

# Construction Rules for the Morningstar® Global Markets ex- US Indexes



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## Overview

Designed to facilitate performance benchmarking and efficient portfolio construction, the Morningstar® Global Markets ex-US Indexes cover stocks representing the top 97% of the investable global equity market outside the U.S. These indexes provide extensive building blocks across geographical regions, developed and emerging markets, individual countries, sectors, and currencies. The indexes are built and maintained according to a transparent set of rules, and only liquid stocks that are readily available to institutional investors are included, ensuring accurate and objective representation of the investment opportunity set for active managers and mitigating transaction costs for passive investors.

These indexes do not incorporate environmental, social, or governance, or ESG, criteria.

## Index Inception and Performance Start Date

The inception date of the Morningstar Global Markets ex-US Index is September 12, 2012, and the performance start date of the index is June 19, 1998, when the first back-tested index value was calculated. This index is part of the Morningstar Global Markets Index family. The inception and performance start dates of the other Global Markets indexes are listed in the [Morningstar Global Markets Index rulebook](#).

## Index Construction

### Methodology Summary

#### Starting Universe

- Companies are assigned to countries by considering their country of incorporation and country of primary listing
- Eligible share classes of companies listed on major global exchanges in countries outside the U.S. classified as developed or emerging markets form the starting universe

#### Eligibility

- Securities with 20 or more nontrading days in the three months preceding reconstitution, or with less than 10% of their shares publicly floated are excluded
- Securities are assigned liquidity scores. Those that rank below the top 75% are ineligible

#### Portfolio Construction

- Securities are ranked by market cap in descending order size within their respective region, and a cumulative market cap percentage is calculated for each stock
- Breakpoints are determined as follows:
  - large-cap: 70%
  - mid-cap: 90%
  - small-cap: 97%
- Constituents are weighted by float-adjusted market cap
- Semiannual reconstitution, quarterly rebalancing

### Morningstar Global Markets ex-US Indexes

### Starting Universe

At each reconstitution, securities for the Morningstar Global Markets ex-US Index are derived from the eligible universe described below.

- **Exchange:** The security must trade on one of the major exchanges in the target markets. A complete list of eligible exchanges is provided in Appendix 6.
- **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. American depository receipts, or ADRs, are eligible for inclusion if no local equity listing is available for the company in the investable universe. Please see Appendix 5 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.

- **Country classification:** The security must be assigned to an eligible country. Countries are admitted or removed from the index according to a structured review process performed annually in August and are classified as developed or emerging. For more details on framework and the list of developed- and emerging-market countries, refer to Appendix 3 and 4.

Each security is to be assigned to a single country using a rules-based approach. The country of classification for each security is defined primarily by the country of incorporation of the issuing company and the country of primary listing of the security<sup>1</sup>. 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 7.
- **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 or listed on the Shenzhen or Shanghai Stock exchanges as A shares<sup>2</sup>. 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 most of its business (measured by revenue) 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.

<sup>1</sup> For companies with multiple listings, the primary listing typically reflects the exchange with the greatest liquidity, but the listing country, country of incorporation, country of headquarters and operations may also be considered.

<sup>2</sup> Starting from June 2020 reconstitution, China A shares trading via the northbound route on Shanghai and Shenzhen Stock Exchanges, and on the Buy and Sell List, are eligible for inclusion

## Eligibility

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

- **Trading frequency:** New securities qualify for the investable universe if they have fewer than 20 non-trading days in the six calendar months immediately before reconstitution. For corporate entities younger than six months, the criterion is applied on a pro rata basis.

Current constituents are provided a one-time buffer and will remain in the investable universe if they have fewer than 30 non-trading 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 remain in the investable universe if they have fewer than 20 non-trading days in the prior six months.

- **Trading volume and turnover:**
  - A security must be among the top 75% of the companies in the investable universe (omitting securities that fail the trading frequency screen) based on its traded value score, or TVS, which is the average of its rank on each of the following 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 pro rata 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.
  - New securities are added to the investable universe if they are among the top 75% of the securities in the global markets ex-U.S. universe based on their TVS. Current constituents are provided a one-time buffer and will remain in the investable universe if they are among the top 80% of the securities based on their TVS. The buffer is designed to help reduce turnover in the index caused by a marginal and temporary decline in the TVS of current constituents. Current constituents retained because of the buffer in the previous reconstitution remain in the investable universe if they are among the top 75% of the securities based on their TVS.
  - The liquidity criterion is waived in cases of certain corporate events, such as takeovers or spinoffs, 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 must have a free float greater than 10%.
- **Free-float and market-capitalization requirements:** For each security, minimum free-float market-capitalization requirements are pegged to the previous period. Components are eliminated if the current free-float market cap is less than the product of:

$$(\text{Minimum free-float market cap})_{t-1} * (1 + \text{Return on Global Market ex-US Index}_{6\text{-month}})$$

For more details on Morningstar's definition of free float, refer to Appendix 8.

- Securities removed from the Morningstar Global Markets ex-US Index during the semi-annual reconstitution are not eligible for re-inclusion in the index for one year. For example, a security removed from the Morningstar Global Markets ex-US Index at the June reconstitution would not be eligible for re-inclusion until June the next year.
- Companies with multiple share classes
  - 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.

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. The Morningstar Global Markets ex-US Index covers the developed and emerging market segments.

More granular, regional, country, and size segment indexes are derived from the constituents of the Morningstar Global Markets ex-US Index.

## Portfolio Construction

### *Calculating the Economic Segment-Level Capitalization Breakpoints*

For each economic segment (developed and emerging), the companies are ordered by market capitalization in descending order. Next, the cumulative market-capitalization percentage is calculated for each stock within its economic segment. The market capitalization of the largest stock whose cumulative market-capitalization percentage is greater than the following percentages is taken as the capitalization breakpoint for that capitalization band.

- Large-cap: 70%
- Mid-cap: 90%
- Small-cap: 97%.

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 billion \* 1.15 = \$11.5 billion and the lower bound is \$10 billion \* 0.5 = \$5 billion.

At each rebalance, significant initial public offerings, or IPOs, are included in the indexes<sup>3</sup>. Significant IPOs are broadly defined as IPOs that meet the general liquidity and investability criteria; and have full market value (in USD), greater than or

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<sup>3</sup> The inclusion of significant IPOs was effective from March 2020 rebalance onward.

equal to twice of the mid-small segment cutoff of the respective market segment (developed markets ex-US and emerging markets) at the previous reconstitution.

### *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 market capitalization 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: 90%
- Small-cap: 97%.

This initial country-specific capitalization breakpoint is then adjusted based on the economic segment-level capitalization bounds calculated in the previous section. If the initial country-specific breakpoint is larger than the economic segment-level capitalization upper bound, then the country-specific breakpoint is set to the economic segment-level capitalization upper bound. 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. The existing constituents of the index are provided a one-time buffer and are retained in their existing capitalization bands provided that the cumulative capitalization percentage of the constituents falls within the buffer zone.

- Large-cap/mid-cap upper buffer:  $X - 1.0\%$
- Large cap/mid-cap lower buffer:  $X + 1.0\%$
- Mid-cap/small-cap upper buffer:  $Y - 0.5\%$
- Mid-cap/small-cap lower buffer:  $Y + 0.5\%$
- Small-cap/micro-cap upper buffer:  $Z - 0.25\%$
- Small-cap/micro-cap lower buffer:  $Z + 0.25\%$



X, Y, and Z are the country-level adjusted capitalization breakpoints for the large-, mid-, and small-cap bands, respectively.

#### *Number of Stocks*

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

#### *Index Weighting*

The indexes are float market-capitalization-weighted. For more details, refer to the [Morningstar Indexes Calculation Methodology rulebook](#).

## Index Maintenance and Calculation

### Scheduled Maintenance

The index is reconstituted, where the membership is reset, semi-annually on the third Friday of June 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 April and October.

The index is 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 rebalancing is as of the last trading day of February, May, August, and November.

Refer to Appendix 2 for details on reconstitution and rebalancing.

### *IPO Treatment*

At each reconstitution in June and December, securities with initial public offerings, or IPOs, listed on or before the last trading day of April and October are eligible for inclusion in Morningstar indexes if they meet all other eligibility criteria. The liquidity criteria are assessed on a pro-rata basis based on the IPO date.

At each rebalance in March and September, significant IPOs are included in the indexes. Significant IPOs are broadly defined as securities that meet the general liquidity and investability criteria and have full market value (in USD), greater than or equal to twice the mid-small segment cutoff of the respective economic segment from the previous reconstitution. The data cutoff date for significant IPOs is the last trading day of February and August.

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

## Methodology Review and Index Decommissioning 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 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 Decommissioning Policy](#).

## 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 calculations, corrections are applied prospectively.

### Index-Related Data and Divisor Corrections

Index calculation data input defects—such as price, dividends, other mandatory corporate actions or foreign-exchange rates, that do not affect the index shares—if discovered within two trading days, are generally corrected, and the index is recalculated regardless of the performance impact.

Where such index calculation data inputs are discovered after two trading days, an index restatement will typically only occur if the impact on performance is material; otherwise, the correction is applied prospectively.

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
Appendix 4	Qatar and United Arab Emirates added to the list of emerging markets	June 2015
Foreign Ownership Limits and Foreign Room	Qatar and United Arab Emirates added to the list of countries where Morningstar indexes monitors foreign ownership limit and foreign room	June 2015
Appendix 5 and Appendix 6	Added eligible exchanges and security types for Qatar and United Arab Emirates	June 2015
Capitalization band buffers	Added large/mid and mid/small buffers	December 2015
Foreign Room	Removed the section on foreign room	December 2015
Free Float	Minimum free float requirement changed to 10% from 5%	December 2015
Appendix 4	Greece reclassified from developed to emerging and Morocco removed from the list of emerging markets	June 2016
Appendix 5 and Appendix 6	Removed Morocco from the eligible exchanges and the security type lists	June 2016
Country Classification Case Studies	Removed the section on Country Classification Case Studies	June 2017
Appendix 4	Pakistan added to the list of emerging markets	June 2017
Appendix 5	Added eligible security types for Pakistan and revised them for a few existing countries	June 2017
Appendix 6	Added eligible exchanges for Pakistan and revised them for a few existing countries Added a footnote regarding the eligibility of National Stock Exchange securities	June 2017
Selection Universe	ADR may be considered for the inclusion in the index if no equity listing is available for the company.	December 2018
Appendix 4	Saudi Arabia added to the list of emerging markets	June 2019
Appendix 5 and Appendix 6	Added eligible exchange and security type for Saudi Arabia	June 2019

Security Selection	Started including significant IPOs as fast track additions	March 2020
Security Selection and Appendix 6	Started including large and mid-cap China A shares trading via the northbound route of stock connect at a partial inclusion factor of 25%	June 2020
Appendix 4	Kuwait added to the list of emerging markets	December 2020
Appendix 5 and Appendix 6	Added eligible exchange and security type for Kuwait	December 2020
Appendix 9	Added Appendix 7 for Sanctioned Securities	February 2021
Appendix 4	Added details regarding company watch-list and client consultation timeline	February 2021
Appendix 4, Appendix 5, and Appendix 6	Poland reclassified to developed market from emerging market	June 2021
Appendix 4, Appendix 5, and Appendix 6	Russia reclassified to unclassified from emerging market	March 2022
Entire rulebook	Moved to new template	December 2022
Overview	Revised index description	December 2022
Exhibit 1	Revised exhibit	December 2022
Exceptions	Added Exceptions section	February 2023
Appendix 6	Updated the eligible market segments for Japan	June 2023
Appendix 5	Removed eligible security types for Pakistan	August 2024
Appendix 6	Removed eligible exchanges for Pakistan	August 2024
Data Correction and Precision	Computational and Reporting Precision section removed	September 2024
Index Maintenance and Calculation	IPO Treatment section added	December 2024
Eligibility	Clarified securities removed from the Morningstar Global Markets ex-US Index as part of the semi-annual reconstitution are not eligible for re-inclusion for one year.	September 2025
Data Correction and Precision	Clarified index recalculation policy	October 2025

## Appendix 2: Glossary

Terms	Description
<b>Reconstitution</b>	<p>Each reconstitution involves the following:</p> <ul style="list-style-type: none"> <li>• Updating the global market's investable equity securities.</li> <li>• Reviewing the economic segment- and country-level size segment breakpoints.</li> <li>• Assigning companies to capitalization bands considering the buffer zones.</li> <li>• Changes in index shares (free float, total shares outstanding, index-specific adjustment factor) of each constituent.</li> </ul>
<b>Rebalance</b>	<p>During each rebalance, the weights are adjusted for updated free-float and shares outstanding data.</p>

## Appendix 3: Country Inclusion Framework

Morningstar indexes maintains a watch list containing markets under consideration for a possible change in their classification and carries out an annual review for all such countries, in consultation with clients. The Morningstar Index Operations Committee reviews all potential changes. Notifications of changes are provided, at least 90 days in advance, where possible. 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, and so on.) 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 considered 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.

### **Appendix 4: Developed- and Emerging-Market Classification**

Countries are classified as developed if they meet all 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 in place any broad-based discriminatory controls against nondomiciled investors for the most recent three years.
- The country's stock market must exhibit these characteristics:
  - transparency
  - market regulation
  - operational efficiency



- absence of broad-based investment restrictions.

Eligible countries that do not meet all 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
<b>Developed</b>	Australia	<b>Emerging</b>	Brazil
	Austria		Chile
	Belgium		China
	Canada		Colombia
	Denmark		Czech Republic
	Finland		Egypt
	France		Greece
	Germany		Hungary
	Hong Kong		India
	Ireland		Indonesia
	Israel		Kuwait
	Italy		Malaysia
	Japan		Mexico
	Netherlands		Peru
	New Zealand		Philippines
	Norway		Qatar
	Poland		Saudi Arabia
	Portugal		South Africa
	Singapore		South Korea
	Spain		Taiwan
	Sweden		Thailand
	Switzerland		Turkey
	United Kingdom		United Arab Emirates

## Appendix 5: Eligible Securities

Classification	Country	Security Class
<b>Developed Market</b>	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
	Norway	Ordinary Shares Certificates
	Poland	Ordinary Shares
	Portugal	Ordinary Shares
	Singapore	Ordinary Shares
		Business Trust
	Spain	Ordinary Shares
		Preferred Shares
	Sweden	Ordinary Shares
		Swedish Depositary Receipts
	Switzerland	Ordinary Shares
		Preferred Shares
		Certificates
	United Kingdom	Ordinary Shares
		Units
Classification	Country Name	Security Class
<b>Emerging Market</b>	Brazil	Ordinary Shares
		Preferred Shares

	Units
Chile	Ordinary Shares Preferred Shares
China	B Shares A Shares H Shares* P Chip* Red Chip*
Colombia	Ordinary Shares Preferred Shares
Czech Republic	Ordinary Shares
Egypt	Ordinary Shares
Greece	Ordinary Shares Preferred Shares
India	Ordinary Shares
Indonesia	Ordinary Shares
Kuwait	Ordinary Shares Preferred Shares
Malaysia	Ordinary Shares
Mexico	Ordinary Shares Units Certificate of Participation
Peru	Ordinary Shares Preferred Shares Investment Shares
Philippines	Ordinary Shares Philippine Depositary Receipts
Qatar	Ordinary 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

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

## Appendix 6: Eligible Exchanges

Securities listed on eligible market exchanges 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 Midmarket-Regulated	Midmarket-MTF
	Belgium	Euronext Brussels	Euronext Alternext	Free Market Segment
	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	Prime Standard Growth	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	
Poland	Warsaw Stock Exchange	Basic Market Parallel Market	
Portugal	Euronext Lisbon	Euronext Alternext	
Singapore	Singapore Stock Exchange	Main Board CATALIST	
Spain	Madrid Stock Exchange		
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	

Classification	Country	Eligible Exchange	Eligible Market Segment	Ineligible Market Segment
Emerging Market	Brazil	BM&F Bovespa SA	Traditional Level 1 Level 2 Novo Mercado	
	Chile	Santiago Stock Exchange		
	China	Shenzhen Stock Exchange Shanghai Stock Exchange Shenzhen-Hong Kong Stock Connect Shanghai-Hong Kong Stock Connect		ChiNext
	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	Primary Market	T Market

Standard Market			
India	Bombay Stock Exchange National Stock Exchange		
Indonesia	Jakarta Stock Exchange	Main Board Development Board	
Kuwait	Boursa Kuwait	Premier Market Main Market	
Malaysia	Kuala Lumpur Stock Exchange	Main Market Ace Market	PN-17 GN-3
Mexico	Mexican Stock Exchange	Capitals Market	
Peru	Lima Stock Exchange		
Philippines	Philippine Stock Exchange	Main Board	
Qatar	Qatar Stock Exchange		
Saudi Arabia	Saudi Arabia 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	Companies to be Delisted Foreign Common Stock
		Market for Alternative Investment	
Turkey	Istanbul Stock Exchange	National Market Second National Market New Economy Market (ECM Companies)	
United Arab Emirates	Abu Dhabi Securities Exchange Dubai Financial Market NASDAQ Dubai		

## Appendix 7: Tax Havens

The 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.

Country	Country
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

## Appendix 8: 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 9: Sanctioned Securities

Securities of companies that have been sanctioned or put on a trading prohibition list by the local regulators would be reviewed on case-by-case basis. The removal of affected securities from Morningstar Indexes in between rebalance periods may be required to ensure their ongoing replicability. Such removals will be reviewed and approved by the Morningstar

Indexes Methodology Committee and communicated to clients via notifications and corporate action data files where available.

The following sanctions led to removal of securities from Morningstar Indexes:

- The Office of Foreign Assets Control, or OFAC, and the European Union, or EU, imposed sanctions on certain Russian securities in 2014.
- The US President Executive Order (EO 13959) prohibited investments in Chinese Communist Military Company securities on Nov. 12, 2020.
- The Office of Foreign Assets Control (OFAC), the European Union (EU), and the United Kingdom (UK) imposed sanctions on Russian securities in response to Russia's invasion of Ukraine in 2022.

## 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 indexes 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 is comprised of 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 UK & EU Benchmark Regulations “BMR”), ensuring methodologies remain fit for purpose and continue to achieve their stated investment objectives. The group is comprised of 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 UK & 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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