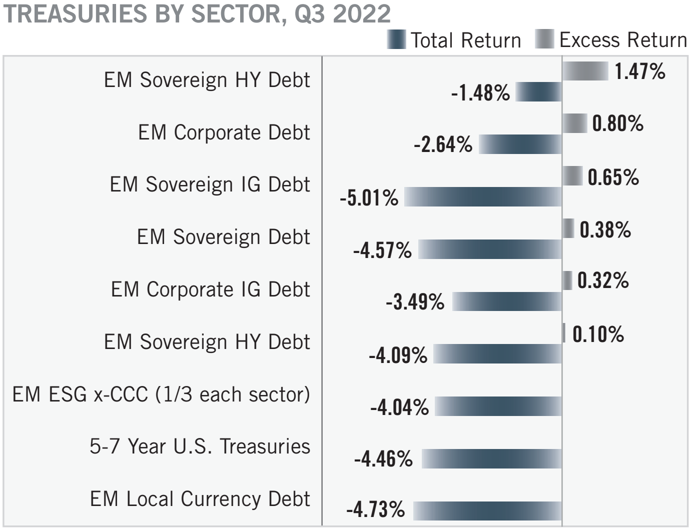
Q3 22 EMERGING MARKETS DEBT

MARKET REVIEW AND OUTLOOK

MARKET REVIEW

Rising inflation, higher financing costs, and weaker growth in developed economies provided a challenging macroeconomic backdrop for emerging markets (EM) debt returns in Q3. The U.S. Federal Reserve hiked its policy rate by 75 basis points in both July and September, and signaled that it would continue to tighten. Several other major central banks made similar moves. Many EM central banks, which had already increased their policy rates, also tightened. Q3 growth moderated in advanced and emerging economies, but not enough for most central banks to pause their tightening cycles. The U.S. dollar strengthened, equity index prices fell, and government bond yields increased along with greater market volatility. EM credit, currency and interest rate markets faced renewed selling pressure. Market tracking indices for the three sectors of emerging markets (EM) debt[1] — hard currency sovereign debt, local currency sovereign debt, and hard currency corporate debt — delivered total returns of -4.57%, -4.73%, and -2.64%, respectively.

FIGURE 1: TOTAL RETURNS AND EXCESS RETURNS VS. U.S. TREASURIES BY SECTOR, Q3 2022

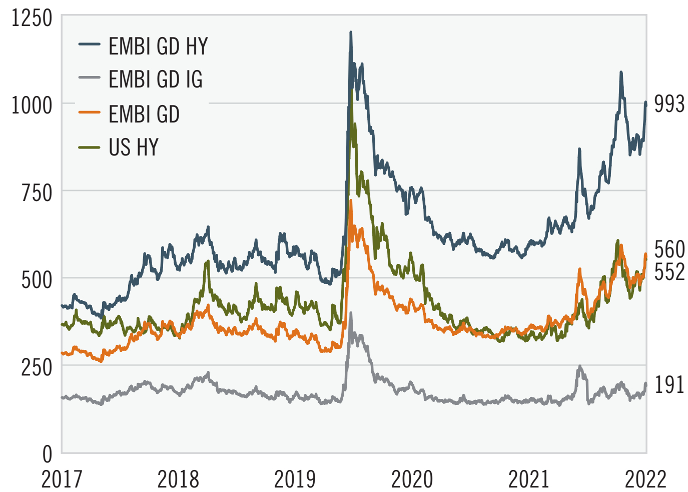


Past performance is no guarantee of future results. As of September 30, 2022.
Sources: J.P. Morgan, Stone Harbor Investment Partners, Bloomberg.

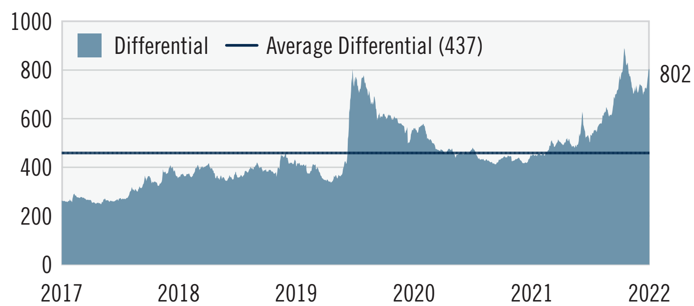
Despite the selloff, EM credit spreads tightened in many countries and in most regions from mid-July levels, when spreads reached their widest levels of the year so far. Accordingly, excess returns over U.S. Treasuries ("spread returns") were positive in 55 of 70 country benchmarks in sovereign debt and in 51 of 60 country benchmarks in corporate bonds. The performance of select non-investment grade (HY) credits drove the spread compression. Sovereign bonds from most investment grade bonds also generated positive spread returns during the quarter, though on average, the drag on total returns from rising U.S. Treasury yields/falling U.S. Treasury prices had a greater impact on investment grade (IG) assets than on HY bonds. Spread widening at the end of the quarter again increased the credit spread premium of EM HY sovereigns over EM IG sovereigns and of EM HY over U.S. HY.

FIGURE 2: EM DEBT SPREADS WIDENED IN ABSOLUTE AND RELATIVE TERMS AT THE END OF THE QUARTER

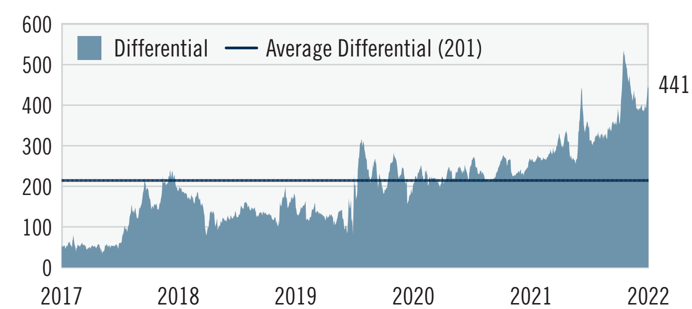
EM HY, EM IG, and US HY Spreads (BPS)



JPM EMBI GD HY – JPM EMBI GD IG SPREAD (BPS)



JPM EMBI GD HY – US HY SPREAD (BPS)



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Sources: Bloomberg, J.P. Morgan, Stone Harbor Investment Partners.

[1]J.P. Morgan EMBI Global Diversified, J.P. Morgan GBI-EM Global Diversified, and J.P. Morgan CEMBI Broad Diversified.

EM sovereign bond prices closed Q3 at lower levels than at any time in the past 20 years, including during the 2007-2009 Global Financial Crisis (GFC). Sixty percent of sovereign bonds rated CCC and lower traded at prices of $40 and below, while debt from some countries that have already defaulted, including Venezuela and Lebanon, were marked at prices in single-digits. EM sovereign high yield and investment grade sub-indexes traded at weighted-average, end-of-quarter cash prices of $65 and $87, respectively. See figures 3 and 4. While prices for investment grade bonds depended to a large degree on the level of U.S. Treasury yields, the high yield bond price primarily reflected current market views on credit and liquidity conditions. In our view, markets may already have overshot underlying fundamentals in select countries.

FIGURE 3: EMERGING MARKETS DEBT AVERAGE BOND PRICE

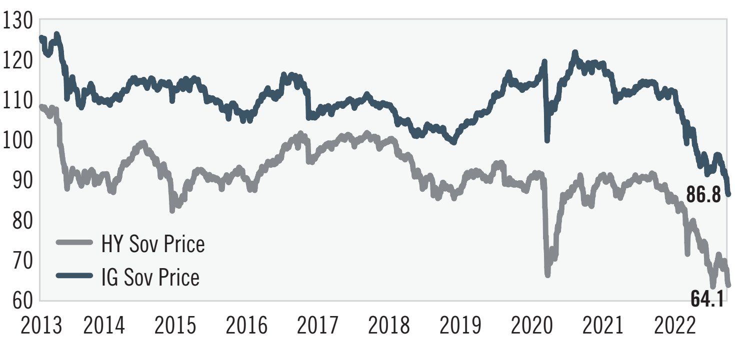
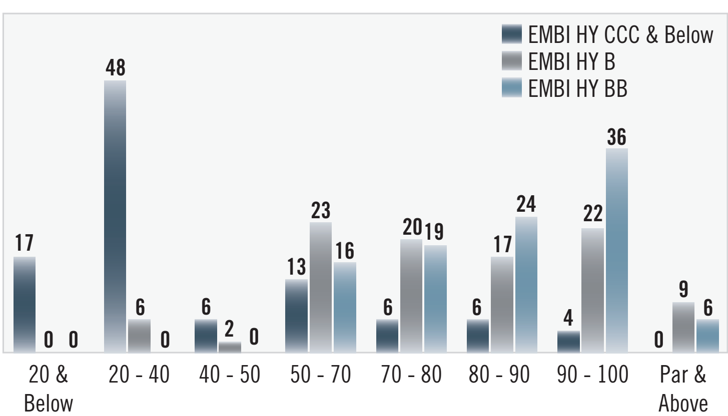


FIGURE 4: EM HY SECURITY PRICE DISTRIBUTION (%)



Past performance is no guarantee of future results. As of September 30, 2022.
Sources: Bloomberg, J.P. Morgan, Stone Harbor Investment Partners.
Benchmark: Bloomberg EM USD Sovereign Index.

EM currencies on average depreciated relative to the U.S. dollar by 5.3%, as the faster pace of monetary tightening and stronger growth in the U.S. relative to other advanced economies, particularly the Eurozone, buoyed the dollar. A slowdown in China's economy, the product of weakness in the property sector and the government's selective lockdowns to prevent the spread of COVID, weighed on the yuan, which depreciated nearly 6% against the U.S. dollar. The yuan's decline had a broader negative impact on developing country currency performance.

While EM central banks began their policy-rate hiking cycles earlier and more aggressively than in advanced economies, most EMs continued those policies in Q3, or accelerated them. Hungary, for example, hiked its base rate by 5.25% to 13%. Colombia increased its policy rate by 4% to 10%. The People's Bank of China (PBOC) left its prime lending rate unchanged, a significant outlier among large EMs. In comparison, the U.S. Federal Reserve (Fed) increased the Fed Funds target rate by 1.5% to 3.125%, and along with several other major central banks, signaled further hikes ahead.

Commodity price indexes generally moved lower, reflecting a weaker cyclical outlook in the face of tighter developed country monetary policy, a contracting Eurozone economy amidst an energy crisis, rolling lockdowns in Chinese cities and a stronger U.S. dollar. Prices declined for crude oil, iron ore, steel, copper, aluminum and soybeans, among others. War in Ukraine, meanwhile, continued to impact supply of foodstuffs, elevating prices for wheat and rice, as well as boosting prices for natural gas. Despite the Q3 and Q2 downturns in prices in some sectors of the commodity market, prices of most commodities remained above or near their averages over the past five years, providing ongoing support to EM economies and companies that produce and export them at low cost.

Multilateral financing support for EMs came into focus again this quarter as the International Monetary Fund (IMF) proposed new facilities to increase lending to countries with existing IMF programs and a food window allowing disbursements to countries experiencing food shortages but not already in a program. The new facilities will add to existing undrawn resources and remaining holdings of Special Drawing Rights. During Q3, several countries secured new borrowing agreements with the IMF, including Sri Lanka (staff level agreement for a US$2.9 billion, 48-month Extended Fund Facility) and Zambia (US$1.3 billion 38-month Extended Credit Facility). In addition to the US$140 billion in aid of which the IMF has already committed or extended, Egypt, El Salvador, Ethiopia, Ghana and Tunisia, among other countries, also are pursuing new support programs with the IMF.

TECHNICALS

According to portfolio flow tracker EPFR Global Data and surveys of client data by J.P. Morgan, Q3 2022 EM debt portfolio outflows amounted to US$20 billion. Year-to-date,

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flows totaled negative US$70 billion at the end of September 2022, the largest outflow within any single year for the past 20 years. While U.S. dollar-denominated sovereign debt portfolios posted inflows in August, outflows in July and September more than offset the gains. Outflows split evenly among local currency and hard currency portfolios at approximately US$10 billion apiece. Exchanged Traded Funds (ETFs) contributed 19% of the total outflow for the quarter.

Gross issuance of EM hard currency sovereign debt in Q3 totaled US$10 billion, down from US$20 billion in Q2. Of this quarter's total issuance, over 90% came from investment grade countries, with Mexico (BBB/Baa2), and Indonesia (BBB/Baa2) the largest issuers. Guatemala (BB-/Ba1) was the lone non-investment grade issuer.

Gross issuance for EM corporates of US$34 billion marked the lowest supply for a quarter since Q3 2011 and compares to Q2 2022 gross issuance of US$61 billion. Year-to-date gross issuance of US$193 billion also trailed issuance in each year since 2011. Asian corporates dominated primary activity, pricing US$25 billion in new debt, while companies from Europe, Middle East and Africa, and Latin America together issued bonds totaling roughly US$9 billion. Investment grade issuance amounted to US$28 billion. Non-investment grade companies priced only US$6 billion in new bonds, a post-GFC low. Net financing for the quarter was negative US$80 billion. Low overall gross issuance and elevated corporate buybacks, calls and tenders contributed to the negative net financing figure.

PERFORMANCE

External Hard Currency Debt Benchmark Returns

Investment Grade: The EM investment grade (IG) sovereign benchmark posted a total return of -5.01% in Q3. The largest contributors to the index's decline included Panama, Chile, and Indonesia, which returned -9.01%, -7.26% and -4.50%, respectively. The largest drawdowns came from Hungary (-9.28%), Panama, and Chile. The top performing countries included Croatia, Poland, and China, with total returns of -0.42%, -1.41% and -2.75%. An increase in U.S. Treasury yields accounted for much of the negative performance; the U.S. Treasury contribution to the index return was just over -5.6%. Excess returns over U.S. Treasuries were positive. Fourteen of the 19 counties in the IG benchmark posted positive excess returns, led by Saudi Arabia, Malaysia, and Qatar, each major commodity exporters. The lowest returns included countries in the Euro area, particularly Hungary and Romania, which were impacted by their proximity to the Ukraine war and increased energy costs. The downturn in returns on bonds from Panama, an energy importer, reflected the outbreak of social protests over rising consumer prices.

High Yield: Non-investment grade or "high yield (HY)" bonds delivered on average a total return of -4.09%, with a wide range of performance at the country level. Standouts included El Salvador, Suriname, and Tunisia, posting returns of 17.83%, 13.09%, and 10.97%, respectively, roughly mirroring the downturns in each credit last quarter. El Salvador bond prices increased after the government successfully executed a buyback of existing 2023 and 2025-maturity bonds and announced its intention to buy more bonds, raising market confidence in the country's willingness and ability to repay debt. Suriname bonds, which have been in default since 2019, increased in price as creditors continued negotiations with the government on a restructuring. In Tunisia, bond prices gained after the IMF staff concluded a mission to the country in July that confirmed good progress on economic policies and reforms that would be supported by an IMF program.

Ukraine, Ecuador, and Pakistan were the largest underperformers with returns of -28.01%, -30.38% and -36.55%, respectively. Ukraine bonds fell amidst the ongoing uncertainty of the Russian war. In Ecuador, bond prices declined as indigenous groups disputed the government's reduction of fuel price subsidies. Political uncertainties lingered, but the government announced in September that it had agreed with Chinese lenders to restructure outstanding financial debt, providing significant debt relief. Though the IMF completed reviews of Pakistan's Extended Fund Facility, allowing for immediate disbursement of US$1.1 billion in aid at the end of August, widespread flooding threatened fiscal consolidation efforts.

Local Currency Debt Benchmark Returns

Currencies: EM currencies depreciated relative to the U.S. dollar by 5.3% on average, which mirrored the 7.1% gain of the U.S. dollar against the currencies of the major trading partners of the U.S. The Euro's 6.5% depreciation relative to the U.S. dollar contributed to the downturn in several eastern European currencies, including the Hungarian forint (-12.1%), Polish zloty (-9%), Czech koruna (-5.7%). and Romanian leu (-6.4%). Currencies of several commodity exporters including Colombia (-9.4%) and South Africa (-8.8%) declined by similar amounts versus the U.S. dollar. Returns on these currencies have declined by double-digit percentages year to date. Argentina's peso continued a steady pace of depreciation (-15% in Q3), reflecting the country's rapid inflation, which increased 78.5% year- over-year in August.

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Pesos from Dominican Republic and Mexico appreciated relative to the U.S. dollar, outperforming all other EM currencies with gains of 2.25% and 0.35%, respectively. The next best performances came from the Chilean peso (-2.2%) and the Brazil real (-3.32%). China's yuan declined by 2.78% in September and by 5.6% during the quarter.

Interest Rates: With a few notable exceptions, yields on EM domestic government bonds increased along with the global rise in developed country bond yields. Bond yields fell in Brazil, China, and Turkey. The latter was a result of government policies engineered to lower bond yields in the face of rapid inflation. In Brazil, policy makers noted that inflation may be peaking following the central bank's proactive rate hikes over the past 20 months, which created positive real yields based on forward-looking inflation. The decline in local bond yields in China reflected market concerns over growth and measures taken by the government to support economic activity.

Aside from these outliers, the increase in yields remained a common theme. Monetary policy tightening moved real interest rates to positive levels in many countries, helping contain some of the negative spillover effects of rising inflation. At the end of the quarter, countries with positive real interest rates after adjusting for expected inflation over the next 12 months included Brazil, Chile, Colombia, Hungary, India, Mexico, Peru, and Ukraine.

Hard Currency Corporate Debt Benchmark Returns

EM hard currency IG and HY corporate debt posted total returns of -3.49% and -1.48%, respectively. Rising U.S. Treasury yields had a greater negative impact on returns of IG bonds than on HY bonds, which have lower duration sensitivity. The decline in prices of key commodities negatively impacted revenues and margins of EM exporters.

By industry sector, gaming companies from Macau outperformed, returning 5.3% as China lifted a citywide Covid restriction in August, enabling the entertainment hubs to reopen. China's property sector, however, remained under pressure, with total returns declining on average by over 13%.

Each region posted negative returns, except Europe, where Turkey's banks outperformed. The banking sector in Turkey benefitted from strong asset quality, resilient funding markets and improved capital buffers, as well as better returns on government bond holdings, which were boosted by the government's unorthodox scheme to lower interest rates in the face of rapid inflation.

Latin American and Asia underperformed with returns of -3.3% and -3.1%, respectively. Mexico and China were the largest contributors to the downturns in these regions. In Mexico, non-bank financial Unifin Financiera defaulted and subsequently entered into debt restructuring negotiations with bondholders. In addition, bond prices of data management company Axtel fell on announcement that the company would be spun off from parent Alfa rather than sold, as originally planned. In addition, the higher average relative duration of Mexican corporates negatively impacted their performance. The main driver of weakness in China's performance was the real estate sector.

OUTLOOK

A "softish landing" for the global economy is our base case macroeconomic scenario over the next 12 months. We expect slower growth, not recession, and assign a 40% probability to this outcome. A central bank-led recession, driven by a combination of tighter monetary policies and elevated energy prices, remains a major risk, which we currently assign a 35% likelihood. We also model inflation remaining stubbornly high even while growth slows (15% probability) and inflation reversing course, allowing the Fed and other central banks to ease monetary policies (10% probability).

Our latest return projections are shown in figure 5. From today's valuations, we see attractive return potential for each of the segments of the market. Current bond prices are historically low, credit spreads are wide, real effective exchange rates are historically low relative to the U.S. dollar, and local interest rates are high, particularly if inflation peaks in the near term in some EM countries, as we expect.

Price and yield dislocations remain largest in high yield sovereign debt, in our view. Accordingly, we see the greatest value in this sector of the market. While we currently favor valuations of hard currency bonds over local currency debt in blended portfolios, we see opportunities in select local currencies and domestic bonds. In currencies, we favor countries with positive real yields, as in Brazil and Chile, and in Indonesia, where fiscal and monetary policies support the rupiah.

Inflation remains a key factor in the future performance of local bond markets. Once inflation momentum slows, EM central banks will have room to cut rates again to support growth. In our view, many EMs are closer to that point than advanced economies. We currently favor local debt markets in Brazil, Colombia, Mexico, and South Africa, where fundamental developments are favorable, in our view, and index yield levels remain high, ranging from 9.7% (Mexico) to 12.2% (Brazil). South Africa's index yield at quarter end was 11.4%.

In EM corporate debt, with a few exceptions, credit fundamentals remain strong and provide significant buffers against risks of recession and inflation. We currently favor

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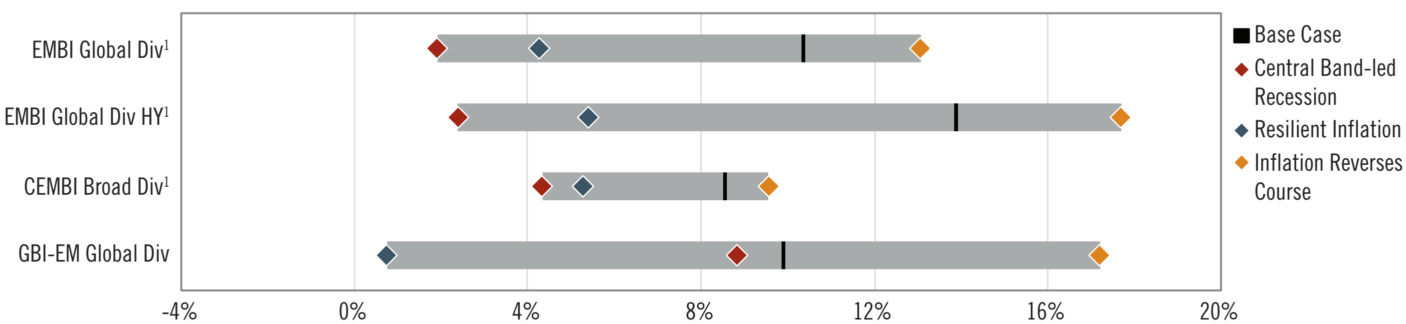
low cost commodity producers, especially in the context of a stronger U.S. dollar. With most bonds trading at prices below par, many well-managed companies have attractive opportunities to repurchase existing debt. Many EM corporate bond issuers have prefunded financing requirements as well as managed liabilities through bond tenders and buybacks, reducing refinancing risks. Current technical conditions, therefore, may create additional support for EM corporate debt once markets stabilize, in our view. Except for companies from Russia/Ukraine and from China's property sector, EM corporate defaults this year are limited; we expect them to remain so.

FIGURE 5: STONE HARBOR GLOBAL MACRO ECONOMIC SCENARIOS

	Base Case	Alternative Scenarios		
	"Softish" Landing	Central Bank-Led Global Recession	Resilient Inflation in the Face of Slow Growth	Inflation Reverses Course Leading the Fed to Also Reverse Course
Probabilities	40%	35%	15%	10%
Macroeconomic Assumptions				
U.S. Real 4Q GDP (%)	0.75	-1.00	0.00	1.25
EM 4Q GDP (%)	3.00	1.50	2.00	4.00
China 4Q GDP (%)	3.50	2.50	3.00	4.00
Brent	$95 bbl	$60 bbl	$110 bbl	$95 bbl
U.S. Core PCE (%)	3.60	2.75	4.75	2.65
Fed Funds (%)	4.38	2.13	5.38	3.63
2yr U.S. Treasury (%)	3.70	1.75	5.50	2.10
10yr U.S. Treasury (%)	3.40	1.75	5.75	2.75
10yr Bund (%)	2.25	0.25	4.00	0.75
SHIP Return Forecasts (%)				
EMBI[1]	10.3	1.9	4.2	13.1
EMBI HY[1]	13.8	2.4	5.4	17.7
CEMBI[1]	8.5	4.3	5.3	9.5
Local Rates	8.6	12.0	3.4	11.0
EM FX	1.2	-3.2	-2.6	6.2

STONE HARBOR BASE CASE AND RANGE OF PROJECTED RETURNS (%)



[1]Projected Return from Carry and Spread (%). Source: Stone Harbor Investment Partners. As of September 27, 2022.
The projected returns are not a prediction of the future results of any Stone Harbor portfolio. The portfolio management team refers to the charts above as one of various factors when making allocation decisions. The charts demonstrate scenarios assumptions which Stone Harbor uses in analysis to determine projected returns. Unless otherwise specified, scenario assumptions and base case returns summarize the team's 12 month return projections and outlook. Data reflects the views of the portfolio management team as of the date hereof and is subject to change without notice. Our analysis does not guarantee performance results. For illustrative purposes only.

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Authored by:

The Stone Harbor Emerging Markets Debt Team

Stone Harbor Investment Partners, an affiliated manager of Virtus Investment Partners, is a global credit specialist with expertise in emerging and developed markets debt, with three decades of informed experience allocating risk in complex areas of the fixed income markets. The firm manages credit portfolios for clients globally.

The **J.P. Morgan CEMBI Broad Diversified** tracks total returns of U.S. dollar-denominated debt instruments issued by corporate entities in emerging market countries and consists of an investable universe of corporate bonds. The minimum amount outstanding required is $350 mm for the CEMBI Broad Diversified. The CEMBI Broad Diversified limits the weights of those index countries with larger corporate debt stocks by only including a specified portion of these countries' eligible current face amounts of debt outstanding. The **J.P. Morgan EMBI Global (EMBIG)** tracks total returns for U.S. dollar-denominated debt instruments issued by emerging markets sovereign and quasi-sovereign entities: Brady bonds, loans, and Eurobonds. The **J.P. Morgan EMBI Global Diversified (EMBI Global Diversified)** limits the weights of those index countries with larger debt stocks by only including specified portions of these countries' eligible current face amounts outstanding. The countries covered in the EMBI Global Diversified are identical to those covered by the EMBI Global. The **J.P. Morgan GBI-EM Global Diversified** consists of regularly traded, liquid fixed-rate, domestic currency government bonds to which international investors can gain exposure. The weightings among the countries are more evenly distributed within this index.