J.P.Morgan

Global Index Research

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J.P. Morgan EM Sovereign and Corporate Credit Core Index

Methodology and Factsheet

Highlights

The J.P. Morgan EM Sovereign and Corporate Credit Core Index (JPM EM CREDIT CORE) tracks liquid, US-dollar emerging market fixed and floating-rate debt instruments issued by corporate, sovereign, and quasi-sovereign entities. The minimum notional outstanding for index inclusion for sovereign and quasi-sovereign instruments is $1 billion and $500 million for corporate instruments. The unique diversification methodology applied to the index limits the weights of the larger index countries by only including a specified portion of those countries' eligible current face amounts of debt outstanding and applying a 10% country cap, thus providing a more even distribution of weights across the countries in the index. The returns and statistics are available since December 2011.

Index Criteria

Instrument Type:	Includes both fixed and floating rate securities along with capitalizing/amortizing bonds. Excludes convertibles, inflation-linked instruments[1]. Defaulted corporate issues are excluded from the index.
Issuer Type:	Corporate, sovereign and quasi-sovereigns instruments are eligible in the index. Quasi sovereign entities are defined as being 100% guaranteed or 100% owned by the government. Corporate issuers must be one of the following: (1) headquartered in an EM country or (2) 100% of the issuer’s assets are within EM economies, or (3) issuer must have 100% secured assets within EM economies.
Remaining Maturity:	Sovereign, quasi-sovereign, and corporate instruments with at least 2.5 years until maturity are considered for inclusion. Once added, an instrument may remain in the index until 12 months before it matures.
Amount Outstanding:	Sovereign and quasi-sovereign issues with a current face amount outstanding of $1 billion or more are considered for inclusion. Corporate issues with a current face amount outstanding of $500 million or more are considered for inclusion.[2]
Currency:	Only USD denominated bonds are included. Instruments where the amount of coupon or redemption payment is linked to an exchange rate are not eligible for inclusion
Country:	**Sovereign and Quasi-sovereign entities**: Inclusion is limited to countries that satisfy the GNI per capita-based Index Income Ceiling (IIC) criterion or the PPP-based Index PPP Ratio (IPR) criterion. **Corporate entities must be domiciled within**: Africa, Asia ex-Japan, Latin America, Eastern Europe, and Middle East.

Index Characteristics and Methodology

Pricing:	Bid and Ask prices are taken from a third party pricing source[3]
Aggregate Return:	Index/Country level total return is calculated as a market-weighted average of bond returns using bid prices
Rebalancing:	Rebalances on the last US business day of the month
Coupon Treatment:	All coupons received are immediately reinvested into the index
FX Rates:	All FX rates used for hedged/unhedged returns are as of 4pm London time provided by WM/Reuters
Hedging Strategy:	Assume a 1-month currency forward position that begins on rebalance day and ends on next rebalance day
Weighting:	Market capitalization-based weighting with a 10% country cap
Holiday Calendar:	Follows US bond market calendar set by Emerging Markets Trader Association (EMTA)

Source: JPMorgan Chase & Co.

1 - Bonds with embedded options and warrants are eligible for inclusion if the options/warrants are attached to the instruments that would otherwise be included in the index and the prices are quoted cumulative options or warrants. 2 – Sovereign and quasi-sovereign bonds are removed from the index when the current outstanding amount falls below $1 billion and corporate bonds are removed from the index when the current outstanding amount falls below $500 million. 3 - Vendor is currently an independent source, PricingDirect.

Appendix

Defining the universe of eligible countries

For sovereign and quasi-sovereign entities, following the 2018 Index Governance Review, a country will be eligible for the EM sovereign suite of indices if it either meets the GNI per capita-based Index Income Ceiling (IIC) criterion or the PPP-based Index PPP Ratio (IPR) criterion. J.P. Morgan defines the Index Income Ceiling (IIC) as the GNI per capital level that is adjusted every year by the growth rate of the World GNI per capita, Atlas method (current US$), provided by the World Bank annually. An existing country may be considered for removal from the index if its GNI per capita is above the Index Income Ceiling (IIC) for three consecutive years and the country's long term foreign currency sovereign credit rating (the available ratings from all three agencies: S&P, Moody's & Fitch) is A- /A3/A- (inclusive) or above for three consecutive years. The 2021 IIC level is $20,938.

For the IPR, it is calculated, as below, from the one-year lagged GDP data available in IMF's World Economic Outlook publication. The EM IPR threshold is an indexed number which mimics the changes to the World IPR. IPR = GDP (current prices, USD) / GDP (current prices, PPP dollars) * 100. IPR criterion states that a country's IPR should be below the EM threshold for three consecutive years, to be eligible. The 2021 IPR level is 62.9.

Corporate entities must be domiciled within Africa, Asia ex-Japan, Eastern Europe, Middle East, and Latin America.

Instrument type

The JPM EM CREDIT CORE Index includes both fixed and floating rate instruments, as well as capitalizing/amortizing bonds. Bonds with embedded options and warrants are eligible for inclusion if a) the options/warrants are attached to instruments that would otherwise be included in the index and b) the quotation convention—as recommended by the Emerging Markets Traders Association (EMTA)—is for instrument prices to be quoted cumulative options or warrants. Convertible bonds are not eligible for inclusion into the index. Corporate issues that are defaulted are excluded from the index.

Issuer type

The JPM EM CREDIT CORE Index contains instruments issued by corporate, sovereign and quasi-sovereign entities from index-eligible countries. Historically, any quasi-sovereign issue was considered eligible for inclusion. As of May 31, 2002, we strengthened our definition of "quasi-sovereign" as an entity that is 100% guaranteed or 100% owned by the national government, and resides in the index eligible country.

Weighting Methodology

The JPM EM CREDIT CORE Index tracks instruments in the established J.P. Morgan EMBI Global Diversified Core and J.P. Morgan CEMBI Broad Diversified Core and combines the composition using a unique diversification methodology. The diversification methodology limits the weights of those index countries with larger debt stock by only including a specified portion of these countries' eligible current face amounts of debt outstanding while also applying a 10% country cap. Once the instrument allocations are derived for each country, the current settlement price for each instrument is applied to its index allocation to calculate the market capitalization of each issue in the index. The weight of each instrument in the JPM EM CREDIT CORE Index is then determined by dividing its market capitalization by the total market capitalization for all the index's instrument allocations. The result represents the weight of each issue expressed as a percentage of the index. By allocating their portfolios according to these exact instrument weights, and accounting for coupon reinvestments and instrument allocation changes, investors can replicate the performance of the JPM EM CREDIT CORE Index.

The diversification methodology of the JPM EM CREDIT CORE Index anchors on the average size of the countries in the index and the debt stock size of the largest country in the index.

We define **Index Country Average (ICA)** = Σ(Ctry Face Amount) / (No. of Countries in the index)

Based on the ICA, the diversified face amount for any country in the index is derived according to the following rules:

1. The largest country based on face amount will be capped at double the average country debt stock in the index (ICA*2). This is the maximum threshold and sets the scale to determine the diversified face amounts of other countries in the index.
2. If a county's debt stock is below the index country average (ICA), the entire amount will be eligible for inclusion.
3. Countries whose debt stock falls between the index country average (ICA) and double the average (ICA * 2) will be linearly interpolated.

Subsequently, the diversified (adjusted) face amount determined using the above step is then converted to a market value (based on dirty price), which is then converted to an index weight percentage based on the proportion of the total index market capitalization that the country represents. Any excess weight above the cap will be redistributed to smaller countries that are below the cap to limit concentration risk.

$$\text{Diversified Country Face Amount} = \begin{cases} \text{ICA} * 2 & \text{, if } \text{FA}_{max} \\ \text{ICA} + \dfrac{\text{ICA}}{\text{FA}_{max} - \text{ICA}} * (\text{Ctry FA} - \text{ICA}) & \text{, if Ctry FA} > \text{ICA} \\ \text{Ctry FA ,} & \text{, if Ctry FA} \leq \text{ICA} \end{cases}$$

where Ctry FA represents the non-diversified country face amount and FAmax represent the Face Amount of the Largest Country.

New Issue Timing

A new issue that meets the JPM EM CREDIT CORE Index admission requirements will be assessed for inclusion in the month-end rebalance of the same month provided its settlement date falls on or before that month-end rebalance date. Any taps or tenders will be assessed similarly for index inclusion based on their settlement date. A new issue whose settlement date falls after the first month-end rebalance date is added to the index on the rebalance day of the next month.

An exception concerns Reg S securities. An instrument that is issued purely in reliance on Regulation S of the US Securities Act of 1933 and not pursuant to Rule 144A will be ineligible for inclusion in the index until it is seasoned (that is, until the expiration of the relevant Regulation S restricted period). The date at which the seasoning restriction is lifted will effectively be the new "issue" date, at which point the settlement date rule will apply.

If an announcement is made for a bond to be called, it is removed the month-end prior to its call date on the basis of having less than 12 months remaining until maturity. If an announcement is not made in time for the bond to be removed the prior month-end, it will be removed the first month-end following the announcement.

For any questions or for additional information, please contact index.research@jpmorgan.com

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