
Allocating to Emerging Market Debt — Considerations for Euro Investors

Jeremy de Pessemier, CFA

Senior Investment Strategist
Investment Strategy and Research, EMEA

Desmond Lawrence

Senior Investment Strategist
Investment Strategy and Research, EMEA

03	Executive Summary
04	Emerging Market Debt Overview
09	Benefits of Allocating to Emerging Market Debt
13	Fundamentals Underpin Case for Local Currency EMD
17	Conclusion

Executive Summary

Emerging market debt (EMD) is a versatile asset. It offers equity investors risk mitigation potential with minimal return dilution. For fixed income investors willing to move out the risk spectrum, it presents a substantial yield pick-up opportunity with compelling fundamentals and credit attributes. Investors need to be comfortable with headline and idiosyncratic risk, but in a low (and increasingly negative) yield environment EMD offers significant potential for those investors willing to take a closer look.

Key Points

- **Yield Enhancement** Emerging market debt provides an attractive yield enhancement relative to developed market bonds.
- **Diversification Benefits** The low correlation and higher growth factor exposures of EMD assets provide diversification benefits for global bond and equity investors.
- **Supportive Fundamentals** Emerging economies, on average, offer stronger growth and lower debt burdens than their advanced counterparts.
- **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.

1

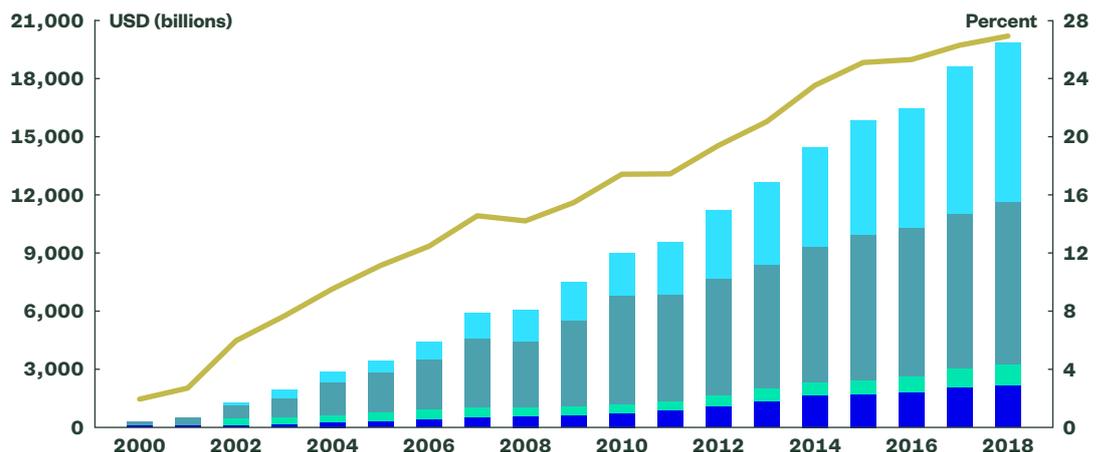
Emerging Market Debt Overview

- Emerging market debt hit almost \$20 trillion in 2018 to account for over a quarter of the global bond market.
- Three broad investible EMD assets: hard currency sovereign, hard currency corporate and local currency sovereign — each with its own distinct characteristics.

Fast Growing Market, Improving Liquidity

Over the past two decades, the EM debt market has grown significantly, with the total market size approaching US\$ 20 trillion in 2018 (based on JP Morgan estimates). Its proportion of the global bond market has also increased rapidly, from 2% in 2000 to over 25% in 2018. Even if we exclude the less accessible EM local currency corporates, EMD still accounts for 16% of the global bond market (Figure 1). We think this makes it too big for global investors to ignore.

Figure 1
EMD Market Expansion Since 2000 (in USD billions)



Source: State Street Global Advisors, JP Morgan, Bloomberg Finance LP, Bank of International Settlements as of January 2018.

In line with the market's rapid growth, there has also been an improvement in trading liquidity which has helped to bring trading costs down. Over the past five years, the cost of trading in hard currency EMD, as represented by bid-ask spreads, has decreased significantly. These are now lower than the cost of trading US high yield bonds, although not as low as those for US investment grade bonds. The cost of trading local currency sovereign EMD has remained stable and is lower than that of US investment grade bonds.

Characteristics of EMD Assets

Within the EMD universe, hard currency (HC) sovereign, hard currency 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 debt issued by emerging market governments.

The key characteristics of the three EMD assets are illustrated in Figure 2, alongside those of Global Aggregate bonds, Global High Yield (HY) bonds and Global Equities 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 segments offer varying degrees of credit quality exposure. This differs from Global Aggregate bonds which incorporate 100% in 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 the highest proportion of bonds with an investment grade rating (77%), while hard currency sovereign EMD has the lowest proportion (51%).
- 2 LC EMD Less Diversified** Within the investment universe, hard currency sovereign and corporate EMDs are quite diversified by country and region. By way of contrast, local currency sovereign EMD is more concentrated — the representative index contains only 19 countries, with the largest 10 making up 82%.
- 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 rate and credit risk in EM sovereign and corporates. A euro-based investor also has the additional consideration of US dollar fluctuation. The local currency sovereign EMD asset is sensitive to movements in local rates and currencies relative to the euro, along with the credit risk of the underlying sovereigns.

Figure 2

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

	Hard Currency Sovereign EM Debt	Hard Currency Corporate EM Debt	Local Currency Sovereign EM Debt	Global Aggregate Bond (Hedged**)	Global High Yield Bond	Developed Markets Equity	Emerging Markets Equity
Index	JP Morgan EMBI Global Diversified	JP Morgan CEMBI Broad Diversified	JP Morgan GBI-EM Global Diversified	Bloomberg Barclays Global Aggregate	Bloomberg Barclays Global High Yield	MSCI World	MSCI Emerging Markets
Investment Universe	73 countries	52 countries	19 countries	72 countries	107 countries	23 countries	26 countries
Currency	USD	USD	19 EM currencies	24 currencies**	5 currencies	14 currencies	26 currencies
Regional Split (%)							
Asia Pacific	18	37	25	23	6	12	72
Europe	21	11	32	30	21	21	6
Latin America	34	29	35	1	13	—	12
Middle East & Africa	27	23	9	1	12	0	9
North America	—	—	—	42	48	66	—
Other (supranational)	—	—	—	2	—	—	—
Index Rating*	Sub-IG Credit Rating Ba1/BB+	IG Credit Rating Baa3/BBB-	IG Credit Rating Baa2/BBB	IG Credit Rating Aa2/Aa3	Sub-IG Credit Rating Ba3/B1	N/A	N/A
IG/Sub-IG Split (%)	51 / 49	53 / 47	77 / 23	100 / 0	0 / 100	N/A	N/A
Yield to Worst (%)	5 . 54	4 . 85	5 . 69	1 . 46	5 . 81	N/A	N/A
Dividend Yield (%)	N/A	N/A	N/A	N/A	N/A	2 . 47	2 . 74
Duration (Yrs)	7 . 17	4 . 51	5 . 43	7 . 02	3 . 80	N/A	N/A
Key Risk Drivers	US Treasuries and EM Sovereign Spreads, €/\$ FX rate	US Treasuries and EM Corporate Spreads, €/\$ FX rate	Local Rates and Local Currencies	Local Rates and Corporate Spreads	Local Rates, Currencies and Corporate Spreads	Develop Market Beta and currencies	Emerging Markets Beta and currencies

* 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.

** We assume that euro investors hedge the global currency exposure.

Source: State Street Global Advisors, JPMorgan, Bloomberg Finance LP, MSCI as of 30 June 2019.

Emerging market debt provides a relatively 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 2, all three EMD assets had yields around 5% (as of mid-2019), which was around 3.5 times that of Global Aggregate bonds, and not too far behind that of Global High Yield bonds.

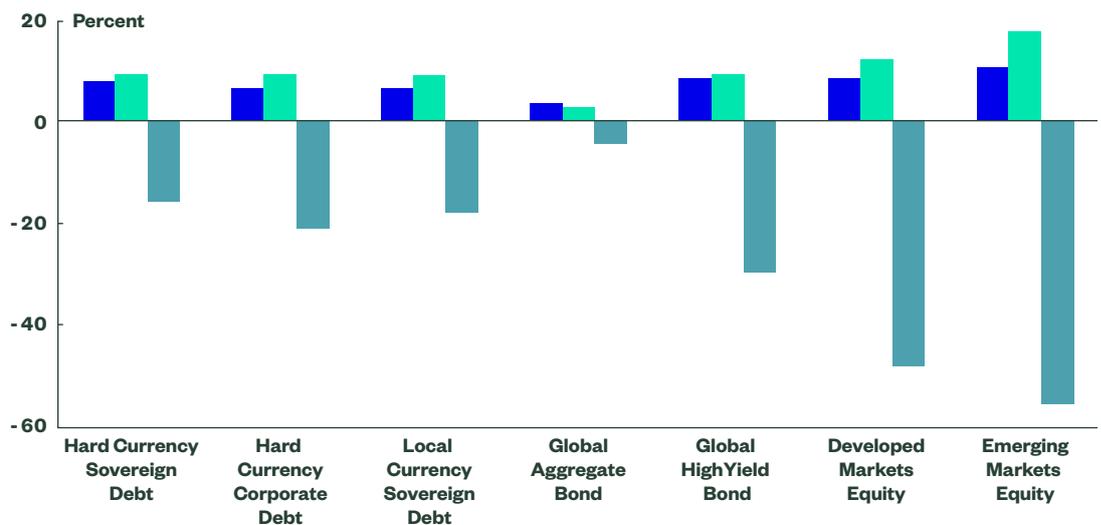
The hard currency corporate and local currency sovereign EMD assets have investment grade ratings on average, about 5–6 notches below global aggregate bonds, while the duration of the indices are shorter. By comparison, hard currency sovereign EMD has speculative grade ratings on average with a duration similar to global aggregate bonds. We believe that higher yields with (generally) lower duration than aggregate bonds, and better ratings than high yield bonds, offers an attractive combination to both bond and equity investors.

Return/Risk Profile of EMD: Between Investment Grade Bonds and Equities

The long-term returns and risks of hard currency sovereign, local currency sovereign and corporate EMD have historically been somewhere between those of Global Aggregate bonds and Global Equities (Figure 3). This is not surprising given that EMD assets are comprised of both investment grade and high yield bonds.

Figure 3
Historical Returns and Risks of Fixed Income and Equity Assets (EUR) (Dec 2002–Jun 2019)

■ Return
 ■ Risk
 ■ Maximum Drawdown



Source: State Street Global Advisors, JP Morgan, Bloomberg, MSCI, as of 30 June 2019. Data: JP Morgan EMBI Global Diversified index for Hard Currency EM Sovereign, JP Morgan CEMBI Broad Diversified index for Hard Currency EM Corporate, JPM GBI-EM Global Diversified index for Local Currency EM Sovereign, MSCI World index for MSCI Developed World, MSCI Emerging Markets index for MSCI EM returns, Bloomberg Barclays Global Aggregate for Global Aggregate and Bloomberg Barclay Global High Yield for Global High Yield. All returns are gross total returns in euro terms. Global Aggregate exposure is assumed to be currency hedged for euro investors. 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.

As Figure 3 illustrates, EM 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.

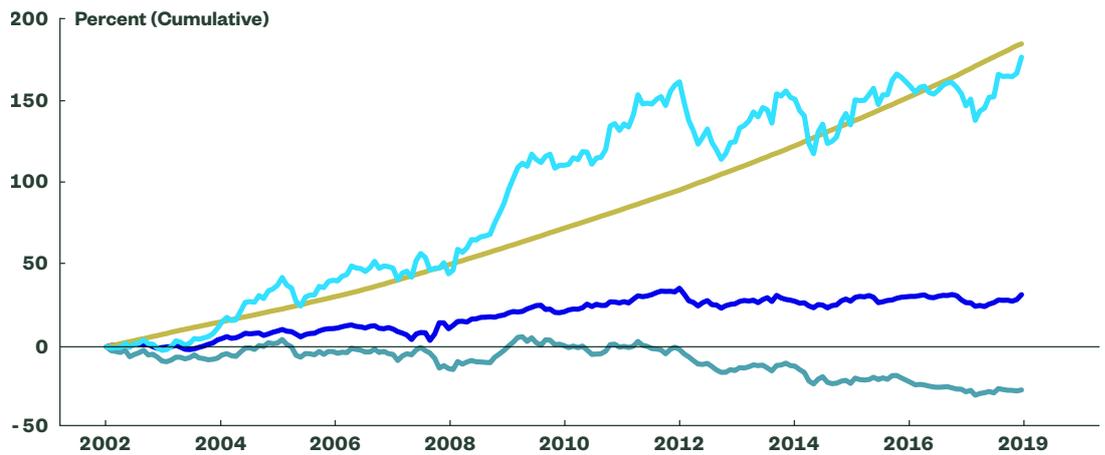
Income and FX Drive EMD Returns

In Figure 4, we decompose local currency EM debt total returns and assess contributions from the various return components on a cumulative basis. Not surprisingly, income (returns from coupon income) is the dominant driver of returns over time, 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 can be quite significantly impacted by the FX component (returns from the EM currency movements relative to the euro). Prior to 2008, EM currencies were generally flat against the euro, and the FX component did not contribute to the local currency sovereign EMD return. Since 2012 the return contributions from the FX component have been mostly negative. An assessment of the fair value or otherwise of EM currencies is a key consideration for euro-based investors when investing in local currency sovereign bonds. We take a closer look at EM currencies on page 16.

Figure 4
Decomposition of Local Currency Returns for JP Morgan GBI-EM Global Diversified Index for Euro Investors (Dec 2002–Jun 2019)

- Price Return (local)
- Income Return (local)
- Currency
- Total Return (EUR)



Source: State Street Global Advisors, JPMorgan, as of June 30, 2019. 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 of Allocating to Emerging Market Debt

- Low correlation and higher growth factor exposures provide diversification benefits to bond and equity portfolios.
- By blending EMD segments, investors can generate attractive returns while reducing the risk profile compared to holding a single EMD asset.

Diversification Benefits for Bond and Equity Portfolios

The long-term correlations between EMD assets and Global Aggregate bonds or Global Equities have been modest. This signifies the potential diversification benefits when adding EMD to a global bond or global equity portfolio (see Figure 5). For EUR hedged Global Aggregate bond investors, 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. From a global equity investor's perspective, all three EM debt segments provide broadly similar diversification benefits.

Figure 5
Asset Correlation
Based on EUR Returns
 Jan 2003–Jun 2019

	EM HC Sovereign Debt	EM HC Corporate Debt	EM LC Sovereign Debt	MSCI ACWI	MSCI World	MSCI EM	Global Aggregate (Hedged)	Global High Yield
EM HC Sovereign Debt	1.00	0.94	0.67	0.46	0.46	0.37	0.35	0.83
EM HC Corporate Debt	0.94	1.00	0.57	0.46	0.47	0.32	0.26	0.84
EM LC Sovereign Debt	0.67	0.57	1.00	0.54	0.51	0.63	0.31	0.58
MSCI ACWI	0.46	0.46	0.54	1.00	0.99	0.82	-0.09	0.65
MSCI World	0.46	0.47	0.51	0.99	1.00	0.76	-0.11	0.66
MSCI EM	0.37	0.32	0.63	0.82	0.76	1.00	0.00	0.53
Global Aggregate (Hedged)	0.35	0.26	0.31	-0.09	-0.11	0.00	1.00	0.08
Global High Yield	0.83	0.84	0.58	0.65	0.66	0.53	0.08	1.00

Source: State Street Global Advisors, JPMorgan, Bloomberg Finance LP, as of June 28, 2019. Data: JP Morgan EMBI Global Diversified index for Hard Currency EM Sovereign, JP Morgan CEMBI Broad Diversified index for Hard Currency EM Corporate, JPM GBI-EM Global Diversified index for Local Currency EM Sovereign, MSCI All Country World index for MSCI ACWI, MSCI World index for MSCI Developed World, MSCI Emerging Markets index for MSCI EM returns, Bloomberg Barclays Global Aggregate (euro hedged) for Global Aggregate and Bloomberg Barclay Global High Yield for Global High Yield.

Allocating to EMD on a Forward-Looking Basis

We have set out in the table below the blended emerging market debt allocations under consideration.

Figure 6
Blended EMD Strategies

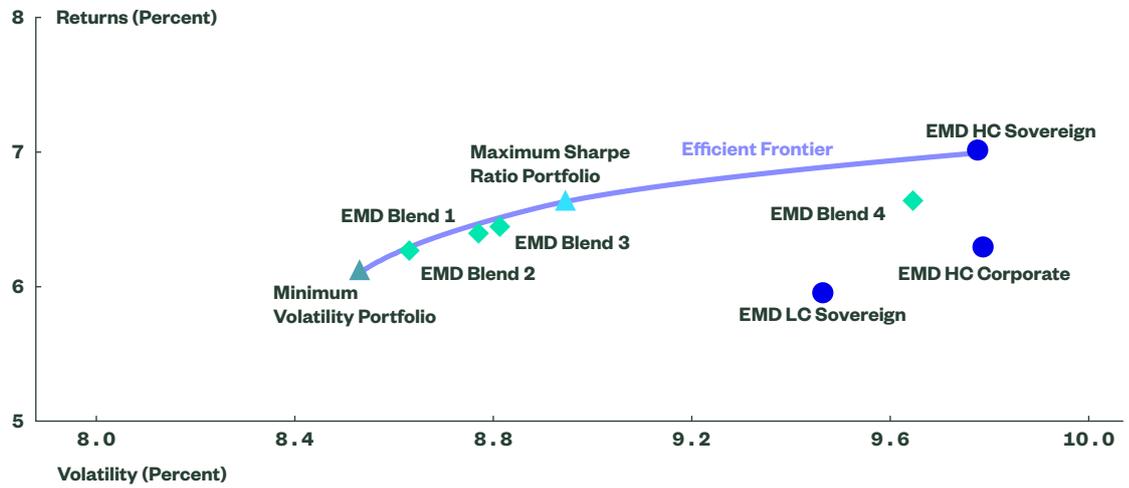
Strategy	Description
EMD Blend 1	33% EMD HC Sovereign + 33% EMD HC Corporate + 33% EMD LC Sovereign
EMD Blend 2	25% EMD HC Sovereign + 25% EMD HC Corporate + 50% EMD LC Sovereign
EMD Blend 3	50% EMD HC Sovereign + 50% EMD LC Sovereign
EMD Blend 4	50% EMD HC Sovereign + 50% EMD HC Corporate

In Figure 7, we have outlined the long-term expected returns and risks of hard currency sovereign, local currency sovereign and corporate EMD, as well as the four blended strategies outlined above. Our long-term fixed income return forecasts incorporate the current yield-to-worst of the respective bond segments, adjusted insofar as the local currencies are at a discount or premium to fair value versus the euro. Our long-term fixed income risk estimates, on the other hand, are based on historic risks.

Based on our forward return estimates, the various EMD segments are expected to generate lower returns than historically has been the case. This is due to a combination of lower yield levels (which are falling quite sharply across developed markets) and estimated broad fair value of EM currencies versus the euro.

Blending the EMD segments can provide attractive returns while reducing the risk profile compared to holding a single EMD asset. Moreover, blends that include local currency EMD (Blends 1, 2 & 3) have reduced volatility compared to a hard currency only blend. This is due to the FX component, which results in superior diversification benefits.

Figure 7
Optimal Portfolios Based on Blended Expected Returns, Risks and Correlations



Source: State Street Global Advisors, JPMorgan as of 30 June, 2019. The expected returns for each individual segment are derived from yield to worst for the respective bond segment. There is no adjustment for potential default losses. Local currency returns are adjusted insofar as they are at a discount or premium to fair value. Volatility and correlation data are based on the historical monthly performance data of the respective bond segment from 31 December 2002 to 30 June 2019. The above expected returns are estimates based on certain assumptions and analysis. There is no guarantee that the estimates will be achieved. Returns and risk metrics for the blended strategies, minimum volatility and maximum Sharpe ratio portfolios were achieved by mathematically combining the actual performance data of EMD HC Sovereign expected return and volatility, EMD HC Corporate expected return and volatility and EMD LC Sovereign expected return and volatility. The performance assumes no transaction and rebalancing costs, so actual results will differ. Past performance is not a reliable indicator of future performance.

Impact of EMD allocation to Fixed Income 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 15% of the Global Aggregate (euro hedged) bond exposure with a blend of EMD assets.

As illustrated in the following table (Figure 8), this 15% allocation to emerging market debt, equally split across EM HC Sovereign, EM HC Corporate and EM LC Sovereign would have led to an increase in both portfolio returns and volatility, and actually improved the maximum drawdown modestly.

Investors with a higher return target and level of risk tolerance could allocate more EMD into their portfolio to increase their return/risk metric.

Figure 8
Impact on Fixed Income Portfolios

	Return (%)	Volatility (%)	Return/Risk	Max Drawdown (%)
Global Aggregate	3 . 63	2 . 71	1 . 34	- 4 . 48
Global Aggregate + EM Debt	4 . 17	2 . 97	1 . 40	- 4 . 01
Difference	0 . 54	0 . 26	0 . 06	0 . 47

Source: State Street Global Advisors, JPMorgan, Bloomberg Finance LP, as of 30 June 2019. Returns and risk metrics were achieved by mathematically combining the performance data of the Bloomberg Barclays Global Aggregate Index and an equal-weighted basket of JP Morgan EMBI Global Diversified index (Hard Currency Sovereign), JP Morgan CEMBI Broad Diversified index (Hard Currency Corporate) and JPM GBI-EM Global Diversified index (Local Currency Sovereign) in an 85%/5%/5%/5% weight. The performance assumes no transaction and rebalancing costs, so actual costs will differ. Past performance is not a reliable indicator of future performance.

Impact of EMD Allocation to Equity Portfolios

In addition to assessing the impact on a global fixed income portfolio, we also look at how a blend of EMD assets could impact a global equity portfolio. In Figure 9, we calculate the long-term historical return and risk of a global equity portfolio when we replace 15% of the global equity exposure with a combination of EMD assets.

This modest 15% allocation to emerging market debt, equally split across EM HC Sovereign, EM HC Corporate and EM LC Sovereign, would have enhanced the risk profile of an equity book with marginal return dilution.

Figure 9
Impact on Global Equity Portfolios

	Return (%)	Volatility (%)	Return/Risk	Max Drawdown (%)
MSCI ACWI	8.54	12.58	0.68	-48.43
MSCI ACWI + EM Debt	8.39	11.41	0.73	-43.34
Difference	-0.15	-1.17	0.06	5.09

Source: State Street Global Advisors, JP Morgan, Bloomberg, as of 30 June 2019. Index returns reflect capital gains and losses, income, and the reinvestment of dividends. Past performance is not a reliable indicator of future performance. Returns and risk metrics were achieved by mathematically combining the performance data of the MSCI ACWI Index and an equal-weighted basket of JP Morgan EMBI Global Diversified index (Hard Currency Sovereign), JP Morgan CEMBI Broad Diversified index (Hard Currency Corporate) and JPM GBI-EM Global Diversified index (Local Currency Sovereign) in an 85%/5%/5%/5% weight. The performance assumes no transaction and rebalancing costs, so actual costs will differ.

Fundamentals

Underpin Case for Local Currency EMD

- Emerging markets continue to drive global economic growth, led by China and India.
- While emerging markets remain vulnerable to shifting trade and risk sentiment, they have more scope to implement fiscal and monetary measures to support growth.

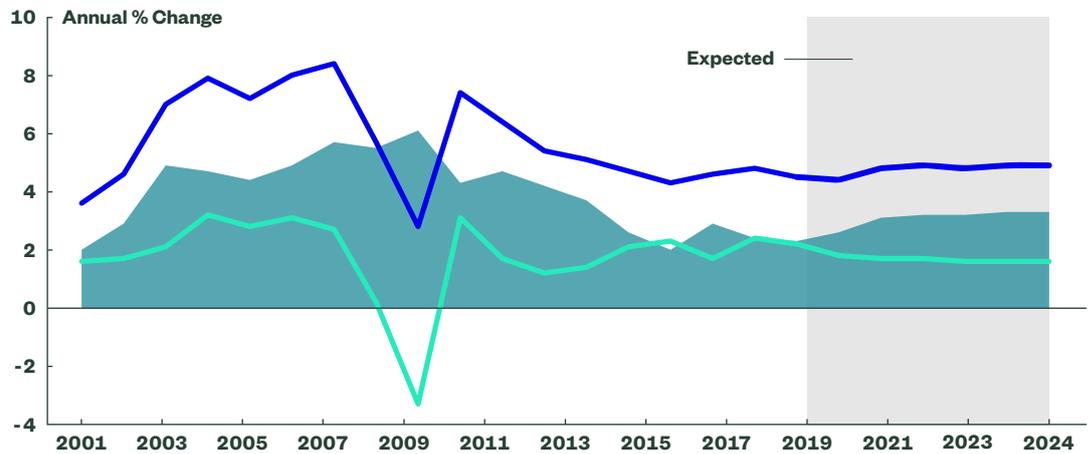
EM Countries: Higher Growth, Lower Debt

Emerging market economies are driving global growth. Over the last two decades, they have experienced consistently stronger growth than the more developed economies. According to the International Monetary Fund (IMF), advanced economy GDP is expected to increase by 1.8% in 2019, while emerging markets should expand by 4.4%. This growth premium, which bottomed at 2.0% in 2015, is expected to increase to an average of 3.2% over the next five years (Figure 10).

However, it is worth noting that much of emerging market growth is currently being driven by China and India, as a number of the other major EM economies (including Brazil, Russia and Mexico) have been growing more slowly than the advanced economies. Excluding China/India, the growth premium to the advanced economies is forecast to be around 0.6% for 2019, and is expected to rise to an average 1.7% over the next five years, according to IMF forecasts. This growth pick-up should provide broad-based support for emerging markets.

Figure 10
**Real GDP Growth
 (annual % change)**

- Emerging Market and Developing Economies
- Advanced Economies
- Growth Differential

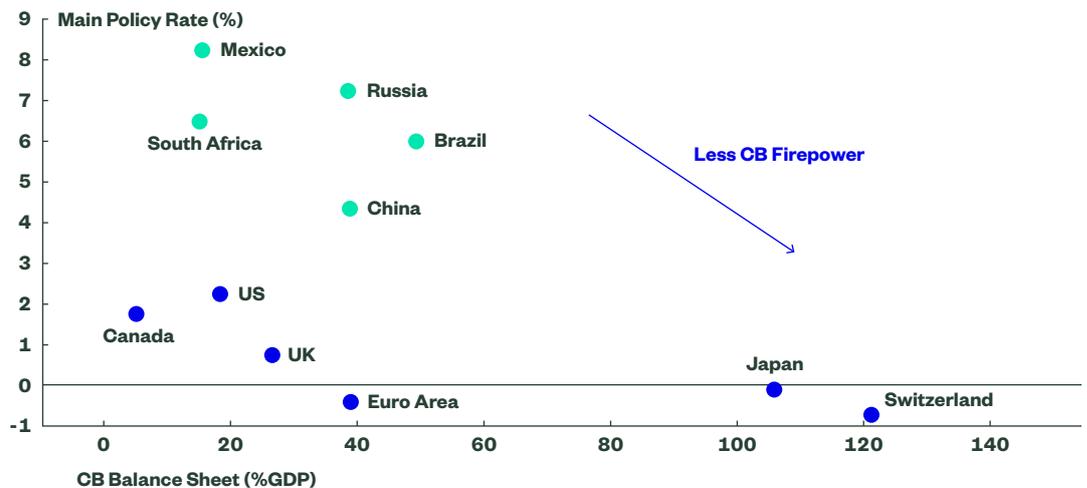


Source: State Street Global Advisors, International Monetary Fund as of April 2019.

The main risks to growth, according to the IMF, “include further trade and technology tensions that dent sentiment and slow investment; a protracted increase in risk aversion that exposes the financial vulnerabilities continuing to accumulate after years of low interest rates; and mounting disinflationary pressures that increase debt service difficulties, constrain monetary policy space to counter downturns, and make adverse shocks more persistent than normal”. While emerging markets remain vulnerable to trade and risk sentiment, we believe they have more scope to implement fiscal and monetary measures to support growth. As illustrated in Figure 11, EM central banks have more ammunition.

Figure 11
**EM Central
 Banks Have
 More Ammunition**

- Developed Economies
- Emerging Market Economies

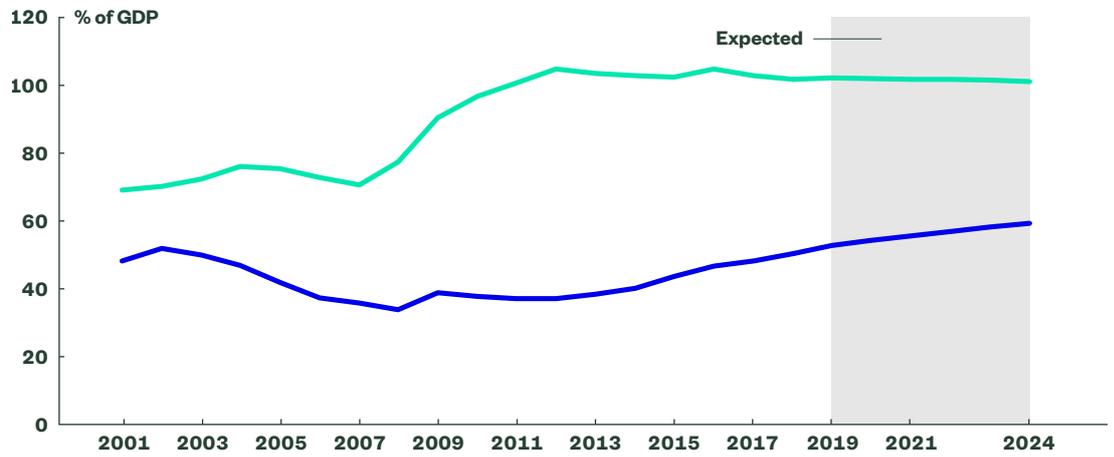


Source: State Street Global Advisors, Trading Economics as of 30 June 2019.

External vulnerabilities across emerging markets have reduced over the last 10 years as the number of countries running fiscal and current account deficits is now much lower, foreign exchange reserves are higher, and foreign currency-denominated debt now accounts for less of the total exposure. The IMF forecasts that general government gross debt as a percentage of GDP for emerging economies may increase in the medium term, but the level should remain far below that of advanced economies (Figure 12). And while average current account deficits as a percentage of GDP are likely to deteriorate in the coming years, they are forecast to be within 1% of GDP (see Figure 13). Favorable growth trends and more robust credit metrics in emerging market economies should help support EMD over the medium term.

Figure 12
**General
 Government Debt
 as % of GDP**

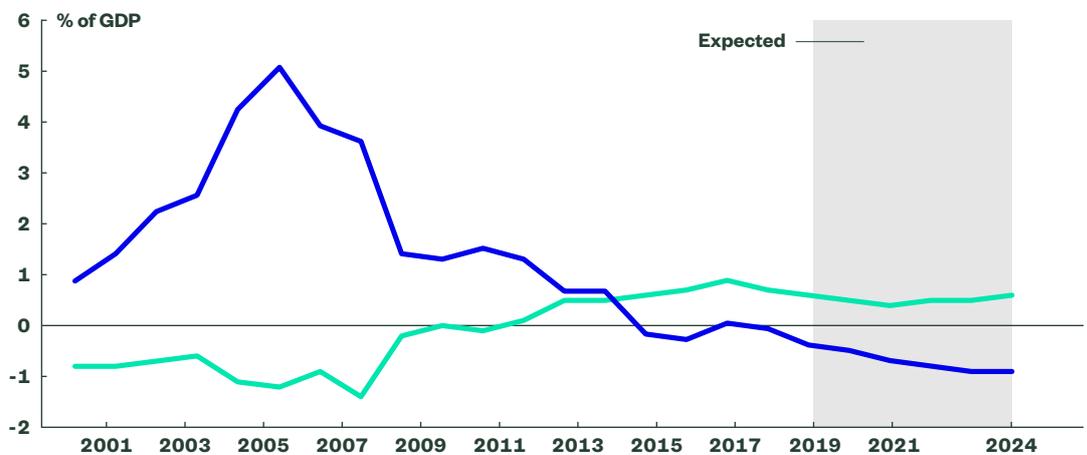
■ Emerging Market and
 Developing Economies
 ■ Advanced Economies



Source: State Street Global Advisors, International Monetary Fund as of April 2019.

Figure 13
**Current Account
 Balance as % of GDP**

■ Emerging Market and
 Developing Economies
 ■ Advanced Economies



Source: State Street Global Advisors, International Monetary Fund as of April 2019.

Idiosyncratic and Contagion Risks Remain, But Are 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.

While EMD investors need to be comfortable with its sensitivity to swings in risk sentiment and global macro external shocks, we believe the contagion risks are lower than in the past. 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. However, the overall solid credit metrics of emerging market countries as a whole, as well as an increasingly better-informed investor base, helped to limit the contagion.

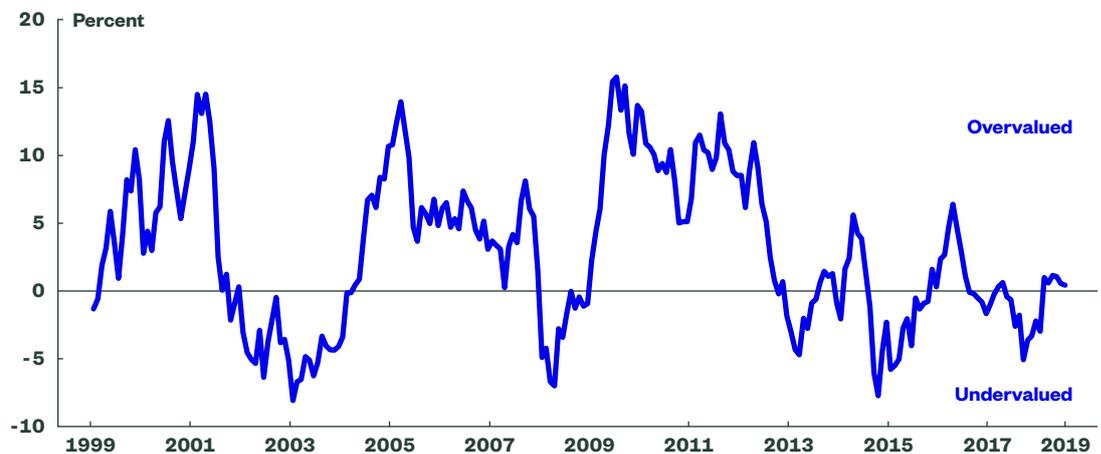
Local Currency EMD — The FX Component

As noted, income return tends to be the dominant driver of EMD returns over time. That said, foreign exchange rate movements of EM local currencies against the euro have been a big return and risk driver for local currency EMD. Due to a long-term historical negative return contribution from the FX component and high EM currency volatility, it has been less beneficial for euro-based investors to incorporate local currency EMD into a global portfolio relative to hard currency sovereign EMD.

On the other hand, we have observed that the performance of local currency EMD is correlated to the valuation of EM currencies versus the euro. Historically, a good time to invest in EMD has been when EM currencies have been attractively priced (undervalued) against the euro. Investing in local currency EM debt during periods when EM currencies are overvalued has typically resulted in poor returns for investors as the subsequent devaluation can wipe out any bond gains.

Today, EM currencies are close to fair value relative to the euro, and below fair value versus the US dollar. This makes it a relatively good entry point to invest in local currency emerging market debt. However, to benefit from the currency return potential there would need to be a period of euro weakness/EM currency appreciation. The challenge is in timing the run.

Figure 14
**EM Currency Over/
Undervaluation
Versus the Euro**



Source: State Street Global Advisors, Bloomberg Finance, L.P., as of 30 June 2019. Past performance is not a guarantee of future results. Historic estimate of fair value versus euro to 30 June 2019 — valuations above 0% imply overvalued and below imply undervalued. The calculation is based on the currency weight of the JP Morgan GBI-EM Global Diversified total return index. 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.

Conclusion

Emerging market debt offers investors a relatively attractive growth exposure at a time when advanced economies may struggle to maintain their trend rate of growth. Emerging market economies typically have superior growth dynamics and significantly lower debt burdens relative to their advanced economy counterparts making their debts more sustainable and serviceable over the long run, making it an attractive asset class for investors. Furthermore, emerging market economies have considerably greater capacity for policy response by EM central banks should it be required in the coming years.

As with most bond investments, income tends to be the dominant driver of returns over the medium- to long-term. In the short term, however, currency fluctuations can drive return variance in hard and (more so) local currency EM debt. Assessing the fair value of those local currencies can help investors manage that risk — allocating to the asset class where the currencies are trading close to, or below, fair value can help build a buffer into the investment decision.

Finally, we note the versatility of EM debt — its low correlations with global equities and global bonds makes it a welcome addition for both global equity and debt investors.

Contributors/ Contacts

Altaf Kassam, CFA,

Head of Investment Strategy and Research, EMEA

David Furey

Head of Fixed Income Portfolio Strategists, EMEA

Matteo Balicco

Investment Strategist, Investment Strategy and Research, EMEA

Michele Barlow

Head of Investment Strategy and Research, Asia Pacific

Yichan Shu, CFA, FRM

Senior Investment Strategist, Investment Strategy and Research

ssga.com

State Street Global Advisors Worldwide Entities

Abu Dhabi: State Street Global Advisors Limited, Middle East Branch, 42801, 28, Al Khatem Tower, Abu Dhabi Global Market Square, Al Maryah Island, Abu Dhabi, United Arab Emirates. Regulated by ADGM Financial Services Regulatory Authority. T: +971 2 245 9000. **Belgium:** State Street Global Advisors Belgium, Chaussée de La Hulpe 120, 1000 Brussels, Belgium. T: 32 2 663 2036, F: 32 2 672 2077. SSGA Belgium is a branch office of State Street Global Advisors Ireland Limited. State Street Global Advisors Ireland Limited, registered in Ireland with company number 145221, authorised and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. **France:** State Street Global Advisors Ireland Limited, Paris branch is a branch of State Street Global Advisors Ireland Limited, registered in Ireland with company number 145221, authorised and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. **Germany:** State Street Global Advisors GmbH, Briennner Strasse 59, D-80333 Munich. Authorised and regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht ("BaFin"). Registered with the Register of Commerce Munich HRB 121381. T: +49 (0)89 55878 400. F: +49 (0)89 55878 440. **Ireland:** State Street Global Advisors Ireland Limited is regulated by the Central Bank of Ireland. Registered office address 78 Sir John Rogerson's Quay, Dublin 2. Registered number 145221. T: +353 (0)1 776 3000. F: +353 (0)1 776 3300. **Italy:** State Street Global Advisors Ireland Limited, Milan Branch (Sede Secondaria di Milano) is a branch of State Street Global Advisors Ireland

Limited, registered in Ireland with company number 145221, authorised and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. State Street Global Advisors Ireland Limited, Milan Branch (Sede Secondaria di Milano), is registered in Italy with company number 10495250960 - R.E.A. 2535585 and VAT number 10495250960 and whose office is at Via Ferrante Aporti, 10 - 20125 Milano, Italy. T: +39 02 32066 100. F: +39 02 32066 155. **Netherlands:** State Street Global Advisors Netherlands, Apollo Building, 7th floor Herikerbergweg 29 1101 CN Amsterdam, Netherlands. T: 31 20 7181701. SSGA Netherlands is a branch office of State Street Global Advisors Ireland Limited, registered in Ireland with company number 145221, authorised and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. **Switzerland:** State Street Global Advisors AG, Beethovenstr. 19, CH-8027 Zurich. Authorised and regulated by the Eidgenössische Finanzmarktaufsicht ("FINMA"). Registered with the Register of Commerce Zurich CHE-105.078.458. T: +41 (0)44 245 70 00. F: +41 (0)44 245 70 16. **United Kingdom:** State Street Global Advisors Limited. Authorised and regulated by the Financial Conduct Authority. Registered in England. Registered No. 2509928. VAT No. 577659181. Registered office: 20 Churchill Place, Canary Wharf, London, E14 5HJ. T: 020 3395 6000. F: 020 3395 6350. The views expressed in this material are the views of the Investment Strategy and Research Group through the period September 2019 and are subject to change based on market and other conditions. This document contains certain statements that may be deemed forward looking statements. Please note that any such statements are not guarantees of any future performance and actual results or developments may differ materially from those projected. The whole or any part of this work may not be reproduced, copied or transmitted or any of its contents disclosed to third parties without SSGA's express written consent.

The information contained in this communication is not a research recommendation or 'investment research' and is classified as a 'Marketing Communication' in accordance with the Markets in Financial Instruments Directive (2014/65/EU) or applicable Swiss regulation. This means that this marketing communication (a) has not been prepared in accordance with legal requirements designed to promote the independence of investment research (b) is not subject to any prohibition on dealing ahead of the dissemination of investment research.

All information is from SSGA unless otherwise noted and has been obtained from sources believed to be reliable, but its accuracy is not guaranteed. There is no representation or warranty as to the current accuracy, reliability or completeness of, nor liability for, decisions based on such information and it should not be relied on as such. **The information provided does not constitute investment advice and it should not be relied on as such. It should not be considered a solicitation to buy or an offer to sell a security. It does not take into account any investor's particular investment objectives, strategies, tax status or investment horizon. You should consult your tax and financial advisor. All material has been obtained from sources believed to be reliable. There is no representation or warranty as to the accuracy of the information and State Street shall have no liability for decisions based on such information.**

Currency Risk is a form of risk that arises from the change in price of one currency against another. Whenever investors or companies have assets or business operations across national borders, they face currency risk if their positions are not hedged. Investing in foreign domiciled securities may involve risk of capital loss from unfavorable fluctuation in currency values, withholding taxes, from differences in generally accepted accounting principles or from economic or political instability in other nations.

Investments in emerging or developing markets may be more volatile and less liquid than investing in developed markets and may involve exposure to economic structures that are generally less diverse and mature and to political systems which have less stability than those of more developed countries. 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. Risk associated with equity investing include stock values which may fluctuate in response to the activities of individual companies and general market and economic conditions. Investing in high yield fixed income securities, otherwise known as "junk bonds", is considered speculative and involves greater risk of loss of principal and interest than investing in investment grade fixed income securities. These Lower-quality debt securities involve greater risk of default or price changes due to potential changes in the credit quality of the issuer. The trademarks and service marks referenced herein are the property of their respective owners. Third party data providers make no warranties or representations of any kind relating to the accuracy, completeness or timeliness of the data and have no liability for damages of any kind relating to the use of such data. Investing involves risk including the risk of loss of principal.

© 2020 State Street Corporation.
All Rights Reserved.
ID245854-3148740.11.EMEA.INST 0720
Exp. Date: 31/10/2020