Bond Blog

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Emerging Markets in a World of Higher Long-Term U.S. Inflation

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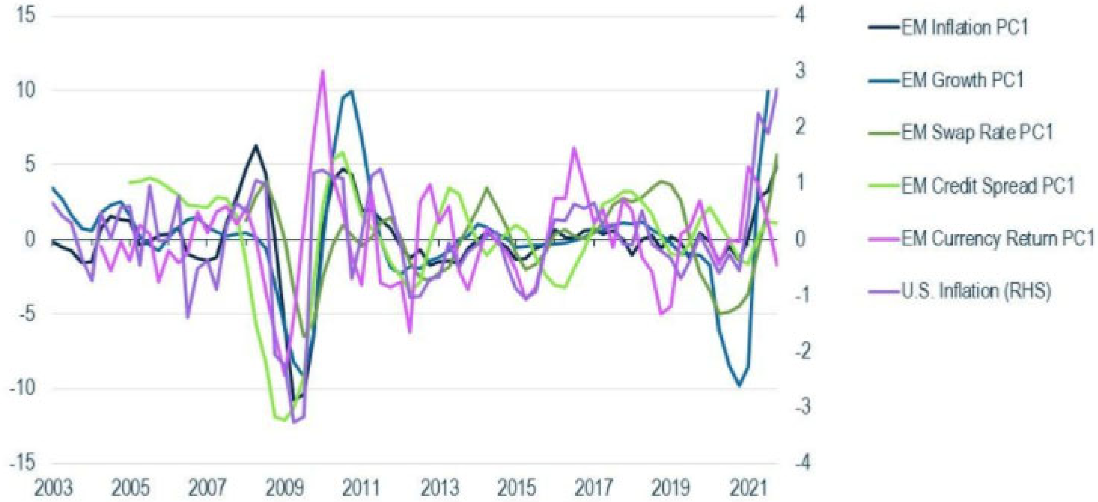
In this post, we assess how emerging markets may fare in a world of 2% long-term average inflation in the U.S. We examine the extent to which EM inflation, real growth, interest rates, credit spreads, and currency returns change alongside U.S. inflation.

In an effort to stave off disinflationary impulses in the economy, the Federal Reserve's Flexible Average Inflation Targeting (FAIT) framework announced in 2020 was one of the most important shifts in monetary policy strategy in years. While the unexpectedly high inflation in recent months swiftly changed our near-term expectations for inflation, we still believe in the thesis of relatively low and stable long-run inflation. After the current bout of significant inflation, we expect the Fed to maintain its commitment to the FAIT framework and allow inflation to run reasonably above 2% to achieve its goal of "inflation that averages 2% over time." In fact, current market pricing concurs: long-term U.S. inflation expectations still stand at roughly 2% even in the face of the current surge in prices.

Our assessment of what emerging markets may look like (as a whole and individually) in a world of 2% long-term average U.S. inflation focuses on inflation, real growth, interest rates, credit spreads, and currency returns. To account for potential lead-lag relationships between variables, we use one-year changes of these variables.

Before delving into the detailed contemporaneous relationship between U.S. inflation and the EM variables, we acknowledge the high-level assumption made here that changes in EM economic measures and asset prices are associated with global factors, such as U.S. inflation trends, setting aside the cause and effects of the relationships. To assess this assumption and understand the extent to which emerging market is impacted by global factors rather than domestic ones, we conducted cross-country principal component analyses. Figure 1A shows the time series of U.S. inflation and the first principal components of one-year changes in EM inflation, growth, interest rate, credit spread, and currency in the past two decades, and thesbane principal components capture the common changes of these EM variables across all countries. As seen in Figure 1B, 80% of variations in credit spread were explained by the principal component, the highest among the EM factors, followed by growth (63%), currency (51%), interest rate (48%), and inflation (37%). The global factor's strong ability in explaining variations in EM credit spreads has been widely observed and well understood by market participants, but even EM inflation, a largely domestically driven variable, also shows a high percentage. Figure 2 also shows U.S. inflation's correlation with each of the principal components. The correlation ranges from 0.38 for interest rate to 0.73 for inflation, confirming the visual pattern of positive correlations. One notable exception is the rare divergence of EM currency return from U.S. inflation in recent quarters, likely a pandemic-specific anomaly.

FIGURE 1A: Principal Components of EM Variables



Source: PGIM Fixed Income.

FIGURE 1B: Variations in EM Factors Explained by PC1 and Correlation with U.S. Inflation

	Variations explained by PC1	Correlation with U.S. inflation
EM CPI YoY	37%	0.73
EM real GDP YoY	63%	0.50
EMFX total return	51%	0.43
Nat. log of 5-year CDS spread	80%	0.46
EM 5-year interest rate swap	48%	0.38

Source: PGIM Fixed Income.

Having confirmed the positive relationships between U.S. inflation and various EM conditions, we then ran a simple univariate contemporaneous regression to obtain various EM betas to U.S. inflation, with the EM variables as the dependent variable and U.S. inflation as the independent variable. Figure 2 summarizes the regression results. Consistent with the correlations in Figure 1, in the past two decades, emerging markets as a whole exhibited higher inflation, higher growth, higher currency returns, narrower credit spreads, and marginally higher rates alongside higher U.S. inflation. Specifically, these regression results show that, if historical patterns extend into the future, a 1% yearly increase in U.S. inflation is associated with 0.5% higher EM inflation, 0.8% higher EM growth, 2.1% higher EM currency return, 8% narrower (e.g., narrowing from 100 bps to 92 bps) EM credit spreads, and marginally higher interest rates in aggregate. Meanwhile, EM rates' beta to U.S. inflation only recently became statistically significant as EM rates simultaneously surged with U.S. inflation. Furthermore, we also found the strong performances of our proprietary EMFX and EM Rates carry portfolios generally insensitive to U.S. inflation. Overall, these results paint a broadly positive picture of EM risk in contrast to the preconceived notions regarding the sensitivity to U.S. inflation.

Since the data sample ends in December 2021, the analysis doesn't capture the latest surge in U.S. inflation. One can argue that many unique drivers played into this highly abnormal inflation reading, including the pandemic-related labor market, supply chain disruptions, and the more recent Russian-Ukraine war disruption. Even during this highly abnormal period, we see overall resilience in EMFX and EM credit performances and strong EM growth and inflation to go with the higher U.S. inflation so far in 2022. Overall, the more applicable takeaway of our results should be a broad long-term positive EM backdrop when the current wave of high inflation impulses eventually tapers and U.S. inflation normalizes to Fed-mandate-consistent levels that are still higher than what we have seen in the past two decades.

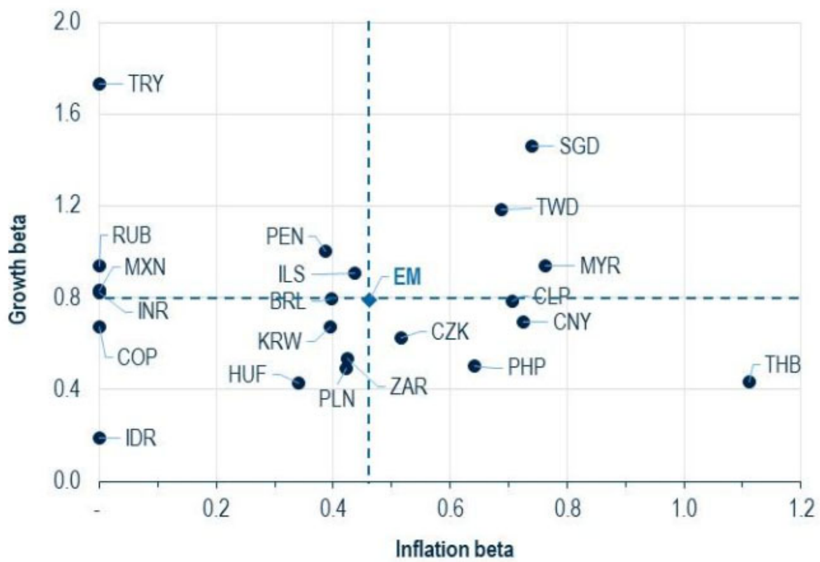
FIGURE 2: EM Betas to U.S. Inflation: What to Expect with a 1% Increase in U.S. Inflation

EM CPI YoY	0.50%
EM real GDP YoY	0.80%
EMFX total return	2.10%
Nat. log of 5-year CDS spread	8.0%
EM 5-year interest rate swap	0.04%
EMFX relative carry return change	not significant
EM rates relative carry return	not significant

Source: PGIM Fixed Income.

The pooled regression (pooling data of all EM countries into one regression) results depict how EM as a whole behaves with higher U.S. inflation. Since there are considerable differentiations among individual EM countries, we conduct the same regression for individual countries to identify potential relative value investment opportunities. Figures 2A and 2B show two scatter plots of individual countries' economic and market betas to U.S. inflation, respectively, with statistically insignificant betas shown as zero. In terms of economic sensitivity to U.S. inflation, countries fall into four groups (Figure 2A): above average betas for both inflation and growth (Singapore, Taiwan, Malaysia, and Chile); above-average growth beta but below average or insignificant inflation beta (Turkey, Russia, India, Brazil) above-average inflation beta but below average or insignificant growth beta (Czech Republic, China, Philippines); and below-average or insignificant betas for both inflation and growth (Colombia, Indonesia, Hungary). As for market sensitivity, Figure 2B shows that countries with the higher currency return beta typically also experience greater credit spread tightening along with higher U.S. inflation (Poland, Czech Republic, Chile). Interest-rate betas are mostly statistically insignificant (95% confidence interval), except for Asian economies including Taiwan, Thailand, and Indonesia.

FIGURE 3A: EM Inflation and Growth Beta to U.S. Inflation



Source: PGIM Fixed Income.

FIGURE 3B: EM Credit Spread and Currency Return Beta

Source: PGIM Fixed Income. Note: SGD, TWD, INR zero credit beta due to CDS data not available.

If the macroeconomic dynamics of the past two decades largely extend into the future and assuming the Federal Reserve succeeds in achieving sustained higher U.S. inflation—either due to a higher inflation regime or the Fed's FAIT framework - our analysis shows that this environment is broadly risk positive for emerging markets, with plenty of long-term relative value opportunities in the FX and credit sectors.

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