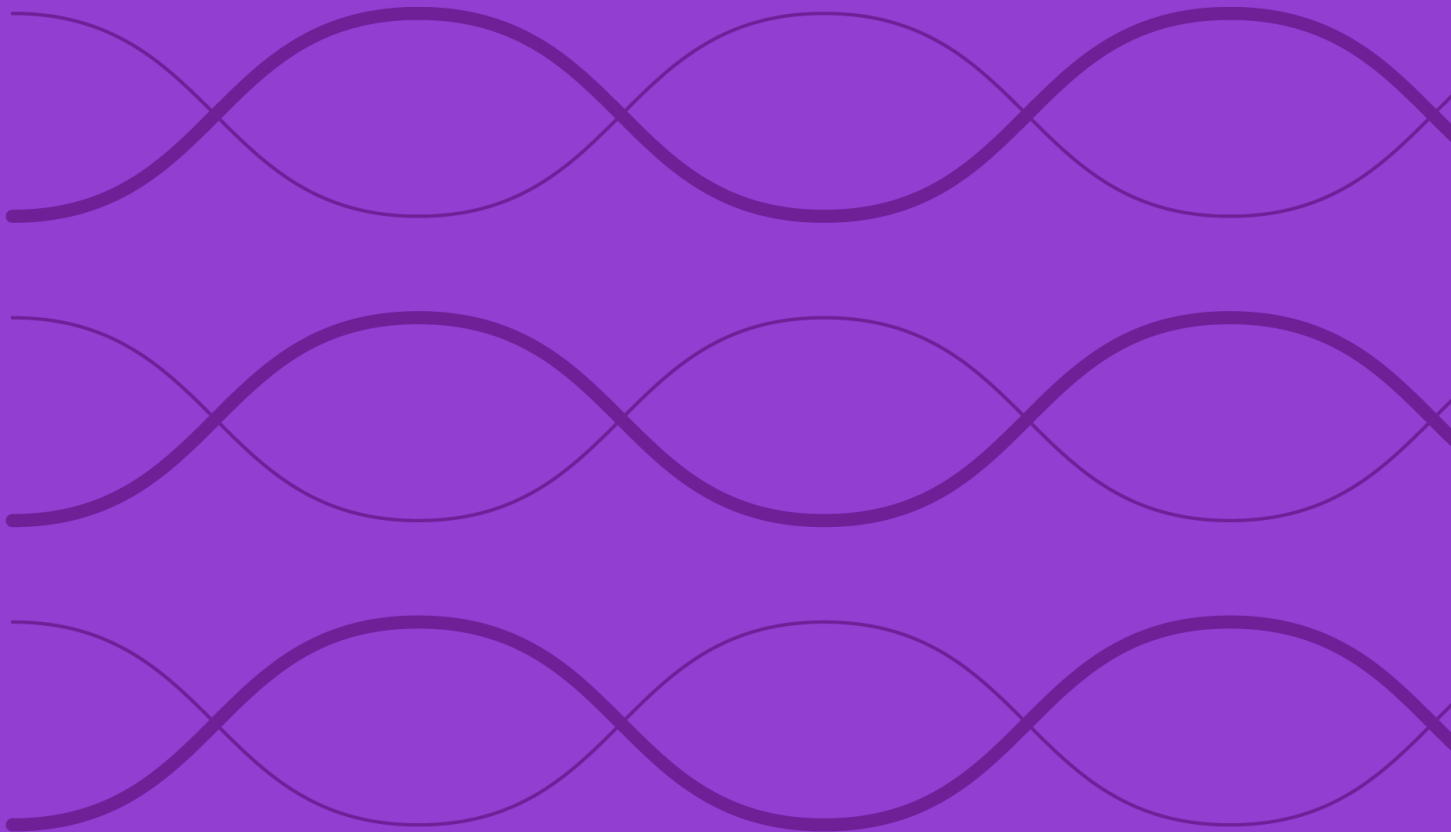


# Construction Rules for the Morningstar<sup>®</sup> Dividend Enhanced Select Indexes



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## Overview

The Morningstar® Dividend Enhanced Select Indexes are designed to deliver a portfolio of stocks with a higher dividend yield than their parent benchmarks while limiting expected tracking error. These indexes are constructed using a constrained optimization framework that aims to maximize dividend yield, improve diversification, mitigate active risk, and simplify replication.

To forecast tracking error of the index portfolios, Morningstar uses Morningstar Global Industry Standard Risk Model (the risk model). For more information on the risk model, refer to [Morningstar Risk Model Methodology](#). For the list of parent benchmarks, refer to Appendix 7.

These indexes do not incorporate Environmental, Social, or Governance (ESG) criteria.

## Index Inception and Performance Start Date

The inception and performance start dates, when the first back-tested index values were calculated, are listed in Appendix 3.

## Index Construction

### Methodology Summary

#### Starting Universe

- Parent benchmark from the Morningstar TME Index family, covering the top 85% of the investable market

#### Eligibility

- Securities must be covered by the Morningstar Risk Model

#### Portfolio Construction

- Select and weight stocks to maximize dividend yield subject to tracking error and other constraints through an optimization process
- Companies with weights less than 0.5 basis points are removed
- The company weights are redistributed among the company's available share classes
- For secondary share classes/China A securities with weights below 0.5 basis points, only the primary share classes/China (B/H) securities are included and the weight from the excluded share classes is added to the company's remaining eligible share classes

Morningstar  
Dividend Enhanced  
Select Indexes

### Starting Universe

At each reconstitution, securities eligible for each Morningstar Dividend Enhanced Select Index are derived from its respective Target Market Exposure (TME) parent index (the benchmark). For more details on benchmark construction, refer to the [Construction Rules for the Morningstar Global Target Market Exposure Indexes](#).

### Eligibility

To be eligible for index inclusion, securities must be covered by the Morningstar Risk Model to be eligible for inclusion.

### Portfolio Construction

#### Optimization Parameters

At every reconstitution, the Morningstar Dividend Enhanced Select Index portfolios are created using optimization to maximize the Trailing twelve-month (TTM) dividend yield of the Index and meet the constraints as follows:

- No short positions are allowed.

- Ex-ante tracking error<sup>1</sup> is below the target value.<sup>2</sup>
- The maximum weight of a security is restricted to the lesser of 3 times the security weight in the screened parent and the security weight in the screened parent plus 0.5%.
- The maximum one-way turnover is less than 5% at the quarterly reconstitutions. (20% for Emerging Markets)
- Sector active weight constraints: To limit deviation from corresponding weights in the parent benchmark, the sector weights in the index are maintained within a lower and upper bound, calculated as:
  - Lower bound = Weight in the benchmark - 5%
  - Upper bound = Weight in the benchmark + 5%
- Country active weight constraints: To limit deviation from corresponding weights in the parent benchmark, the country of classification weights in the index are maintained within a lower and upper bound, calculated as:
  - Lower bound = Weight in the benchmark - 5%
  - Upper bound = Min(Weight in the benchmark + 5%, Weight in the benchmark \*3)

For more details on optimized construction, please refer to Appendix 6.

#### *Number of Stocks*

The number of stocks in each index is variable, subject to the selection and eligibility criteria at the time of reconstitution.

#### *Index Weighting*

First, the company weights of the index constituents are determined through an optimization process subject to the objective function and weight constraints described in the "Optimization Parameters" section above.

- After the optimization, companies with weightings less than 0.5bps are excluded from the portfolio and the excluded weight is redistributed within the remaining companies proportionally based on the company weights assigned by the optimizer.
- The company weights are then redistributed within individual share classes proportionally based on the parent benchmark weights.
- For secondary share classes/ China A securities, if the final weights are less than 0.5 basis points, then they are excluded from the portfolio, and only the primary/China (B/H) share class becomes a part of the portfolio. The corresponding excluded weight is added back to the primary/China (B/H) share classes. If a company has more than two share classes, and the final weight of one of the secondary share classes is less than 0.5 basis points, then that secondary share class is excluded and the weight is redistributed between the remaining share classes proportionally, based on the final security weights.

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<sup>1</sup> For more details on the ex-ante tracking error, please refer to Appendix 6.

<sup>2</sup> Maximum tracking error setting depends on the parent benchmark; see Appendix 4.

Following the assignment of weights, if a share class is deemed ineligible at the effective date, then it would be excluded from the final portfolio.

For more details, please refer to Appendix 6.

## Index Maintenance and Calculation

### Scheduled Maintenance

The indexes are reconstituted, where the membership is reset, and rebalanced quarterly on the third Friday of March, June, September, and December. Adjustments are implemented after Friday's market close and reflected the following Monday. The market data used for reconstitution is as of the last trading day of February, May, August, and November.

The Morningstar Industry Standard Risk Model used in index reconstitution is constructed as of the last Friday of the month preceding the month of reconstitution.

Index files are published according to the global calendar schedule, meaning index files will be published every day from Monday to Friday throughout the year, even on local market holidays.

### 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: [Morningstar Indexes Calculation Methodology](#) and [Equity Closing Prices Used for Index Calculation](#).

### **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 [Morningstar Index Methodology Change Policy](#).

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 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: Modifications to the Rulebook

Section	Description of Change	Update Date
Entire rulebook	Moved into a new template	June 2023
Exceptions	Added exceptions section	June 2023
Index Maintenance & Calculation	Updated calendar to global for all indexes	February 2024
Data Correction and Precision	Computational and Reporting Precision section removed	January 2025

### Appendix 2: Glossary

Terms	Description
Reconstitution	During each reconstitution, the steps outlined in the index construction process are performed, resulting in a reset of the index constituents.

### Appendix 3: Index Variants and Inception Dates

Index	Risk Model Currency	Performance Start Date	Inception Date
Morningstar® US Dividend Enhanced Select Index	USD	23-06-2008	15-06-2022
Morningstar® Developed Markets ex-NA Dividend Enhanced Select Index	USD	23-06-2008	15-06-2022
Morningstar® Emerging Markets Dividend Enhanced Select Index	USD	18-06-2012	15-06-2022

### Appendix 4: Optimization Constraint Settings

Index	Tracking Error Target (Ex-ante)
Morningstar® US Dividend Enhanced Select Index	120 bps
Morningstar® Developed Markets ex-NA Dividend Enhanced Select Index	120 bps
Morningstar® Emerging Markets Dividend Enhanced Select Index	250 bps

### Appendix 5: Morningstar Sectors

The sector assignments from [Morningstar Global Equity Classification Structure \(GECS\)](#) are used for the active sector constraints:

- Basic Materials
- Communication Services
- Consumer Cyclical

- Consumer Defensive
- Energy
- Financial Services
- Healthcare
- Industrials
- Real Estate
- Technology
- Utilities

## Appendix 6: Optimization Methodology

### *Ex-Ante Tracking Error*

$$TE = (w_p^T - w_b^T) (X^T F X + \lambda D) (w_p - w_b)$$

Where:

$w_p$  = vector of portfolio weights, unknown

$w_b$  = 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-post tracking error.

### *Handling of Infeasible Optimizations*

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

1. One-way turnover constraint is relaxed up to 30% in increments of 5% for US and Developed Markets ex North America. For the Emerging Markets, the one-way turnover is relaxed to 50% in increments of 5%
2. The tracking error constraint is relaxed in increments of 0.1%, up to 200bps (for US and Developed Markets Ex North America) and up to 300 bps (for Emerging Markets); after each increment of the tracking error constraint, the turnover constraint is reset to the original value, and relaxation sequence returns to step (1).
3. If a feasible solution is not found after the above constraint relaxation, the index will not be reconstituted for that quarterly review, and Index Committee review of the constraint methodology will be conducted and completed by the next quarterly reconstitution date.

**Appendix 7: Parent Benchmarks**

<b>Index</b>	<b>Parent Benchmark</b>
Morningstar® US Dividend Enhanced Select Index	Morningstar® US Target Market Exposure Index
Morningstar® Developed Markets ex-NA Dividend Enhanced Select Index	Morningstar® Developed Markets ex-NA Target Market Exposure Index
Morningstar® Emerging Markets Dividend Enhanced Select Index	Morningstar® Emerging Markets Target Market Exposure Index

## 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 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 Index Oversight Committee

The Morningstar Index 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.

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