

Construction Rules for the Morningstar® Global Target Market Exposure Index Family

Morningstar Indexes

July 2019

Contents

- 1 Overview
- 2 Index Construction
 - 2.1 Assigning Stocks to the Index
 - 2.2 Number of Stocks
 - 2.3 Index Weighting
- 3 Index Maintenance and Calculation
 - 3.1 Scheduled Maintenance
 - 3.2 Corporate Action
 - 3.3 Index Calculation and Price Data
- 4 Methodology Review and Index Cessation Policy
- 5 Data Correction and Precision
 - 5.1 Intraday Index Data Corrections
 - 5.2 Index-Related Data and Divisor Corrections
 - 5.3 Computational and Reporting Precision
- 6 Appendixes
 - 6.1 Glossary
 - 6.2 Country Inclusion Framework and List of Developed and Emerging Markets
 - 6.3 Eligible Securities
 - 6.4 Eligible Exchanges
 - 6.5 Tax Haven List
 - 6.6 Free Float
 - 6.7 Individual Indexes
 - 6.8 Modification to Rulebook
- 7 About Morningstar

Overview

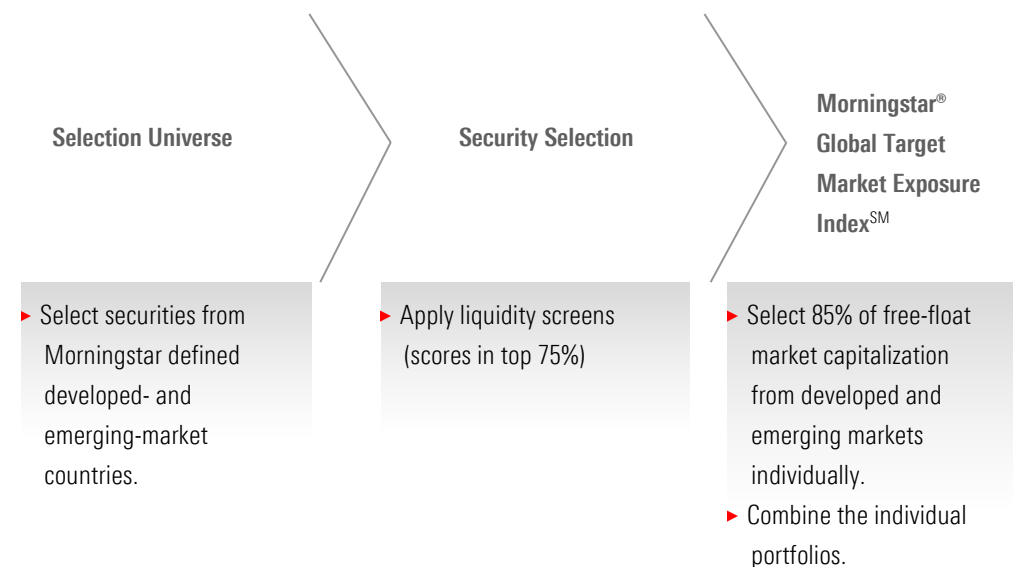
The Morningstar® Global Target Market Exposure IndexSM is designed to provide exposure to the top 85% market capitalization by free float in each of two economic segments, developed markets and emerging markets. Together, these two economic segment indexes make up the Global Target Market Exposure Index.

Index Inception Date and Performance Inception Date

The inception date of the index is May 1, 2018, and the performance inception date of the index is June 20, 2008, when the first back-tested index value was calculated.

Index Construction

Exhibit 1 Morningstar Global Target Market Exposure Index Construction Process



For additional details, refer 'to Assigning stocks to the Morningstar Global Target Market Exposure Index section'

Assigning Stocks to the Morningstar Global Target Market Exposure Index

Selection Universe

At each reconstitution, securities for the Morningstar Global Target Market Exposure Index are derived from eligible universe described below.

- ▶ Exchange: The security must trade on one of the major global exchanges. A complete list of eligible exchanges is provided in Appendix 4.

- ▶ Security type: All listed securities, including income trusts in Canada, real estate investment trusts, and preferred shares that exhibit characteristics of equity securities, are generally eligible. Please see Appendix 3 for a full list of eligible security types by country. The following security types do not qualify:
 - ▶ Mutual funds
 - ▶ Exchange-traded funds
 - ▶ Derivatives
 - ▶ Convertible notes, warrants, and rights
 - ▶ Limited partnerships
 - ▶ Depository receipts, except Swedish depository receipts, Philippine depository receipts and American Depository Receipts

American Depository Receipts (ADR) are eligible for inclusion in the index if no equity listing is available for the company

- ▶ Country classification: Each security in the Morningstar global equity universe shall be assigned to a single country using a rules-based approach. The country classification for any security is defined primarily by the country of incorporation of the issuing company and the country of primary listing of the security. In addition, if a company is incorporated in a developed-market country in Europe and has its security's primary listing in another developed-market European country, the security will be assigned to its country of primary listing. Nearly 98% of the securities in the Morningstar global equity universe are classified using this approach.

For the remaining cases, in which a company is incorporated in one country but the primary listing of its securities is in a different country, additional factors are considered to determine the country classification:

- ▶ Primary business and listing country: If a security has a listing in the country where its primary business is conducted, as measured by maximum single revenue segment, the security will be assigned to its country of listing and primary business location.
- ▶ Tax havens: To benefit from legal, tax, and/or regulatory advantage, companies may incorporate in a country with limited or no public domestic equity market such as Bahamas or Bermuda. For such cases, the security is classified in the country of its primary listing. A complete list of countries that have been determined to provide these benefits can be found in Appendix 5.

- ▶ China classification: Securities will be classified to China if the company is incorporated in the People's Republic of China, or PRC, and listed on the Shanghai or Shenzhen stock exchanges as B shares or listed on the Hong Kong stock exchange as H shares. To provide investors with exhaustive China coverage and remain true to the underlying risks associated with the business, the following exception is made to the country of incorporation and country of primary listing agreement rule.

Securities will be classified to China if the company is incorporated outside the PRC but has a listing in the U.S., Singapore, or Hong Kong, provided it meets the following criteria:

- ▶ If a company is listed in the U.S. or Singapore but has the majority of its business as measured by single revenue segment contributing 50% or more from China and is headquartered in China.
- ▶ If the company is listed in Hong Kong and meets the following definitions:
 - Red chip: Company is directly or indirectly controlled by organizations or enterprises that are owned by the state, provinces, or municipalities of the PRC.
 - P chip: A company satisfying at least two of the following conditions:
 - The company is controlled by PRC individuals.
 - The company derives more than 80% of its revenue from the PRC.
 - The company allocates more than 60% of its assets in the PRC.

Security Selection

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

- ▶ Trading frequency:
 - ▶ Global ex-US: New securities qualify for the investable universe if they have fewer than 20 nontrading days in the six calendar months immediately before reconstitution. For corporate entities younger than six months, the criterion is applied on a prorated basis.

Current constituents are provided a one-time buffer and will remain in the investable universe if they have fewer than 30 nontrading days in the prior six months. The buffer is designed to help reduce turnover in the investable universe caused by a marginal and temporary decline in the number of trading days. Current constituents retained because of the buffer in the previous reconstitution would remain in the investable universe if they have fewer than 20 nontrading days in the prior six months.

 - ▶ US: Securities qualify for the investable universe if they have fewer than 10 nontrading days in the last quarter immediately before reconstitution
- ▶ Trading volume and turnover: A security's traded value score, or TVS, is the average of its ranks on three measures:
 - ▶ The average of monthly dollar traded value, or AMDTV, for the six calendar months immediately before reconstitution. Monthly dollar traded value, or MDTV, is the product of

the average of number of shares traded in the month and the closing price of the security as of the last trading day of the month. For corporate entities younger than six months, MDTV is computed on a prorated basis.

- ▶ The two lowest MDTV in the six calendar months immediately before reconstitution (the months need not be sequential).
- ▶ The average monthly turnover ratio, or AMTR, during the six calendar months immediately before reconstitution. AMTR is AMDTV divided by float market value, in U.S. dollars, as of the end of the last trading day before reconstitution. This measure is not used to calculate TVS for US constituents.

Securities are added to the investable universe if they are among the top 75% of the securities in based on their TVS in the respective universe: US, Developed ex-US and Emerging Markets

Liquidity criterion is waived in cases of certain corporate events, such as takeovers or spin-offs, where the successor entity issues one or more securities that meets any of the following criteria:

- ▶ The new entity qualifies for index membership in either the mid- or large-cap band.
 - ▶ The new entity's free-float market-capitalization value is greater than or equal to the smallest free-float market capitalization in the mid-cap band.
- ▶ Free float: Each security should have a minimum free float of 10%.
 - ▶ Equity Market Cap Cutoff Calculation:
 - ▶ Minimum equity market cutoff is calculated as of every reconstitution cutoff date based on the returns of Morningstar Developed Markets PR USD using the formula below.

$$(\text{Minimum market cap})_{t-1} * (1 + \text{Return on Developed Markets Index}_{6\text{-month}})$$

The minimum market cap was initialized to 200 million USD as of March 2008.

- ▶ Every security must have a company full market cap greater than the minimum equity cutoff determined above
- ▶ Every security must also have a security float market cap greater than 50% of the minimum equity market cutoff

For more details on Morningstar's definition of free float, refer to Appendix 6.

Companies with Multiple Share Classes

For companies with multiple share classes of equity securities, the following general rules apply:

- ▶ All trading classes that meet the general eligibility criteria are considered for inclusion.
- ▶ The market capitalization of a company is determined by aggregating all listed share classes. This aggregate market capitalization is used to assign companies to market-capitalization bands, which is described in detail in the following section.

- ▶ The weight contribution of a given share class in an index is based on the free-float market capitalization of that share class.

Morningstar Global Target Market Exposure Index

Each security that meets the selection criteria above is considered for one of two economic segment indexes: developed or emerging. The country classification process previously described determines membership in the appropriate index.

Calculating the Economic Segment-Level Capitalization Breakpoints

Companies in Developed Market economic segment are ordered by company full market cap in descending order, and the cumulative free float company market cap is calculated. Upper and Lower bounds for each capitalization are calculated as below

- ▶ **Developed Markets Large-Cap Breakpoint:** If the cumulative free float company market cap of the security ranked at the same rank that determined the large-cap minimum size reference at the last reconstitution falls between 70% and 71%, existing rank is retained as current large-cap minimum size reference, else the rank is reset to 70% if it is less than 70% or 71% if it is more than 71%.
- ▶ **Developed Markets Mid-Cap Breakpoint:** If the cumulative free float company market cap of the security ranked at the same rank that determined the mid-cap minimum size reference at the last reconstitution falls between 85% and 85.5%, existing rank is retained as current mid-cap minimum size reference, else the rank is reset to 85% if it is less than 85% or 85.5% if it is more than 85.5%.

For Emerging Markets, the cutoffs are 0.5 times the cutoffs calculated for Developed Markets.

Finally, an upper and lower bound is taken around each of the capitalization breakpoints (large, mid, and small). The upper bound is 1.15 times the breakpoint, and the lower bound is 0.5 times the breakpoint. For example, if the developed-market large-capitalization breakpoint is \$10 billion, then the upper bound is $\$10 \text{ billion} * 1.15 = \11.5 billion and the lower bound is $\$10 \text{ billion} * 0.5 = \5 billion .

Calculating the Country-Level Capitalization Breakpoints

The capitalization breakpoints calculated in the previous section are applied within each country to arrive at the country-specific capitalization breakpoints. For each country, the companies are ordered by company full market cap in descending order, and the cumulative market-capitalization percentages for the companies are calculated. The market capitalization of the largest stock whose cumulative cap percentage is greater than the following values is taken as the initial capitalization breakpoint for that cap band:

- ▶ Large Cap: 70%
- ▶ Mid Cap: 85%

If the initial country-specific breakpoint is smaller than the economic segment-level capitalization lower bound, then the country-specific breakpoint is set to the economic segment-level capitalization lower bound. If the initial country-specific breakpoint is between the upper economic segment-level capitalization and lower economic segment-level capitalization bounds, then no adjustment is made.

Assigning Companies to Capitalization Bands

The adjusted country-level capitalization breakpoints calculated in the previous section are applied within each country to assign companies to one of three capitalization bands: large, mid, and small. All companies that have a market capitalization greater than the large-cap adjusted capitalization breakpoint are assigned to that large-cap band. The same goes for the mid- and small-cap bands.

Capitalization Bands Buffer

A buffer is applied around the capitalization bands to reduce turnover from small changes in market capitalization.

- ▶ An existing constituent is retained in its current size segment if its company full market capitalization is more than 0.5 times the country-specific size segment breakpoint.
- ▶ A new constituent is included in the size segment index only if its company full market capitalization is more than twice the country-specific size segment breakpoint.

Determining Global Target Market Exposure Index

The developed- and emerging-market indexes together form the Global Target Market Exposure (TME) Index. Once index constituents are selected, each security is weighted by its float-adjusted market capitalization for index calculation purposes. Multiple share classes are included and also weighted by the available float of each share class (please see the section on multiple share class treatment above).

Subsequently, individual regional and country TME indexes are derived from the constituents of the Morningstar Global Target Market Exposure Index.

Number of Stocks

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

Index Weighting

The index is float market capitalization weighted. For Morningstar Brazil Target Market Exposure Capped Index, 5-10-40 capping is applied on individual constituents with a buffer of 10%. If 5-10-40 capping is breached at rebalancing, the individual constituent weight is capped at 9% and constituents with weights greater than 4.5% cannot exceed 36% of the portfolio weight. For more details, refer to the [Morningstar Indexes Calculation Methodology rulebook](#).

Index Maintenance and Calculation

Scheduled Maintenance

The index is reconstituted semiannually and implemented after the close of business on the third Friday of June and December and is effective the following Monday. If Monday is a holiday, reconstitution is effective on the immediate following business day. The market data used for reconstitution is as of the last trading day of April and October.

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 immediate following business day.

Refer to Appendix 1 for details on reconstitution and rebalancing.

Corporate Action

The treatment of corporate actions can be found in [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
Reconstitution	Each reconstitution involves the following: <ul style="list-style-type: none"> • Updating the global market's investable equity universe. • Reviewing the economic segment- and country-level size segment breakpoints. • Assigning companies to capitalization bands taking into account the buffer zones. • Changes in index shares (free float, total shares outstanding, index-specific adjustment factor) of each constituent.
Rebalance	During each rebalancing, the weights are adjusted for updated free-float and shares outstanding data.

Appendix 2: Country Inclusion Framework

A country must maintain its passable status for two consecutive years before it is deemed eligible for the index. The Morningstar Index Committee will review all potential changes to determine any final action. If a country is added or removed, notice of the pending action is provided a minimum of three months in advance. This framework considers three main criteria:

- ▶ Degree of economic freedom
 - ▶ A score of 50 or above from the Index of Economic Freedom.
- ▶ Country income
 - ▶ A high- or middle-income country classification from the World Bank.
- ▶ Depth of equity markets
 - ▶ More than \$5 billion in market capitalization.
 - ▶ Ratio of market capitalization/GDP must be among the top 80%.

Index of Economic Freedom

The Index of Economic Freedom is a joint study by the Heritage Foundation and *The Wall Street Journal* that measures countries according to 10 factors of economic freedom:

- ▶ Business freedom
- ▶ Fiscal freedom
- ▶ Monetary freedom
- ▶ Financial freedom
- ▶ Freedom from corruption
- ▶ Trade freedom
- ▶ Government size
- ▶ Investment freedom
- ▶ Property rights
- ▶ Labor freedom

World Bank Country Classification

For operational and analytical purposes, the World Bank's main criterion for classifying economies is gross national income, or GNI, per capita. The bank's analytical income categories (low, middle, and high) are based on the bank's operational lending categories (civil works preferences, International Development Association eligibility, etc.). These operational guidelines were established three decades ago based on the view that since poorer countries deserve better conditions from the bank, comparative estimates of economic capacity needed to be established. GNI, a broad measure, was considered the best single indicator of economic capacity and progress; at the same time, it was recognized that GNI does not, by itself, constitute or measure of welfare or success in development. GNI per capita is therefore the bank's main criterion of classifying countries.

Country Market Capitalization and Country Market Capitalization/GDP Ratio

The size of a country's equity markets should be material, or above \$5 billion. The market should exhibit financial depth; that is, the ratio of the size of the country's equity markets to its gross domestic product should be high. Countries that fall in the bottom 20% are ineligible for the index.

Additional Country Inclusion Criteria

The following criteria are taken into account when determining country eligibility:

- ▶ The country's allowance of foreign investors to easily enter and exit the market, as well as to repatriate capital and dividends.
- ▶ Timely and accurate availability of real-time and historical market data.
- ▶ The level of interest attracted by the market from international investors.

Developed- and Emerging-Market Classification

Countries are classified as developed if they meet all of the following criteria:

- ▶ Annual per capita GNI falls in the high-income category, as defined by the World Bank, for the most recent three years.
- ▶ The country must not have any broad-based discriminatory controls against nondomiciled investors for the most recent three years.
- ▶ The country's stock markets must exhibit these characteristics:
 - ▶ Transparency
 - ▶ Market regulation
 - ▶ Operational efficiency
 - ▶ Absence of broad-based investment restrictions

Countries that do not meet all of the above criteria fall into the emerging-markets economic segment. For example, a country may be classified as high-income by the World Bank, but because of a lack of transparency within local markets, it falls into the emerging-markets economic segment.

Classification	Country	Classification	Country
Developed	Australia	Emerging	Brazil
	Austria		Chile
	Belgium		China
	Canada		Colombia
	Denmark		Czech Republic
	Finland		Egypt
	France		Greece
	Germany		Hungary
	Hong Kong		India
	Ireland		Indonesia
	Israel		Malaysia
	Italy		Mexico
	Japan		Pakistan
	Netherlands		Peru
	New Zealand		Philippines
	Norway		Poland
	Portugal		Qatar
	Singapore		Russia
	Spain		Saudi Arabia
	Sweden		South Africa
Switzerland	South Korea		
United Kingdom	Taiwan		
United States	Thailand		
	Turkey		
	United Arab Emirates		

Appendix 3: Eligible Securities

Equity and equitylike securities are eligible for the index. Security eligibility is reviewed semiannually during April and October.

Classification	Country	Security Class
Developed Market	Australia	Ordinary Shares
		Preferred Shares
		Stapled Securities
	Austria	Ordinary Shares
		Preferred Shares
		Units/Certificates
	Belgium	Ordinary Shares
		Preferred Shares
	Canada	Ordinary Shares
		Units of Income Trusts
		Stapled Securities
	Denmark	Ordinary Shares
	Finland	Ordinary Shares
	France	Ordinary Shares
		Preferred Shares
		Certificats d'Investissement
		Certificats Coopératif d'Investissement
	Germany	Ordinary Shares
		Preferred Shares

Hong Kong	Ordinary Shares Business Trusts Stapled Securities
Ireland	Ordinary Shares Units
Israel	Common Shares Preferred Shares
Italy	Ordinary Shares Preferred Shares Savings Shares
Japan	Ordinary Shares
Netherlands	Ordinary Shares Preferred Shares Certificates
New Zealand	Ordinary Shares Preferred Shares Certificates Stapled Securities
Norway	Ordinary Shares Certificates
Portugal	Ordinary Shares
Singapore	Ordinary Shares Business Trust Stapled Securities
Spain	Ordinary Shares Preferred Shares
Sweden	Ordinary Shares Swedish Depository Receipts
Switzerland	Ordinary Shares Certificates
United Kingdom	Ordinary Shares Units
United States	Ordinary Shares REIT Tracking Stocks

Classification	Country Name	Security Class
Emerging Market	Brazil	Ordinary Shares Preferred Shares Units
	Chile	Ordinary Shares Preferred Shares
	China	B Shares H Shares ¹ P Chip ¹ Red Chip ¹ Stapled Securities
	Colombia	Ordinary Shares Preferred Shares
	Czech Republic	Ordinary Shares
	Egypt	Ordinary Shares
	Greece	Ordinary Shares

	Preferred Shares
Hungary	Ordinary Shares
India	Ordinary Shares
Indonesia	Ordinary Shares
Malaysia	Ordinary Shares Stapled Securities
Mexico	Ordinary Shares Units Certificate of Participation
Pakistan	Ordinary Shares
Peru	Ordinary Shares Preferred Shares Investment Shares
Philippines	Ordinary Shares Philippine Depositary Receipts
Poland	Ordinary Shares
Qatar	Ordinary Shares
Russia	Ordinary Shares Preferred Shares
Saudi Arabia	Ordinary Shares
South Africa	Ordinary Shares Preferred Shares Units
South Korea	Ordinary Shares Preferred Shares
Taiwan	Ordinary Shares Preferred Shares
Thailand	Ordinary Shares Preferred Shares
Turkey	Ordinary Shares
United Arab Emirates	Ordinary Shares

¹ The H shares, P chip, and the Red chip securities are listed at the Hong Kong stock exchange.

Appendix 4: Eligible Exchanges

Securities listed on eligible market segments are eligible for the index. Exchange eligibility is reviewed semiannually during April and October.

Classification	Country	Eligible Exchange	Eligible Market Segment	Ineligible Market Segment
Developed Market	Australia	Australian Securities Exchange	Official List	
	Austria	Vienna Stock Exchange	Prime Market Standard Market Mid Market-Regulated	Mid Market-MTF
	Belgium	Euronext Brussels	Euronext	Free Market Segment Alternext
	Canada	Toronto Stock Exchange	Official List	
	Denmark	Copenhagen Stock Exchange First North	Main Market	
	Finland	Helsinki Stock Exchange First North	Main Market	
	France	Euronext Paris	Euronext Alternext	Free Market Segment
	Germany	Deutsche Borse Xetra	Prime Standard General Standard	Entry Standard
	Hong Kong	Hong Kong Stock Exchange	Main Board Growth Enterprise Market(GEM)	
	Ireland	Irish Stock Exchange	Main Securities Market Enterprise Securities Market	
	Israel	Tel Aviv Stock Exchange		
	Italy	Borsa Italiana	MTA	MIB AIM Italia-MAC
	Japan	Tokyo Stock Exchange Nagoya Stock Exchange	First Section Second Section Mothers JASDAQ First Section Second Section Centrex	Other
	Netherlands	Euronext Amsterdam	Euronext	Alternext
	New Zealand	New Zealand Stock Exchange	Main Board Alternative Market	Fonterra Shareholders' Market
	Norway	Oslo Stock Exchange	Oslo Bors Oslo Axxess	
	Portugal	Euronext Lisbon	Euronext	Alternext
	Singapore	Singapore Stock Exchange	Main Board CATALIST	
	Spain	Madrid Stock Exchange Mercado Alternativo Bursatil	Mercado Continuo Growth Companies SOCIMIs	SICAVs VCCs Hedge Funds
	Sweden	Stockholm Stock Exchange First North AktieTorget Nordic Growth Market	Main Market	
	Switzerland	SIX Swiss Exchange		
	United Kingdom	London Stock Exchange	Main Market AIM Market	
	United States	New York Stock Exchange Nasdaq NYSE Market LLC		

Source: Morningstar.

Classification	Country	Eligible Exchange	Eligible Market Segment	Ineligible Market Segment
Emerging	Brazil	BM&F Bovespa SA	Traditional Level 1 Level 2 Novo Mercado	
	Chile	Santiago Stock Exchange		
	China	Shenzhen Stock Exchange Shanghai Stock Exchange		
	Colombia	Colombian Securities Exchange		
	Czech Republic	Prague Stock Exchange	Prime Market Standard Market	Start Market
	Egypt	The Egyptian Exchange		
	Greece	Athens Stock Exchange	Main Market Alternative Market	Low Dispersion Surveillance Under Suspension Under Deletion
	Hungary	Budapest Stock Exchange	Prime Market Standard Market	T Market
	India	Bombay Stock Exchange National Stock Exchange ²		
	Indonesia	Jakarta Stock Exchange	Main Board Development Board	
	Malaysia	Kuala Lumpur Stock Exchange	Main Market Ace Market	PN-17 GN-3
	Mexico	Mexican Stock Exchange	Capitals Market	
	Pakistan	Karachi Stock Exchange		
	Peru	Lima Stock Exchange		
	Philippines	Philippine Stock Exchange	Main Board	
	Poland	Warsaw Stock Exchange	Basic Market Parallel Market	
	Qatar	Qatar Stock Exchange		
	Russian Federation	MICEX		
	Saudi Arabia	Saudi Stock Exchange		
	South Africa	Johannesburg Stock Exchange	Main Board AltX	
	South Korea	Korea Exchange	KOSPI KOSDAQ	KONEX
	Taiwan	GreTai Securities Market Taiwan Stock Exchange	Main Board Main Board	Emerging Market Board Alternate Trading Method
	Thailand	The Stock Exchange of Thailand	Local Stock Market for Alternative Investment	Companies to be Delisted Foreign Common Stock
	Turkey	Istanbul Stock Exchange	National Market Second National Market	
	United Arab Emirates	Abu Dhabi Securities Exchange Dubai Financial Market NASDAQ Dubai		

Source: Morningstar.

² Only securities listed on the Bombay Stock Exchange are eligible for Index selection. However, the trading volumes from both the Bombay Stock Exchange and the National Stock Exchange are aggregated for liquidity calculation purposes.

Appendix 5: Tax Haven List

Following is a list of countries that provide some benefits to incorporating in their domicile and are considered tax havens. The tax havens list is reviewed semiannually during April and October.

Andorra	Isle of Man
Anguilla	Jamaica
Antigua and Barbuda	Jersey
Aruba	Liberia
Bahamas	Liechtenstein
Barbados	Luxembourg
Belize	Marshall Islands
Bermuda	Monaco
Bonaire St. Eust. Saba	Montserrat
British Virgin Islands	Netherlands Antilles
Cayman Islands	Panama
Channel Islands	Puerto Rico
Cook Islands	Saint Barthelemy
Curacao	Saint Kitts and Nevis
Dominica	Saint Martin
Dominican Republic	San Marino
Falkland Islands	Seychelles
Faroe Islands	Sint Maarten
Gibraltar	Solomon Islands
Grenada	St. Vincent and the Grenadines
Guam	St. Lucia
Guernsey	Trinidad and Tobago
Haiti	Turks and Caicos Islands

Appendix 6: Free Float

Morningstar defines free float as the number of shares (or percentage of shares) that are, theoretically, available for the public to purchase. In general, the shareholdings can be classified in two broad categories of holders: institutional holders and declarable stakeholders. The latter hold shares for various tactical or speculative reasons (other than those that might typify why an institutional investor would own the shares). As a result, the shares held by declarable stakeholders are, theoretically, unavailable to the public and therefore excluded from free float.

The formula for calculating free float is:

$$\text{Free float} = (\text{total shares outstanding}) - (\text{total declarable stakeholder shares})$$

The following are typically classified as declarable stakeholders:

- ▶ Officer/director
- ▶ Joint venture
- ▶ Private company
- ▶ Private equity fund/alternative investment
- ▶ Public company stake
- ▶ Employee stock ownership fund
- ▶ Holding company

- ▶ Government
- ▶ Sovereign wealth fund
- ▶ Subsidiary
- ▶ Trust/trustee
- ▶ Venture capital fund

Securities with a free float of 10% or lower are not considered for the index.

Foreign Ownership Limits

For some companies, certain restrictions may apply to nondomestic investors that limit their opportunity to invest. Such restrictions, known as foreign share ownership limits, can be set by government regulation, company bylaws, or local laws. Morningstar float is adjusted for foreign ownership limits and will be the lower of the company float or the foreign ownership limit.

For India, securities on the Reserve Bank of India's caution list and ban list are not eligible for the index. An existing index constituent that moves to the RBI ban or caution list is deleted from the index with a suitable advance notification.

Appendix 7: Individual Indexes

Index Name	Inception Date	Performance Inception Date
Morningstar Global Target Market Exposure Index	May 1, 2018	June 20, 2008
Morningstar Developed Europe Target Market Exposure Index	May 1, 2018	June 20, 2008
Morningstar Japan Target Market Exposure Index	May 1, 2018	June 20, 2008
Morningstar Canada Target Market Exposure Index	May 1, 2018	June 20, 2008
Morningstar Developed Asia Pacific ex-Japan Target Market Exposure Index	May 1, 2018	June 20, 2008
Morningstar US Target Market Exposure Index	Nov 22, 2018	June 20, 2008
Morningstar Asia ex-Japan Target Market Exposure Index	Feb 25, 2019	June 20, 2008
Morningstar Developed Markets Asia Pacific Target Market Exposure Index	Feb 25, 2019	June 20, 2008
Morningstar Developed Markets Eurozone Target Market Exposure Index	Feb 25, 2019	June 20, 2008
Morningstar Developed Markets Target Market Exposure Index	Feb 25, 2019	June 20, 2008
Morningstar Developed Markets ex-Japan Target Market Exposure Index	Feb 25, 2019	June 20, 2008
Morningstar Emerging Markets Target Market Exposure Index	Feb 25, 2019	June 20, 2008
Morningstar Eurozone Target Market Exposure Index	Feb 25, 2019	June 20, 2008
Morningstar Emerging Markets Asia Target Market Exposure Index	Feb 26, 2019	June 20, 2008
Morningstar Brazil Target Market Exposure 5/10/40 Index	June 10, 2019	March 21, 2014
Morningstar Global ex-Canada Target Market Exposure Index	August 07, 2019	June 20, 2008
Morningstar Global ex-UK Target Market Exposure Index	August 07, 2019	June 20, 2008
Morningstar Global ex- Developed Eurozone Target Market Exposure Index	August 07, 2019	June 20, 2008
Morningstar Developed Markets ex-North America Target Market Exposure Index	June 10, 2019	June 20, 2008
Morningstar Developed Europe Mid Cap Target Market Exposure Index	August 27, 2019	December 21, 2012
Morningstar US Mid Cap Target Market Exposure Index	August 27, 2019	December 21, 2012
Morningstar US Large Cap Target Market Exposure Index	December 10, 2019	June 20, 2008
Morningstar Developed Europe Large Cap Target Market Exposure	December 10, 2019	June 20, 2008

Appendix 8: Modification to Rulebook

Section	Description	Update Date
Selection Universe	ADR may be considered for the inclusion in the index if no equity listing is available for the company.	Dec 2018
Appendix 2	Saudi Arabia added to the list of emerging markets	Jun 2019
Appendix 3 and Appendix 4	Added eligible exchange and security type for Saudi Arabia	Jun 2019

About Morningstar, Inc.

Morningstar, Inc. is a leading provider of independent investment research in North America, Europe, Australia, and Asia. Morningstar offers an extensive line of products and services for individual investors, financial advisors, asset managers, and retirement plan providers and sponsors. Morningstar provides data on approximately 510,000 investment offerings, including stocks, mutual funds, and similar vehicles, along with real-time global market data on more than 17 million equities, indexes, futures, options, commodities, and precious metals, in addition to foreign exchange and Treasury markets. Morningstar also offers investment management services through its investment advisory subsidiaries.

About Morningstar Indexes

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.

Morningstar Index Committee

The [Morningstar Index Committee](#) is currently comprised of senior officials who possess the appropriate levels of knowledge in relation to Indexes. A wide array of business groups are represented to allow for a broad voice to be heard and for a wider view to be expressed in evaluating all subjects brought up during Committee meetings. The Committee seeks to create indexes of the highest quality that meet the recognized qualities of a good benchmark.

For More Information

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



22 West Washington Street
Chicago, IL 60602 USA

©2018 Morningstar. All Rights Reserved.

Any matter arising from undocumented events will be resolved at the discretion of Morningstar Index Committee. 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.