



Invesco Global Broad Bond Index Methodology

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Index Overview

Description

The Invesco Global Broad Bond Index (the “Index”) is designed to provide broad exposure to global investment grade sovereign, government-related, corporate and securitized bonds across multiple currencies.

Index Universe

The Index Universe includes all securities in the Invesco Indexing Investable Bond Universe (IIBU) designated as investment grade¹ sovereign, government-related, corporate or securitized.

Security Selection

Currency Eligibility

At each Index Reconstitution (see Updates on page 5), the market value of all securities in the Index Universe are converted to USD. The aggregate USD market value of all securities issued in each local currency group is determined. Each local currency group is ranked in descending order by aggregate USD market value. Currencies represented in the top 99.99% of the cumulative distribution and meet the remaining currency criteria are eligible for Index inclusion.

For a currency to be eligible for Index inclusion for the first time, the sovereign debt of that currency’s corresponding country must be rated investment grade for at least three years as of the Index Reconstitution (see Updates on page 5).

A currency that was previously eligible for Index inclusion, but was removed due to a downgrade of the corresponding country’s sovereign debt, will be re-eligible for inclusion if its corresponding country’s sovereign debt is rated investment grade for at least one year as of the Index Reconstitution (see Updates on page 5).

If a country’s sovereign debt rating falls below investment grade, all securities denominated in that country’s corresponding currency that also meet all Security Eligibility requirements below will be eligible to remain in the Index until the next Index Reconstitution (see Updates on page 5), at which time they will be removed.

Securities issued in the following currencies are excluded: unhedgeable currencies², legacy currencies in the Euro area, offshore Renminbi, and currencies with fewer than five bonds passing the Security Eligibility criteria listed below.

Security Eligibility

Eligible securities must meet the following size requirements:

- Sovereign³, government-related, corporate, or covered: ≥ currency-specific requirement (see Appendix on page 12 for full list)
- MBS: each generic coupon ≥ \$5bn, each cohort ≥ \$300mn

¹ In determining investment grade rating, sovereign bonds or local currency senior bonds issued by government-backed agencies may use issuer-level ratings if bond-level ratings are unavailable

² As determined by Invesco Indexing

³ For US Treasury securities, Federal Reserve System Open Market Account (SOMA) balances are deducted from the total amount outstanding using the most recently available data

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- CMBS & ABS:
 - original deal size ≥ \$300mn, current deal size ≥ 10% of original
 - current tranche size ≥ \$50mn for senior tranches, ≥ \$10mn for mezzanine and subordinated tranches

Eligible securities include fixed, step-up, zero coupon, fixed-to-floating rate bonds (during the fixed rate period) with a final maturity greater than or equal to one year. For fixed-to-floating rate bonds, there must be one year or more left in the fixed rate period. MBS must have a weighted-average-life (WAL) greater than or equal to one year. CMBS and ABS must have a final maturity greater than or equal to one year, and time to last expected cash flow of at least one month. For corporations with a bond issued as SEC-registered, Reg S, and/or Rule 144A, only one bond type will be included in the Index. Preference first will be given to SEC-registered bonds, followed by Rule 144A bonds with registration rights, followed by Reg S bonds, followed by Rule 144A bonds without registration rights, and then followed by the bond with the larger number of available credit ratings.

The Index explicitly excludes warrants; preferred securities; money market securities; bonds issued as private placement (except 144A and Reg S); STRIPS; and inflation-linked, floating-rate, and convertible bonds.

Finally, securities are excluded if pricing data is not available from the Calculator (see Index Calculation and the Role of the Calculation Agent on page 6).

Security Weighting

Index constituents are market value weighted.

All security weighting criteria are applied on the Reference Date of an Index update (see Updates on page 5).

History

The Index was launched on October 31, 2021. History is available for the Index since its base date of December 31, 2010. The base value of the Index is 100.

Related Indexes

Several other related Invesco fixed income market beta indexes are available. Please visit www.InvescoIndexing.com/en/indexes/fixed-income to learn more about these related indexes.

Updates

The Index is reconstituted on an annual basis on the last calendar day of June ("Reconstitution Month") and rebalanced monthly on the last calendar day of all other months ("Rebalance Months").

Index Reconstitution

During Index Reconstitution, the Index Universe is refreshed, currency eligibility rules are applied, size requirements are reviewed for each eligible currency, the set of eligible securities is determined, securities are selected for membership in the Index, and the Index is reweighted. See "Index Overview" on page 3 for more information about security selection and weighting.

Index Rebalance

During an Index Rebalance, the Index Universe is refreshed, the set of eligible securities is determined, securities are selected for membership in the Index, and the Index is reweighted. See "Index Overview" on page 3 for more information about security selection and weighting.

Index Key Dates

The key dates are as follows. The Index Review Team (see Governance on page 8) may change these dates for reasons including market holidays. Any such changes will be publicly announced with as much advance notice as possible under the circumstances. All events take place after the close.

Event	Day	Description
Reference Date	Six business days before the last business day of the month	Data is captured for Index construction
Announcement Date	Three business days before the last business day of the month	Summary of Index rebalance changes are announced to public
Pro-Forma Date	Three business days before the last business day of the month	Preliminary Index weights begin to be distributed to Index subscribers
Effective Date	Calendar month-end, whether or not the date is also a business day	Rebalanced Index weights are finalized

Index Calculation and the Role of the Calculation Agent

The calculation agent for the Index (“the Calculator”) is ICE Data Indices, LLC. The Calculator evaluates the closing value of the Index, updates the Index at Reconstitution and Rebalance Months based on constituent selections and weightings determined either by Invesco Indexing LLC or the Calculator (with appropriate oversight and review by Invesco Indexing), taking into account Corporate Events (see Corporate Events on page 7), and disseminates the values of the Index to Invesco Indexing LLC and major index data distribution partners (see Index Information and Data Dissemination on page 10).

Calculator Input Data Used and Hierarchy of Input Data

The Index is calculated using closing prices or last transacted prices of underlying constituent securities from exchanges or exchange equivalents. Should this type of data be unavailable, the Index may be calculated using quotes or evaluated data or, in case when continued availability of transacted security prices from security exchanges is suspended, the Calculator reserves the right to exercise a judgement call, including carrying forward the latest available closing price.

Use of Discretion and/or Expert Judgement

No discretion or expert judgement is exercised by Invesco Indexing LLC in the determination of daily index pricing. Rules-based index methodologies, which cover index construction, maintenance and calculation, provide that discretion is not used in the daily pricing of the indexes except in unusual cases not effectively addressed by the methodology, which could be exercised by the Calculator. These include, but may not be limited to:

- Corporate events not previously encountered,
- Structural changes to the underlying markets,
- Operational issues at security exchanges,
- Geo-political events,
- Technological problems / failures, or
- Natural disaster or other business continuity process-related event.

In such circumstances, the calculating agent will inform Invesco Indexing LLC of any discretion being used.

Potential Limitations of the Methodology and Benchmark Calculation

The potential limitations of daily Index calculation include circumstances where the prices of constituent elements of the Index are not available, either because there are insufficient participants or because the exchange(s) / exchange equivalent(s) suffers an unexpected outage or closure or Invesco and/or the Calculator is denied permission to use such data for determining the Index. In such circumstances an announcement will be made to notify clients, including whether the Index will not be published or delayed in publication.

Corporate Events

The Calculator identifies and adjusts for corporate events based on the following policy.

Corporate Events	Index Adjustments
Accrued Interest and Cash	With the exception of US securitized products (MBS, CMBS, CMO and ABS), accrued interest is calculated assuming next-day settlement. Accrued interest for US securitized products assumes same-day settlement. Cash flows from bond payments that are received during the month are retained in the Index until the end of the month and then are removed as part of the rebalancing. Cash from coupon payments is reinvested at the Secured Overnight Financing Rate (SOFR) while it is held in the Index.
Called Securities	Securities that are announced as called, and for which the amount called meets certain minimum thresholds, are removed from the Index at the next rebalancing provided this occurs on or before the third business day before the last business day of the month. Cash flows from called bonds that are received during the month are retained in the Index until the end of the month and then are removed as part of the rebalancing. Cash from called bonds does not earn any reinvestment income while it is held in the Index.
Default Treatment	Defaulted securities are excluded from the Index at the next rebalancing following the default event, provided this occurs on or before the third business day before the last business day of the month. Securities are considered in default based on their individual legal terms. A rating of "D" by a major rating agency is not a consideration for default status.
No Re-entry Once Removed for Lack of Pricing	If a bond is removed due to lack of pricing that bond will not qualify for entry into the Index at a later date even if adequate pricing subsequently becomes available.

As mentioned above in the Index Calculation and the Role of the Calculation Agent section, the Calculator manages corporate events for this Index using its standard corporate event framework and its divisor index methodology. For additional details, please refer to <https://indices.theice.com>.

Index Policy

All Index constituents are evaluated daily for data needed to calculate Index levels and returns. The Index follows the general Index policies of the Calculator as described below.

Announcements

Best efforts are made to announce any changes to Index methodology well ahead of time via the Invesco Indexing website and via email to all Index clients.

Pro-Forma Files

Invesco Indexing provides constituent pro-forma files (*IND10Projected_yyyymmdd.csv*) each time the Index rebalances. The pro-forma file is typically provided daily in advance of the rebalancing date and contains all constituents and their corresponding weights effective for the upcoming rebalancing. The actual weight of each security at the Index rebalance typically differs from the pro-forma weights due to market movements.

Holiday Schedule

The Index is calculated on global business days and the last calendar day of every month. If the last calendar day of the month falls on a weekend, all prices are rolled from the last business day and accrued interest is calculated for the new settlement date. The Index is not calculated on Global Holidays (defined as weekdays on which WM Company/Reuters does not publish closing FX rates) unless a Global Holiday falls on the last calendar day of the month, in which case prices are updated in all local markets that are open. Prices in all markets that are closed are rolled from the prior business day and accrued interest is calculated for the new settlement date.

Governance

The Index is managed by the Index Review Team (IRT). The IRT consists solely of members of Invesco Indexing. The IRT meets at least annually to review and revise Index methodology described in this document as appropriate. The IRT meets at least annually to review additions and deletions to the Index. All changes to the Index on Reconstitution and Rebalance Months are subject to the approval of the IRT, and the IRT may make adjustments to the Index at its discretion when such changes are reasonable.

Index Methodology Update and Cessation Policy

Invesco Indexing periodically, at least annually, reviews each Index and its accompanying methodology, in addition to periodic rebalancing (if applicable), in an effort to ensure the Index continues to accurately represent that portion of the market it was originally intended to, and delivers the outcomes one would expect from the Index's exposures.

The procedures for the internal review of the methodologies, changes to the methodologies and procedures performed when the Index administered is ceasing publication are described in detail in the Changes to Benchmark Methodology and Cessation Policy.

Return Types and Tickers

The Calculator computes the total return for the Index on a daily basis.

Return Type	Ticker
Total Return	IIGIB

Index Information and Data Dissemination

Data Vendors

Daily Index levels for all return types are available from major quote vendors and at www.InvescoIndexing.com.

FTP

Daily constituent data and Index level data are available via the Invesco Indexing secure FTP site for Index subscribers. Please contact Invesco Indexing customer service at IndexSupport@invesco.com for more information.

File Types

The Invesco Indexing secure FTP site for Index subscribers will distribute the standard overnight Index files from the Calculator. These include:

File Description	File Extension
Index Levels	IndexIND_yyyymmdd.csv
Constituent Details	IND10_yyyymmdd.csv
Constituent Details Pro-forma	IND10Projected_yyyymmdd.csv

The data on these files is provided directly by the Calculator, and no descriptive information contained in these files is used by Invesco Indexing at any stage of the Index creation process. In addition, security characteristics are available upon request. The characteristics are created by Invesco Indexing periodically and are updated as necessary. The characteristics data contribute to the creation of the Index or otherwise help to describe the Index constituents. These data include sector, country, region, bond type, aggregate credit rating and developed/emerging classification. Please contact Invesco Indexing customer service at IndexSupport@invesco.com for more information.

Website

Index information is available on the Invesco Indexing website at www.InvescoIndexing.com.

Definitions of Key Terms

Terms used in this document but not otherwise defined are defined in the following table. Definitions, that are marked with a (*) are sourced from Regulation (EU) 2016/1011 ("EU Benchmark Regulation") Article 3. Definitions, that are marked with a (**) are sourced from IOSCO Principles for Financial Benchmarks⁴.

Term	Definition
Administrator *	'Administrator' means a natural or legal person that has control over the provision of a benchmark;
Benchmark *	'Benchmark' means any index by reference to which the amount payable under a financial instrument or a financial contract, or the value of a financial instrument, is determined, or an index that is used to measure the performance of an investment fund with the purpose of tracking the return of such index or of defining the asset allocation of a portfolio or of computing the performance fees;
Calculation Agent **	A legal entity with delegated responsibility for determining a Benchmark through the application of a formula or other method of calculating the information or expressions of opinions provided for that purpose, in accordance with the Methodology set out by the Administrator;
Contribution of Input Data *	'Contribution of input data' means providing any input data not readily available to an administrator, or to another person for the purposes of passing to an administrator, that is required in connection with the determination of a benchmark, and is provided for that purpose.
Corporate Action	A Corporate Action occurs when there is a change to a company's capital structure. Unlike Corporate Events, Corporate Actions have a prescribed ex-date. The share price will be subject to an adjustment on the ex-date and Invesco Indexing and/or the calculating agent will adjust the index to counteract the effect that the price change would otherwise have on the index. Examples of corporate actions include rights or entitlement issues, consolidations, stock splits and capital repayments.
Expert Judgment *	'Expert judgement' means the exercise of discretion by an administrator or a contributor with respect to the use of data in determining a benchmark, including extrapolating values from prior or related transactions, adjusting values for factors that might influence the quality of data such as market events or impairment of a buyer or seller's credit quality, and weighting firm bids or offers greater than a particular concluded transaction;
Index*	'Index' means any figure: (a) that is published or made available to the public; (b) that is regularly determined: (i) entirely or partially by the application of a formula or any other method of calculation, or by an assessment; and (ii) on the basis of the value of one or more underlying assets or prices, including estimated prices, actual or estimated interest rates, quotes and committed quotes, or other values or surveys;
Input Data *	'Input data' means the data in respect of the value of one or more underlying assets, or prices, including estimated prices, quotes, committed quotes or other values, used by an administrator to determine a benchmark;
Material Change to Methodology	In determining whether a change to an Index is material, the following factors shall be taken into account: <ul style="list-style-type: none"> • Economic impact of the change; • Whether the change affects the original purpose of the Index.
Methodology **	The written rules and procedures according to which information is collected and the Benchmark is determined;
Rebalance	The regular process (typically quarterly, semi-annually or annually) in which the eligibility and weights of constituent elements of indexes are reassessed;
Subscriber **	A person or entity that purchases Benchmark determination services from an Administrator;
Transaction Data *	'Transaction data' means observable prices, rates, indices or values representing transactions between unaffiliated counterparties in an active market subject to competitive supply and demand forces;

⁴ <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD415.pdf>

Appendix

Currency-specific Amount Outstanding Requirements:

Currency	Local Currency Amount Outstanding Requirement (mils)
AUD	100
CAD	100
CHF	150
CLP	100,000
CNY	10,000
COP	500,000
CZK	5,000
DKK	1,000
EUR	250
GBP	200
HKD	750
HUF	100,000
IDR	1,000,000
ILS	1,000
INR	10,000
JPY	20,000
KRW	200,000
MXN	5,000
MYR	1,000
NOK	1,000
NZD	100
PEN	1,000
PHP	10,000
PLN	2,000
RON	1,000
RUB	10,000
SEK	1,000
SGD	250
THB	10,000
TWD	10,000
USD	250

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