

Construction Rules for the
Morningstar Global Target Market
Exposure Paris Aligned
Benchmark Select & Morningstar
US Small Cap Target Market
Exposure Paris Aligned
Benchmark Select

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Overview

The Morningstar Global Target Market Exposure Paris Aligned Benchmark Select and Morningstar US Small Cap Target Market Exposure Paris Aligned Benchmark Select (collectively, the “Indexes”) are designed to achieve the Paris Aligned Benchmarks standards laid out in the European Union delegated acts and to reduce the exposure to both carbon risk and severe ESG companies and pursue opportunities arising from the transition to a low-carbon economy. Each Index also seeks to achieve a minimal tracking error with respect to its respective Parent Index. The Indexes make use of Carbon Emissions, ESG Risk Rating, Products Involvement and ESG Controversy data provided by Sustainalytics. For further information on ESG data used in the Indexes, please see the [Morningstar ESG Index Glossary](#).

The Indexes are powered by the Morningstar Global Industry Standard Risk Model (the risk model), which is used to forecast volatility of each Index portfolio and its respective parent Index. Return volatility is relative to the currency of measurement. The Indexes were designed based on the assumption that investors are interested in reducing the volatility of their investments in the primary currency of exposure of their liabilities and expenses. For more information on the risk model, refer to Morningstar Risk Model Methodology.

Index Inception and Performance Start Dates

The index inception date of each Index is Nov. 21, 2024, and the performance start date, when the first back-tested index value was calculated, is listed in Appendix 2.

Index Construction

Methodology Summary

Starting Universe

- The Parent Indexes are represented by the Morningstar Global Target Market Exposure and Morningstar US Small Cap Target Market Exposure respectively

Eligibility

- Apply baseline exclusions.
- Apply activity-based exclusions.

Portfolio Construction

- All securities not covered by the risk model with at least 6 months of return history are ineligible.
- Weight securities through a separate optimization process for each Index that minimizes its tracking error relative to its respective Parent Index while enforcing constraints.

Morningstar Global Target Market Exposure Paris Aligned Benchmark Select & Morningstar US Small Cap Target Market Exposure Paris Aligned Benchmark Select

For additional details, refer to the following section.

Starting Universe

At each reconstitution, securities for the Morningstar Global Target Market Exposure Paris Aligned Benchmark Select and Morningstar US Small Cap Target Market Exposure Paris Aligned Benchmark Select are derived from the Morningstar Global Target Market Exposure and Morningstar US Small Cap Target Market Exposure respectively (collectively, the "Parent Indexes"). For more details on benchmark construction, refer to the Construction rules for the [Morningstar Global Target Market Exposure](#).

Eligibility

To be eligible for inclusion in either Index, all constituents must meet the following criteria:

- Baseline Exclusions
 - The company must not have a severe controversy rating (or a level of 5).
 - The company must not be non-compliant with the principles of the United Nations Global Compact.
 - The company must not have any revenue involvement in controversial weapons, essential or nonessential including:
 - Nuclear Weapons
 - Anti-Personnel Mines
 - Biological and Chemical Weapons
 - Cluster Weapons
 - Depleted Uranium
 - White Phosphorus
- Activity-Based Exclusions

- The company must not have any revenue involvement in the following activities:
 - Oil Sands Extraction
 - Thermal Coal (Extraction and Supporting Products/Services)
 - Tobacco Products (Production)
 - Nuclear Power Production
 - Thermal coal power generation
- The company must not have greater than or equal to 10% revenue involvement in the following activities:
 - Oil & Gas (Production & Supporting Products/Services)
- The company must not have greater than or equal to 25% revenue involvement in the following activities:
 - Nuclear Power Supporting Products/Services
- The company must not have 50% or more combined revenue from oil & gas generation and coal power generation.

For both baseline and activity-based exclusions, companies with missing values for any of the above screens would be excluded. For more details refer to Appendix 6.

Portfolio Construction

Number of Stocks

The number of stocks in each Index is variable, subject to the size of the starting universe and the application of eligibility criteria at the time of reconstitution.

Optimization Parameters

At each semi-annual reconstitution the Morningstar Global Target Market Exposure Paris Aligned Benchmark Select and Morningstar US Small Cap Target Market Exposure Paris Aligned Benchmark Select are created. Each Index is constructed separately using an optimizer to minimize the objective and meet the constraints as follows:

- Minimize the forecasted tracking error of each Index portfolio against its respective Parent Index¹.
- No short positions are allowed.
- The maximum weight of a company in each Index is the lower of the company's weight in the relevant Parent Index+ 5% or 20x of company's weight in the relevant Parent Index
- The minimum weight of a company in each Index is 1% of its weight in the relevant Parent Index
- The minimum High Impact sector aggregate weight of each Index should be greater than or equal to 105% of the High Impact sector aggregate weight of its respective Parent Index. In the case of infeasibility, the constraint is

¹ For more details on the objective function and optimization process please refer to Appendix 7

relaxed in increments of 0.1%, up to the limit of 100%, until a solution is reached.

- 50% or 25% minimum increase in weight (as determined by the climate transition matrix) of companies having revenue involvement equal to or greater than 50% in Green Emerging Technologies relative to the relevant Parent Index*
- 20% (in case of 1.5 degree scenario) or 10% (2 or way below 2 degree scenario) minimum increase in weight of companies setting carbon reduction targets relative to the relevant Parent Index. In case of conflicts, the climate transition matrix gets priority to the corporate target setting application.
- The maximum one-way turnover of each Index should be less than or equal to 10%. In the case of infeasibility, the constraint is relaxed in increments of 1.0%, up to the limit of 20%, until a solution is reached.
- The maximum reduction in Weighted Average Carbon Intensity² of each Index must be less than or equal to the minimum of the following:
 - 50% of the Weighted Average Carbon Intensity of the relevant Parent Index (Relative Decarbonization Threshold).
 - 7% annual geometric average reduction in each Index's Weighted Average Carbon Intensity from the decarbonization trajectory base date(s) (Absolute Decarbonization Trajectory).

*The climate transition matrix from December 2023 assignment has been changed. Please refer to Appendix 3 for additional details.

Index Weighting

The weights of the constituents of each Index are determined through a separate optimization process subject to the objective function and weight constraints described in the "Optimization Parameters" section above. Appendix 7 contains further details regarding the optimization setup. For more details, refer to the [Morningstar Indexes Calculation Methodology rulebook](#)

² For more details on the weighted average carbon intensity and decarbonization trajectory please refer to Appendix 5

Index Maintenance and Calculation

Scheduled Maintenance

Semi-annual Reconstitution (June and December)

Each Index is reconstituted, where the membership is reset, semi-annually. Adjustments are made on the Monday following the third Friday of June and December. If the Monday is a holiday, reconstitution occurs on the next business day. The market, EVIC, NACE and ESG (including emissions, product involvement and Sustainability Activities Involvement) data used for reconstitution is as of the last trading day of May and November.

Quarterly Rebalance

Each Index is rebalanced quarterly and implemented after the close of business on the third Friday of March, June, September, and December and is effective the following Monday. If Monday is a holiday, rebalance is effective on the next business day. The market data used for rebalancing is as of the last trading day of February, May, August, and November. During quarterly reviews, eligibility in each Index's respective Parent Index is maintained and securities with a null or severe (level of 5) controversy rating are deleted from the relevant Index.

Index files are published according to the Global calendar schedule. For more information, please refer to the [Morningstar Indexes Holiday Calendar](#).

Corporate Actions

The treatment of corporate actions will be as per the alternative weighted indexes. For more details, please refer to the [Morningstar Indexes Corporate Actions Methodology rulebook](#).

Index Calculation and Price Data

Details about index calculations and price data can be found in their respective rulebooks: [Morningstar Indexes Calculation Methodology](#) and [Equity Closing Prices Used for Index Calculation](#).

Methodology Review and Index Cessation Policy

The methodology is continually reviewed to ensure it achieves all stated objectives. These reviews consider corporate action treatment, selection, and maintenance procedures. Subscribers to the affected Index will be notified before any methodology changes are made. For more details, refer to the [Morningstar Index Methodology Change Policy](#).

Morningstar also notifies all subscribers to and stakeholders of an Index that circumstances might arise that require a material change to that Index or a possible cessation of that Index. Circumstances that could lead to the cessation of an Index include, but are not limited to, market structure change, product definition change, inadequate supply of data, insufficient revenue associated with that Index, insufficient number of clients using that Index, and/or other external factors beyond the control of the Morningstar Index Methodology Committee.

Because the cessation of either Index or its respective Parent Index could disrupt subscriber products that reference the affected Index, all subscribers are encouraged to have robust fallback procedures if an Index is terminated. For more details, refer to the [Morningstar Index Cessation Process](#).

Data Correction and Precision

Intraday Index Data Corrections

Commercially reasonable efforts are made to ensure the accuracy of data used in real-time index calculations. If incorrect price or corporate action data affects index calculations, corrections are applied prospectively.

Index-Related Data and Divisor Corrections

Incorrect pricing and corporate action data for individual issues in the database will generally be corrected upon detection. In addition, an incorrect divisor of an index, if discovered within two days of its occurrence, will be fixed retroactively on the day it is discovered to prevent an error from being carried forward. Commercially reasonable efforts are made to correct an older error subject to its significance and feasibility.

For more details, refer to the [Recalculation Guidelines](#).

Exceptions

While Morningstar will seek to apply the method described above, the market environment, supervisory, legal, financial, or tax reasons may require an alternative approach to be adopted. A decision to take an alternative approach will be made by the relevant Morningstar Index Methodology Committee, and in all instances, the application of a nonstandard process will be reported to the Morningstar Index Oversight Committee.

Appendixes

Appendix 1: Glossary

Terms	Description
Reconstitution	During each reconstitution, the steps mentioned in the index construction process are performed, resulting in membership reset.
Rebalance	During each rebalancing, the weights are adjusted for updated free-float and shares outstanding data

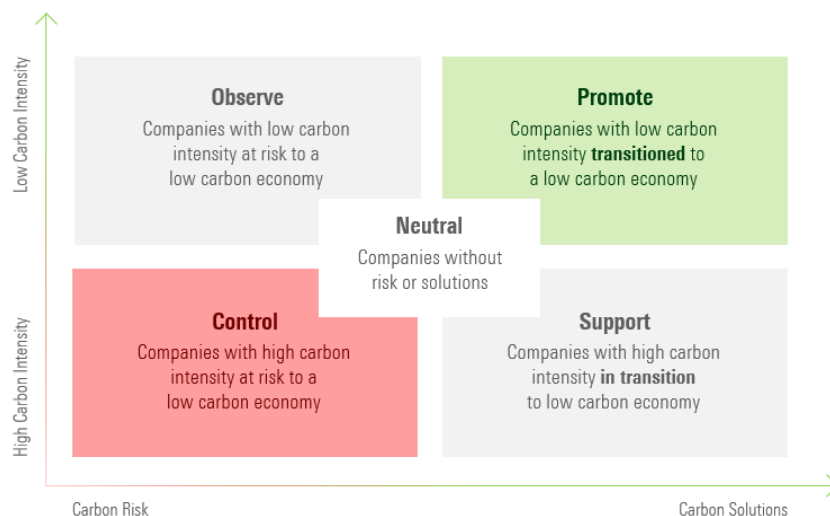
Appendix 2: Index Variants and Inception Dates

Index Name	Risk Model Currency	Parent Index	Performance Start Date	Inception Date
Morningstar Global Target Market Exposure Paris Aligned Benchmark Select	EUR	Morningstar Global Target Market Exposure	2015/06/19	2024/11/21
Morningstar US Small Cap Target Market Exposure Paris Aligned Benchmark Select	EUR	Morningstar US Small Cap Target Market Exposure	2016/06/17	2024/11/21

Appendix 3: Morningstar Climate Transition Matrix

Prior to December 2023, the Morningstar climate transition matrix is designed to identify companies that have high or severe risk to their valuation from the transition to a low-carbon economy or that have more than 25% exposure to key business that will gain prominence in a low-carbon economy as assessed by the Sustainalytics Carbon Solutions Involvement. The other dimension evaluates the climate intensity of a company within its respective sector.

Exhibit 2 Morningstar Climate Transition Matrix



Calculation Methodology

Step 1: Assess a company for carbon risk and solution. Unless a company scores high or severe in carbon risk or derives more than 25% of its revenue from carbon solutions, it is assigned to the neutral cohort.

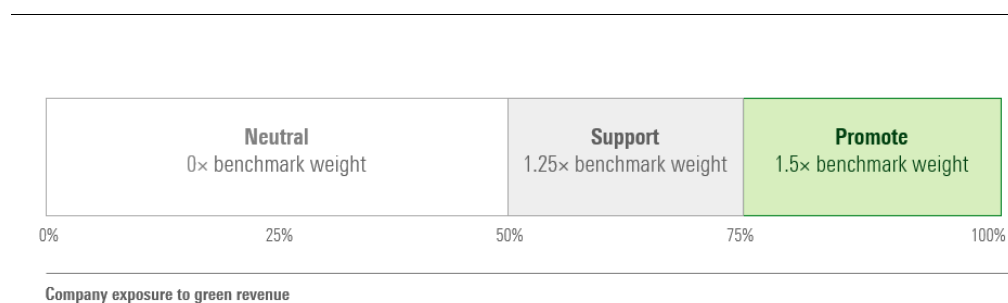
Step 2: Assess the carbon intensity of a company relative to its sector median. Assign a high or low carbon intensity category based on the comparison.

Step 3: Downweight or upweight securities relative to the relevant Parent Index based on the cohort assignment.

- Control (carbon risk and high carbon intensity) cohort securities are downweighted at least 50% relative to their weight in the relevant Parent Index.
- Observe (carbon risk and low carbon intensity) cohort securities are downweighted at least 25% relative to their weight in the relevant Parent Index.
- Support (carbon solution and high carbon intensity) cohort securities are upweighted at least 25% relative to their weight in the relevant Parent Index.
- Promote (carbon solution and low carbon intensity) cohort securities are upweighted at least 50% relative to their weight in the relevant Parent Index.

From December 2023, the Morningstar climate transition matrix is designed to identify companies that have high or that have at least 50% exposure to key businesses around Green Technologies that will gain prominence in a low-carbon economy as assessed by the Sustainalytics Carbon Solutions Involvement.

Exhibit 3 Morningstar Climate Transition Matrix



Calculation Methodology

Step 1: Assess a company based on its cumulative Sustainability Activities Involvement (Green Emerging Technologies) revenue.

Step 2: Upweight securities relative to the relevant Parent Index based on the cohort assignment.

- Support (Cumulative Green Technologies revenue from 50% until 75%) cohort securities are upweighted at least 25% relative to their weight in the relevant Parent Index.
- Promote (Cumulative Green Technologies revenue from 75%) cohort securities are upweighted at least 50% relative to their weight in the relevant Parent Index.

Sustainable Activity Involvement Themes (Green Emerging Technologies)

Category	Sustainable Activity Involvement Theme
Climate Action	Consumer Electronics Energy Efficiency
	Technologies Energy Efficiency Distribution
	Transmission Energy Efficiency Distribution
	Technologies Energy Efficiency Industrials
	Technologies Energy Efficiency Materials
	Bioenergy Renewable Energy Generation
	CSP Renewable Energy Generation
	Geothermal Renewable Energy Generation
	Hydropower Renewable Energy Generation
	Ocean Renewable Energy Generation
	Solar PV Renewable Energy Generation
	Wind Renewable Energy Generation
	Technologies Maintenance Renewable Energy
	Technologies Renewable Energy
	Bioenergy Renewable Energy Support
	CSP Renewable Energy Support
	Geothermal Renewable Energy Support
	Hydropower Renewable Energy Support
	Ocean Renewable Energy Support
	Solar PV Renewable Energy Support
	Wind Renewable Energy Support
Climate Action, Resource Security	Construction Green Buildings
	Development Green Buildings
	Renovation Green Buildings
	Acquisition Green Buildings
	Technologies Maintenance Green Buildings
	Technologies Green Buildings
	Devices Green Buildings
	Equipment Green Buildings
	Professional Services Green Buildings
	Low Carbon Infrastructure Green Transportation
	Rail Infrastructure Green Transportation
	Interurban Passengers Green Transportation
	Urban Green Transportation
	Technologies Green Transportation
	Batteries Green Transportation
	Technologies Green Vehicles
	Technologies Pollution Prevention
	Hazardous Waste Management
	Technologies Water
	Construction Wastewater Services

Basic Needs, Resource Security	Construction Water supply Services
	Water Adaptation
	Wetlands Adaptation
	Construction Wastewater Infrastructure
	Construction Water supply Infrastructure
	Renewal Wastewater Infrastructure
	Renewal Water supply Infrastructure
Health Ecosystems, Resource Security	Packaged Food Sustainable Food
	Dairy Sustainable Food
	Food Distribution Sustainable Food
	Grocery Stores Sustainable Food
	Management Sustainable Forestry
	Wooden Goods Sustainable Forestry
	Aquaculture Sustainable Agriculture
	Livestock Sustainable Agriculture
	Non-Perennials Sustainable Agriculture
	Perennials Sustainable Agriculture
	Machinery Sustainable Agriculture
	Manufacturing Sustainable Agriculture
	Pesticides & Fertilizers Sustainable Agriculture
Resource Security	Machinery Recycling
	Non-Hazardous Waste Recycling Sales
	Non-Hazardous Waste Recycling Services

Appendix 4: Corporate Target Setting

Securities are upweighted relative to the relevant Parent Index based on the following conditions:

- The company publishes its annual emissions.
- The company has reduced its greenhouse gas intensity at least 7% for the last three consecutive years.
- The company has published carbon-reduction targets. This is ascertained through commitments to the Science Based Targets initiative.
 - × A company that commits to a 1.5-degree scenario is upweighted by 20% relative to the relevant Parent Index.
 - × A company that commits to a way-below-2-degree or a 2-degree scenario is upweighted by 10% relative to the relevant Parent Index.

The corporate target setting is implemented from 2018-20 in the backtest before the trajectory was reset based on inclusion of Scope 3 emissions. The CTS would again be implemented from 2024 going forward.

Science-Based Targets Initiative

The Science-Based Targets Initiative drives ambitious climate action in the private sector by enabling companies to set science-based emissions-reduction targets. The initiative is a collaboration among CDP, the World Resources Institute, the Worldwide Fund for Nature, and the United Nations Global Compact. Science-based targets show companies how much and how quickly they need to reduce their greenhouse gas emissions to prevent the worst effects of climate change. For a list of companies taking action or for more information on the initiative, please visit the Science Based Targets initiative [website](#).

Targets are considered science-based if they are in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement—limiting global warming to well below 2 degrees Celsius above preindustrial levels and pursuing efforts to limit warming to 1.5 degrees.

Appendix 5: Calculation of Target Metrics

Calculation of Carbon, or Greenhouse Gas, Intensity

The total emission of a security is defined as the sum of scope 1, scope 2, and scope 3 emissions. Enterprise value including cash (or EVIC) is the sum, at fiscal year-end, of the market capitalization of ordinary shares, the market capitalization of preferred shares, and the book value of total debt and noncontrolling interests, without the deduction of cash or cash equivalents. The carbon intensity of a security is defined as the ratio of the total emissions (in metric tons) adjusted for the inflation in EVIC and the EVIC of the company (in millions of U.S. dollars).

For constituents of either Parent Index 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 Morningstar Global Target Market Exposure Large Mid Index in the same NACE section in which the constituent belongs is used. Securities with null NACE section are additionally excluded. A valid carbon intensity value can only be calculated if both the emissions and EVIC values are available for the company.

$$\text{Total Emissions} = (\text{Scope 1} + \text{Scope 2} + \text{Scope 3}) \text{ Emissions}$$

$$\text{Greenhouse Gas Intensity} = \frac{\text{Total Emissions}}{\text{Enterprise Value Including Cash (in Mn USD)}}$$

$$\text{Security Level Carbon Intensity} = \frac{\text{Total Emissions} (1 + \text{EVIAF})}{\text{Enterprise Value Including Cash (in Mn USD)}}$$

$$* \text{Enterprise Value Inflation Factor (EVIAF)} = \frac{\text{Average Enterprise Value Including Cash}}{\text{Previous Average Enterprise Value Including Cash}} - 1$$

$$\text{Enterprise Value Including Cash (EVIC)} = (\text{MktCapOrdinary}_{\text{Shares}} + \text{MktCapPreferred Shares} + \text{BV}_{\text{Debt}} + \text{NCI})$$

$$\text{Weighted Average Carbon (GHG) Intensity} = \sum (\text{Index Weight} * \text{Security Level GHG Intensity})$$

*The Inflation adjustment factor is calculated at the relevant Parent Index level.

*Carbon Intensity of securities is adjusted by the EVIAF factor only during those reconstitutions when we observe an increase in the average EVIC value as compared to the previous reconstitution. In case of a decrease, the EVIAF is set to 1.

Where a company's total reported emissions show a material deviation from the previous reconstitution, and this deviation is assessed through Morningstar Indexes' quality-assurance review to be driven by reporting timing issues or partial reporting (for example, delayed disclosure of Scope 3 financed emissions), the emissions value from the prior reconstitution may be carried forward for up to two subsequent reconstitution periods. This rule applies only to ongoing index maintenance and does not affect simulated index history.

Calculation of Target High Impact NACE Section Weights

The target weight of the High Impact Sector Group is set at 1.05x its cumulative weight in the relevant Parent Index.

Calculation of Average Decarbonization

The climate transition and Paris-aligned indexes follow a 7% decarbonization trajectory since the base date. The weighted average greenhouse gas intensity of each Index at the (n-1)th reconstitution is used to compute the target weighted average greenhouse gas intensity at any given semiannual index review, according to the following formula.

$$CI_T = CI_{T-1} \cdot (0.93)^{(1/2)}$$

The base date for all carve-outs is set at June 21, 2021. CI_{T-1} is the achieved carbon intensity of the portfolio on the (n-1)th reconstitution date.

We also aim to achieve a min 50% reduction in greenhouse gas intensity with respect to the relevant Parent Index on each reconstitution date. The minimum of these two intensity targets is set as the target portfolio intensity for each Index.

Index Name	Base Date	Benchmark intensity (MT CO ₂ /Mn USD EVIC)	Portfolio intensity (MT CO ₂ /Mn USD (EVIC))
Morningstar Global Target Market Exposure Paris Aligned Benchmark Select	2021/06/21	337.90	168.36
Morningstar US Small Cap Target Market Exposure Paris Aligned Benchmark Select	2021/06/21	288.47	144.08

Appendix 6: Baseline & Activity Based Exclusions

ESG Variable	Sustainalytics FieldId	Backfill Date	Missing Data Treatment	Level of involvement threshold for exclusion
Highest Controversy Level	121010112599	-	Exclude	Exclude 5
Overall Global Compact Compliance Status	231112111799	-	Include before Dec 19, exclude from Dec 19	Non-compliant
Controversial Weapons Tailor-made and essential- Category of Involvement Id	171611102999	-	Include before Dec 19, exclude from Dec 19	CW1
Controversial Weapons Non tailor-made or non essential-Category of Involvement Id	171613102999	-	Include before Dec 19, exclude from Dec 19	CW3
Oil & Gas Production-Level of Involvement Id	173311112999	Dec 19	Exclude after Backfill Date	Exclude 3,4,5
Oil & Gas Supporting Products/Services-Level of Involvement Id	173313112999	Dec 19	Exclude after Backfill Date	Exclude 3,4,5
Oil Sands Extraction-Revenue Level of Involvement Id	173012171899	Dec 20	Exclude after Backfill Date	Exclude 1,2,3,4,5

Thermal Coal Extraction-Level of Involvement Id	172811112999	Dec 19	Exclude after Backfill Date	Exclude 1,2,3,4,5
Thermal Coal Power Generation-Level of Involvement Id	172813112999	Dec 19	Exclude after Backfill Date	Exclude 1,2,3,4,5
Thermal Coal Supporting Products/Services-Level of Involvement Id	171025171999	Mar 22	Exclude after Backfill Date	Exclude 1,2,3,4,5
Tobacco Products Production-Level of Involvement Id	172911112999	Dec 19	Exclude after Backfill Date	Exclude 1,2,3,4,5
Oil & Gas Generation-Revenue Percentage	171114141199	Mar 21	Exclude after 2022 Dec	a%*
Thermal Coal Power Generation-Revenue Percentage	171025141199	Dec 20	Exclude after 2022 Dec	b%*
Nuclear Production-Revenue Level of Involvement Id	172216171899	Dec 20	Exclude after Backfill Date	Exclude 1,2,3,4,5
Nuclear Supporting Products/Services-Level of Involvement Id	172213112999	Dec 19	Exclude after Backfill Date	Exclude 4,5
Nuclear Weapons-Category of Involvement Id	211115122999	Dec 20	Exclude after Backfill Date	Exclude NW1,NW2,NW3,NW4
Anti-Personnel Mines-Category of Involvement Id	211111122999	Dec 20	Exclude after Backfill Date	Exclude AP1,AP2,AP3,AP4
Biological and Chemical Weapons-Category of Involvement Id	211112122999	Dec 20	Exclude after Backfill Date	Exclude BC1,BC2,BC3,BC4
Cluster Weapons-Category of Involvement Id	211113122999	Dec 20	Exclude after Backfill Date	Exclude CM1,CM2,CM3,CM4
Depleted Uranium-Category of Involvement Id	211114122999	Dec 20	Exclude after Backfill Date	Exclude DU1,DU2,DU3,DU4
White Phosphorus-Category of Involvement Id	211116122999	Dec 20	Exclude after Backfill Date	Exclude WP1,WP2,WP3,WP4

* a+b% is greater than or equal to 50%

*In the backtest of Indexes listed in this methodology book, null values post backfilling for activity-based screens have been removed from the universe with the exception of Oil & Gas Power Generation and Thermal Coal Generation, where null values have been treated as 0% revenue involvement

Level of Involvement key:

Level of Involvement 1 - 0%-4.9%

Level of Involvement 2 - 5% - 9.9%,

Level of Involvement 3- 10% - 24.9%

Level of Involvement 4 - 25% - 49.9%

Level of Involvement 5 - 50% - 100%

The null values prior to backfill dates are backfilled based on their latest available data for each of the above screens.

Appendix 7: Optimization Methodology

Objective Function

$$\text{minimize } (W_b - W_p)^T (X^T F X + \lambda D) (W_b - W_p)$$

Where:

W_p = vector of portfolio weights

W_b = vector of benchmark weights

X = matrix of asset factor exposures

F = factor covariance matrix

D = specific (idiosyncratic, residual) risk block of covariance matrix

$X^T F X$ = systematic (factor-driven) risk block of covariance matrix from the risk model

$\lambda = 1.5$, specific risk aversion parameter; $\lambda=1$ results in a specific risk-neutral volatility forecast; $\lambda>1$ implies greater penalty for asset-specific risk not modelled by systematic risk factor exposures

Any risk model will miss some systematic sources of risk due to bias-variance trade-off. The model will therefore underestimate the contribution of specific risk to the risk of the overall portfolio because it assumes the residual risk is perfectly uncorrelated and diversifiable. $\lambda = 1.5$ was chosen to compensate for the above effects based on empirical testing of ex-ante minimized risk. Higher specific risk aversion also tends to encourage higher portfolio diversification, which was a desired outcome.

Handling of Infeasible Optimizations

Constraints will be relaxed if a feasible solution is not obtained. The relaxation happens according to the following order:

- One-way turnover constraint is increased from the target of 10% to 20% in increments of 1.00%
- High Impact sector minimum active weight constraint is reduced from +5% to 0% in increments of 0.5%

Appendix 8: Climate Impact Sectors

NACE is the European Union's classification of economic activities. According to EU regulation, the NACE sections A, B, C, D, E, F, G, H, and M are deemed high climate impact sectors that cannot be underweight relative to their respective weights in the relevant Parent Index. However, for each Index covered by this methodology, instead of not underweighting NACE Sections A, B, C, D, E, F, G, H and M individually, we ensure that the cumulative weight of these NACE Sections is not less than 1.05x their weight in the relevant Parent Index. The other sections are left unconstrained as a part of the tilt weighting methodology. Every company in either Parent Index is mapped to a particular NACE section and further aggregated to form the respective sector constraint cohorts. In the backtest, for companies that had a missing NACE section in their history, the NACE data has been back-propagated as NACE is a slow-changing data. Companies for which we did not have a valid NACE section even after back-propagating have been removed from the eligible universe. The references to NACE Sections A, B, C, D, E, F, G, H, and M in this methodology reflect amendments to the NACE classification under Commission Delegated Regulation (EU) 2023/137, under which real estate activities are represented under Section M. Prior to that date, real estate activities were represented under Section L for purposes of the high-climate-impact sector treatment. Historical backtested periods continue to use the NACE section data and classifications applied at the relevant time and are not restated to reflect the reassignment of real estate activities from Section L to Section M. The treatment of missing NACE section data remains unchanged.

For further details regarding NACE, please refer to https://ec.europa.eu/eurostat/statistics-explained/index.php?title=NACE_background.

Appendix 9: Index Treatment in Case of Inability to Meet Required Decarbonization Target

In the off chance that an Index is unable to achieve the target decarbonization in a particular year, then we will relax the active sector constraint from being 5% of the relevant Parent Index weight for the High Impact NACE sections to 0%. If we still are unable to meet the requirement, the Turnover and ESG Risk Reduction constraints will be relaxed as well.

Appendix 10: Modifications to the Rulebook

Section	Description of Change	Update Date
Data Correction and Precision	Computational and Reporting Precision Section removed	May 2025
Index Maintenance & Calculation	Analyst data used for reconstitution updated from the Tuesday before May 2025 the second Friday of the reconstitution month to the first Friday of the reconstitution month	
Calculation of Carbon, or Greenhouse Gas, Intensity	Clarified exceptions handling language	January 2026
Appendix 8: Climate Impact Sectors	Updated high-climate-impact NACE section references from Section L August 2026 to Section M for real estate activities and added clarification regarding historical NACE classification treatment.	

About Morningstar Indexes

Morningstar Indexes was built to keep up with the evolving needs of investors—and to be a leading-edge advocate for them. Our rich heritage as a transparent, investor-focused leader in data and research uniquely equips us to support individuals, institutions, wealth managers, and advisors in navigating investment opportunities across major asset classes, styles, and strategies. From traditional benchmarks and unique IP-driven indexes to index design, calculation, and distribution services, our solutions span an investment landscape as diverse as investors themselves.

Morningstar Index Methodology Committee

The Morningstar Index Methodology Committee oversees all new index development, index methodology changes, and cessation of indexes for any indexes where Morningstar owns the intellectual property. This committee is also charged with ensuring that indexes align with Morningstar Research principles and values. The group comprises members of the index team with index research, product development, product management, client service, index implementation, and operation expertise who provide the first layer of governance over index design and methodology.

Morningstar Index Operations Committee

The Morningstar Index Operations Committee governs the processes, systems, and exception handling of the day-to-day management of all live indexes, including index rebalancing and reconstitution, restatements, market classification, and contingency management. The committee oversees the annual review of index methodology, as required by the European Benchmarks Regulation (“BMR”), ensuring that methodologies remain fit for purpose and continue to achieve their stated investment objectives. The group comprises members of the index team with data, operations, corporate actions, product development, index launch, client service, and index management experience who provide the first layer of governance over index operations.

Morningstar Index Oversight Committee

The Morningstar Index Oversight Committee is responsible for the index oversight function as per the requirements of the European Benchmarks Regulation (“BMR”), providing independent oversight of all aspects of the governance of benchmark administration as required by the BMR. Its remit extends to all calculation and administration-related business activities of Morningstar Indexes, including administration of Morningstar-owned benchmarks as well as client-owned benchmarks and index calculation. The oversight function is part of the organizational structure of Morningstar but is separate and independent from the index business, index management, and the other index committees.

www.indexes.morningstar.com

Contact Us

indexes@morningstar.com

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