

MSCI Governance- Quality Indexes Methodology

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1. Introduction

The MSCI Governance-Quality Indexes (the 'Indexes') aim to reflect the performance of a strategy that is seeking to capture both the financial and corporate governance aspects of Quality investing. Institutional investors worldwide are adopting stewardship codes and increasingly look beyond financial data to assess the quality of the companies they invest in. Many investors believe that investing in quality growth companies with good governance practices is key to generating long term sustainable investment returns and improve downside risk protection.

The financial aspects of the Quality factor are captured using the same fundamental data as used in the MSCI Quality Index – return on equity, financial leverage, and earnings variability. The standard of corporate governance is measured through measures such as independence and diversity of board of directors, ownership and control structure of the company, accounting practices and auditor opinions. The measure of corporate governance is then used to discount security's financial quality score.¹

¹ The Indexes are governed by a set of methodology and policy documents ("Methodology Set"), including the present index methodology document. Please refer to Appendix IV for more details.

2. Constructing the Indexes

The Indexes use company ratings and research provided by MSCI ESG Research² for the Index construction.

2.1 Applicable Universe

The applicable universe includes all the existing constituents of an underlying MSCI index (herein, a “Parent Index”). This approach aims to provide an opportunity set with sufficient liquidity and capacity. The relevant MSCI Parent Index would be any Country or Regional market cap weighted Index.

2.2 Determination of Quality Score

The quality score for each security in the Parent Index is calculated as per the standard methodology of MSCI Quality Indexes. (Please see Appendix I for a brief description of Quality score, for detailed description please refer to MSCI Quality Indexes Methodology on www.msci.com/index/methodology/latest/Quality)

2.3 Determination of Governance Score

A governance score for each security in the Parent Index is calculated by combining 11 governance measures.

2.3.1 Governance Measures

Governance key metric scores are published by MSCI ESG Research as part of MSCI ESG Governance Metrics research. MSCI ESG Research generates 96 Key Metrics to facilitate company assessment from a corporate governance perspective. Each key metric reflects a simple pass/fail evaluation of the company on a particular dimension. Depending on the research evaluation, a company is assigned a score of 0(pass)/1(fail) on each of the 96 Key Metrics. The governance measures used in the construction of this index are based on a single key metric as well as combinations of Key Metrics (as detailed below and in Appendix II).

2.3.2 Governance Measures Included in the Methodology

The Governance-Quality index methodology includes 17 of the 96 Key Metrics published by MSCI ESG Research. Six Key Metrics related to equal shareholder voting rights are combined into one measure which we label ‘One Share One Vote’ and two Key Metrics related to the independence of the board chair are combined into one measure called ‘Independent Chair’. For these two measures, if any component Key Metric has a score of one then the combined score governance measure is 1. See Appendix II for a complete list of governance measures, the Key Metrics they depend on and their full description. Measure selection was based on the following criteria:

² See section 4 for further information regarding ESG and climate data used in the Indexes that MSCI Limited and MSCI Deutschland GmbH source from MSCI ESG Research LLC, a separate subsidiary of MSCI Inc. MSCI ESG Research is solely responsible for the creation, determination and management of such data as a provider to MSCI Limited and MSCI Deutschland GmbH. MSCI Limited and MSCI Deutschland GmbH are the benchmark administrators for the MSCI indexes.

- *Relevance* – Measures chosen should be those generally considered to be important by investors as part of an assessment of corporate governance.
- *Objective* – Measures chosen should be able to be assessed objectively, be easily understood and be directly related to corporate governance.
- *Differentiating* – Measures should differentiate companies in the global covered universe i.e., a meaningful proportion of companies have scored 1 and 0 in the universe (“qualified auditor opinion” is an exception to this because of its nature).
- *Universal* – Measures which are relevant and applicable to companies globally.
- *Coverage* – Measures for which MSCI ESG global data coverage is excellent.

2.3.3 Calculation of the Governance Score

The governance score is calculated on a scale of 0 to 1, such that the scores increase with increasing standards of corporate governance. The metric ‘Qualified Auditor Opinion’ is used as a discount factor for the overall governance score: if there is a 1 assigned as the score for “Qualified Auditor Opinion” then the governance score of the company is halved. For each security in the Parent Index, a governance score is calculated as below.

Governance Score = $[1 - \text{Average (10 governance measures included in methodology)}] * (1 - 0.5 * \text{Qualified Auditor Opinion score})$

For example, if a company failed the evaluation on six metrics

- Average of 10 Key Metrics = $(6*1)/10 = 0.6$
- Subtract from 1 to create discount factor = $1 - 0.6 = 0.4$
- Suppose “Qualified Auditor Opinion” score = 0
 - Governance score = $[1 - 0.6] * (1 - 0.5 * 0) = 0.4$
- However, if the “Qualified Auditor Opinion” score = 1
 - Governance score = $[1 - 0.6] * (1 - 0.5 * 1) = 0.2$

2.4 Determination of Composite Quality Score

The “Composite Quality” score combines quality score and governance score and penalizes the quality score with a discount factor if the company does not pass the test on all 11 governance measures. The “Composite Quality” score is calculated as below

Composite Quality Score = Quality Score * Governance Score

As the governance score ranges between 0 and 1, the governance score acts as a discount to security’s quality score. For example, if a company fails the test on only one governance metric, its financial quality score is discounted by a factor of 0.9.

2.5 Security Selection

The Index is constructed using a fixed number of securities approach. All the existing constituents of the relevant MSCI Parent Index are ranked based on their Composite Quality Scores. If multiple

securities have the same Composite Quality Score, then the security with the higher weight in the Parent Index is given a higher rank. A fixed number of securities with the highest Composite Quality Scores are predetermined for every Index at initial construction with an aim to attain a high exposure to the Composite Quality factor while maintaining sufficient index market capitalization and number of securities coverage. Rules for arriving at a fixed number of constituents at initial construction are explained in Appendix III. The fixed number for security selection determined at initial construction is evaluated at every Index Review to ensure that the Governance-Quality universe has sufficient index market capitalization coverage. Rules for evaluating the fixed number of constituents at every Index Review are explained in Appendix III.

2.6 Weighting Scheme

At each rebalancing, all the securities eligible for inclusion in the Indexes are weighted by the product of their market capitalization weight in the Parent Index and the Composite Quality Score.

$$\text{Governance-Quality Weight} = \text{Composite Quality Score} * \text{Market Capitalization Weight in the Parent Index}$$

The above weights are then normalized to 100%.

Additionally, constituent weights are capped at issuer level to mitigate concentration risk:

1. Issuers in the Indexes based on broad Parent Indexes (e.g. MSCI World Index) will be capped at 5%
2. Issuers in the Indexes based on narrow Parent Indexes will be capped at the maximum weight in the Parent Index.

Narrow Parent Indexes are defined as those indexes for which the maximum market capitalization weight in the Parent Index is more than 10%.

2.7 Treatment of Unrated Companies

When a company's underlying security in the Parent Index is not assessed by MSCI ESG Research on MSCI ESG Governance Metrics, then all Key Metric scores of that security are updated with the relevant country mode for each Key Metric score. For example, if a UK company is not covered in the MSCI ESG Governance Metrics data then the company's Key Metric scores are taken to be mode Key Metric scores of all other UK securities with complete data. If the only company from a country is not covered in the Governance Metrics data then the company's key metric scores are taken to be mode key metric scores of all other securities in the universe with complete data.

3. Maintaining the Indexes

3.1 Semi-Annual Index Reviews

The Indexes are rebalanced on a semi-annual basis, usually as of the close of the last business day of May and November, coinciding with the May and November Index Reviews of the MSCI Global Investable Market Indexes. The quality scores as of the end of April and October are respectively used for the May and November Index Reviews of MSCI Governance-Quality Indexes. In general, MSCI uses MSCI ESG Research data³ (including MSCI ESG Governance Metrics) as of the end of the month preceding the Index Reviews for the rebalancing of the Indexes. For some securities, such data may not be published by MSCI ESG Research by the end of the month preceding the Index Review. For such securities, MSCI will use ESG data published after the end of month, when available, for the rebalancing of the Indexes. This approach aims to capture timely updates to Governance-Quality characteristics of the companies and coincides with the rebalancing of the relevant MSCI Parent Indexes. The pro forma Indexes are in general announced nine business days before the effective date.

At each rebalancing, a constraint factor is calculated for each constituent in the Index. The constraint factor is defined as the weight in the Index at the time of the rebalancing divided by the weight in the Parent Index.

3.2 Buffer Rules

To reduce Index turnover and enhance Index stability, buffer rules are applied at 20% of the fixed number of securities in the Index.

For example, the MSCI World Governance-Quality Index targets 300 securities and the buffers are applied between rank 241 and 360. The securities in the MSCI Parent Index with a Composite Quality score rank at or above 240 will be added to the MSCI World Governance-Quality Index on a priority basis. The existing constituents that have a Composite Quality score rank between 241 and 360 are then successively added until the number of securities in the MSCI World Governance-Quality Index reaches 300. If the number of securities is below 300 after this step, the remaining securities in the Parent Index with the highest Composite Quality Score rank are added until the number of securities in the MSCI World Governance-Quality Index reaches 300.

3.3 Ongoing Event-Related Changes

The general treatment of corporate events in the MSCI World Governance-Quality Indexes aims to minimize turnover outside of Index Reviews. The methodology aims to appropriately represent an investor's participation in an event based on relevant deal terms and pre-event weighting of the index constituents that are involved. Further, changes in index market capitalization that occur as a result of corporate event implementation will be offset by a corresponding change in the Variable Weighting Factor (VWF) of the constituent.

³ See section 4 for details of data sourced from MSCI ESG Research used in the Indexes.

Additionally, if the frequency of Index Reviews in the Parent Index is greater than the frequency of Index Reviews in the MSCI World Governance-Quality Index, the changes made to the Parent Index during intermediate Index Reviews will be neutralized in the MSCI World Governance-Quality Index.

The following section briefly describes the treatment of common corporate events within the MSCI World Governance-Quality Indexes.

No new securities will be added (except where noted below) to the Index between Index Reviews. Parent Index deletions will be reflected simultaneously.

EVENT TYPE	EVENT DETAILS
New additions to the Parent Index	A new security added to the parent index (such as IPO and other early inclusions) will not be added to the index.
Spin-Offs	All securities created as a result of the spin-off of an existing Index constituent will be added to the Index at the time of event implementation. Reevaluation for continued inclusion in the Index will occur at the subsequent Index Review.
Merger/Acquisition	<p>For Mergers and Acquisitions, the acquirer's post event weight will account for the proportionate amount of shares involved in deal consideration, while cash proceeds will be invested across the Index.</p> <p>If an existing Index constituent is acquired by a non-Index constituent, the existing constituent will be deleted from the Index and the acquiring non-constituent will not be added to the Index.</p>
Changes in Security Characteristics	A security will continue to be an Index constituent if there are changes in characteristics (country, sector, size segment, etc.) Reevaluation for continued inclusion in the Index will occur at the subsequent Index Review.

Further detail and illustration regarding specific treatment of corporate events relevant to this Index can be found in the MSCI Corporate Events Methodology under the sections detailing the treatment of events in Capped Weighted and Non-Market Capitalization Weighted indexes.

The MSCI Corporate Events methodology book is available at:
<https://www.msci.com/index/methodology/latest/CE>

3.4 Deletions Between Index Reviews

In exceptional circumstances, a security may be deleted from an MSCI Composite Quality Index if there is a very substantial deterioration of their governance assessment and ratings according to MSCI ESG Research.

4. MSCI ESG Research

The Indexes are products of MSCI Inc. that utilize information such as company ratings and research produced and provided by MSCI ESG Research LLC (MSCI ESG Research), a subsidiary of MSCI Inc. In particular, the Indexes use the following MSCI ESG Research products: MSCI ESG Governance Metrics. MSCI Indexes are administered by MSCI Limited and MSCI Deutschland GmbH and MSCI Deutschland GmbH.

4.1 MSCI ESG Ratings

MSCI ESG Ratings aim to measure entities' management of environmental, social and governance risks and opportunities. MSCI ESG Ratings use a weighted average key issue calculation that is normalized by industry to arrive at an industry-adjusted ESG score (0-10), which is then translated to a seven-point scale from 'AAA' to 'CCC', indicating how an entity manages relevant key issues relative to industry peers.

The MSCI ESG Ratings methodology can be found at: <https://www.msci.com/legal/disclosures/esg-disclosures>

4.1.1 MSCI ESG Governance Metrics

MSCI ESG Research publishes corporate governance research, scores and rankings through MSCI Governance Metrics and within the corporate governance section of MSCI ESG Ratings.

The MSCI Governance Metrics model is based on a set of governance and accounting key metrics organized into four themes: Board, Pay, Ownership and Control, and Accounting. This framework is designed to provide consistency, transparency and structural integrity. Context-sensitive scoring deductions associated with each key metric are meant to emphasize behavior over policy.

The MSCI ESG Governance Metrics can be found in the Governance Pillar section at: <https://www.msci.com/legal/disclosures/esg-disclosures>

Appendix I: Description of Quality Score

The quality score for each security is calculated by combining the z-scores of three fundamental descriptors, Return on Equity, Debt to Equity and Earnings Variability. A given variable z-score for a security is calculated using the mean and standard deviation of the corresponding variable computed within the MSCI Parent Index. After calculating component variable z-scores, a composite z-score for each security is computed by taking an equal-weighted average of the component z-scores. The Quality Score is then computed from the composite Z score as follows:

$$Quality\ Score = \begin{cases} 1 + Z, & Z > 0 \\ (1 - Z)^{-1} & Z < 0 \end{cases}$$

Where Z is the composite Z score described earlier.

Appendix II: Governance Measures in Methodology

#	Metric Name	Governance Metrics Pillar	Default Score* (Fail=1/ Pass =0)	Description
1	Qualified Auditor Opinion	Accounting	0	Has the company's independent auditor expressed a qualified opinion, or questioned the company's ability to remain a going concern?
2	Audit Committee Independence	Board	1	Does the company have an audit committee comprising only members who meet the criteria of independence?
3	Board Attendance Failure	Board	0	Did all members attend at least 75% of all board and committee meetings?
4	Comp Committee Independence	Board	1	Are all comp committee members' non-exec directors who meet the MSCI ESG Governance Metric criteria for independence?
5	Gender Diversity	Board	1	Does the board have at least one female director?
6	Independent Board Majority	Board	1	Do a majority of the directors meet the designated criteria for independence?
7	Independent Chair**	Board	0	Does the board have an independent chair?
8	Annual Director Elections	Ownership and Control	0	Do all directors stand for annual re-election?
9	Cross Shareholding	Ownership and Control	0	Is the company involved in a series of cross-shareholdings with other (related or unrelated) companies
10	One Share One Vote(OSOV)***	Ownership and Control	0	Do all shares have equal voting rights?
11	Poison Pill	Ownership and Control	0	Has the company adopted a shareholder rights plan ("poison pill")

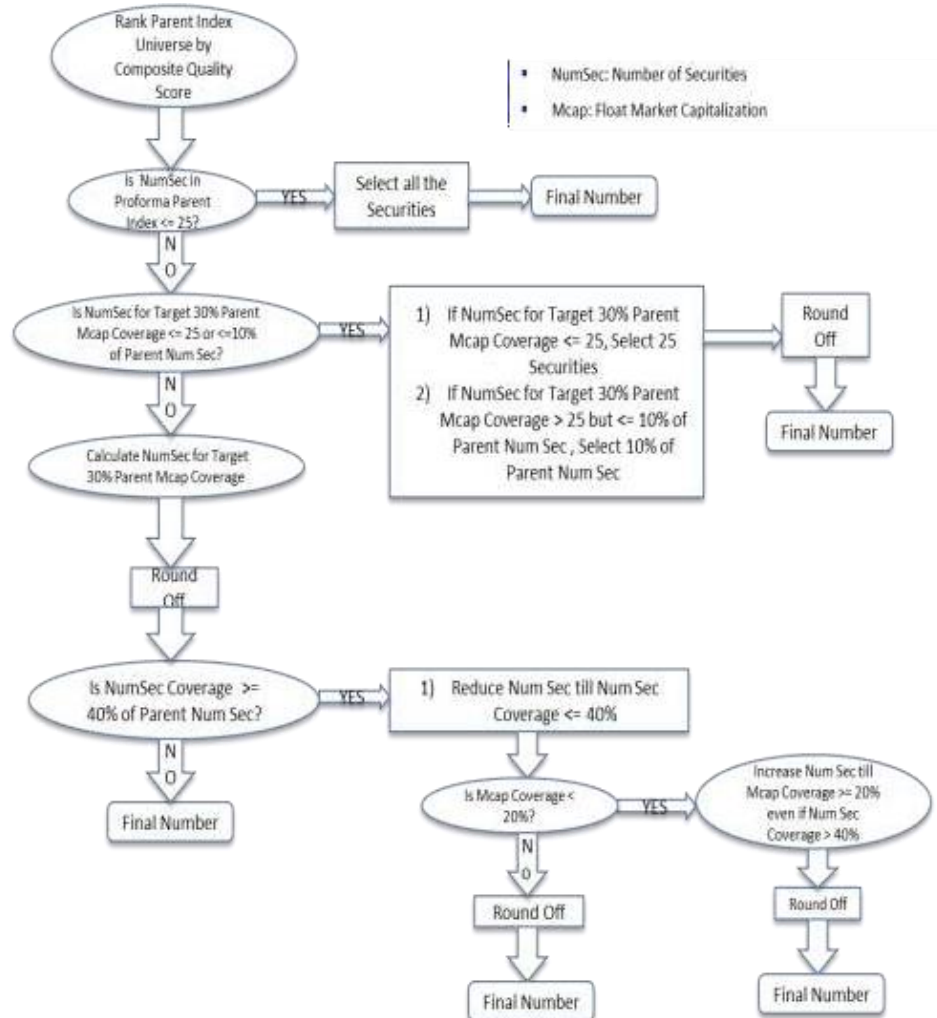
* The score implicitly assigned to a company by MSCI Governance Metrics methodology applied to Key Metrics in absence of sufficient data to conclude otherwise.

** Independent Chair:– combines 1) “Combined CEO/Chair” and 2) “Independent chair”

*** OSOV (One Share One Vote)– combines (1) Multiple equity classes with differential voting rights, (2) Golden shares, (3) Voting rights limits shares held, (4) Voting rights limits residency, (5) Voting rights limits duration, (6) Voting rights limits min holding period.

Appendix III: Rules to Determine Fixed Number of Securities at Initial Construction and in Ongoing Rebalancing

Algorithm to Determine Fixed Number of Securities at Initial Construction



Rounding Off Rules:

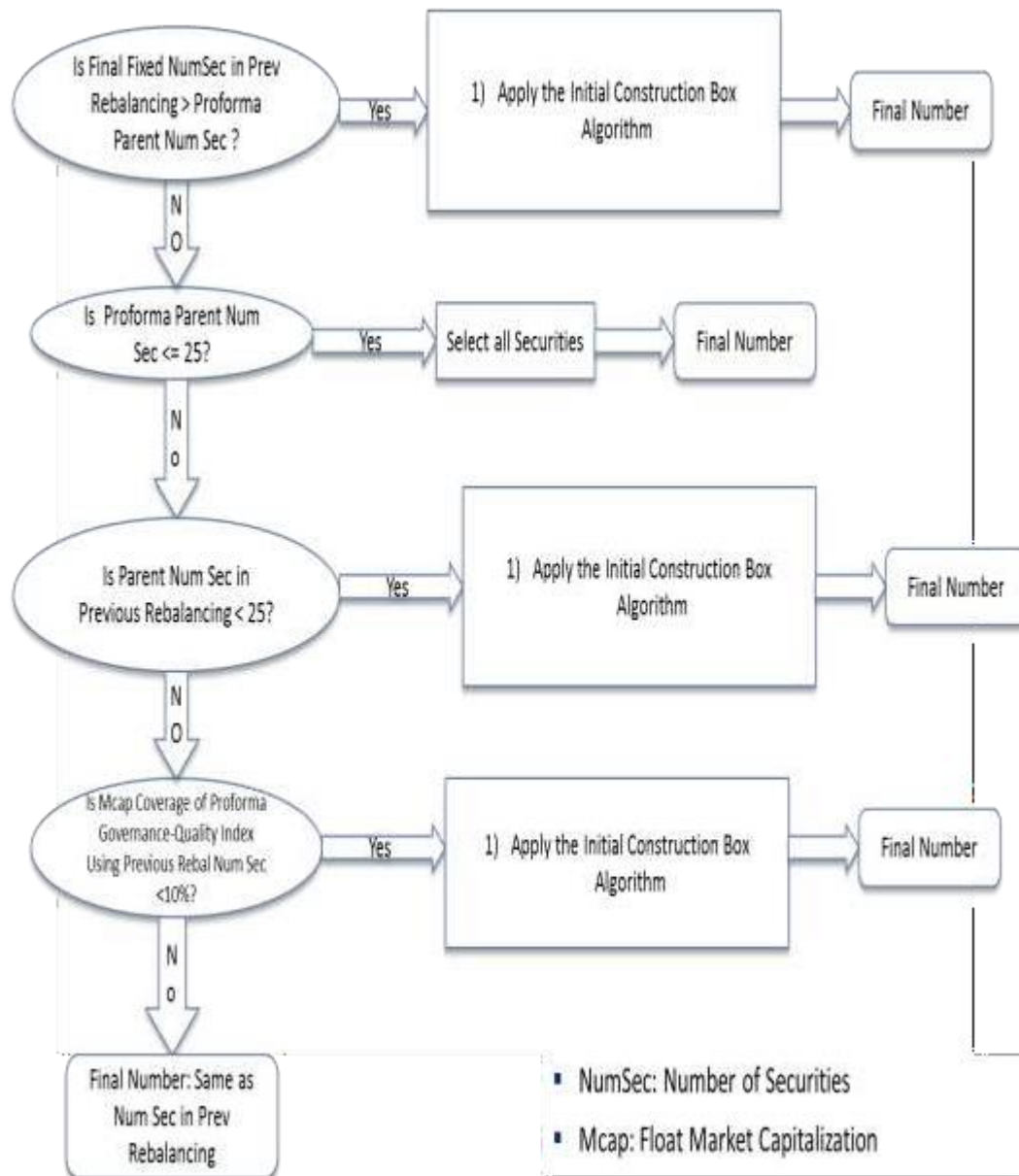
Upward rounding off is done depending on NumSec Obtained in the Previous Box Step

If NumSec in Previous Step < 100, Nearest Rounding = 10 Securities

If NumSec in Previous Step >= 100 but < 300, Nearest Rounding = 25 Securities

If NumSec in Previous Step >= 300, Nearest Rounding = 50 Securities

Algorithm to reevaluate Fixed Number of Securities at Semi-Annual Rebalancing



Appendix IV: Methodology Set

The Indexes are governed by a set of methodology and policy documents (“Methodology Set”), including the present index methodology document as mentioned below:

- Description of methodology set – <https://www.msci.com/index/methodology/latest/ReadMe>
- MSCI Corporate Events Methodology – <https://www.msci.com/index/methodology/latest/CE>
- MSCI Fundamental Data Methodology – <https://www.msci.com/index/methodology/latest/FundData>
- MSCI Index Calculation Methodology – <https://www.msci.com/index/methodology/latest/IndexCalc>
- MSCI Index Glossary of Terms – <https://www.msci.com/index/methodology/latest/IndexGlossary>
- MSCI Index Policies – <https://www.msci.com/index/methodology/latest/IndexPolicy>
- MSCI Global Industry Classification Standard (GICS) Methodology – <https://www.msci.com/index/methodology/latest/GICS>
- MSCI Global Investable Market Indexes Methodology – <https://www.msci.com/index/methodology/latest/GIMI>
- ESG Factors In Methodology*

The Methodology Set for the Indexes can also be accessed from MSCI’s webpage <https://www.msci.com/index-methodology> in the section ‘Search Methodology by Index Name or Index Code’.

* ‘ESG Factors in Methodology’ contains the list of environmental, social, and governance factors considered, and how they are applied in the methodology (e.g., selection, weighting or exclusion). It can be accessed in the Methodology Set as described above.

Appendix V: Changes to this Document

The following sections have been modified since June 2015:

Section 3: Maintaining MSCI Governance-Quality Indexes

- Clarification on the use of ESG data for securities whose data were published later than at the end of the month preceding Index Review.

The following sections have been modified since May 2017:

- Appendix IV in the previous version of the methodology book describing the Corporate Events treatment has been deleted. The details on the Corporate Events treatment are now included in Section 3.3.

The following sections have been modified as of June 2023:

- Methodology book was updated to reflect the transition of the MSCI Global Investable Market Indexes (GIMI) to Quarterly Comprehensive Index Reviews.
- All references to “Semi-Annual Index Reviews” and “Quarterly Index Reviews” of the MSCI GIMI were replaced with “Index Reviews”.

Section 4: MSCI ESG Research

- Added the descriptions of MSCI ESG Research products.

The following sections have been modified as of January 2024:

- New section 2.7 replaced section 2.3.3 detailing the treatment of companies with ratings and research not available from MSCI ESG Research
- Appendix IV: Added details on the Methodology Set for the Indexes.

The following section has been modified as of December 2024

Section 4 MSCI ESG Research

- Updated link to the methodology documentation

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