VALUATION METRICS IN EMERGING DEBT

EMD Quarterly Valuation Update | 3Q24

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 investment decisions. Our team uses them to create blended currency benchmark portfolios. We cover the pricing of credit in EMBIG-D, and currencies and rates in GBI-EMGD by comparing prices to relevant fundamentals.
- Technical appendices covering methodology are available from your GMO representative.

3Q24 VALUATION ASSESSMENT

Local currency rates and FX screen attractive, while credit is neutral

HARD CURRENCY DEBT

Credit Spreads: Neutral

- The current excess spread of 149 bps is in our second quintile of attractiveness
- Historically, an excess spread in this quintile has been associated with a subsequent mean 2-year annualized credit return of 0.6% (above the risk-free rate)
- This implies a valuations-based neutral assessment

USD Rates: Neutral

- With the U.S. Federal Reserve cutting the Fed funds rate for the first time this cycle during the quarter, the USD interest rate curve bull-steepened
- Our "deviation from fair value" for USD interest rates (slide 7) shows an improvement in the attractiveness of USD duration

LOCAL CURRENCY DEBT

FX: Attractive

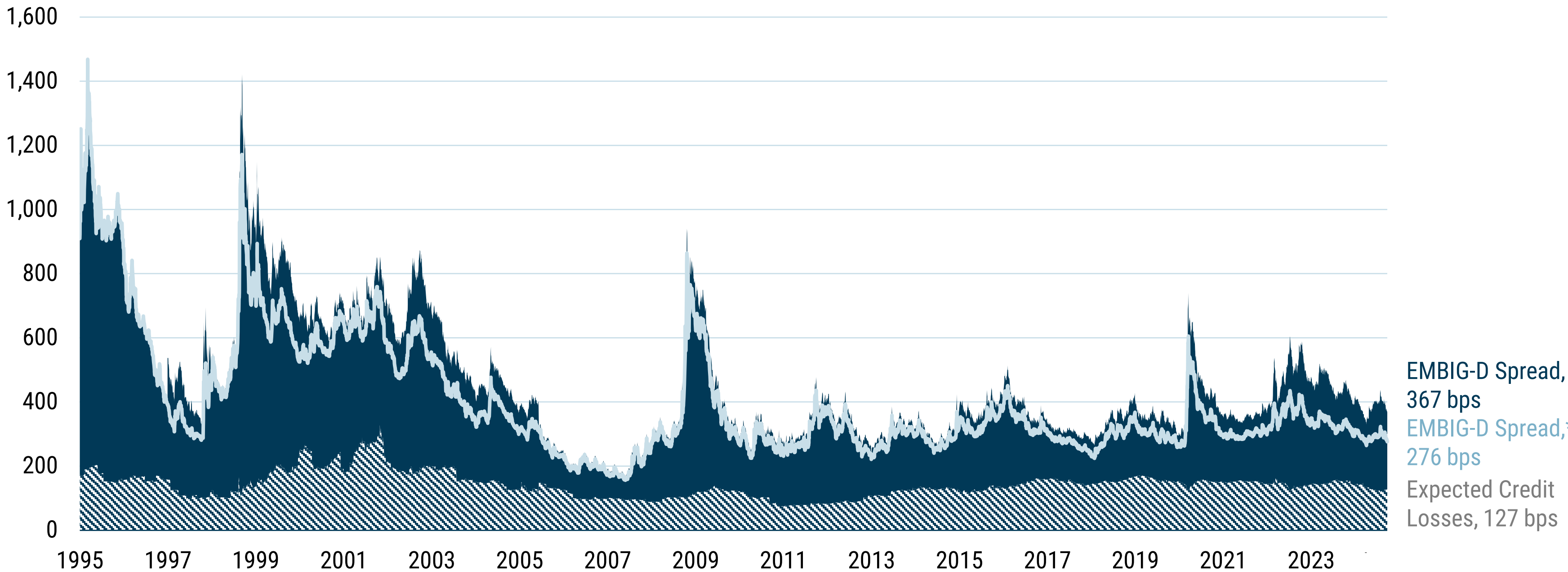
- Our expected spot return indicator lands in the attractive third quartile
- Mean subsequent GBI-EMGD weighted spot return has been +5.5% for the third quartile

Local Rates: Attractive

- EM local rates maintained an attractive valuation gap versus U.S. interest rates even though the gap has narrowed
- At 0.0%, this is in our third quartile, where the mean subsequent EM/U.S. return differential has been +1.1%

VALUATION: HARD CURRENCY (SPREADS)

EMBIG-D SPREAD (PUBLISHED AND DURATION-WEIGHTED*) AND EXPECTED CREDIT LOSSES



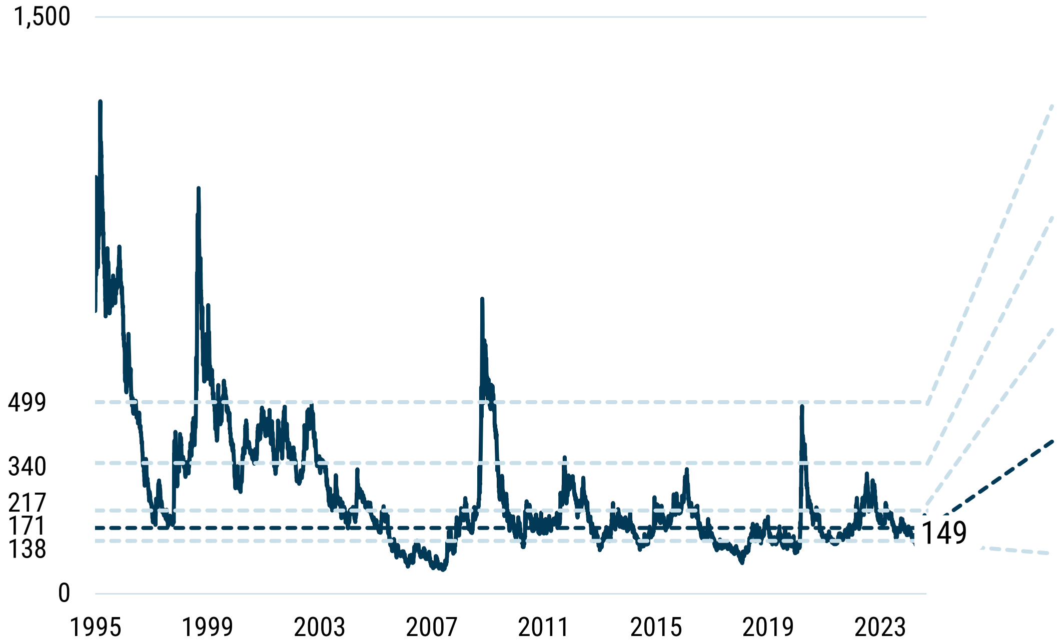
3Q REVIEW

- The EMBIG-D benchmark's published mid-spread over Treasuries tightened by 31 bps in Q3, ending the quarter at 367 bps. Our spread-duration-adjusted EMBIG-D spread tightened by 14 bps to end at 276 bps this quarter. The gap between the two measures is mainly the result of defaulted Venezuela's re-introduction into the index.
- The expected credit loss rose by 1 bps to 127 bps despite rating actions in benchmark countries being mostly positive, with upward actions in Oman, Jordan, Mongolia, Montenegro, Serbia, and Tajikistan. Offsetting these, Kenya saw its long-term foreign currency rating downgraded a notch, and Ukraine entered selective default. Additionally, Cameroon entered the index at the end of the period with a weak rating of B-.

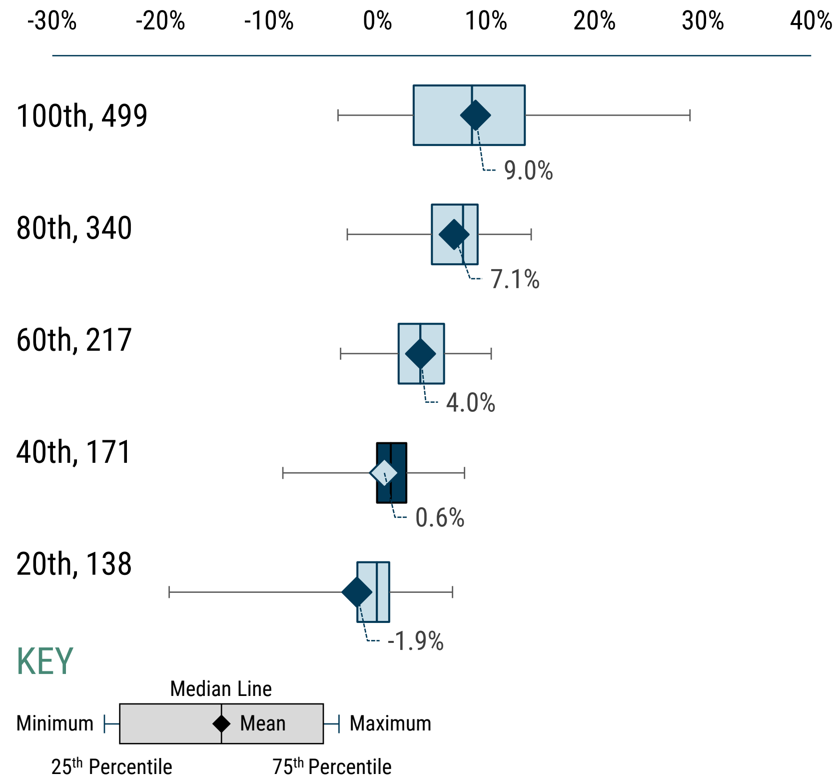
As of 9/30/24 | Source: J.P. Morgan, GMO
* EMBIG-D Spread (Spread Duration Weighted)

VALUATION: HARD CURRENCY (SPREADS)

EMBIG-D EXCESS SPREAD (BPS)* AND PERCENTILE CUT-OFFS



EMBIG-D EXCESS SPREAD* PERCENTILES AND TWO-YEAR ANNUALIZED SPREAD RETURNS



3Q ASSESSMENT

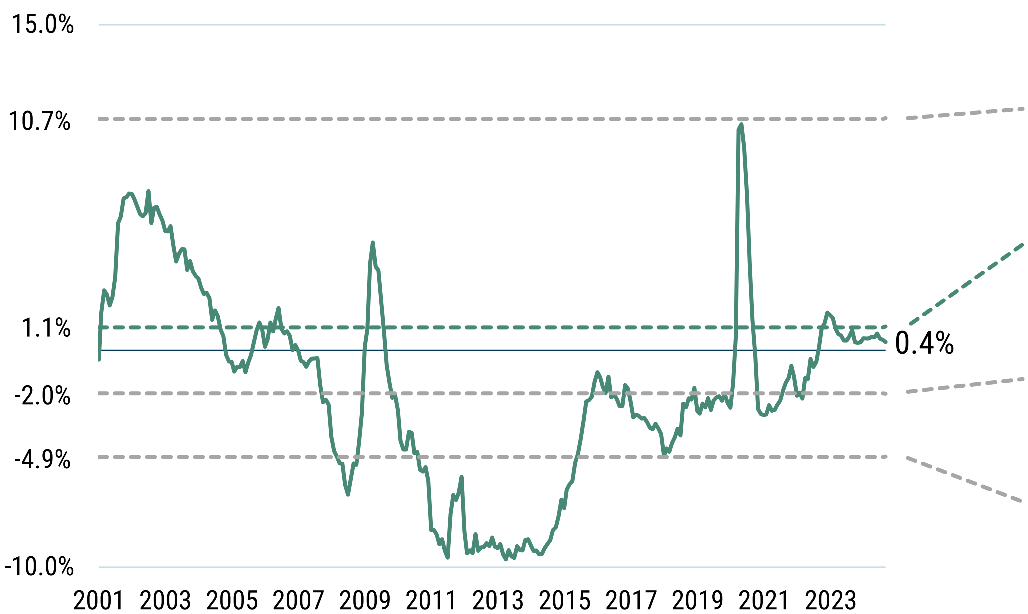
- The current excess spread landed in the second quintile. This 2nd quintile has historically had a 0.6% mean 2-year subsequent annualized credit return, ranging from 0.0% (25th percentile) to 2.7% (75th percentile). We consider the current level to be neutral.

As of 9/30/24 | Source: J.P. Morgan, GMO

* EMBIG-D Excess Spread is the difference between the EMBIG-D Spread (spread duration weighted) and the expected credit losses.

LOCAL CURRENCIES

GBI-EMGD EXPECTED 6-MONTH ANNUALIZED SPOT RETURN



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

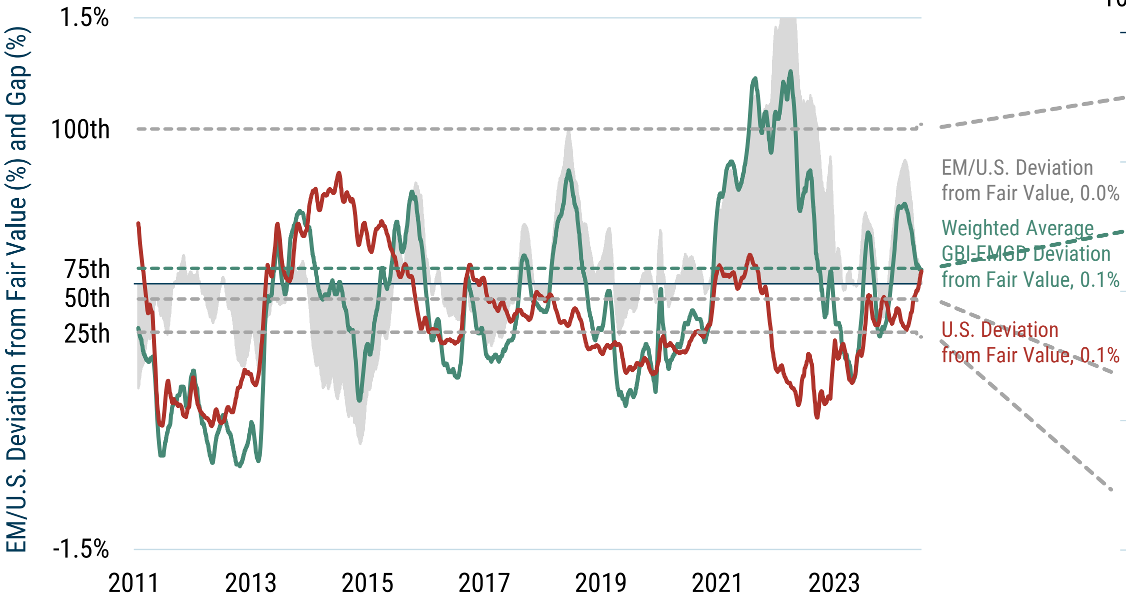
3Q ASSESSMENT

- At 0.4%, the expected spot return remains in the third quartile, where the mean subsequent GBI-EMGD weighted 6-month spot returns have been 5.5% (with a 25th and 75th percentile range of 1.5% to 9.5%). For reference, the corresponding figures for the second quartile are +1.4% mean return and a range of -1.6% to +5.1%. Since 2001 it has been rare for EMFX to be this attractive outside of crises, consistent with our broad view that the U.S. dollar is still rich/EMFX is cheap.

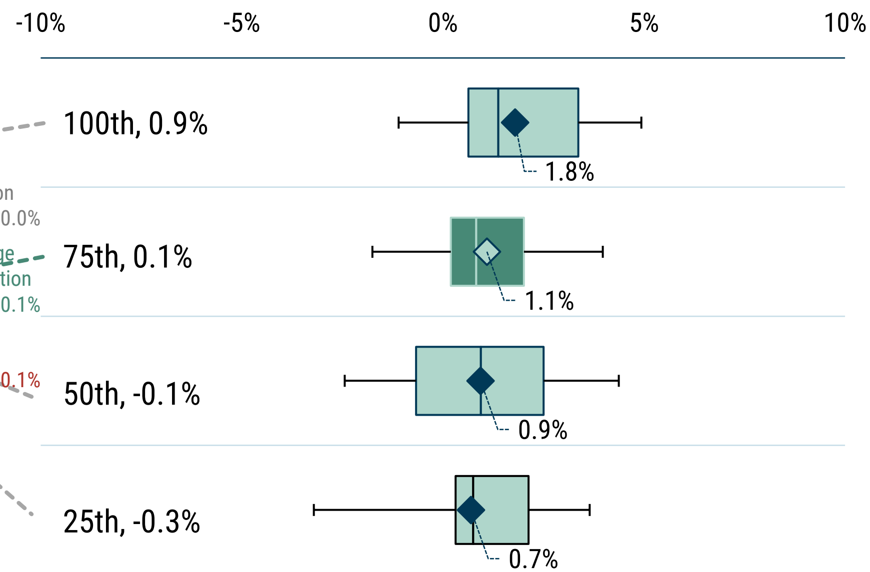
As of 9/30/24 | Source: J.P. Morgan, GMO

LOCAL INTEREST RATES

DEVIATIONS FROM FAIR VALUE LEVEL/PREDICTED RETURN DIFFERENTIAL



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



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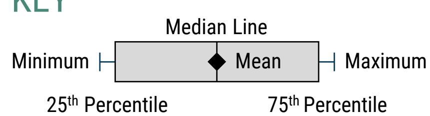


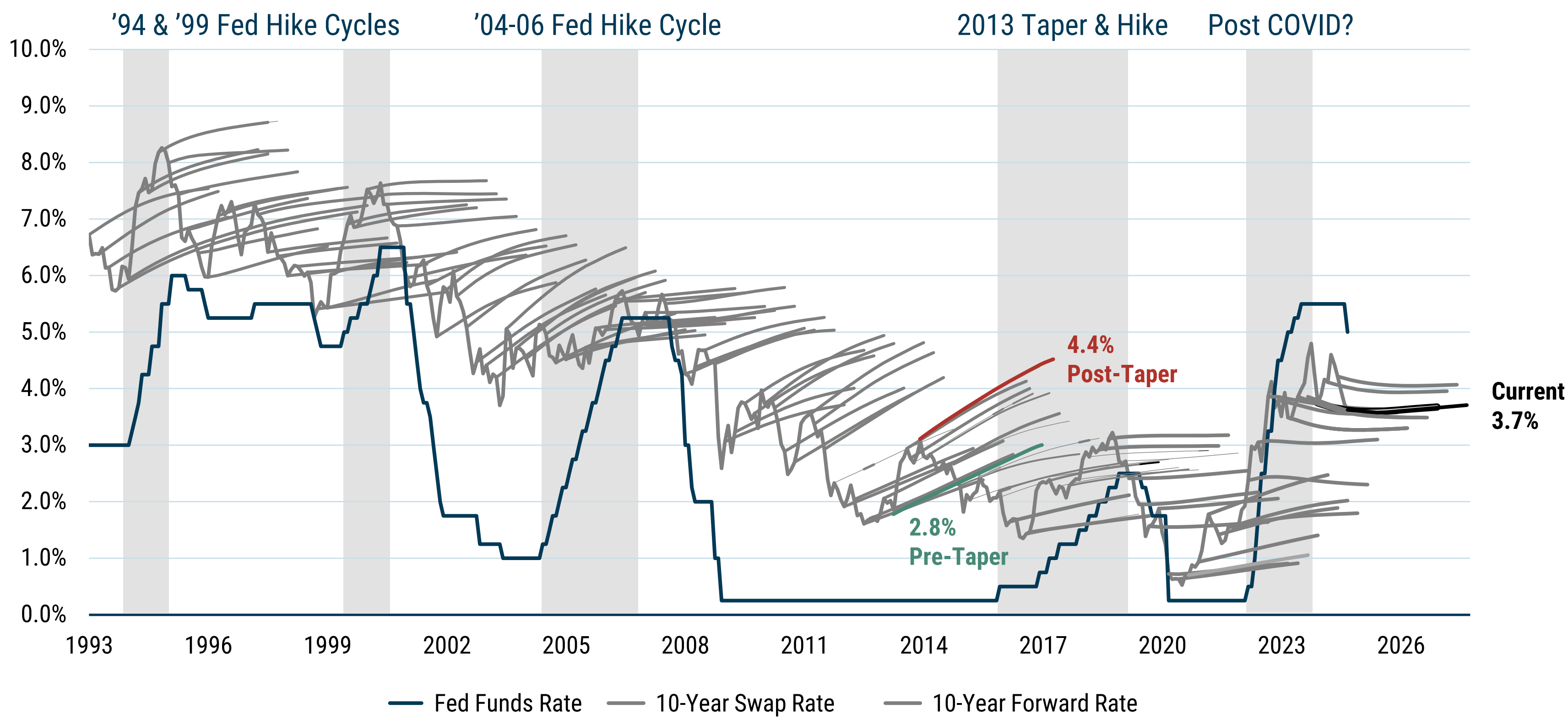
3Q ASSESSMENT

- The gap between EM local rates and U.S. interest rates remained attractive even though it has narrowed meaningfully. Ending at 0.0%, this is in our attractive third quartile, where mean EM/U.S. return differentials have on average been 1.1% with an inter-quartile range of 0.2% to 2.0%.

As of 9/30/24 | Source: J.P. Morgan, GMO

U.S. DOLLAR INTEREST RATE HISTORY

USD 10-YEAR SWAP RATES AND FORWARDS



3Q REVIEW

- The Federal Reserve cut the Fed funds rate by 50 bps on September 18, its first of what's expected to be a cycle of cuts. The USD curve bull-steepened in tandem and is now fairly flat, with the 3-year forward 10-year rate ending at 3.7% and the spot 10-year rate ending 3.8%. This level remains comfortably above the Fed's 2% inflation target. We note that following the 2013 rise in U.S. rates stemming from the anticipated tapering of Fed quantitative easing, this forward pricing topped out at 4.4%.

As of 9/30/24 | Source: Bloomberg, 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* (12 bp Increments) by USD Yield Associated With EMBIG-D (30 bp Increments)

EMBIG-D Spread*	2.9%	3.2%	3.5%	3.8%	4.1%	4.4%	4.7%
3.1%	10.3%	8.3%	6.2%	4.1%	2.1%	0.0%	-2.1%
3.0%	11.1%	9.1%	7.0%	4.9%	2.9%	0.8%	-1.3%
2.9%	11.9%	9.9%	7.8%	5.7%	3.7%	1.6%	-0.5%
2.8%	12.7%	10.7%	8.6%	6.5%	4.5%	2.4%	0.3%
2.6%	13.6%	11.5%	9.4%	7.3%	5.3%	3.2%	1.1%
2.5%	14.4%	12.3%	10.2%	8.1%	6.1%	4.0%	1.9%
2.4%	15.2%	13.1%	11.0%	9.0%	6.9%	4.8%	2.7%

USD Yield Associated With EMBIG-D (30 bp Increments)

LOCAL CURRENCY DEBT

GBI-EMGD FX (1.1%) Higher = Depreciation by GBI-EMGD Yield (14 bp Increments)

GBI-EMGD FX (1.1%)	5.7%	5.8%	6.0%	6.1%	6.3%	6.4%	6.5%
1.54	5.1%	4.3%	3.6%	2.8%	2.1%	1.3%	0.6%
1.52	6.2%	5.4%	4.7%	3.9%	3.2%	2.4%	1.7%
1.51	7.3%	6.5%	5.8%	5.0%	4.3%	3.5%	2.8%
1.49	8.4%	7.6%	6.9%	6.1%	5.4%	4.6%	3.8%
1.47	9.5%	8.7%	8.0%	7.2%	6.4%	5.7%	4.9%
1.46	10.6%	9.8%	9.0%	8.3%	7.5%	6.8%	6.0%
1.44	11.6%	10.9%	10.1%	9.4%	8.6%	7.9%	7.1%

GBI-EMGD Yield (14 bp Increments)

HARD CURRENCY

- Our valuation-based assessment is neutral for both credit spreads and USD interest rates. Neutral still implies positive excess returns versus risk free rates.

LOCAL CURRENCY

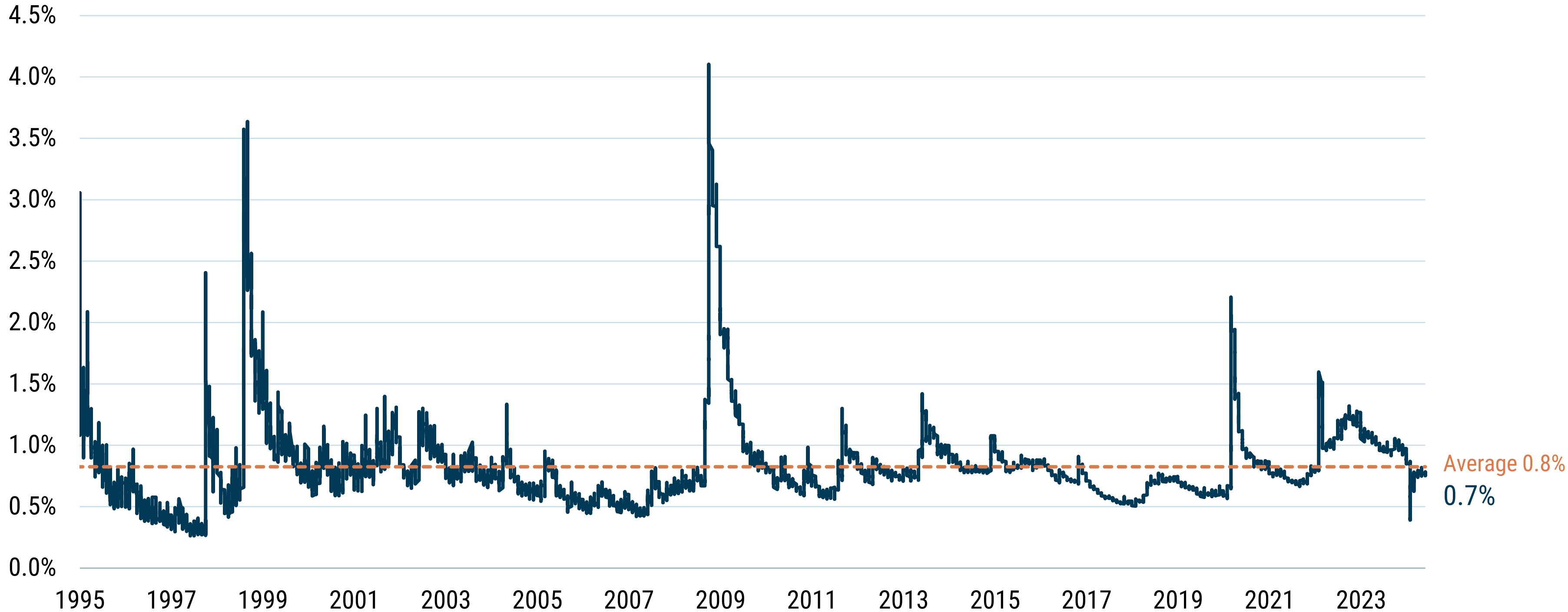
- Given our favorable assessment for both EMFX and EM rates, we believe scenarios associated with the lower left-hand quadrant are more likely.

As of 9/30/24 | Source: GMO calculations based on data from J.P. Morgan
* EMBIG-D Spread (Spread Duration Weighted)
We show duration-adjusted EMBIG-D yield as outlined on slide 2.

ADDITIONAL INFORMATION

LIQUIDITY

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



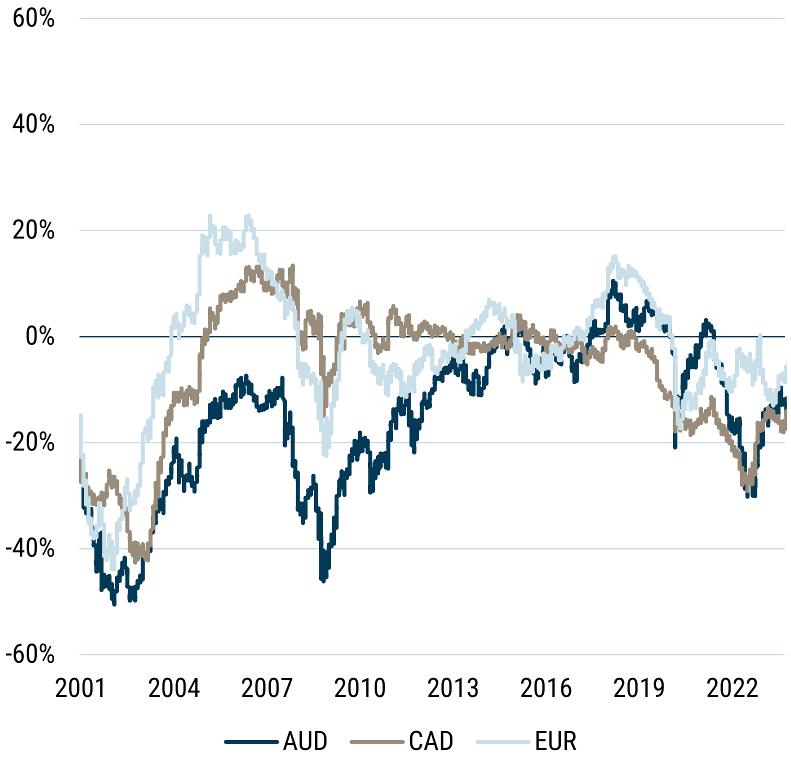
3Q ASSESSEMENT

- Transaction costs measured by the EMBIG-D bid/ask settled close to the long-term historical average.

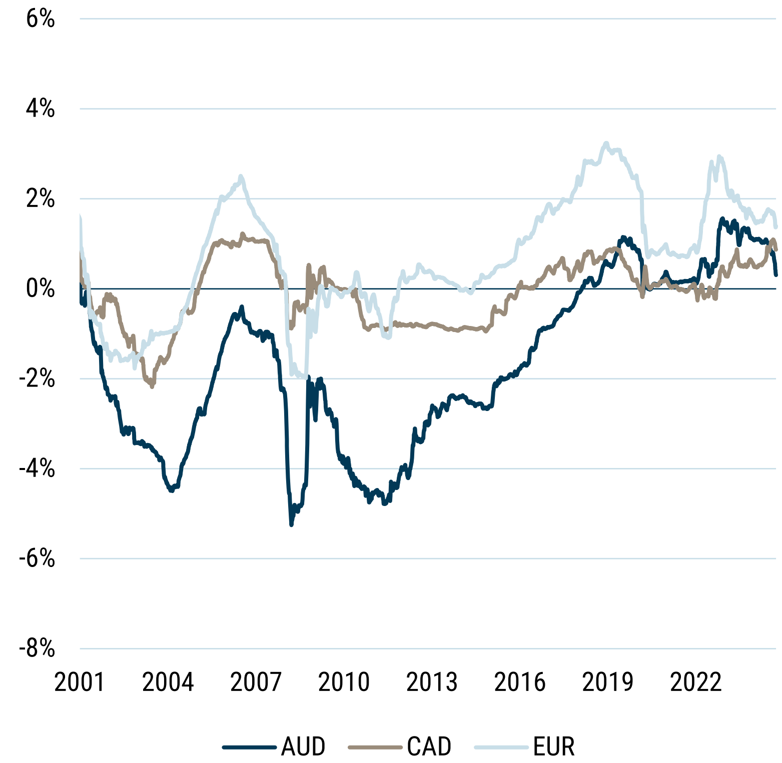
As of 9/30/24 | Source: J.P. Morgan, GMO

INVESTING FROM A NON-USD PERSPECTIVE

USD-RELATIVE CURRENCY VALUATION



HEDGING COSTS

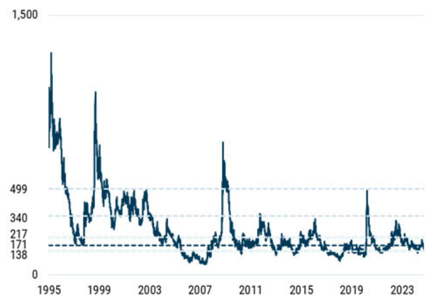


3Q ASSESSEMENT

- 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 are trending down but remain elevated relative to recent years.

As of 9/30/24 | Source: GMO

OVERVIEW OF METRICS

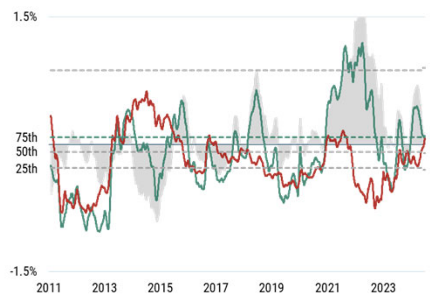


EMBIG-D Excess Spread

The EMBIG-D Excess Spread is the difference between the EMBIG-D Spread (spread duration weighted) and the 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. We estimate the percentile range of the excess spread and consider values in the top three quintiles as “cheap,” values in the first quintile as “rich,” and values in the second quintile as “fair.”

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 the percentile range based on the back-test of the overall model to assess whether EM currencies are cheap, rich, or fairly valued. A value that falls into the top two quartiles potentially indicates “cheap” currencies, while a value landing in the first quartile potentially indicates “rich” currencies. We consider valuations in the second quartile to be “fairly valued” as levels in that quartile have historically been associated with a more neutral mean ex-post total FX return.



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. We estimate the percentile range of the fair value gap between EM and U.S. deviation from fair value and consider values in the top two quartiles as “cheap,” values in the first quartile as “rich,” and values in the second quartile as “fair.”

As of 9/30/24 | Source: Bloomberg, J.P. Morgan, GMO
A full technical appendix is available from your GMO representative.

OVERVIEW OF METRICS

EMBIG-D Spread* (12 bp Increments)

3.1%	10.3%	8.3%	6.2%	4.1%	2.1%	0.0%	-2.1%
3.0%	11.1%	9.1%	7.0%	4.9%	2.9%	0.8%	-1.3%
2.9%	11.9%	9.9%	7.8%	5.7%	3.7%	1.6%	-0.5%
2.8%	12.7%	10.7%	8.6%	6.5%	4.5%	2.4%	0.3%
2.6%	13.6%	11.5%	9.4%	7.3%	5.3%	3.2%	1.1%
2.5%	14.4%	12.3%	10.2%	8.1%	6.1%	4.0%	1.9%
2.4%	15.2%	13.1%	11.0%	9.0%	6.9%	4.8%	2.7%
	2.9%	**3.2%**	**3.5%**	**3.8%**	**4.1%**	**4.4%**	**4.7%**

USD Yield Associated With EMBIG-D (30 bp Increments)

1-Year Total Return Scenarios: Hard Currency Debt

For hard currency debt, we vary the level of the EMBIG-D spread (spread-duration weighted) 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 duration-adjusted starting yield.

GBI-EMGD FX (1.1%) Higher = Depreciation

1.54	5.1%	4.3%	3.6%	2.8%	2.1%	1.3%	0.6%
1.52	6.2%	5.4%	4.7%	3.9%	3.2%	2.4%	1.7%
1.51	7.3%	6.5%	5.8%	5.0%	4.3%	3.5%	2.8%
1.49	8.4%	7.6%	6.9%	6.1%	5.4%	4.6%	3.8%
1.47	9.5%	8.7%	8.0%	7.2%	6.4%	5.7%	4.9%
1.46	10.6%	9.8%	9.0%	8.3%	7.5%	6.8%	6.0%
1.44	11.6%	10.9%	10.1%	9.4%	8.6%	7.9%	7.1%
	5.7%	**5.8%**	**6.0%**	**6.1%**	**6.3%**	**6.4%**	**6.5%**

GBI-EMGD Yield (14 bp Increments)

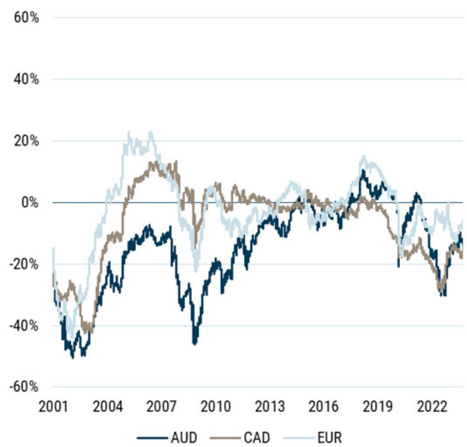
1-Year Total Return Scenarios: Local Currency Debt

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 9/30/24 | Source: Bloomberg, J.P. Morgan, GMO

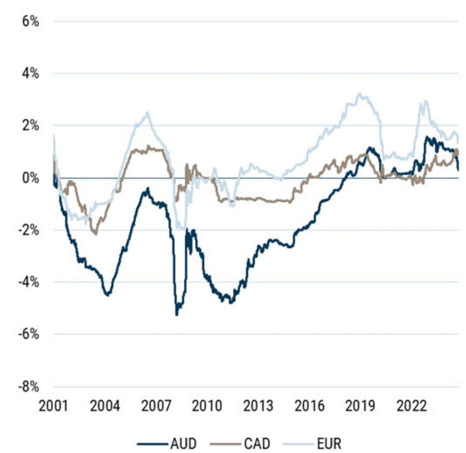
The total return scenarios are forward-looking statements based upon the reasonable beliefs of GMO and are not a guarantee of future performance. The total returns scenarios do not represent the past or future performance of any GMO fund or strategy. They are subject to change at any time based on market and other conditions. Actual results may differ materially from these scenarios. A full technical appendix is available from your GMO representative.

OVERVIEW OF METRICS



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 9/30/24 | Source: Bloomberg, J.P. Morgan, GMO
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 October 2024 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.

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