



Creating an Efficient Frontier With Emerging Debt

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One of the most efficient ways to increase the potential return of your fixed-income portfolio, we believe, is to increase your allocation to emerging markets (EM) debt.

The Challenge for Fixed-Income Investors

As core rates have fallen, it has become increasingly challenging for investors to achieve their investment targets. Historically, falling core rates have led to wider risk premiums, which have made risky assets relatively attractive.

This situation is particularly difficult for institutional investors, such as pensions and endowments, whose investment mandates require them to achieve a certain return. If you can fund your pension obligations with low-risk options such as U.S. Treasuries, that's great.

But if you're underfunded or need higher total returns, you must reduce allocation to high-grade securities in your portfolio, because you just can't get those returns with U.S. government securities. And if you need to enhance the yield of your portfolio in an efficient way, we believe that adding a small amount of EM debt to your portfolio is a compelling solution.

Seeking a Compelling Sharpe Ratio

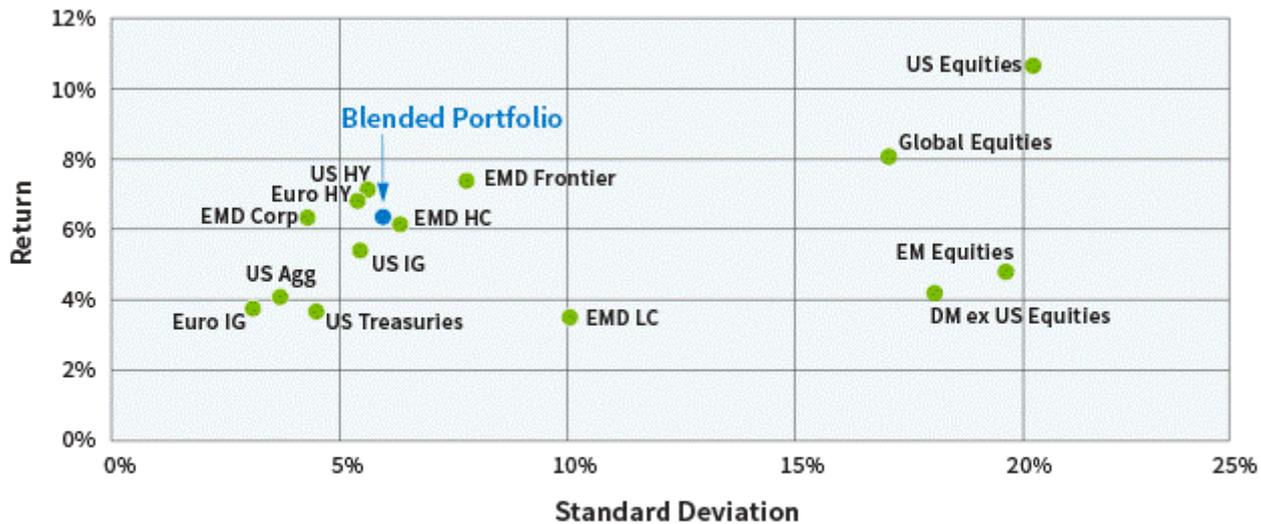
The chart below shows historical returns and standard deviations of various fixed-income and equity asset classes over the past 15 years. EM debt historically has shown returns in line with global equity indices, but with a fraction

of the volatility.

The red dot is a blended EM debt portfolio: 70% hard currency EM debt (J.P. Morgan EMBI Global Diversified Index), 15% EM corporate debt (J.P. Morgan CEMBI Diversified Index), and 15% frontier markets debt (J.P. Morgan Next Generation Markets Index).

EM Debt Can Offer a Higher Sharpe Ratio

Historical returns and standard deviations of various fixed-income and equity asset classes over the past 15 years show that a hypothetical blended portfolio may be a compelling option for investors seeking a higher Sharpe ratio



Sources: Bloomberg, J.P. Morgan, MSCI, and S&P, as of December 2021. **Past performance is not indicative of future returns.** A direct investment in an unmanaged index is not possible. Benchmarks used are as follows: EM debt hard currency, J.P. Morgan EMBI Global Diversified Index; EM local currency, J.P. Morgan GBI EM Global Diversified Index; EM corporate debt, J.P. Morgan CEMBI Diversified Index; frontier markets debt, J.P. Morgan Next Generation Markets Index; euro high yield, MSCI Euro High Yield Index; U.S. high yield, J.P. Morgan U.S. High Yield Index; U.S. investment grade, J.P. Morgan U.S. Investment Grade Corporate Index; U.S. Treasuries, Bloomberg Barclays U.S. Treasury Bills Index; MSCI Emerging Markets Index; MSCI EAFE Index; MSCI World Index.

Creating an Efficient Frontier

After seeing the strong risk adjusted returns delivered by EM debt in the chart above, we then asked, “How much EM debt should an investor seeking higher returns have in a fixed-income portfolio?”

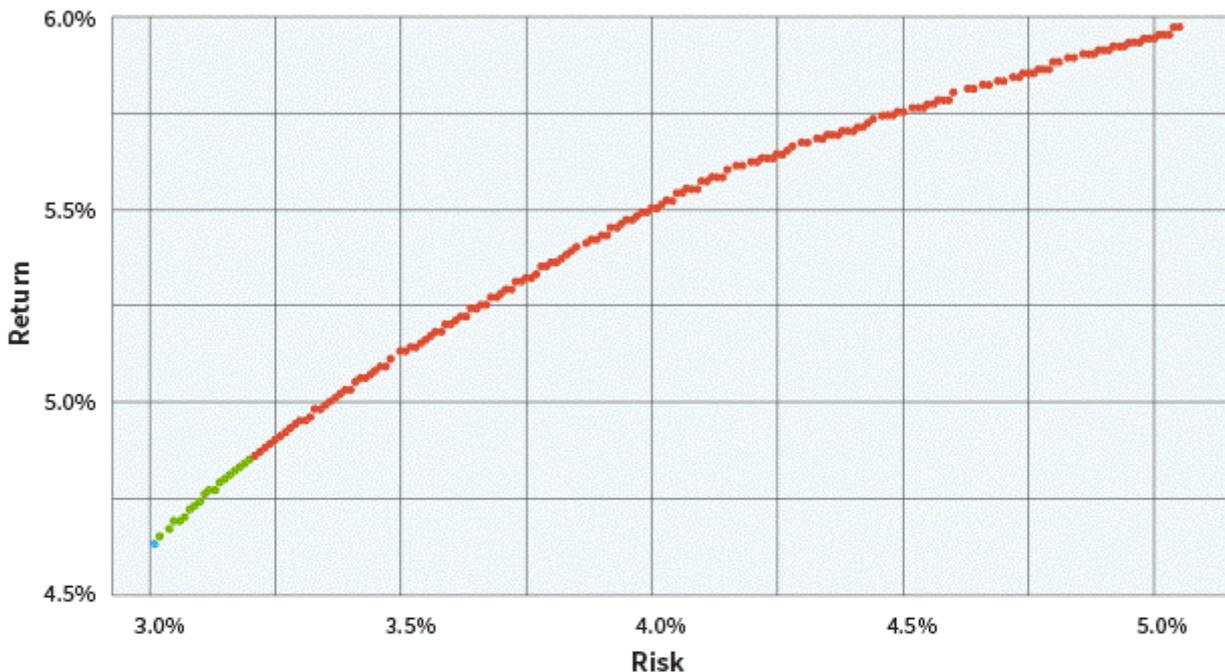
To help answer that question, we simulated millions of fixed-income portfolios, calculating their risk and return characteristics from 2002 to present. We then created an efficient frontier of portfolios with various allocations to the light blue EM debt portfolio in the chart above.

Each dot in the chart below is a hypothetical fixed-income portfolio. Blue dots are portfolios with 0% allocation to EM debt; green dots are portfolios with less than 5% allocation to EM debt; red dots are portfolios with more than 5% allocation to EM debt.

As the chart shows, to achieve a return of greater than around 4.9% annualized and maintain relatively low risk over the past 20 years, a portfolio must have had an allocation to EM debt.

Adding EM Debt to Fixed-Income Portfolios Has Increased Returns

Blue dots are portfolios with 0% allocation to EM debt; green dots are portfolios with less than 5% allocation to EM debt; red dots are portfolios with more than 5% allocation to EM debt.



Source: William Blair, as of January 2022. **Past performance is not indicative of future returns.** A direct investment in an unmanaged index is not possible. The efficient frontier depicts hypothetical combinations of asset classes and is provided for illustrative purposes only. Hypothetical performance results do not represent the actual results of any account or strategy and are not indicative of the future performance of any strategy. Hypothetical performance results have many inherent limitations. In particular, they do not reflect actual trading and may not reflect the impact that material economic and market factors might have had on the decision-making process if actual accounts were managed using the strategy. Hypothetical performance also is developed with the benefit of hindsight, which may distort returns. The deduction of fees and expenses would reduce the returns shown. No investor should rely solely upon this hypothetical performance in making an investment decision. In analyzing this data, we combined subcomponents of the Bloomberg U.S. Aggregate Index (U.S. Treasury, agencies, local authorities, sovereign, supranational, corporate, securitized, and U.S. corporate high yield) with EM debt (defined as a blend of 65% J.P. Morgan EMBI Global Diversified Index, 25% J.P. Morgan Next Generation Markets Index, and 15% J.P. Morgan CEMBI Broad Diversified Core Index) to develop the hypothetical portfolios on the efficient frontier.

EMD: Less Risky Than You Think

Investing in EM debt entails the same risks that accompany all debt issues, such as the issuer's ability to meet payment obligations. These risks are heightened when investing in debt issues by developing nations, which often have political and economic instability.

What makes EM debt so compelling from a risk/return perspective then? In part, the asset classes offer a lender of last resort via the International Monetary Fund (IMF). But the IMF doesn't just provide a lifeline of emergency

liquidity to help issuers' external positions; it also provides coaching to make issuers stronger, and economies more resilient. It shouldn't be surprising, then, that EM debt has a default rate of less than 1% [1], with an average recovery rate of 55 cents on the dollar. Historically, spreads have more than compensated investors for the credit risk in EM debt, resulting in high risk-adjusted returns.

The Takeaway

For investors looking to enhance the return potential of fixed-income allocations, we think that EM debt should be a key pillar in your fixed-income portfolio.

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[1] Moody's; refers to bonded debt.

JP Morgan Emerging Markets Bond Index (EMBI) Global Diversified tracks the total return of U.S.-dollar denominated debt instruments issued by sovereign and quasi-sovereign entities. **JP Morgan Government Bond Index-Emerging Market (GBI-EM) Global Diversified** is a comprehensive global local emerging market index, consisting of regularly traded, liquid fixed-rate, domestic currency government bonds. **JP Morgan Corporate Emerging Markets Bond Index (CEMBI) Diversified** is a uniquely-weighted version of the CEMBI index designed to result in more balanced weightings for countries included in the index. **JPMorgan CEMBI Index** is a market capitalization-weighted index consisting of U.S.-dollar denominated corporate bonds issued by emerging markets entities. **JP Morgan Next Generation Markets Index** tracks U.S.-dollar denominated debt issued by sovereign and quasi-sovereign issuers in frontier markets. The index provides a benchmark for the smaller, less liquid population of emerging market credits. **MSCI Euro High Yield Index** measures the performance of Euro-denominated, below investment grade bonds. **JP Morgan U.S. High Yield Index** measures the performance of U.S.-dollar denominated below investment grade corporate debt publicly issued in the U.S. market. **JP Morgan U.S. Investment Grade Corporate Index** measures the performance of U.S. investment grade corporate debt. **Bloomberg Barclays US Treasury Index** measures US dollar-denominated, fixed-rate, nominal debt issued by the US Treasury. **MSCI EAFE Index** is designed to measure the equity market performance of developed markets outside of the U.S. & Canada. **MSCI Emerging Markets Index** is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets. **MSCI World Index** is a market cap weighted index of stocks from companies throughout the world and is used as a common benchmark for 'world' or 'global' stock funds intended to represent a broad cross-section of global markets.

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