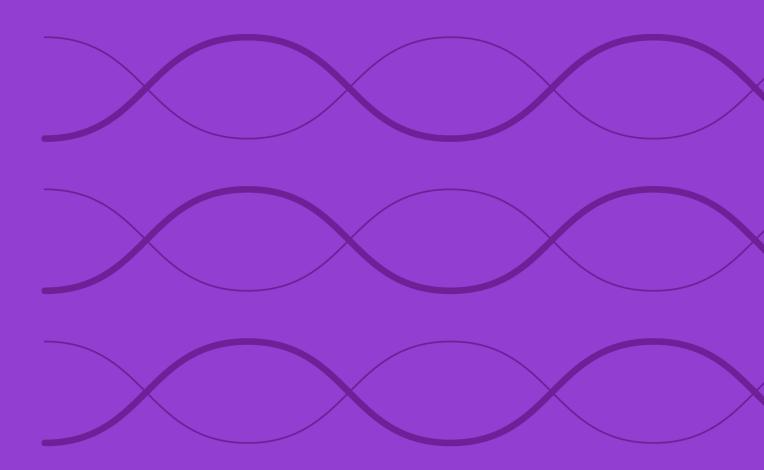


# Construction Rules for the Morningstar® Screened Select 150 (EUR) Indexes®



Overview	3
ndex Construction	4
ndex Maintenance and Calculation	6
Scheduled Maintenance	6
Corporate Actions	6
ndex Calculation and Price Data	6
Methodology Review and Index Cessation Policy	7
Data Correction and Precision	7
ntraday Index Data Corrections	7
ndex-Related Data and Divisor Corrections	7
Computational and Reporting Precision	7
Exceptions	7
Appendixes	8
Appendix 1: Glossary	8
Appendix 2: Index Variants and Inception Dates	8
Appendix 3: Baseline & Activity Based Exclusions	8
Appendix 4: Optimization Methodology	9
Appendix 5: Custom Tax Rates for NR Variant	10
About Morningstar Indexes	11



#### **Overview**

The Morningstar® Screened Select 150 (EUR) Indexes<sup>SM</sup> are designed to provide broad market exposure while considering environmental social and governance (ESG) criteria. The indexes seek to reward companies with strong management of material ESG risks by overweighting eligible companies that have been assigned lower ESG Risk Rating scores while achieving a modest tracking error with respect to their parent index.

To assess a company's sustainability risk, Morningstar uses company level ESG Risk Ratings from Sustainalytics. For more information on the Sustainalytics environmental, social, and governance scores for companies, refer to the Morningstar Sustainalytics ESG Risk Rating methodology.

The index is powered by the Morningstar Global Industry Standard Risk Model (the risk model), which is used to forecast volatility of the entire portfolio and its benchmark. For more information on the risk model, refer to <a href="Morningstar Risk Model Methodology">Morningstar Risk Model Methodology</a>.

# **Index Inception and Performance Start Date**

The index inception date is May 28<sup>th</sup> 2025, and the performance start date, when the first back-tested index value was calculated, is December 22, 2014.



#### **Index Construction**

#### **Exhibit 1: Construction Process**

#### **Starting Universe**

# ) I

#### Eligibility



#### **Portfolio Construction**

- Parent benchmark is represented by the region-specific Morningstar® Target Market Exposure Index<sup>1</sup>.
- Primary listings are eligible.
- Baseline exclusions applied.
- Activity-based exclusions applied.
- Companies with null or severe (greater than 40) ESG risk scores are ineligible.
- The largest 150 constituents of the eligible universe in terms of float mark capitalization within each sector.
- All securities not covered by the risk model with at least 6 months of return history are ineligible.
- Securities are weighted through an optimization process based on minimization of tracking error against the parent benchmark while enforcing constraints.

Morningstar® Screened Select 150 (EUR) Index<sup>SM</sup>

For additional details, refer to the following section.

# Starting Universe

At each reconstitution, securities for the Morningstar® Screened Select 150 (EUR) Indexes<sup>SM</sup> are derived from their region-specific Morningstar® Target Market Exposure Cap Index<sup>SM</sup> benchmark. For more details on benchmarks' construction, refer to the Construction rules for the Morningstar Target Market Exposure Indexes. Refer to Appendix 2 for additional details.

# Security Selection

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

- Securities must be primary listings. Company float market capitalization is aggregated under primary listing.
- Companies must not have a null or severe (greater than 40) ESG risk score.
- Baseline Exclusions
  - The company must not have a severe (level 5) or null controversy rating.
  - o The company must not be non-compliant with the principles of the United Nations Global Compact.
  - o The company must not have any revenue involvement in controversial weapons, essential or nonessential.
- Activity-Based Exclusions
  - The company must not have any product involvement in the following activities:
    - Tobacco Products Production



<sup>&</sup>lt;sup>1</sup> For more details, please refer to Appendix 2.

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 5.

#### Portfolio Selection

Out of the remaining eligible universe, post the application of the abovementioned screens, the 150 largest stocks are selected in terms of float market capitalization. The index uses Morningstar's Global Equity Classification Structure (GECS). The selection number of securities from each GECS sector is proportional to each sector's aggregate number of constituents in the parent benchmark. Within each sector the highest, most approximate integer number of constituents that satisfies this proportionality is selected. In the case the eligible universe is smaller than the target number of 150 then it will be selected in its entirety. Securities not covered by the Morningstar Global Industry Standard Risk Model are excluded from the final portfolio.

In the case that the selected universe is constituted by less than 150 stocks in any reconstitution period, then the Risk Model coverage check would be done before we select the target 150 from the eligible universe.

# Number of Stocks

While the methodology is targeting for a fixed number of securities, the number of stocks in the index might be variable, subject to the selection and eligibility criteria at the time of reconstitution and rebalancing.

# Optimization Parameters

At each semi-annual reconstitution the Morningstar® Screened Select 150 (EUR) Index portfolio is created using an optimizer to minimize the objective and meet the constraints as follows:

- Minimize the forecasted tracking error of the portfolio against its benchmark<sup>2</sup>.
- No short positions are allowed.
- The maximum weight of a security should be less than or equal to min (Benchmark Weight \* 3, Benchmark Weight + 2%).
- The minimum weight of a security should be greater than or equal to 0.005%<sup>3</sup>.
- The aggregate weight of securities with weight greater than or equal to 5% should not be greater than 40%.
- The maximum GECS sector active weight of the index against its benchmark should be less than or equal to 2%. In the case of infeasibility, the constraint is relaxed in increments of 0.5%, up to the limit of 5%, until a solution is reached.
- The maximum one-way turnover should be less than or equal to 3%. In the case of infeasibility, the constraint is relaxed in increments of 1.0%, up to the limit of 12%, until a solution is reached.
- The maximum average weighted ESG Risk Score of the index should be less than or equal to 80% of the average weighted ESG Risk Score of the benchmark. In the case of infeasibility, the constraint is relaxed in increments of 1.0%, up to the limit of 90%, until a solution is reached.

When we are calculating the benchmark ESG Risk Score securities with null ESG Risk Score data are treated as zero.



<sup>&</sup>lt;sup>2</sup> For more details on the objective function and optimization process please refer to Appendix 4

# Index Weighting

The weights of index constituents are determined through an optimization process subject to the objective function and weight constraints described in the "Optimization Parameters" section above. Appendix 4 contains further details. For more details, refer to the Morningstar Indexes Calculation Methodology rulebook.

#### **Index Maintenance and Calculation**

#### **Scheduled Maintenance**

Semi-annual Reconstitution (June and December)

The 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 and ESG (including ESG risk score and product involvement) data used for reconstitution is as of the last trading day of May and November.

# Quarterly Rebalance

The 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, parent index eligibility is maintained, and constituent weights are drifted.

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 alternatively-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: <u>Morningstar Indexes Calculation</u> <u>Methodology</u> and <u>Equity Closing Prices Used for Index Calculation</u>.

NR variants of the index will be calculated using custom withholding tax rates that are not the Morningstar Standard Rates. Morningstar will use the latest list that has been provided. See Appendix 5 for additional detail.



# **Methodology Review and Index Cessation Policy**

The index methodology is continually reviewed to ensure it achieves all stated objectives. These reviews consider corporate action treatment, selection, and maintenance procedures. Subscribers to the index will be notified before any methodology changes are made. For more details, refer to the <u>Morningstar Index Methodology Change Policy</u>.

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

Because the cessation of the index or benchmark index could disrupt subscriber products that reference this 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 daily highs or lows, it is corrected retroactively as soon as is feasible.

# **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.

#### **Computational and Reporting Precision**

For reporting purposes, index values are rounded to two decimal places and divisors are rounded to appropriate decimal places.

# **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 Indexes Methodology Committee, and in all instances, the application of a nonstandard process will be reported to the Morningstar Indexes Oversight Committee.



# **Appendixes**

# Appendix 1: Glossary

Terms <b>Reconstitution</b>	Description 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® North America Screened Select 150 (EUR) Index	EUR	Morningstar® North America Target Market Exposure Index	Dec. 19, 2014	May 28, 2025
Morningstar® Developed Europe Screened Select 150 (EUR) Index	EUR	Morningstar® Developed Europe Target Market Exposure Index	Dec. 19, 2014	May 28, 2025
Morningstar® Developed Asia Pacific & Korea Screened Select 150 (EUR) Index	EUR	Morningstar Developed Asia Pacific and Korea Target Market Exposure Index	Dec. 19, 2014	May 28, 2025

# Appendix 3: Baseline & Activity Based Exclusions

Detailed Criteria	Backfill Date	Missing Data Treatment	Threshold for exclusion	
	Date		excingini	
Product Revenue Involvement Screens				
Highest Controversy Level-Answer Category	-	Exclude	5	
Overall Global Standards Screening Assessment	-	Include before Dec 19,	Non-compliant	
		exclude from Dec 19		
Controversial Weapons Tailor Made & Essential Category of	-	Include before Dec 19,	Any involvement	
Involvement ID		exclude from Dec 19		
Controversial Weapons Non-Tailor Made or Nonessential	-	Include before Dec 19,	Any involvement	
Category of Involvement ID		exclude from Dec 19		
Tobacco Products (Production) Level of Involvement ID	Dec 19	Include if < Backfill Date	Any involvement	
		Exclude if >= Backfill Date		

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



# **Appendix 4: Optimization Methodology**

Objective Function

# $minimize ((Wb-Wp)T (XTFX+\lambda D) (Wb-Wp))$

Where:

W<sub>D</sub> = vector of portfolio weights

W<sub>b</sub> = vector of benchmark weights

X = matrix of asset factor exposures

F= factor covariance matrix

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

XTFX = systematic (factor-driven) risk block of covariance matrix from the risk model

 $\lambda = 10$ , 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.  $\lambda = 10$  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 cross relaxation happens according to in the following order:

- ESG Risk Score minimum active weighted average reduction against the benchmark is decreased from 20% to 10% in increments of 1.00%.
- One-way turnover constraint is increased from the target of 3% to 12% in increments of 1.00%
- GECS sector active weight against the benchmark is increased from the target of 2% to 5% in increments of 0.5%.

If infeasibility issues arise, post constraint relaxations, the target selection number of constituents is increased by 10 and the process is repeated as described above.

The Risk Model currency for the index is Euro and the Global Risk Model is leveraged. Return volatility is relative to the currency of measurement. The index design followed the assumption that investors are interested in reducing the volatility of their investments in the primary currency of exposure of their liabilities and expenses.



**Appendix 5: Custom Tax Rates for NR Variant** 

Country Name	Tax Rate		
Argentina	0.07		
Australia *	0.3		
Austria	0.275		
Belgium	0.3		
Canada	0.15		
Denmark	0.27		
Finland	0		
France	0		
Germany	0.26375		
Hong Kong	0		
Ireland	0		
Italy	0		
Japan	0.15		
Luxembourg	0.15		
Netherlands	0.15		
New Zealand	0.15		
Norway	0		
Poland	0.19		
Portugal	0.25		
Singapore	0		
South Korea	0.150895		
Spain	0.19		
Sweden	0		
Switzerland	0.35		
United Kingdom	0		
United Kingdom (REITs)	0.2		
United States	0.15		
* Australia franked dividends are taxed at 0%. Unfranked dividends are taxed at 30%			



# **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 Indexes Methodology Committee**

The Morningstar Indexes 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 Indexes Operations Committee**

The Morningstar Indexes 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 U.K. and EU benchmark regulations, or 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 Indexes Oversight Committee**

The Morningstar Indexes Oversight Committee is responsible for the index oversight function as per the requirements of the U.K. and European BMR, providing independent oversight of all aspects of the governance of benchmark administration as required by the relevant 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

The information in this document is the property of Morningstar, Inc. Reproduction or transcription by any means, in whole or part, without the prior written consent of Morningstar, Inc., is prohibited. While data contained in this report are gathered from reliable sources, accuracy and completeness cannot be guaranteed. All data, information, and opinions are subject to change without notice. This document may contain back-tested or simulated performances, and the subsequent results achieved by the investment strategy may be materially different.

