White Paper

Fixed income

Emerging Market Debt Enhancing a Global Bond Portfolio

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Executive Summary

Over the last two decades, the emerging market debt (EMD) market has grown significantly. It now accounts for over 28% of the global bond market,* while trading liquidity has improved. We think this makes it too big for global bond investors to ignore. EMD provides an attractive yield pick-up from investment grade bonds, while its lower correlation and higher growth factor exposure compared to global aggregate bonds offers diversification benefits.

Our analysis, both on a historical and forward-looking basis, shows that incorporating hard currency EMD into a global bond unhedged portfolio could increase the portfolio return without significantly reducing return/risk ratio for a USD investor. However, for a global hedged portfolio, return/risk ratio is expected to decline after adding more than 10% EMD. We think that investors should consider an allocation of 10% to hard currency EMD in their global bond portfolios (both USD hedged and unhedged) to enhance portfolio returns without significantly increasing volatility. Investors with higher return targets and more risk appetite could consider higher allocations, particularly for unhedged global bond investors, where return/risk increases with higher allocations.

The case for incorporating local currency EMD into global portfolios is comparatively less compelling, given currency volatility. Therefore, taking a view on currency is an important consideration when investing in local currency debt. While adding local currency EMD on a historical basis to a global portfolio did not improve return/risk profile, from a forward-looking basis we see value in it given higher forecast returns.

EM currencies are currently attractively valued from a long-term perspective relative to the US Dollar — this provides a good entry point, but investors will need to be aware of potentially high currency volatility. Investors interested in LC EMD could consider taking a 10% allocation, or invest in a blend of local currency and hard currency EMD to help mitigate the volatility in local currency EMD returns.



^{*}Source: JP Morgan, as of December 31, 2024. Refer to Figure 1.

From a risk standpoint, USD-based investors need to understand and be able to tolerate potentially higher volatility and drawdowns in EMD relative to global aggregate bonds. We believe investors can take a strategic medium- to long-term investment horizon on EMD to ride out the cyclical downside of the asset class.

Key Points

- **Yield Enhancement** Emerging market debt provides attractive yield enhancement relative to investment grade bonds.
- **Diversification Benefits** The low correlation and higher-growth factor exposures of EMD assets provide diversification benefits for global bond investors.
- **Supportive Growth Fundamentals** The stronger growth of EM economies compared to their advanced counterparts help support EMD fundamentals, although some EM economies could face potential debt pressure.
- **Higher Volatility/Drawdown and Idiosyncratic Risks** Investors need to be aware of the potential higher volatility and drawdowns as well as the idiosyncratic risks of EMD assets.

Portfolio Benefits

Portfolio Impact of Hard Currency EMD Historical analysis shows that incorporating 10% hard currency EMD sovereign to a USD-hedged global bond portfolio increased the portfolio return with a similar return/risk ratio. This increases to 100% on an unhedged global bond portfolio, given the relative increase in risk for unhedged global bonds in the last few years. Based on forecast forward returns, similar to historical data, adding 10% hard currency EMD to a hedged global bond portfolio is expected to maximize the return/risk. This increases to 90% on an unhedged global bond portfolio. This suggests that investors could start with an allocation of 10% to hard currency EMD in both USD hedged and USD unhedged global bond portfolios to enhance portfolio returns without significantly increasing volatility. Investors with a higher return target and higher level of risk tolerance could consider allocating more to hard currency EMD, which is expected to have a more attractive return/risk profile than global bonds in the next ten years.

Portfolio Impact of Local Currency EMD Allocating to local currency sovereign EMD in a USD hedged global bond portfolio did not improve the return/risk ratio historically, given the higher volatility and drag from negative currency returns. However, it did marginally improve the return/risk ratio for a USD unhedged global portfolio for up to a 30% inclusion. On a forward-looking basis, adding 10% local currency EMD to a hedged global bond portfolio is expected to maximize the return/risk, but this increases to 70–80% for an unhedged global bond portfolio given the expectations of higher returns. This shows that taking a view on currency is an important consideration when investing in local currency EMD. EM currencies are currently attractively valued relative to the US dollar from a long-term perspective, thus providing a good entry point. After a long USD bull cycle, we believe that the USD is likely to enter a new bear market cycle over the medium term as the Fed normalizes interest rates and US growth settles back down to longer term trend levels or below. A weakening USD would provide a tailwind to local currency EMD. Investors who seek local currency sovereign EMD exposure may also consider investing in a combination of local currency and hard currency EMD to help blunt the volatility in local currency EMD returns.

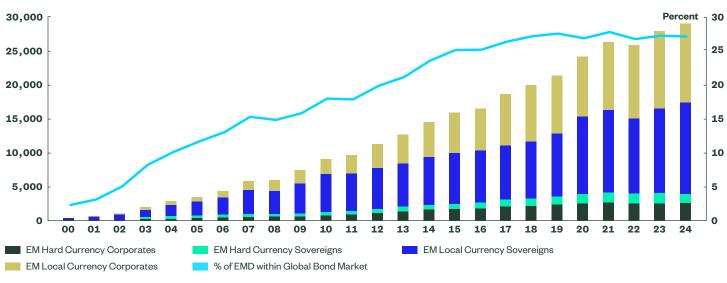
Overview of EMD Market

- Emerging market debt surpassed \$28 trillion in 2024 to account for over a quarter of the global bond market.
- Hard Currency and Local Currency EMD assets each have their own distinct characteristics.

Within the EMD universe, the three broad investible assets for global investors are hard currency (HC) sovereign, HC corporate, and local currency (LC) sovereign. Hard currency EMD indexes are comprised of US dollar-denominated bonds issued by emerging market sovereigns and corporates, while LC sovereign EMD includes local currency denominated debts issued by emerging market governments.

Over the past two decades, the total EMD market has grown significantly, surpassing US\$28 trillion in 2024 (based on JP Morgan estimates). Its proportion of the global bond market has also increased rapidly, rising from 2% in 2000 to over 28% in 2024. We think this makes it too big for global investors to ignore.

Figure 1 EMD Market Expansion Since 2000 (in USD)



Source: State Street Global Advisors, JP Morgan, Bloomberg Finance L.P., Bank of International Settlements, as of December 31, 2024.

In line with the market's rapid growth, there has been an improvement in trading liquidity that has helped to bring trading costs down. Between 2015 and 2019, the cost of trading in hard currency EMD, as represented by bid-ask spreads, decreased significantly. The outbreak of COVID-19 in early 2020 saw a sharp spike in bid-ask spreads of hard currency EMD, along with other fixed income credit assets. However, the spike was broad-based with no region-specific distress or contagion. Trading liquidity improved as fiscal and monetary stimulus measures were introduced in April 2020.

In February 2022, we saw a spike in bid-ask spreads in EM hard currency sovereign and corporate markets when Russia was sanctioned and lost access to Euroclear, and its bonds were removed from indexes due to the invasion of Ukraine. Trading costs have come down for these two segments, but they have not returned to the tight levels seen pre-COVID, although they are lower than for US high yield bonds. Bid-ask spreads of local currency sovereign EMD has remained stable and generally lower than US investment grade bonds (see Figure 2).

Figure 2

Evolution of Asset

Bid-ask Spread (in bp)

EM Hard Currency Sovereign

300

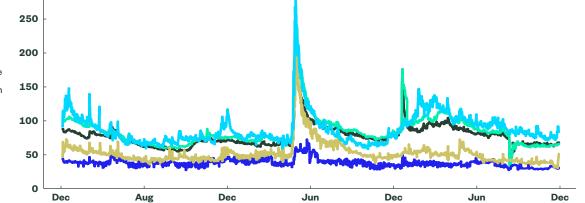
2015

2017

2018



US High Yield



Source: State Street Global Advisors, JP Morgan, Bank of America Merrill Lynch, Bloomberg as of December 31, 2024. Bid-ask spreads in price terms are used in the chart. For US Investment Grade bond and US High Yield, we used the Barclays Liquidity Cost Scores to represent bid-ask spread in price terms.

2020

2021

2023

2024

EMD Assets and Their Characteristics

While each type of EMD plays a distinct role in portfolio construction, EMD hard currency and local currency sovereign are two important building blocks for global investors to access sovereign exposures in in emerging markets. In Figure 3, we illustrate the key characteristics of the EMD assets, as well as those of Global Aggregate bonds and Global High Yield (HY) bonds for comparison purposes. Some of the main differences across EMD assets include:

Mix of IG/HY with Different Levels of Quality The EMD assets are a combination of investment grade (IG) bonds and high yield bonds. This differs from Global Aggregate bonds, which incorporate 100% investment grade bonds, and Global High Yield (HY) bonds which consist of 100% sub-investment grade bonds. Local currency sovereign EMD has a higher proportion of bonds with an investment grade rating (83%), while hard currency sovereign EMD has a lower proportion (48%).

- 2 LC EMD Less Diversified Within the investment universe, hard currency sovereign is quite diversified by country and region. By way of contrast, local currency sovereign EMD is more concentrated the representative index contains only around 20 countries with the largest 10 accounting for over 80%.
- 3 Currency and Rates Risk The hard currency sovereign assets are USD based, with risks driven mainly by movements in US interest rates and credit risk in EM sovereign. The local currency sovereign EMD asset is sensitive to movements in local rates and currencies relative to the USD, along with sovereign risk.

Figure 3 **Key Characteristics of EMD Assets, Global Aggregate Bonds and Global High Yield Bonds**

	Hard Currency Sovereign EMD	Local Currency Sovereign EMD	Global Aggregate Bond	Global High Yield Bond
Index	JP Morgan EMBI Global Diversified	JP Morgan GBI-EM Global Diversified	Bloomberg Global Aggregate	Bloomberg Global High Yield
Investment Universe	72 countries	19 countries	69 countries	105 countries
Currency	USD	19 EM currencies	27 currencies	5 currencies
Regional Split (%)				
North America	_	_	45	51
Asia	16	47	25	4
Europe	17	21	26	18
Latin America	34	24	<1	13
Middle East & Africa	33	8	<1	14
Others	_	_	2	_
Top 10 Countries (%)	39	84	86	73
Index Rating*	HY Credit Rating	IG Credit Rating	IG Credit Rating	Sub-IG Credit Rating
	Ba1/BBB-	Baa1/BBB+	Aa3/A1	Ba3/B1
IG/Sub-IG Split (%)	48/52	83/17	100/0	0/100
Key Risk Drivers	US Treasuries & EM Sovereign Spreads	The US Dollar, Local Rates & Sovereign Risk	The US Dollar & Local Rates and Corporate Spreads	The US Dollar & Local Rates and Corporate Spreads

State Street Global Advisors, JP Morgan, Point, as of December 31, 2024. Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Local Currency Sovereign EMD = JP Morgan GBI-EM Global Diversified USD unhedged total return index; Global Aggregate Bond = Bloomberg Barolays Global Aggregate USD unhedged total return index; Global High Yield Bond = Bloomberg Barolays Global High Yield USD unhedged total return index.

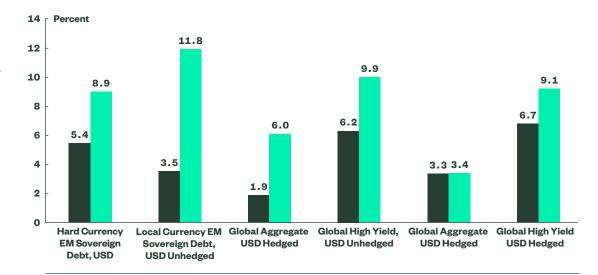
Return/Risk Profile of HC and LC Sovereign EMD

The long-term returns and risks of hard currency sovereign has historically been somewhere between those of Global Aggregate bonds and Global High Yield bonds (see Figure 4). This is not particularly surprising given that EMD assets are comprised of both investment grade and high yield bonds. However, while the long-term historical return for local currency sovereign EMD has been lower than those of hard currency EMD assets, risk has been higher than that of global high yield bonds due to the volatility in emerging market currencies relative to the US dollar.

 $^{^*} For the EMBI index families, we use the middle rating of Moody's, S\&P and Fitch. For the GBI-EM index family, we use the lowest rating of Moody's, S\&P, and Fitch. \\$

Figure 4
Key Historical Returns
and Risks of Fixed
Income Assets (USD) —
12/31/2002–12/31/2024





Source: State Street Global Advisors, JP Morgan, Point, as of December 31, 2024. Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Local Currency Sovereign EMD = JP Morgan GBI-EM Global Diversified USD unhedged total return index; Global Aggregate Bond = Blomberg Barclays Global Aggregate USD unhedged total return index; Global High Yield Bond = Bloomberg Barclays Global High Yield USD unhedged total return index.

Income and FX Drive EMD Returns

In Figure 5, we decompose EMD asset total returns and assess contributions from the various return components on a rolling five-year basis. Not surprisingly, income (returns from coupon income) tends to be the main driver of returns with some contribution from principal (returns from changes of the bond's face value or principal) as the rates move up and down.

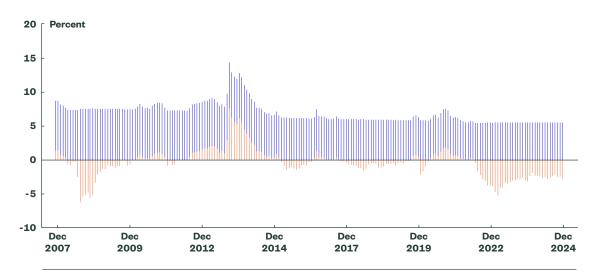
However, returns for local currency sovereign EMD can be significantly impacted by the FX component (returns from the EM currency movements relative to the US dollar). Between 2003 and 2008, EM currencies generally appreciated against the dollar, and the FX component contributed positively to the local currency sovereign EMD return. After 2008, the return contributions from the FX component have been mostly negative — except for the period between 2009 and 2010. Since 2013, a strong US dollar cycle has weighed on EM currencies, which has broadly offset income returns. This suggests that taking a view on emerging market currencies, or a view on the US dollar, is an important consideration for USD-based investors when investing in local currency sovereign bonds. We believe that the USD is likely to enter a bear market cycle over the medium to long term which would be supportive for EMD local currency. Please refer to the section "LC EMD: Waiting for USD Weakness" for more discussion around our currency views (page 23).

Figure 5a

Annualized Rolling 5-year Return Components of EMD Assets (USD) — 12/31/2002–12/31/2024

Principal Component

Income Component



Source: State Street Global Advisors, JP Morgan, as of December 31, 2024. Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Local Currency Sovereign EMD = JP Morgan GBI-EM Global Diversified USD unhedged total return index. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Past performance is not a reliable indicator of future performance.

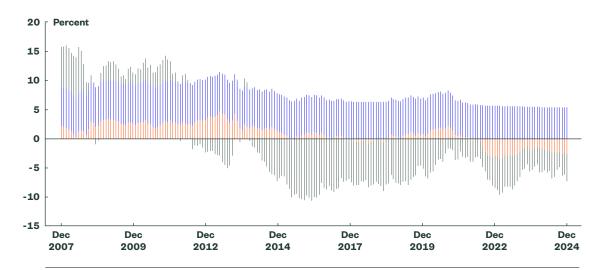
Figure 5b

Annualized Rolling 5-year Return Components of EMD Assets (USD) — 12/31/2002-12/31/2024

Principal Component

Income Component

FX Component



Source: State Street Global Advisors, JP Morgan, as of December 31, 2024. Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Local Currency Sovereign EMD = JP Morgan GBI-EM Global Diversified USD unhedged total return index. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Past performance is not a reliable indicator of future performance.

Benefits and Risks of Investing in EMD

- EMD offers yield enhancement, and diversification benefits against the backdrop of ever-lower global bond yields, underpinned by higher growth and lower debt burdens.
- Higher volatility and greater drawdowns in challenging market environments have been features of EM debt, with local currency assets historically most volatile.

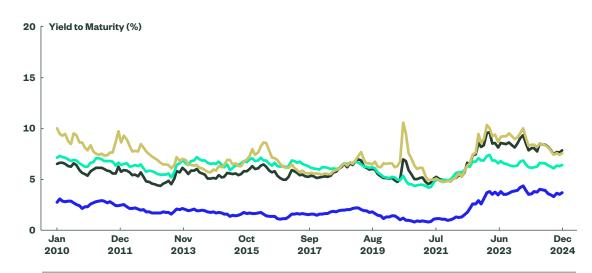
Emerging market debt provides an attractive yield enhancement option relative to investment grade bonds. While yields are slightly lower than those of high yield bonds, the average credit ratings are higher. As shown in Figure 6, the yield of the global Aggregate Bond index has risen by 250+ bp since mid-2020 to 3.7% as of December 29, 2024, following two years of rate hikes by global central banks in 2022–2023. While most major global central banks are in easing cycle, the current level remains elevated compared to 4–5 years ago. In line with developed markets, yields have risen across the emerging markets. As of December 2024, Emerging Market Hard Currency Sovereign Bonds and Local Currency Sovereign Bonds yields were yielding 7.9% and 6.4%, respectively, offering an attractive yield pick-up of 2.7% and 4.2% relative to the Global Aggregate Bond index. Relative to Global High Yield bonds, the Emerging Market Hard Currency Sovereign Bonds were trading about 20–30 bp higher, despite higher average ratings. Meanwhile, the Emerging Market local Currency Sovereign Bonds were trading around 70–80 bp lower than Global High Yield given their average IG rating.

Figure 6

Yields of EMD Assets, Global Aggregate Bonds and Global High Yield Bonds (January 2010– December 2024)



- Local Currency Sovereign EMD
- Global Aggregate Bond
- Global High Yield



Source: State Street Global Advisors, JP Morgan, Point, as of December 31, 2024. Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Local Currency Sovereign EMD = JP Morgan GBI-EM Global Diversified USD unhedged total return index; Global Aggregate Bond = Barclays Bloomberg Global Aggregate USD unhedged total return index; Global High Yield Bond = Barclays Bloomberg Global High Yield USD unhedged total return index. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Past performance is not a reliable indicator of future performance.

The local currency sovereign EMD assets have average investment grade (IG) ratings about 3 notches below global aggregate bonds, while the average duration of the indexes are shorter. By comparison, hard currency sovereign EMD has an average crossover rating (average rating of IG and high yield by different rating agencies as of the end of December 2024) with a modified duration slightly higher than that of global aggregate bonds (see Figure 7). We believe that higher yields with similar duration level of aggregate bonds, and better ratings than high yield bonds, offers an attractive combination to global aggregate bond investors.

Figure 7 **Bond Index Characteristics**

	Yield to Maturity (%)	Index Rating*	Modified Duration
Hard Currency Sovereign EMD	7.86	Ba1/BBB-	6.53
Local Currency Sovereign EMD	6.39	Baa1/BBB+	5.28
Global Aggregate Bond	3.68	Aa3/A1	6.42
Global High Yield Bond	7.58	Ba3/B1	3.84

Source: State Street Global Advisors, JP Morgan, Point, as of December 31, 2024. Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Local Currency Sovereign EMD = JP Morgan GBI-EM Global Diversified USD unhedged total return index; Global Aggregate Bond = Bloomberg Barclays Global Aggregate USD unhedged total return index; Global High Yield Bond = Bloomberg Barclays Global High Yield USD unhedged total return index.

Diversification Benefits: Low Correlation to Global Bonds The long-term correlations between EMD assets and Global Aggregate bonds have been modest, signifying potential diversification benefits when adding EMD to a global bond portfolio (see Figure 8). For USD unhedged Global Aggregate bonds, hard currency and local currency EMD sovereign have similar historical correlation (0.69). In contrast, local currency sovereign EMD demonstrated stronger diversification benefits with USD hedged Global Aggregate bonds (correlation: 0.40). It does not have an explicit link to US bonds (which is a big proportion of the Global Aggregate bond universe) and its EM currency exposure acts as a diversifier.

^{*} Bloomberg Barolays uses the middle rating of Moody's, S&P, and Fitch. JP Morgan uses the middle rating of Moody's, S&P, and Fitch for hard currency EM sovereign debt, and the lowest rating of Moody's, S&P, and Fitch for local currency EM sovereign debt.

Figure 8

Asset Correlations

Based on USD Returns
(Jan 2003-Dec 2024)

	Hard Currency Sovereign EMD	Local Currency Sovereign EMD	Global Aggregate Bond (USD Unhedged)	Global Aggregate Bond (USD Hedged)	Global High Yield Bond
Hard Currency Sovereign EMD	1.00	0.80	0.69	0.61	0.86
Local Currency Sovereign EMD	0.80	1.00	0.69	0.40	0.76
Global Aggregate Bond (USD Unhedged)	0.69	0.69	1.00	0.77	0.56
Global Aggregate Bond (USD Hedged)	0.61	0.40	0.77	1.00	0.21
Global High Yield Bond	0.86	0.76	0.56	0.34	1.00

Source: State Street Global Advisors, JP Morgan, Point, as of December 31, 2024. Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Local Currency Sovereign EMD = JP Morgan GBI-EM Global Diversified USD unhedged total return index; Global Aggregate Bond = Barclays Bloomberg Global Aggregate USD unhedged total return index; Global Aggregate Bond (USD hedged) = Barclays Bloomberg Global Aggregate USD hedged total return index; Global High Yield Bond = Barclays Bloomberg Global High Yield USD unhedged total return index.

The diversification benefits of incorporating EMD into a global bond portfolio are also reflected in their distinct factor exposures compared to those of Global Aggregate bonds. Based on a risk analysis using Barra, USD hedged Global Aggregate bonds exhibit a factor exposure of close to 95% to the Term Structure factor (interest rate risk exposure), as shown in Figure 9. In comparison, EMD assets show more sensitivity to growth factors (equity-like risk exposures) like spreads. Local currency sovereign EMD also has a lower exposure to term structure with a high currency factor component. Therefore, the addition of EMD to a Global Aggregate bond portfolio could help to create a more balanced factor exposure.

Figure 9 **Barra Factors % of Total Risk of Bond Indexes**

	Total Risk	Term Structure (%)	Spread (%)	Currency (%)	Others (%)
Global Aggregate Bond (USD Hedged)	4.44	95	4	0	1
Hard Currency Sovereign EMD	8.36	45	55	0	0
Local Currency Sovereign EMD	8.24	28	0	72	0

Source: State Street Global Advisors, holdings analysis as of December 31, 2024. Global Aggregate Bond (USD hedged) = Barclays Bloomberg Global Aggregate USD hedged total return index; Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Local Currency Sovereign EMD = JP Morgan GBI-EM Global Diversified USD unhedged total return index.

Higher Growth
Underpins
Fundamentals,
but Debt Pressure
is Building

Emerging market economies have been driving global growth over the last two decades, having consistently grown faster than the more developed economies. According to the International Monetary Fund's (IMF) April 2025 World Economic Outlook Update, the swift escalation of trade tensions and extremely high levels of policy uncertainty are expected to have a significant impact on global economic activity. Based on IMF forecast, advanced economy GDP is expected to be 1.8% in 2025, while emerging markets growth is expected to be 3.7% in 2025.

Much of the emerging market growth is currently being driven by Emerging and Developing Asia (mainly China and India). According to the IMF, India's growth is expected to remain a robust 6.2% in 2025 while China's growth is expected to slow to 4% with economic growth weighed down by recent trade measures.

While higher growth still underpins fundamentals in emerging market investment, we also see potential risks stemmed from global uncertainty. Trade conflict escalation, coupled with increased unpredictability in trade policies, may lead to a decline in both short and long-term economic growth. Chinese policymakers have been implementing measures to stabilize growth, but it has been measured and targeted which is just starting to stem the weakness in property markets and has yet to boost consumer confidence. A further slowdown in China's economic growth would pose headwinds to EM economic expansion. Geopolitical risks with ongoing wars between Russia and Ukraine, and Israel and Hamas have also the potential to create spillovers to the global economy.

Looking beyond 2024, the IMF expects the EM growth premium to narrow from a long-term historical premium of 3.7% (2000–2020) to an average of 2.4% from 2025 to 2030. While lower, the gap remains favorable. However, emerging economies' growth prospects remain susceptible to trade and geopolitical uncertainties.

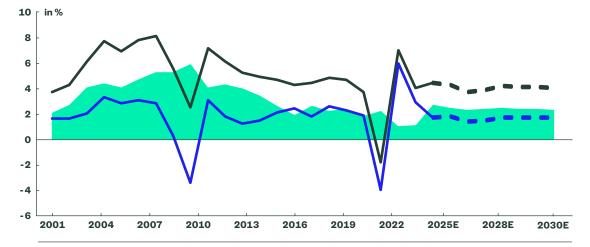
Figure 10

Real GDP Growth
(Annual % Change)

Emerging Market and
Developing Economies

Growth Differential

Advanced Economies



Source: State Street Global Advisors, International Monetary Fund as of April 2025.

External vulnerabilities across emerging markets have generally increased as deficits have risen since the pandemic (albeit below 2020 levels). The general government gross debt as a percentage of GDP has increased meaningfully for emerging economies, reaching 70% on average in 2024 and is expected to rise further to 82% by 2030 according to the IMF. However, the level for emerging markets is expected to remain below that of advanced economies (see Figure 11). While the average EM current account deficits as a percentage of GDP are forecast to deteriorate in the coming years, they are still expected to be within 1% of GDP (see Figure 12).

The pandemic inflicted great pain economically on the poorer countries, and higher US interest rates have worsened the debt pressure for the more vulnerable emerging market economies. This has exposed some lower- and middle-income emerging economies to debt distress. In addition, based on IMF forecasts, conflicting or rapidly changing policy directions and deteriorating market sentiment could trigger volatility in exchange rates and capital movements, which could add additional downside risks to economies already in facing debt distress. Investors will also need to monitor the global trend with caution giving the complexity and uncertainty of current moment.

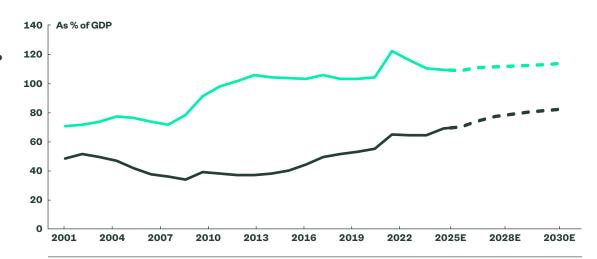
Overall, comparatively favorable growth trends in emerging market economies should help support EMD fundamentals over the medium term, but near-term growth headwinds due to trade and policy uncertainties remain.

Figure 11

General Government Gross Debt as % of GDP

Emerging Market and Developing Economies

Advanced Economies



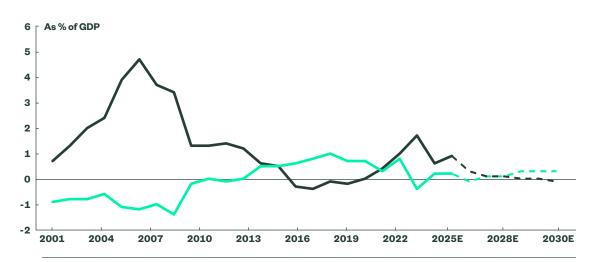
Source: State Street Global Advisors, International Monetary Fund as of April 2025.

Figure 12

Current Account Balance as % of GDP

Emerging Market and Developing Economies

Advanced Economies



Source: State Street Global Advisors, International Monetary Fund as of April 2025.

EMD Volatility and Drawdowns

As already noted, emerging market debt markets are generally more volatile than Global Aggregate investment grade bonds. With this higher volatility comes a tendency to incur higher drawdowns in challenging market environments.

In Figure 13, we present the historical maximum drawdowns (i.e. maximum peak-to-trough losses) of the EMD assets and Global Aggregate bonds. The historical maximum drawdown for Global Aggregate bonds was lowest at -14% on a USD hedged basis. Prior to 2022, the Unhedged Global Aggregate bonds' maximum drawdown was very low but reached 24.2% in recent years, given the rapid rate hike cycle and increased currency volatility. The drawdown for hard currency EMD Sovereign was similar, falling by 25.9%. The local currency sovereign EMD has been the most volatile EMD asset, falling over 20% during the Global Financial Crisis with a maximum -29% drawdown in 2015 when EM currencies depreciated significantly against the dollar after the taper tantrum, a drawdown of -19% during the COVID-19 crisis, and a drawdown of -28% in 2022 as overall global rates volatility increased.

Given the higher volatility and potential for higher and more frequent drawdowns, investors sensitive to such declines may want to consider focusing on hard currency rather than local currency EMD. Investors in LC sovereign EMD would need to understand (and be able to tolerate) the volatility and drawdowns from movements in local interest rates and EM currencies. We recommend investors take a strategic medium- to long-term investment horizon in EMD to ride out the cyclical downside of the asset class.

Figure 13

Maximum Drawdown of

Bond Indexes (USD) —

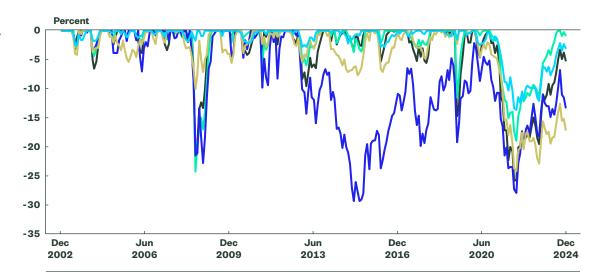
12/31/2002-12/31/2024



Local Currency EM Sovereign Debt, USD Unhedged

Global Aggregate, USD Unhedged

Global High, USD Hedged



Source: State Street Global Advisors, JP Morgan, Bloomberg, as of December 31, 2024. Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Local Currency Sovereign EMD = JP Morgan GBI-EM Global Diversified USD unhedged total return index; Global Aggregate Bond = Barclays Bloomberg Global Aggregate USD unhedged total return index; Global Aggregate Bond (USD Hedged) = Barclays Bloomberg Global Aggregate USD hedged total return index. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Past performance is not a reliable indicator of future performance.

Idiosyncratic Risks Remain But Contagion Risk Is Generally Lower

Idiosyncratic (or country-specific) risk is often cited as something to watch for when investing in emerging markets. This is when a country does something that goes against convention, which could include, for example, a government taking the decision to nationalize assets or implement redistributive policies that would push up debt and negative current account balances, or central banks cutting rates to support growth despite high inflation. All of these scenarios tend to lead to increased market volatility and weakening in asset valuations. An extreme example is Russia's invasion of Ukraine and its subsequent loss of access to Euroclear, resulting in Russian assets being removed from indexes.



Contagion risk comes when one country runs into difficulties, and there is the expectation that others are likely to follow. Let's look at a simplified example of what drives the contagion effect. Many emerging markets are export oriented, with trade accounting for a meaningful proportion of economic growth. Global trade is largely funded in US dollars, leaving emerging market economies sensitive to movements in the dollar relative to their local currencies. When the dollar is weaker and global trade/growth is strong, countries and companies may seek cheaper funding (as local currency rates are generally higher than dollar rates). At the same time, foreign investors looking for higher growth and yield opportunities drive inflows into local markets. That's great when global growth is strong, the dollar is stable and market liquidity remains plentiful.

However, when the US Federal Reserve starts to tighten (as we've seen in 2022–2023) and growth begins to slow, the more vulnerable emerging market countries (usually those with a combination of higher levels of foreign currency borrowings, lower foreign currency reserves, and current account deficits) tend to come under pressure as foreign investors shift their money back into US dollars for more attractive yields. This usually leads to currency depreciation, forcing the local central bank to raise rates, which in turn ultimately impacts growth. And quite often, when one EM economy is revealed to be struggling, there are usually others. As the saying goes (made famous by Warren Buffett), "You only find out who is swimming naked when the tide goes out."

While we do expect emerging markets to be more sensitive to swings in risk sentiment and global macro external shocks, the risk for contagion across emerging markets is lower than in the past, even as a few of the more vulnerable countries come under pressure. There have been significant changes in emerging markets over the last 20 years, with many countries liberalizing their capital markets (allowing for more market-oriented currency regimes), establishing independent central banks, and building up foreign currency reserves. Overall, countries have generally been improving their balance sheets.

There has been an increase in the pressures on the more vulnerable countries whose economies were more negatively impacted by the double whammy of Covid-19 followed by an aggressive Fed hiking cycle. This has led to a number of defaults and restructurings. However, compared to the 1980s and early 1990s when emerging market currencies depreciated significantly after Fed tightening, we've seen a more modest depreciation during the most recent tightening cycle. Interestingly, compared to advanced foreign economies, emerging market currencies saw less depreciation from early 2022 to end 2024 (see Figure 14 below).

Support has come from the fact that a number of emerging market central banks started tightening earlier than the Fed. In some cases they raised rates quite aggressively, leading to a widening in interest rate differentials supporting their currencies. We've also seen a shift towards domestic currency debt away from foreign currency debt. And, as discussed earlier, we've seen improved monetary policy credibility with more policy transparency and higher levels of reserves to cover short-term foreign currency debt, both public and private. These broad improvements in macroeconomic policies and fundamentals should help to limit the contagion effect.

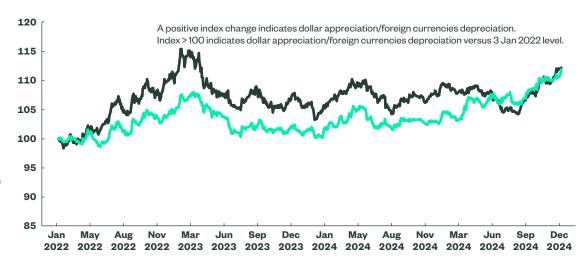
A global growth slowdown and inflation risks remain clear risks for emerging markets, but these are global macro risks not specific to emerging markets.



Figure 14
Indexed Nominal
Emerging Market
Economies and
Advanced Foreign
Economies Performance
in Recent Fed Rate Hike
(Jan 2022-Dec 2024)

Advanced Foreign Economies

Emerging Market Economies



Source: Based on Nominal Emerging Market Economies Dollar Index and Advanced Foreign Economies Dollar Index rebased to 100 on January 3, 2022, which are weighted averages of the foreign exchange value of the U.S. dollar against a subset of the broad index currencies that are emerging market/advanced foreign economies. Weights for the Advanced Foreign Economies and the Emerging Market Economies indexes can be found on https://federalreserve.gov/releases/H10/Weights/. Source: Federal Reserve Board, State Street Global Advisors, as of December 31, 2024. Past performance is not a reliable indicator of future performance.

Incorporating EMD into a Global Fixed Income Portfolio

- Our analysis shows that incorporating 10% hard currency EMD into a global hedged or unhedged bond portfolio could increase the portfolio return with a similar return/risk ratio for a USD investor base.
- The case for including local currency EMD into global portfolios is comparatively less compelling given currency volatility. Therefore, taking a view on currency is an important consideration when investing in local currency debt.
- On a forward-looking basis, we see value in adding a 10% exposure of emerging market hard currency, local currency or a blend, into a global hedged or unhedged bond portfolio for return/risk enhancement. For investors who have a higher return target and level of risk tolerance, they could consider allocating more EMD exposure, particularly in an unhedged portfolio.

Benefits of EMD in a USD Hedged Portfolio

Impact of a single EMD asset on bond portfolios

Using long-term historical return and risk metrics, we first assess the impact on the return and risk of a global bond portfolio by replacing part of the Global Aggregate (USD hedged) bond exposures with a single EMD asset.

As illustrated in Figures 15 and 16, adding an EMD asset to a USD hedged Global Aggregate bond portfolio led to an increase in both portfolio returns and risk given its lower credit rating and higher historical return. A 10% allocation to hard currency sovereign EMD generated a return/risk ratio similar to that of a 100% Global Aggregate (USD hedged) bond portfolio. Meanwhile, allocating to local currency sovereign EMD did not improve the return/risk ratio. This was due to its FX component, which contributed negatively to historical returns and resulted in higher portfolio volatility.

Figure 15

Return and Risk for

Portfolios of Hard

Currency Sovereign EMD

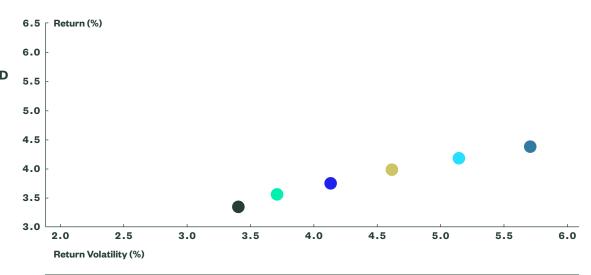
and Global Aggregate

Bonds (USD Hedged)

(Jan 2005-Dec 2024)



- 10% EM HC Sov + 90% Glb Agg
- 20% EM HC Sov + 80% Glb Agg
- 30% EM HC Sov + 70% Glb Agg
- 40% EM HC Sov + 60% Glb Agg
- 50% EM HC Sov + 50% Glb Agg

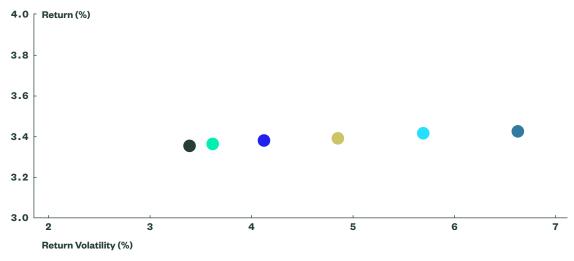


Source: State Street Global Advisors, JP Morgan, Bloomberg, as of December 31, 2024. Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Global Aggregate Bond (USD Hedged) = Barclays Bloomberg Global Aggregate USD hedged total return index. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Past performance is not a reliable indicator of future performance.

Figure 16

Return and Risk for Portfolios of Local Currency Sovereign EMD and Global Aggregate Bonds (USD Hedged) (Jan 2005-Dec 2024)

- 0% Local Currency Sovereign EMD/100% Global Agg (USD Hedged)
- 10%/90%
- 20%/80%
- 30%/70%
- 40%/60%
- 50% Local Currency Sovereign EMD/50% Global Agg (USD Hedged)



Source: State Street Global Advisors, JP Morgan, Bloomberg, as of December 31, 2024. Local Currency Sovereign EMD = JP Morgan GBI-EM Global Diversified USD unhedged total return index; Global Aggregate Bond (USD Hedged) = Barclays Bloomberg Global Aggregate USD hedged total return index. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Past performance is not a reliable indicator of future performance.

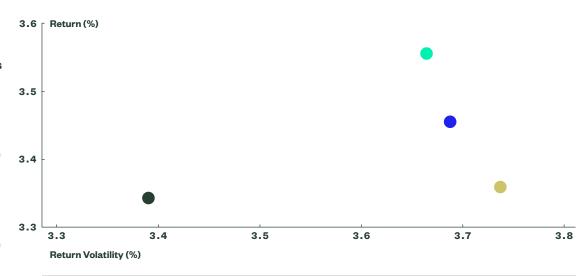
Impact from a blend of EMD assets

In addition to a single EMD asset, we also look at how a blend of EMD assets could impact a USD hedged global bond portfolio. As a 10% allocation in EMD was identified as the 'sweet spot' in our earlier analysis (mainly for hard currency), we use this as a starting point for our EMD blends. In Figure 17 below, we calculate the long-term historical return and risk of a global bond portfolio when we replace 10% of Global Aggregate (USD hedged) bond exposures with different combinations of EMD assets.

Figure 17

Return and Risk for Portfolios of EMD Assets and Global Aggregate Bonds (USD Hedged) (Jan 2005-Dec 2024)

- 0% Hard Currency Sovereign EMD/0% Local Currency Sovereign EMD/100% Global Agg (USD Unhedged)
- 10%/0%/90%
- 5%/5%/90%
- 0% Hard Currency Sovereign EMD/10% Local Currency Sovereign EMD/90% Global Agg (USD Unhedged)



Source: State Street Global Advisors, JP Morgan, Bloomberg, as of December 31, 2024. Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Local Currency Sovereign EMD = JP Morgan GBI-EM Global Diversified USD unhedged total return index; Global Aggregate Bond (USD Hedged) = Barclays Bloomberg Global Aggregate USD hedged total return index. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Past performance is not a reliable indicator of future performance.

Historically, as reflected in Figure 17, including local currency sovereign EMD into the EMD asset mix has led to a lower portfolio return and higher portfolio risk. Investors who seek local currency sovereign EMD exposures may want to consider investing in a blend of local currency and hard currency EMD to help blunt the volatility in local currency EMD returns. Compared to the portfolio with a 10% weight in local currency sovereign EMD, the portfolio which invests 5% each in local currency sovereign and hard currency sovereign generated a higher return with lower risk, which improves the return/risk ratio compared to a 100% Global Aggregate bond (hedged) portfolio. This may offer a way for investors to take a positive view on local currency EMD debt while hedging some of the downside should the USD maintain its strength.

Benefits of EMD in a USD Unhedged Portfolio

Unhedged global aggregate bond returns are relatively lower and risk is relatively higher than hedged bond returns, driven by currency movements. On this basis, despite higher correlations than for hedged global bond portfolios, the impact of incorporating emerging market debt in unhedged portfolios can be greater.

For hard currency EMD, return/risk improves when adding more hard currency sovereign into an unhedged Global Aggregate Bond portfolio regardless of the level. The impact is less pronounced for local currency sovereign debt, where the return/risk improves marginally until the LO EMD reaches 30% of the portfolio.

While historical results show that investors can benefit from a higher allocation to hard currency EMD, a conservative starting point would be 10% (see Figure 18).

Figure 18

Return and Risk for Portfolios of Hard Currency EMDs and Global Aggregate Bonds (USD Unhedged) (Jan 2005–Dec 2024)

	100% Glb Agg	10% EM HC Sov + 90% Glb Agg	20% EM HC Sov + 80% Glb Agg	30% EM HC Sov + 70% Glb Agg	40% EM HC Sov + 60% Glb Agg	50% EM HC Sov + 50% Glb Agg
Returns (%)	1.86	2.22	2.57	2.93	3.29	3.64
Risk (%)	6.05	6.16	6.32	6.53	6.78	7.07
Return/Risk	0.31	0.36	0.41	0.45	0.48	0.52

Source: State Street Global Advisors, JP Morgan, Bloomberg, as of December 31, 2024. Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Local Currency Sovereign EMD = JP Morgan GBI-EM Global Diversified USD unhedged total return index; Global Aggregate Bond (USD Unhedged) = Barclays Bloomberg Global Aggregate USD unhedged total return index. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Past performance is not a reliable indicator of future performance.

Similar to the analysis we conducted for Global Bond Hedged, we also calculate the long-term historical return and risk of a global bond portfolio when we replace 10% of Global Aggregate (USD unhedged) bond exposures with different combinations of EMD assets. As shown below (Figure 19), while a 10% allocation to local currency sovereign EMD marginally improved the portfolio return/risk ratio, a more diversified exposure (5% local currency 5% hard currency sovereign EMD) helped to enhance the stability of the portfolio performance with higher historical return and lower historical risks. The highest return/risk metric is achieved with 10% EMD hard currency debt into the portfolio. Based on historical data, investors could consider hard currency EMD into their portfolio for return/risk optimization while investors who want to take a view on local currency EMD debt could consider a blended approach to enhance the return/risk profile of the portfolio.

Figure 19

Return and Risk for Portfolios of Local Currency EMD, Hard Currency, Blend of EMDs, and Global Aggregate Bonds (USD Unhedged) (Jan 2005–Dec 2024)

	0% Hard Currency Sovereign EMD/ 0% Local Currency Sovereign EMD/ 100% Global Agg (USD Unhedged)	10%/0%/90%	5%/5%/90%	0% Hard Currency Sovereign EMD/ 10% Local Currency Sovereign EMD/ 90% Global Agg (USD Unhedged)
Returns (%)	1.86	2.22	2.12	2.02
Risk (%)	6.05	6.16	6.27	6.39
Return/risk	0.31	0.36	0.34	0.32

Source: State Street Global Advisors, JP Morgan, Bloomberg, as of December 31, 2024. Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Local Currency Sovereign EMD = JP Morgan GBI-EM Global Diversified USD unhedged total return index; Global Aggregate Bond (USD Unhedged) = Barclays Bloomberg Global Aggregate USD unhedged total return index. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Past performance is not a reliable indicator of future performance.

Looking Forward: Impact of EMD on Fixed Income Portfolios

In Figure 20, we calculate the long-term expected returns and risks of emerging market sovereign and Global Aggregate bonds. Our long-term fixed income return forecasts are based on an analysis of current yield curves and their expected evolution over time. Return expectations incorporate expected income return and price return. Our long-term fixed income risk forecasts are based on historical bond risks.

Based on our forward return estimates, both Sovereign EMD and Global Aggregate bonds are expected to generate higher returns than in the past given higher yield levels. We forecast higher returns for hard currency EMD relative to Global Aggregate bonds — the expected return pickup is around 3–4% versus Global Aggregate bonds (USD hedged and unhedged), respectively. For local currency bonds, we expect a higher forward-looking long-term return versus historical data. We also expect a return pick-up versus Global Aggregate bonds but the forward looking return is expected to be lower than that of hard currency EMD bonds. Looking at risk-adjusted returns, Global Aggregate bonds in USD hedged terms is expected to generate the highest return/risk ratio, while Global Aggregate Bonds in unhedged terms has the lowest forecast return/risk ratio.

Figure 20
Long-term Expected
Returns and Risks (in USD, as of March 2025)

	Long-Term Expected Return	Long-Term Expected Risk	Return/Risk Ratio
Hard Currency Sovereign EMD	7.65	9.94	0.77
Local Currency Sovereign EMD	6.08	8.73	0.70
Global Aggregate Bond (USD Hedged)	4.44	4.02	1.11
Global Aggregate Bond (USD Unhedged)	4.17	7.32	0.57

Source: State Street Global Advisors as of March 31, 2025. Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Global Aggregate Bond (USD Hedged) = Barclays Bloomberg Global Aggregate USD hedged total return index; Global Aggregate Bond (USD Unhedged) = Barclays Bloomberg Global Aggregate USD unhedged total return index. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Past performance is not a reliable indicator of future performance.

Based on forward-looking return/risk estimates, similar to historical data, for a hedged global bond portfolio, return/risk is forecast to decline when adding more than 10% of hard currency EMD to the portfolio given higher risks coming from EMD. As forecast unhedged global aggregate bond return expectations are lower and risk higher than for a hedged global bond portfolio, the return/risk improves when adding hard currency sovereign into an unhedged portfolio up to 90% (although risk increases).

Turning to local currency sovereign EMD, using forward-looking return/risk estimates, adding a 70–80% allocation to a USD unhedged Global Aggregate bond portfolio is expected to maximize the portfolio return/risk ratio (although similar to Hard Currency EMD, risk increases as you add more EMD). This is different from the result based on the historical analysis given our forecast of a higher forward-looking long-term return versus historical data with performance dragged by FX impact. For a hedged global bond portfolio, similar to Hard Currency EMD, portfolio return/risk is forecast to decline when adding more than 10% of local currency EMD into the portfolio, given higher risks coming from EMD.

We think that investors could start with an allocation of 10% to emerging market debt — hard currency, local currency or a blend — to enhance portfolio returns without significantly increasing volatility, even for a hedged global bond portfolio where return/risk is quite strong. For investors who have a higher return target and level of risk tolerance, they could consider allocating more EMD, particularly for global unhedged portfolios. EMD is expected to have a more attractive return profile than global bonds in the next ten years and local currency bonds could benefit from USD weakening.

LC EMD: Waiting on USD Weakness

Unlike hard currency EMD (which is USD-denominated), FX movements of EM local currencies have a profound impact on EM local debt returns. Unfortunately that impact has been negative for US, EU, and UK based investors over the past 5, 10, and 15 year periods. At the same time the high volatility of EM currency returns has increased the risk of portfolios. Currency hedging is an option to reduce the volatility impact but the high cost of carry as part of the hedge, the need to pay the difference short term EM and home currency interest rate, means that investors have to pay away much of the extra yield that drew them to EM debt in the first place.

On a positive note the underperformance of EM currency over the past 10–15 years has made it historically cheap suggesting better returns ahead. Historically, a good time to invest in EMD has been when EM FX has been attractively priced (undervalued) against the USD. In each of the periods between 2004–2008 and 2009–2011, EMD performance benefitted from currency appreciation relative to the USD until it became overvalued by around 30% (Figure 22). Currently we estimate that the EM currency component of the JPM Emerging Local Debt Global Diversified index is 11.1% cheap to fair value vs. the US dollar. The under-valuation is more modest against the euro and British pound, 1.66% and 3.82% respectively. While that doesn't suggest the same degree of upside in EM that US investors can expect, it is a decent starting point, especially compared to very high valuations for much of the past 10–15 years.

Figure 22

EM Currency Valuation

Matters to LC EMD



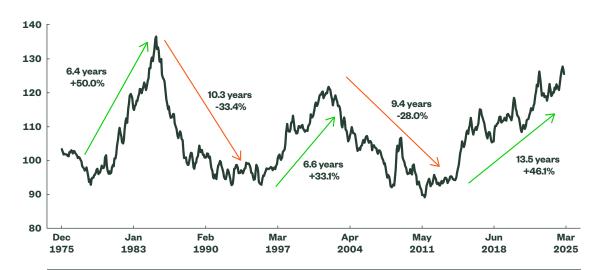
Source: State Street Global Advisors, Bloomberg Finance, L.P., as of March 31, 2025. Past performance is not a guarantee of future results. Index returns do reflect capital gains and losses, income, and the reinvestment of dividends. Performance is calculated in USD. Estimate of fair value versus the US dollar as at March 31, 2025 — valuations above 0% imply overvalued and below imply undervalued. This information should not be considered a recommendation to invest in a particular currency. It is not known whether EM currencies will be profitable in the future. Composite valuation based on weights of the JPM GBI EM Global Diversified Index.

We believe the US dollar is entering a multi-year bear market. Historically, the US dollar typically gains or loses 30–40% during a bear/bull market over 7 to 10 years (see Figure 23). The recent bull cycle has been extraordinarily long, 13.5yrs compared to the usual 7–10 years, due largely to the outperformance of US corporate earnings and the impact of the pandemic and inflation shock.

We have long been suspicious of the dominant US exceptionalism narrative seeing much of US outperformance as being the result of massive fiscal stimulus and favorable interest rates as a large proportion of households and businesses locked in ultra-low long term fixed rate financing during the pandemic. Those fiscal and interest rate factors do not appear repeatable over the next decade. The recent introduction of hefty US tariffs alongside what appears to be a more adversarial, or at least isolationist, foreign policy is likely to hasten and deepen the US dollar bear market we have been forecasting for some time.

What does this mean for EM local debt investors? For US based investors the EM currency component of returns is likely skewed higher, potentially much higher should the US dollar fall against most currencies as we expect. However, the protectionist policy and fiscal austerity forces behind the decline in the dollar are also likely to dent global growth which may limit EM currency gains over the next 6–12 months, or at least make them substantially more volatile. For EU or UK based investors EM currency returns are more likely to be near flat while adding volatility. This is consistent with our estimates that EM currency is close to fair value vs. the euro and British pound. More intuitively, our expectation that we see a broad USD bear market means that while EM currency will rise vs. USD but so will EUR and GBP leaving the trend EM currency returns for EU and UK investors close to zero.

Figure 23 **The US Dollar Cycle**



 $Source: State\ Street\ Global\ Advisors,\ Bloomberg/US\ Federal\ Reserve,\ as\ of\ March\ 31,2025.$

Conclusion

The emerging market debt (EMD) market has grown significantly to account for over 28% of the global bond market while trading liquidity has improved. We think this makes it too big for global bond investors to ignore. EMD provides an attractive yield pick-up from investment grade bonds while offering diversification benefits given its lower correlation and higher growth factor exposure compared to global aggregate bonds.

Our analysis, both on a historical and forward looking basis, shows that incorporating hard currency EMD into a global bond portfolio could increase the portfolio return without significantly reducing the return/risk ratio of the portfolio for a USD investor. We think that investors should consider a 10% hard currency EMD allocation into their global bond portfolios (both USD hedged and unhedged) to enhance portfolio returns without significantly increasing volatility. Investors with higher return targets and more risk appetite could consider higher allocations, particularly for unhedged global bond investors where return/risk increases with higher allocations.

The case for incorporating local currency EMD into global portfolios has been less compelling historically given currency volatility, albeit more attractive for an unhedged USD global aggregate portfolio where return/risk improved marginally with a low allocation. While adding local currency EMD on a historical basis to a global portfolio did not generally improve return/risk profile, from a forward-looking basis we see value in it given higher forecast returns.

Taking a view on currency is an important consideration when investing in local currency debt. Today EM currencies are attractively valued from a long term perspective relative to the US dollar. This provides a good entry point, but investors will need to be aware of high potential volatility. Investors interested in LC EMD could consider taking a 10% allocation, or invest in a blend of local currency and hard currency EMD to help mitigate the volatility in local currency EMD returns.

From a risk standpoint, investors need to understand and be able to tolerate potentially higher volatility and drawdowns in EMD relative to USD-based global aggregate bonds. We recommend investors take a strategic medium- to long-term investment horizon on EMD to ride out the cyclical downside of the asset class.

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Foreign investments involve greater risks than US investments, including political and economic risks and the risk of currency fluctuations, all of which may be magnified in emerging markets.

Bonds generally present less short-term risk and volatility than stocks, but contain interest rate risk (as interest rates raise, bond prices usually fall); issuer default risk; issuer credit risk; liquidity risk; and inflation risk. These effects are usually pronounced for longer-term securities. Any fixed income security sold or redeemed prior to maturity may be subject to a substantial gain or loss.

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^{*} Pensions & Investments Research Center, as of December 31, 2023.

[†]This figure is presented as of March 31, 2025 and includes ETF AUM of \$1,553.58 billion USD of which approximately \$106.42 billion USD in gold assets with respect to SPDR products for which State Street Global Advisors Funds Distributors, LLC (SSGA FD) acts solely as the marketing agent. SSGA FD and State Street Global Advisors are affiliated. Please note all AUM is unaudited.