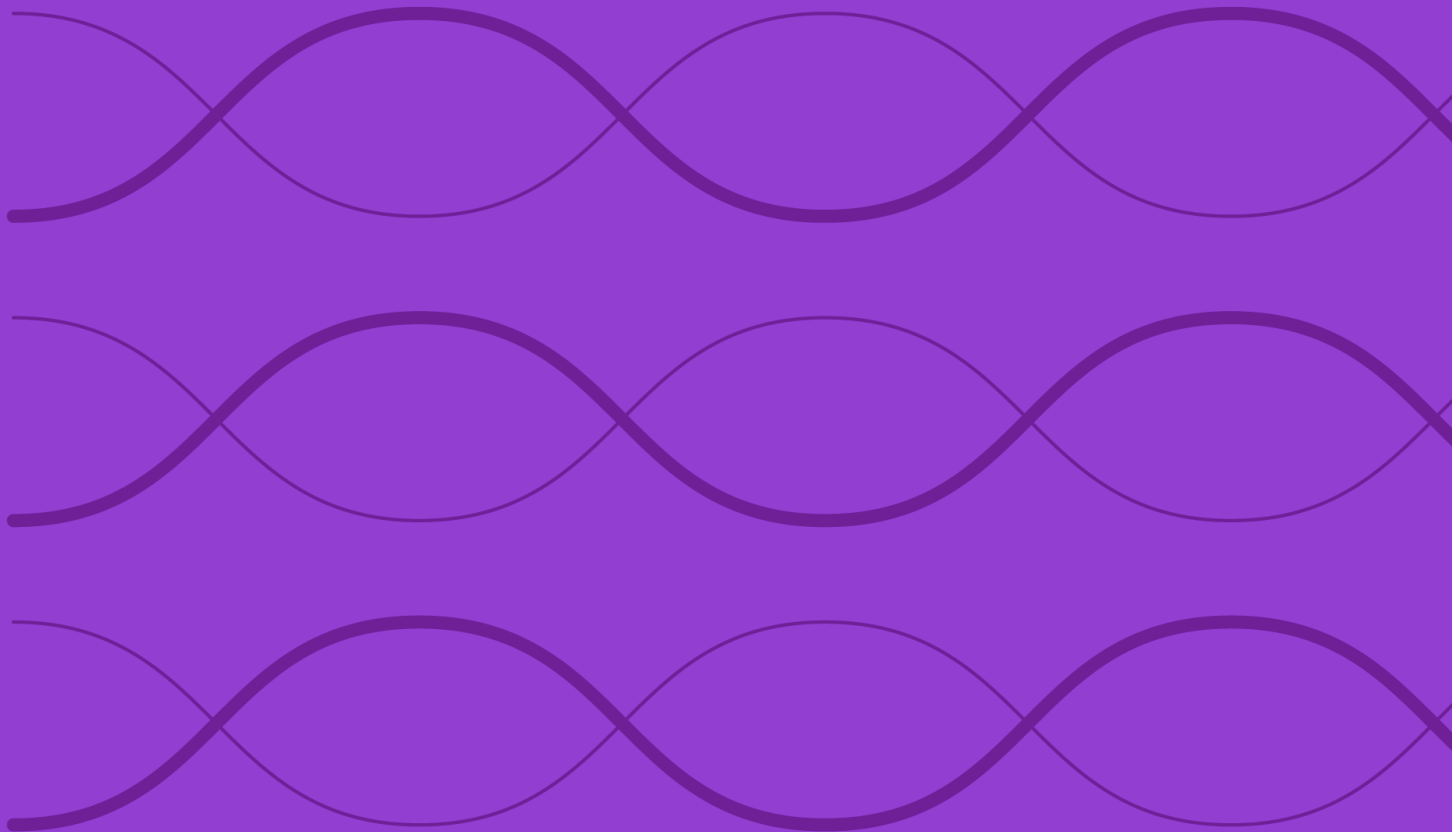


Morningstar Indexes Free Float Calculation Methodology



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Overview

Free float is the portion of shares available for trading in the market for investors. Morningstar Indexes calculates the free-float value of a security and uses it in its free-float market-cap-weighted equity index calculations. The free-float factor is calculated by first estimating the number of listed shares deemed not to be available for trading in the market, using securities reports and other publicly available statutory documents, and then deducting that from Total Outstanding Shares of the security to arrive at the security's free float value. In practice, disclosure requirements generally do not provide a clear determination of these investment objectives.

Calculation Methodology and Shareholder Types

To calculate free-float weight, Morningstar Indexes has grouped shareholders under entity types based on generalized traits displayed by those entities. An assumption is made regarding strategic holders: that they have an interest in maintaining control, as opposed to just benefiting from the short-term economic gains. To calculate restricted shares, all long-term strategic shareholders' stakes are aggregated.

Free Float = 1 - (Sum of Shares Held by Strategic Holders/Total Outstanding Shares)

Free-float shares for each company in the index will be updated based on the shareholding pattern and related information submitted by companies to stock exchanges and other regulatory bodies. Examples of the different types of shareholders are outlined below.

- **Strategic Shareholders: These are generally long-term shareholders with strategic objectives and are excluded from the free float of the company. Examples include:**
 - Shares held by owners, directors, senior executives of the company, and by their family and direct relations.
 - Equity held by associated companies/group companies.
 - Individuals with a stake of more than 3%.
 - Venture capital/private equity subject to a vesting schedule.
 - Holdings through the Foreign Direct Investments route.
 - Shares held under an employee stock ownership and savings plan.
 - Restricted shares subject to a lock-in clause.
 - Shares held by any publicly traded company or any private subsidiary of a public company.
 - Shares held by promoters and other strategic shareholders through ADRs/GDRs.
 - Shares held by different levels of government and affiliated entities in the capacity of strategic investor.
 - Shares held by an investment company or an investment fund with either an employee/representative on the board of directors of a company, or has a shareholder agreement, or has nominated a current member on the board of directors alongside a shareholder agreement with the company.
 - Holdings of more than 5% by an international sovereign wealth fund.
 - Foundations or family trusts associated with the company.

- **Non-strategic Shareholders: These shares are included in the public float, as they are generally held for investment purposes and are available to the public. The following holders' shares are generally considered as public float.**

- Individuals not associated with the company/board/family with stakes less than or equal to 3%.
- Shares held in trust banks on behalf of other third parties.
- Shares held by brokers and dealers.
- Shares owned by social security funds.
- Pension funds, including shares held by pension schemes held for governments.
- Mutual funds, exchange-traded fund providers, investment funds, and asset managers (including hedge funds with no representation on the board of directors).
- Investment funds of insurance companies.¹
- Independent foundations not associated with the company.

- **Special cases**

- Officers and Directors

Holdings of officers and directors are considered strategic since they are insider stakeholders of the company and in position to influence company decisions.

- Insurance Companies

Shares owned by insurance companies will be considered free float in most cases. However, if further research reveals that the holdings are unlikely to be made available as free-floating shares in the market, they will be considered as strategic or non-free-float. Multiple factors must be taken into consideration while making such judgment—for example, an insurance company's business practices, the nature of business in each country, or other regulatory requirements.

- Nominees or Trustees

Shares held by a nominee or in trusts are considered nonstrategic and part of free-float in most cases. However, if further research reveals the ultimate beneficial owner of the trust could be identified as a long-term strategic shareholder, then it would be treated as strategic. However, for a Trust, where the aggregated portfolio holding of a single entity exceeds 25%, it will be regarded as strategic.

- Highly Concentrated Portfolio Holdings

Portfolio holdings like investment funds, hedge funds, and mutual fund holdings are considered as nonstrategic and included in free-float in most cases. However, in cases where the aggregated portfolio holding of a single entity exceeds 25%, it will be regarded as strategic.

¹ Insurance companies are considered strategic in certain countries based on country-specific rules or regulatory framework.

- IPO Lockup Shares

These are the proportion of shares subscribed by certain holders in the company with a condition of a lock-in period, which may vary from six months to two years from the IPO listing date. Since these shares are not tradable, they are deducted from the total shares to arrive at the float of a company until the expiry of the lock-in period.

At each rebalancing and reconstitution, securities subject to a Total Outstanding Shares review, as described in the Morningstar Equity Indexes Corporate Actions Methodology, or a float review, as described in the "Review and Implementation" section of this methodology, are reviewed for lockup expirations. Based on the holder's classification, the associated shares are included in or excluded from the free-float calculation.

- Treasury shares

For cases where Treasury shares are disclosed by the company in the outstanding shares and the shareholdings of a security, the Treasury stake will be subtracted from the outstanding shares and not be considered in free float calculations.

Domestic and International Float

Morningstar Indexes uses international float as the default setting for most indexes. International float reflects Foreign Ownership Limits (FOL), as described in the next section. Foreign ownership checks are also applied to determine eligibility for inclusion in Morningstar Indexes that use international float, as described in the Foreign Room section below.

The FOL and Foreign Room rules do not apply to indexes that use domestic float. Otherwise, domestic float is computed following the standard approach. Please refer to the Foreign Ownership Limit and Foreign Room sections below for further details.

Foreign Ownership Limit

Some countries have a statutory limit on the percentage of shares permitted to be held by foreign shareholders collectively. The restriction on foreign holdings could be defined by the government, regulatory authority, or the company's constitution. The most common sectors with a foreign ownership limit are defense, airlines, energy, and financial institutions.

FOL can be placed on individual holdings by a foreign company and/or the collective holdings by foreign companies. For the purpose of calculating the investable weighting factor of a security within an index, restrictions on the collective holding by foreign nationals and companies are taken into consideration. FOL is used to compute the final IWF. The IWF is equal to the FOL if the FOL is more restrictive than the calculated free float of the company.

International free float calculation where FOL is applicable = $\min(A, B)$ where:

Domestic free float (A) = $1 - (\text{Sum of shares held by strategic holders} / \text{Total Outstanding Shares})$

Free float adjusted for FOL (B) = $\text{FOL} - (\text{Sum of shares held by foreign strategic holders} / \text{Total Outstanding Shares})$

If foreign ownership information is disclosed at the company level and there are multiple share classes for that company, then the FOL would be allocated equally to each listed share class.

Also, in the case of multiple FOLs, the applicable FOL will be determined based on the index type. For domestic country indexes, no FOL is applicable to the investors belonging to that country and hence calculated float would always be equivalent to the factor derived in (A) calculation above.

For nondomestic indexes that take the view of a nonresident investor, the FOL will be applicable based on the country/sector-specific ownership restriction rules existing in that country for nondomestic holders (that is, investors who are not nationals of that country). An exception is made for US companies, where the FOL is not applied.

The definition of foreign nationals differs by region. For example, in European countries, the restrictions are for non-European investors. So, a German company may not have any restrictions for French entities but may have investment restrictions on US entities. The same would be the case for Gulf Cooperation Council countries where the restrictions on entities outside Gulf regions are more stringent compared with Arabic entities. For GCC composite indexes, the GCC limit—which is for investors who are of GCC nationality but do not belong to the country of classification—is applicable. This is illustrated in Appendix 3.

Foreign Room

Foreign Room is the proportion of shares available for foreign nationals after considering the FOL. Foreign Room is to be maintained for securities where FOL is being applied. The formula to compute Foreign Room is as follows:

$$\text{Foreign room} = (\text{FOL} - \text{Foreign holdings}) / \text{FOL}$$

For a new security to be added to a Morningstar equity index, a minimum headroom of 15% must be available. For an existing constituent that is subject to FOL, a minimum headroom of 5% must be available. If the Foreign Room of any existing constituent falls below 5% as of the data cutoff date, it will be dropped from the index on the index review effective date. If the Foreign Room of any existing constituent falls below 10% as of the data cutoff date, such securities will be monitored from “T-10” to “T-3” date for any change in data. If the Foreign Room doesn't fall below 5%, no further action will be taken. If the Foreign Room of a security falls below 5% as of the T-3 date, it will be deleted from the indexes as of the index rebalancing effective date.

Securities deleted on account of low foreign room will be eligible to be added back to the index only after 12 months following the drop, provided the minimum Foreign Room criteria is met as of the data cutoff date of the index review and the FOL is still applicable. If the FOL is removed prior to the data cut-off date, the security will be eligible to be added in the upcoming index review. The foreign shareholdings collection required for estimating foreign headroom of a security will be performed using the publicly available information as per the data cutoff date on a best-effort basis.

Review and Implementation

Float will be reviewed annually for the entire eligible equity universe coinciding with the June index reconstitution. In addition to that, Morningstar will perform a float review of the potential additions to the index on a semiannual basis coinciding with the index reconstitution to capture the latest information for inclusion/exclusion in the index. Change in float occurring because of a mandatory corporate event will be implemented at the time of the event by applying a Float Adjustment Factor, which will be computed using the terms of the event.

Float changes that arise from nonmandatory corporate actions will be implemented intra-rebalance along with Total Outstanding Shares changes on an accelerated (weekly) basis.²

Events that were not implemented during an index rebalancing because of a lack of publicly available information at the data cutoff date will be implemented during the next rebalancing cycle.

Foreign Room and Foreign Ownership Limit, or FOL, will be reviewed on a quarterly basis, and any changes will be implemented at the quarterly rebalance cycle.

Data Cut-Off Dates

The data cutoff for the quarterly March, June, September, and December index rebalancing is the last business day of January, April, July, and October, respectively. Morningstar will compute free float based on publicly available information as of the data cutoff date for index rebalancing.

In case of insufficient information available on the data cutoff date for that particular index rebalancing, Morningstar may defer the free-float implementation to the next index rebalancing cycle. On the float review date, if the latest public information on strategic ownership stakes is older than a year, those stakes will be dropped from the float calculation.

Exceptions

Stakes less than or equal to 3%

Any strategic stakes less than or equal to 3% would not be considered in the float calculation, with the following exceptions: director & officer stakes, Treasury stakes, and locked-up/restricted shares.

Brazil units

For Brazilian securities with listed units, units are considered for index calculations over ordinary or preference shares. Morningstar Indexes derive float and Total Outstanding Shares of the units using company-level data (that is, the underlying shares represented by the units) and applying the ratio for units.

Depository Receipts, or DR

For DR issued by a parent company represented in the index, the float of DR is derived from the parent's float. For lone DR, the float is determined using shareholding information available from public sources.

² Note, this implementation of weekly float changes will be effective starting Dec. 20, 2024.

While Morningstar will seek to apply the above standard methodology, exceptional circumstances may require an alternative approach to be adopted in certain instances. A decision to take an alternative approach will be made by the Morningstar Index Operations Committee solely, and, where appropriate, in conjunction with the relevant Morningstar Methodology Committee. Any application of a nonstandard process will be reported to the Morningstar Index Oversight Committee.

Appendix

• Appendix 1: IWF Calculation Where FOL Is Not Applicable

Consider a company with Total Outstanding Shares of 1 million. The following are the holders of the company:

Corporate A (domestic)—200,000 shares (20%)

Corporate B (international)—150,000 shares (15%)

Asset management company C (international)—50,000 shares (5%)

Lockup shares held by group of domestic holders (expiring after six months)—100,000 shares (10%)

	During Lock-in Period	Post Lockup Expiry
Free Float	$1 - (450,000/1,000,000) = 0.55$	$1 - (350,000/1,000,000) = 0.65$
IWF	0.55	0.65

• Appendix 2: IWF Calculation Where FOL Is Applicable

Consider the same company from Appendix 1: The FOL applicable to the sector in which the company operates is 30%.

	During Lock-In Period	Post Lockup Expiry
Free Float	$1 - (450,000/1,000,000) = 0.55$	$1 - (350,000/1,000,000) = 0.65$
Free Float (Incl. FOL)	$0.3 - (150,000/1,000,000) = 0.15$	$0.3 - (150,000/1,000,000) = 0.15$
IWF	0.15	0.15

• Appendix 3: Foreign Room Calculation

Consider a company is subject to an FOL of 25%. Foreign holdings in that company are at 10%.

Foreign room = $(25-10)/25 = 0.6$

That is, 60% room (out of a 25% total limit) is still left for foreign investors.

Methodology Update History

Version	Date	Description
1	June 2023	First published version.
2	September 2023	Updated individual shareholding threshold from 1 to 3%, and minor edits.
3	August 2024	Added Domestic and International Float section.
4	October 2024	Clarified Foreign Room maintenance to avoid ambiguity.
5	December 2024	Updated the methodology for implementing float changes arising from material nonmandatory events. Under the new rule, which is effective from Dec. 20, 2024, changes in float from such events will be implemented along with share changes, based on the terms of the events. Previously, changes in float arising from such events were only updated quarterly.
6	September 2026	Clarified IPO lockup expiry treatment.

About Morningstar Indexes

Morningstar Indexes was built to keep up with the evolving needs of investors—and to be a leading-edge advocate for them. Our rich heritage as a transparent, investor-focused leader in data and research uniquely equips us to support individuals, institutions, wealth managers, and advisors in navigating investment opportunities across major asset classes, styles, and strategies. From traditional benchmarks and unique IP-driven indexes to index design, calculation, and distribution services, our solutions span an investment landscape as diverse as investors themselves.

Morningstar Index Methodology Committee

The Morningstar Index Methodology Committee oversees all new index development, index methodology changes, and cessation of indexes for any indexes where Morningstar owns the intellectual property. This committee is also charged with ensuring that indexes align with Morningstar Research principles and values. The group comprises members of the index team with index research, product development, product management, client service, index implementation, and operation expertise who provide the first layer of governance over index design and methodology.

Morningstar Index Operations Committee

The Morningstar Index Operations Committee governs the processes, systems, and exception handling of the day-to-day management of all live indexes, including index rebalancing and reconstitution, restatements, market classification, and contingency management. The committee oversees the annual review of index methodology, as required by the European Benchmarks Regulation (“BMR”), ensuring that methodologies remain fit for purpose and continue to achieve their stated investment objectives. The group comprises members of the index team with data, operations, corporate actions, product development, index launch, client service, and index management experience who provide the first layer of governance over index operations.

Morningstar Index Oversight Committee

The Morningstar Index Oversight Committee is responsible for the index oversight function as per the requirements of the European BMR, providing independent oversight of all aspects of the governance of benchmark administration as required by the 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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