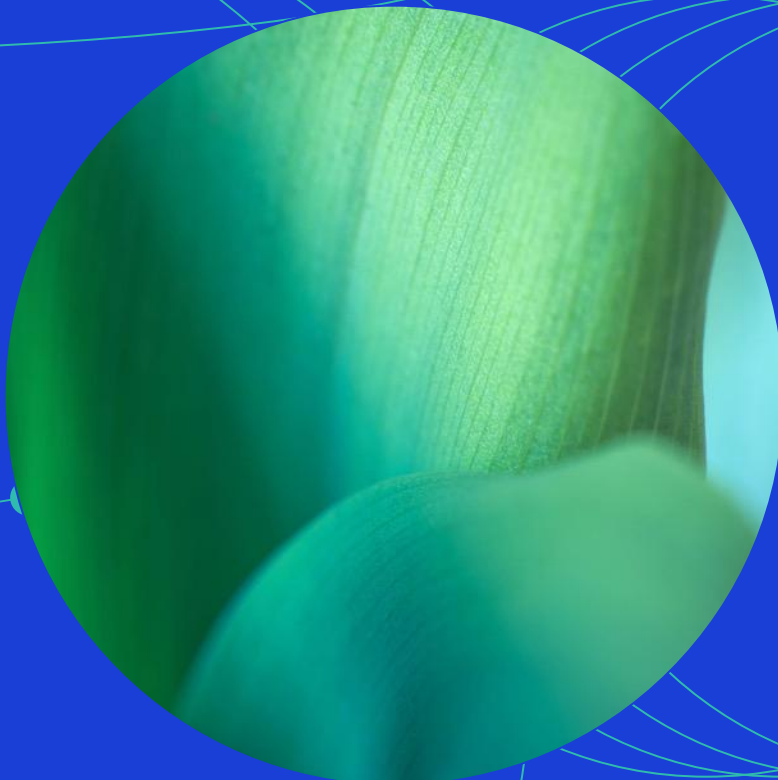




May 2026

# MSCI World Value + Momentum + Quality + Low Volatility Custom Diversified Multi-Factor CTB Index Methodology



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# 1 Introduction

The MSCI World Value + Momentum + Quality + Low Volatility Custom Diversified Multi-Factor CTB Index (herein, the “Index”)<sup>1</sup> is designed to represent the performance of strategies that seeks higher composite exposure to four style factors - Value, Momentum, Quality and Low Volatility relative to others within the relevant Barra Equity Model<sup>2</sup> combined with control over ex-ante total risk and to meet the minimum requirements of the EU Climate Transition Benchmark (CTB)<sup>3</sup>.

The Index is constructed from the MSCI World Index (herein, the “Parent Index”) through an optimization process that aims to maximize factor exposure under a total risk constraint as described in detail below:

- The Value factor score is a sector-relative score calculated using security-level exposures to earnings-based and asset-based valuation metrics from the relevant Barra Equity Model.
- The Momentum factor score is calculated as the equal-weighted average of the Barra Momentum factor score and the Analyst Sentiment score, which captures systematic changes in sell-side analyst views.
- The Quality factor score is a sector-relative score calculated using security-level exposures to all quality factors from the relevant Barra Equity Model.
- The Low Volatility factor score is calculated using the opposite of security-level exposures to Beta and Residual Volatility from the relevant Barra Equity Model, targeting securities with lower sensitivity to market movements and lower idiosyncratic risk.

Additionally, the optimization process applies the minimum technical requirements laid out in Commission Delegated Regulation (EU) 2020/1818<sup>1</sup> by applying the following climate constraints:

- Reduce the weighted average greenhouse gas intensity by 30% compared to the Parent Index.
- Reduce the weighted average greenhouse gas (GHG) intensity by 7% on an annualized basis, compared to the GHG Intensity of the Index at the Base Date<sup>2</sup>.
- Ensure that exposure to High Climate Impact sectors is at least equivalent to the Parent Index.

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<sup>1</sup> The Index is governed by a set of methodology and policy documents (“Methodology Set”), including the present index methodology document. Please refer to Appendix VII for more details

<sup>1</sup> Available under [https://eur-lex.europa.eu/eli/reg\\_del/2020/1818/oj](https://eur-lex.europa.eu/eli/reg_del/2020/1818/oj)

<sup>2</sup> The Base Date is defined in <https://www.msci.com/index/methodology/latest/EUCTBPABIndexFramework>. For more details on the Base Date please refer to Appendix IV

## 2 Constructing the Index

The Index uses company ratings and research provided by MSCI Solutions LLC (“MSCI Solutions”)<sup>3</sup> for the Index construction.

The steps for constructing the Index is described below.

### 2.1 Applicable Universe

The applicable universe includes all the existing constituents of an underlying MSCI Parent Index (herein, the “Parent Index”). This approach aims to provide an opportunity set with sufficient liquidity and capacity. The relevant Parent Index is the MSCI World Index.

### 2.2 Eligible Universe

The Eligible Universe is constructed from the Applicable Universe by excluding securities based on the exclusion criteria below:

#### 2.2.1 Controversies Score Eligibility

**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.

#### 2.2.2 Controversial Business Involvement Eligibility

The Index uses MSCI Business Involvement Screening Research and MSCI Climate Change Metrics to identify companies that are involved in the following business activities. Companies that meet the business involvement criteria are excluded from the Index.

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<sup>3</sup> See Section 4 for further information regarding sustainability and climate data used in the Index 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 index.

- **Controversial Weapons:** All companies involved in Controversial Weapons as defined by the methodology of the MSCI Ex-Controversial Weapons Index<sup>4</sup>
- **Tobacco:** All companies that are involved in the manufacturing of Tobacco products.

## 2.3 Determining The Optimized Index

The Index is constructed using the Barra Open Optimizer in combination with the relevant Barra Equity Model<sup>3</sup>. The optimization uses the Parent Index as the universe of eligible securities and the specified optimization objective and constraints to determine the Index. The Barra Open Optimizer determines the optimal solution, i.e. the set of securities with the highest possible Alpha score with “target risk” equal to or less than a fixed proportion of the ex-ante risk of the Parent Index at the time of rebalancing, using an estimated security covariance matrix under the applicable investment constraints.

The optimization objective is to maximize the Alpha score (representative of the exposures to the set of target factors) under the “target risk” constraint where the risk target is equal to or lower than a fixed proportion of the (predicted) total risk of the Parent Index.

The optimization relies on the factor exposures for all the securities in the Parent Index and the factor covariance matrix of the relevant Barra Equity Model. The optimization is performed using a base currency. The default currency is the US Dollar.

### 2.3.1 Calculation of the Alpha Score

The Alpha score of each of the index is defined as follows:

$$\alpha_i = 0.20 * F_{1,i} + 0.30 * F_{2,i} + 0.30 * F_{3,i} + 0.20 * F_{4,i}$$

Where,

$F_{j,i}$  = Factor exposure of each security i for each of the target factors.

The factor exposures for the target factors are sourced as follows:

- Momentum (F1)– The Momentum factor score is winsorized (at +/-3) z-score of the average of the Barra Momentum factor score and the Analyst Sentiment score. If Analyst Sentiment score is missing, then the Momentum factor score is the Barra Momentum factor score and vice-versa. The

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<sup>4</sup> For more details regarding the MSCI Ex-Controversial Weapons Index methodology, please refer to <https://www.msci.com/index/methodology/latest/XCW>

<sup>3</sup> Please refer to Appendix II and Appendix III

<sup>5</sup> 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 parent index then the upper bound of country weight in the Index is set at three times of the country's weight in Parent Index.

Barra Momentum factor score definition is given in Appendix III and the Analyst Sentiment score definition is given in Appendix VI.

- Value (F2) – Sector-relative score calculated using the security-level exposures to earnings-based, asset-based and whole-firm based valuation metrics from the relevant Barra Equity Model. The factor definition is given in Appendix III.
- Quality (F3) – Sector-relative score calculated using the security-level exposures to all quality factors from the relevant Barra Equity Model. The factor definition is given in Appendix III.
- Low Volatility (F4)- The winsorized z-score of negative of the factor exposure for each security taken from the relevant Barra Equity Model. The factor definition is given in Appendix III.

## 2.4 Optimization Constraints

At each Index Review, the following optimization constraints are applied, which aim to ensure investability while achieving total risk in line with that of the Parent Index:

The definitions of the target metrics for the optimization are detailed in Appendix V.

Objectives	Target Value
Optimization Objective	Maximize Alpha Score
Active Exposure to Positive Target Barra Style Factors of Momentum, Quality and Value	+0.2 to +0.6
Active Exposure to Leverage and Earnings Variability	-0.6 to -0.2
Active Exposure to Beta and Residual Volatility	-0.35 to -0.2
Active Exposure to Non-Target Barra Style Factors (Size, Mid Cap, Liquidity and Growth)	-0.1 to +0.1
Ex-ante Beta relative to the Parent Index	$0.9 \leq \text{Beta} \leq 1.1$
Minimum reduction in Greenhouse Gas (GHG) Intensity relative to EVIC (Scope 1+2+3 <sup>4</sup> ) relative to the Parent Index	30%
Minimum average reduction (per annum) in GHG Intensity (relative to EVIC) relative to GHG Intensity at the Base Date <sup>3</sup>	7%

<sup>4</sup> Prior to the May 2020 Semi-Annual Index Review (SAIR) of the Index, the Weighted Average Carbon Emissions Intensity relative to EVIC has been calculated based on Scope 1+2 Emissions.

<sup>3</sup> The Index have a Base Date of June 1, 2026

Objectives	Target Value
Minimum active weight in High Climate Impact Sector relative to the Reference Index	0%

Objectives	Target Value
Total Risk of the Index	Less than or equal to Total Risk of the Parent Index
Constituent Active Weight relative to the Parent Index	+/- 2%
Security Weight as a multiple of its weight in the Parent Index	10x
Active Sector Weights (the Energy GICS® Sector is not constrained) relative to the Parent Index	+/- 5%
Active Country Weights relative to the Parent Index <sup>5</sup>	+/- 5%
One-way Turnover	10%

## 2.5 Treatment Of Unrated Companies

Companies not assessed by MSCI Solutions on data for the following MSCI sustainability and climate products are not eligible for inclusion in the Index.

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

For the treatment of unrated in the calculation of target metrics for the optimization, please refer to Appendix V.

### 3 Maintaining the Index

#### 3.1 Quarterly Index Reviews

The Index is reviewed on a quarterly basis, usually as of the close of the last business day of February, May, August and November, coinciding with the regular Index Reviews of the MSCI Global Investable Market Index. Barra Equity Model data as of the day before the rebalancing day is used. This approach aims to capture timely updates to the risk characteristics of the companies and coincide with the rebalancing frequency of the relevant Parent Index.

The pro forma Index is in general announced nine business days before the effective date.

#### 3.2 Ongoing Event Related Changes

The general treatment of corporate events in the Index aim to minimize turnover outside of Index Reviews. The methodology aims to appropriately represent an investor’s participation in an event based 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 Multiple-Factor 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 be added to the Index at the time of event implementation. Reevaluation for continued inclusion 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 index.

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

## 4 MSCI Solutions

The Index is 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 Index uses the following MSCI sustainability and climate products: MSCI Controversies, MSCI Business Involvement Screening Research, MSCI Climate Change Metrics, and MSCI Index is administered by MSCI Limited and MSCI Deutschland GmbH.

### 4.1 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>

### 4.2 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>

### 4.3 MSCI Climate Change Metrics

MSCI Climate Change Metrics provides climate data and tools to support institutional investors seeking to integrate climate risk and 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.

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

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

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

#### 4.3.1 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).

#### **4.3.2 Greenhouse Gas (GHG) Emissions**

MSCI Solutions collects reported emissions and uses proprietary estimation methodologies that follows the GHG Protocol in including carbon dioxide (CO<sub>2</sub>) and the five other principal GHGs: hydrofluorocarbons (HFCs), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>). Emissions of these other gases are accounted for in terms of the quantity of CO<sub>2</sub> that has an equivalent global warming potential.

## Appendix I: Handling Infeasible Optimizations

During Index Reviews, in the event that there is no optimal solution that satisfies all the optimization constraints defined in Section 2.5, the following constraints will be relaxed sequentially in the order listed below, one step at a time, until an optimal solution is found:

- The Momentum Factor Active Exposure Lower Bound will be relaxed from +0.2 to +0.1 in steps of 0.05.
- The Beta and Residual Volatility Active Exposure Upper Bound will be relaxed from -0.2 to -0.1 in steps of 0.05.
- The Quality Negative Factors (Earnings Variability and Leverage) Active Exposure Upper bound is relaxed from -0.2 to -0.1 in steps of 0.05.
- The Maximum security weight multiple will be relaxed from 10x to 20x in steps of 2x.
- The one-way Index Turnover will be relaxed from 10% to 15% in steps of 2.5%.

The above constraints are relaxed one step at a time in the order listed. If relaxing a constraint at any step produces a feasible solution, no further relaxation is applied.

In the event that no optimal solution is found after all the above constraints have been relaxed over all iterations, the Index will not be rebalanced for that Index Review.

## Appendix II: New release of Barra<sup>®</sup> Equity Model or Barra<sup>®</sup> Optimizer

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

## Appendix III: Calculation of Factor Metrics

The style factor groups targeted in the Multiple-Factor Index are Momentum, Low Size, Value, Quality and Low Volatility. These factor groups are described using individual factor scores from the current release of the MSCI Barra Global Equity Model for Long-Term Investors (GEMTL). The precise choice of component factors used to represent each broad factor group is governed by the current model used for the optimization, which may change with a new release of the Barra Equity Model (as specified in Appendix II). The model data will be used from a day prior to the rebalancing date. All factor exposures are re-normalized at the Parent Index level prior to the calculation of the Alpha score. Following are the definitions of factor groups currently used in the Index. For more detailed information on individual factors in GEMTL, please refer to <https://www.msci.com/portfolio-management/>.

### Barra Momentum:

The Barra Momentum factor score for each security is the winsorized (at +/- 3) z-score of the Momentum factor taken from the relevant Barra Equity Model (currently GEMTL).

### Value:

The Value score for each security is currently based on earnings-based, asset-based and whole firm-based valuation metrics - currently captured by the following two factors, Book-to-Price and Earnings Yield, from the relevant Barra Equity Model (currently GEMTL). A sector-relative score is derived from the combined score by standardizing (z-score) the latter within each sector and winsorizing at +/- 3.

$$Value_i = (0.33) * BtoP_i + (0.67) * EarningsYield_i$$

### Quality:

The Quality score for each security is currently based on all quality factors, Profitability, Investment Quality, Earnings Quality, Leverage and Earnings Variability, from the relevant Barra Equity Model (currently GEMTL). A sector-relative score is derived from the combined score by standardizing (z-score) the latter within each sector and winsorizing at +/- 3

$$Quality_i = (0.25) * Profitability_i + (0.25) * Investment\ Quality_i + (0.25) * Earnings\ Quality_i + (0.125) * (-1) * Earnings\ Variability_i + (0.125) * (-1) * Leverage_i$$

### Volatility:

The Volatility score for each security is calculated by combining in equal proportion the security-level exposures to two factors - Beta and Residual Volatility - scores. The Beta and Residual Volatility score for each security is the winsorized (at +/- 3) z-score of Beta and Residual Volatility factor scores, respectively taken from the relevant Barra Equity Model (currently GEMTL).

$$Volatility_i = (0.5) * (-1) * Beta + (0.5) * (-1) * Residual\ Volatility$$

## Analyst Sentiment

The Analyst Sentiment descriptor targeted in the Index are the five descriptor groups. Namely, Cash-flow per share (CPS), Sales (SALES), Earnings per share (EPS), Analyst Recommendation (REC) and Price Target (PRICE TGT). These descriptor groups are described using individual descriptors defined below:

- The **revision ratio** quantifies the number of analysts that are revising upward relative to downward.
- The **change in analyst-predicted estimate** captures the percentage change of the analyst estimate over the past four quarters.
- The **change in analyst-predicted estimate-to-market ratio** captures changes to the ratio of analyst predicted estimate of the indicator to the market-based indicator (price for EPS and CPS; and market capitalization for SALES).

The descriptor groups are constructed as follows:

Descriptor Groups	Descriptors
<b>CPS</b>	Cash Flow Revisions Ratio (CPS_RR_SLOW) Change in Analyst-Predicted Cash Flow per Share (CPSF_C) Change in Analyst-Predicted CPS-to-Price (CPSTOPF_C)
<b>EPS</b>	Ratings Revision Ratio (RR) Change in Analyst-Predicted Earnings per Share (EPSF_C) Change in Analyst-Predicted Earnings-to-Price (ETOPF_C)
<b>PRICE TGT</b>	Price Target Revisions Ratio (PTG_RR_SLOW) Change in Analyst-Predicted Price Target (PTGF_C)
<b>REC</b>	Analyst Recommendation Revisions Ratio (REC_RR_SLOW) Change in Analyst Recommendation (RECF_C)
<b>SALES</b>	Sales Revisions Ratio (SALTOP_RR_SLOW) Change in Analyst-Predicted Sales (SALF_C) Change in Analyst-Predicted Sales-to-MCAP (SALTOPF_C)

## Appendix IV: Calculation of Climate Metrics

### Greenhouse Gas (GHG) Emissions Intensity

MSCI Solutions collects company-specific direct (Scope 1) and indirect (Scope 2) greenhouse gas emissions (GHG) data from company public documents and/or the Carbon Disclosure Project. If a company does not report GHG emissions, then MSCI Solutions estimates Scope 1 and Scope 2 GHG emissions.

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). The Carbon Emissions Intensity is calculated using the latest Scope 1+2 carbon emissions, Scope 3 carbon emissions and EVIC of a company.

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

$$\frac{(Unadjusted\ Security\ Level\ GHG\ Intensity\ (Scope\ 1+2) + Unadjusted\ Security\ Level\ GHG\ Intensity\ (Scope\ 3)) * (1 + EVIAF)}{EVIC}$$

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

$$\frac{(Scope\ 1 + 2\ Carbon\ Emissions)}{EVIC\ (in\ M\$)}$$

If Scope 1+2 carbon emissions and/or EVIC are not available, the average Scope 1+2 intensity of all the constituents of the MSCI ACWI in the same GICS<sup>4</sup> Industry Group in which the security belongs is used.

Unadjusted Security Level GHG Intensity (Scope 3) =

$$\frac{(Scope\ 3\ Carbon\ Emissions)}{EVIC\ (in\ M\$)}$$

If Scope 3 carbon emissions and/or EVIC are not available, the average Scope 3 intensity of all the constituents of the MSCI ACWI in the same GICS Industry Group in which the security belongs is used.

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<sup>4</sup> GICS is the global industry classification standard jointly developed by MSCI and S&P Global Market Intelligence.

Enterprise Value Inflation Adjustment Factor (EVIAF) =

$$\left( \frac{\textit{Average(EVIC)}}{\textit{Previous (Average(EVIC))}} \right) - 1$$

Weighted Average GHG Intensity of Parent Index =

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

Weighted Average GHG Intensity of Derived Index =

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

## Appendix V: Decarbonization Trajectory of the Index

### Decarbonization Data

The Weighted Average GHG Intensity on the Base Date ( $W_1$ ) is used to compute the target Weighted Average GHG Intensity at any given Index Review ( $W_t$ ) as per the below formula.

$$W_t = W_1 * 0.93^{\frac{(t-1)}{4}}$$

where 't' is the number of Index Reviews since the Base Date.

The table below shows the Weighted Average GHG Intensity on the Base Date ( $W_1$ ) for each of the regions where the Index is constructed, the Parent Index and the Reference Index:

Index	Parent Index	Reference Index	Decarbonization Start Date	Base Date	$W_1$ (tCO <sub>2</sub> /M\$ Enterprise Value + Cash)
<b>MSCI World Value + Momentum + Quality + Low Volatility Custom Diversified Multi-Factor CTB Index</b>	MSCI World Index	MSCI World Index	June 1, 2026	June 01, 2026	202.74

## Appendix VI: Analyst Sentiment

The Analyst Sentiment descriptor targeted in the Index are the five descriptor groups. Namely, Cash-flow per share (CPS), Sales (SALES), Earnings per share (EPS), Analyst Recommendation (REC) and Price Target (PRICE TGT). These descriptor groups are described using individual descriptors defined below:

- The **revision ratio** quantifies the number of analysts that are revising upward relative to downward.
- The **change in analyst-predicted estimate** captures the percentage change of the analyst estimate over the past four quarters.
- The **change in analyst-predicted estimate-to-market ratio** captures changes to the ratio of analyst predicted estimate of the indicator to the market-based indicator (price for EPS and CPS; and market capitalization for SALES).

The descriptor groups are constructed as follows:

Descriptor Groups	Descriptors
<b>CPS</b>	Cash Flow Revisions Ratio (CPS_RR_SLOW) Change in Analyst-Predicted Cash Flow per Share (CPSF_C) Change in Analyst-Predicted CPS-to-Price (CPSTOPF_C)
<b>EPS</b>	Ratings Revision Ratio (RR) Change in Analyst-Predicted Earnings per Share (EPSF_C) Change in Analyst-Predicted Earnings-to-Price (ETOPF_C)
<b>PRICE TGT</b>	Price Target Revisions Ratio (PTG_RR_SLOW) Change in Analyst-Predicted Price Target (PTGF_C)
<b>REC</b>	Analyst Recommendation Revisions Ratio (REC_RR_SLOW) Change in Analyst Recommendation (RECF_C)
<b>SALES</b>	Sales Revisions Ratio (SALTOP_RR_SLOW) Change in Analyst-Predicted Sales (SALF_C)

Change in Analyst-Predicted Sales-to-MCAP (SALTOPF\_C)

## Appendix VII: Methodology Set

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

- Description of methodology set – [www.msci.com/index/methodology/latest/ReadMe](http://www.msci.com/index/methodology/latest/ReadMe)
- MSCI Corporate Events Methodology – [www.msci.com/index/methodology/latest/CE](http://www.msci.com/index/methodology/latest/CE)
- MSCI Fundamental Data Methodology – [www.msci.com/index/methodology/latest/FundData](http://www.msci.com/index/methodology/latest/FundData)
- MSCI Index Calculation Methodology – [www.msci.com/index/methodology/latest/IndexCalc](http://www.msci.com/index/methodology/latest/IndexCalc)
- MSCI Index Glossary of Terms – [www.msci.com/index/methodology/latest/IndexGlossary](http://www.msci.com/index/methodology/latest/IndexGlossary)
- MSCI Index Policies – [www.msci.com/index/methodology/latest/IndexPolicy](http://www.msci.com/index/methodology/latest/IndexPolicy)
- MSCI Global Industry Classification Standard (GICS) Methodology – [www.msci.com/index/methodology/latest/GICS](http://www.msci.com/index/methodology/latest/GICS)
- MSCI Global Investable Market Indexes Methodology – [www.msci.com/index/methodology/latest/GIMI](http://www.msci.com/index/methodology/latest/GIMI)
- ESG Factors In Methodology\*

The Methodology Set for the Index 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 VIII: Changes to the Document

### The following sections have been modified as of February 2018:

- Section 2.4 has been updated to reflect the additional constraint on China A Stock Connect listings
- Footnotes added in Section 1 and Section 2.5 to reflect the current release of the relevant Barra Equity Model
- Section 2.3.1 and Appendix III have been updated to reflect the choice of factors used within each target factor group used in the Index
- Appendix II has been updated to reflect the information on transition of the Indexes to GEMTLT

### The following sections have been modified as of February 2018:

- Sections 1 has been updated to include the definition of the MSCI Diversified Multiple 3-Factor Indexes Section 2 has been updated to explain the index construction methodology
- Section 2.3.1 and section 2.4 have been updated to include the Alpha score definition and optimization constraints of the MSCI Diversified Multiple 3-Factor Indexes

### The following sections have been modified as of May 2022:

- Section 2.3.1 has been updated to reflect the change in calculation of the Alpha score
- Section 2.4 has been updated to reflect the change in optimization constraints
- Section 3.1 has been updated to reflect the change in rebalancing frequency
- Appendix I has been updated to reflect the change in handling of optimization infeasibility
- Appendix III has been updated to reflect the parent-level normalization of target factors
- Appendix IV has been added to describe transition parameters during May 2022 Index Review

### The following sections have been modified as of August 2022:

- Appendix IV has been updated to reflect the change in parameter of MSCI United Kingdom Diversified Multiple-Factor R-Series Index during August 2022 Index Review.

### The following sections have been modified as of May 2026

The Methodology Book has been updated and renamed to reflect the index construction and maintenance details of the MSCI World Diversified Multiple Factor with Low Volatility Index only.

#### Section 1: Introduction

- Updated the language for the introduction section to incorporate and reflect the methodology enhancements

#### Section 2.2 Eligible Universe

- Added a new section to describe the screens applied to the Applicable Universe

#### Section 2.4.1 Calculation of the Alpha Score

- Updated section to reflect the applicable formula for the MSCI World Value + Momentum + Quality + Low Volatility Custom Diversified Multi-Factor CTB Index

#### Section 2.7: Treatment of Unrated Companies

- Added treatment of companies when data on business involvement screening research or climate change metrics research is not available from MSCI Solutions

#### Section 4: MSCI Solutions

- Added new Section to detail the MSCI Solutions products and methodologies

#### Appendix III: Target Factor Definition Summary

- Updated the Momentum, Quality, Low Volatility Scores

#### Appendix V: Calculation of Target Metrics

- Added new appendix to with the definitions of the target metrics for the optimization

#### Appendix VI: Decarbonization Trajectory of the Index

- Added new appendix to describe the process to calculate the decarbonization

#### Appendix VII: Methodology Set

- Added details on the Methodology Set for the Index.

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