

MSCI EM Sovereign Bond Index (MESBI) Methodology

April 2025



Contents

1.	General Methodology Overview	3
2.	Index Construction	4
3.	Index Rebalancing & Maintenance	6
Арр	endix I: Methodology Set	7
Арр	endix II: Changes to this Document	8



1. General Methodology Overview

The MSCI Emerging Markets Sovereign Bond Index¹ ('the Index'; MSCI Index Code: 755660) is constructed to measure the performance of USD denominated bonds issued by the Emerging Markets (EM) sovereign and quasi-sovereign entities (100% government owned). The Index construction is rules-based and conforms to the general construction guideline as described in this methodology document.

The spirit of the Index design is to be representative of the market, as well as to be replicable by the global institutional investors. Broadly, the Index methodology selects fix coupon paying USD bonds from the relevant issuers. The eligible bonds are further screened for maturity and size cut-offs as outlined in relevant sections of this methodology document. In addition, the Index methodology incorporates country capping at 10% to avoid concentration risk.

¹ The Index is governed by a set of methodology and policy documents ("Methodology Set"), including the present index methodology document. The Methodology Set for the Indexes can be accessed from MSCI's webpage https://www.msci.com/index-methodology in the section 'Search Methodology by Index Name or Index Code'. The Methodology Set includes a document 'ESG Factors in Methodology' that contains the list of environmental, social, and governance factors considered, and how they are applied in the methodology (e.g., selection, weighting or exclusion).



2. Index Construction

Issuer Type: Each index constituent must be issued by a sovereign or quasi-sovereign² entity.

Issuer Country of Exposure: Each Index constituent must belong to issuers whose country of exposure³ is Emerging Market as per the Economic Development pillar of the MSCI Fixed Income Market Classification Framework⁴.

Credit Rating⁵: Each index constituent must be rated by either by S&P, Fitch or Moody's. For bonds that are rated by two rating agencies, the lower rating will be used to determine the index inclusion criteria. For bonds that are rated by all three rating agencies, the median rating will be used to determine the index inclusion criteria.

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

The table below summarizes higher and lower rating thresholds for the Index.

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 1½ years as measured from the Rebalancing Date.

Size: Index constituents must have security size greater than or equal to USD 500 million.

² Quasi-sovereign entities are defined as government agencies or public sector corporates that are 100% owned by a sovereign entity.

³ An issuer's country of exposure is considered to be EM if at least one of its country of domicile, parent country of domicile or ultimate parent country of domicile is in the Emerging Market. The country of exposure of the issuer is defined as its country of domicile; in case its country of domicile is not from EM (i.e., in case of SPVs), its ultimate parent country of domicile is used. In case neither of its country of domicile or ultimate parent country of domicile is EM, then its parent country of domicile is used as its country of exposure.

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 Historically, the Index utilized credit ratings only from S&P and Moody's for determining index eligibility and related criteria. However, effective April 2025, Fitch credit ratings are incorporated alongside Moody's and S&P ratings to assess index eligibility and respective distinctions.



Weighting: Index constituents will be weighted by market value⁶ within the Index.

Additionally, constituent weights are capped at 10% at country of exposure to mitigate concentration risk. The excess weight after capping is redistributed across the remaining index constituent in proportion of their market value.

Note that the capping of the country weight is calculated for the pro forma Index as of the effective date, based on the closing prices as of the Index Review Cut-Off Date.

In cases where the pro-forma country weight breaches the cap because of market price movements or corporate events between the announcement date and the effective date, the capping is not applied again. Similarly, even if any country weight breaches the cap because of market price movements or corporate events between two monthly reviews, capping is not reapplied.

Pricing: Daily bond valuation utilizes bid prices from our vendors. Securities not priced by the designated pricing source are not eligible for index inclusion.

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

⁶ Please refer to MSCI Fixed Income Index calculation methodology at <u>www.msci.com/index-methodology</u> for further details on security level market value calculation.



3. Index Rebalancing & Maintenance

- The Index undergoes a monthly review, with the rebalancing impact taking effect on the first business day of each month (termed as Rebalancing Date). To elaborate, bonds are incorporated into the index at the close of the last business day of every month, but the impact on returns is observed on the first business day of the subsequent month.
- The rebalanced Index composition is determined by the most recent data available three days prior to the Rebalancing Date, termed as the Cut-Off Date. If a security in the universe satisfies any inclusion or exclusion criteria after the Cut-Off Date, it will typically become effective at the next monthly rebalancing, provided conditions remain constant. In extraordinary circumstances, such as cases of input data correction, MSCI has the discretion to shorten the Cut-Off Date for Index rebalancing from T-3 to T-2, T-1, or T. In such scenarios, MSCI will inform Index clients of these changes through an announcement.
- MSCI will disclose proforma index rebalancing results starting the second business day of each month. MSCI will freeze the proforma index rebalancing results as of the Cut-Off Date.
- Bonds are either added to or removed from the index solely on monthly rebalancing dates. For existing index components, any changes to index eligibility will only be reflected in the subsequent monthly rebalancing.
- Any cash that accumulates within the index each month is re-invested across the index constituents on a pro-rata basis, on the Rebalancing Date. Essentially, cash in the index is cleared out on rebalancing, and the opening index portfolio on the Rebalancing Date commences with zero accrued cash balance.
- Specific variants of the total return calculation of the index on the Rebalancing Date may be adjusted for transaction costs ⁷as 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 Methodology⁸. For the holiday calendar used in the indexes, please refer to the MSCI Fixed Income Data Methodology⁹

⁷ Refer to the MSCI Fixed Income Index Calculation Methodology for detail. Available at https://www.msci.com/index-methodology

⁸ Refer to the MSCI Fixed Income Index Calculation Methodology for detail. Available at https://www.msci.com/index-methodology

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



Appendix I: Methodology Set

The Indexes are governed by a set of methodology and policy documents ("Methodology Set"), including the present index methodology document as mentioned below:

• Description of methodology set -

https://www.msci.com/index/methodology/latest/FIInfo

MSCI Fixed Income Data Methodology –

https://www.msci.com/index/methodology/latest/FIDATA

- MSCI Fixed Income Calculation Methodology <u>https://www.msci.com/index/methodology/latest/FIINDEXCALC</u>
- MSCI Fixed Income Glossary of Terms –

https://www.msci.com/index/methodology/latest/FIGLOSS

• MSCI Fixed Income Index Policies -

https://www.msci.com/index/methodology/latest/FIINDEXPOLICY

The Methodology Set for the Indexes can also be accessed from MSCI's webpage https://www.msci.com/index-methodology in the section 'Search Methodology by Index Name or Index Code'.



Appendix II: Changes to this Document

The following sections have been modified as of December 2024:

Appendix I: Methodology Set

• Added details on the Methodology Set for the Index

The following sections have been modified as of April 2025:

Amended Section 2 to reflect the integration of Fitch Credit Ratings in the index construction methodology of the MSCI EM Sovereign Bond Index.



Contact us

msci.com/contact-us

AMERICAS

United States + 1 888 588 4567 * Canada+ 1 416 687 6270 Brazil + 55 11 4040 7830 Mexico + 52 81 1253 4020

EUROPE, MIDDLE EAST & AFRICA

South Africa + 27 21 673 0103 Germany + 49 69 133 859 00 Switzerland + 41 22 817 9777 United Kingdom + 44 20 7618 2222 Italy + 39 02 5849 0415 France + 33 17 6769 810

ASIA PACIFIC

China + 86 21 61326611 Hong Kong + 852 2844 9333 India + 91 22 6784 9160 Malaysia 1800818185* South Korea + 82 70 4769 4231 + 65 67011177 Singapore Australia + 612 9033 9333 Taiwan 008 0112 7513 * Thailand 0018 0015 6207 7181 * Japan + 81 3 4579 0333

* toll-free

About MSCI

MSCI is a leading provider of critical decision support tools and services for the global investment community. With over 50 years of expertise in research, data and technology, we power better investment decisions by enabling clients to understand and analyze key drivers of risk and return and confidently build more effective portfolios. We create industry-leading researchenhanced solutions that clients use to gain insight into and improve transparency across the investment process.

The process for submitting a formal index complaint can be found on the index regulation page of MSCI's website at: <u>www.msci.com/index-regulation</u>.

To learn more, please visit <u>www.msci.com</u>.



Notice and disclaimer

This document is research for informational purposes only and is intended for institutional professionals with the analytical resources and tools necessary to interpret any performance information. Nothing herein is intended to promote or recommend any product, tool or service.

This document and all of the information contained in it, including without limitation all text, data, graphs, charts (collectively, the "Information") is the property of MSCI Inc. or its subsidiaries (collectively, "MSCI"), or MSCI's licensors, direct or indirect suppliers or any third party involved in making or compiling any Information (collectively, with MSCI, the "Information Providers") and is provided for informational purposes only. The Information may not be modified, reverse-engineered, reproduced or redisseminated in whole or in part without prior written permission from MSCI. All rights in the Information are reserved by MSCI and/or its Information Providers.

The Information may not be used to create derivative works or to verify or correct other data or information. For example (but without limitation), the Information may not be used to create indexes, databases, risk models, analytics, software, or in connection with the issuing, offering, sponsoring, managing or marketing of any securities, portfolios, financial products or other investment vehicles utilizing or based on, linked to, tracking or otherwise derived from the Information or any other MSCI data, information, products or services.

The user of the Information assumes the entire risk of any use it may make or permit to be made of the Information. NONE OF THE INFORMATION PROVIDERS MAKES ANY EXPRESS OR IMPLIED WARRANTIES OR REPRESENTATIONS WITH RESPECT TO THE INFORMATION (OR THE RESULTS TO BE OBTAINED BY THE USE THEREOF), AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, EACH INFORMATION PROVIDER EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES (INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF ORIGINALITY, ACCURACY, TIMELINESS, NON-INFRINGEMENT, COMPLETENESS, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) WITH RESPECT TO ANY OF THE INFORMATION.

Without limiting any of the foregoing and to the maximum extent permitted by applicable law, in no event shall any Information Provider have any liability regarding any of the Information for any direct, indirect, special, punitive, consequential (including lost profits) or any other damages even if notified of the possibility of such damages. The foregoing shall not exclude or limit any liability that may not by applicable law be excluded or limited, including without limitation (as applicable), any liability for death or personal injury to the extent that such injury results from the negligence or willful default of itself, its servants, agents or sub-contractors.

Information containing any historical information, data or analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. Past performance does not guarantee future results.

The Information may include "Signals," defined as quantitative attributes or the product of methods or formulas that describe or are derived from calculations using historical data. Neither these Signals nor any description of historical data are intended to provide investment advice or a recommendation to make (or refrain from making) any investment decision or asset allocation and should not be relied upon as such. Signals are inherently backward-looking because of their use of historical data, and they are not intended to predict the future. The relevance, correlations and accuracy of Signals frequently will change materially.

The Information should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. All Information is impersonal and not tailored to the needs of any person, entity or group of persons.

None of the Information constitutes an offer to sell (or a solicitation of an offer to buy), any security, financial product or other investment vehicle or any trading strategy.

It is not possible to invest directly in an index. Exposure to an asset class or trading strategy or other category represented by an index is only available through third party investable instruments (if any) based on that index. MSCI does not issue, sponsor, endorse, market, offer, review or otherwise express any opinion regarding any fund, ETF, derivative or other security, investment, financial product or trading strategy that is based on, linked to or seeks to provide an investment return related to the performance of any MSCI index (collectively, "Index Linked Investments"). MSCI makes no assurance that any Index Linked Investments will accurately track index performance or provide positive investment returns. MSCI Inc. is not an investment adviser or fiduciary and MSCI makes no representation regarding the advisability of investing in any Index Linked Investments.

Index returns do not represent the results of actual trading of investible assets/securities. MSCI maintains and calculates indexes, but does not manage actual assets. The calculation of indexes and index returns may deviate from the stated methodology. Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the index or Index Linked Investments. The imposition of these fees and charges would cause the performance of an Index Linked Investment to be different than the MSCI index performance.

The Information may contain back tested data. Back-tested performance is not actual performance, but is hypothetical. There are frequently material differences between back tested performance results and actual results subsequently achieved by any investment strategy.

Constituents of MSCI equity indexes are listed companies, which are included in or excluded from the indexes according to the application of the relevant index methodologies. Accordingly, constituents in MSCI equity indexes may include MSCI Inc., clients of MSCI or suppliers to MSCI. Inclusion of a security within an MSCI index is not a recommendation by MSCI to buy, sell, or hold such security, nor is it considered to be investment advice.

Data and information produced by various affiliates of MSCI Inc., including MSCI ESG Research LLC and Barra LLC, may be used in calculating certain MSCI indexes. More information can be found in the relevant index methodologies on www.msci.com.

MSCI receives compensation in connection with licensing its indexes to third parties. MSCI Inc.'s revenue includes fees based on assets in Index Linked Investments. Information can be found in MSCI Inc.'s company filings on the Investor Relations section of msci.com.

MSCI ESG Research LLC is a Registered Investment Adviser under the Investment Advisers Act of 1940 and a subsidiary of MSCI Inc. Neither MSCI nor any of its products or services recommends, endorses, approves or otherwise expresses any opinion regarding any issuer, securities, financial products or instruments or trading strategies and MSCI's products or services are not a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such, provided that applicable products or services from MSCI ESG Research materials, including materials utilized in any MSCI ESG Indexes or other products, have not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body. MSCI ESG and climate ratings, research and data are produced by MSCI ESG Research LLC, a subsidiary of MSCI Inc. MSCI ESG Research LLC. MSCI ESG Indexes, analytics and Real Estate are products of MSCI Inc. that utilize information from MSCI ESG Research LLC. MSCI Indexes are administered by MSCI Deutschland GmbH.

Please note that the issuers mentioned in MSCI ESG Research materials sometimes have commercial relationships with MSCI ESG Research and/or MSCI Inc. (collectively, "MSCI") and that these relationships create potential conflicts of interest. In some cases, the issuers or their affiliates purchase research or other products or services from one or more MSCI affiliates. In other cases, MSCI ESG Research rates financial products such as mutual funds or ETFs that are managed by MSCI's clients or their affiliates, or are based on MSCI Inc. Indexes. In addition, constituents in MSCI Inc. equity indexes include companies that subscribe to MSCI products or services. In some cases, MSCI ESG Research has taken a number of steps to mitigate potential conflicts of interest and safeguard the integrity and independence of its research and ratings. More information about these conflict mitigation measures is available in our Form ADV, available at https://adviserinfo.sec.gov/firm/summary/169222.

Any use of or access to products, services or information of MSCI requires a license from MSCI. MSCI, Barra, RiskMetrics, IPD and other MSCI brands and product names are the trademarks, service marks, or registered trademarks of MSCI or its subsidiaries in the United States and other jurisdictions. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P Global Market Intelligence. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and S&P Global Market Intelligence.

MIFID2/MIFIR notice: MSCI ESG Research LLC does not distribute or act as an intermediary for financial instruments or structured deposits, nor does it deal on its own account, provide execution services for others or manage client accounts. No MSCI ESG Research product or service supports, promotes or is intended to support or promote any such activity. MSCI ESG Research is an independent provider of ESG data.

Privacy notice: For information about how MSCI collects and uses personal data, please refer to our Privacy Notice at https://www.msci.com/privacy-pledge.