

J.P. Morgan USD EM Diversified 3% capped 1-5 Year Bond Index

Product Overview

Highlights:

The J.P. Morgan USD EM Diversified 3% capped 1-5 Year Bond Index (EM index) is designed to track the performance of US dollar-denominated eligible short term Emerging Market Sovereigns, Quasi-Sovereigns and Corporate bonds. The EM index is a subset of the flagship J.P. Morgan CEMBI Broad Diversified (Corporates) and EMBIG Diversified (Sovereign and Quasi-sovereigns), but offers a more short term, liquid and higher credit quality subset of the two, while following their methodology closely. Country weights are capped at 3%. Bonds with an amount outstanding size lower than US\$500 million are excluded. In addition, Corporate bonds (from the CEMBI Broad component) rated lower than B- are excluded from the EM index. The diversification methodology limits the weights of the larger index countries by only including a specified portion of those countries' eligible face amount outstanding, thus reducing single issuer concentration and providing a more even distribution of weights. The Returns and Statistics are available from Dec 2006.

Index Criteria:

Instrument type: Includes both fixed and floating rate securities along with capitalizing/amortizing bonds or loans. Excludes convertibles, inflation-linked instruments, and defaulted bonds.

Issuer type:

Sovereign and Quasi-sovereign bonds (from the EMBI component): Bonds issued from EM countries with GNI per capita below the index income ceiling (IIC) for 3 consecutive years will be eligible.

Corporate bonds (from the CEMBI component): Issuer must meet 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:

Only those instruments within 1 to 5 years until maturity are considered for inclusion.

Amount Outstanding:

Only issues with a current face amount outstanding of US\$500 million or more are considered for inclusion.¹

Ratings:

For Sovereign and Quasi-Sovereign bonds (from the EMBI component): there are no ratings related restrictions for eligibility.

For Corporate bonds (from the CEMBI component): The EM index will only include only instruments rated B- or above (Instrument has to be rated B-/B1/B- or higher by S&P, Moody and Fitch)

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:

For Sovereign and Quasi-sovereign bonds (from the EMBI component): A country's GNI per capita must be below the Index Income Ceiling (IIC) for three consecutive years. Countries are removed from the index if the IIC level and the country's sovereign credit rating is A-/A3 or above or three consecutive years.

For Corporate bonds (from the CEMBI component): Based on Region -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 side 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.

Country Mkt% cap

Country weights will be capped at 3% and any excess weights above the cap will be redistributed to smaller countries that are below the cap to limit concentration risk.⁴

J.P. Morgan USD EM Diversified 3% capped 1-5 Year Bond Index vs. Flagship Benchmark

	J.P. Morgan USD EM Diversified 3% capped 1-5 Year Bond Index	CEMBI Broad Diversified	EMBI Global Diversified
Inception Date	Dec 2006	Dec 2001	Dec 1993
Launch Date	July 2017	Jan 2008	July 1999
Rebalance Date	Last US business day of the month		
Currency	US\$		
Holiday	Follows US bond market calendar set by Emerging Markets Trader Association (EMTA)		
Pricing Source	Bid and Ask prices are taken from a third party pricing source ³		
FX Spot / Forward Rate	WM/Reuters 4pm London rate		
Coupon Reinvestment	All coupons received are immediately reinvested into the index		
Hedging Strategy	Assume a 1-month currency forward position that begins on rebalance day and ends on next rebalance day		
Country	For Sovereign and Quasi-sovereign bonds (from the EMBI component): GNI per capita must be below the index income ceiling (IIC) for 3 consecutive years For Corporate bonds (from the CEMBI component): Africa, Asia ex Japan, Latin America, Eastern Europe, and Middle East	Africa, Asia ex Japan, Latin America, Eastern Europe, and Middle East	GNI per capita must be below the index income ceiling (IIC) for 3 consecutive years
Instrument Type	All fixed, floaters, amortizers, and capitalizers; excluding defaulted bonds		
Min Face Amt Outstanding	US\$500 million	US\$300 million	US\$500 million
Maturity required for initial inclusion	Bonds with remaining maturity in between 1 to 5 years	At least 5 years till maturity	At least 2.5 years till maturity
Maturity required to maintain inclusion	At least 1 years till maturity		
Credit Rating Criteria	For Sovereign and Quasi-Sovereign bonds (from the EMBI component): The EM index will accept all credit ratings For Corporate bonds (from the CEMBI component): The EM index will only include only instruments rated IG, BB and B ratings	No ratings restriction	
Country Mkt% Cap	3%	10%	
Issuer Criteria	For Sovereign and Quasi-sovereign bonds (from the EMBI component): Bonds issued from EM countries with GNI per capita below the index income ceiling (IIC) for 3 consecutive years will be eligible For Corporate bonds (from the CEMBI component): Issuer must meet 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	Issuer must meet 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	Issuer from EM countries with GNI per capita below the index income ceiling (IIC) for 3 consecutive years will be eligible
Face Amt Diversification?	✓	✓	✓
Bloomberg Ticker	JPEH1STR	JBCDCOMP	JPEGCOMP

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

1- Bonds or Loans with embedded options and warrants are eligible for inclusion if the approvals are attached to the instruments that would otherwise be included in the index and the prices are quoted cum options or warrants. 2- A bond is removed from the index when its current outstanding amount falls below \$500 million. 3-Vendor is PricingDirect. 4-When the index has less than 34 countries, excess weights to normalize the index will be redistributed across all country weights hitting the 3% country cap limit.

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Appendix

Defining the universe of eligible countries

The EM index is a subset of the flagship J.P. Morgan CEMBI Broad Diversified (Corporates) and EMBIG Diversified (Sovereign and Quasi-sovereigns), but offers a more short term, liquid and higher credit quality subset of the two, while following their methodology closely. For Sovereign and Quasi-sovereign bonds (from the EMBI component), country's GNI per capita must be below the Index Income Ceiling (IIC) for three consecutive years to be eligible for inclusion into the EM index. J.P. Morgan defines the Index Income Ceiling as the GNI per capita 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 current IIC level is \$19,065 as of 2017. For Corporate and Quasi-sovereign bonds (from the CEMBI component), the EM index includes a specific set of emerging markets countries. Currently a distinct set of countries falling in Asia ex-Japan/Australia/New Zealand, Eastern Europe, the Middle East, Africa and Latin America are monitored.

Instrument type

The EM index includes both fixed and floating rate instruments, as well as capitalizing/amortizing bonds or loans. Bonds or loans 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. A default will force the removal of the affected instrument from the EM index. The issue will be removed at the month-end during the rebalancing period.

Issuer type

As the EM index is a combination of EMBIG Div and CEMBI Broad Div, Sovereign and Quasi-sovereign bonds (from the EMBI component) in the EM index contains only those bonds or loans issued by 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. While Corporate bonds (from the CEMBI component) are eligible for inclusion in the EM index series if: (1) The issuer is headquartered in an Emerging Market country or, (2) The issue is 100% guaranteed by an entity within an Emerging Markets economy or, (3) 100% of the issuer's operating assets are located within Emerging Markets economies.

Weighting Methodology

The EM index limits the weights of those index countries with larger debt stocks by only including a specified portion of these countries' eligible current face amounts of debt outstanding. The EM index is geared toward managers who want maximum diversification or those who face limitations on the amount of portfolio exposure they can take to individual issuers. Once these instrument allocations are derived for each country, the current settlement price for each instrument is applied to its EM index's allocation to calculate the market capitalization of each issue in the index. The weight of each instrument in the EM index is then determined by dividing its market capitalization by the total market capitalization for all of the EM index's instrument allocations. The result represents the weight of each issue expressed as a percentage of the EM index. By allocating their portfolios according to these exact instrument weights, and accounting for coupon reinvestments and index instrument allocation changes, investors can replicate the performance of the EM index.

The underlying diversification methodology 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)** = $\sum(\text{Ctry Face Amount}) / (\text{No. of Countries in the index})$

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 country'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.

Diversified Country Face Amount=

$$\begin{cases} ICA * 2 & , \text{ if } FA_{max} \\ ICA + \frac{ICA}{FA_{max} - ICA} * (Ctry FA - ICA) & , \text{ if } Ctry FA > ICA \\ Ctry FA & , \text{ if } Ctry FA \leq ICA \end{cases}$$

New Issue Timing

A new issue that meets the EM index admission requirements is added to the index on the first month-end business date after its issuance, provided its issue date falls before the 15th of the month. A new issue whose issue date falls on or after the 15th of the month is added to the index on the last business day of the next month. The first exception applies to a new issue that is released as part of a debt exchange program. For example, assume a country exchanges a portion of its outstanding debt for a new issue after the 15th of the month. At the month-end rebalancing date immediately following this event, the amount of debt retired in this exchange would be removed from the EM index, and the new issue would be added to the index (provided official exchange results are made available in a timely manner AND the issue settle by month end).

The second 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 EM 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 15th of the month 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.