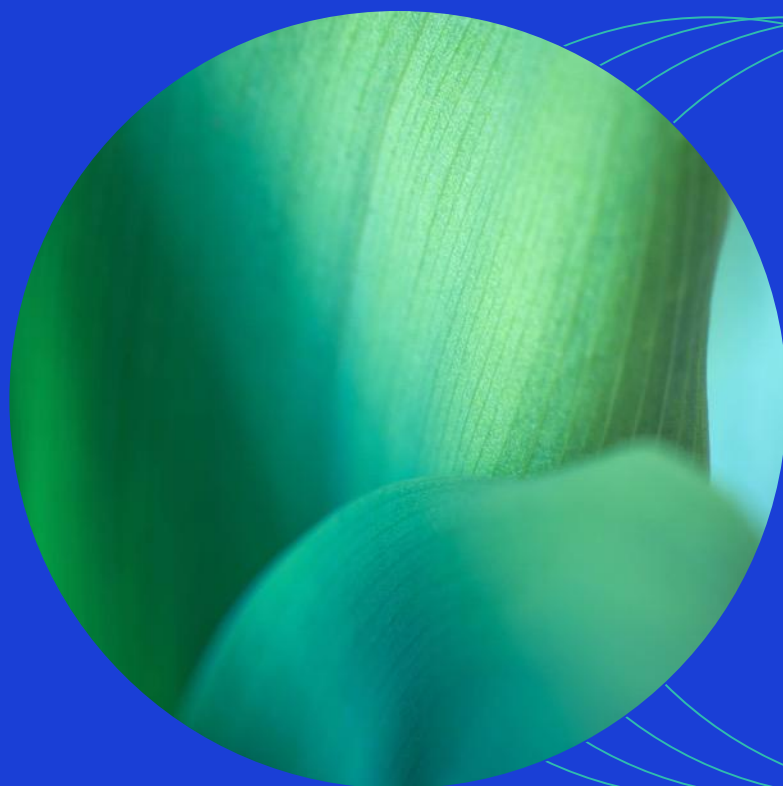




July 2025

MSCI Fixed Income Climate Change Indexes Methodology



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1 Introduction

The MSCI Fixed Income Climate Change Indexes¹ (the 'Indexes') aim to represent the performance of an investment strategy that re-weights securities based upon the opportunities and risks associated with the transition to a lower carbon economy, while seeking to minimize exclusions from the parent index. The methodology uses the MSCI Low Carbon Transition² (LCT) score and category to reweight constituents of a parent index to increase its exposure to companies participating in opportunities associated with transition and decrease its exposure to companies exposed to risks associated with transition.

¹ The Indexes are 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 Please refer to Appendix II: MSCI Low Carbon Transition Risk Assessment for further details. Further details regarding the MSCI Low Carbon Transition score and category are available at <https://www.msci.com/climate-change-solutions>

2 Constructing the MSCI Fixed Income Climate Change Indexes

2.1 Underlying Universe

The applicable universe includes all the existing constituents of the Parent Index. This approach aims to provide an opportunity set with sufficient liquidity and capacity.

2.2 Eligibility Criteria

The Eligible Universe comprises of all constituents from the Applicable Universe that meet each of the below eligibility criteria. The Indexes use company ratings and research provided by MSCI ESG Research³ to determine eligibility for index inclusion.

2.2.1 Controversies Business Involvement Criteria

The Indexes use MSCI ESG Business Involvement Screening Research to identify issuers that are involved in Controversial Weapons. Issuers that meet the business involvement criteria are excluded from the Indexes. Please refer to Appendix 1 for details on these criteria.

2.3 Determination of Combined Score

Each issuer in the eligible universe is assigned a Combined Score, which is calculated using a company's LCT Category and its Low Carbon Transition Score as outlined below.

2.3.1 Category Tilt Score

The 'Category Tilt Score' is used to express relative tilt towards or away from a security based on the LCT Category. Based on the LCT Category of an issuer, a Category Tilt Score is assigned based on the table below.

LCT Rating	Category Tilt Score
Solutions	3
Neutral	1
Operational Transition	0.667
Product Transition	0.333

³ See section 4 for further information regarding ESG and climate data used in the Indexes that MSCI Limited and MSCI Deutschland GmbH source from MSCI ESG Research LLC, a separate subsidiary of MSCI Inc. MSCI ESG Research is solely responsible for the creation, determination and management of such data as a provider to MSCI Limited and MSCI Deutschland GmbH. MSCI Limited and MSCI Deutschland GmbH are the benchmark administrators for the MSCI indexes.

LCT Rating	Category Tilt Score
Asset Stranding	0.167

2.3.2 Relative Tilt Score

The 'Relative Tilt Score' differentiates issuers within an LCT Category. Issuers with higher LCT Score are determined by MSCI ESG Research to be relatively better at managing their climate related risk compared to their peers with worse LCT Score.

The Relative Tilt Score is calculated by normalizing security level LCT score relative to the maximum⁴ LCT Score of the LCT Category within the Parent Index. The 'Relative Tilt Score' is floored at 0.5 to balance its effect on the final weight of index constituents:

$$Relative\ Tilt\ Score = \frac{LCT\ Score}{Maximum^2\ LCT\ Score\ in\ LCT\ Category}$$

2.3.3 Combined Score

The Combined Score is calculated for each company as follows:

$$Combined\ Score = Category\ Tilt\ Score \times Relative\ Tilt\ Score$$

2.4 Weighting Scheme

At each rebalancing, all the securities from the eligible universe are weighted by the product of their weight in the Parent Index and the Combined Score.

$$Security\ Weight = Combined\ Score \times Weight\ in\ the\ Parent\ Index$$

The above weights are then normalized to 100%.

Additionally, constituent weights are capped at the issuer level to mitigate concentration risk:

1. Issuers in the Indexes based on broad Parent Indexes are capped at 5%
2. Issuers in the Index based on narrow Parent Indexes are capped at the maximum weight in the Parent Index.

Narrow Parent Indexes are defined as those indexes for which the maximum issuer market value weight in the Parent Index is more than 10%.

Note that the capping of the issuer weight is done for the pro forma index as of the effective date, based on the closing prices as of the Cut-Off date. In cases where the issuer weight breaches the

⁴ To account for potential outliers within each LCT Category, the category maximum LCT Score is calculated after winsorizing the security level LCT Score at 90th percentile of the LCT Category.

cap as a result of market price movements or corporate events between the Cut-Off date and the Rebalancing date, the capping is not applied again. Similarly, even if any issuer weight breaches the cap as a result of market price movements or corporate events between two Monthly Index Reviews, no capping is applied.

2.5 Treatment of Unrated Companies

All securities that are not excluded by the specified MSCI ESG Business Involvement Screening Research (BISR) criteria are eligible for inclusion in the index.

Issuers not assessed by MSCI ESG Research for Low Carbon Transition Assessment are not eligible for inclusion in the Indexes

3 Maintaining the MSCI Fixed Income Universal Indexes

3.1 Monthly Index Review

- The composition of the Indexes is reviewed monthly, with an effective rebalancing impact on the first business day of the month (Rebalancing Date). For clarification, bonds are added to the Index at the closing of the last business day of every month, however, the return impact is on the first business day of the month.
- In general, change in the Index composition is based on latest⁵ data available (including MSCI ESG & Climate data) 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 (T-3), 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 announcement.
- MSCI will disclose proforma Index rebalancing results starting the second business day of each month. MSCI will freeze the pro forma Index rebalancing results as of the Cut-Off Date.
- Bonds are added to or deleted from the Index only on monthly rebalancing dates. 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 Cutoff Date, will generally become effective at the following monthly rebalancing; should conditions remain unchanged.
- Any cash that accrues within the index each month is re-invested on a pro-rata basis across the index constituents on the effective date of rebalancing. 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.
- Specific variants of total return calculation of the Index on the Rebalancing Date may be adjusted for transaction costs as securities are added to the Index at the offer price.

For further information on index total return calculation please refer to the MSCI Fixed Income Index Calculation Methodology⁶. For the holiday calendar used in the index, please refer to the MSCI Fixed Income Data Methodology⁷. MSCI leverages the GICS^{®8} sector classification framework for MSCI Corporate Bond Indexes as well. Please refer to MSCI GICS Methodology⁹ for details.

⁵ ESG and Climate data will utilize the most recent, quality-assured information available. For index rebalancing, the latest data that has successfully undergone quality assurance checks will be employed. In cases where recent data changes are still undergoing verification, only data that has passed the quality assurance process will be considered.

⁶ Refer to the MSCI Fixed Income Index Calculation Methodology for detail. Available at <https://www.msci.com/Index-methodology>

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

⁸ GICS, the global industry classification standard jointly developed by MSCI Inc. and S&P Dow Jones Indices.

⁹ The GICS methodology is available at: <https://www.msci.com/gics>.

4 MSCI ESG Research

The Indexes are products of MSCI Inc. that utilize information such as company ratings and research produced and provided by MSCI ESG Research LLC (MSCI ESG Research), a subsidiary of MSCI Inc. In particular, the Indexes use the following MSCI ESG Research products: MSCI ESG Business Involvement Screening Research and MSCI Climate Change Metrics. MSCI Indexes are administered by MSCI Limited and MSCI Deutschland GmbH.

4.1 MSCI Climate Change Metrics

MSCI Climate Change Metrics provides climate data & tools to support institutional investors seeking to integrate climate risk & opportunities into their investment strategy and processes. This includes investors seeking to achieve a range of objectives, including measuring and reporting on climate risk exposure, implementing low carbon and fossil fuel-free strategies, align with temperature pathways and factoring climate change research into their risk management processes, in particular through climate scenario analysis for both transition and physical risk.

The dataset spans across the four dimensions of a climate strategy: transition risks, green opportunities, physical risks and 1.5° alignment.

4.1.1 Low-Carbon Transition (LCT) Risk Assessment

MSCI ESG Research's LCT data assesses companies' exposure to risks and opportunities related to the low-carbon transition (the transition) based on the carbon-intensive nature of their business lines. In particular, in the event that the transition takes place, demand for carbon-intensive products would decline in favor of low- and zero-carbon products, which would put carbon-intensive companies and industries (for example, coal-based power generation and coal mining) at risk of having stranded assets over the long term (5+ years). MSCI ESG Research considers a company exposed to low-carbon transition risks and opportunities through two main transmission channels: (1) exposure through involvement in carbon-intensive operations, and (2) exposure through involvement in or solutions for carbon-intensive products.

For more details on MSCI Climate Change Metrics, please refer to <https://www.msci.com/legal/disclosures/climate-disclosures>.

4.2 MSCI ESG Business Involvement Screening Research

MSCI ESG Business Involvement Screening Research (BISR) aims to enable institutional investors to manage environmental, social and governance (ESG) standards and restrictions reliably and efficiently.

For more details on MSCI ESG Business Involvement Screening Research, please refer to <https://www.msci.com/legal/disclosures/esg-disclosures>.

Appendix I: Controversial Business Screening Criteria

Issuers that are involved in certain controversial business activities are excluded from the MSCI ESG Climate Change Indexes:

- **Cluster Bombs**
 - MSCI ESG Research's cluster bomb research identifies issuers that are involved in the production of cluster bombs and munitions, or the essential components of these products.
- **Landmines**
 - MSCI ESG Research's landmines research identifies issuers that are involved in the production of anti-personnel landmines, anti-vehicle landmines, or the essential components of these products.
- **Depleted Uranium Weapons**
 - MSCI ESG Research's depleted uranium weapons research identifies issuers involved in the production of depleted uranium weapons and armor.
- **Chemical and Biological Weapons**
 - MSCI ESG Research's chemical and biological weapons research identifies issuers that are involved in the production of chemical and biological weapons, or the essential components of these products.
- **Blinding Laser Weapons**
 - MSCI ESG Research's blinding laser weapons research identifies issuers that are involved in the production of weapons utilizing laser technology to cause permanent blindness.
- **Non-Detectable Fragments**
 - MSCI ESG Research's non-detectable fragments research identifies issuers that are involved in the production of weapons that use non-detectable fragments to inflict injury.
- **Incendiary Weapons (White Phosphorus)**
 - MSCI ESG Research's incendiary weapons research identifies issuers that are involved in the production of weapons using white phosphorus.

Involvement criteria:

- Producers of the weapons

- Producers of key components of the weapons (only applies to cluster bombs, landmines, depleted uranium weapons as well as chemical and biological weapons).
- Ownership of 20% or more of a weapons or components producer. The minimum limit is raised to 50% for financial companies having an ownership in a company that manufactures controversial weapons or key components of controversial weapons.
- Owned 50% or more by a company involved in weapons or components production.

Revenue limits:

- Any identifiable revenues, i.e., zero tolerance.

Appendix II: MSCI Low Carbon Transition Risk Assessment

MSCI ESG Research's Low Carbon Transition Risk assessment¹⁰ is designed to identify potential leaders and laggards by holistically measuring companies' exposure to and management of risks and opportunities related to the low carbon transition.

The outputs of this assessment are two company-level factors:

1. **Low Carbon Transition Category:** This factor groups companies in five categories that highlight the predominant risks and opportunities they are most likely to face in the transition (Exhibit 1).
2. **Low Carbon Transition Score:** This score is based on a multi-dimensional risks and opportunities assessment and considers both predominant and secondary risks a company faces. It is industry agnostic and represents an absolute assessment of a company's position vis-à-vis the transition.

¹⁰ For more details on MSCI Climate Change Metrics: <https://www.msci.com/climate-change-solutions>

Exhibit 1: Low Carbon Transition Categories and Scores

LOW CARBON TRANSITION SCORE	LOW CARBON TRANSITION CATEGORY		LOW CARBON TRANSITION RISK / OPPORTUNITY	INDUSTRY EXAMPLES
SCORE = 0	ASSET STRANDING		Potential to experience "stranding" of physical / natural assets due to regulatory, market, or technological forces arising from low carbon transition.	Coal mining & coal-based power generation; industries in the Oil & Gas value chain
	TRANSITION	PRODUCT	Reduced demand for carbon-intensive products and services. Leaders and laggards are defined by the ability to shift product portfolio to low-carbon products.	Petrol/diesel-based automobile manufacturers
		OPERATIONAL	Increased operational and/or capital cost due to carbon taxes and/or investment in carbon emission mitigation measures leading to lower profitability of the companies.	Cement, Steel
	NEUTRAL		Limited exposure to low carbon transition carbon risk. Though companies in this category could have exposure to physical risk and/or indirect exposure to low carbon transition risk via lending, investment etc.	Consumer Staples, Healthcare
	SOLUTIONS		Potential to benefit through the growth of low-carbon products and services.	Renewable electricity, Electric vehicles, Solar cell manufacturers
SCORE = 10				

Calculation methodology:

The Low Carbon Transition Categories and Scores are determined by a combination of each company's current risk exposure and its efforts to manage the risks and opportunities presented by the low carbon transition. The 3-step process followed by MSCI ESG Research is explained below.

Step 1: Measure Low Carbon Transition Risk Exposure

The first step towards measuring the Low Carbon Transition Risk Exposure for a company is the computation of its Carbon Intensity profile – which is informed by its Product Carbon Intensity, Operational Carbon Intensity and Total Carbon Intensity. In the next step, we compute Low Carbon Transition Risk Exposure Category and Score based on Total Carbon Intensity.

Step 2: Assess Low Carbon Transition Risk Management

In the second step, we assess a company's management of risks and opportunities presented by the low carbon transition. This assessment is based on policies and commitments to mitigate transition risk, governance structures, risk management programs and initiatives, targets and performance, and involvement in any controversies.

Step 3: Calculate Low Carbon Transition Category and Score

In the final step, the Low Carbon Transition Risk Exposure Category and Score that was calculated in Step 1 are adjusted for the strength of management efforts. Following this adjustment, Low Carbon Transition Risk Exposure Score of companies with top or second quartile risk management improves and some top and second quartile companies may move up one category.

Appendix III: 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 –
<https://www.msci.com/index/methodology/latest/FIINDEXCALC>
- 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>
- MSCI Corporate Bond Indexes Methodology –
<https://www.msci.com/index/methodology/latest/FIIGCORP>
- ESG Factors in Methodology*

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'.

*'ESG Factors in Methodology' contains the list of environmental, social, and governance factors considered, and how they are applied in the methodology (e.g., selection, weighting or exclusion). It can be accessed in the Methodology Set as described above.

Appendix IV: Changes to this Document

The following modifications have been made since December 2023:

Updated Section 2 to add further clarification regarding the eligibility of securities.

Clarified treatment of Cut Off Date for exceptional cases in Section 3

The following sections have been modified as of December 2024:

Section 2

- Added details regarding the MSCI ESG Research data used for Index Construction.

Section 2.5

- New Section detailing the treatment of companies with ratings and research not available from MSCI ESG Research.

Appendix II: Methodology Set

- Added details on the Methodology Set for the Index

The following sections have been modified as of July 2025:

- Updated the branding template.
- Updated links for ESG Data Disclosures in Section 4

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