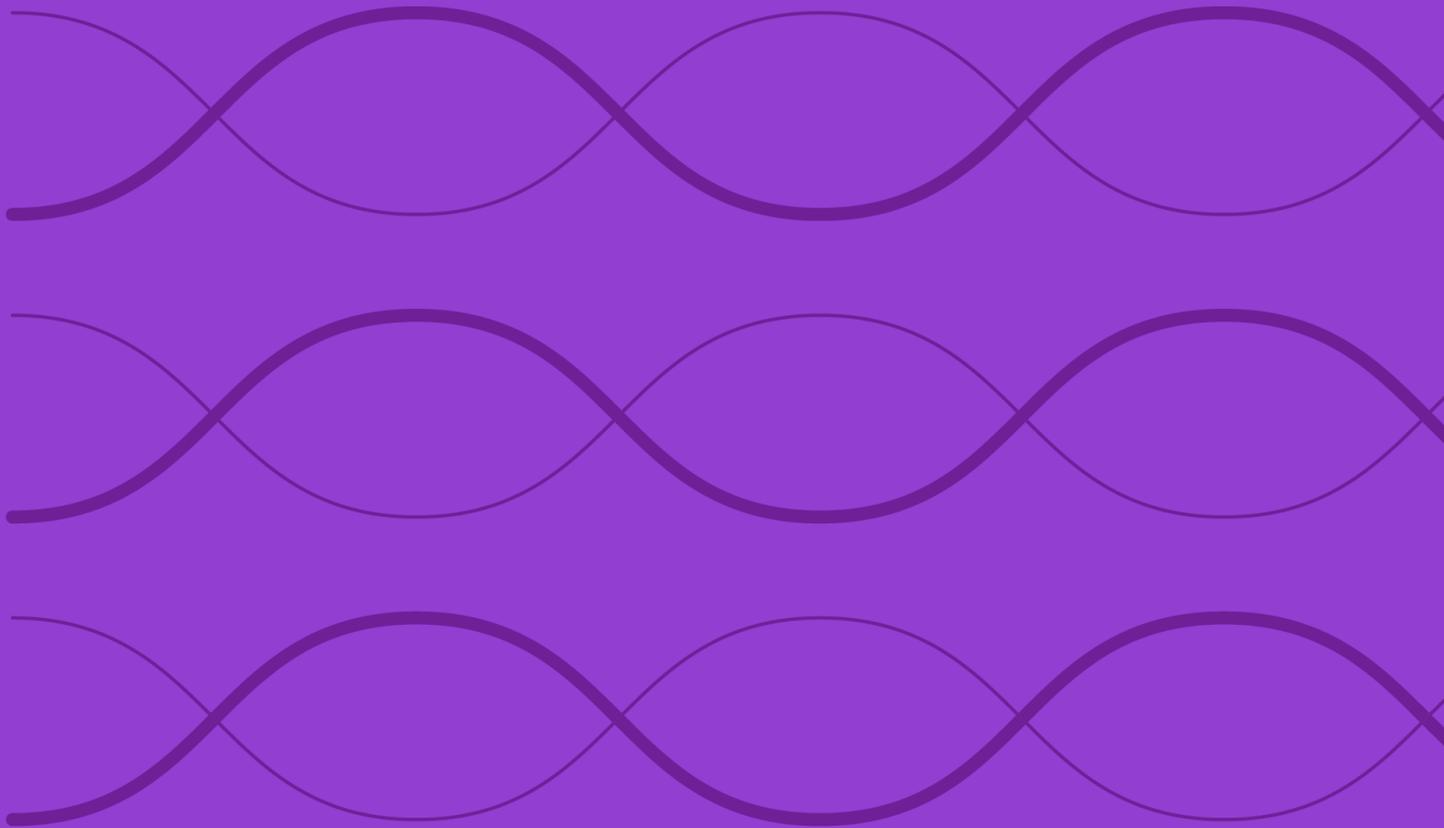


Morningstar Indexes Recalculation Guidelines



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Overview

Morningstar Indexes strives to deliver the highest-quality data. However, inaccuracies may occur, and Morningstar Indexes retains the right to recalculate and restate an index when one of the following events has occurred:

- Missed or late announcement of a corporate event.
- Error in closing price of constituent securities.
- Dividend error.
- Missed or incorrectly applied data input.
- Incorrect application of methodology.
- Index calculation error.

This document explains the index recalculation process that Morningstar Indexes follows. A set of well-defined guidelines leads to predictable outcomes, ensures that index recalculations are put through consistent internal procedures, and complies with the industry's voluntary standards, such as the International Organization of Securities Commissions Principles for Financial Benchmarks (IOSCO Principles) and UK & EU Benchmark Regulation.

Index Recalculation Policy

In general, index calculation data input defects—such as price, dividends, or foreign-exchange rates, that do not affect the index weighting factor—if discovered within two trading days, are corrected, and the index is recalculated regardless of the performance impact. Such errors discovered after two trading days typically only result in an index restatement if the impact on performance is material; otherwise, they are corrected prospectively. Errors involving mandatory corporate actions will generally be corrected with a restatement, regardless of the performance impact.

For all other errors that affect the index weighting factor, Morningstar Indexes will escalate the issue to the Morningstar Index Operations Committee. The Index Operations Committee considers regulatory requirements, the information originally available to clients, whether the error caused the index to deviate from its stated objectives, as well as impact on performance and clients. Morningstar Indexes may correct the error prospectively, providing two days' advance notice where possible; issue a restatement; or take no action.

If a real-time value or end-of-day values are restated for indexes that publish intraday values, Morningstar Indexes will not recalculate real-time values. Only the end-of-day values will be restated.

Incorrect identifiers are generally discovered on the day of the error. Corrections will be included in the next scheduled file delivery.

Errors discovered in the back-testing of an index after the go-live date can be corrected without consulting with the Index Operations Committee, provided they are limited to index calculation data input defects that do not affect the index weighting factor. Back-test errors involving incorrect methodology application or data input errors affecting composition or weight will be escalated to the Index Operations Committee.

Please note that the above guidelines are the standard approach and apply to all asset classes of indexes. Any occurrence of an unprecedented error type will be assessed case by case by the Index Operations Committee. In all cases, decisions that differ from the stated process will be reviewed and announced accordingly by Morningstar Indexes.

The Operations Committee will report to Compliance and the Morningstar Index Oversight Committee at least quarterly on restatements including incident reports with details on causes and associated remedial actions.

Handling of Corporate Action Errors and Defects That Do Not Affect the Index Weighting Factor

The table below outlines Morningstar Indexes' standard approach for handling corporate action errors, as well as index calculation data input defects that do not affect the index weighting factor:

Event	Approach
Missed or late announcement of mandatory corporate actions	Mandatory corporate actions, such as stock splits, bonus issues, or stock dividends and reverse stock splits, are corrected on the appropriate ex-date, and the index will be recalculated.
Error in closing price of constituent securities	Closing prices are corrected. The index and affected multi-asset indexes will be recalculated.
Dividend error	Incorrect or missed dividends are corrected on the appropriate ex-date, and the index and affected multi-asset indexes will be recalculated. Canceled dividends, if already applied, may be proactively reversed before the pay date.
Missed or misapplied data input	If it is determined that performance and/or portfolio composition is materially affected, the index and multi-asset indexes will typically be recalculated.
Incorrect application of methodology	If it is determined that the index methodology was incorrectly applied, the index and multi-asset indexes may be recalculated or corrected prospectively.
Index calculation error	If it is determined that there was a material error in index calculation that does not affect the index weighting factor, the index and multi-asset indexes will generally be recalculated. Such errors that do affect the index weighting factor may result in a recalculation or prospective correction.

Index Restatement Process

In case of restatements, Morningstar Indexes will review the issue upon detection and restate within a reasonable time frame. If an index is restated, the following steps will be completed:

- Morningstar Indexes will regenerate and repost all affected files.
- Morningstar Indexes will notify all affected clients of the restatement and file reposts once the process is completed.

Exceptions

While Morningstar will seek to apply the method described above as a standard, the market environment, supervisory, legal, financial, or tax reasons 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; or, where appropriate, by the Morningstar Index Operations Committee in conjunction with the relevant Morningstar Methodology Committee. In all instances, the application of a non-standard process will be reported to the Morningstar Index Oversight Committee.

Approval and Review

This document is reviewed by Morningstar Index Operations Committee at least annually or as required, if there are any relevant changes to applicable law or regulation. The Morningstar Index Oversight Committee is responsible for approving this policy and any subsequent amendments.

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 Services Methodology & Administration Committee

The purpose of the Morningstar Index Services Methodology & Administration Committee is to oversee all new index development, index methodology changes, and cessation of indexes for any indexes where Morningstar provides calculation and administration services but does not own the Intellectual Property of the indexes. 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 the index calculation services and administration business, with regard to index design and methodology.

Morningstar Indexes 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 U.K. and EU benchmark regulations, or BMR), ensuring that methodologies remain fit for purpose and continue to achieve their stated investment objectives. The group comprises members of the index team with data, operations, corporate actions, product development, index launch, client service, and index management experience who provide the first layer of governance over index operations.

Morningstar Index Oversight Committee

The Morningstar Index Oversight Committee is responsible for the index oversight function as per the requirements of the U.K. and European BMR, providing independent oversight of all aspects of the governance of benchmark administration as required by the relevant BMR. Its remit extends to all calculation and administration-related business activities of Morningstar Indexes, including administration of Morningstar-owned benchmarks as well as client-owned benchmarks and index calculation. The oversight function is part of the organizational structure of Morningstar but is separate and independent from the index business, index management, and the other index committees.

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