J.P.Morgan

Global Index Research

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J.P. Morgan EMBIG Div. IG

Methodology and Factsheet

Highlights

The J.P. Morgan EMBIG Div. IG (EMBIGD IG) tracks liquid, US dollar emerging market fixed and floating-rate debt instruments issued by sovereign and quasi sovereign entities[1]. The EMBIGD IG is based on the long established flagship J.P. Morgan EMBI Global Diversified (EMBIGD). The diversification methodology limits the weights of the larger index countries by only including a specified portion of those countries' eligible current face amounts of debt outstanding, thus providing a more even distribution of weights across the countries in the index. The index tracks instruments that are rated as Investment Grade (IG). The returns and statistics are available from December 1993.

Index Criteria

Instrument Type:	Includes both fixed and floating rate securities along with capitalizing/amortizing bonds. Excludes convertibles and inflation-linked instruments[2].
Issuer Type:	Only those bonds issued by sovereign and quasi sovereign entities are eligible in the index.
Remaining Maturity:	Only those instruments with at least 2.5 years until maturity are considered for inclusion. At each month end, instruments that fall below 6 months to maturity during the upcoming month, will be excluded from the Index.
Amount Outstanding:	Only issues with a current face amount outstanding of $500 million or more are considered for inclusion[3].
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:	Country’s GNI per capita must be below the Index Income Ceiling (IIC) for 3 consecutive years OR Index PPP ratio (IPR) is below the EM threshold for 3 consecutive years
Credit Rating:	**Only investment grade instruments are eligible.** An instrument is classified as investment grade when the middle rating from S&P, Moody’s, and Fitch is investment grade (i.e. BBB- equivalent or better). When ratings from only two agencies are available, the lower has to be investment grade; and when only one agency rates a bond, that single rating has to be investment grade.

Index Characteristics and Methodology

Pricing:	Bid and Ask prices are taken from a third-party pricing source, Pricing Direct.

1 – Quasi sovereign entities are defined as being 100% guaranteed or 100% owned by the national government. 2 – 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 cum options or warrants. 3 – A bond is removed from the index when its current outstanding amount falls below $500 million.

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 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:	Diversified, with 10% (cap) per country applied for the baseline index, renormalized for IG composition
Holiday Calendar:	Follows US bond market calendar set by Emerging Markets Trader Association (EMTA).

Source: JPMorgan Chase & Co.

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 2023 IIC level is $21,756.

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 2023 IPR level is 62.9.

Instrument type

The EMBIGD IG 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.

Issuer type

The EMBIGD IG contains only those bonds 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.

Weighting Methodology

The EMBIGD IG 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 EMBIGD IG 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 EMBIGD allocation to calculate the market capitalization of each issue in the index. The weight of each instrument in the EMBIGD is then determined by dividing its market capitalization by the total market capitalization for all of the EMBIGD’s instrument allocations. Instruments not rated investment grade are filtered out of the index to arrive at the composition of the EMBIGD IG. The result represents the weight of each issue expressed as a percentage of the EMBIGD IG. 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 EMBIGD IG.

The underlying EMBIGD 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)** = 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.

Diversified Country Face Amount=

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

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

Finally, a threshold (a maximum cap of 10%) is applied at the country level to improve diversification; i.e. sum of all the issuer weights within the country must be equal to or less than the maximum cap/threshold.

Excess weight is re-distributed to other countries below the threshold. The maximum cap/threshold will be reviewed on a periodic basis and adjusted accordingly.

New Issue Timing

A new issue that meets the EMBIGD IG admission requirements is added to the index on the first month-end business date after its issuance, provided its settlement date falls before the last US business day of the month. Prior to January 2021, the cut-off date for bonds to settle to be eligible for inclusion on the same month-end was the 15th of the month. There are two exceptions to this rule.

The first exception applies to a new issue that is released as part of a debt exchange program. At the month-end rebalancing date immediately following this event, the amount of debt retired in this exchange would be removed from the 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 settles 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 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 “settlement” date.

If an announcement is made for a bond to be called, it is removed the month-end prior to its call date. 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.

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