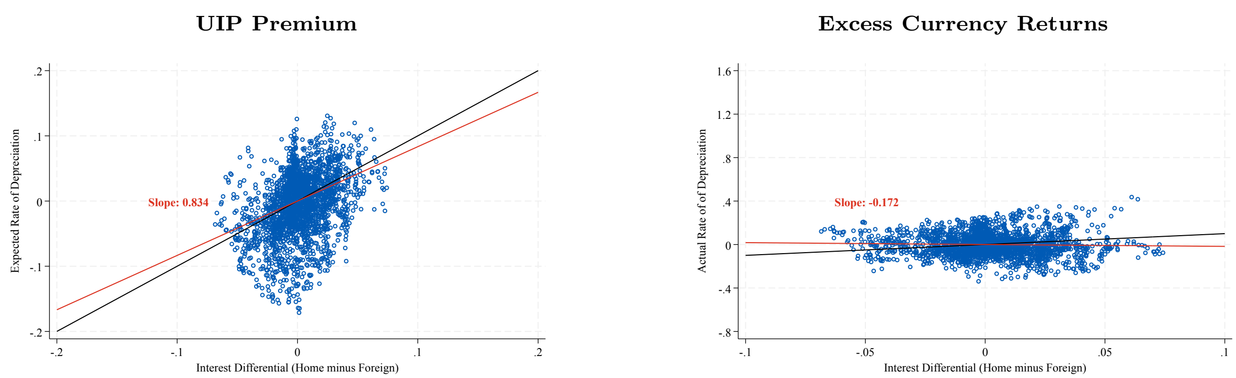
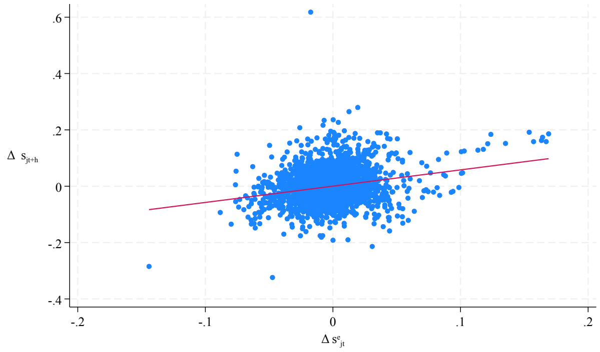
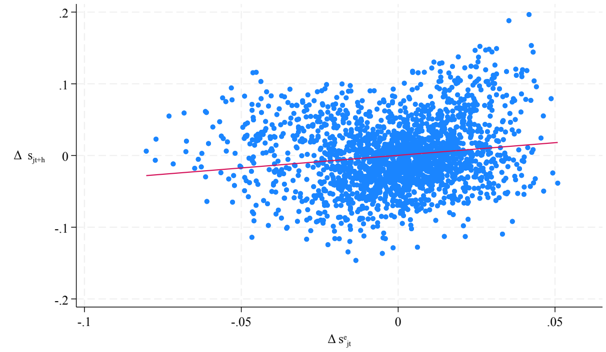


Figure B.1. UIP Premium vs Excess Currency Returns in Advanced Economies
The expected and ex-post rate of depreciation at 12 month horizon and the interest rate differentials.



Emerging Markets

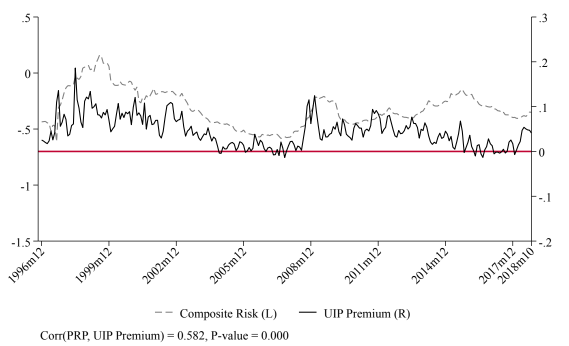


Advanced Economies

Figure B.2. Expectations-Based Prediction of Exchange Rates

Note: The slope (EM is 0.57***, AE: 0.35***) of the fitted line corresponds to the equation $s_{c,t+h} - s_{c,t} = \gamma_c + \beta(E_t[s_{c,t+h}] - s_{c,t}) + \mu_{c,t+h}$, with h=12 months.

UIP Premium and Composite Policy Risk



Composite Policy Risk and Interest Rate Differentials

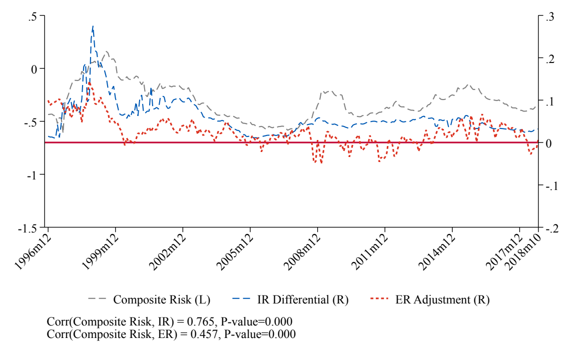


Figure B.3. Composite Risk and UIP Premium in Emerging Markets