VALUATION METRICS IN EMERGING DEBT

EMD Quarterly Valuation Update | 4Q24

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.

4Q24 VALUATION ASSESSMENT

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

HARD CURRENCY DEBT

Credit Spreads: Neutral

- The current excess spread of 146 bps is in our 2nd quintile of attractiveness.
- Historically, an excess spread in this quintile has been associated with a subsequent mean 2-year annualized credit return of 1.0% (above the risk-free rate).
- This implies a valuations-based neutral assessment.
- Should post-restructuring countries be upgraded from D/CCC to B+, the excess spread would land in our attractive 3rd quintile. We find this scenario plausible and consistent with the history of sovereign restructurings.

USD Rates: Neutral

- The U.S. Federal Reserve cut the fed funds rate twice during the quarter, and the USD interest rate curve steepened.
- Our "deviation from fair value" for USD interest rates shows an improvement in the attractiveness of USD duration, with current levels close to fair value.

LOCAL CURRENCY DEBT

FX: Very Attractive

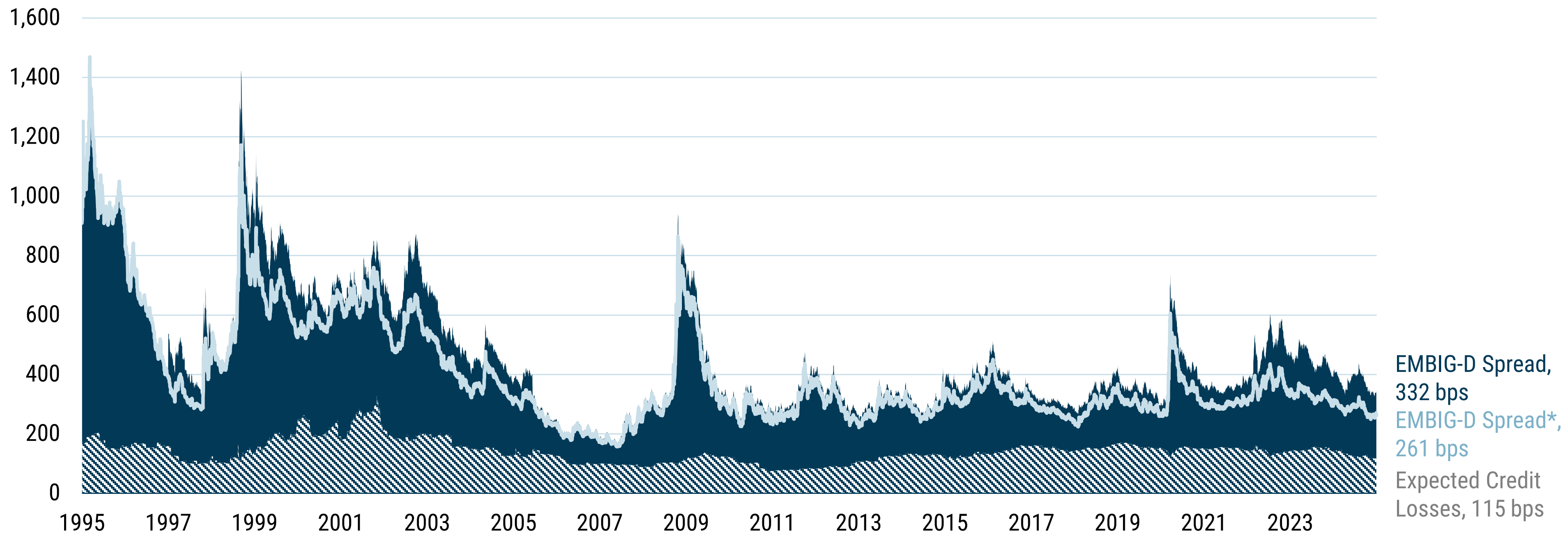
- Our expected spot return indicator lands in the most attractive 4th quartile.
- Mean subsequent GBI-EMGD-weighted spot return has been +8.7% for the 4th quartile and +7.1% for the 3rd quartile.

Local Rates: Very Attractive

- EM local rates maintained an attractive valuation gap versus U.S. interest rates.
- At 0.6%, this is in our most attractive 4th quartile, where the mean subsequent EM/U.S. return differential has been +2.7%.

VALUATION: HARD CURRENCY (SPREADS)

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



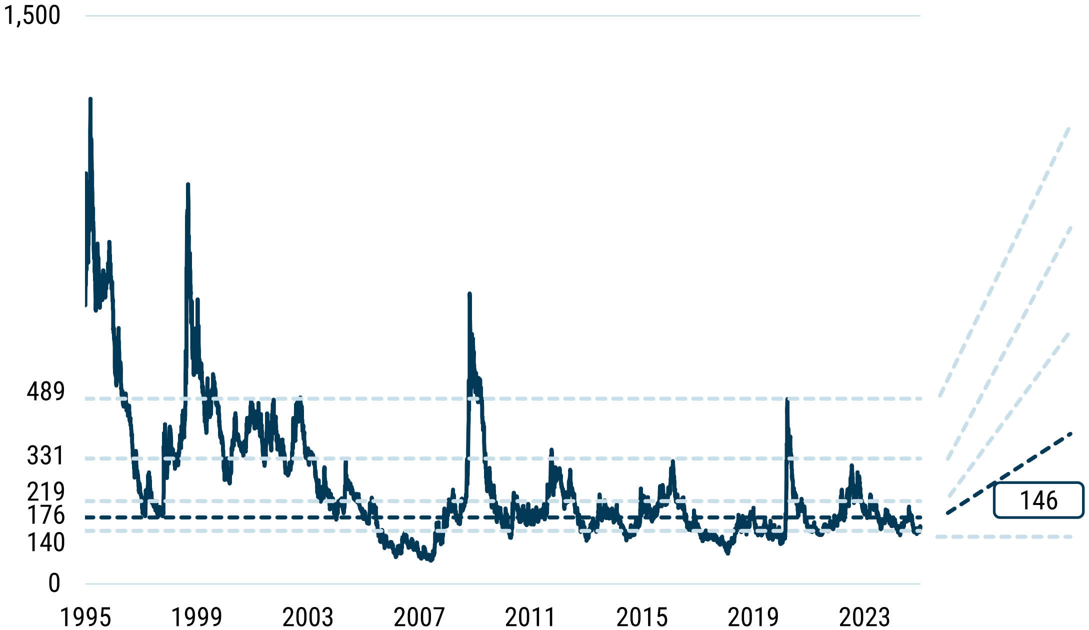
4Q REVIEW

- The EMBIG-D benchmark's published mid-spread over Treasuries tightened by 35 bps in Q4, ending the quarter at 332 bps. Our spread-duration-adjusted EMBIG-D spread tightened by 15 bps to end at 261 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 fell by 12 bps to 115 bps. Rating actions in benchmark countries were mostly positive, with upward actions in Serbia, Cote d'Ivoire, Turkey, Barbados, Saudi Arabia, and Mongolia, and a downgrade in Panama. Ghana came out of restructuring and received an upgrade from Moody's to Caa2. Additionally, Bulgaria entered the index at the end of October with a BBB rating. Sri Lanka also exited restructuring, although its ratings don't yet reflect this.

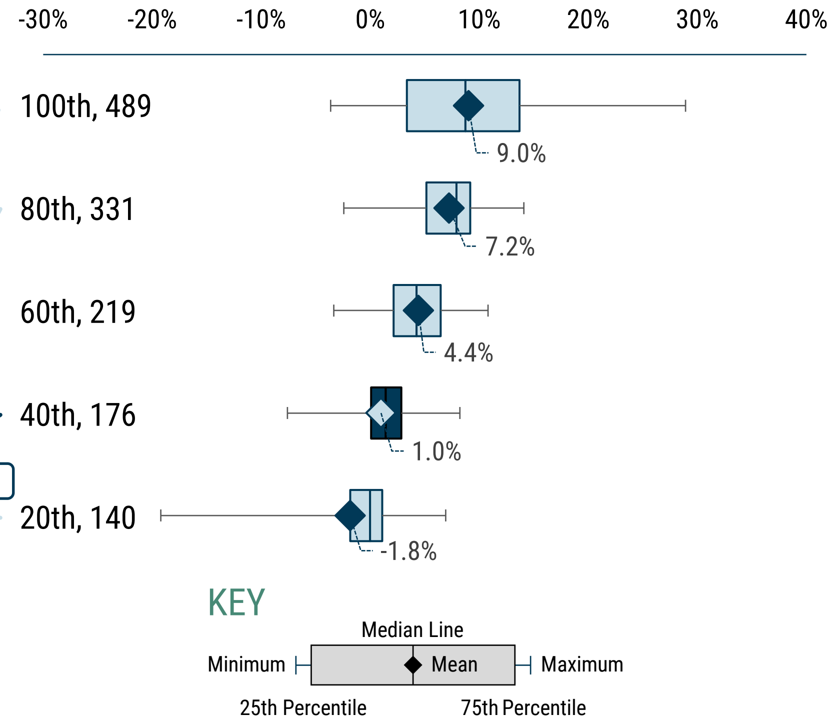
As of 12/31/24 | Source: J.P. Morgan, GMO
* EMBIG-D Spread (Spread Duration Weighted)

VALUATION: HARD CURRENCY (SPREADS)

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



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



4Q ASSESSMENT

- The current excess spread landed in the 2nd quintile. This 2nd quintile has historically had a 1.0% mean 2-year subsequent annualized credit return, ranging from 0.1% (25th percentile) to 2.8% (75th percentile). We consider the current level to be neutral.
- With a number of restructurings completed recently, and with ratings there still heavily depressed, we ran some sensitivity analysis to see how our expected credit loss figure would change if these countries were upgraded out of the CCCs. Generally, after a successful restructuring, upgrades to market access levels (B/BB) occur within 2 years. For the excess spread to get into the 3rd quintile of attractiveness, recently restructured countries would need to get to a rating of around B+, which we view as achievable.

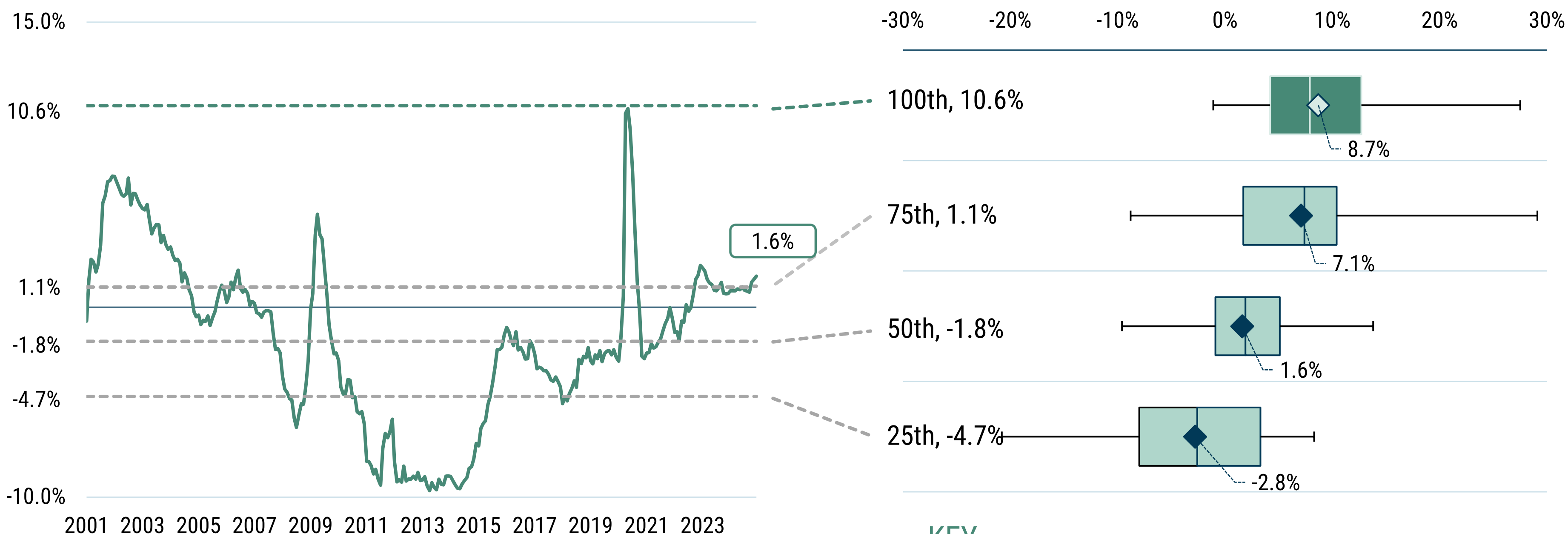
As of 12/31/24 | Source: J.P. Morgan, GMO

* 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



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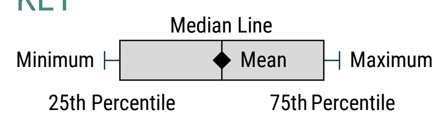


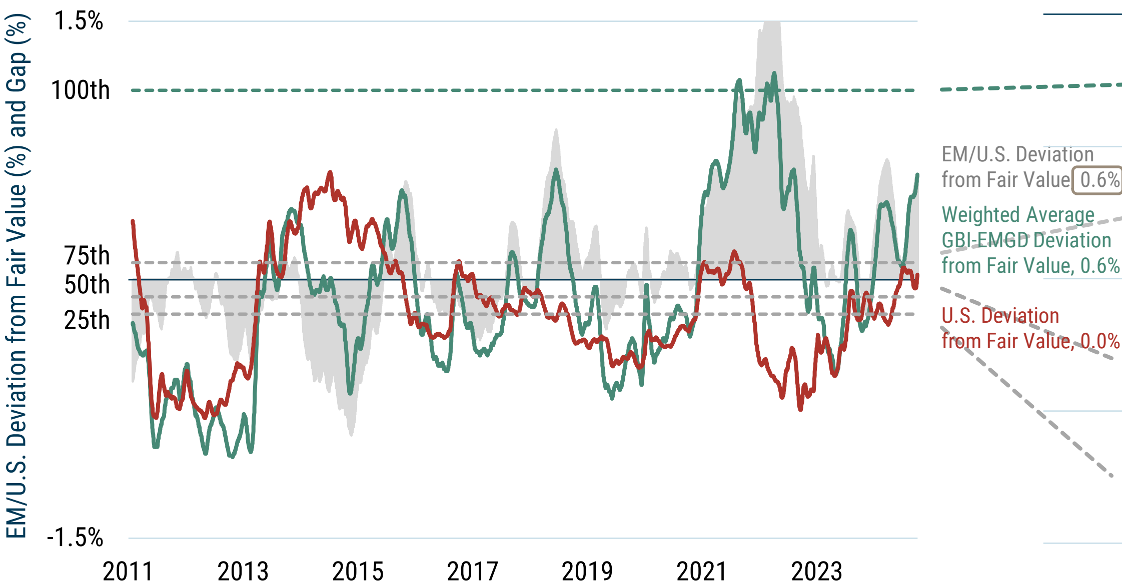
4Q ASSESSMENT

- At 1.6%, the expected spot return lands in our most attractive 4th quartile, where the mean subsequent GBI-EMGD-weighted 6-month spot returns have been 8.7% (with a 25th and 75th percentile range of 4.2% to 12.7%). For reference, the corresponding figures for the 3rd quartile are +7.1% mean return and an inter-quartile range of 1.7% to +10.4%. 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 and EMFX is cheap.

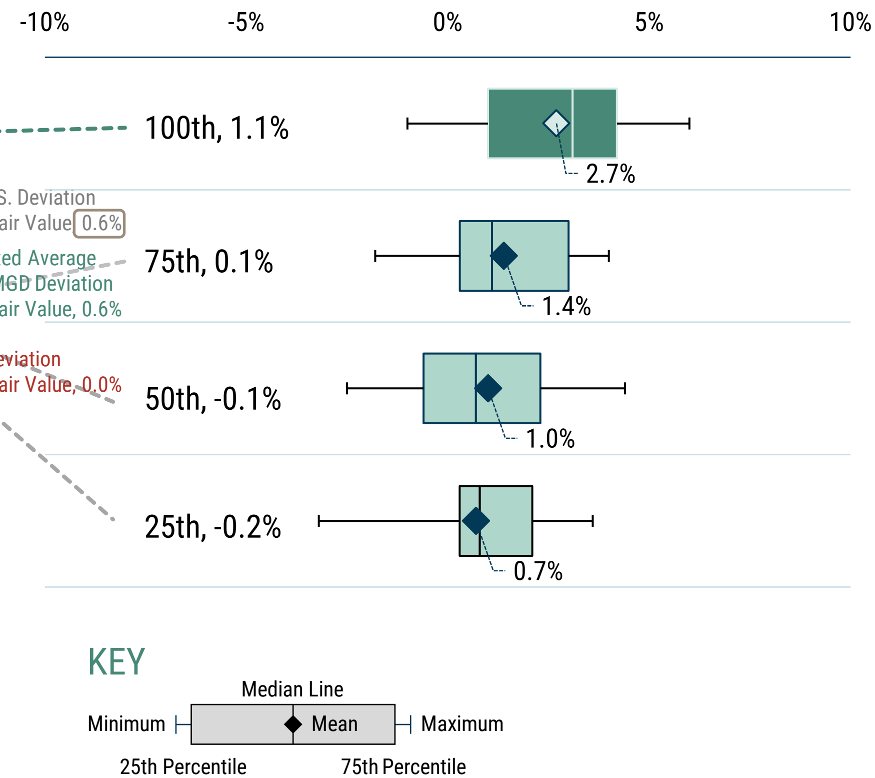
As of 12/31/24 | Source: J.P. Morgan, GMO

LOCAL INTEREST RATES

DEVIATIONS FROM FAIR VALUE LEVEL/PREDICTED RETURN DIFFERENTIAL



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



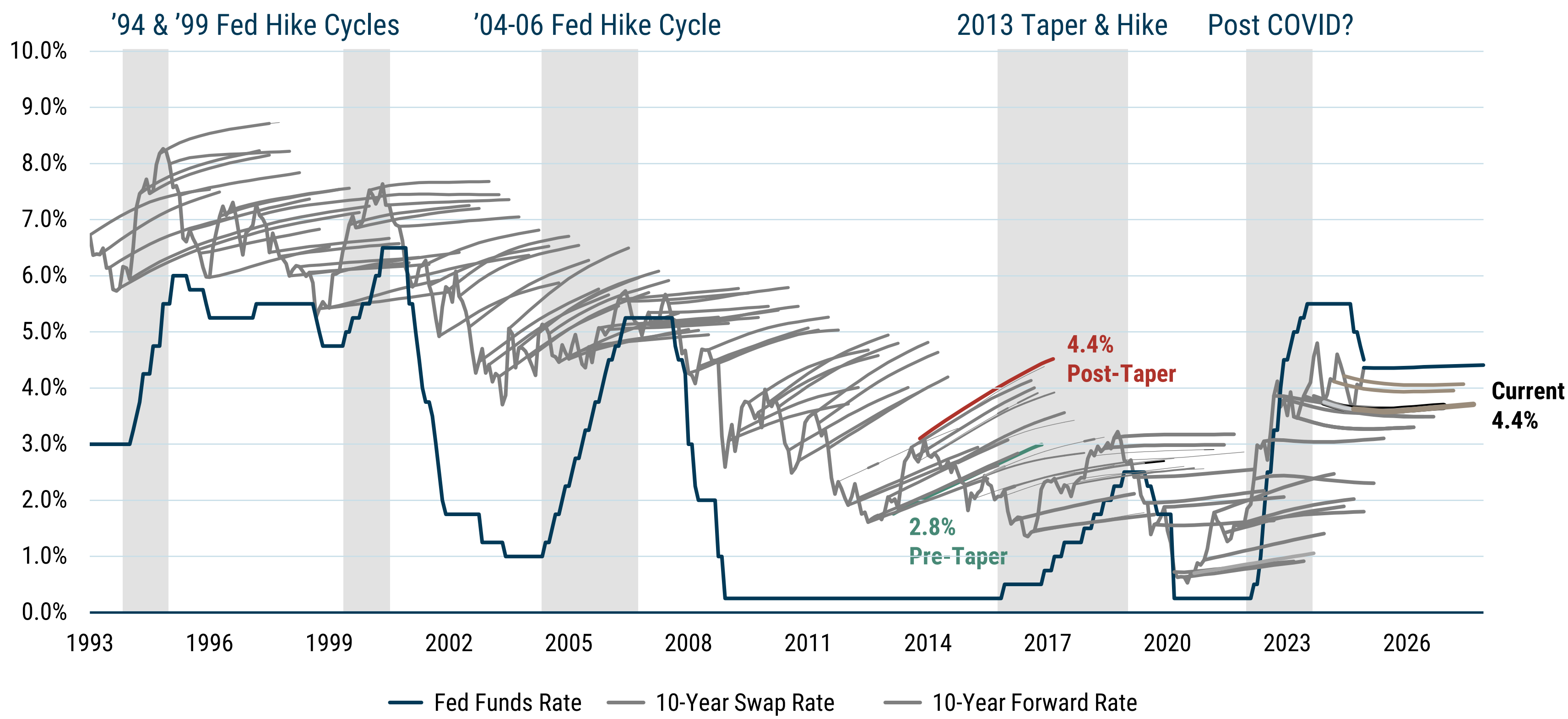
4Q ASSESSMENT

- The gap between EM local rates and U.S. interest rates widened meaningfully, ending at 0.6%. This is in our most attractive 4th quartile, where mean EM/U.S. return differentials have on average been 2.7% with an inter-quartile range of 1.0% to 4.2%. For reference, the corresponding figures for the 3rd quartile are 1.4% mean return and an inter-quartile range of 0.3% to 2.9%.

As of 12/31/24 | Source: J.P. Morgan, GMO

U.S. DOLLAR INTEREST RATE HISTORY

USD 10-YEAR SWAP RATES AND FORWARDS



4Q REVIEW

- The Federal Reserve cut the fed funds rate by 25 bps in November and again in December, ending the year with 100 bps of cumulative fed funds rate easing. The USD curve steepened in tandem and is now positively sloped, with the 3-year forward 10-year rate ending at 4.4% and the spot 10-year rate ending at 4.3%. 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 12/31/24 | 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* (13 bp Increments) by USD Yield Associated with EMBIG-D (24 bp Increments)

	3.8%	4.0%	4.3%	4.5%	4.7%	5.0%	5.2%
3.0%	9.1%	7.6%	6.1%	4.5%	3.0%	1.4%	-0.1%
2.9%	10.0%	8.5%	6.9%	5.4%	3.8%	2.3%	0.7%
2.7%	10.9%	9.3%	7.8%	6.2%	4.7%	3.2%	1.6%
2.6%	11.7%	10.2%	8.7%	7.1%	5.6%	4.0%	2.5%
2.5%	12.6%	11.1%	9.5%	8.0%	6.4%	4.9%	3.4%
2.3%	13.5%	11.9%	10.4%	8.9%	7.3%	5.8%	4.2%
2.2%	14.3%	12.8%	11.3%	9.7%	8.2%	6.6%	5.1%

LOCAL CURRENCY DEBT

GBI-EMGD FX (0.9%) Higher = Depreciation by GBI-EMGD Yield (11 bp Increments)

	6.1%	6.2%	6.3%	6.4%	6.5%	6.6%	6.7%
1.64	5.4%	4.8%	4.2%	3.6%	3.0%	2.4%	1.8%
1.63	6.3%	5.7%	5.1%	4.5%	3.9%	3.3%	2.7%
1.61	7.3%	6.7%	6.1%	5.5%	4.9%	4.2%	3.6%
1.60	8.2%	7.6%	7.0%	6.4%	5.8%	5.2%	4.6%
1.58	9.1%	8.5%	7.9%	7.3%	6.7%	6.1%	5.5%
1.57	10.1%	9.5%	8.9%	8.3%	7.7%	7.1%	6.4%
1.55	11.0%	10.4%	9.8%	9.2%	8.6%	8.0%	7.4%

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

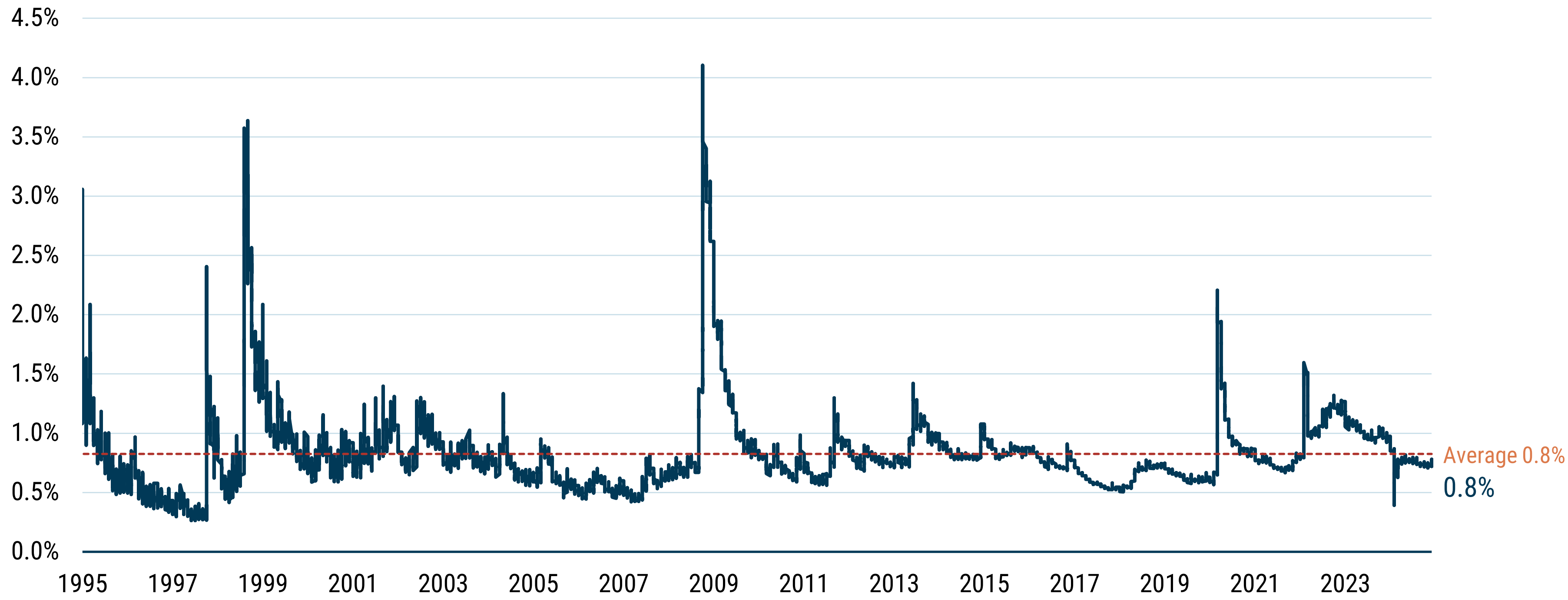
- Given our very favorable assessment for both EMFX and EM rates, we believe scenarios associated with the lower left-hand quadrant are more likely.

As of 12/31/24 | 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)



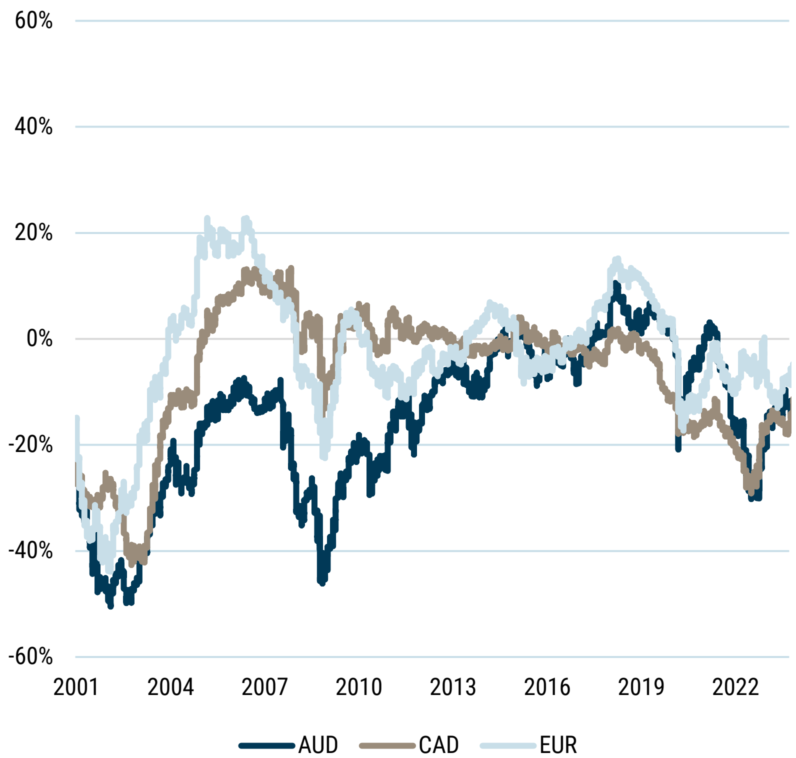
4Q ASSESSEMENT

- Transaction costs measured by the EMBIG-D bid-ask spread settled at the long-term historical average.

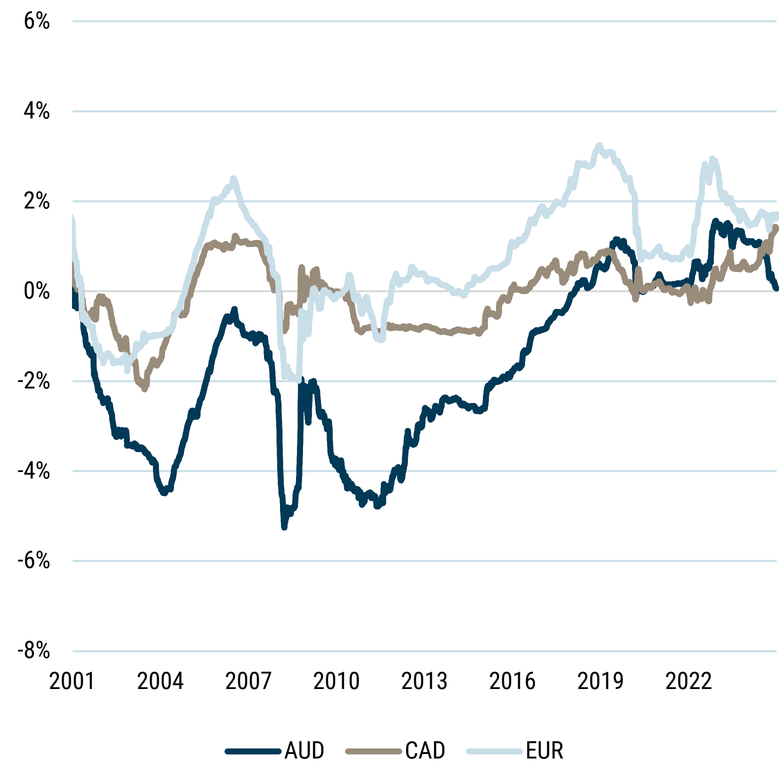
As of 12/31/24 | Source: J.P. Morgan, GMO

INVESTING FROM A NON-USD PERSPECTIVE

USD-RELATIVE CURRENCY VALUATION



HEDGING COSTS

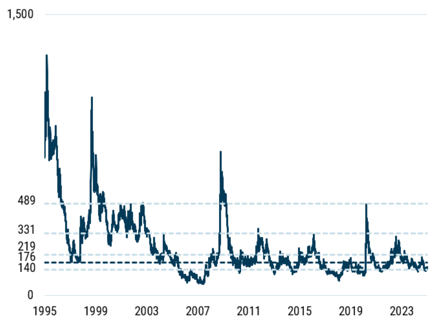


4Q ASSESSEMENT

- 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 to AUD and EUR are trending down, whereas the hedging costs to CAD are elevated relative to history.

As of 12/31/24 | Source: GMO

OVERVIEW OF METRICS

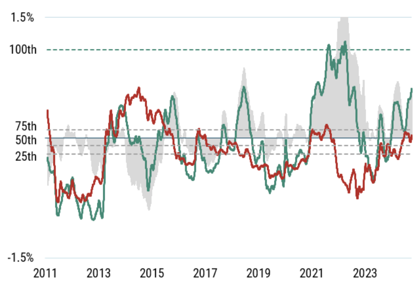


EMBIG-D Excess Spread

The EMBIG-D Excess Spread is the difference between the EMBIG-D Spread (spread duration weighted) and the measure of estimated 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 1st quintile as "rich," and values in the 2nd 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 1st quartile potentially indicates "rich" currencies. We consider valuations in the 2nd 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 1st quartile as "rich," and values in the 2nd quartile as "fair."

As of 12/31/24 | Source: Bloomberg, J.P. Morgan, GMO
A full technical appendix is available from your GMO representative.

OVERVIEW OF METRICS

EMBIG-D Spread* (13 bp Increments) / USD Yield Associated With EMBIG-D (24 bp Increments)

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2.9%	10.0%	8.5%	6.9%	5.4%	3.8%	2.3%	0.7%
2.7%	10.9%	9.3%	7.8%	6.2%	4.7%	3.2%	1.6%
2.6%	11.7%	10.2%	8.7%	7.1%	5.6%	4.0%	2.5%
2.5%	12.6%	11.1%	9.5%	8.0%	6.4%	4.9%	3.4%
2.3%	13.5%	11.9%	10.4%	8.9%	7.3%	5.8%	4.2%
2.2%	14.3%	12.8%	11.3%	9.7%	8.2%	6.6%	5.1%

USD Yield Associated With EMBIG-D (24 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 (0.9%) Higher = Depreciation

GBI-EMGD FX (0.9%)	6.1%	6.2%	6.3%	6.4%	6.5%	6.6%	6.7%
1.64	5.4%	4.8%	4.2%	3.6%	3.0%	2.4%	1.8%
1.63	6.3%	5.7%	5.1%	4.5%	3.9%	3.3%	2.7%
1.61	7.3%	6.7%	6.1%	5.5%	4.9%	4.2%	3.6%
1.60	8.2%	7.6%	7.0%	6.4%	5.8%	5.2%	4.6%
1.58	9.1%	8.5%	7.9%	7.3%	6.7%	6.1%	5.5%
1.57	10.1%	9.5%	8.9%	8.3%	7.7%	7.1%	6.4%
1.55	11.0%	10.4%	9.8%	9.2%	8.6%	8.0%	7.4%

GBI-EMGD Yield (11 bp Increments)

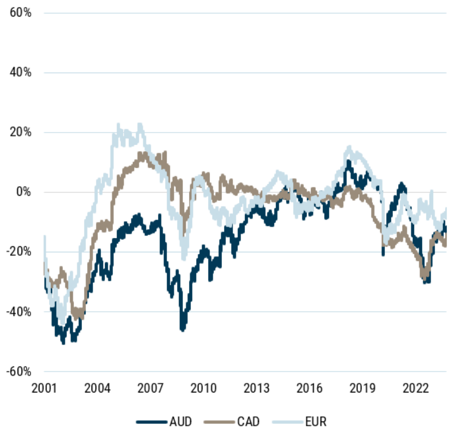
1-Year Total Return Scenarios: Local Currency Debt

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 12/31/24 | Source: Bloomberg, J.P. Morgan, GMO

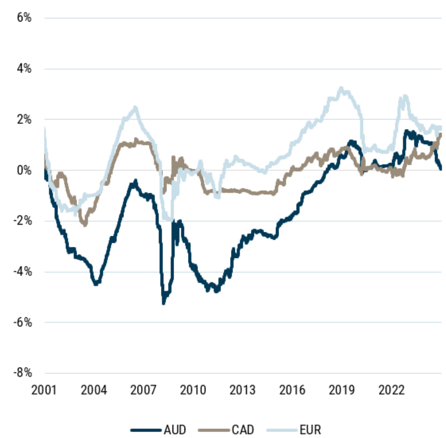
The total return scenarios are forward-looking statements based upon the reasonable beliefs of GMO and are not a guarantee of future performance. The total returns scenarios do not represent the past or future performance of any GMO fund or strategy. They are subject to change at any time based on market 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 12/31/24 | 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 January 2025 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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