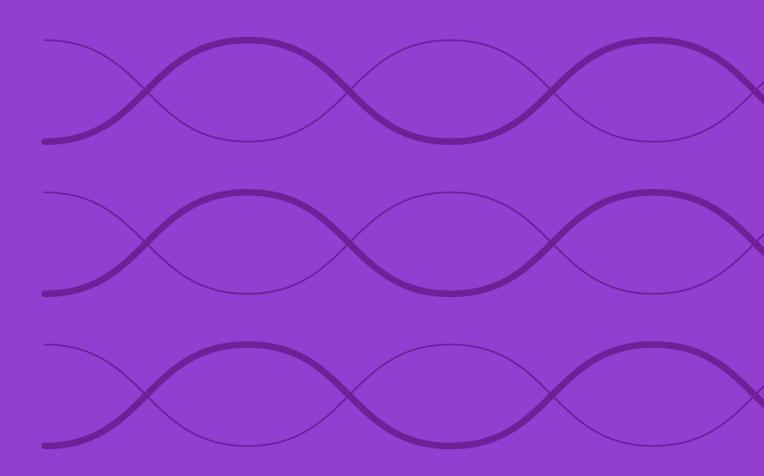


# Construction Rules for the Morningstar® Global Food Innovation Index®



Overview3	
Index Construction	
Starting Universe	
Eligibility4	
Portfolio Construction	
Index Maintenance and Calculation	
Scheduled Maintenance	
Corporate Actions	
Index Calculation and Price Data6	
Methodology Review and Index Cessation Policy	
Data Correction and Precision	
Intraday Index Data Corrections	
Index-Related Data and Divisor Corrections	
Computational and Reporting Precision	
Exceptions 8	
Appendixes 9	
Appendix 1: Modifications to the Rulebook9	
Appendix 2: Morningstar's Global Equity Research Theme Identification and Scoring Process9	
About Morningstar Indexes11	



# **Overview**

The Morningstar® Global Food Innovation Index<sup>SM</sup> is designed to deliver unparalleled, thematically pure exposure to the Food Innovation theme by drawing on the in-depth knowledge and forward-looking insights of Morningstar's equity research team. The Index targets the stocks of companies well positioned to benefit from the growth of innovations that aim to improve nutrition, food production practices, food safety measures, and the sustainability of related packaging.

Please refer to Appendix 2 for more details on theme definitions.

This index does not incorporate environmental, social, or governance criteria.

# **Index Inception and Performance Start Date**

The index inception date is Dec. 30, 2021, and the performance start date, when the first back-tested index value was calculated, is Dec. 21, 2018.



### **Index Construction**

# **Methodology Summary**

**Starting Universe** 

Eligibility

Theme Exposure

**Portfolio Construction** 

- Select companies from Morningstar Global Markets ex-India Index scored by Morningstar's equity research analysts.
- Companies must receive a non-zero score on at least one of the targeted subthemes.
- Securities with threemonth ADTV < \$2 million or float market cap < \$300 million are deemed ineligible, with relaxed requirements for index constituents.
- Exposure scores (4, 3, 2, 1, or 0) for subthemes are assigned to each company as identified by Morningstar Equity Research.
- Select securities based on the ranking and selection criteria.
- Weight selected securities based on their float market capitalization. Individual securities are capped at 4%

Morningstar Global Food Innovation Index

# **Starting Universe**

At each reconstitution, securities for the Morningstar Global Food Innovation Index are derived from the corresponding Morningstar Global Markets ex-India Index (benchmark). For more details on benchmark construction, refer to the Construction rules for the Construction Rules for the Morningstar Global Markets Indexes.

# **Eligibility**

To be eligible for inclusion in the Index, all constituents must be part of the benchmark index and must meet the following criteria in sequence:

- Liquidity Rules
  - Securities with an average three-month trailing daily trading volume less than \$2 million or free-float market capitalization less than \$300 million are ineligible. Current index constituents are eliminated if they have an average three-month trading volume less than \$1.5 million or free-float market capitalization less than \$200 million.
- 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.
- Companies must have a valid nonzero exposure score in at least one of the four individual subthemes. Refer to Appendix 2 for further details on the thematic scoring methodology.

# Portfolio Construction

Qualifying potential constituents are assigned to Tier 1 or Tier 2 based on the following criteria.



- Tier 1 stocks are those that:
  - Score 3 or 4 on any of the four individual subthemes
  - Or, have an Aggregate Score (sum of all four subthemes) of 5 or more
  - Or, have a score of 2 on at least two of the four individual subthemes
- o Tier 2: All the constituents not assigned to Tier 1 are assigned to Tier 2
- The ranking criteria is given below:
  - Tier 1 constituents preferred over Tier 2
  - Higher Aggregate Score
  - Number of subthemes in which a constituent scores 4
  - Number of subthemes in which a constituent scores 3
  - Number of subthemes in which a constituent scores 2
  - Number of subthemes in which a constituent scores 1
  - Current index constituents are given preference.
  - Company total market capitalization, preferring smaller over larger.
- If the total number of Tier 1 constituents is greater than or equal to 50 then all such Tier 1 constituents are selected but if the total number of Tier 1 constituents is less than 50 then the shortfall is filled with Tier 2 constituents and the total number of securities in the index is capped at 50.

# Number of Stocks

During reconstitution, if the total number of Tier 1 constituents is greater than or equal to 50 then the number of stocks in the index is subject to the selection and eligibility criteria at the time of reconstitution, but if the total number of Tier 1 constituents is less than 50 then the target number of stocks in the index is 50. 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 indexes can have more or fewer than the targeted number. During reconstitution, if the number of securities is less than the target, then all eligible securities would be selected, and the weight of the constituents will be determined based on the index weighting scheme. The schedule for reconstitution and corporate actions is available in the "Index Maintenance and Calculation" section.

### Index Weighting

The index constituents are float-market-capitalization weighted. Individual security weights are capped at 4%, with the excess weights redistributed over the other constituents in the whole portfolio in proportion to their existing weights.

For more details, refer to the Morningstar Indexes Calculation Methodology rulebook.



### **Index Maintenance and Calculation**

### **Scheduled Maintenance**

The index is reconstituted and rebalanced annually and implemented after the close of business on the third Friday of December and effective the following Monday. If that Monday is a holiday, it is effective on the next business day. The market data and theme scores used for reconstitution and rebalance is as of the last trading day of November. The index shares may change between the annual rebalancing dates as non-mandatory corporate action related to float and share change events are accumulated and implemented guarterly coinciding with the rebalancing schedule of the parent benchmark index.

Because the reconstitution of the Morningstar Global Food Innovation Index is less frequent than the parent index (Morningstar Global Markets ex-India Index), the securities excluded from the parent index (Morningstar Global Markets ex-India Index) at the reconstitution effective date are also deleted from Morningstar Global Food Innovation Index. For clarity, this means that any constituent excluded from the parent index during its reconstitution is also excluded from the Morningstar Global Food Innovation Index at the same date. It will not be replaced, and its weight is reallocated among existing constituents in proportion to its existing weight.

Index files are published according to the global calendar schedule. For more information, please refer to the <u>Morningstar Indexes Holiday Calendar</u>.

# **Corporate Actions**

The treatment of corporate actions will be as per the float market capitalization 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>.



# **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 Indexes notifies all subscribers and stakeholders of the index that circumstances might arise that require a material change to, or a possible cessation of, the index. These circumstances are generally not within Morningstar's control and may include significant changes to the underlying market structure, inadequate access to necessary data, geo-political events, and regulatory changes. In addition, factors such as low usage or methodology convergence may result in the cessation of an index.

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: Modifications to the Rulebook

Section	Description of Change	Update Date
All	Moved to new rulebook template	June 2023
Portfolio Construction	Changed the last tie break rule to reference company level market capitalization, rather than security level market capitalization.	October 2023

# Appendix 2: Morningstar's Global Equity Research Theme Identification and Scoring Process

# • Step 1

The Morningstar Food Innovation Index targets firms that should enjoy significant economic benefits from the growing adoption of innovations that aim to optimize human diets, food production practices, food safety measures, and the sustainability of related packaging. To best harness specific exposures under this broader theme, the Morningstar Equity Research team's Food Innovation steering committee identifies key subthemes for which thematic exposure scores are solicited from Morningstar equity analysts. These subthemes are reviewed annually by the equity research team and can be subject to change over time as they evolve and new subthemes emerge.

As of Sept. 30, 2021, four Food Innovation subthemes have been identified:

- o Alternative Proteins: Food, beverages, or ingredients offering protein sourced from non-animal origins.
- Agriculture Technology: Agriculture technology solutions that enhance yield, improve efficiency, or achieve waste reduction.
- Nutritional Innovation & Safety: Technologies that reduce preventable nutrition related death and disease via innovation or food safety practices.
- Sustainable Food Production & Packaging: Sustainable food production practices or sustainable packaging solutions for food and beverage.

# • Step 2

The Morningstar Equity Research team's Food Innovation steering committee trains analysts on the subthemes and scoring framework. Rather than relying solely on historical data points, analysts provide forward-looking data points that translate to thematic exposure scores of 0, 1, 2, 3, or 4 across each subtheme.

To garner a thematic exposure score above zero for a given subtheme, a firm must be classified as a producer of related goods or services or a supplier of those producers. Additionally, Morningstar equity analysts must classify the firm as being highly likely to enjoy a material net profit increase from its exposure to that subtheme over the next five years and have at least some current revenue exposure to that subtheme. Analysts then estimate the percent of revenue a firm will derive from its exposure to each subtheme at a point in time five years forward. These estimates translate into thematic exposure scores in the following manner:

○ 0 – Less than 10% of revenue of a firm



- $\circ$  1 10%-25% of revenue for a producer or supplier firm
- $\circ$  2 25%-50% of revenue for a producer or supplier firm
- $\circ \ \ 3-$  Greater than 50% of revenue for a supplier firm
- $\circ$  4 Greater than 50% of revenue for a producer firm



# **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.

