GMO

VALUATION METRICS IN EMERGING DEBT

EMD Quarterly Valuation Update | 2Q23

All data as of June 30, 2023

A NOTE ABOUT OUR METRICS

- QVU metrics are designed to give asset allocators a time series of risk premia associated with the two sovereign emerging debt benchmarks for hard and local currency. The purpose is to help allocators time investing decisions. Our team uses them to create blended benchmark portfolios. We cover the pricing of credit in EMBIG-D, and currencies and rates in GBI-EMGD by comparing prices to relevant fundamentals.
- This edition includes the newest S&P credit transition matrix from the 2022 default study. The change in CTM data restates the entire fair spread history higher by an average of 5 basis points given higher default incidence.
- Technical appendices covering methodology are available from your GMO representative.

2Q23 VALUATION ASSESSMENT

All but the U.S. interest rate dimension remain unambiguously attractive

HARD CURRENCY DEBT

Credit Spreads: Attractive

- EMBIG-D credit spreads tightened while the expected losses widened, partially due to the inclusion of the updated 2022 S&P sovereign credit transition matrix, which became available.
- The current credit multiple of 2.9 is in our second quintile of attractiveness, which is neutral to mildly positive.
- This quintile has had a 1.0% median 2-year subsequent annualized credit return (above the risk-free rate).

USD Rates: Neutral

- As the Federal Reserve continues to raise rates, Fed funds yield more than 10-year swaps, and the forward curve remains highly inverted.
- The market is pricing 10-year rates to be 3.5% in three years' time, comfortably above the Fed's 2% inflation target but below the most recent 4.0% Y/Y May CPI and 4.6% Core PCE inflation figures.
- We find this pricing somewhat ambiguous in generating a clear outlook, so we remain neutral.

LOCAL CURRENCY DEBT

FX: Attractive

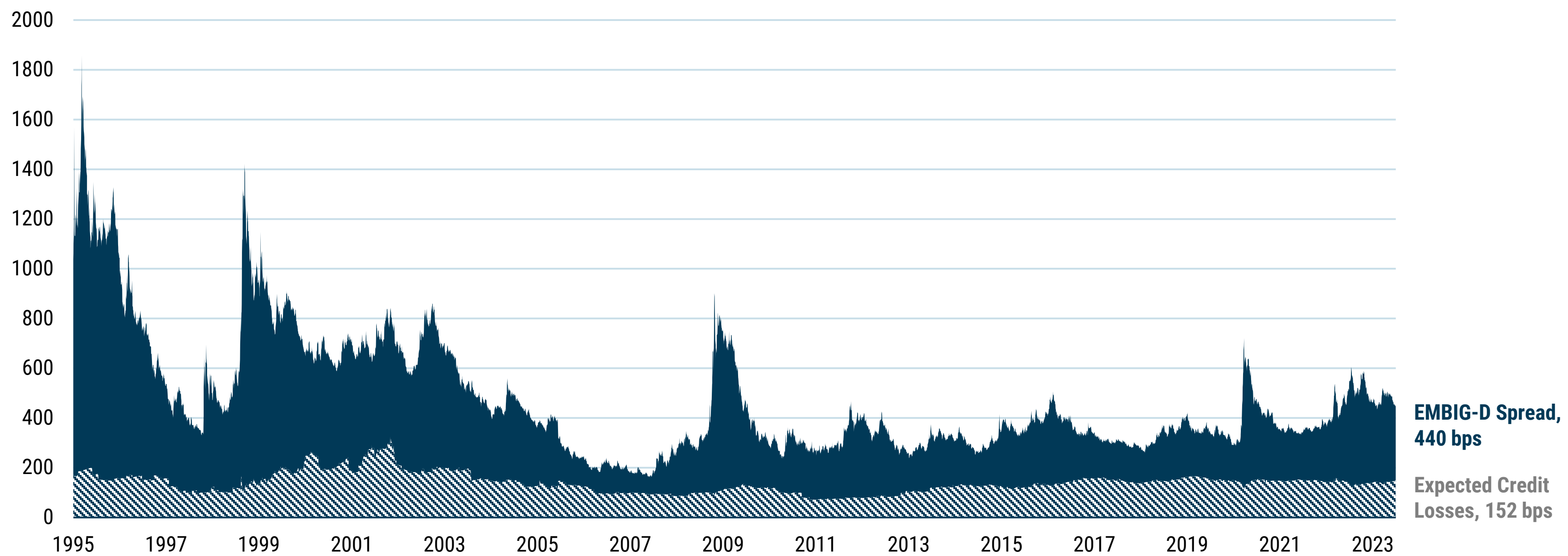
- Our expected spot return indicator remained in our attractive valuation zone during the quarter.
- At 0.5%, this is in our attractive third quartile, where median subsequent GBI-EMGD weighted spot returns have been 4.8%.

Local Rates: Attractive

- EM local rates maintained an attractive valuation gap versus U.S. interest rates as inflation-related forecasts are falling faster in EM than in the U.S.
- At 0.5%, this is in our attractive third quartile, where median subsequent EM/U.S. return differentials have been 2.2%.

VALUATION: HARD CURRENCY (SPREADS)

EMBIG-D SPREAD AND EXPECTED CREDIT LOSSES



Q2 Review:

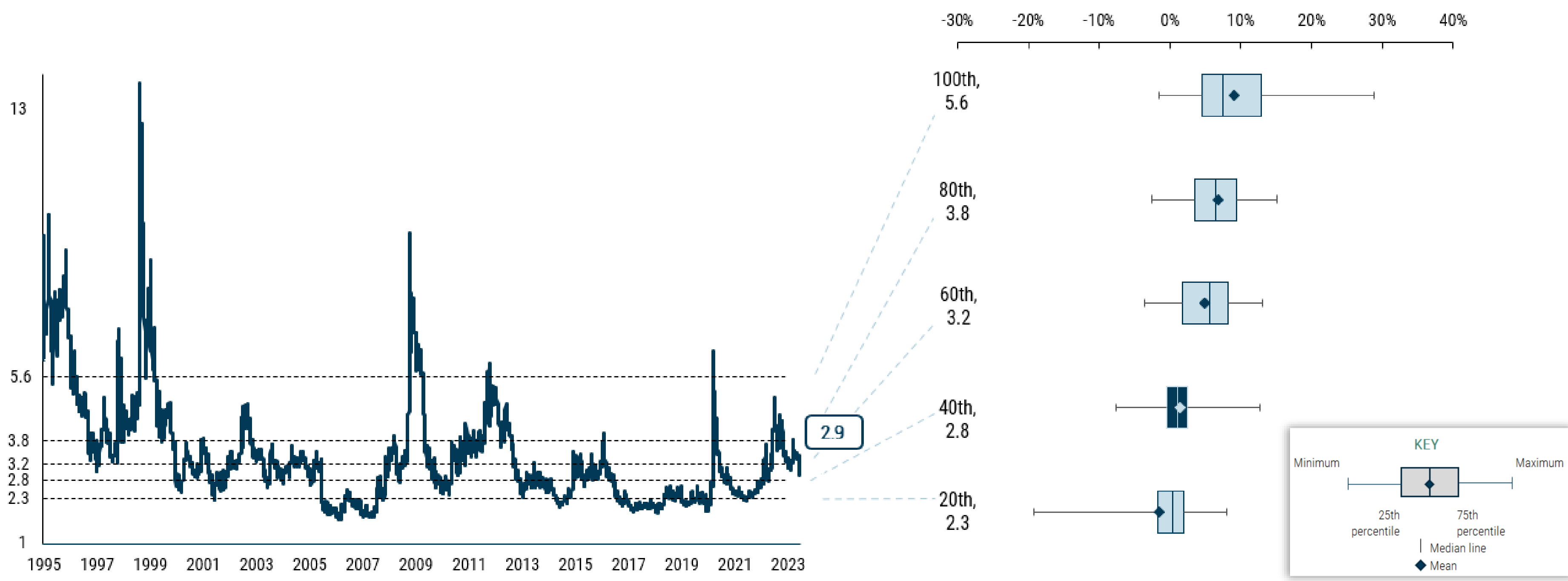
- The EMBIG-D benchmark's mid-spread over Treasuries tightened by 53 bps in Q2, ending the quarter at 440 bps. The expected credit loss rose by 9 bps to 152 bps. Ratings actions in benchmark countries were mixed, with downward actions in Ukraine, Guatemala, Bolivia, and Egypt; and upward actions in Uruguay and Brazil.

As of 6/30/2023 | Sources: GMO, J.P. Morgan

HARD CURRENCY SPREADS

EMBIG-D SPREAD MULTIPLE AND PERCENTILE CUT-OFFS

EMBIG-D SPREAD MULTIPLE PERCENTILES AND 2-YEAR ANNUALIZED SPREAD RETURNS



Q2 Assessment:

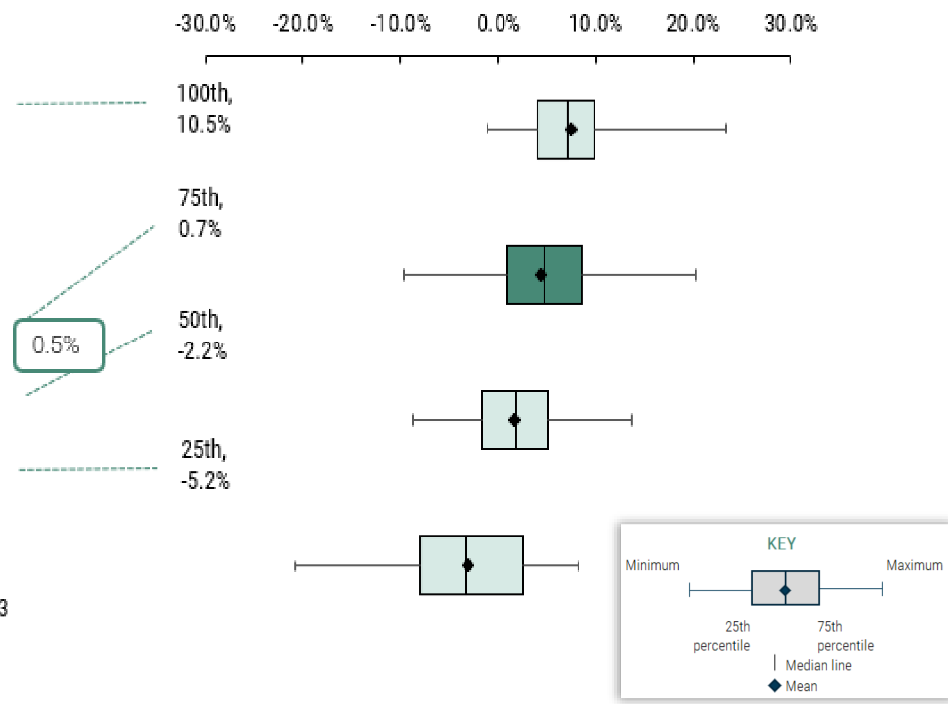
- The current credit multiple of 2.9 is in our second quintile of attractiveness, which is neutral to mildly positive. This quintile has had a 1.0% median 2-year subsequent annualized credit return (above the risk-free rate). The distribution of 2-year forward returns has a positive skew ranging from −0.6% (25th percentile) to 2.5% (75th percentile).

As of 6/30/2023 | Sources: GMO, J.P. Morgan

LOCAL CURRENCIES

GBI-EMGD EXPECTED 6-MONTH ANNUALIZED SPOT RETURN

GBI-EMGD EXPECTED SPOT RETURN PERCENTILES AND EX-POST TOTAL FX RETURN

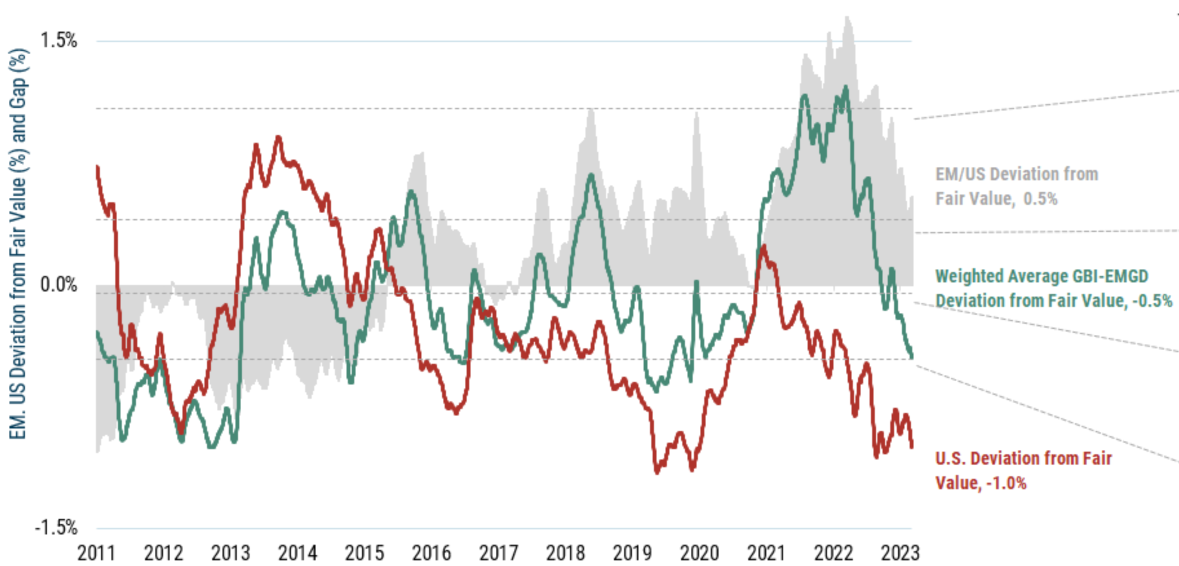


Q2 Assessment:

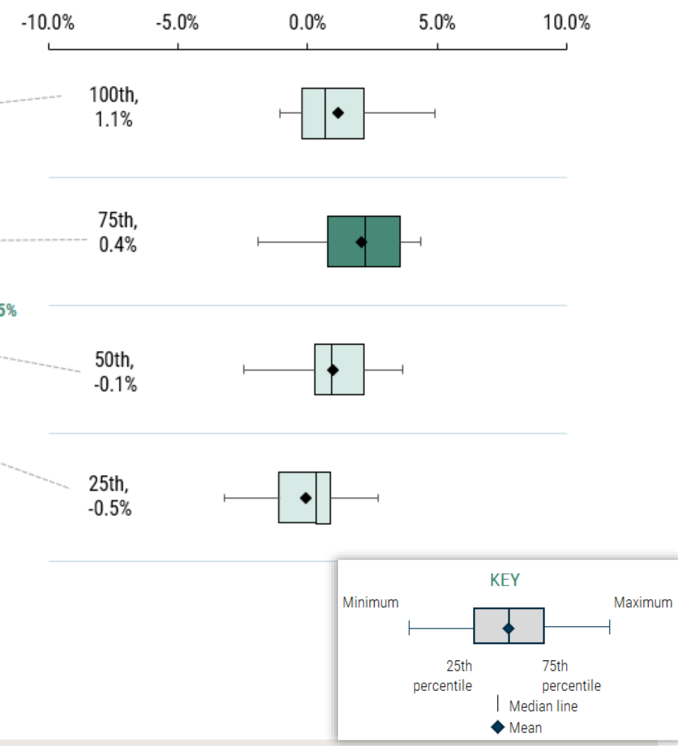
- At 0.5%, the expected spot return remained in our attractive third quartile, where median subsequent GBI-EMGD weighted spot returns have been 4.8% (with a 25th and 75th percentile range of 0.8% to 8.5%). It has been rare for EMFX to be this attractive over this time period.

LOCAL INTEREST RATES

DEVIATIONS FROM FAIR VALUE LEVEL/
PREDICTED RETURN DIFFERENTIAL



EM/U.S. FAIR VALUE GAP PERCENTILES AND 3-YEAR ANNUALIZED RETURNS DIFFERENTIAL

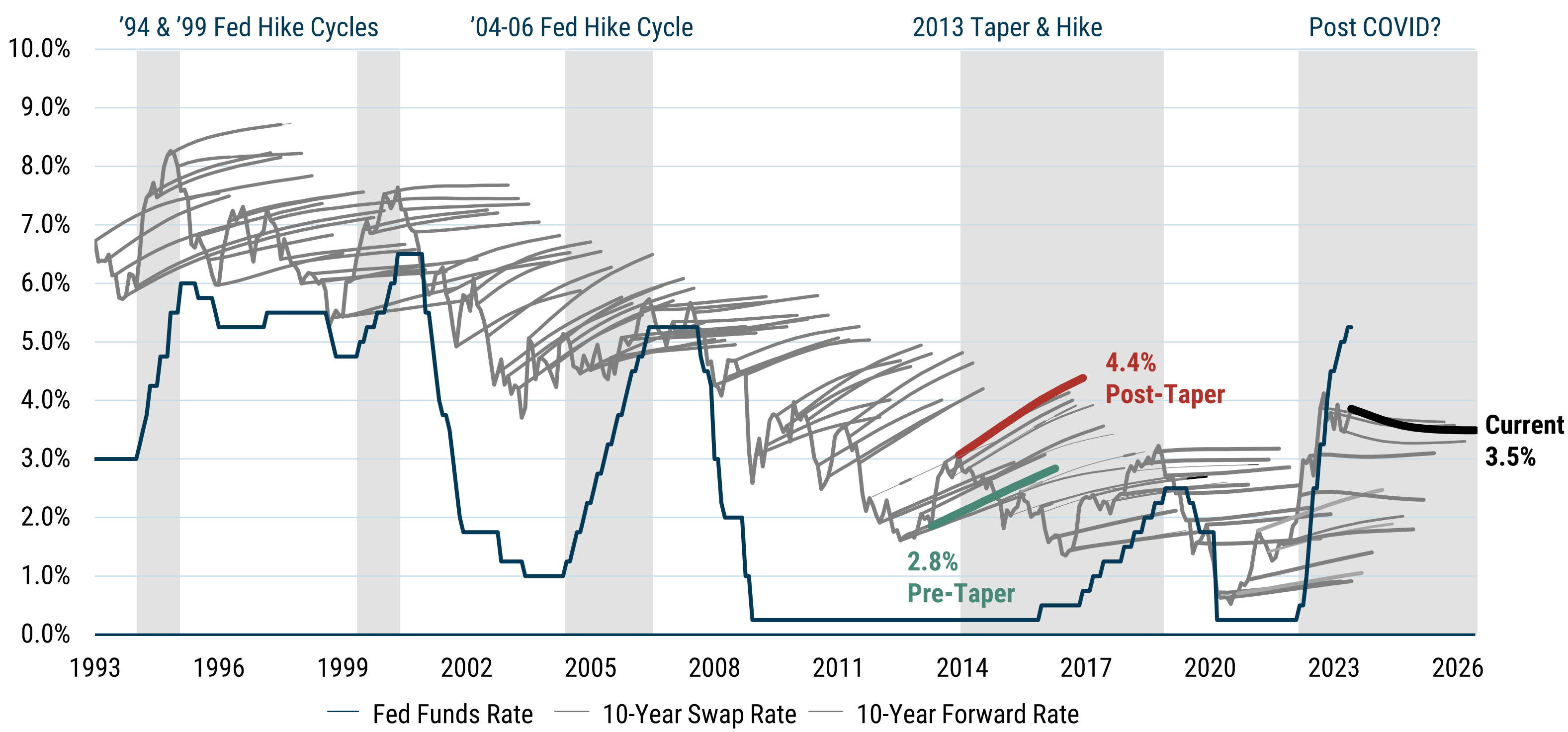


Q2 Assessment:

- EM local rates maintained an attractive valuation gap versus U.S. interest rates as inflation-related forecasts are falling faster in EM than in the U.S. At 0.5%, this is in our attractive third quartile, where median EM/U.S. return differentials have been 2.2% (with an inter-quartile range of 0.8% to 3.6%)

U.S. DOLLAR INTEREST RATE HISTORY

USD 10-YEAR SWAP RATES AND FORWARDS



Q2 Review:

- As the Federal Reserve continues to raise rates, Fed funds yield more than 10-year swaps, and the forward curve remains highly inverted. The market is pricing 10-year rates to be 3.5% in three years' time, comfortably above the Fed's 2% inflation target but below the most recent 4.0% Y/Y May CPI and 4.6% Core PCE inflation figures.

As of 6/30/2023 | Source: GMO

Projections as of each date, including those that are beyond 2015, are future prices as determined by the market and are not a GMO projection.

OUTLOOK: 1-YEAR TOTAL RETURN SCENARIOS

HARD CURRENCY

EMBIG-D Spread (23 bp increments) \ USD Yield associated with EMBIG-D (38 bp increments)	2.8%	3.2%	3.6%	4.0%	4.3%	4.7%	5.1%
5.1%	11.4%	8.9%	6.3%	3.7%	1.2%	-1.4%	-4.0%
4.9%	13.0%	10.4%	7.8%	5.3%	2.7%	0.1%	-2.4%
4.6%	14.5%	12.0%	9.4%	6.8%	4.3%	1.7%	-0.9%
4.4%	16.1%	13.5%	10.9%	8.4%	5.8%	3.2%	0.7%
4.2%	17.6%	15.1%	12.5%	9.9%	7.3%	4.8%	2.2%
4.0%	19.2%	16.6%	14.0%	11.5%	8.9%	6.3%	3.7%
3.7%	20.7%	18.1%	15.6%	13.0%	10.4%	7.9%	5.3%

LOCAL CURRENCY DEBT

GBI-EMGD FX (1.5%) higher = depreciation \ GBI-EMGD Yield (34 bp increments)	5.3%	5.6%	6.0%	6.3%	6.7%	7.0%	7.3%
1.55	6.9%	5.2%	3.4%	1.7%	0.0%	-1.7%	-3.5%
1.53	8.4%	6.7%	5.0%	3.2%	1.5%	-0.2%	-1.9%
1.51	10.0%	8.2%	6.5%	4.8%	3.1%	1.3%	-0.4%
1.49	11.5%	9.8%	8.0%	6.3%	4.6%	2.9%	1.1%
1.46	13.0%	11.3%	9.6%	7.9%	6.1%	4.4%	2.7%
1.44	14.6%	12.8%	11.1%	9.4%	7.7%	6.0%	4.2%
1.42	16.1%	14.4%	12.7%	10.9%	9.2%	7.5%	5.8%

Hard Currency Outlook:

Given our favorable assessment of the valuation of credit and our ambiguous assessment of USD rates, we believe scenarios associated with the declining spreads are possible (lower half of the table), but without a strong view on leftward/rightward moves (those scenarios being associated with changes in USD rates).

Local Currency Outlook:

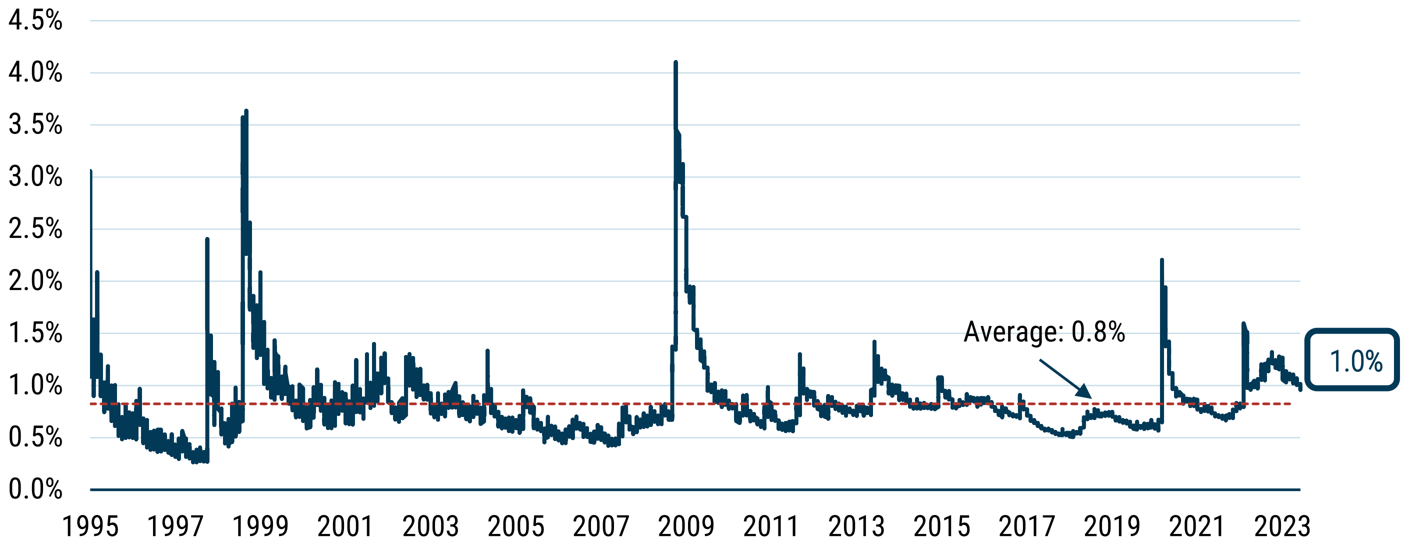
Given our favorable assessment both for EMFX and EM rates, we believe scenarios associated with the lower left-hand quadrant are possible.

As of 6/30/2023 | Source: GMO calculations based on data from J.P. Morgan

ADDITIONAL INFORMATION

LIQUIDITY

EMBIG-D BID-ASK SPREAD (% OF PRICE)



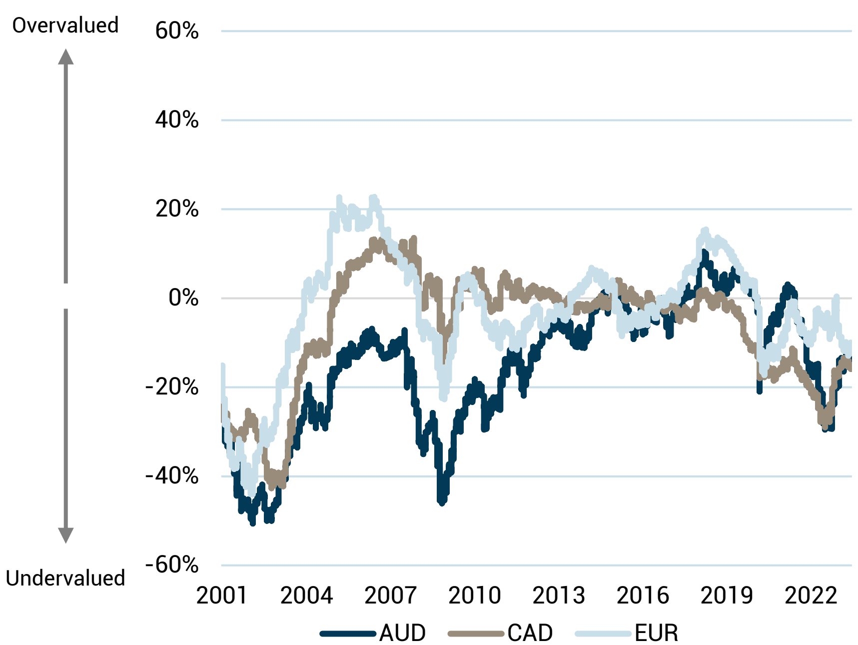
Q2 Assessment:

- Transaction costs measured by the EMBIG-D bid/ask remain above the long-term historical average.

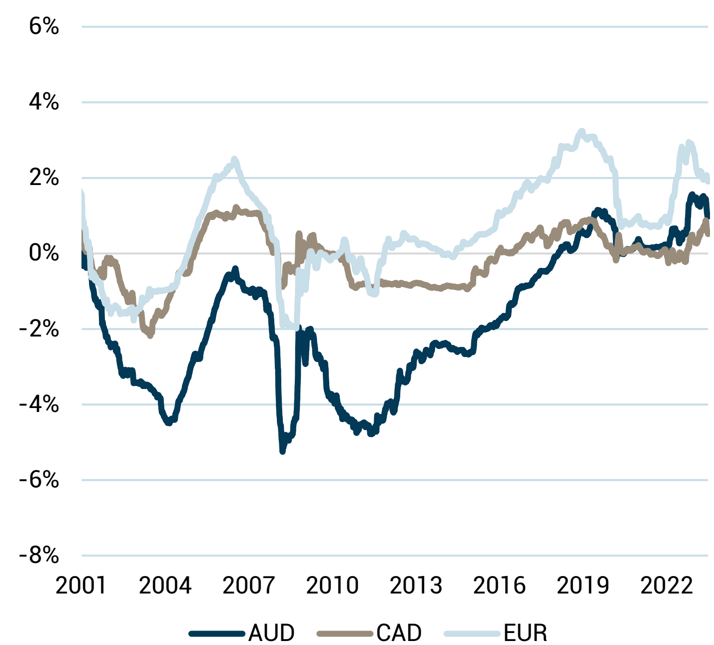
As of 6/30/2023 | Source: GMO, J.P. Morgan

INVESTING FROM A NON-USD PERSPECTIVE

USD-RELATIVE CURRENCY VALUATION



HEDGING COSTS



Q2 Assessment:

- EUR, CAD, and AUD remained at the lower end of neutral relative to the U.S. dollar in valuation terms.
- Hedging costs of USD assets remained elevated relative to recent years.

As of 6/30/2023 | Source: GMO

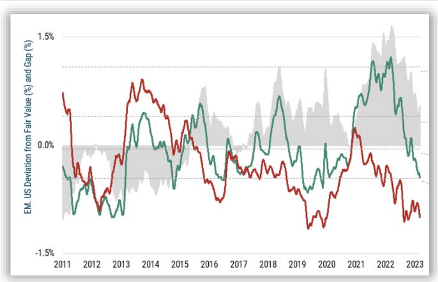
OVERVIEW OF METRICS

EMBID-D Credit Multiple

The credit multiple divides the current EMBIG-D spread by a measure of estimate credit losses that uses the weighted-average credit rating of the benchmark, along with historical sovereign credit transition data, and an assumption about recovery values given default.

GBI-EMGD Expected Spot Return

The FX valuation model analyzes trends in macroeconomic fundamentals such as balance of payments composition and flows, valuation of the currency, and the economic cycle. It uses regression analysis to produce an estimate of total expected FX returns for each country in the benchmark. These are then combined into a single value of a total expected FX return using a market cap weighted average of currencies in the benchmark. Next, we deduct the weighted carry (interest-rate differential) from the estimated weighted value of total FX expected return to get to an expected EM FX spot return for GBI-EMGD. Finally, we estimate a neutral range based on the back-test of the overall model to assess whether EM currencies are cheap, rich, or fairly valued. A value that is higher (lower) than the upper (lower) value of the neutral range could potentially indicate "cheap" ("rich") currencies. A value that is within the neutral range would be considered "fair."



Interest Rate Deviations from Fair Value

We consider the deviations of current 5-year yields from their fair value to gauge the relative attractiveness of EM against the U.S. In this regard, we believe that the best time to buy local debt is when EM deviation from fair value is positive and higher than the U.S. deviation from its fair value.

As of 6/30/2023 | Sources: GMO, Bloomberg, J.P. Morgan
A full technical appendix is available from your GMO representative.

OVERVIEW OF METRICS, CONTINUED

EMBIG-D Spread (23 bp increments)

	2.8%	3.2%	3.6%	4.0%	4.3%	4.7%	5.1%
5.1%	11.4%	8.9%	6.3%	3.7%	1.2%	-1.4%	-4.0%
4.9%	13.0%	10.4%	7.8%	5.3%	2.7%	0.1%	-2.4%
4.6%	14.5%	12.0%	9.4%	6.8%	4.3%	1.7%	-0.9%
4.4%	16.1%	13.5%	10.9%	8.4%	5.8%	3.2%	0.7%
4.2%	17.6%	15.1%	12.5%	9.9%	7.3%	4.8%	2.2%
4.0%	19.2%	16.6%	14.0%	11.5%	8.9%	6.3%	3.7%
3.7%	20.7%	18.1%	15.6%	13.0%	10.4%	7.9%	5.3%

USD Yield associated with EMBIG-D
(38 bp increments)

1-Year Total Return Scenarios: Hard Currency Debt

For hard currency debt, we vary the level of the EMBIG-D spread in the north/south dimension, and we vary the level of the USD 10-year rate in the left/right dimension. The amount by which these levels vary is calibrated to include +/-1 standard deviation around the quarter-end level (based on trailing three years of data). The expected return in the center of the table is the EMBIG-D starting yield.

GBI-EMGD FX (1.5%) higher = depreciation

	5.3%	5.6%	6.0%	6.3%	6.7%	7.0%	7.3%
1.55	6.9%	5.2%	3.4%	1.7%	0.0%	-1.7%	-3.5%
1.53	8.4%	6.7%	5.0%	3.2%	1.5%	-0.2%	-1.9%
1.51	10.0%	8.2%	6.5%	4.8%	3.1%	1.3%	-0.4%
1.49	11.5%	9.8%	8.0%	6.3%	4.6%	2.9%	1.1%
1.46	13.0%	11.3%	9.6%	7.9%	6.1%	4.4%	2.7%
1.44	14.6%	12.8%	11.1%	9.4%	7.7%	6.0%	4.2%
1.42	16.1%	14.4%	12.7%	10.9%	9.2%	7.5%	5.8%

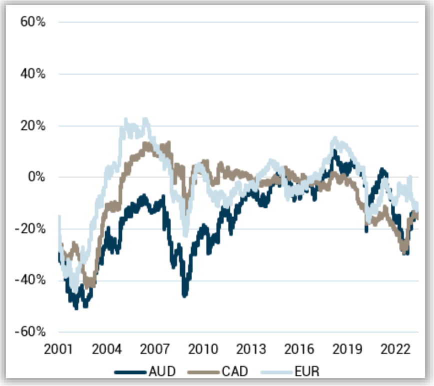
GBI-EMGD Yield
(34 bp increments)

1-Year Total Return Scenarios: Local Currency Debt

For local currency debt, we compute a currency spot index for GBI-EMGD and then vary it in the north/south dimension and we vary the level of the GBI-EMGD yield in the left/right dimension. The amount by which these levels vary is calibrated to include +/-1 standard deviation around the quarter-end level (based on trailing three years of data). The expected return in the center of the table is the GBI-EMGD starting yield.

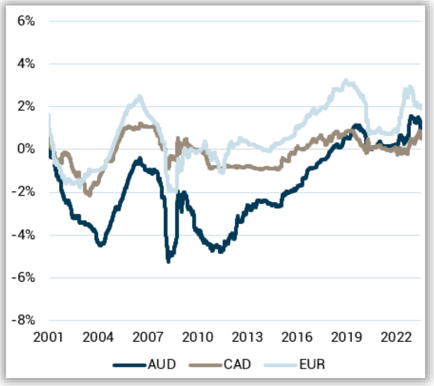
As of 6/30/2023 | Sources: GMO, Bloomberg, J.P. Morgan.
The total return scenarios are forward-looking statements based upon the reasonable beliefs of GMO and are not a guarantee of future performance. The total returns scenarios do not represent the past or future performance of any GMO fund or strategy. They are subject to change at any time based on market and other conditions. Actual results may differ materially from these scenarios.

OVERVIEW OF METRICS, CONTINUED



USD-Relative Currency Valuation

This chart shows the historical currency valuation of the USD relative to the EUR, CAD, and AUD since 2001. The value above the +/- 20% neutral range could indicate overvalued currencies, while the value below the neutral range could indicate undervalued currencies.



Hedging Costs

In this chart, we show the annual roll yield difference when hedging USD to AUD, CAD, and EUR base currencies since 2001.

As of 6/30/2023 | Sources: GMO, Bloomberg, J.P. Morgan
A full technical appendix is available from your GMO representative.

DISCLAIMER

Disclaimer: The views expressed are the views and understanding of the Emerging Country Debt team through the period ending June 2023 and are subject to change at any time based on market and other conditions. While all reasonable effort has been taken to ensure accuracy, no representation or warranty for accuracy is provided nor should be assumed. This is not an offer or solicitation for the purchase or sale of any security and should not be construed as such. References to specific securities and issuers are for illustrative purposes only and are not intended to be, and should not be interpreted as, recommendations to purchase or sell such securities.