White Paper
Fixed Income

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Emerging Market Debt

Enhancing a Global Bond Portfolio

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Executive Summary

Over the last ten years, the emerging market debt (EMD) market has grown significantly. It now accounts for over 25% of the global bond market and trading liquidity has improved considerably.* We think this makes it too big for global bond investors to ignore. In the current low yield environment, EMD provides an attractive yield pick-up relative to investment grade bonds, while its lower correlation and higher growth factor exposure compared to global aggregate bonds offers diversification benefits.

Our analysis, both on an historical and forward-looking basis, shows that incorporating hard currency EMD into a global bond portfolio could increase the portfolio return with a similar return/risk ratio for a USD investor base. We think that investors should consider an allocation of 10–20% to hard currency EMD in their global bond portfolios (both USD hedged and unhedged) to enhance portfolio returns without significantly increasing volatility.[1]

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. 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 who seek local currency EMD exposures could also consider investing in a blend of local currency and hard currency EMD to help mitigate the volatility in local currency EMD returns.

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.

* Source: JP Morgan as of December 2020.

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 helps support EMD fundamentals, although some EM countries 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 (either hard currency sovereign or corporate EMD or a blend of the two) into a USD-hedged global bond portfolio increased the portfolio return with a similar return/risk ratio.[2] Based on forecast forward returns, a 100% allocation to hard currency EMD in a global bond portfolio (both USD hedged and unhedged) is expected to maximise the return/risk ratio, mainly due to the very low expected returns of global bonds.[3] However, if investors want to manage portfolio risk, a level of around 10–20% would be more appropriate. In broad terms, we think that investors could start with an allocation of 10–20% 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 global bond portfolio did not improve the return/risk ratio historically, given the higher volatility and drag from negative currency returns. Therefore, 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 USD bull cycle of almost nine years, we believe that the USD is likely to enter a new bear market cycle over the medium term as it has become expensive relative to its long-term fair value and the US growth advantage has been narrowing. 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.

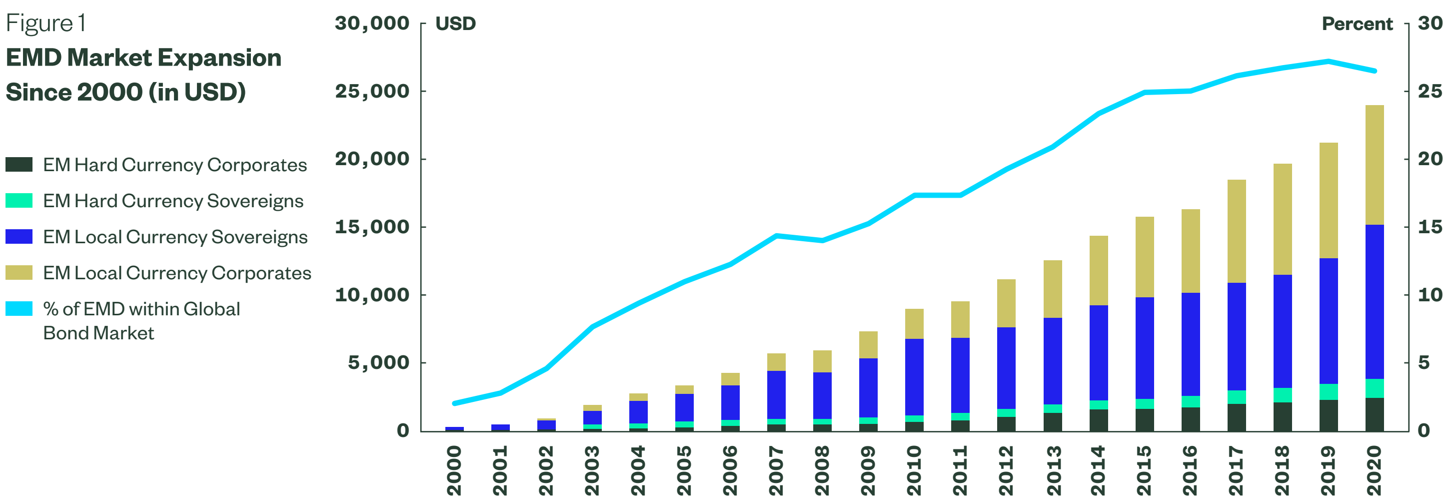
Overview of EMD Market

- **Emerging market debt surpassed $24 trillion in 2020 to account for over a quarter of the global bond market.[4]**

- **Three broad investible EMD assets: hard currency sovereign, hard currency corporate, and local currency sovereign — each have their own distinct characteristics.**

Over the past two decades, the total emerging market debt (EMD) market has grown significantly, surpassing US$24 trillion in 2020 (based on JP Morgan estimates). Its proportion of the global bond market has also increased rapidly, rising from 2% in 2000 to over 25% in 2020 (Figure 1). Even if we exclude EM local currency corporates — which are harder for global investors to invest in — EMD accounts for 17% of the global bond market (see Figure 1). We think this makes it too big for global investors to ignore.

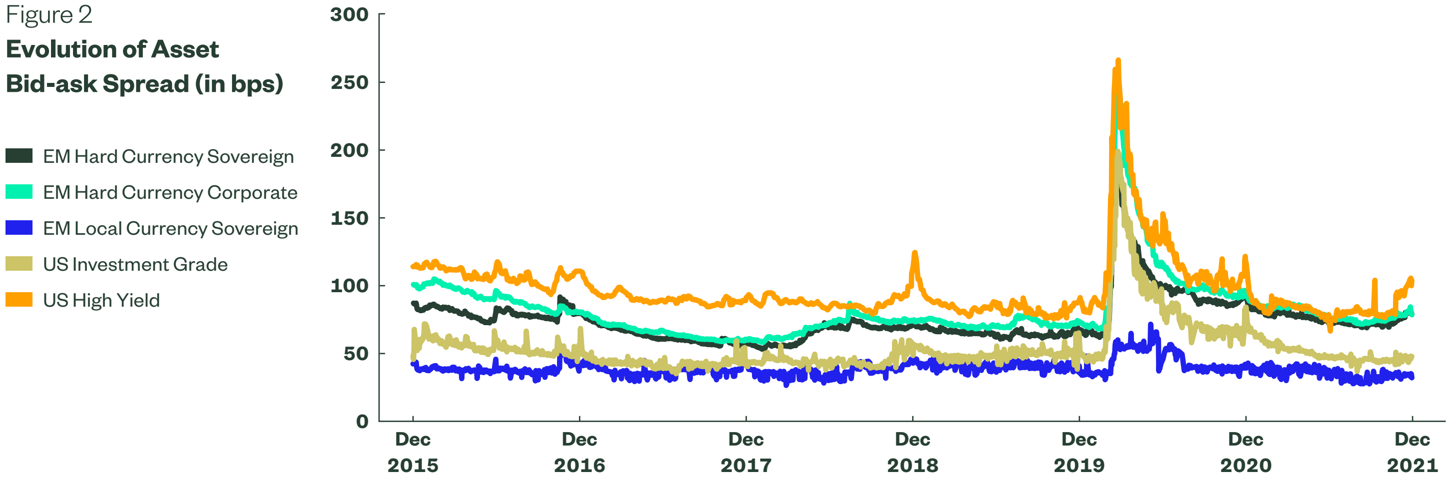
Figure 1
EMD Market Expansion Since 2000 (in USD)



Source: State Street Global Advisors, JP Morgan, Bloomberg Finance L.P., Bank of International Settlements, as of December 2020.

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 in Figure 2, has 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. Since April 2020, trading liquidity has improved as fiscal and monetary stimulus measures were introduced across the globe. As of the end of December 2021, the cost of trading in hard currency EMD has not yet come down to pre-pandemic levels and is still higher than that of US investment grade bonds. However, it was lower than that of US high yield bonds. The cost of trading of local currency sovereign EMD has remained stable and continues to be lower than that of US investment grade bonds (see Figure 2).

Figure 2
Evolution of Asset Bid-ask Spread (in bps)



Source: State Street Global Advisors, JP Morgan, Bank of America Merrill Lynch, Bloomberg, as of December 31, 2021. Bid-ask spreads in price terms are used in the chart. For US investment grade bond, we used the Barclays liquidity cost scores to represent bid-ask spread in price terms.

EMD Assets and Their Characteristics

Within the EMD universe, hard currency (HC) sovereign, HC corporate and local currency (LC) sovereign are the three broad investible assets for global investors. Hard currency sovereign and corporate EMD indices 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.

In Figure 3, we illustrate the key characteristics of the three 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:

1 **Mix of IG/HY with Different Levels of Quality** The three 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. Of the three EMD assets, local currency sovereign EMD has a higher proportion of bonds with an investment grade rating (77%), while hard currency sovereign and corporate EMD have lower proportions (51% and 56% respectively).

2 **LC EMD Less Diversified** Within the investment universe, hard currency sovereign and corporate EMD are quite diversified by country and region. By way of contrast, local currency sovereign EMD is more concentrated — the representative index contains only 20 countries with the largest 10 making up 84%.

3 **Currency and Rates Risk** The hard currency sovereign and corporate EMD assets are USD based, with risks driven mainly by movements in US interest rates and credit risk in EM sovereign and corporates. 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

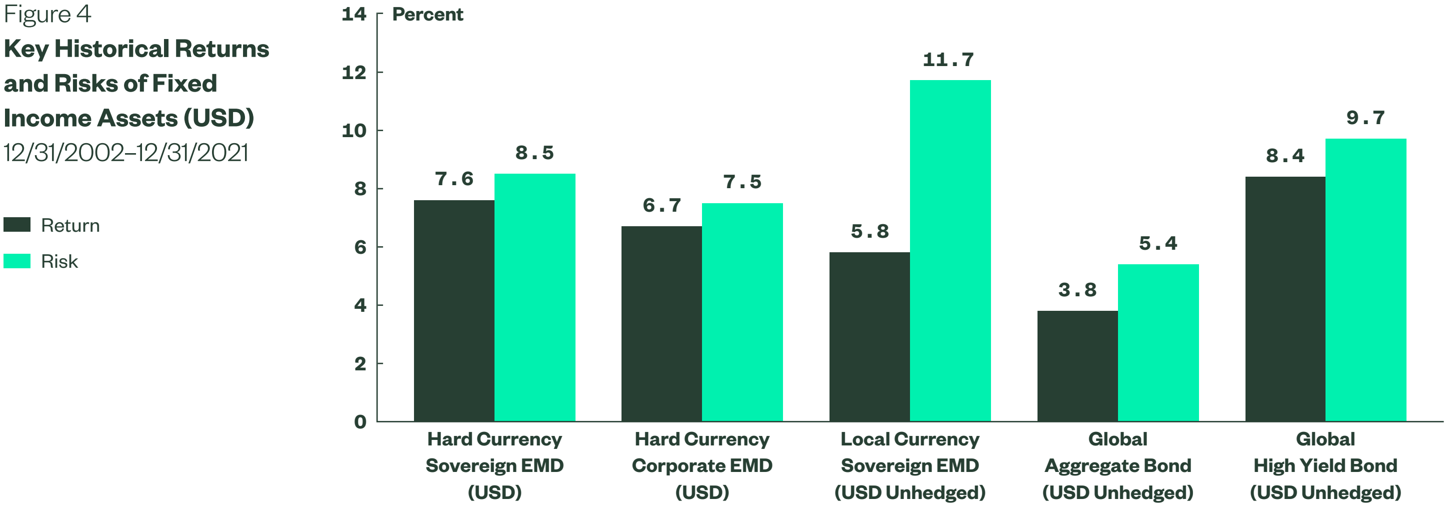
	Hard Currency Sovereign EMD	Hard Currency Corporate EMD	Local Currency Sovereign EMD	Global Aggregate Bond	Global High Yield Bond
Index	JP Morgan EMBI Global Diversified	JP Morgan CEMBI Broad Diversified	JP Morgan GBI-EM Global Diversified	Bloomberg Global Aggregate	Bloomberg Global High Yield
Investment Universe	72 countries	60 countries	20 countries	74 countries	112 countries
Currency	USD	USD	20 EM currencies	28 currencies	5 currencies
Regional Split (5)					
Asia	18	41	38	—	—
Europe	18	10	27	—	—
Latin America	32	24	26	—	—
Middle East & Africa	32	25	9	—	—
Top 10 Countries (%)	39	44	84	86	73
Index Rating*	Sub-IG Credit Rating Ba1/BB+	IG Credit Rating Baa3/BBB-	IG Credit Rating Baa1/BBB+	IG Credit Rating Aa2/AA3	Sub-IG Credit Rating Ba3/B1
IG/Sub-IG Split (%)	51/49	56/44	77/23	100/0	0/100
Key Risk Drivers	US Treasuries & EM Sovereign Spreads	US Treasuries, Sovereign Risk & EM Corporate Spreads	The US Dollar, Local Rates & Sovereign risk	The US Dollar & Local Rates and Corporate Spreads	The US Dollar & Local Rates and Corporate Spreads

Source: State Street Global Advisors, JP Morgan, Point, as of December 31, 2021. Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Hard Currency Corporate EMD = JP Morgan CEMBI Broad Diversified USD total return index; Local Currency Sovereign EMD = JP Morgan GBI-EM Global Diversified USD unhedged total return index; Global Aggregate Bond = Bloomberg Global Aggregate USD unhedged total return index; Global High Yield Bond = Bloomberg Global High Yield USD unhedged total return index.
* For the EMBI and CEMBI 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. Characteristics are as of the date indicated, are subject to change, and should not be relied upon as current thereafter.

Return/Risk Profile of HC and LC EMD

The long-term returns and risks of hard currency sovereign and corporate EMD have 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 similar to 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.

Figure 4
Key Historical Returns and Risks of Fixed Income Assets (USD)
12/31/2002–12/31/2021



Source: State Street Global Advisors, JP Morgan, Point, as of December 31, 2021. Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Hard Currency Corporate EMD = JP Morgan CEMBI Broad Diversified USD total return index; Local Currency Sovereign EMD = JP Morgan GBI-EM Global Diversified USD unhedged total return index; Global Aggregate Bond = Blomberg Global Aggregate USD unhedged total return index; Global High Yield Bond = Bloomberg Global High Yield USD unhedged total return index. Past performance is not a reliable indicator of future performance.

Income and FX Drive EMD Returns

In Figure 5, we decompose the total returns of EMD assets 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 2009–2010 period. 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 term, which would be supportive for local currency EMD. Please refer to the section "LC EMD: Waiting for USD weakness" for more discussion around our currency views (page 23).

Figure 5a
Annualised Rolling 5-year Return Components of EMD Assets (USD)
12/31/2002–12/31/2021

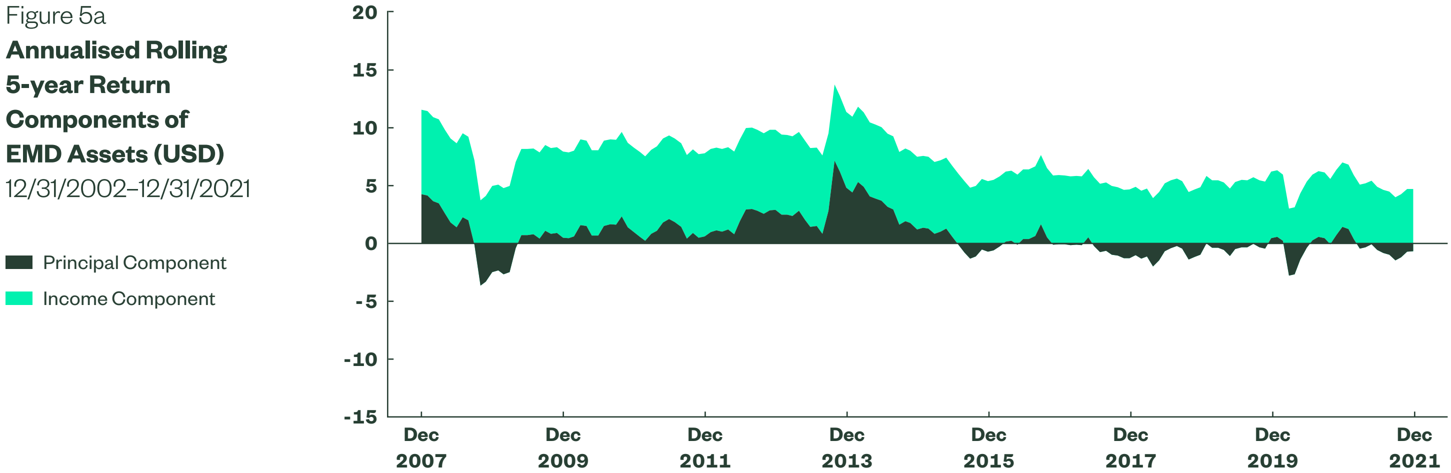


Figure 5b
Annualised Rolling 5-year Return Components of EMD Assets (USD)
12/31/2002–12/31/2021

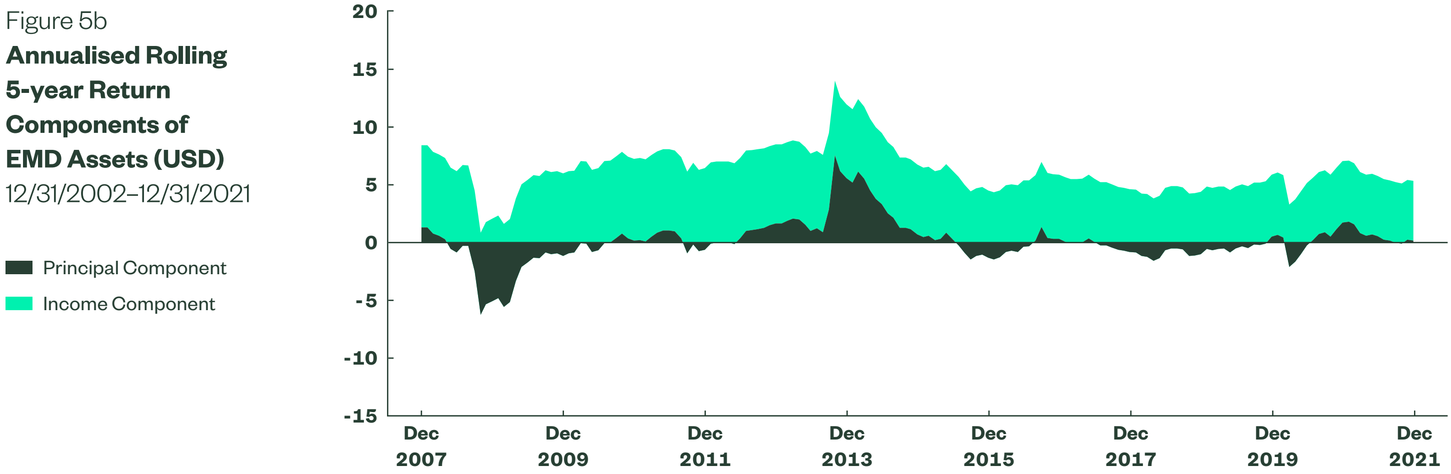
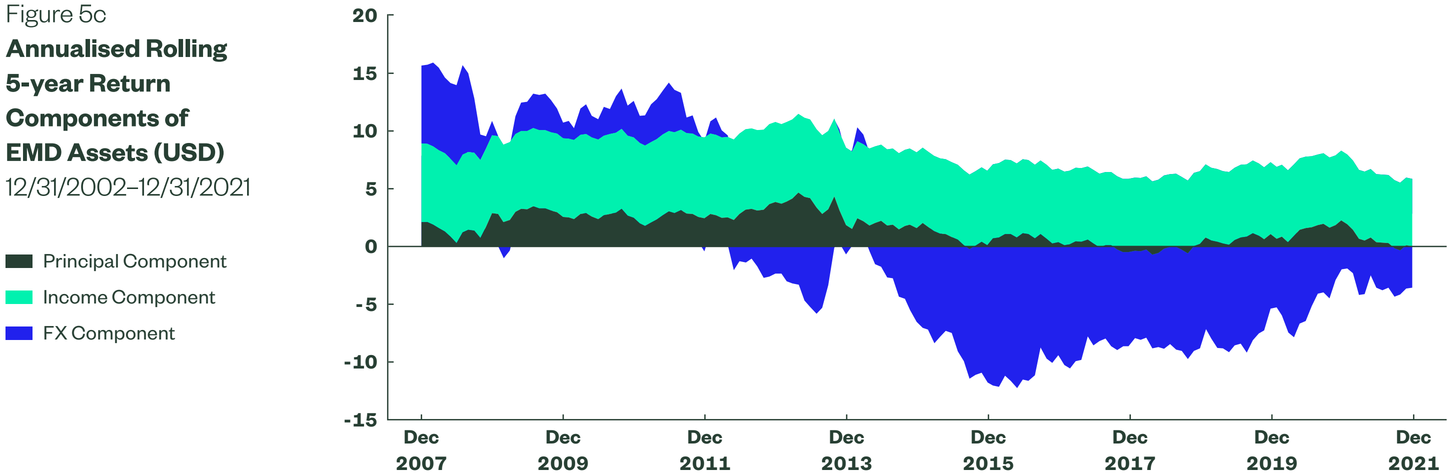


Figure 5c
Annualised Rolling 5-year Return Components of EMD Assets (USD)
12/31/2002–12/31/2021



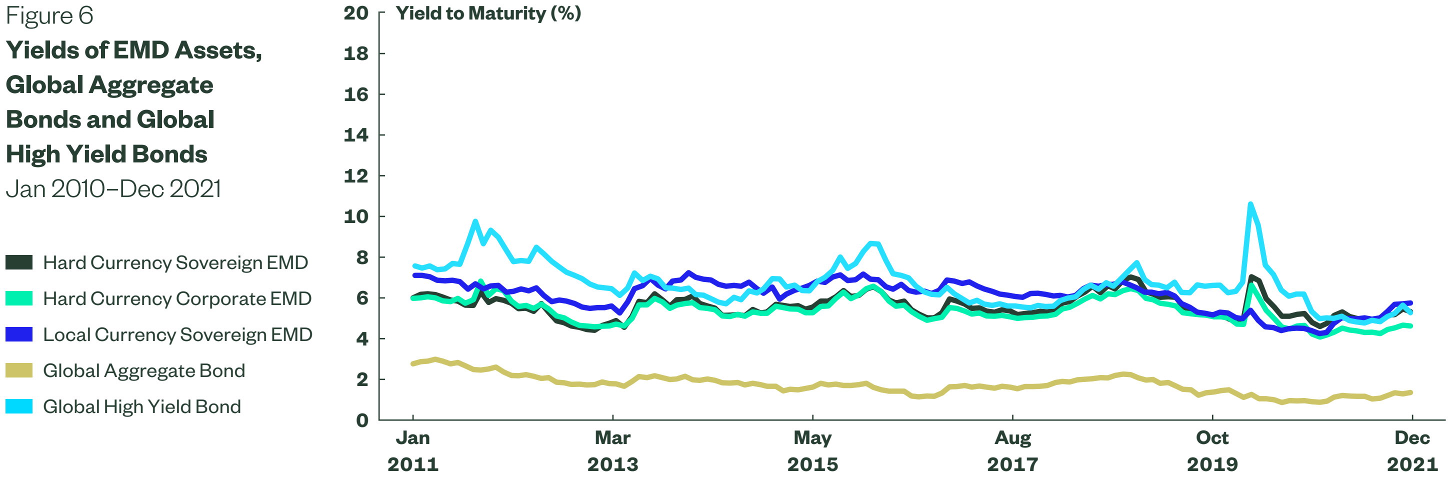
Source (for Figures 5a–5c): State Street Global Advisors, JP Morgan, as of December 31, 2021. Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Hard Currency Corporate EMD = JP Morgan CEMBI Broad Diversified USD total return index; Local Currency Sovereign EMD = 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. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income as applicable. Past performance is not a reliable indicator of future performance.

Benefits and Risks of Investing in EMD

- **EMD offers yield enhancement, generally lower duration versus investment grade bonds and diversification benefits against the backdrop of low 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. EMD yields are now in line with those of high yield bonds, while enjoying higher average credit ratings. As shown in Figure 6, the yield of the Global Aggregate Bond index has fallen significantly over the past 10 years, mainly driven by accommodative monetary policies implemented by the major developed market central banks. The yield rallied in 2021 as key global central banks shifted towards a more hawkish stance, but it remained at a relatively low level. Over the same period, the yields of EMD assets have trended mostly within a 4–7% range. As of December 2021, all three EMD assets had yields above 4.5%, which was around 3–4 times that of global aggregate bonds, and similar to that of global high yield bonds.

Figure 6
Yields of EMD Assets, Global Aggregate Bonds and Global High Yield Bonds
Jan 2010–Dec 2021



Source: State Street Global Advisors, JP Morgan, Point, as of December 31, 2021. Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Hard Currency Corporate EMD = JP Morgan CEMBI Broad Diversified USD total return index; Local Currency Sovereign EMD = JP Morgan GBI-EM Global Diversified USD unhedged total return index; Global Aggregate Bond = Bloomberg Global Aggregate USD unhedged total return index; Global High Yield Bond = Bloomberg Global High Yield USD unhedged total return index. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income as applicable. Past performance is not a reliable indicator of future performance.

As illustrated in Figure 7, the hard currency corporate and local currency sovereign EMD assets have average investment grade ratings about 5–7 notches below Global Aggregate bonds, while the duration of the indices are shorter. By comparison, hard currency sovereign EMD has an average high yield rating with a modified duration slightly higher than global aggregate bonds (see Figure 7). We believe that higher yields with (generally) lower duration than aggregate bonds and better ratings than high yield bonds offer an attractive combination to global aggregate bond investors.

Figure 7
Bond Index Characteristics

	Yield to Maturity (%)	Index Rating*	Modified Duration
Hard Currency Sovereign EMD	5.29	Ba1/BB+	7.97
Hard Currency Corporate EMD	4.58	Baa3/BBB-	4.92
Local Currency Sovereign EMD	5.72	Baa1/BBB+	5.21
Global Aggregate Bond	1.32	Aa2/AA3	7.54
Global High Yield Bond	5.24	Ba3/B1	4.26

Source: State Street Global Advisors, JP Morgan, Point, as of December 31, 2021. Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Hard Currency Corporate EMD = JP Morgan CEMBI Broad Diversified USD total return index; Local Currency Sovereign EMD = JP Morgan GBI-EM Global Diversified USD unhedged total return index; Global Aggregate Bond = Bloomberg Global Aggregate USD unhedged total return index; Global High Yield Bond = Bloomberg Global High Yield USD unhedged total return index.
* Bloomberg uses the middle rating of Moody's, S&P and Fitch. JPMorgan uses the middle rating of Moody's, S&P and Fitch for hard currency EM sovereign and corporate debt, and the lowest rating of Moody's, S&P and Fitch for local currency EM sovereign debt.
Characteristics are as of the date indicated, are subject to change, and should not be relied upon as current thereafter.

Diversification Benefits: Low Correlation and Higher Growth Factor Exposures

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 corporate EMD has provided the best diversification benefits with the lowest historical correlation due to its lower duration and higher credit exposure relative to the other two EMD assets. In contrast, local currency sovereign EMD was the best diversifier for USD-hedged global aggregate bonds. Unlike the two hard currency EMD assets, 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.

Figure 8
Asset Correlations Based on USD Returns
Jan 2003–Dec 2021

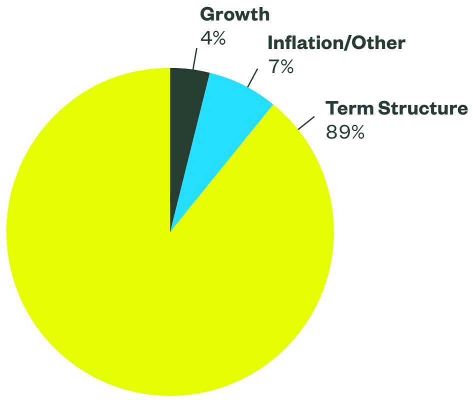
	Hard Currency Sovereign EMD	Hard Currency Corporate EMD	Local Currency Sovereign EMD	Global Aggregate Bond	Global Aggregate Bond (USD Hedged)	Global High Yield Bond
Hard Currency Sovereign EMD	1.00	0.92	0.79	0.63	0.53	0.85
Hard Currency Corporate EMD	0.92	1.00	0.72	0.57	0.47	0.86
Local Currency Sovereign EMD	0.79	0.72	1.00	0.68	0.33	0.75
Global Aggregate Bond	0.63	0.57	0.68	1.00	0.68	0.49
Global Aggregate Bond (USD hedged)	0.53	0.47	0.33	0.68	1.00	0.21
Global High Yield Bond	0.85	0.86	0.75	0.49	0.21	1.00

Source: State Street Global Advisors, JP Morgan, Point, as of December 31, 2021. Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Hard Currency Corporate EMD = JP Morgan CEMBI Broad Diversified USD total return index; Local Currency Sovereign EMD = JP Morgan GBI-EM Global Diversified USD unhedged total return index; Global Aggregate Bond = Bloomberg Global Aggregate USD unhedged total return index; Global Aggregate Bond (USD hedged) = Bloomberg Global Aggregate USD hedged total return index; Global High Yield Bond = Bloomberg Global High Yield USD unhedged total return index. Past performance is not a reliable indicator of future performance. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income as applicable.

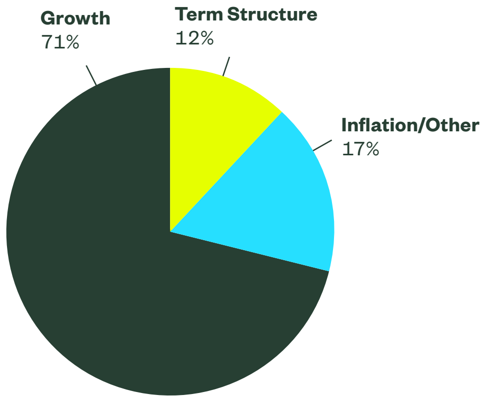
The diversification benefits of incorporating EMD into a global bond portfolio are also reflected in their distinct factor exposures compared to those of global aggregate bonds. Based on a principal component analysis (PCA), USD-hedged global aggregate bonds exhibit a factor exposure of close to 90% 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). Local currency sovereign EMD also has a high exposure to Inflation/Other factors along with a higher Growth factor component. Therefore, the addition of EMD to a global Aggregate bond portfolio could help to create a more balanced factor exposure.

Figure 9
Principal Component Analysis (PCA) Factors of Bond Indices

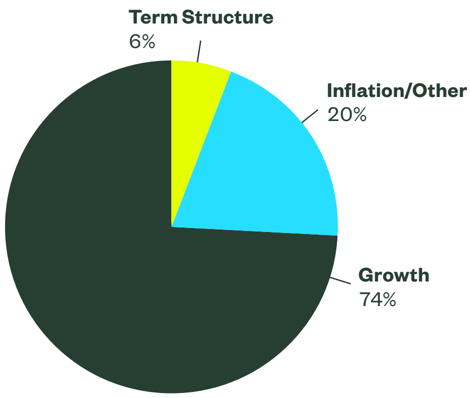
Global Aggregate Bond (USD Hedged)



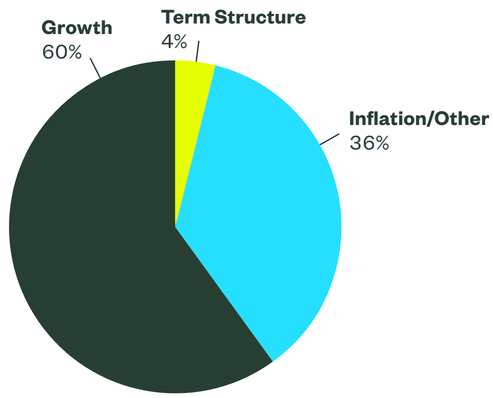
Hard Currency Sovereign EMD



Hard Currency Corporate EMD



Local Currency Sovereign EMD



Source: State Street Global Advisors, as of December 31, 2021, based on asset historical returns from 12/31/2002–12/31/2021. Global Aggregate Bond (USD hedged) = Bloomberg Global Aggregate USD hedged total return index; Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Hard Currency Corporate EMD = JP Morgan CEMBI Broad Diversified USD total return index; Local Currency Sovereign EMD = JP Morgan GBI-EM Global Diversified USD unhedged total return index. Past performance is not a reliable indicator of future performance. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income as applicable.

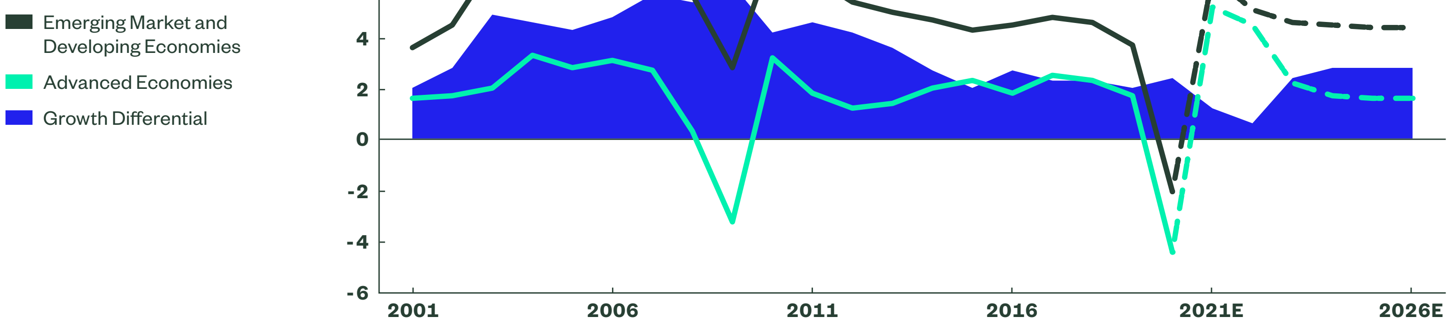
Higher Growth Underpins EMD Fundamentals, But Debt Pressure is Building

Emerging market economies have been driving global growth over the last two decades, having consistently grown faster than the more developed economies. The global economy was hit in 2020 by the COVID-19 pandemic, but recovered strongly in 2021 — according to the International Monetary Fund's (IMF) October 2021 World Economic Outlook, advanced economy GDP was expected to increase by 5.2% in 2021, following a 4.5% contraction in 2020, while emerging markets should have expanded by 6.4% after a 2020 reduction of 2.1%. However, the growth premium is expected to decline to 0.6% in 2022.

Much of the emerging market growth is currently being driven by China and India as a number of the other major EM economies, such as Brazil, Russia and Mexico, have been growing more slowly than the advanced economies.[5] Furthermore, the expected slowdown of Chinese growth would pose headwinds to EM economic expansion. It is also worth noting that political events in several EM countries may affect progress on key economic reforms and lead to growth uncertainties. The Russia/Ukraine crisis is also a major geopolitical risk to emerging markets.

Looking beyond 2022, the IMF expects the EM growth premium to increase to an average of 2.7% from 2023 to 2026, although emerging economies' growth prospects remain susceptible to moderating China growth, political instabilities and potential geopolitical tensions (see Figure 10).

Figure 10
Real GDP Growth (Annual % Change)



Source: State Street Global Advisors, International Monetary Fund, as of October 2021.

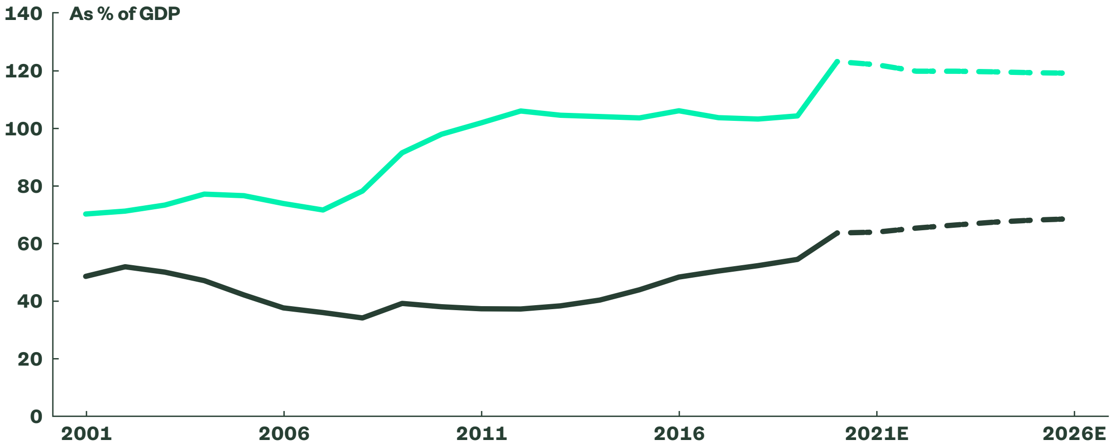
External vulnerabilities across emerging markets have generally improved over the last ten years as the number of countries running fiscal and current account deficits is now much lower and foreign exchange reserves are higher.[6] The general government gross debt as a percentage of GDP for emerging economies increased meaningfully during the COVID-19 crisis and is expected to rise modestly in the coming years due to high government financing needs. However, the level is and should remain far below that of advanced economies (see Figure 11). While the average EM current account deficits as a percentage of GDP are forecast to deteriorate. they are still expected to be within 1% of GDP (see Figure 12).

However, the COVID crisis has exposed some lower- and middle-income emerging economies, such as Sri Lanka, Ghana and Tunisia, to potential debt distress.[7] The pandemic has inflicted great pain economically on these poorer countries, and rising US interest rates will worsen the debt pressure. Investors will also need to monitor how elections may lead to a shift away from austerity policies. This could be a risk for countries such as Brazil and Columbia, which could spark concerns about public debt.

Overall, favourable growth trends in emerging market economies should help support EMD fundamentals over the medium term; however, near-term growth headwinds remain, including moderating China growth, political instabilities and potential geopolitical tensions. Some economies could also be subject to potential debt pressure amid rising US interest rates.

Figure 11
General Government Gross Debt as % of GDP

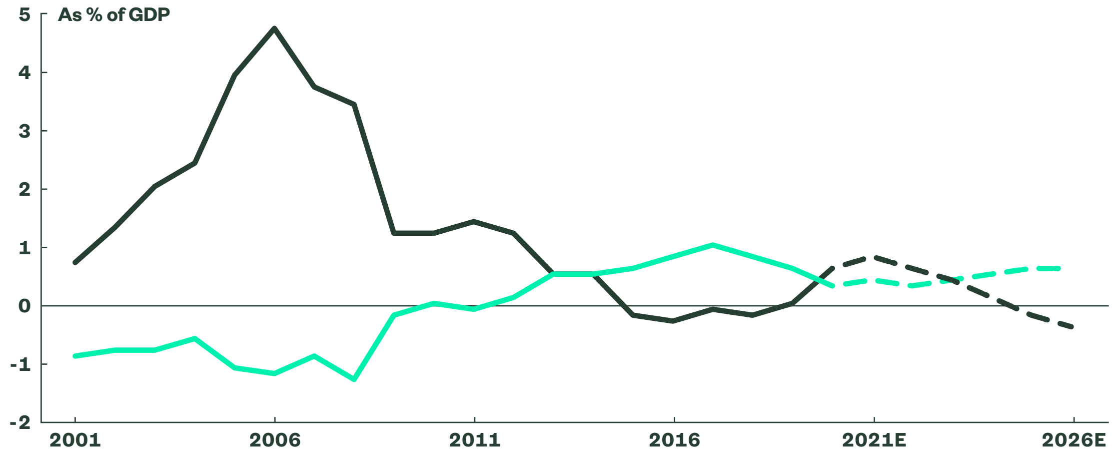
Emerging Market and Developing Economies
Advanced Economies



Source: State Street Global Advisors, International Monetary Fund, as of October 2021.

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 October 2021.

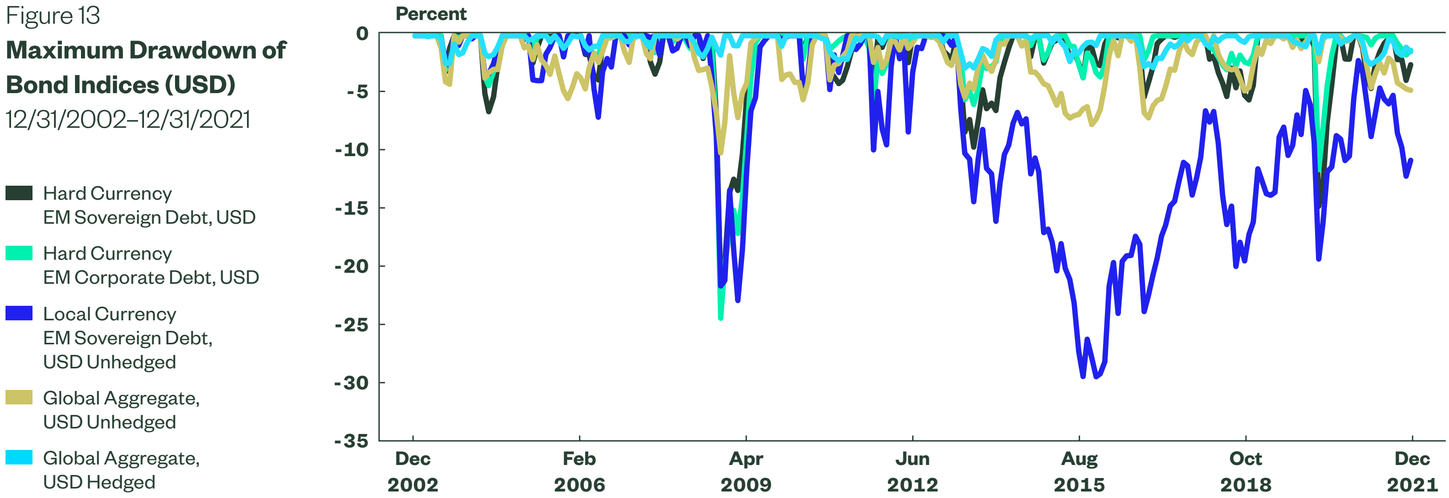
EMD Volatility and Drawdowns

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 three EMD assets and global aggregate bonds. The historical maximum drawdown for global aggregate bonds was low at -10% on a USD-unhedged basis, and -3% on a USD-hedged basis. By comparison, the two hard currency EMD assets fell over 20% from peak to trough during the Global Financial Crisis (GFC), and lost over 10% during the COVID-19 crisis — although drawdowns were more modest (less than -10%) during other periods. Local currency sovereign EMD has been the most volatile EMD asset, falling over 20% during the GFC with a maximum -29% drawdown in 2015 when EM currencies depreciated significantly against the dollar after the taper tantrum, and a drawdown of -19% during the COVID-19 crisis. Local currency sovereign EMD also lost 9% in 2021 due to poor currency returns and central bank rate hikes.

Given the higher volatility and potential for higher drawdowns relative to global aggregate bonds, 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 Indices (USD)
12/31/2002–12/31/2021



Source: State Street Global Advisors, JP Morgan, Bloomberg, as of December 31, 2021. Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Hard Currency Corporate EMD = JP Morgan CEMBI Broad Diversified USD total return index; Local Currency Sovereign EMD = JP Morgan GBI-EM Global Diversified USD unhedged total return index; Global Aggregate Bond = Bloomberg Global Aggregate USD unhedged total return index; Global Aggregate Bond (USD Hedged) = Bloomberg Global Aggregate USD hedged total return index. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income as applicable. Past performance is not a reliable indicator of future performance.

Idiosyncratic Risks Remain, But Contagion Risks Generally Lower

Idiosyncratic (or country specific) risk is often cited as something to watch for when investing in emerging markets. This is usually because when one country runs into difficulties, there is the expectation that others are likely to follow. While this has often been the case, we think that the hurdle today is higher for idiosyncratic risk to create contagion across the broader emerging market universe.

Looking simplistically at what drives the contagion effect, many emerging markets are export oriented with trade accounting for a meaningful proportion of economic growth. As global trade is largely funded in US dollars, emerging market economies are 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 it did in 2018 and will likely do so in 2022) 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 dollars as US yields look more attractive. 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 tends to be 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 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.

In 2018, Argentina and Turkey experienced crises that saw both countries' currencies plunge and interest rates spike. This idiosyncratic risk partly explained the underperformance of emerging market debt relative to investment grade bonds in 2018. Turkey experienced another currency crisis in 2021. We are starting to see increased pressures on some of the vulnerable countries whose economies have been more negatively impacted by COVID-19. However, the overall solid credit metrics of emerging market countries as a whole 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.

Incorporating EMD into a Global Fixed Income Portfolio

- **Our analysis shows that incorporating 10% hard currency EMD into a global bond portfolio could increase the portfolio return with a similar return/risk ratio for a USD investor base.[8]**

- **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.**

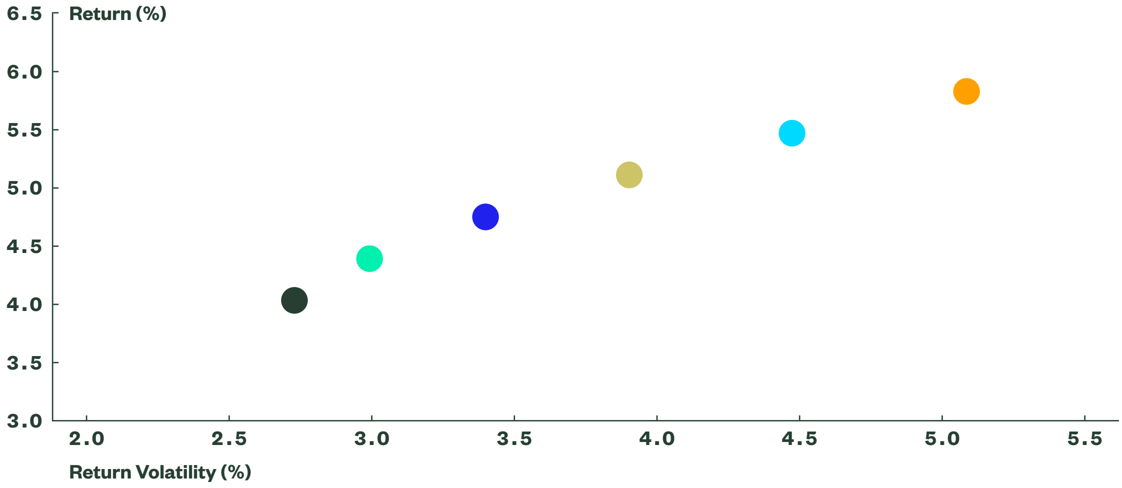
Impact of a Single EMD Asset on Bond Portfolios

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 14, 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. A 10% allocation to hard currency sovereign or corporate EMD generated a return/risk ratio similar to that of a 100% global aggregate (USD hedged) bond portfolio, while a higher EMD allocation led to a lower return/risk ratio. Meanwhile, allocating to local currency sovereign EMD did not improve the return/risk ratio.

Among the three EMD assets, the inclusion of hard currency sovereign EMD had the biggest positive impact on portfolio return, given its lower credit rating and higher historical return. Hard currency corporate EMD impacted the portfolio risk the least, due to its lower historical risk and correlation with Global Aggregate bonds. The addition of local currency sovereign EMD improved the portfolio returns the least and generally increased portfolio risk. This was due to its FX component, which contributed negatively to historical returns and resulted in higher portfolio volatility.

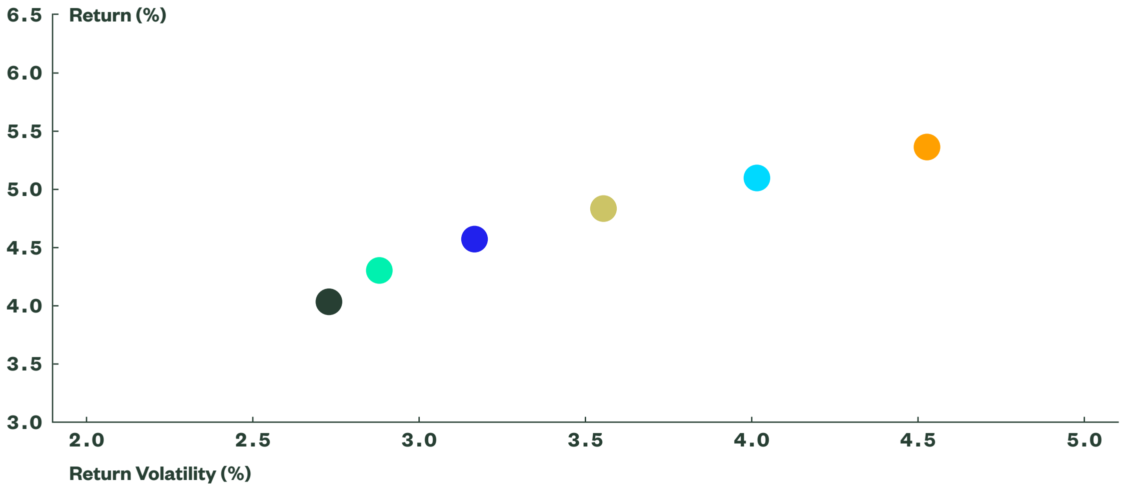
Figure 14
Return & Risk for Portfolios of Hard Currency Sovereign EMD and Global Aggregate Bonds (USD Hedged)
Jan 2003–Dec 2021



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

Source: State Street Global Advisors, JP Morgan, Bloomberg, as of December 31, 2021. Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Global Aggregate Bond (USD Hedged) = Bloomberg Global Aggregate USD hedged total return index. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income as applicable. Past performance is not a reliable indicator of future performance.

Figure 15
Return & Risk for Portfolios of Hard Currency Corporate EMD and Global Aggregate Bonds (USD Hedged)
Jan 2003–Dec 2021

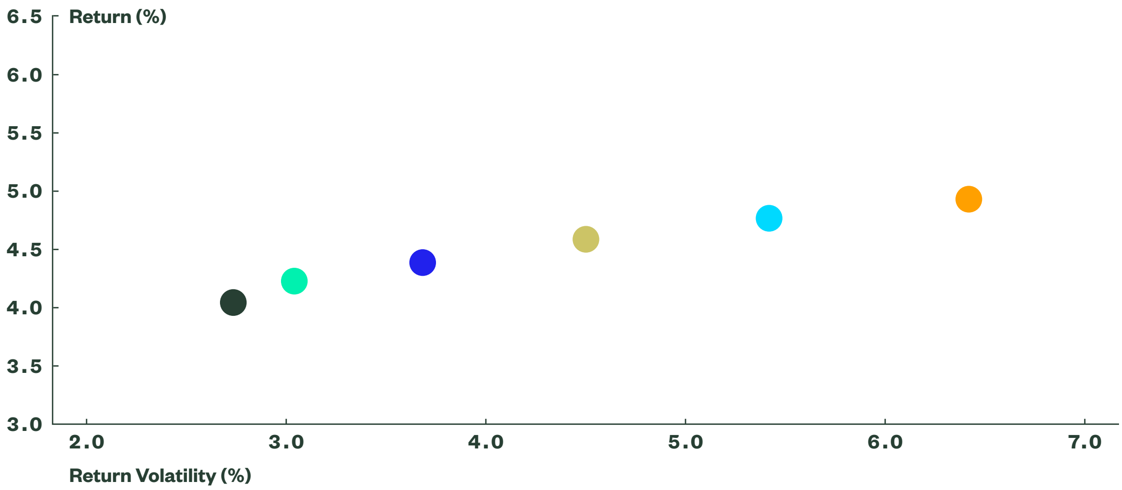


- 0% Hard Currency Corporate EMD/ 100% Global Agg (USD Hedged)
- 10%/90%
- 20%/80%
- 30%/70%
- 40%/60%
- 50% Hard Currency Corporate EMD/50% Global Agg (USD Hedged)

Source: State Street Global Advisors, JP Morgan, Bloomberg, as of December 31, 2021. Hard Currency Corporate EMD = JP Morgan CEMBI Broad Diversified USD total return index; Global Aggregate Bond (USD Hedged) = Bloomberg Global Aggregate USD hedged total return index. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income as applicable. Past performance is not a reliable indicator of future performance.

Figure 16
Return & Risk for Portfolios of Local Currency Sovereign EMD and Global Aggregate Bonds (USD Hedged)
Jan 2003–Dec 2021

- 0% Local Currency Sovereign EMD/100% Global Agg (USD Hedged)
- 10%/90%
- 20%/80%
- 30%/70%
- 40%/960%
- 50% Local Currency Sovereign EMD/50% Global Agg (USD Hedged)



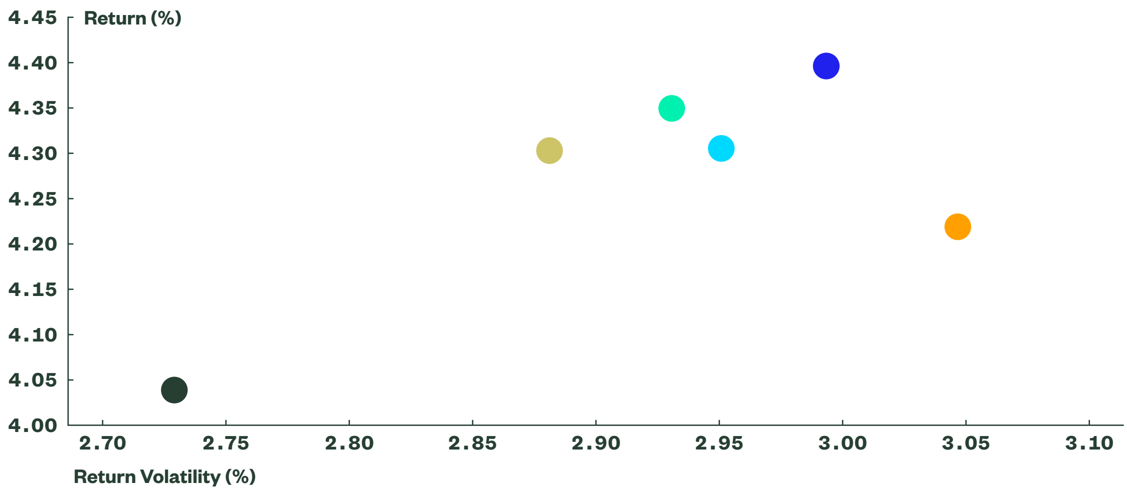
Source: State Street Global Advisors, JP Morgan, Bloomberg, as of December 31, 2021. Local Currency Sovereign EMD = JP Morgan GBI-EM Global Diversified USD unhedged total return index; Global Aggregate Bond (USD Hedged) = Bloomberg Global Aggregate USD hedged total return index. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income as applicable. 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 & Risk for Portfolios of EMD Assets and Global Aggregate Bonds (USD Hedged)
Jan 2003–Dec 2021

- 0% Hard Currency Sovereign EMD/0% Hard Currency Corporate EMD / 0% Local Currency Sovereign EMD/100% Global Agg (USD Hedged)
- 5%/5%/0%/90%
- 10%/0%/0%/90%
- 0%/10%/0%/90%
- 3.33%/3.33%/3.33%/90%
- 0% Hard Currency Sovereign EMD/0% Hard Currency Corporate EMD / 10% Local Currency Sovereign EMD/90% Global Agg (USD Hedged)



Source: State Street Global Advisors, JP Morgan, Bloomberg, as of December 31, 2021. Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Hard Currency Corporate EMD = JP Morgan CEMBI Broad 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) = Bloomberg Global Aggregate USD hedged total return index. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income as applicable. Past performance is not a reliable indicator of future performance.

As expected, the portfolio that invests 5% each in hard currency sovereign and corporate EMD generated a return and risk in between those of the portfolios which allocate 10% in a single hard currency EMD asset. Its return/risk ratio was also similar to that of a 100% Global Aggregate (USD hedged) bond portfolio. Investors in hard currency sovereign and corporate EMD could decide on a split between the two, based on their return target and level of risk tolerance. Investors with a higher return target and level of risk tolerance could allocate more to hard currency sovereign EMD (which has a lower average rating and higher volatility relative to hard currency corporate EMD) and vice versa.

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 3.33% each in local currency sovereign, hard currency sovereign and hard currency corporate EMD generated a higher return with lower risk. Moreover, the risk/return ratio wasn't too far away from that of 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 potential 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.

As illustrated in Figure 18, for hard currency EMD assets, return/risk improves until the asset mix reaches 70% and 60%, respectively, for hard currency sovereign and corporate EMD. The impact is less pronounced for local currency sovereign debt as its addition does not improve the portfolio's return/risk.

While historical results show that investors can benefit from a higher allocation to hard currency EMD of up to 60–70%, a conservative starting point would be 10–20% (similar to our analysis of a USD-hedged portfolio). Incorporating 10–20% hard currency sovereign or corporate EMD, or a blend of the two, in a USD-unhedged global aggregate bond portfolio led to an increase in portfolio returns with a similar or slightly higher portfolio risk (see Figure 18).

Figure 18
Return & Risk for Portfolios of Hard Currency EMDs and Global Aggregate Bonds (USD Unhedged)
Jan 2003–Dec 2021

	Return (%)	Risk (%)	Return/Risk
0% Hard Currency Sovereign EMD/0% Hard Currency Corporate EMD/0% Local Currency Sovereign EMD/ 100% Global Agg (USD Unhedged)	3.83	5.40	0.71
10%/0%/0%/90%	4.21	5.43	0.77
20%/0%/0%/80%	4.59	5.55	0.83
0%/10%/0%/90%	4.11	5.32	0.77
0%/20%/ 0%/80%	4.40	5.31	0.83
5%/5%/0%/90%	4.16	5.37	0.77
10% Hard Currency Sovereign EMD/10% Hard Currency Corporate EMD/0% Local Currency Sovereign EMD/ 80% Global Agg (USD Unhedged)	4.49	5.42	0.83

Source: State Street Global Advisors, JP Morgan, Bloomberg, as of December 31, 2021. Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Hard Currency Corporate EMD = JP Morgan CEMBI Broad 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) = Bloomberg Global Aggregate USD unhedged total return index. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income as applicable. Past performance is not a reliable indicator of future performance.

As illustrated in Figure 19, a 10–20% allocation to local currency sovereign EMD improved the portfolio return by a similar amount to the hard currency corporate EMD, but with a higher portfolio risk. The portfolio that invests 3.33% or 6.66% each in hard currency sovereign, hard currency corporate and local currency sovereign EMD generated a better return/risk profile than the portfolio with a 10%/20% weight in local currency sovereign EMD (Figure 19). More aggressive investors could consider incorporating additional hard currency EMD into their portfolio to increase their return/risk metric, but would need to limit their exposure to between 10–20% if reducing portfolio risk was the key focus.

Figure 19
Return & Risk for Portfolios of Local Currency EMD, Blend of Hard Currency, Local Currency EMDs and Global Aggregate Bonds (USD Unhedged)
Jan 2003–Dec 2021

	Return (%)	Risk (%)	Return/Risk
0% Hard Currency Sovereign EMD/0% Hard Currency Corporate EMD/0% Local Currency Sovereign EMD/ 100% Global Agg (USD Unhedged)	3.83	5.40	0.71
0%/0%/10%/90%	4.03	5.71	0.71
0%/0%/20%/80%	4.23	6.14	0.69
3.33%/3.33%/3.33%/90%	4.12	5.48	0.75
6.66% Hard Currency Sovereign EMD/6.66% Hard Currency Corporate EMD/6.66% Local Currency Sovereign EMD/ 80% Global Agg (USD Unhedged)	4.41	5.63	0.78

Source: State Street Global Advisors, JP Morgan, Bloomberg, as of December 31, 2021. Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Hard Currency Corporate EMD = JP Morgan CEMBI Broad 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) = Bloomberg Global Aggregate USD unhedged total return index. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income as applicable. 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 hard currency sovereign, corporate EMD and global aggregate bonds on both a USD hedged and unhedged basis. 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. We do not currently produce return and risk forecasts for local currency sovereign EMD due to the complexity in predicting local currency returns.

Based on our forward return estimates, both hard currency EMD and global aggregate bonds are expected to generate lower returns than in the past. This is due to a combination of lower yield levels (which are falling quite sharply across developed markets) and potential negative price returns should yields mean revert to historical average levels. However, we still forecast higher returns for hard currency EMD relative to global aggregate bonds — the expected return pick-up is about 3–4% versus global aggregate bonds (both USD hedged and unhedged).

Figure 20
Long-term Expected Returns and Risks (in USD, as of December 2021)

	Long-Term Expected Return (%)	Long-Term Expected Risk (%)	Return/Risk Ratio
Hard Currency Sovereign EMD	5.19	8.95	0.58
Hard Currency Corporate EMD	4.53	7.79	0.58
Global Aggregate Bond (USD Hedged)	0.86	3.58	0.24
Global Aggregate Bond (USD Unhedged)	1.42	6.32	0.22

Source: State Street Global Advisors, as of December 31, 2021. Hard Currency Sovereign EMD = JP Morgan EMBI Global Diversified USD total return index; Hard Currency Corporate EMD = JP Morgan CEMBI Broad Diversified USD total return index; Global Aggregate Bond (USD Hedged) = Bloomberg Global Aggregate USD hedged total return index; Global Aggregate Bond (USD Unhedged) = Bloomberg Global Aggregate USD unhedged total return index. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income as applicable. Past performance is not a reliable indicator of future performance.
The above targets are estimates based on certain assumptions and analysis made by State Street Global Advisors. There is no guarantee that the estimates will be achieved.

As global aggregate bond return forecasts have been impacted to a greater extent by falling rates, the benefits of adding hard currency EMD assets to a global bond portfolio are expected to be greater than our historical analysis shows. Using forward-looking return/risk estimates, a 100% allocation of hard currency EMD (either hard currency sovereign, corporate EMD or a blend of the two) to a USD hedged global aggregate bond portfolio is expected to maximise the portfolio return/risk ratio (although risk increases as you add HC EMD). The optimal EMD weight is also up to 100% for an unhedged global bond portfolio (lowest portfolio risk is achieved by adding 10–20% in sovereigns or corporates).

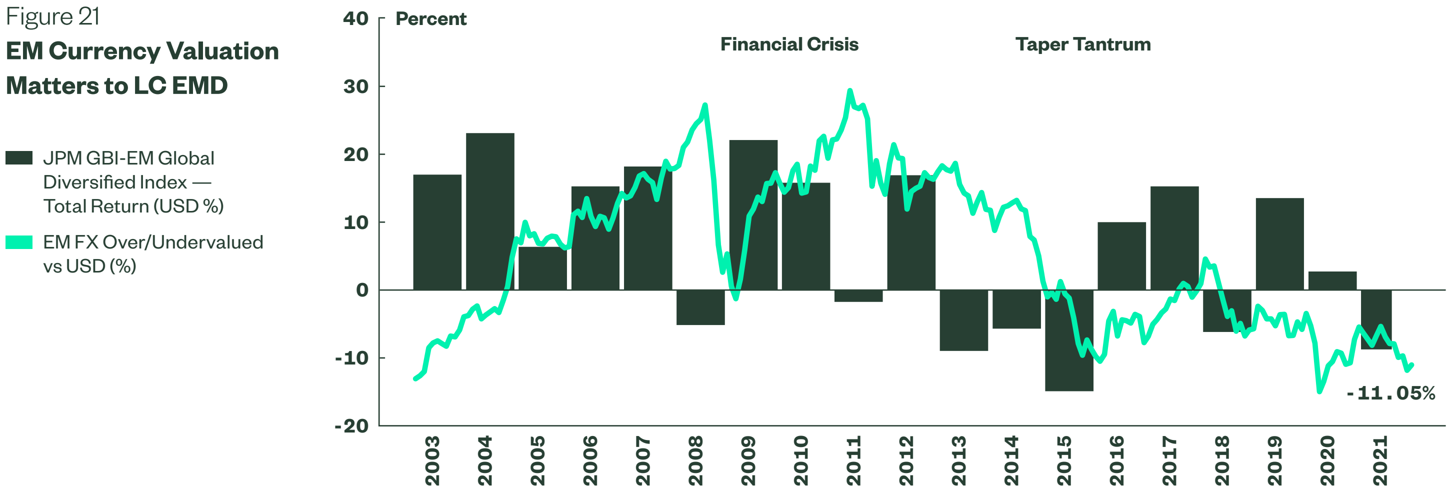
We think that investors could start with an allocation of 10%–20% to hard currency EMD in both USD hedged and USD unhedged global bond portfolios to enhance portfolio returns without significantly increasing volatility. For investors who have a higher return target and level of risk tolerance, they could consider allocating more to hard currency EMD which are expected to have a more attractive return/risk profile than global bonds in the next ten years.

LC EMD: Waiting on USD Weakness

Unlike hard currency EMD (which is USD-denominated), FX movements of EM local currencies against the US dollar have been a big return and risk driver for local currency EMD (Figure 21). Due to a long-term historical negative return contribution from the FX component and high EM currency volatility, it has been relatively less beneficial for USD-based investors to incorporate local currency EMD into a global bond portfolio.

On the other hand, we observe that the performance of local currency EMD is correlated to the valuation of EM currencies versus the dollar. 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 21).

Figure 21
EM Currency Valuation Matters to LC EMD



Source: State Street Global Advisors, Bloomberg Finance, L.P., as of 31 December 2021. Past performance is not a guarantee of future results. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income as applicable. Performance is calculated in USD. Estimate of fair value versus the US dollar as at 31 December 2021 — 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.

While EM FX is currently undervalued against the USD, it has been that way since 2015 — but without the run-up relative to the dollar seen during the earlier two periods (Figure 21). Despite an attractive EM currency valuation, return performance has been mixed. At the time of writing, EM currencies are undervalued relative to the USD, which makes it a good entry point to invest in local currency emerging market debt. To benefit from the currency return potential there would need to be a period of USD weakness alongside local EMD currency appreciation.

Historically, the US dollar typically gains or loses 30–40% during a bear/bull market over six to 10 years (see Figure 22). The spike in inflation, strong employment data, and resulting hawkish shift by the US Federal Reserve provide a strong near-term environment for the USD. However, we see the USD has become extremely expensive relative to its long-term fair value and the US growth lead has been narrowing. After a USD bull cycle of almost nine years, we believe that the USD is likely to enter a new bear market cycle over the medium term. A weakening USD could provide tailwinds to local currency emerging market sovereign bonds.

Figure 22
The US Dollar Cycle

Source: State Street Global Advisors, Bloomberg/US Federal Reserve, as of December 31, 2021. Past performance is not a reliable indicator of future performance.

Conclusion

Over the last ten years, the emerging market debt (EMD) market has grown significantly to account for over 25% of the global bond market and trading liquidity has improved considerably.[9] We think this makes it too big for global bond investors to ignore. In the current low yield environment, EMD provides an attractive yield pick-up relative to 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 with a similar return/risk ratio for a USD investor base. We think that investors should consider a 10–20% hard currency EMD allocation into their global bond portfolios (both USD hedged and unhedged) to enhance portfolio returns without significantly increasing volatility.

The case for incorporating local currency EMD into global portfolios is less compelling given currency volatility. Therefore 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 who seek local currency EMD exposures could also consider investing 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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Endnotes

1 The above targets are estimates based on certain assumptions and analysis made by State Street Global Advisors. There is no guarantee that the estimates will be achieved.

2 Source: State Street Global Advisors as of 31 December 2021.

3 The above targets are estimates based on certain assumptions and analysis made by State Street Global Advisors. There is no guarantee that the estimates will be achieved.

4 JP Morgan as of December 2020.

5 Source: International Monetary Fund World Economic Outlook, October 2021.

6 Source: International Monetary Fund, October 2021.

7 Source: International Monetary Fund, October 2021.

8 The above targets are estimates based on certain assumptions and analysis made by State Street Global Advisors. There is no guarantee that the estimates will be achieved.

9 Source: JP Morgan as of December 2020.

About State Street Global Advisors

For four decades, State Street Global Advisors has served the world's governments, institutions and financial advisors. With a rigorous, risk-aware approach built on research, analysis and market-tested experience, we build from a breadth of active and index strategies to create cost-effective solutions. As stewards, we help portfolio companies see that what is fair for people and sustainable for the planet can deliver long-term performance. And, as pioneers in index, ETF, and ESG investing, we are always inventing new ways to invest. As a result, we have become the world's fourth-largest asset manager* with US $4.14 trillion† under our care.

* Pensions & Investments Research Center, as of December 31, 2020.
† This figure is presented as of December 31, 2021 and includes approximately $61.43 billion of 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.

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Marketing communication

State Street Global Advisors Worldwide Entities

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