

## **METHODOLOGY BOOK FOR:**

- **MSCI Transatlantic Climate Select 50 Paris Aligned Index**
- **MSCI Transatlantic Climate Select 50 Paris Aligned Decrement Indexes**

**December 2023**

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## 1 Introduction

The MSCI Transatlantic Climate Select 50 Paris Aligned Index (“the Index”) is designed to support investors seeking to reduce their exposure to transition and physical climate risks and who wish to pursue opportunities arising from the transition to a lower-carbon economy, while satisfying both the minimum requirements of EU Paris Aligned Benchmarks as per the EU Benchmark Regulation<sup>1</sup>. The Index<sup>2</sup> is constructed from the constituents of an underlying Parent Index, which is the result of first aggregating the constituents of MSCI Europe IMI and MSCI USA IMI, and then renormalizing their weights to 100%. The Index follows an optimization-based approach to target 50 securities, and aims to:

- Reduce the weight of companies assessed as high carbon emitters using scope 1, 2 and 3 emissions
- Realize a “self-decarbonization” rate of 7% year on year
- Reduce the weight of companies assessed as high carbon potential emitters
- Increase the weight of companies with carbon emissions reduction target(s) approved by the Science Based Targets initiative (SBTi)<sup>3</sup>
- Keep the active weight in securities categorized as “High Climate Impact Sector”<sup>4</sup> to at least equal to 0
- Achieve a modest tracking error compared to the Parent Index and low turnover.

The following decrement versions were also constructed based on the Index:

The MSCI Transatlantic Climate Select 50 Paris Aligned 5% Decrement Index (Net) aims to represent the net performance of the MSCI Transatlantic Climate Select 50

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<sup>1</sup> On December 3, 2020, the European Commission has published the delegated acts in the Official Journal (<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020R1818&from=EN>) which contain the minimum technical requirements for the EU Paris-aligned Benchmarks.

<sup>2</sup> The Index is governed by a set of methodology and policy documents (“Methodology Set”), including the present index methodology document. The Methodology Set for the Index 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).

<sup>3</sup> For more details, please refer to <https://sciencebasedtargets.org/>

<sup>4</sup> For more details, please refer to Appendix I.

Paris Aligned Index, while applying a constant markdown ('synthetic dividend') of 5% on an annual basis, expressed as a percentage of performance.

The MSCI Transatlantic Climate Select 50 Paris Aligned 4% Decrement Index (Net) aims to represent the net performance of the MSCI Transatlantic Climate Select 50 Paris Aligned Index, while applying a constant markdown ('synthetic dividend') of 4% on an annual basis, expressed as a percentage of performance.

The MSCI Transatlantic Climate Select 50 Paris Aligned 3% Decrement Index (Net) aims to represent the net performance of the MSCI Transatlantic Climate Select 50 Paris Aligned Index, while applying a constant markdown ('synthetic dividend') of 3% on an annual basis, expressed as a percentage of performance<sup>5</sup>.

Because a Decrement Index deducts a "synthetic dividend" from the performance of the index, it therefore systematically underperforms its parent index. As a result, Decrement Indexes are not designed or intended to be used as the basis for funds, derivatives, structured products or other financial instruments or products that solely aim to replicate the performance of an index.

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<sup>5</sup> 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 Constructing the MSCI Transatlantic Climate Select 50 Paris Aligned Index

### 2.1 APPLICABLE UNIVERSE

The applicable universe (“Applicable Universe”) includes all the existing constituents of the Parent Index.

### 2.2 ELIGIBLE UNIVERSE

The Eligible Universe is constructed from the Applicable Universe by excluding securities of companies based on the exclusion criteria below by using data provided by MSCI ESG Research<sup>6</sup>:

1. **Controversial Weapons:** All companies with any tie to Controversial Weapons (cluster munitions, landmines, depleted uranium weapons, biological/chemical weapons, blinding lasers, non-detectable fragments, and incendiary weapons), as defined by the methodology of the MSCI Global Ex-Controversial Weapons Indexes<sup>7</sup>.
2. **ESG Controversies:** All companies assessed as having involvement in ESG controversies that are classified as Red Flags (MSCI ESG Controversy Score of 0). A Red Flag indicates an ongoing, Very Severe ESG controversy implicating a company directly through its actions, products, or operations.
3. **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 ESG controversy implicating a company directly through its actions, products, or operations.
  - An Orange Flag indicates an ongoing Severe ESG controversy implicating a company directly, or a Very Severe ESG controversy that

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<sup>6</sup> See section 4 for further information regarding ESG and climate data used in the Index that MSCI Limited sources 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. MSCI Limited is the benchmark administrator for the MSCI indexes

<sup>7</sup> For more details, the methodology book is available at <https://www.msci.com/index-methodology>.

is either partially resolved or indirectly attributed to the company's actions, products, or operations.

4. United Nations Global Compact (UNGC) Principles<sup>8</sup>: All companies that fail to comply with the UNGC Principles.
5. Tobacco: All companies that are involved in the manufacturing of Tobacco products.
6. Thermal Coal Mining: All companies deriving 1% 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 does not cover revenue from metallurgical coal, coal mined for internal power generation (e.g., in the case of vertically integrated power producers), intracompany sales of mined thermal coal, and revenue from coal trading (either reported or estimated).
7. Oil & Gas: All companies deriving 10% or more revenue from oil and gas related activities, including distribution / retail, equipment and services, extraction and production, petrochemicals, pipelines and transportation and refining but excluding biofuel production and sales and trading activities.
8. Power Generation: All companies deriving 50% or more revenue from thermal coal based power generation, liquid fuel based power generation and natural gas based power generation<sup>9</sup>.

## 2.3 OPTIMIZATION CONSTRAINTS

At each Quarterly Index Review, the Index is constructed using an optimization process that aims to achieve replicability and investability as well as minimize ex-ante tracking error relative to the Parent Index subject to the following constraints:

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<sup>8</sup> For more details, please refer to <https://www.unglobalcompact.org/what-is-gc/mission/principles>.

<sup>9</sup> As per [https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc\\_wg3\\_ar5\\_chapter7.pdf](https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc_wg3_ar5_chapter7.pdf), thermal coal based power generation, liquid fuel based power generation and natural gas based power generation have median lifecycle emissions exceeding 100gCO<sub>2</sub>/kWh.

Table 1: Requirements imposed for the MSCI Transatlantic Climate Select 50 Paris Aligned Index

| No. | Minimum Requirements   | MSCI Transatlantic Climate Select 50 Paris Aligned Index                   |
|-----|--|--|
| 1   | Minimum reduction in Weighted Average Scope 1+2+3 <sup>10</sup> Greenhouse Gas (GHG) Intensity relative to Parent Index  | 50%  |
| 2   | Minimum reduction in Weighted Average Potential Emissions Intensity relative to Parent Index   | 50%  |
| 3   | Minimum average reduction (per annum) in Scope 1+2+3 Greenhouse Gas (GHG) Intensity at the Base Date   | 7%   |
| 4   | Minimum active weight in High Climate Impact Sector relative to Parent Index (as defined in Appendix I)  | 0%   |
| 5   | Minimum Increase in aggregate weight in companies setting targets (as defined in Appendix I) relative to the aggregate weight of such companies from the Eligible Universe of Parent Index | 10%  |
| 6   | Maximum constituent weight   | Min(5%, 3-month Average Daily Traded Value <sup>11</sup> (in €)/ 2,000 M€) |
| 7   | Number of constituents   | 50   |
| 8   | One Way Turnover   | 10%  |
| 9   | Aggregate Weight of stocks belonging to the MSCI Europe IMI  | 50%  |
| 10  | Aggregate Weight of stocks belonging to the MSCI USA IMI   | 50%  |

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

<sup>10</sup> Prior to the May 2020 Quarterly Index Review (SAIR) of the Indexes, the Weighted Average Carbon Emissions Intensity has been calculated based on Scope 1+2 Emissions.

<sup>11</sup> 3-month Average Daily Traded Value is calculated as 3-month Annualized Traded Value divided by 252, which is the approximate trading days yearly.



- Relax the companies setting target constraint in steps of 2% up to a multiple of 1 (i.e., equivalent to the aggregate weight of companies setting target from the Eligible Universe of Parent Index)
- Relax the one-way turnover constraint in steps of 1% from 10% up to 15%
- Relax the maximum constituent weight constraint to Min (6%, 3-month Average Daily Traded Value/ 2,000 M€)
- Relax the maximum constituent weight constraint to Min (7%, 3-month Average Daily Traded Value/ 2,000 M€).

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 Quarterly Index Review.

## 2.4 DETERMINING THE OPTIMIZED INDEX

The Index is constructed using the Barra Open Optimizer<sup>12</sup> 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 Index.

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<sup>12</sup> For more details, please refer to Appendix III and IV.

### 3 Maintaining the MSCI Transatlantic Climate Select 50 Paris Aligned Index

#### 3.1 QUARTERLY INDEX REVIEWS

The Index is reviewed on a quarterly basis as of the close of the 8<sup>th</sup> business day of March, June, September and December as per the steps described in Section 2. The pro forma Index is in general announced nine business days before the effective date.

In general, MSCI uses the pro forma Parent Index announced nine business days before the effective date of quarterly index reviews of the Index and MSCI ESG Research data (including MSCI ESG Controversies, MSCI Business Involvement Screening Research and MSCI Climate Change Metrics) as of the end of the month preceding the Index Reviews for the rebalancing of the Index. For some securities, such data may not be published by MSCI ESG Research 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, for the rebalancing of the Index.

##### 3.1.1. IMPLEMENTATION OF THE QUARTERLY INDEX REVIEWS OF THE INDEX

The change in Index Number of Shares (NOS) for each security are implemented over five days leading into the rebalancing effective date (T). For each  $t \in \{T-4, T-3, T-2, T-1, T\}$ , number of shares for each security included in the Index (Staggered Index NOS (t)) are calculated as below:

$$\begin{aligned} \text{Staggered Index NOS (t)} &= \text{Pro forma Index NOS (t)} + [\text{Adjusted Pro forma Index NOS (T)} \\ &\quad - \text{Pro forma Index NOS (t)}] \times \left(\frac{N}{5}\right) \end{aligned}$$

Where:

t: Effective date of the staggering

T: Rebalancing effective date of the Pro forma Index

Pro forma Index NOS (t): It is the number of shares of a security in the Pro forma Index effective on t (as of close t-1). It is calculated as a product of the end of day

security number of shares on t-1 and Full Market Cap Adjustment Factor<sup>13</sup> in the Pro forma Index on t

Adjusted Pro forma Index NOS (T): Pro forma Index NOS (T) adjusted for change in number of shares due to events like Rights Issues, Split, Consolidation, Stock Dividend, effective between t and T

N: nth day of staggering, e.g. t-4 is the 1st day of staggering

### 3.2 DAILY DECREMENT CALCULATION

The performance of the MSCI Transatlantic Climate Select 50 Paris Aligned 5% Decrement Index (Net), MSCI Transatlantic Climate Select 50 Paris Aligned 4% Decrement Index (Net) and MSCI Transatlantic Climate Select 50 Paris Aligned 3% Decrement Index (Net) is computed by reducing the performance of the MSCI Transatlantic Climate Select 50 Paris Aligned Index, by a fixed percentage, on a daily basis using parameters detailed in Appendices V-XII.

### 3.3 ONGOING EVENT RELATED CHANGES

Corporate event treatment for the Index depends on whether the effective date of the event falls within the staggering period (T-4, T-3, T-2, T-1, T), or outside the staggering period.

#### 3.3.1. EVENTS EFFECTIVE OUTSIDE THE STAGGERING PERIOD

The general treatment of corporate events effective outside the staggering period in the Index aims 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.

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

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<sup>13</sup> Full Market Cap Adjustment Factor (FMCAF): A factor that is used in index constituent weighting calculation defined as (Inclusion Factor (i.e. FIF)) \* (Constraint Factor) \* (Variable Weighting Factor). For more details, please refer to section 2.7 of the MSCI Corporate Events Methodology book at <https://www.msci.com/index-methodology>.

No new securities will be added (except where noted below) to the Index outside the staggering period. Parent Index deletions outside the staggering period 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 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>.

### **3.3.2. EVENTS EFFECTIVE DURING THE STAGGERING PERIOD**

The impact of event on the Index depends on the type of event and calculation date of the Index as elaborated below.

#### **3.3.2.1 CALCULATION ON T-9**

a) Before effective date

The pro forma of the Index in general is announced nine business days before T (T-9). If there is an event already confirmed on T-9 with an effective date in the staggering period, the change in numbers of shares for the security due to the rebalancing will not be staggered for such security until the event effective date. In case of multiple events, the staggering will be postponed till the effective date of the earliest event.

b) On and after effective date

In case of Rights Issues and market neutral events (like Split, Consolidation, Stock Dividend etc.) which involve change in security number of shares but does not involve change in the full market cap adjustment factor, staggering will start from the next day of the event effective date.

For all other events, staggering will start from the effective date of the event.

#### **3.3.2.2 CALCULATION AFTER T-9**

a) Before Effective Date

In case of an event effective in the staggering period, the numbers of shares for the security involved in the event as announced on T-9 will hold until a day before the effective date. In case of multiple events, the effective date of the earliest event will be taken into account.

b) On and after the Effective Date

In case of Rights Issues and market neutral events (like Split, Consolidation, Stock Dividend etc.) which involve change in security number of shares but does not

involve a change in inclusion factor, staggering will be applied again from the next day of the event effective date, taking into account the new post event number of shares in the Index.

For all other events, staggering will be applied from the effective date of the event incorporating the post event number of shares.

### **3.3.2.3 TREATMENT OF SUSPENDED SECURITIES**

A suspension treatment will be applied to any security suspended on any day starting from T-6 until T-2. On the day of suspension (t), the pro-forma Full Market Cap Adjustment Factor in the Index announced for the security for the next day (t+1) will be held constant until T. However, in case, on T-2, if a new addition to the Parent Index is reverted due to suspension and the security is no longer a part of the Parent Index on T, the security will also be deleted from the Index effective on T.

## 4 MSCI ESG Research

The Index is a product 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 Index uses the following MSCI ESG Research products: MSCI ESG Controversies, MSCI ESG Business Involvement Screening Research, and MSCI Climate Change Metrics. MSCI Indexes are administered by MSCI Limited.

### 4.1 MSCI ESG CONTROVERSIES

MSCI ESG 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 ESG 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 ESG Controversies Score falls on a 0-10 scale, with “0” being the most severe controversy.

The MSCI ESG Controversies methodology can be found at:  
<https://www.msci.com/esg-and-climate-methodologies>.

### 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 [http://www.msci.com/resources/factsheets/MSCI\\_ESG\\_BISR.pdf](http://www.msci.com/resources/factsheets/MSCI_ESG_BISR.pdf).

### 4.3 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.

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/climate-change-solutions>.



## Appendix I: Calculation of Target Metrics

### Calculation of GHG Intensity

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 Scope 1+2+3 GHG Intensity =

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

Enterprise Value Inflation Adjustment Factor (EVIAF) =

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

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 =

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

### Calculation of Potential Carbon Emissions Intensity

For newly added companies to the Index where data is not available yet, MSCI uses zero fossil fuel reserves.

Security Level Potential Carbon Emissions Intensity =

$$\frac{\text{Absolute Potential Emissions} * (1 + EVIAF)}{\text{Enterprise Value} + \text{Cash(in M\%)}}$$

Weighted Average Potential Emissions Intensity of Parent Index =  

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

Weighted Average Potential Emissions Intensity of Derived Index =  

$$\sum (\text{Weight in Derived Index} * \text{Security Level Potential Carbon Emissions Intensity})$$

### Calculation of Average Decarbonization

On average, the Indexes follow a 7% decarbonization trajectory since the Base Date. The Weighted Average Carbon Intensity at the Base Date ( $W_1$ ) is used to compute the target Weighted Average Carbon Intensity at any given Quarterly 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 Quarterly Index Reviews since the Base Date.

Thus, for the 5<sup>th</sup> Quarterly Index Review since the Base Date (t=5), the target Weighted Average Carbon Intensity will be  $W_1 * 0.93$ .

### Companies Setting Targets

Relative to companies from the Eligible Universe of Parent Index, the Index aims to achieve a minimum 10% increase in the aggregate weight of companies setting emissions reduction targets

- Companies publishing emissions reduction targets
- Companies publishing their annual emissions and
- Companies reducing their GHG intensity by 7% over each of the last 3 years

Missing data treatment: If any of the three metrics is missing then that security is not considered for the companies setting target calculation. Also, if a company's carbon intensity data is missing for any of the last 4 years, then the company's carbon intensity reduction for last three years is not calculated and the company is not considered for the companies setting target calculation.

## Climate Impact Sector

NACE<sup>14</sup> is the European Union’s classification of economic activities. As per the draft DA, stocks in the NACE Section codes A, B, C, D, E, F, G, H, L are classified as “High Climate Impact” sector and other stocks are classified ‘Low Climate Impact’ sector. The GICS<sup>15</sup> Sub-Industry code for each security is mapped to the corresponding “Climate Impact Sector” using a mapping. This mapping is constructed in the following steps:

1. MSCI has published a mapping<sup>16</sup> between the NACE classes and GICS Sub-Industry.
2. For each GICS Sub-Industry, the number of NACE classes which fall under the High Climate Impact Sector (say the number of classes is  $N_H$ ) and Low Climate Impact Sector (say the number of classes is  $N_L$ ) is identified
3. If all the NACE classes for a given GICS Sub-Industry are identified in the High Climate Impact Sector ( $N_L = 0$ ), then the GICS Sub-Industry is mapped to the High Climate Impact Sector. Conversely, if all the NACE classes for a given GICS Sub-Industry are identified in the Low Climate Impact Sector ( $N_H = 0$ ) then the GICS Sub-Industry is mapped to the Low Climate Impact Sector
4. In case a GICS Sub-Industry is mapped to some NACE classes in the High Climate Impact Sector and the others in the Low Climate Impact Sector, the GICS Industry is mapped to the Climate Impact Sector in the following manner:
  - a.  **$N_H \geq N_L$** : If the number of NACE classes in the High Climate Impact Sector is at least equivalent to the number of NACE classes in the Low Climate Impact Sector, the GICS Sub-Industry is mapped to the High Climate Impact Sector
  - b.  **$N_H < N_L$** : If the number of NACE classes in the High Climate Impact Sector is less than the number of NACE classes in the Low Climate

<sup>14</sup> For further details regarding NACE, please refer to [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=NACE\\_background](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=NACE_background)

<sup>15</sup> For further information regarding GICS, please refer to <https://www.msci.com/gics>

<sup>16</sup> This mapping is available in the [Handbook of Climate Transition Benchmarks, Paris-Aligned Benchmark and Benchmarks’ ESG Disclosures](#) Please note that the mapping does not reflect changes in the GICS structure that were implemented in the MSCI indexes on June 1, 2023.

Impact Sector, the GICS Sub-Industry is mapped to the Low Climate Impact Sector

5. Using the GICS Sub-Industry to Climate Impact Sector mapping created in Step 4, and the security-level GICS Sub-Industry, each security in the Parent Index is classified in either High Climate Impact Sector or Low Climate Impact Sector.

## Appendix II: Decarbonization Trajectory of Indexes

The Weighted Average Carbon Intensity on the Base Date ( $W_1$ ) is used to compute the target Weighted Average Carbon Intensity at any given Quarterly 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 Quarterly Index Reviews since the Base Date. The table below shows the Weighted Average Carbon Intensity on the Base Date ( $W_1$ ) of the Indexes:

| Index   | Parent Index          | Base Date     | $W_1$ (tCO2/M\$ Enterprise Value + Cash) |
|---|-----------------------|---------------|--|
| MSCI Transatlantic Climate Select 50 Paris Aligned Index                    | MSCI USA + EUROPE IMI | June 10, 2020 | 222.70                                   |
| MSCI Transatlantic Climate Select 50 Paris Aligned 5% Decrement Index (Net) | MSCI USA + EUROPE IMI | June 10, 2020 | 222.70                                   |
| MSCI Transatlantic Climate Select 50 Paris Aligned 4% Decrement Index (Net) | MSCI USA + EUROPE IMI | June 10, 2020 | 222.70                                   |
| MSCI Transatlantic Climate Select 50 Paris Aligned 3% Decrement Index (Net) | MSCI USA + EUROPE IMI | June 10, 2020 | 222.70                                   |

## **Appendix III: Barra Equity Model Used in The Optimization**

The MSCI Transatlantic Climate Select 50 Paris Aligned Index currently uses an optimization setup using the MSCI Barra Global Equity Model for Long-Term Investors (GEMTLT).

## **Appendix IV: New release of Barra® Equity Model or Barra® Optimizer**

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

## Appendix V: Parameters used for the MSCI Transatlantic Climate Select 50 Paris Aligned 5% Decrement Index (Net)

The following parameters are used for the calculation of MSCI Transatlantic Climate Select 50 Paris Aligned 5% Decrement Index (Net).

|   | MSCI Decrement Indexes Methodology Parameter                              | Parameter Specifics     |
|---|---|-------------------------|
| 1 | Return Variant of MSCI Parent Index                                       | Daily Net Total Returns |
| 2 | Base Currency of MSCI Transatlantic Climate Select 50 Paris Aligned Index | EUR                     |
| 3 | Decrement Type  | Fixed Percentage        |
| 4 | Decrement Frequency   | Daily                   |
| 5 | Decrement Application   | Geometric Application   |
| 6 | Decrement Value   | 5%                      |
| 7 | Day Count Convention  | Actual / 365            |
| 8 | Index Floor   | 0                       |



## Appendix VII: Parameters used for the MSCI Transatlantic Climate Select 50 Paris Aligned 4% Decrement Index (Net)

The following parameters are used for the calculation of MSCI Transatlantic Climate Select 50 Paris Aligned 4% Decrement Index (Net).

|   | MSCI Decrement Indexes Methodology Parameter                              | Parameter Specifics     |
|---|---|-------------------------|
| 1 | Return Variant of MSCI Parent Index                                       | Daily Net Total Returns |
| 2 | Base Currency of MSCI Transatlantic Climate Select 50 Paris Aligned Index | EUR                     |
| 3 | Decrement Type  | Fixed Percentage        |
| 4 | Decrement Frequency   | Daily                   |
| 5 | Decrement Application   | Geometric Application   |
| 6 | Decrement Value   | 4%                      |
| 7 | Day Count Convention  | Actual / 365            |
| 8 | Index Floor   | 0                       |

## Appendix XI: Parameters used for the MSCI Transatlantic Climate Select 50 Paris Aligned 3% Decrement Index (Net)

The following parameters are used for the calculation of MSCI Transatlantic Climate Select 50 Paris Aligned 3% Decrement Index (Net).

|   | MSCI Decrement Indexes Methodology Parameter                              | Parameter Specifics     |
|---|---|-------------------------|
| 1 | Return Variant of MSCI Parent Index                                       | Daily Net Total Returns |
| 2 | Base Currency of MSCI Transatlantic Climate Select 50 Paris Aligned Index | EUR                     |
| 3 | Decrement Type  | Fixed Percentage        |
| 4 | Decrement Frequency   | Daily                   |
| 5 | Decrement Application   | Geometric Application   |
| 6 | Decrement Value   | 3%                      |
| 7 | Day Count Convention  | Actual / 365            |
| 8 | Index Floor   | 0                       |

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