

# Construction Rules for the Morningstar® Moat Focus Index Family<sup>SM</sup>

## Morningstar Indexes

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## Overview

The Morningstar Moat Focus Indexes<sup>SM</sup> provide exposure to companies with Morningstar® Economic Moat™ Ratings of wide or narrow that are trading at the lowest current market price/fair value ratios<sup>1</sup>. Moat ratings and fair value estimates are determined through independent research conducted by the Morningstar Equity Research team.

For more information on the moat rating process and fair value estimation performed by Morningstar Equity Research, refer to [Morningstar Equity Research Methodology](#).

This index does not incorporate Environmental, Social, or Governance (ESG) criteria.

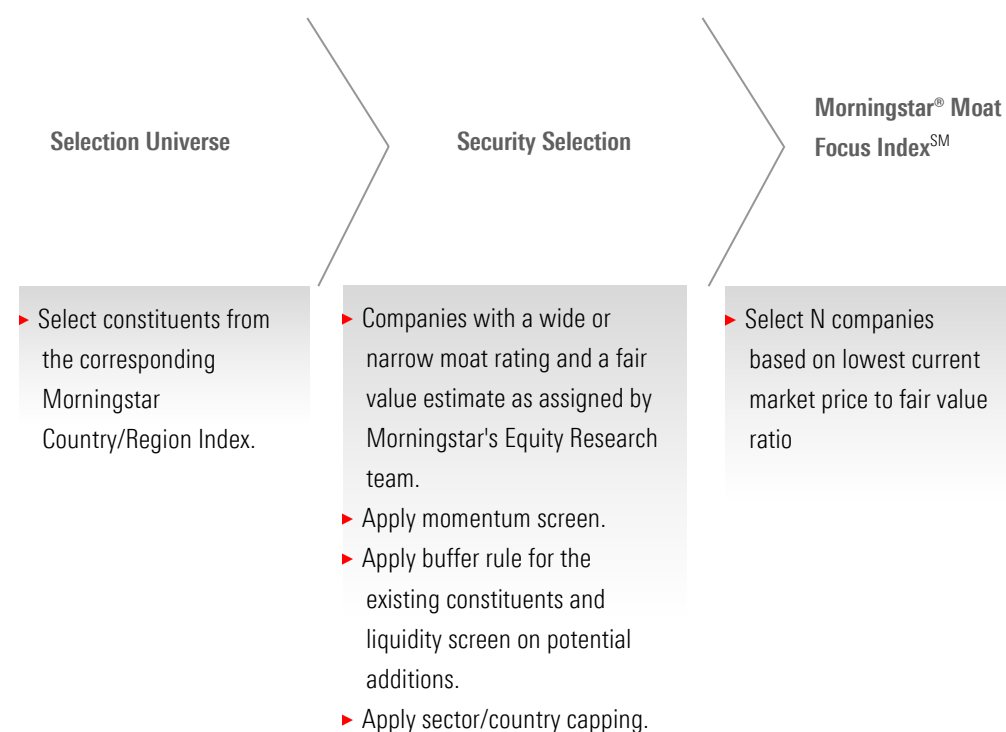
## Index Inception Date and Performance Inception Date

The inception dates of the indexes as well as performance inception dates, when the first back-tested index value was calculated, are provided in the appendix.

<sup>1</sup> Indexes which are part of Morningstar Moat Focus Family and have more than 50 stocks would be named Morningstar Moat Select Index. Morningstar Fund Research believes that "Focus" in the name should be reserved for Indexes with 50 stocks or less only.

## Index Construction

**Exhibit 1** Morningstar Moat Focus Index Construction Process



For additional details, refer to the "Assigning Stocks to the Index" section. N and buffer-width for each index is provided in the appendix.

## Assigning Stocks to the Index

The Morningstar Moat Focus Index consists of two subportfolios of N companies<sup>2</sup>

### Selection Universe

At each reconstitution, constituents of the Morningstar Moat Focus Index are derived from the corresponding Morningstar Country/Region Index (benchmark). For more details on benchmark construction, refer to the [Construction Rules for Morningstar Global Markets Index](#).

### Security Selection

To be eligible for the index, all constituents must meet the following criteria in sequence:

- ▶ Analyst Data
  - ▶ Company is assigned an economic moat rating of wide or narrow by Morningstar's Equity Research team.

<sup>2</sup> N for each index is provided in the appendix

- ▶ Company is assigned a fair value estimate by Morningstar's Equity Research team.
- ▶ Company's fair value estimate is not under review at the time of reconstitution.
  - ▶ A company may go under review, either because the analyst is incorporating new information into the valuation model or because of a transition in analyst coverage.
  - ▶ Morningstar's Equity Research team strives to minimize the amount of time a fair value estimate is under review, particularly for moat-rated stocks, and therefore it is expected to be rare for a stock to drop out of the index for this reason.
- ▶ Company must have 12 months of price history.
- ▶ If a company has more than one eligible share class:
  - ▶ Select the one that is a current index constituent.
  - ▶ Otherwise, select the most liquid share class determined by Morningstar Indexes.
- ▶ Momentum Screen  
Eligible securities are ranked by the percentage change in price from 12 months ago. The securities in the bottom 20% are screened out.
- ▶ Liquidity Filter  
Non-index constituents having three-month average daily trading value, or ADTV, of less than 5 Million USD (or equivalent currency) are screened out.
- ▶ Buffer Rules  
Index constituents of the subportfolio ranked within the top 1.5 times of N in the eligible universe based on current market price/fair value ratio are given preference in subsequent steps. For Morningstar Moat Select Indexes, the buffer width is set as 2 times N.
- ▶ Country and Sector Capping  
The maximum weight of an individual country or sector in the index is capped at 10% plus its corresponding weight in the benchmark, or 40%, whichever is higher.

$$\text{Maximum Sector Weight} = \text{Max} (40\%, \text{benchmark weight} + 10\%)$$

$$\text{Maximum Country Weight} = \text{Max} (40\%, \text{benchmark weight} + 10\%)$$

- ▶ Portfolio Selection  
At this stage, all buffered constituents are retained in the index. From among the remaining companies, those representing the lowest current market price/fair value ratios are included in the index until the number of constituents reaches N. The two subportfolios are consolidated to form the aggregate portfolio.

**Number of Stocks**

Each reconstituted subportfolio targets N constituents based on a transparent ranking system subject to selection and eligibility criteria at reconstitution. However, if securities fall short of the selection and eligibility criteria, or if securities are added or deleted as a result of corporate actions after reconstitution, the subportfolio can hold more or fewer than N companies. In addition, securities that are deleted from the *corresponding* benchmark Index after June and December reconstitutions are simultaneously deleted from the Morningstar Moat Focus Index. The aggregate portfolio can contain between N and (2\*N) constituents.

**Index Weighting**

The index is equal weighted. For more details, refer to the [Morningstar Indexes Calculation Methodology rulebook](#).

**Index Maintenance and Calculation****Scheduled Maintenance**

The subportfolios are reconstituted semiannually with a quarterly staggered schedule. Consequently, about half of the total index membership is reset every quarter in March, June, September, and December, on the Monday following the third Friday. If Monday is a holiday, it is effective on the immediate following business day. In addition, the subportfolio weights are reset to 50% each in June and December. Refer to Appendix 2 for the staggered reconstitution implementation process.

The analyst data (moat rating and fair value estimates) used to reconstitute the index is as of the Tuesday before the second Friday of the reconstitution month.

Refer to Appendix 1 for details on reconstitution and rebalancing.

**Corporate Action**

The treatment of corporate actions can be found in 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 take into account 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 Process](#).

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 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 affect index daily highs or lows, they are 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 be corrected upon detection. In addition, an incorrect divisor of an index, if discovered within five days of its occurrence, will always 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.

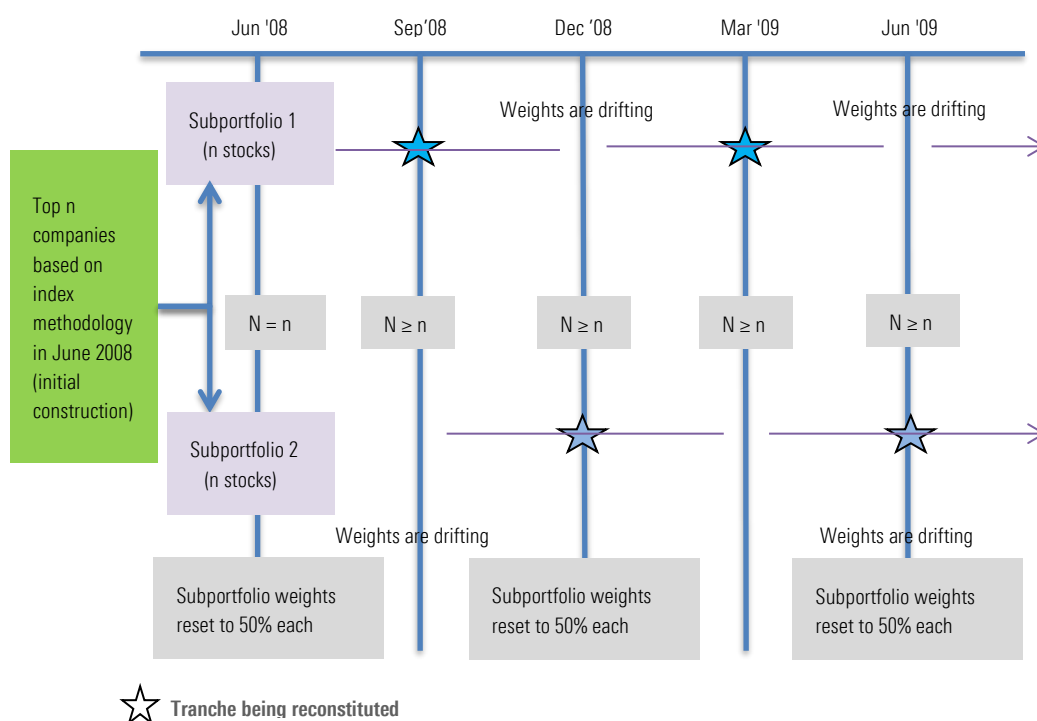
## Appendixes

### Appendix 1: Glossary

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

### Appendix 2: Staggered Reconstitution Process

**Exhibit 2** Staggered Reconstitution Schematic



The portfolio construction process is described below:

1. At initial construction (eg. June 2008), both of the subportfolios are reconstituted at the same time and therefore have an identical portfolio composition. The subportfolios are set to equal weights at 50% each.
2. In September, only the first subportfolio is reconstituted, while the second is not (drifted leg). As a result, the composition of the subportfolios may not remain identical.

3. In December, the second subportfolio is reconstituted and the first forms the drifted leg. In addition, the subportfolio weights are reset to 50% each and distributed among the securities within them in proportion to their weights.
4. In March, the first subportfolio is reconstituted again.
5. In June, the second subportfolio is reconstituted. In addition, the subportfolio weights are reset to 50%.
6. The process is repeated (go to Step 2).

### Appendix 3: Modification to Rule book

Section	Description	Update Date
<b>Index Construction</b>	As announced in April 2016, methodology changes to the Global ex-US Moat Focus Index were implemented for the June 2016 reconstitution. Current index levels that have been published will not be adjusted retroactively and only the index levels from June 20, 2016, on will reflect the updated methodology.	June 2016
<b>Index Construction</b>	Liquidity Filter to be applied before Buffer Rules	June 2017

### Appendix 4: Individual Indexes

Index	Performance Inception Date	Calculation Inception Date	Number of constituents (N)*
Global ex-US Moat Focus Index	September 17, 2004	March 25, 2015	50
Australia Moat Focus Index	June 20, 2008	January 14, 2016	25
Developed Markets ex-US Moat Focus Index	December 21, 2007	April 27, 2017	50
Developed Europe Moat Focus Index	December 21, 2007	April 27, 2017	25
Canada Moat Focus Index	June 17, 2011	April 27, 2017	25
Developed Asia Pacific ex-Japan Moat Focus Index	June 15, 2012	April 27, 2017	25
Emerging Markets Moat Focus Index	December 15, 2006	May 11, 2017	25
Global Moat Select Index**	December 15, 2006	May 11, 2017	200
Global ex-Japan Moat Select Index	December 15, 2006	May 11, 2017	200
Global ex-Australia Moat Select Index	December 15, 2006	May 11, 2017	200
Developed Markets Moat Select Index	December 21, 2007	April 27, 2017	150

\* Number of constituents is targeted for each sub-portfolio.

**About Morningstar, Inc.**

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Morningstar® Indexes combine the science and art of indexing to give investors a clearer view into the world's financial markets. Our indexes are based on transparent, rules-based methodologies that are thoroughly back-tested and supported by original research. Covering all major asset classes, our indexes originate from the Morningstar Investment Research Ecosystem — our network of accomplished analysts and researchers working to interpret and improve the investment landscape. Clients such as exchange-traded fund providers and other asset management firms work with our team of experts to create distinct, investor-focused products based on our indexes. Morningstar Indexes also serve as a precise benchmarking resource.

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**Morningstar Index Product Committee**

The Morningstar Index Product Committee is comprised of members who possess a wide array of knowledge in relation to Indexes. The Product Committee is responsible for the governance over the creation and maintenance of all Morningstar branded Indexes, ensuring the highest standards are continuously met. Any matters arising from exceptional or undocumented events will be resolved at the discretion of the Morningstar Index Product Committee.

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**For More Information**

For any queries, reach out to us via our [communication page](#).





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