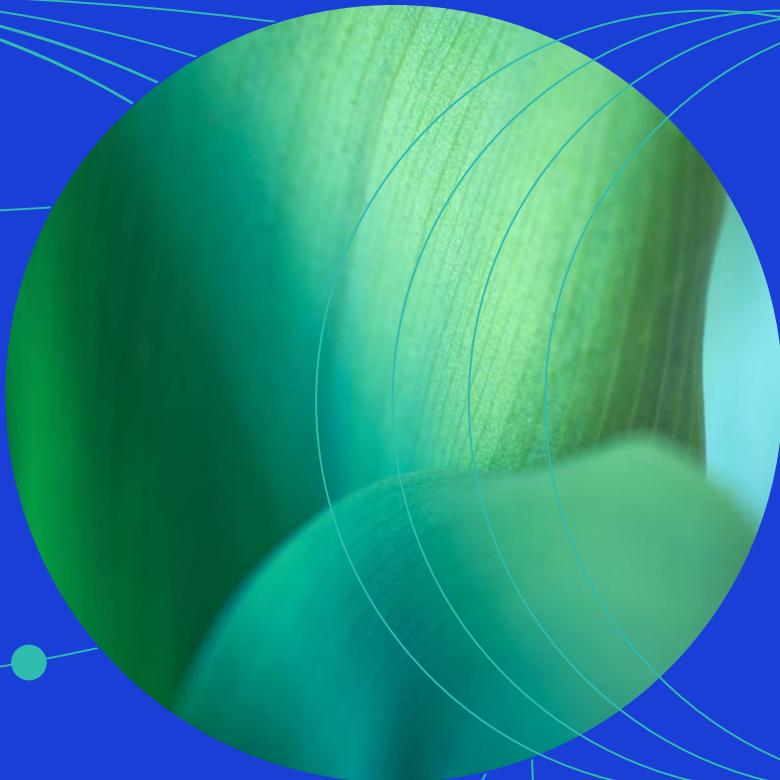


MSCI ESG Broad CTB Select Indexes Methodology



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1 Introduction

The MSCI ESG Broad CTB Select Indexes¹ (the 'Indexes') are designed to meet the minimum requirements of the EU Climate Transition Benchmark² ('EU CTB'), while applying additional exclusions and ensuring at least equal ESG score of the Indexes relative to their respective Parent Indexes.

The Indexes are constructed from their respective Parent Indexes through an optimization process which minimizes the ex-ante tracking error while applying the exclusions and constraints that are described below:

- Exclude companies involved in Controversial Weapons, Red Flag Controversies, Red and Orange Flag Environmental Controversies and Tobacco Manufacturing.
- Additionally, exclude companies involved in Thermal Coal (Reserves, Mining, Power Generation) and Unconventional Oil & Gas Extraction.

The optimization process applies the minimum requirements of EU CTB and an additional constraint on ESG Score. The minimum requirements for EU Climate Transition Benchmarks (EU CTB) are:

- Reduce the weighted average greenhouse gas (GHG) intensity by 30% relative to the respective Parent Indexes.
- Reduce the weighted average GHG intensity by at least 7% on an annualized basis, compared to the GHG Intensity of the Index at the Base Date³.
- Ensure that exposure to companies categorized as high climate impact sectors is at least equal to the exposure of such companies in the respective Parent Indexes.

¹ The Indexes are governed by a set of methodology and policy documents ("Methodology Set"), including the present index methodology document. Please refer to Appendix VI for more details

² The corresponding minimum requirements are defined in Commission Delegated Regulation (EU) 2020/1818, available under <https://eur-lex.europa.eu/eli/reg/dl/2020/1818/o>. MSCI's approach to meeting these requirements is described in the MSCI EU CTB/PAB Index Framework, available under <https://www.msci.com/index/methodology/latest/EUCTBPABIndexFramework>. In case changes to the Index methodology are required to maintain compliance with the regulatory CTB/PAB labels, MSCI will issue an announcement prior to implementing the changes in the methodology. MSCI will not conduct a formal consultation for such an update.

³ For more details on the Base Date, please refer to Appendix III.

2 Constructing the Indexes

The Indexes use company ratings and research provided by MSCI Solutions LLC ("MSCI Solutions")⁴ for Index construction.

2.1 Applicable Universe

The Applicable Universe includes all the existing constituents of the corresponding Parent Indexes as shown in the table below. This approach aims to provide an opportunity set with sufficient liquidity and investment capacity.

Index Name	Parent Index
MSCI World ESG Broad CTB Select Index	MSCI World Index
MSCI Europe ESG Broad CTB Select Index	MSCI Europe Index
MSCI North America ESG Broad CTB Select Index	MSCI North America Index
MSCI Emerging Markets ESG Broad CTB Select Index	MSCI Emerging Markets Index
MSCI EMU ESG Broad CTB Select Index	MSCI EMU Index
MSCI USA ESG Broad CTB Select Index	MSCI USA Index
MSCI Japan ESG Broad CTB Select Index	MSCI Japan Index
MSCI Pacific ESG Broad CTB Select Index	MSCI Pacific Index
MSCI China ESG Broad CTB Select Index	MSCI China Index
MSCI Europe Mid Cap ESG Broad CTB Select Custom Index	MSCI Europe Mid Cap Index
MSCI Europe Small Cap ESG Broad CTB Select Index	MSCI Europe Small Cap Index
MSCI EMU Small Cap ESG Broad CTB Select Custom Index	MSCI EMU Small Cap Index
MSCI Europe ex UK ESG Broad CTB Select Index	MSCI Europe ex UK Index
MSCI World ex Europe ESG Broad CTB Select Index	MSCI World ex Europe Index
MSCI Emerging Markets Asia ESG Broad CTB Select Index	MSCI Emerging Markets Asia Index
MSCI India ESG Broad CTB Select Index	MSCI India Index
MSCI AC Asia ex Japan ESG Broad CTB Select Index	MSCI AC Asia ex Japan Index
MSCI AC Asia Pacific ex Japan ESG Broad CTB Select Index	MSCI AC Asia Pacific ex Japan Index

⁴ See Section 4 for further information regarding sustainability and climate data used in the Indexes that MSCI Limited and MSCI Deutschland GmbH source from MSCI Solutions LLC ("MSCI Solutions"), a separate subsidiary of MSCI Inc. MSCI Solutions 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.

MSCI Emerging Markets ex China ESG Broad CTB Select Index	MSCI Emerging Markets ex China Index
MSCI World Small Cap ESG Broad CTB Select Index	MSCI World Small Cap Index
MSCI Emerging Markets EMEA ex Egypt ESG Broad CTB Select Index ⁵	MSCI Emerging Markets EMEA ex Egypt Index
MSCI Emerging Markets ex Egypt (India Capped) ESG Broad CTB Select Index ⁵	MSCI Emerging Markets ex Egypt Index
MSCI Europe ex Switzerland ESG Broad CTB Select Index	MSCI Europe ex Switzerland Index

2.2 Eligible Universe

The Eligible Universe is constructed from the Applicable Universe by excluding companies that are involved in the following business activities as identified by MSCI Business Involvement Screening Research or MSCI Climate Change Metrics:

- **Controversial Weapons:** All companies involved in Controversial Weapons as defined by the methodology of the MSCI Ex-Controversial Weapons Indexes⁶.
- **Controversies:** All companies assessed as having involvement in controversies that are classified as Red Flags (MSCI Controversies Score of 0). A Red Flag indicates an ongoing, Very Severe controversy implicating a company directly through its actions, products, or operations.
- **Environmental Harm:** All companies assessed as having involvement in environmental controversies that are classified as Red (MSCI Environmental Controversy Score of 0) or Orange Flags (score of 1).
 - A Red Flag indicates an ongoing, Very Severe controversy implicating a company directly through its actions, products, or operations.
 - An Orange Flag indicates an ongoing Severe controversy implicating a company directly, or a Very Severe controversy that is either partially resolved or indirectly attributed to the company's actions, products, or operations.
- **Tobacco:** All companies that are involved in the manufacturing of Tobacco-related products or derive 5% or more aggregate revenue from the production, distribution, retail and supply of Tobacco-related products.
- **Nuclear Weapons:**
 - All companies that manufacture nuclear warheads and/or whole nuclear missiles.
 - All companies that manufacture components that were developed or are significantly modified for exclusive use in nuclear weapons (warheads and missiles).

⁵ Prior to the May 2025 Index Review, the Index followed the MSCI ESG Leaders Select 5% Issuer Capped Indexes Methodology.

⁶ For more details regarding the MSCI Ex-Controversial Weapons Index methodology, please refer to

<https://www.msci.com/index/methodology/latest/XCW>

- **Thermal Coal**

- All companies deriving 5% or more revenue (either reported or estimated) from the mining of thermal coal (including lignite, bituminous, anthracite and steam coal) and its sale to external parties. It excludes: revenue from metallurgical coal; coal mined for internal power generation (e.g. in the case of vertically integrated power producers); intra-company sales of mined thermal coal; and revenue from coal trading
- All companies deriving 5% or more revenue (either reported or estimated) from thermal coal-based power generation.
- All companies generating 50% or more power from thermal coal.
- All companies that own thermal coal reserves

- **Unconventional Oil & Gas**

- All companies deriving 5% or more aggregate revenues from oil sands, oil shale (kerogen-rich deposits), shale gas, shale oil, coal-seam gas, coal-bed methane and Arctic onshore/offshore reserves.

2.3 Securities Selection and Weighting

Securities in the Eligible Universe are selected and weighted following an optimization-based approach.

2.4 Optimization Constraints

The Optimization process aims to minimize the ex-ante tracking error relative to the Parent Index subject to the constraints listed in Appendix I.

Please refer to Appendix I for the Optimization constraints.

2.5 Determining the Optimized Index

The Indexes are constructed using the Barra Open Optimizer⁷ in combination with the relevant Barra Equity Model. The optimization uses universe of eligible securities and the specified optimization objectives and constraints to determine the constituents of the Indexes.

2.6 Treatment of Unrated Companies

Companies not assessed by MSCI Solutions on data for any of the following MSCI sustainability and climate products are not eligible for inclusion in the Indexes:

- MSCI ESG Ratings
- MSCI Controversies
- MSCI Climate Change Metrics
- MSCI Business Involvement Screening Research (BISR)

⁷ Please refer to Appendix IV for more details.

3 Maintaining the Index

3.1 Index Reviews

The Index is reviewed on a quarterly basis to coincide with the regular Index Reviews of the MSCI Global Investable Market Indexes. Changes are implemented at the end of February, May, August and November. The pro forma indexes are in general announced nine business days before the effective date.

At each Index Review, the optimization process outlined in Section 2.4 is implemented.

In general, MSCI uses MSCI Solutions data (including MSCI ESG Ratings, MSCI Controversies Scores, MSCI Business Involvement Screening Research, and MSCI Climate Change Metrics) as of the end of the month preceding the Index Reviews. For some securities, such data may not be published by MSCI Solutions by the end of the month preceding the Index Review. For such securities, MSCI will use ESG data published after the end of month, when available.

3.2 Monthly Review of Controversies

Index constituents are reviewed on a monthly basis for the involvement in controversies and Environmental Controversies⁸.

Existing constituents will be deleted if they are assessed as having involvement in controversies that are classified as Red Flags (MSCI Controversies Score of 0) or Environmental controversies that are classified as Red (MSCI Environmental Controversy score of 0) or Orange Flags (score of 1).

A Red Flag indicates an ongoing, Very Severe controversy implicating a company directly through its actions, products, or operations. An Orange Flag indicates an ongoing Severe controversy implicating a company directly, or a Very Severe controversy that is either partially resolved or indirectly attributed to the company's actions, products, or operations.

MSCI uses MSCI Controversies data as of the end of the month preceding the review (e.g., end of June data for the July monthly review). For some securities, such data may not be published by MSCI Solutions by the end of the month preceding the review. For such securities, MSCI will use ESG data published after the end of month, when available, for the monthly review of the Index.

The pro forma Indexes are generally announced nine business days before the effective date.

3.3 Ongoing Event-Related Maintenance

The general treatment of corporate events in the Indexes aims to minimize turnover outside of Index Reviews. The methodology aims to appropriately represent an investor's participation in an event based

⁸ The monthly review of MSCI Controversies and Environmental Controversies is applied within the Index, starting on July 2023, and is not applicable historically prior to that date.

on relevant deal terms and pre-event weighting of the index constituents that are involved. Further, changes in index market capitalization that occur as a result of corporate event implementation will be offset by a corresponding change in the Variable Weighting Factor (VWF) of the constituent.

Additionally, if the frequency of Index Reviews in the Parent Index is greater than the frequency of Index Reviews in the Index, the changes made to the Parent Index during intermediate Index Reviews will be neutralized in the Index.

The following section briefly describes the treatment of common corporate events within the Index.

No new securities will be added (except where noted below) to the Index between Index Reviews. Parent Index deletions will be reflected simultaneously.

Event Type	Event Details
New additions to the Parent Index	A new security added to the Parent Index (such as IPO and other early inclusions) will not be added to the Index.
Spin-Offs	All securities created as a result of the spin-off of an existing Index constituent will not be added to the Index at the time of event implementation. Reevaluation for addition in the Index will occur at the subsequent Index Review.
Merger/Acquisition	For Mergers and Acquisitions, the acquirer's post event weight will account for the proportionate amount of shares involved in deal consideration, while cash proceeds will be invested across the Index. If an existing Index constituent is acquired by a non-Index constituent, the existing constituent will be deleted from the Index and the acquiring non-constituent will not be added to the Index.
Changes in Security Characteristics	A security will continue to be an Index constituent if there are changes in characteristics (country, sector, size segment, etc.) Reevaluation for continued inclusion in the Index will occur at the subsequent Index Review.

Further detail and illustration regarding specific treatment of corporate events pertaining to deletions that would be relevant to this Index can be found in the MSCI Corporate Events Methodology book under the sections detailing the treatment of events in Capped Weighted and Non-Market Capitalization Weighted indexes.

The MSCI Corporate Events methodology book is available at: <https://www.msci.com/index-methodology>.

4 MSCI Solutions

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

4.1 MSCI ESG Ratings

MSCI ESG Ratings aim to measure entities' management of environmental, social and governance risks and opportunities. MSCI ESG Ratings use a weighted average key issue calculation that is normalized by industry to arrive at an industry-adjusted ESG score (0-10), which is then translated to a seven-point scale from 'AAA' to 'CCC', indicating how an entity manages relevant key issues relative to industry peers.

The MSCI ESG Ratings methodology can be found at:

<https://www.msci.com/legal/sustainability-and-climate-resources-and-disclosures>.

4.2 MSCI Controversies

MSCI Controversies provide assessments of controversies concerning the potential negative environmental, social, and/or governance impact of company operations, products and services. The evaluation framework used in MSCI Controversies is designed to be consistent with international norms represented by the UN Declaration of Human Rights, the ILO Declaration on Fundamental Principles and Rights at Work, and the UN Global Compact. MSCI Controversies Score falls on a 0-10 scale, with "0" being the most severe controversy.

The MSCI Controversies methodology can be found at:

<https://www.msci.com/legal/sustainability-and-climate-resources-and-disclosures>.

4.3 MSCI Business Involvement Screening Research

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

The MSCI Business Involvement Screening Research methodology can be found at:

<https://www.msci.com/legal/sustainability-and-climate-resources-and-disclosures>.

4.4 MSCI Climate Change Metrics

MSCI Climate Change Metrics provide 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, alignment with temperature pathways

and factoring climate change research into their risk management processes, in particular through climate scenario analysis for both transition and physical risks.

For more details on MSCI Climate Change Metrics, please refer to:

<https://www.msci.com/legal/sustainability-and-climate-resources-and-disclosures>.

4.1.1 Fossil Fuels and Power Generation Metrics

MSCI Solutions identifies companies involved in fossil fuel-related assets and activities including fossil fuel reserves, resource extraction, power generation and generation capacity, revenue from such assets and activities and capital investments in such assets and activities. The metrics are based on disclosed activities, disclosed revenue and estimates of revenue that are extrapolated from company disclosures and eligible third-party sources (such as NGOs).

4.1.2 Greenhouse Gas (GHG) Emissions

MSCI Solutions collects reported emissions and uses proprietary estimation methodologies that follows the GHG Protocol in including carbon dioxide (CO₂) and the five other principal GHGs: hydrofluorocarbons (HFCs), methane (CH₄), nitrous oxide (N₂O), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). Emissions of these other gases are accounted for in terms of the quantity of CO₂ that has an equivalent global warming potential.

Appendix I: Optimization Constraints

Screened Parent

The Screened Parent is constructed by excluding securities from the Parent Index based on the exclusion criteria as defined in Section 2.2. The security weights are then normalized to 100%.

At each Index Review, the Indexes are constructed using an optimization process that seeks to minimize the ex-ante tracking error relative to the respective Parent Index subject to the following constraints:

Table 1: Constraints imposed to meet Sustainability & Climate Objectives:

No.	Parameter	Values
1	Minimum reduction in Greenhouse Gas (GHG) Intensity (Scope 1+2+3 ⁹) relative to the Parent Index	30%
2	Minimum average reduction (per annum) in GHG Intensity relative to GHG Intensity at the Base Date	7%
3	Minimum active weight in High Climate Impact Sector ¹⁰ relative to the Parent Index	0%
4	ESG Score relative to the respective Parent Indexes	At least equal

Table 2: Constraints imposed to meet diversification constraints

No.	Parameter	Values
1	Minimum Constituent Weight	Minimum constituent weight in the Screened Parent
2	Asset Lower Bound ¹¹	Maximum (Minimum constituent weight in the Screened Parent, 0.25 * Security Weight in the Screened Parent, Security Weight in the Screened Parent - 2%)

⁹ Prior to the May 2020 Index Review, the Weighted Average Carbon Emissions Intensity relative to EVIC has been calculated based on Scope 1+2 Emissions.

¹⁰ For further details on how MSCI assigns companies to either the high or low climate impact sectors, please refer to the MSCI EU CTB/PAB Index Framework available on <https://www.msci.com/index/methodology/latest/EUCTBPABIndexFramework>.

¹¹ The asset lower bound for Japan and Pacific ESG Broad CTB indexes is "Maximum (Security Weight in the Screened Parent - 2%, 0)"

3	Asset Upper Bound	Minimum (5 * Security Weight in the Screened Parent, Security Weight in the Screened Parent +2%)
4	Active Sector Weights	+/-5%
5	Active Country Weights ¹²	+/-5%
6	One Way Turnover for all Index Reviews	7.5%
7	Specific Risk Aversion ¹³	0.25
8	Common Factor Risk Aversion ¹⁴	0.25

Infeasible Solution –

During the Index Review, in the event that there is no optimal solution that satisfies all the optimization constraints, the following constraints will be relaxed, until an optimal solution is found:

- The turnover constraint will be relaxed in steps of 5% up to a maximum of 5 times the original index turnover budget.
- The active sector weight constraint will be relaxed in steps of +/- 1% up to a maximum of +/- 10%.

The one-way index turnover constraint and the active sector weight constraints are alternately relaxed until a feasible solution is achieved.

In the event that no optimal solution is found after the above constraint relaxations are exhausted, the relevant Index will not be rebalanced for that Index Review.

¹² Active Country Weights – In case there are countries in the Parent Index which weigh less than 2.5% in the Parent Index, then for such countries the active country upper bound of +5% is not applicable. When a country weighs less than 2.5% in the Parent Index then the upper bound of country weight in the MSCI ESG Broad CTB Select Index is set at three times of the country's weight in the Parent Index

The Maximum weight of India for the MSCI Emerging Markets ex Egypt (India Capped) ESG Broad CTB Select Index is 14%

¹³ The Systematic Risk Aversion penalizes idiosyncratic (asset-specific) risk during the optimization process.

¹⁴ The Common Risk Aversion penalizes systematic risk during the optimization process.

Appendix II: Calculation or Target Metrics

Greenhouse Gas (GHG) Emissions Intensity

The emissions and Enterprise Value including Cash (EVIC) data used for the security level GHG intensity calculation are aligned as of the same financial year. This security level GHG intensity represents the most recent aggregate GHG emissions of the company (Scopes 1 and 2, and estimated Scope 3 emissions) relative to the Enterprise Value including cash (EVIC).

MSCI Solutions estimates company-specific indirect (Scope 3) GHG emissions from the Scope 3 Carbon Emissions Estimation Model. The data is generally updated on an annual basis.

Calculation of GHG Intensity

Carbon emissions of a company are normalized for size by dividing annual carbon emissions by Enterprise Value including Cash (EVIC).

For Parent Index constituents where the Scope 1+2+3 Emissions Intensity is not available, the average Scope 1+2+3 Emissions Intensity of all the constituents of the MSCI ACWI in the same GICS Industry Group in which the constituent belongs is used.

Security Level GHG Intensity (Scope 1+2+3) =

$$\frac{\text{Scope 1 + 2 + 3 Carbon Emissions} * (1 + \text{EVIAF})}{\text{Enterprise Value + Cash(in M\$)}}$$

Enterprise Value Inflation Adjustment Factor (EVIAF) =

$$\text{EVIAF} = \left(\frac{\text{Average(Enterprise Value + Cash)}}{\text{Previous (Average(Enterprise Value + Cash))}} \right) - 1$$

The EVIC data used for the EVIAF calculation is as of the same reporting year as the company's emissions.

Weighted Average GHG Intensity of Parent Index =

$$\sum (\text{Weight in Parent Index} * \text{Security Level GHG Intensity})$$

Weighted Average GHG Intensity of Derived Index =

$$\sum (\text{Index Weight} * \text{Security Level GHG Intensity})$$

Appendix III: Decarbonization Trajectory of Indexes

The Weighted Average Carbon Intensity on the Base Date (W_{t_b}) is used to compute the target Weighted Average Carbon Intensity at any given quarterly Index Review t as per the formula below.

$$W_t = W_{t_b} * 0.93^{\frac{(t-t_b)}{4}}$$

Where ' $t - t_b$ ' is the number of quarterly Index Reviews since (not including) the Base Date t_b . The table below shows the Weighted Average GHG Intensity on the Base Date (W_{t_b}) applicable to the Indexes starting from the February 2026 Index Review:

Index Name	Parent Index	Decarbonization Start Date	Base Date	W_t (tCO2/M\$ Enterprise Value + Cash)
MSCI World ESG Broad CTB Select Index	MSCI World Index	December 1, 2022	December 1, 2022	296.69
MSCI Europe ESG Broad CTB Select Index	MSCI Europe Index	December 1, 2022	December 1, 2022	411.61
MSCI North America ESG Broad CTB Select Index	MSCI North America Index	December 1, 2022	December 1, 2022	254.52
MSCI Emerging Markets ESG Broad CTB Select Index	MSCI Emerging Markets Index	December 1, 2022	December 1, 2022	451.03
MSCI EMU ESG Broad CTB Select Index	MSCI EMU Index	December 1, 2022	December 1, 2022	390.06
MSCI USA ESG Broad CTB Select Index	MSCI USA Index	December 1, 2022	December 1, 2022	237.65
MSCI Japan ESG Broad CTB Select Index	MSCI Japan Index	December 1, 2022	December 1, 2022	405.50
MSCI Pacific ESG Broad CTB Select Index	MSCI Pacific Index	December 1, 2022	December 1, 2022	405.37
MSCI China ESG Broad CTB Select Index	MSCI China Index	December 1, 2022	December 1, 2022	360.38
MSCI Europe Mid Cap ESG Broad CTB Select Custom Index	MSCI Europe Mid Cap Index	December 1, 2022	December 1, 2022	372.57
MSCI Europe Small Cap ESG Broad CTB Select Index	MSCI Europe Small Cap Index	December 1, 2022	December 1, 2022	313.10
MSCI EMU Small Cap ESG Broad CTB Select Custom Index	MSCI EMU Small Cap Index	December 1, 2022	December 1, 2022	431.30
MSCI Europe ex UK ESG Broad CTB Select Index	MSCI Europe ex UK Index	December 1, 2022	December 1, 2022	315.81
MSCI World ex Europe ESG Broad CTB Select Index	MSCI World ex Europe Index	December 1, 2022	December 1, 2022	271.65

MSCI Emerging Markets Asia ESG Broad CTB Select Index	MSCI Emerging Markets Asia Index	December 1, 2022	December 1, 2022	414.96
MSCI India ESG Broad CTB Select Index	MSCI India Index	December 1, 2022	December 1, 2022	706.57
MSCI AC Asia ex Japan ESG Broad CTB Select Index	MSCI AC Asia ex Japan Index	December 1, 2022	December 1, 2022	382.70
MSCI AC Asia Pacific ex Japan ESG Broad CTB Select Index	MSCI AC Asia Pacific ex Japan Index	December 1, 2022	December 1, 2022	412.33
MSCI Emerging Markets ex China ESG Broad CTB Select Index	MSCI Emerging Markets ex China Index	December 1, 2022	December 1, 2022	489.76
MSCI World Small Cap ESG Broad CTB Select Index	MSCI World Small Cap Index	December 1, 2022	December 1, 2022	515.97
MSCI Emerging Markets EMEA ex Egypt ESG Broad CTB Select Index	MSCI Emerging Markets EMEA ex Egypt Index	June 02, 2025	March 2, 2026	333.69
MSCI Emerging Markets ex Egypt (India Capped) ESG Broad CTB Select Index	MSCI Emerging Markets ex Egypt Index	June 02, 2025	March 2, 2026	418.07
MSCI Europe ex Switzerland ESG Broad CTB Select Index	MSCI Europe ex Switzerland Index	December 1, 2022	December 1, 2022	474.03

The calculation of the targeted decarbonization trajectory is specified in section 4 of the MSCI EU CTB/PAB Index Framework¹⁵

The following sections describe how the values of W_{t_b} were determined to ensure that the decarbonization trajectory of the Indexes is consistent with a 7% year-on-year reduction in Weighted Average GHG Intensity since the respective Decarbonization Start Date " t_d ", under the current GHG intensity calculation methodology.

¹⁵ For further details on the MSCI EU CTB/PAB Index Framework, please refer to:

<https://www.msci.com/index/methodology/latest/EUCTBPABIndexFramework>

Decarbonization Trajectory for the MSCI ESG Broad CTB Select Indexes, as adjusted at the February 2026 Index Review

New Base Date and Decarbonization Start Date

At the February 2026 Index Review, a new Base Date was set for the Indexes in accordance with Article 8 of Commission Delegated Regulation (EU) 2020/1818 and Section 5.1: Changes in Base Dates, of the [MSCI EU CTB/PAB Index Framework](#), in response to significant changes to the calculation methodology of the GHG intensity:

- Changes to the estimation methodology for scope 3 emissions, which were implemented by MSCI Solutions between March 2022 and February 2026.
- Switch of the calculation of the GHG intensity from using latest emissions and latest enterprise value, to using emissions and enterprise value from the same reporting year, resulting in a conceptual change to the interpretation of the GHG intensity.

These changes were assessed to result in a fundamental, conceptual difference in the GHG intensity calculation, in line with section 5.1.b. of the [MSCI EU CTB/PAB Index Framework](#).

At the February 2026 Index Review, a customized approach to adjust the decarbonization trajectory of the Indexes was used (compared to the default approach described in the [MSCI EU CTB/PAB Index Framework](#)). Under this customized approach, both the Base Date and the Decarbonization Start Date (i.e. the applicable starting point for the decarbonization trajectory of the Indexes) were changed from March 1, 2022 to December 1, 2022.

Details of the Calculation

At the February 2026 Index Review, the updated Weighted Average GHG Intensity on the Base Date W_1 was recalculated, using the updated GHG intensity methodology applied to the underlying data as of the updated Base Date (t_b = December 1, 2022, i.e. for the November 2022 Index Review).

Starting from the February 2026 Index Review, the decarbonization constraints applied to the Indexes are hence consistent with the Indexes decarbonizing since December 1, 2022, under the updated GHG intensity calculation methodology as described above.

More precisely, the updated decarbonization trajectory of the Indexes was determined as follows:

- a) $W_{t_b, parent}^{recalculated}$ was determined as the GHG intensity of each Parent Index (see section 2.1), as of the November 2022 Index Review, recalculated utilizing the latest scope 3 emissions model and combining the emissions with the EVIC from the same year, based on the availability of underlying data as of the November 2022 Index Review.
- b) The updated Weighted Average GHG Intensity on the Base Date (W_{t_b}) of each MSCI ESG Enhanced CTB Index was obtained by applying the initial decarbonization percentage of 30% to the GHG intensity of the Parent Index at the November 2022 Index Review, recalculated with the latest emissions model as per item a) above, i.e. $W_{t_b} = W_{t_b, parent}^{recalculated} * (1 - 0.3)$

- c) The start date for the calculation of the Enterprise Value Inflation Adjustment Factor (EVIAF) was set to December 1, 2022.



Appendix IV: New Release of Barra® Equity Model or Barra® Optimizer

A new release of the relevant Barra Equity Model may replace the former version within a suitable timeframe.

Appendix V: Country Capping for the MSCI Emerging Markets ex-Egypt (India Capped) ESG Broad CTB Select

In addition to the 14% capping applied at each quarterly Index Review, a daily check on securities which have an MSCI Country Classification of Index will also be applied, such that if the weight of such securities exceeds 18%, the Index will be reweighted, and the weight of securities will be reduced to 14%. The excess weight will be distributed among securities across all eligible countries except India in proportion of their existing weight in the Index.

The daily check is only applied for the country level capping for securities that have an MSCI Country Classification of India.

Appendix VI: 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/ReadMe>
- MSCI Corporate Events Methodology –
<https://www.msci.com/index/methodology/latest/CE>
- MSCI Fundamental Data Methodology –
<https://www.msci.com/index/methodology/latest/FundData>
- MSCI Index Calculation Methodology –
<https://www.msci.com/index/methodology/latest/IndexCalc>
- MSCI Index Glossary of Terms –
<https://www.msci.com/index/methodology/latest/IndexGlossary>
- MSCI Index Policies –
<https://www.msci.com/index/methodology/latest/IndexPolicy>
- MSCI Global Industry Classification Standard (GICS) Methodology –
<https://www.msci.com/index/methodology/latest/GICS>
- MSCI Global Investable Market Indexes Methodology –
<https://www.msci.com/index/methodology/latest/GIMI>
- MSCI Global ex Controversial Weapons Indexes Methodology –
<http://www.msci.com/index/methodology/latest/XCW>
- 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 VII: Changes to this Document

The following sections have been modified since March 2022:

- Sections 2.3, 2.4, 2.5: Updated to align with the minimum requirements of the EU CTB
- Appendix I – Updated to add exclusions based on thermal coal power, thermal coal reserves and Arctic Oil & Gas
- Appendix II - Updated to align with the minimum requirements of the EU CTB

The following sections have been modified effective April 2022:

- Sections 2.1, 2.4: Updated to add construction parameters for the MSCI Pacific ESG Broad CTB Select Index, the MSCI China ESG Broad CTB Select Index and the MSCI China A ESG Broad CTB Select Index.

The following sections have been modified effective June 1, 2022:

- Sections 2.1, 2.4: Updated to add construction parameters for the MSCI Europe Mid Cap ESG Broad CTB Select Custom Index, MSCI Europe Small Cap ESG Broad CTB Select Index, MSCI EMU Small Cap ESG Broad CTB Select Custom Index, MSCI Europe ex UK ESG Broad CTB Select Index, MSCI World ex Europe ESG Broad CTB Select Index and to remove the construction parameters for the MSCI China A ESG Broad CTB Select Index.
- Appendix II: Updated to reflect optimization parameters for the MSCI Europe Mid Cap ESG Broad CTB Select Custom Index and the MSCI EMU Small Cap ESG Broad CTB Select Custom Index.

The following sections have been modified effective June 27, 2022:

- Sections 2.1, 2.4: Updated to add construction parameters for the MSCI Emerging Markets Asia ESG Broad CTB Select Index, MSCI India ESG Broad CTB Select Index, MSCI AC Asia ex Japan ESG Broad CTB Select Index, MSCI AC Asia Pacific ex Japan ESG Broad CTB Select Index and the MSCI Emerging Markets ex China ESG Broad CTB Select Index.

The following sections have been modified effective September 1, 2022:

- Section 1: Introduction
- Appendix I: Updated to add exclusions based on weapons.
- Appendix II: Updated to add the optimization constraint for companies setting credible carbon reduction targets.
- Appendix IV: Added to provide clarification on the calculation of relevant Target Metrics and the definition of Companies Setting Targets.

The following sections have been modified as of July 3, 2023:

- Section 3: The monthly review of ESG and Environmental Controversies is applied within the Index effective July 3, 2023, and is not applicable historically prior to that date.
- Section 4: The ESG Research Product descriptions were updated and moved from Section 2 to Section 4.

The following sections have been modified as of December 1, 2023

- Section 2: The special treatment for the Companies Setting Target constraint at the November 2023 Index Review was noted for the MSCI China ESG Broad CTB Select Index in Appendix II.

The following sections have been modified as of March 1, 2024

- Section 2: The special treatment for the Companies Setting Target constraint at the February 2024 Index Review was noted for the MSCI China ESG Broad CTB Select Index in Appendix II.
- Appendix VII: Added details on the Methodology Set for the Indexes

The following sections have been modified as of June 3, 2024

- Section 1: Updated the description of the MSCI ESG Broad CTB Indexes and added a footnote on the Methodology Set
- Section 2:
 - Updated to add the construction parameters for the MSCI World Small Cap ESG Broad CTB Select Index.
 - Moved the screening criteria and the description to this section.
 - Updated the exclusion criteria for the Thermal Coal Power Generation screen and updated the language for Aggregate Weapons
- Section 3: Replaced references to "Semi-Annual Index Reviews" and "Quarterly Index Reviews" of the MSCI GIMI with "Index Reviews".
- Section 4: Updated the description for MSCI sustainability and climate products.
- Appendix IV: Added the base intensity for all Indexes.
- Appendix V: Added details of the Barra Model used for the optimization process.

The following sections have been modified as of December 2024

Section 2.6: Treatment of Unrated Companies

- Added the treatment of companies when ESG Ratings are not assessed from MSCI Solutions

Section 4.4: MSCI Climate Change Metrics

- Added a sub-section under Climate Change Metrics to provide additional details on Fossil Fuels related activities.

The following sections have been modified as of June 2025

Section 1: Introduction

- Updated footnote with reference to the MSCI EU CTB/PAB Index Framework.

Section 2: Constructing the Indexes, Appendix I: Optimization Constraints and Appendix IV: Decarbonization Trajectory of Indexes

- Added three new regions (Emerging Markets EMEA ex Egypt and Emerging Markets ex Egypt and Europe ex Switzerland)

Section 2.6: Treatment of Unrated Companies

- Added the treatment of companies not assessed by MSCI Solutions for Climate Change Metrics and Business Involvement Screening Research (BISR).

Appendix I: Optimization Constraints

- Added references to the MSCI EU CTB/PAB Index Framework for the definition of climate impact sectors and calculation of decarbonization trajectory.
- Added a new footnote to provide descriptions for Common Risk Aversion and Systematic Risk Aversion.

Appendix IV: Decarbonization Trajectory of Indexes

- Added the base intensity for the three new regions (Emerging Markets EMEA ex Egypt and Emerging Markets ex Egypt and Europe ex Switzerland)

Appendix VII: Country Capping for the MSCI Emerging Markets ex-Egypt (India Capped) ESG Broad CTB Select

- New appendix added to detail the country capping for the MSCI Emerging Markets ex-Egypt (India Capped) ESG Broad CTB Select

Appendix VIII: Methodology Set

- Added reference to MSCI EU CTB/PAB Index Framework.

The following sections have been modified as of February 2026

Section 1: Introduction

- Updated to reflect the enhancements implemented at the February 2026 Index Review

Section 2.2 Eligible Universe:

- The Conventional Weapons and Arctic Oil & Gas screens were removed.
- The Nuclear Weapons screen was modified to only exclude companies that are involved in creating warheads and/or whole nuclear missiles or exclusive components used in the creation of warheads or missiles.

Section 2.4: Optimization Constraints

- The table for the ex-ante tracking error budget was removed.

Appendix I: Optimization Constraints

- The following optimization constraints were removed:
 - Minimum reduction in Weighted Average Potential Emissions Intensity
 - Minimum ratio of Weighted Average Green Revenue/ Weighted Average Fossil fuels-based Revenue

- Minimum Increase in aggregate weight in Companies Setting Targets
- The following optimization constraints were added
 - ESG Score
 - Asset lower bound for Japan and Pacific ESG Broad CTB Select Indexes
- The Asset lower bound constraint was updated to include the third condition, which is: Max (Screened Parent – 2%).
- The one-way turnover constraint for Index Reviews was modified to 7.5% (previously 5% for the February and August reviews, and 10% for the May and November reviews).
- The specific and common risk aversion parameters were adjusted to 0.25, from 0.075 and 0.0075, respectively.
- The infeasible solution language was updated to remove the ex-ante tracking error constraint.

Appendix II: Calculation of Target Metrics

- Section has been updated to align the Calculation of GHG Intensity
- The following subsections were removed
 - Calculation of Potential Carbon Emissions Intensity, Calculation of Average Decarbonization, Companies Setting Target, Green Revenue, Fossil Fuel Based Revenue, Climate Impact Sectors

Appendix III: Decarbonization Trajectory of Indexes

- Updated the language related to the decarbonization calculation
- Added a new section on Decarbonization Trajectory, reflecting adjustments implemented at the February 2026 Index Review

Appendix IV: New Release of Barra® Equity Model or Barra® Optimizer

- Updated disclosure on Barra Equity Model release

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