Quarterly Update on Valuation Metrics in Emerging Debt

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This quarter, we introduce an enhanced method for assessing value in the currencies associated with local debt and re-arrange the report to put the current state of valuations at the front and the explanation of methodology at the back.

The punch line: In the second quarter of 2018 the external debt benchmark was down 3.5% and the local debt benchmark was down 10.4%, a sharp reversal from Q1. The sell-off improved valuations in both local and external emerging debt. In the case of external debt, it moved closer to our measure of fair value (from an overvalued position); we have not seen valuations this attractive since early 2016. In the case of local currency debt, EM currencies are now looking attractive against the USD, but are less attractive relative to the EUR after the USD appreciated strongly in the second quarter. Meanwhile, real yield differentials between EM local bonds and developed market bonds widened to above historical norms.

External Debt Valuation

The second quarter witnessed a marked widening in the EMBIG's credit spread. The quarter's 62-basis-point widening was the largest 3-month move the market has seen in recent years. The main culprit for the negative sentiment was the escalation in trade tensions that began in the first quarter when the Trump administration announced what appeared to be targeted tariffs on Chinese steel. The second quarter then witnessed a proportionate response from China, followed by a further round of announced tariffs on Chinese imports, along with tariffs on US allies such as the European Union and Canada. Combined with ongoing concern over the pace of monetary policy normalization in the developed world, this cast a cloud of risk aversion over emerging markets. Amid these negative headlines, market participants began revising down emerging country GDP growth forecasts for 2018 and 2019, and this is a big difference between the first and second quarters. In the first quarter, the theme of the synchronized global growth remained intact. By the second quarter, that view changed, as economists worried about the potential negative spillover effects of trade tensions, such as sharply weaker currencies and a slowdown in capital flows to emerging countries. Economic prospects in several large emerging countries were revised weaker.[1]

Ratings changes were fairly minor during the quarter. The most significant was the downgrading of Turkey on the basis of unfavorable political dynamics that could lead to a weakening of economic policy. This comes at a time when economic policy needs to become stronger and more orthodox. Due to other positive rating moves and weighting changes in the benchmark, **our updated calculation of the "fair**

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[1] During the quarter we published "Emerging Debt in a Rising Interest Rate Environment" (June 18, 2018), which highlighted the relative importance to emerging sovereigns' debt dynamics of rising interest rates (not that important) and GDP growth (more important).

value" spread of the EMBIG that would be required to compensate for expected credit losses fell slightly, from 114 bps at end-March to 110 bps by end-June 2018.

Exhibit 1 – Long-Term View of the "Fair Market Multiple" for Emerging External Debt
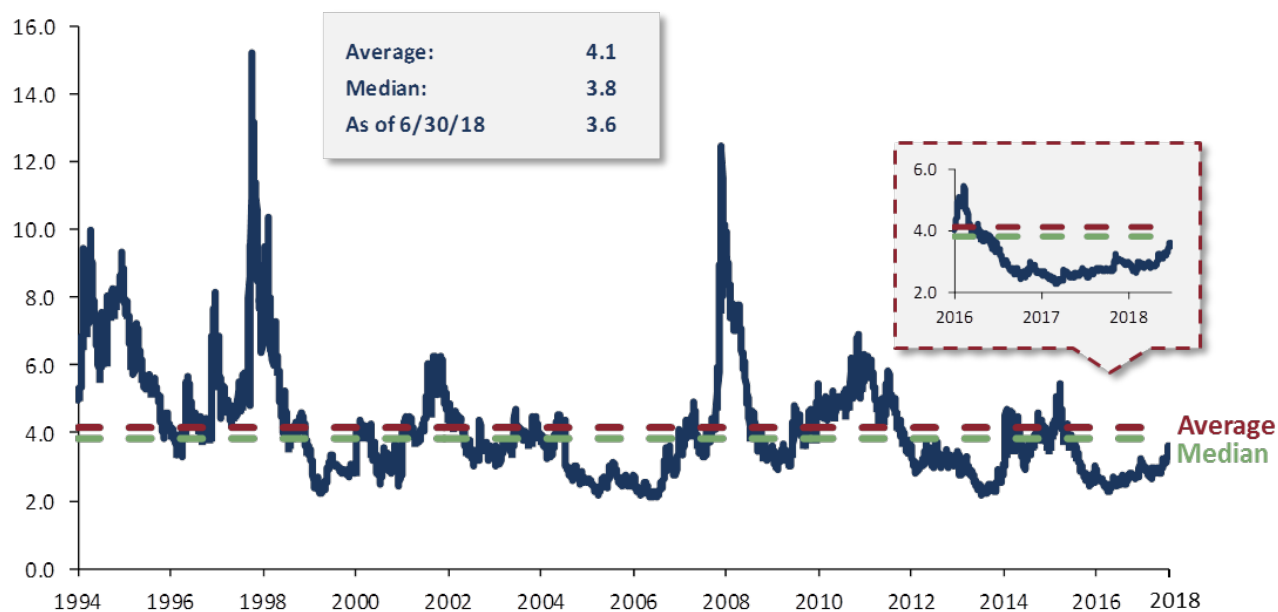
As seen in Exhibit 1, the current multiple of the benchmark credit spread over the spread that would be required to compensate for credit losses is approaching its long-run average. The multiple stood at 3.6x on June 30, 2018, sharply higher than the 2.9x observed at the beginning of the year and the end of the first quarter. The ratio is approaching its long-run average and median, and currently stands at a level we have not seen since early 2016, due to the significant sell-off in the second quarter. The historical minimum ratio was 2.1 in April of 2007, when the spread on the EMBIG index was +161 bps over Treasuries, and the 10-year Treasury yield was 5.0%.

The preceding was a discussion of the level of spreads, or credit cushion. Unfortunately, the interest rate cushion is now even worse than in Q1, as the slope of the 10-year forward curve continued to flatten by 5 bps, from about 11 bps (to the 3-year forward point) to 6 bps as of end-June. We have not seen a forward curve this flat since the 2006-07 period, when the 10-year Treasury was yielding around 5%, and the Fed, although it did not know it at the time, was nearing the end of its tightening cycle. Regardless of the reasons, a slope this flat indicates little to no cushion for a surprise rise in Treasury yields, and is relevant in the context of current macroeconomic policy in the US, which can be described as monetary tightening and fiscal loosening.

Exhibit 2 – 10-Year US Treasury Swap Curves at Quarterly Intervals
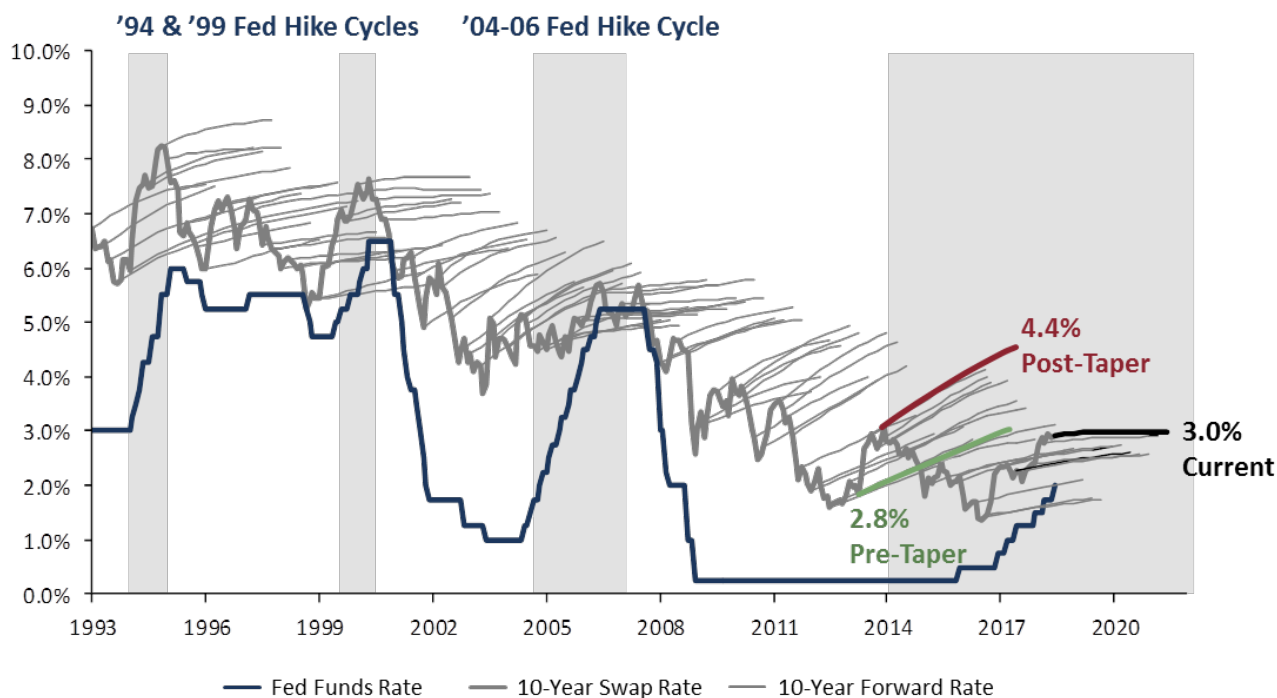
Local Debt Markets Valuation

This quarter we introduce a new concept for currency valuations along with our previous EM FX valuation graph. Exhibit 3 provides a snapshot of our traditional currency valuation methodology, which combines trends in the balance of payments and the real effective exchange rate, via a z-score analysis, and measures how far away current values are from their long-term averages. These are combined into a single value using a weighted average of currencies in the GBI-EMGD, which we compare with values for the USD and EUR. The relative positioning of the GBI-EMGD weighted average (in green) vs. the investor's base currency is how we've communicated our outlook for potential FX appreciation or depreciation, relative.

Exhibit 3 – Weighted Average Value Score of GBI-EMGD Currencies vs. USD and EUR
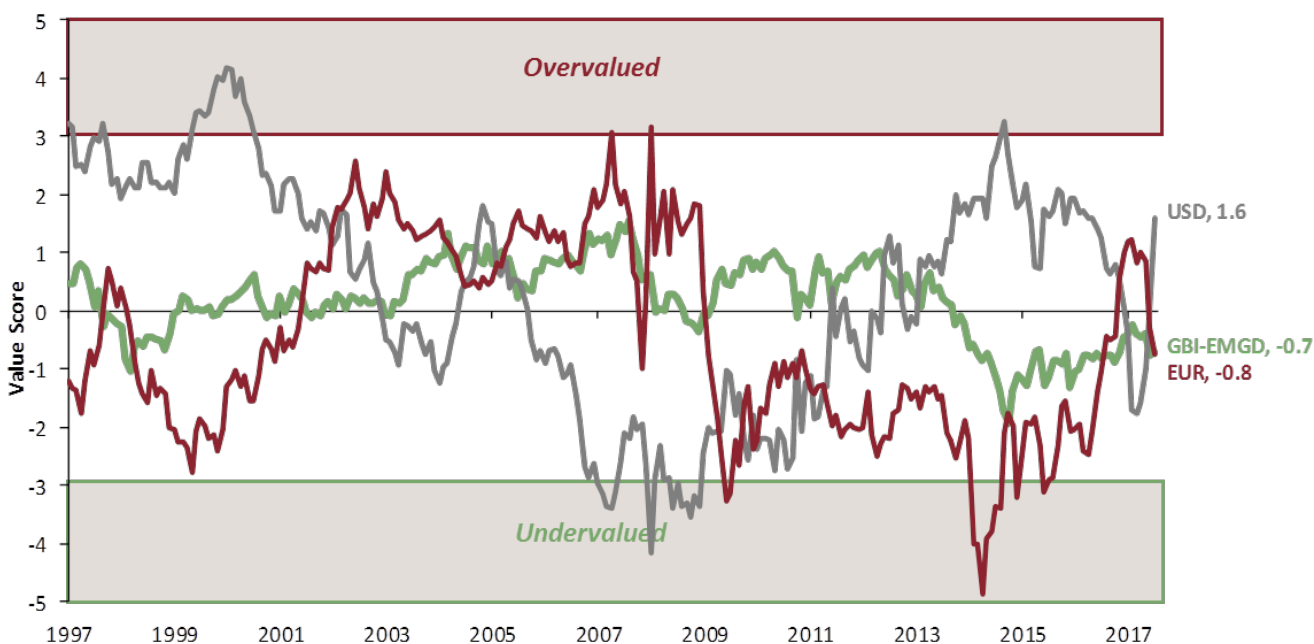
The biggest story seen in this chart is not so much the level of the emerging currencies of the GBI-EMGD (recall it is a weighted average of 19 countries, so its value score tends to be more stable), but rather the movements and levels we calculate for the EUR and USD. During the quarter, major shifts happened as the USD appreciated significantly in a risk-off environment. Indeed, the DXY index of the dollar against its major trading partners rose 4.8% during the second quarter, while EM spot currencies depreciated 8.2% on average. The US dollar is now in "rich" territory while the euro shifted into moderately "cheap" territory. Our value score for the benchmark GBI-EMGD is now cheaper as well. **On the basis of this measure, GBI-EMGD currencies look much more attractive versus the USD than the EUR.** For dollar-based investors, investing in local currency emerging fixed income markets is now becoming attractive again from an outright valuation perspective. For euro-based investors, the valuation argument for investing in local emerging debt is now somewhat less compelling.

Exhibit 4 provides a snapshot of our new currency valuation methodology (for more information please see the Appendix). The underlying model analyzes trends in macroeconomic fundamentals such as balance of payment composition and flows, valuation of the currency, and the economic cycle, via an econometric analysis, to come up with an estimate of total expected returns for each country in the GBI-EMGD benchmark. These are then combined into a single value of total expected return using a weighted average of currencies in the GBI-EMGD. We then deduct the GBI-EMGD weighted carry from the estimated GBI-EMGD weighted value of total expected return. A value that is higher (lower) than the historical average or median could potentially indicate "cheap" ("rich") currencies. In other words, when the total expected return is higher (lower) than the overall carry, EM FX becomes more (less) attractive. Based on the new methodology, EM currencies seem to, once again, offer value when compared to the

historical average or the median. Total returns from currencies are expected to be higher than what is implied by the current interest rate differential of EM vs. the US.

Exhibit 4 – GBI-EMGD Weighted Average of Expected Return Less GBI-EMGD Weighted Carry (bps)
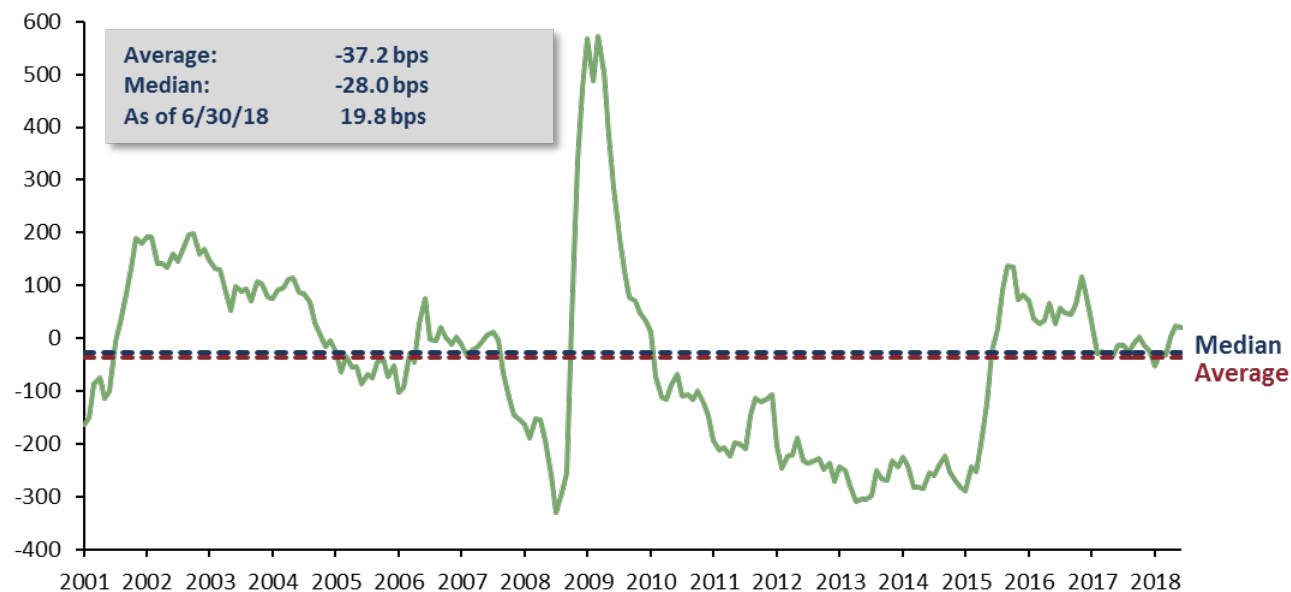

As mentioned above, EM currencies fell sharply against the US dollar, with the currency component of the GBI-EMGD index generating -8.2% of return. All currencies in the GBI-EMGD benchmark registered negative spot returns. The worst performing currency by far was the ARS, which depreciated 28.4% during the quarter, followed by ZAR (-13.0%), TRY (-12.3%), and BRL (-13.3%). In Argentina, the currency depreciated strongly as the market lost faith in the country's ability to get the macro fundamentals of the country on track at a faster pace. In South Africa, markets also became impatient and frustrated with the perceived lack of progress under the nascent government of President Ramaphosa. Expectations had been for more rapid implementation of structural economic reforms. Finally, in Brazil, GDP growth has also been downgraded after the major truckers' strike during the quarter. In the current environment, Brazil's elections later this year have taken on even greater significance as populist and/or nationalist movements gain momentum globally.

As for emerging market local interest rates, we consider differentials in real yields to gauge the relative attractiveness of EM against developed markets (see Exhibit 5). In this regard, the story that has been in place for many quarters (years, actually) remains as we can still witness an important gap between developed and EM real yields, in favor of EM. As a matter of fact, emerging real yields look even more attractive on a relative basis against developed markets and against their own history, as seen in Exhibit 5. Real rates in the G-3 continue to be at or below zero. That being said, US real yields seem to have broken out of their zero range, and are now solidly positive. Japanese and Eurozone real yields remain negative by our calculations. In the emerging world, real yields increased significantly from the quarter earlier, from

2.2% to 3.0%, breaking the tight range of 2.0% to 2.5% that had been established since the beginning of 2017.

Exhibit 5 – Inflation-Adjusted Bond Yields
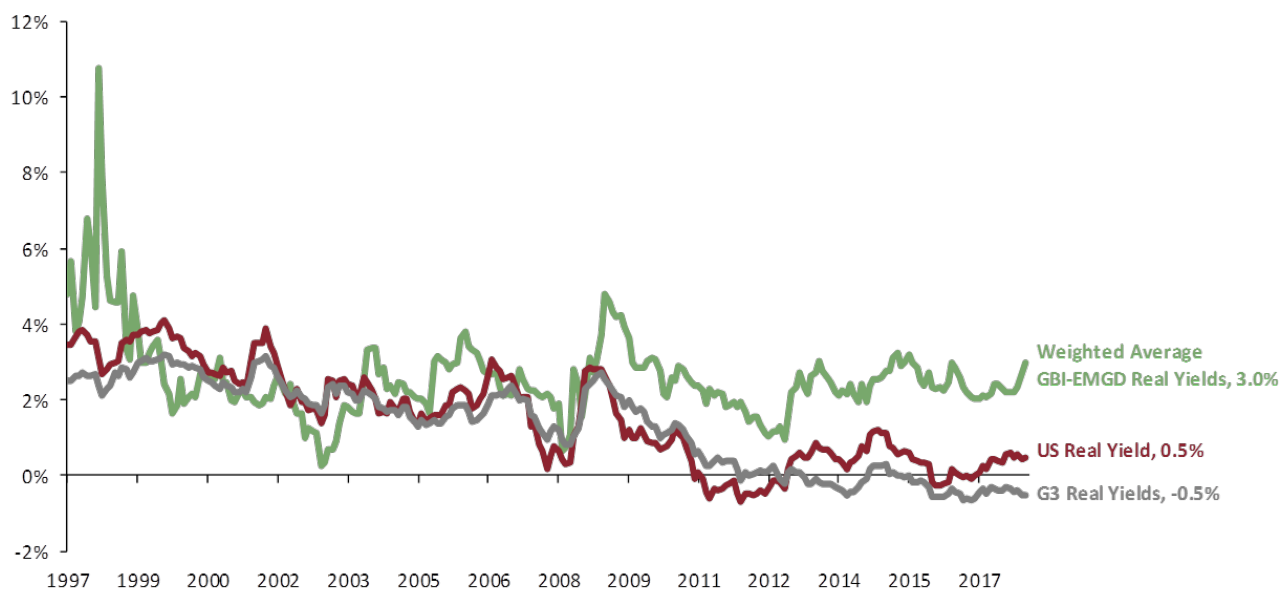
Performance of EM local bonds within the benchmark was negative in the second quarter, with 10-year US yields rising 11 bps in the same period and 45 bps year-to-date. Higher-yielding countries like Turkey (-9.3%), Argentina (-5.9%), Indonesia (-4.1%), South Africa (-4.1%), and Peru (-4.1%) underperformed significantly. Argentina had to hike rates aggressively and was forced into an IMF program as the Macri administration's gradual approach toward fiscal consolidation ran out of runway. Turkey's Central bank also had to hike monetary policy rates as inflation continued to disappoint and the lira depreciated markedly. Meanwhile, Turkey re-elected President Erdogan, who was able to win with help from a nationalist party, thus cementing the country's transition to a more centralized power structure under an executive presidency. Some lower-yielding countries like Chile and Poland were able to manage some positive local bond returns. Higher oil prices likely help some commodity exporters like Colombia and Russia fare better. In Mexico, the market came to grips with prospects of a massive shift in the Mexican political landscape, which was confirmed with the sweeping win of Lopez Obrador's Morena party in elections on July 1. Interestingly, given the political dynamics, Mexico also outperformed, as Lopez Obrador's victory was discounted by markets.

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Appendix

Explanation of the Methodology

External Debt Valuation

Exhibit 1 is created by first calculating a "fair" spread of the EMBIG over US Treasuries, accounting for the credit rating profile of the EMBIG, default probabilities, and recovery values under default scenarios, based on rating agency studies of the historical default experience. In this way, the fair value spread of the EMBIG can move with time, depending on upgrades and downgrades of sovereigns and their relative weightings within the index, ensuring that we are not biasing our measurement due to "rating creep." This fair value spread is the spread on a portfolio represented by the EMBIG that would be needed to compensate for expected credit losses, ignoring risk aversion, liquidity, and other considerations. We then take the ratio of the actual EMBIG spread to the fair value spread and compare it to the historical norm, to try to gauge the premium that the market has historically demanded on a sovereign debt portfolio that is over and above that required to compensate for credit losses. With some assumptions, such as a long-term investment horizon, mean-reversion, and little or no structural change in the market, the chart suggests that the market shows a signal of being attractive when the fair value multiple is above the long-run average and median lines, and unattractive when it lies below.

Whereas Exhibit 1 deals with credit spreads, **Exhibit 2** deals with the *level* of the underlying risk-free rate (in this case, US Treasuries). In our hard currency portfolios, we manage the interest rate duration to be neutral to the EMBIG benchmark (duration of approximately 7). We do not take directional bets on US rates in this portfolio, but we recognize it is an important determinant in the portfolio's total return. Exhibit 2 shows the history of the 10-year US Treasury swap rate (heavy solid line), along with the forward curve (going out 3 years) for the 10-year swap rate (lighter lines) at each point in time (quarterly). In effect it tries to show three dimensions in a two-dimensional chart. Note that it also shows the path of the Fed funds target rate for a sense of where the Federal Reserve is in its policy cycle. We highlight two things in this chart. First, the level of the 10-year swap rate gives us an idea of the overall interest rate cycle relative to one's view of the natural rate of interest. If this number is very low, there may be more risk of higher rates over a medium-term horizon. The second is the market's pricing of the 3-year forward rate for the same swap. If this forward curve is very flat, there is also less cushion for a negative surprise (i.e., higher rates) on term rates. If there is some positive slope to the forward curve, it is an indication that the market has at least priced in some higher drift in term rates.

In **Exhibit 4**, we introduce a new framework to look at currency valuation for local currency debt. We use econometric models to estimate total expected returns for each country in the GBI-EMGD benchmark. We estimate two different models depending on whether the currencies are allowed to float freely or are more "managed." All regressions are estimated with country fixed effects. Expected total returns are a function of interest rate differentials and the underlying fundamentals of each economy. In determining the direction and magnitude of total returns, we find the following factors significant: balance of payment

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flows and composition; where a country stands within its economic cycle; and the over/undervaluation of the currency. The table below shows the fundamental variables included in the models.

"Floating" and "Peg" Currency Model Variables		
Currency Overvaluation	**Balance of Payments Flows**	**Economic Cycle**
■ Real exchange rate estimate ■ Terms of trade	■ Current Account ■ Foreign direct investment ■ FX Reserves ■ Short-term External Debt	■ Growth ■ Inflation ■ Credit

After estimating total expected return for each country, we aggregate those returns by the weight each country has in the GBI-EMGD. We then compare this aggregate total expected return to a GBI-EM weighted value for carry by subtracting the two. With some assumptions, such as a long-term investment horizon, mean-reversion, and little or no structural change in the market, the chart in **Exhibit 4** suggests that the market shows a signal of being attractive when the difference between total expected return and carry is above the long-run average and median lines, and unattractive when it lies below.

Sources for charts: Bloomberg, J.P. Morgan, GMO

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