Methodology book for:

- MSCI Euro Climate Select 50 Paris Aligned Index
- MSCI Euro Climate Select 50 Paris Aligned 5% Decrement Index (Net)
- MSCI Euro Climate Select 50 Paris Aligned 5% Decrement Index (Gross)
- MSCI Euro Climate Select 50 Paris Aligned 4% Decrement Index (Net)
- MSCI Euro Climate Select 50 Paris Aligned 4% Decrement Index (Gross)

January 2021

Contents

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1 Introduction

The MSCI Euro Climate Select 50 Paris Aligned Indexes (“Indexes”) are 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 the minimum requirements of EU Paris Aligned Benchmarks as per the EU Benchmark Regulation[1]. The Indexes are constructed from their Parent Index, the MSCI Euro Index, and select securities with large free-float adjusted market capitalization and reweights them based upon the company’s opportunities and risks associated with the climate transition.

The MSCI Euro Climate Select 50 Paris Aligned 5% Decrement Index (Net) and MSCI Euro Climate Select 50 Paris Aligned 5% Decrement Index (Gross) aim to represent the net and gross performance of the MSCI Euro Climate Select 50 Paris Aligned Index respectively, while applying a constant markdown (‘synthetic dividend’) of 5% on an annual basis, expressed as a percentage of performance.

The MSCI Euro Climate Select 50 Paris Aligned 4% Decrement Index (Net) and MSCI Euro Climate Select 50 Paris Aligned 4% Decrement Index (Gross) aim to represent the net and gross performance of the MSCI Euro Climate Select 50 Paris Aligned Index respectively, while applying a constant markdown (‘synthetic dividend’) of 4% on an annual basis, expressed as a percentage of performance.

[1] In the EU, two new categories of climate benchmarks (EU Climate Transition Benchmarks (CTBs) and EU Paris-Aligned Benchmarks (PABs)) were created pursuant to the EU Benchmark Regulation (Regulation (EU) 2016/1011 as amended by Regulation (EU) 2019/2089)[1] which sets out the minimum standards for such indexes.

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2 MSCI ESG Research

MSCI ESG Research provides in-depth research, ratings and analysis of the environmental, social and governance-related business practices of thousands of companies worldwide. It consists of an integrated suite of tools and products to efficiently manage research, analysis and compliance tasks across the spectrum of ESG factors.

The Index uses company ratings and research provided by MSCI ESG Research. In particular, this index uses the following MSCI ESG Research products: MSCI Climate Change Metrics, MSCI ESG Sustainable Impact Metrics, MSCI ESG Controversies and MSCI ESG Business Involvement Screening Research.

For details on MSCI ESG Research's full suite of ESG products, please refer to: https://www.msci.com/esg-investing

2.1 MSCI CLIMATE CHANGE METRICS

MSCI Climate Change Metrics is designed to support investors seeking to achieve a range of objectives, including measuring and reporting on climate risk exposure, implementing low carbon and fossil fuel-free strategies, and factoring climate change research into their risk management processes. It provides Carbon Emissions, Fossil Fuel exposure, environmental impact (i.e., clean technology) data and screens, as well as climate-related risk exposure and management assessment on companies such as Low Carbon Transition scores and categories.

For more details on MSCI Climate Change Metrics, please refer to https://www.msci.com/climate-change-solutions

2.2 MSCI ESG SUSTAINABLE IMPACT METRICS

MSCI ESG Research's Sustainable Impact Metrics is designed to identify companies that currently offer products or services that address at least one of the major social and environmental challenges as defined by the UN Sustainable Development Goals. Designed as a positive screen, it is designed to highlight companies that are deriving sales from products or services that may have a positive impact on society and the environment.

For more details on the MSCI ESG Sustainable Impact Metrics, please refer to https://www.msci.com/esg-sustainable-impact-metrics

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2.3 MSCI ESG CONTROVERSIES

MSCI ESG Controversies provides assessments of controversies concerning the 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.

For more details on MSCI ESG Controversies, please refer to : https://www.msci.com/documents/10199/acbe7c8a-a4e4-49de-9cf8-5e957245b86b

2.4 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

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3 Index Construction Methodology

3.1 APPLICABLE UNIVERSE

The applicable universe ("Applicable Universe") includes all the existing constituents of the MSCI Euro Index ("Parent Index"). This approach aims to provide an opportunity set with sufficient liquidity and capacity.

3.2 MINIMUM REQUIREMENTS

The requirements MSCI imposes for the MSCI Euro Climate Select 50 Paris Aligned Index are detailed in Table 1 and exceed the minimum requirements for EU Paris-Aligned Benchmarks.

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

Minimum Requirements	MSCI Euro Climate Select 50 Paris Aligned Index
Minimum reduction in Weighted Average Scope 1+2+3[2] Carbon Emissions Intensity (WACI) relative to MSCI Euro Index	50%
Minimum reduction in Weighted Average Potential Emissions Intensity relative to MSCI Euro Index	50%
Baseline Exclusions	• Controversial Weapons • ESG Controversy Score of 0 • Environmental Controversy Score of 1 • Tobacco Producers
Activity Exclusions	• Coal (1%+ revenues) • Oil & Gas (10%+ revenues) • Coal, Oil & Gas based power generation (50%+ revenues)
Minimum average reduction (per annum) in WACI relative to WACI at Inception	7%
Minimum ratio of Green Revenue/ Brown Revenue relative to MSCI Euro Index	At least a Factor of 4

[2] Prior to the May 2020 Semi-Annual Index Review (SAIR) of the Indexes, the Weighted Average Carbon Emissions Intensity has been calculated based on Scope 1+2 Emissions.

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Active weight in High Climate Impact Sector relative to MSCI Euro Index as defined in Section 1.5	0%
Corporate Target Setting	Aims to achieve higher allocation to companies that set targets, publish emissions and have reduced their Carbon Intensity by 7% over each of the last 3 years.[3]

3.3 ELIGIBLE UNIVERSE

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

1. All companies having faced very severe controversies pertaining to ESG issues – Defined as companies with an ESG Controversy Score[4] of 0.
2. All companies deriving more than 0% revenues from the manufacture of tobacco products
3. All companies with an Environmental Controversy Score of 1
4. All companies involved in controversial weapons business as per the MSCI Global ex Controversial Weapons Index methodology[5].

Additionally, securities that meet any of the below criteria, corresponding to the Activity Exclusions for the MSCI Euro Climate Select 50 Paris Aligned Index are excluded from the Initial Universe.

1. 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 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

[3] Prior to the May 2020 Semi-Annual Index Review, this requirement has not been enforced and an increased allocation to companies which set evidence-based targets achieved by using the MSCI Climate Change Index Methodology

[4] 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. For more details on MSCI ESG Controversies, please refer to www.msci.com/documents/esg-controversies

[5] For details regarding the MSCI Global ex Controversial Weapons Index methodology, kindly refer to https://www.msci.com/index-methodology

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mined thermal coal; and revenue from coal trading (either reported or estimated)

2. All companies deriving 10% or more revenue from the extraction, production and refining of Conventional and Unconventional Oil & Gas[6]. Conventional Oil and Gas includes Arctic onshore/offshore, deepwater, shallow water and other onshore/offshore. Unconventional Oil and Gas includes oil sands, oil shale (kerogen-rich deposits), shale gas, shale oil, coal seam gas, and coal bed methane.
3. All companies deriving 50% or more revenue from thermal coal based power generation, liquid fuel based power generation and natural gas based power generation[7].

The MSCI Euro Climate Select 50 Paris Aligned Index also applies the below eligibility criteria:

1. Only securities which are listed in exchanges in the following countries are eligible: Austria, Belgium, Finland, France, Germany, Ireland, Italy, the Netherlands, Portugal and Spain
2. Only securities with 6-month Annualized Daily Traded Value (ADTV) exceeding EUR 10 Million are eligible
3. Only one security per issuer is eligible for selection. If any issuer has multiple securities, the security with the higher 6-month ADTV is selected.

Finally, out of all the eligible securities, the top 50 securities are selected based on their weight in the Parent Index.

[6] While the minimum requirements for EU PAB Indexes recommend exclusion of companies which derive 10% or more of their revenues from Oil or 50% or more of their revenues from natural gas exploration or processing activities, The Indexes exclude all companies exclude all companies that derive 10% or more of their revenues from Oil and Gas.

[7] As per 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_2/kWh.

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3.4 INITIAL UNIVERSE

Securities in the Eligible Universe are selected and reweighted as per the below steps:

Determination of Combined Score

Each company in the Parent Index is assigned a Combined Score, which is calculated using a company's Low Carbon Transition (LCT) Category and its Low Carbon Transition Score as outlined below.

Category Tilt Score

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

LCT Category	Category Tilt Score
Solutions	3
Neutral	1
Operational Transition	0.667
Product Transition	0.333
Asset Stranding	0.167

Relative Tilt Score

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

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

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

Note: The Maximum LCT Score in the LCT Category is calculated after winsorizing the LCT Score within each category at the 90th Percentile.

Combined Score

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The Combined Score is calculated for each company as follows:

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

Weighting Scheme

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

$$Security\ Weight = Combined\ Score * Weight\ in\ Parent\ Index$$

The above weights are then normalized to 100%.

3.5 INTERMEDIATE UNIVERSE

Each security in the Applicable Universe is classified into one of two climate impact sectors[8] based on its NACE section code. A stock can be assigned to either a 'High Climate Impact' or 'Low Climate Impact' sector. The Eligible Universe is broken into two smaller universes as described below:

3.5.1. HIGH CLIMATE IMPACT INTERMEDIATE UNIVERSE

High Climate Impact Intermediate Universe is constructed in following two steps –

- Select all securities in the High Climate Impact Sector from the Applicable Universe.
- Renormalize the weights of securities so that the aggregate weight of securities is equal to the weight of High Climate Impact Sector in the Parent Index only if the aggregate weight of securities is less than the aggregate weight of the High Climate Impact Sector in the Parent Index.

3.5.1.1 INCREASED ALLOCATION TO COMPANIES SETTING TARGETS

Within the High Climate Impact Intermediate Universe, securities ("securities with targets") that meet each of the below criteria are identified:

- Securities of companies that have published emissions reduction targets
- Securities of companies that publish their emissions

[8] NACE is the European Union's classification of economic activities. 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. For further details regarding NACE, please refer to https://ec.europa.eu/eurostat/statistics-explained/index.php?title=NACE_background. The GICS Sub-Industry code for each security is mapped to the corresponding "Climate Impact Sector" using a mapping. For further information regarding GICS, please refer to https://www.msci.com/gics

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- Securities of companies that have reduced their emissions intensity by 7% over each of the last 3 years

The Index aims to increase the aggregate weight to securities with targets in the following steps[9]:

1. Calculate the aggregate weight in the Parent Index of all securities with targets in High Climate Impact Sector as Wp
2. Identify companies in the Initial Universe that are in the top half ("Top Half") when sorted based on Carbon Emissions Intensity as companies with the lowest intensity.
3. Calculate the aggregate weight in the High Climate Impact Intermediate Universe of all securities with targets which are in the Top Half as Wo
4. If Wo is less than 1.2 times of Wp, then the weights of all Top Half securities with targets in the High Climate Impact Intermediate Universe are scaled up proportionately so that their aggregate weight in the High Climate Impact Intermediate Universe is equal to 1.2 times of Wp
5. The weight of the remaining securities in the High Climate Impact Sector will be reduced proportionately in order to retain the aggregate weight of the High Climate Impact Intermediate Universe.
6. In cases where the High Climate Impact Intermediate Universe does not have any "Top Half" securities with targets (Wo = 0%), then the security weights in the High Climate Impact Intermediate Universe are unchanged.
7. In cases where 1.2 times Wp is greater than the aggregate weight of all securities in the High Climate Impact Intermediate Universe, the aggregate weight of "Top Half" securities with targets will be scaled up to be at least equivalent to Wp.

3.5.2. LOW CLIMATE IMPACT INTERMEDIATE UNIVERSE

Low Climate Impact Intermediate Universe is constructed in following two steps –

- Select all securities in the Low Climate Impact Sector from the Applicable Universe.

[9] The steps applied will only be applicable starting from the May 2020 Semi-Annual Index Review of the Indexes.

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- Renormalize the weights of securities so that the aggregate weight of securities is equal to the weight of Low Climate Impact Sector in the Parent Index only if the weights of the securities in the High Climate Impact Intermediate Universe have been renormalized as per Section 3.5.1.

3.5.2.1 INCREASED ALLOCATION TO COMPANIES SETTING TARGETS

Within the Low Climate Impact Intermediate Universe, securities ("securities with targets") that meet each of the below criteria are identified:

- Securities of companies that have published emissions reduction targets
- Securities of companies that publish their emissions
- Securities of companies that have reduced their emissions intensity by 7% over each of the last 3 years

The Index aims to increase the aggregate weight to securities with targets in the following steps[10]:

1. Calculate the aggregate weight in the Parent Index of all securities with targets in Low Climate Impact Sector as Wp
2. Identify companies in the Initial Universe that are in the top half ("Top Half") when sorted based on Carbon Emissions Intensity as companies with the lowest intensity.
3. Calculate the aggregate weight in the Low Climate Impact Intermediate Universe of all securities with targets which are in the Top Half as Wo
4. If Wo is less than 1.2 times of Wp, then the weights of all Top Half securities with targets in the Low Climate Impact Intermediate Universe are scaled up proportionately so that their aggregate weight in the Low Climate Impact Intermediate Universe is equal to 1.2 times of Wp
5. The weight of the remaining securities in the High Climate Impact Sector will be reduced proportionately in order to retain the aggregate weight of the High Climate Impact Intermediate Universe.
6. In cases where the Low Climate Impact Intermediate Universe does not have any "Top Half" securities with targets (Wo = 0%), then the security weights in the Low Climate Impact Intermediate Universe are unchanged.

[10] The steps applied will only be applicable starting from the May 2020 Semi-Annual Index Review of the Indexes.

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7. In cases where 1.2 times Wp is greater than the aggregate weight of all securities in the Low Climate Impact Intermediate Universe, the aggregate weight of "Top Half" securities with targets will be scaled up to be at least equivalent to Wp.

3.6 FINAL UNIVERSE

The Final Universe is constructed by combining the High Impact Intermediate Universe and the Low Impact Intermediate Universe. If the aggregate weight in the High Climate Impact Sector in the Intermediate Universe is lesser than the weight of the High Climate Impact Sector in the Parent Index, the weights are renormalized so that the weights of both the High Climate Impact Sector and Low Climate Impact Sector in the Final Universe are equal to their respective weights in the Parent Index.

The security weight within the High Impact and Low Impact sectors are in proportion of the security's LCT Category[11], LCT Score and Carbon Emissions Intensity. Compared to the Parent Index, the Final Universe typically has

- Lower Carbon Footprint
- Higher Green Revenue to Brown Revenue ratio
- Higher weight in companies which set emission targets
- Equal weight in High Impact and Low Impact Sector

3.6.1. CAPPING OF SECURITY WEIGHT IN FINAL UNIVERSE

The weight of securities in the Final Universe is capped at 5%, with the excess weight being distributed among the remaining securities in the same Climate Impact sector as the security being capped so that the overall weight in the High Impact Sector and Low Impact Sector is unchanged.

3.6.1.1 HANDLING OF INFEASIBILITY IN SECURITY CAPPING

In a scenario where all the securities in the High Climate Impact Sector are capped and there is an active underweight in the High Climate Impact Sector relative to the Parent Index, two securities with the highest Carbon Emissions Intensity from the Low Climate Impact Sector are excluded and the next two securities of the High Climate Impact Sector based on their weight in the Parent Index from the Eligible

[11] For details regarding the LCT Category and LCT Score, please refer to Appendix I: MSCI Low Carbon Transition Risk Assessment

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Universe in Section 3.3 are selected and the steps of the methodology from Sections 3.4 to 3.6 are repeated.

3.6.2. ITERATIVE DOWNWEIGHTING

The Final Universe is assessed against the minimum requirements detailed in Table 1 except for the requirement on “Corporate Target Setting”. In case the Final Universe is found deficient on any of the minimum requirements, then the weights of the securities in the Final Universe are determined through an iterative process as described in Appendix IV.

3.6.2.1 HANDLING OF INFEASIBILITY IN SECURITY CAPPING

If the requirements imposed, including the 5% security capping, are not met during the iterative downweighting, two securities, one from the High Climate Impact Sector and one from the Low Climate Impact Sector, with the highest Carbon Emissions Intensity in the Final Universe are excluded from the index and the next two securities one from the High Climate Impact Sector and one from the Low Climate Impact Sector, based on their weight in the Parent Index from the Eligible Universe in Section 3.3 are selected and the steps of the methodology from Sections 3.4 to 3.6 are repeated.

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4 Maintaining the MSCI Euro Climate Select 50 Paris Aligned Indexes

4.1 QUARTERLY INDEX REVIEWS

The MSCI Euro Climate Select 50 Paris Aligned is reviewed on a quarterly basis as per the steps described in Section 3, coinciding with the May and November Semi-Annual Index Reviews and the February and August Quarterly Index Reviews of the Parent Index.

In general, MSCI uses MSCI ESG Research data (including MSCI ESG Ratings, MSCI ESG Controversies Scores, 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.

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

4.1.1. STAGGERED REBALANCE

The quarterly Index rebalance is staggered over a period of 5 days starting on the 4th business day of each June, September, December and March. Five versions of the Index are calculated, based on the steps described above, having their effective date from the 4th to 8th business day respectively. These indexes are then equal weighted to arrive at the final index, which rebalances to equal weights daily during this five day period.

4.2 DAILY DECREMENT CALCULATION

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

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4.3 ONGOING EVENT RELATED CHANGES

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 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 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.

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	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

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Appendix I: MSCI Low Carbon Transition Risk Assessment

MSCI ESG Research's Low Carbon Transition Risk assessment[12] is designed to identify potential leaders and laggards by holistically measuring companies' exposure to and management of risks and opportunities related to the low carbon transition.

The final output of this assessment is two company-level factors as described below:

(1) **Low Carbon Transition Category**: This factor groups companies in five categories that highlight the predominant risks and opportunities they are most likely to face in the transition (Exhibit 1).

(2) **Low Carbon Transition Score:** This score is based on a multi-dimensional risks and opportunities assessment and considers both predominant and secondary risks a company faces. It is industry agnostic and represents an absolute assessment of a company's position vis-à-vis the transition.

LOW CARBON TRANSITION SCORE	LOW CARBON TRANSITION CATEGORY		LOW CARBON TRANSITION RISK / OPPORTUNITY	
Score = 0	ASSET STRANDING		Potential to experience "stranding" of physical / natural assets due to regulatory, market, or technological forces arising from low carbon transition.	Coal mining & coal based power generation; Oil sands exploration/production
	TRANSITION	PRODUCT	Reduced demand for carbon-intensive products and services. Leaders and laggards are defined by the ability to shift product portfolio to low-carbon products.	Oil & gas exploration & production; Petrol/diesel based automobile manufacturers, thermal power plant turbine manufacturers etc.
		OPERATIONAL	Increased operational and/or capital cost due to carbon taxes and/or investment in carbon emission mitigation measures leading to lower profitability of the companies.	Fossil fuel based power generation, cement, steel etc.
	NEUTRAL		Limited exposure to low carbon transition carbon risk. Though companies in this category could have exposure to physical risk and/or indirect exposure to low carbon transition risk via lending, investment etc.	Consumer staples, healthcare, etc.
Score = 10	SOLUTIONS		Potential to benefit through the growth of low-carbon products and services.	Renewable electricity, electric vehicles, solar cell manufacturers etc.

Exhibit 1: Low Carbon Transition Categories and Scores

[12] For more details on MSCI Climate Change Metrics, please refer to https://www.msci.com/climate-change-solutions

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Calculation methodology

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

Step 1: Measure Low Carbon Transition Risk Exposure

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

Step 2: Assess Low Carbon Transition Risk Management

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

Step 3: Calculate Low Carbon Transition Category and Score

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

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Appendix II: Calculation of Target Metrics

Calculation of Weighted Average Carbon Emissions 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 Carbon Emissions Intensity =

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

Enterprise Value Inflation Adjustment Factor (EVIAF) =

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

Weighted Average Carbon Emissions Intensity of Parent Index =

$$\sum (Weight\ in\ Parent\ Index * \ Security\ Level\ Carbon\ Emissions\ Intensity)$$

Weighted Average Carbon Emissions Intensity of Derived Index =

$$\sum (Weight\ in\ Derived\ Index * \ Security\ Level\ Carbon\ Emissions\ Intensity)$$

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 =

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

Weighted Average Potential Emissions Intensity of Parent Index =

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

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Weighted Average Potential Emissions Intensity of Derived Index =

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

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 Semi-Annual Index Reviews since the Base Date.

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

Calculation of Green Revenue to Brown Revenue Multiple

Green Revenue

For each constituent in the Parent Index, the Green Revenue% is calculated as the cumulative revenue (%) from the six CleanTech themes which are as follows:

- Alternative Energy – products and services that support the transmission, distribution and generation of renewable energy and alternative fuels to reduce carbon and pollutant emissions in supporting affordable and clean energy to combat climate change.
- Energy Efficiency – products, and services that support the maximization of productivity in labor, transportation, power and domestic applications with minimal energy consumption to ensure universal access to affordable, reliable and modern energy services.
- Sustainable Water – products, services, infrastructure projects and technologies that resolve water scarcity and water quality issues, through minimizing and monitoring current water demand, improving the quality and availability of water supply to improve resource management in both domestic and industrial use.
- Green Building – design, construction, redevelopment, retrofitting, or acquisition of green-certified properties to promote mechanisms for raising capacity for effective climate change mitigation and adaptation.

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- Pollution Prevention – products, services, infrastructure projects and technologies that reduces volume of waste materials through recycling, minimizes introduction of toxic substances, and offers remediation of existing contaminants such as heavy metals and organic pollutants in various environmental media to significantly address pollution in all levels and its negative effects

- Sustainable Agriculture - revenues from forest and agricultural products that meet environmental and organic certification requirements to address significantly biodiversity loss, pollution, land disturbance, and water overuse

The Weighted Average Green Revenue% is calculated as:

$$= \sum (Weight\ in\ Index *\ Green\ Revenue\%)$$

Brown Revenue

For each constituent in the Parent Index, the Brown Revenue% is calculated as the cumulative revenue (%) from the following sources:

- 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 (either reported or estimated)

- Revenue% from the extraction, production and refining of Conventional and Unconventional Oil & Gas. Conventional Oil and Gas includes Arctic onshore/offshore, deepwater, shallow water and other onshore/offshore. Unconventional Oil and Gas includes oil sands, oil shale (kerogen-rich deposits), shale gas, shale oil, coal seam gas, and coal bed methane.

- Revenue% from thermal coal based power generation, liquid fuel based power generation and natural gas based power generation.

The Weighted Average Brown Revenue% is calculated as:

$$= \sum (Weight\ in\ Index *\ Brown\ Revenue\%)$$

The Green Revenues to Brown Revenues multiple for either the Parent Index or the Index is calculated as a ratio of the Weighted Average Green Revenue to the Weighted Average Brown Revenue as per the formula below:

$$= \frac{Weighted\ Average\ Green\ Revenue\%}{Weighted\ Average\ Brown\ Revenue\%}$$

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Appendix III: 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) the index:

Index	Parent Index	Base Date	W_1 (tCO2/M$ Enterprise Value + Cash)
MSCI Euro Climate Select 50 Paris Aligned Index	MSCI Euro	June 04, 2020	221.42
MSCI Euro Climate Select 50 Paris Aligned 5% Decrement Index (Net)	MSCI Euro	June 04, 2020	221.42
MSCI Euro Climate Select 50 Paris Aligned 5% Decrement Index (Gross)	MSCI Euro	June 04, 2020	221.42
MSCI Euro Climate Select 50 Paris Aligned 4% Decrement Index (Net)	MSCI Euro	June 04, 2020	221.42
MSCI Euro Climate Select 50 Paris Aligned 4% Decrement Index (Gross)	MSCI Euro	June 04, 2020	221.42

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Appendix IV: Iterative Down Weighting Process

The iterative down weighting process is applied on the securities of the Final Universe with the objective of meeting all the minimum requirements detailed in Table 1.

ITERATIVE DOWNWEIGHTING

Starting with the Final Universe, an iterative down weighting process is applied in order to meet with the minimum requirements for the Indexes. The iterative down weighting stops when all the requirements defined in above are met. The steps followed in the iterative downweighting (Exhibit 2) are outlined below:

Step 1. Check whether all targets for the Index are met. If all targets are met, then no downweighting is required.

Step 2. Securities in the Applicable Universe are sorted in increasing order of their Scope 1+2+3 Carbon Emissions Intensity and securities in the top half of the sorted list are identified as “Top Half” securities. Securities in the bottom half of the sorted list are identified as "Bottom Half” securities.

Step 3. If the target based on Minimum reduction in WACI relative to Parent Index and the Minimum average reduction in WACI (per annum) is not being met, the lowest ranked “Bottom Half” stock in ascending order of Scope 1+2+3 Carbon Emissions Intensity is selected for downweighting[13] and the weight is reduced by 25% of its weight in the Final Universe. If this target is met, but

a. If the target based on Weighted Average Potential Emissions Intensity relative to Parent Index is not being met, the “Bottom Half” stock with highest Potential Carbon Emissions Intensity is downweighted.

b. Otherwise if the target based on Minimum ratio of Green Revenue/ Brown Revenue relative to Parent Index is not being met, the “Bottom Half” stock with largest difference between its Brown Revenue% and its Green Revenue% is downweighted

Step 4. If the targets are still not met, the stock is downweighted in steps of 25% of its weight in the Final Universe till a maximum downweighting of 75%.

Step 5. Stocks of the Final Universe in the “Top Half”, belonging to the same “Climate Impact Sector” as the stock being downweighted are proportionally upweighted to ensure that the overall allocation to the High Climate Impact

[13] Constituents with LCT Category “Solutions” are not eligible for downweighting.

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Sector is the same as that in the Parent Index and the sum of the weights of all constituents is 1.

Step 6. While upweighting stocks, the security weights of the stocks being upweighted is capped at 5%, with the excess weight being distributed among the remaining securities that are being upweighted.

Step 7. If the targets are still not met, the iterative process continues, and Steps 3-6 are repeated.

Step 8. If the targets are not met and all "Bottom Half" stocks of the Final Universe are downweighted by 75% of the weight in the Final Universe, Steps 3-7 are repeated, with a maximum downweighting of 90% in a single downweighting step of 15 percentage points of the weight in the Final Universe.

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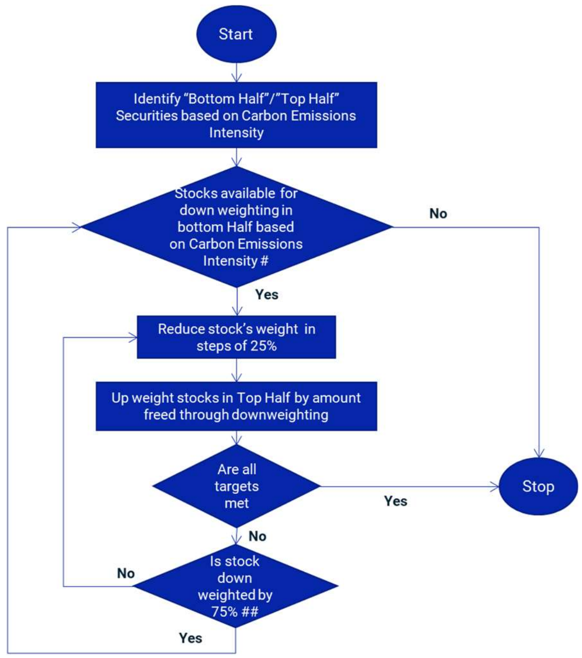

Exhibit 2: Schematic Representation of the Iterative Downweighting Process

If the targets are not met and all "Bottom Half" stocks of the Final Universe are downweighted by 75% of the weight in the Final Universe, maximum downweighting is relaxed to 90% in a single downweighting step of 15 percentage points of the weight in the Final Universe.

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

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

	MSCI Decrement Indexes Methodology Parameters	Parameters
1	Return Variant of MSCI Parent Index	Daily Net Total Returns
2	Base Currency of MSCI Parent 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

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Appendix VI: Parameters used for the MSCI Euro Climate Select 50 Paris Aligned 5% Decrement Index (Gross)

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

	MSCI Decrement Indexes Methodology Parameters	Parameters
1	Return Variant of MSCI Parent Index	Daily Gross Total Returns
2	Base Currency of MSCI Parent 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

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

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

	MSCI Decrement Indexes Methodology Parameters	Parameters
1	Return Variant of MSCI Parent Index	Daily Net Total Returns
2	Base Currency of MSCI Parent 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

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Appendix VIII: Parameters used for the MSCI Euro Climate Select 50 Paris Aligned 4% Decrement Index (Gross)

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

	MSCI Decrement Indexes Methodology Parameters	Parameters
1	Return Variant of MSCI Parent Index	Daily Gross Total Returns
2	Base Currency of MSCI Parent 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

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