

MSCI CORPORATE BOND INDEXES METHODOLOGY

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Contents

1	General Methodology Overview	3
2	Index Construction.....	4
2.1	General Guidelines	4
2.2	MSCI USD Corporate Bond Indexes	6
2.2.1	MSCI USD IG Corporate Bond Index.....	6
2.3	MSCI EUR Corporate Bond Indexes.....	6
2.4	MSCI GBP Corporate Bond Indexes	6
2.5	MSCI CAD Corporate Bond Indexes	7
3	Index Rebalancing & Maintenance	8
4	MarketAxess Data	9
4.1	Relative Liquidity Score	9
	Appendix 1: Changes to the Methodology Book.....	10

1 General Methodology Overview

MSCI Corporate Bond Indexes are constructed to measure the performance of eligible corporate bonds issued in certain credit markets. The indexes are designed to represent performance at various levels of the investment process.

The MSCI Corporate Bond Indexes conform to a general construction guideline as described in this methodology. They are rules based with consideration to the following factors:

- Size
- Maturity
- Credit Rating

The indexes are designed to be replicable irrespective of the institutional investor's domicile.

2 Index Construction

2.1 General Guidelines

Security Type: The MSCI Corporate Bond Indexes include securities selected from the global credit universe. In general, the universe includes fixed rate coupon bonds. Issues with tax-advantages, index-linked and perpetual bonds are excluded. In terms of capital structure, only senior secured, senior unsecured and subordinated (both junior and senior) debt are included. Capital securities, such as preferred stock, are not eligible to be part of the index.

Note that inclusion and exclusion based on security types may vary across currencies and credit rating buckets.

Security types eligible and ineligible for index inclusion are tabulated below. Any exceptional treatment in a particular currency universe to this eligibility criteria will be highlighted in the currency specific sections.

Eligible Security Types	Ineligible Security Types
Corporate Debt only ¹	Floating Rate Coupon Bonds
Senior and Subordinated Issues	Zero Coupon Bonds
Puttable and Callable Bonds	Inflation Protected Bonds
Bullet Bonds	Perpetual Bonds
Bonds with Step-up / Step-down Coupons	Bonds with sinking fund provision
Fixed to Floating Rate Bonds are eligible for inclusion during their fixed rate term only. They are excluded 1 year prior to the conversion date as measured from the Rebalancing Date.	PIKs
	Private Placements
	Dual Currency
	Strips (IO/PO)
	Hybrids ²
	Covered Bonds

144A / RegS ISINs: Indexes denominated in USD & CAD include 144a ISINs³ while indexes denominated in EUR & GBP include RegS ISINs.

Credit Rating: Each index constituent must be rated by either by S&P or Moody's. For bonds that are rated by both S&P and Moody's, the lower rating will be used to determine the index inclusion criteria.

The table below summarizes higher and lower rating thresholds for MSCI Investment Grade (IG)

¹ Corporate issuers classified as government owned as per MSCI data vendors are excluded from the index.

² Equity linked hybrid bonds are ineligible (e.g. - convertible bonds, warrants, preferred shares etc.)

³ MSCI Investment Grade (IG) Corporate Bond Indexes only include 144a bonds with registration rights, whereas MSCI High Yield (HY) Corporate Bond Indexes include both, 144a bonds with registration rights and 144a bonds without registration rights.

Corporate Bond Indexes and MSCI High Yield (HY) Corporate Bond Indexes.

	S&P Rating		Moody's Rating	
	Higher Rating Threshold	Lower Rating Threshold	Higher Rating Threshold	Lower Rating Threshold
IG	AAA	BBB-	Aaa	Baa3
HY	BB+	CC	Ba1	Ca

Issuer Country of Domicile: Securities included in the MSCI Corporate Bond Indexes must belong to issuers domiciled in countries classified as Developed Markets as per the Economic Development pillar in the MSCI Fixed Income Market Classification Framework⁴.

Maturity: Each index constituent must have a maturity greater than or equal to 1 year as measured from the Rebalancing Date (defined below). New additions to the index must have a maturity greater than or equal to 1 ½ years as measured from the Rebalancing Date.

Corporate Event: New additions to the index must not have any known corporate events which will result in notional amount outstanding of the bond falling below the minimum bond size criteria over the next 1 month as measured from the Rebalancing Date.

Weighting: MSCI Corporate Bond Indexes are issuance weighted indexes. Index constituents will be weighted by market value⁵ within the index.

Pricing: MSCI uses bid side pricing from data vendors. Securities included in the index are priced to par. Securities not priced by the designated pricing source are ineligible for index inclusion.

Settlement: MSCI applies standard same-day (T+0) index settlement convention, unless otherwise specified.

Size: MSCI calibrates and determines size-based index inclusion criteria to balance representativeness and liquidity in each credit universe.

At a security level, size is determined by its notional amount outstanding, whereas at an issuer level size it is determined by issuer's total amount outstanding⁶. At rebalancing, each security included in the MSCI Corporate Bond Indexes will have size greater than or equal to the thresholds tabulated in respective currency specific sections below.

⁴ Please refer to MSCI Fixed Income Market Classification Framework document for further details. Available at <https://www.msci.com/our-solutions/indexes/market-classification>

⁵ Please refer to MSCI Fixed Income Index calculation methodology for further details on calculation of market value.

⁶ Please refer to MSCI Fixed Income Data Methodology document for details on the calculation of Issuer amount outstanding.

2.2 MSCI USD Corporate Bond Indexes

The MSCI USD Corporate Bond Indexes include corporate debt denominated in the USD currency. Security & Issuer size threshold criteria for USD credit universe is tabulated below.

Index	Security Size Threshold	Issuer Size Threshold
MSCI USD IG Corporate Bond Index	USD 300 million	-
MSCI USD IG Core Corporate Bond Index	USD 750 million	USD 2 billion
MSCI USD HY Corporate Bond Index	USD 200 million	-

2.2.1 MSCI USD IG Corporate Bond Index

Liquidity Score Screen: The Liquidity Score of a security is calculated as the simple average of MarketAxess Relative Liquidity Scores over a rolling 21-day window⁷. All eligible constituents must have a liquidity score greater than 1 as on the Cut-Off Date.

Issuer Capping: After all the eligibility criteria are applied, the issuer ticker weights are capped at 3%.

Lock Out Period: Securities that are deleted from the Index are “locked out” and hence are ineligible for inclusion to the Index for a period of next 12 months.

2.3 MSCI EUR Corporate Bond Indexes

The MSCI EUR Corporate Bond Indexes include corporate debt denominated in the EUR currency. Security & Issuer size threshold criteria for EUR credit universe is tabulated below.

Index	Security Size Threshold	Issuer Size Threshold
MSCI EUR IG Corporate Bond Index	EUR 300 million	-
MSCI EUR HY Corporate Bond Index	EUR 150 million	-

2.4 MSCI GBP Corporate Bond Indexes

The MSCI GBP Corporate Bond Indexes include corporate debt denominated in the GBP currency. Security & Issuer size threshold criteria for GBP credit universe is tabulated below.

Index	Security Size Threshold	Issuer Size Threshold
MSCI GBP IG Corporate Bond Index	GBP 200 million	-
MSCI GBP HY Corporate Bond Index	GBP 100 million	-

⁷ 21-day window is defined by using weekdays.

2.5 MSCI CAD Corporate Bond Indexes

The MSCI CAD Corporate Bond Indexes include corporate debt ⁸denominated in the CAD currency. Security & Issuer size threshold criteria for CAD credit universe is tabulated below.

Index	Security Size Threshold	Issuer Size Threshold
MSCI CAD IG Corporate Bond Index	CAD 150 million	-
MSCI CAD HY Corporate Bond Index	CAD 100 million	-

⁸ MSCI CAD Corporate Bond Indexes include Non-viable contingent convertible (NVCC) bonds

3 Index Rebalancing & Maintenance

- The composition of the MSCI Corporate Bond Indexes is reviewed monthly, with an effective rebalancing impact on the first business day of the month. For clarification, bonds are added to the index on the closing of last business day of every month, however, the return impact is on the first business day of the month.
- Change in the Index composition is based on latest data available as of three days prior to the Rebalancing Date, which is defined as the Cut-Off Date. Any inclusion or exclusion criteria satisfied for a given security in the universe, after the Cut-Off Date, will generally become effective at the following monthly rebalancing; should conditions remain unchanged. In exceptional cases, for instance, cases of input data correction, MSCI can reduce the Cut-Off Date for Index rebalancing from T-3 to T-2, T-1 or T. In such instances, MSCI will notify Index clients of such changes via an announcement.
- MSCI will announce proforma index rebalancing results as of the Cut-Off Date.
- Bonds are added to or deleted from the index only on monthly rebalancing dates, except in case of an exchange event⁹. For the existing index components any changes to index eligibility will only be reflected in the next monthly rebalancing.
- Any inclusion or exclusion criteria satisfied for a given security in the universe, after the Cut-Off Date, will generally become effective at the following monthly rebalancing; should conditions remain unchanged.
- Any cash that accrues within the index in each month is re-invested on a pro-rata basis across the index constituents, on the Rebalancing Date. In essence, cash in the index is swept out on rebalancing and the opening index portfolio on the Rebalancing Date starts with zero accrued cash balance.
- Certain variants of total return calculation of the index on the Rebalancing Date may be adjusted for transaction costs¹⁰ as securities are added to the index at the offer price.

For further information on index total return calculation and corporate events handling please refer to the MSCI Fixed Income Index Calculation Methodology¹¹. For the holiday calendar used in the indexes, please refer to the MSCI Fixed Income Data Methodology¹².

MSCI leverages the GICS^{®13} sector classification framework for MSCI Corporate Bond Indexes as well. Please refer to MSCI GICS Methodology¹⁴ for details.

⁹ Refer to the MSCI Fixed Income Index Calculation Methodology for detail. Available at <https://www.msci.com/index-methodology>

¹⁰ Refer to the MSCI Fixed Income Index Calculation Methodology for detail. Available at <https://www.msci.com/index-methodology>

¹¹ Refer to the MSCI Fixed Income Index Calculation Methodology for detail. Available at <https://www.msci.com/index-methodology>

¹² The methodologies are available at: <https://www.msci.com/index-methodology>.

¹³ GICS, the global industry classification standard, jointly developed by MSCI Inc. and S&P Global.

¹⁴ The GICS methodology is available at: <https://www.msci.com/gics>

4 MarketAxess Data

4.1 Relative Liquidity Score

The MarketAxess Relative Liquidity Score provides a defined measurement of the current liquidity for individual bonds and highlights the potential ease that a trader can expect to transact in that instrument. The score ranges from 10, meaning the highest level of liquidity, down to 1.

MarketAxess combines data points from multiple sources – Inventory data, MarketAxess platform data, TRACE¹⁵ data, and Trax¹⁶ data, to calculate multiple bond-specific factors on a relative basis over a 30-day look back period. The proprietary model then aggregates the individual factors to derive the final relative liquidity score.

For more details on Relative Liquidity score, please refer to:
[https://www.marketaxess.com/price/relative-liquidity-score.](https://www.marketaxess.com/price/relative-liquidity-score)

¹⁵ TRACE, Trade Reporting and Compliance Engine, is the Financial Industry Regulatory Authority's (FINRA) fixed income market real-time price reporting and dissemination service.

¹⁶ Trax, a wholly owned subsidiary of MarketAxess Holdings, Inc., provides capital market data, trade matching and regulatory reporting services to the global securities market.

Appendix 1: Changes to the Methodology Book

The following sections have been modified since June 2020:

Section 2 Index Construction

- Realigned Sections 2.1 and 2.2. Section 2.1 now addresses general index construction guidelines followed by all MSCI Corporate Bond Indexes.
- Section 2.2 addresses specific rules pertaining to the construction of MSCI USD Corporate Bond Indexes.

Section 2.2 MSCI USD Corporate Bond Indexes

- Added a footnote on pg. 6 to clarify the inclusion criteria for government owned corporate entities.
Added a footnote on pg. 6 to distinguish the rules for inclusion of 144a bonds between MSCI IG Corporate Bond Indexes and MSCI HY Corporate Bond Indexes.
- Removed the exclusion of bonds with equity clawback provision.
- On pg. 7 added the amount outstanding cutoff used in the construction of MSCI USD HY Corporate Bond Indexes.

Appendix

- Added list of developed market countries in Appendix I.
- Added change log for the methodology book in Appendix II.

The following sections have been modified since July 2020:

- Added Section 2.3 for MSCI EUR Corporate Bond Indexes.
- Amended Appendix I: MSCI Developed Market Universe.

The following sections have been modified since October 2020:

- Added Section 2.4 for MSCI GBP Corporate Bond Indexes.
- Amended Section 2.1, 2.2 and 2.3.

The following sections have been modified since June 2021:

- Added Section 2.5 for MSCI CAD Corporate Bond Indexes.

The following sections have been modified since November 2022:

- Clarified on inclusion of Covered Bonds in Section 2.1.

The following sections have been modified since September 2023:

- Added in Section 2.2. the new size thresholds for the MSCI USD IG Corporate Bond Indexes.
- Added Section 2.2.1 for MSCI USD IG Corporate Bond Indexes.
- Added Section 4 for MarketAxess Data.

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