

MSCI USA ESG SELECT INDEX METHODOLOGY

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1 INTRODUCTION

The MSCI USA ESG Select Index is designed to maximize exposure to positive environmental, social and governance (ESG) factors while exhibiting risk and return characteristics similar to those of the MSCI USA Index. The Index is sector-diversified and targets high ESG ratings in each sector. Relative to the MSCI USA Index, the MSCI USA ESG Select Index tends to overweight companies with higher ESG ratings and under-weight companies with lower ratings. Tobacco companies are not eligible for inclusion into the Index.

2 MSCI ESG RESEARCH FRAMEWORK

MSCI ESG Research provides in-depth research, ratings and analysis of the environmental, social and governance-related business practices of thousands of companies worldwide. It consists of an integrated suite of tools and products to efficiently manage research, analysis and compliance tasks across the spectrum of ESG factors.

The MSCI USA ESG Select Index uses company ratings and research provided by MSCI ESG Research. In particular, this index uses the following three MSCI ESG Research products: MSCI ESG Ratings, MSCI ESG Controversies Score, and MSCI ESG Business Involvement Screening Research.

For details on MSCI ESG Research’s full suite of ESG products, please refer to: <https://www.msci.com/esg-integration>

2.1 MSCI ESG RATINGS

MSCI ESG Ratings provides research, analysis and ratings of how well companies manage environmental, social and governance risks and opportunities.

MSCI ESG Ratings provides an overall company ESG rating - a seven point scale from ‘AAA’ to ‘CCC’. In addition, the product provides scores and percentiles indicating how well a company manages each key issue relative to industry peers.

For more details on MSCI ESG Ratings, please refer to: <https://www.msci.com/esg-ratings>

2.2 MSCI ESG CONTROVERSIES

MSCI ESG Controversies (earlier known as MSCI Impact Monitor) provides assessments of controversies concerning the negative environmental, social, and/or governance impact of company operations, products and services. The evaluation framework used in MSCI ESG Controversies is designed to be consistent with international norms represented by the UN Declaration of Human Rights, the ILO Declaration on Fundamental Principles and Rights at Work, and the UN Global Compact. MSCI ESG Controversies Score falls on a 0-10 scale, with “0” being the most severe controversy.

For more details on MSCI ESG Controversies Score, please refer to <https://www.msci.com/documents/10199/acbe7c8a-a4e4-49de-9cf8-5e957245b86b>

2.3 MSCI ESG BUSINESS INVOLVEMENT SCREENING RESEARCH

MSCI ESG Business Involvement Screening Research (BISR) aims to enable institutional investors to manage environmental, social and governance (ESG) standards and restrictions reliably and efficiently.

For more details on MSCI ESG Business Involvement Screening Research, please refer to http://www.msci.com/resources/factsheets/MSCI_ESG_BISR.pdf

3 CONSTRUCTING THE MSCI USA ESG SELECT INDEX

Constructing the MSCI USA ESG Select Index involves the following steps:

- Defining the underlying MSCI Parent Index ('Parent Index');
- Defining the exclusion criteria;
- Defining the optimization constraints; and
- Determining the optimized portfolio

3.1 DEFINING THE PARENT INDEX

The Parent Index for the MSCI USA ESG Select Index is the MSCI USA Index.

3.2 DEFINING THE EXCLUSION CRITERIA

3.2.1 CONTROVERSIAL BUSINESS INVOLVEMENT CRITERIA

Companies that are involved in specific businesses which have high potential for negative social and/or environmental impact are ineligible for inclusion in the index. Please refer to Appendix 4 for more details on these criteria.

- Alcohol
- Gambling
- Nuclear Power
- Conventional Weapons
- Nuclear Weapons
- Controversial Weapons
- Civilian Firearms

3.2.2 VALUES-BASED EXCLUSIONS

MSCI USA ESG Select Index uses MSCI ESG Business Involvement Screening Research to identify companies with Tobacco involvement. Companies that meet these criteria are excluded from the MSCI USA ESG Select Index. Please refer to Appendix 1 for details on these criteria.

3.2.3 MSCI ESG CONTROVERSIES SCORE ELIGIBILITY

The MSCI USA ESG Select Index uses MSCI ESG Controversies Scores to identify those companies that are involved in very serious controversies involving the environmental, social, or governance impact of their operations and/or products and services. Existing constituents of the MSCI USA ESG Select Index are required to have an MSCI ESG Controversies Score above 0 to remain in the index, while companies that are currently not constituents of the MSCI USA ESG Select Index are required to have an MSCI ESG Controversies Score above 2 to be considered eligible for addition.

3.3 DEFINING THE OPTIMIZATION CONSTRAINTS

Constituents are selected to maximize exposure to industry adjusted ESG Scores, subject to maintaining risk and return characteristics similar to the MSCI USA Index. ESG Scores are normalized and factored into the optimization process. Optimization is a quantitative process that considers the market capitalization weights from the MSCI USA Index, ESG Scores and additional optimization constraints to select and weight the constituents in the Index.

Normalization of the ESG Scores allows the optimization to assess each score in the context of the overall distribution of the ESG Scores.

At each Quarterly Index Review, the following optimization constraints are used to ensure replicability and investability:

- The predicted tracking error is restricted to 1.8%
- The maximum weight of an index constituent will be 5%;
- The minimum weight of an index constituent will be 0.1%;
- The number of index constituents is constrained to a maximum of 350;
- The sector weights of the MSCI USA ESG Select Index will not deviate by more than +/- 3% from the sector weights of the MSCI USA Index;
- The one way turnover of the MSCI USA ESG Select Index is constrained to a maximum of 10% at Semi-Annual Index Reviews and 5% at Quarterly Index Reviews;
- One way transaction cost is set to 0.5% which aims to achieve a balance between turnover and ESG Scores; and
- An AS/CF (Asset Selection/Common Factor) Risk Aversion Ratio of 10 is applied.

Please refer to the Appendix 2 for the description of the handling of infeasible optimizations.

3.4 DETERMINING THE OPTIMIZED PORTFOLIO

The MSCI USA ESG Select Index is constructed using the most recent release of the Barra Open Optimizer in combination with the relevant Barra Equity Model. The optimization uses the MSCI USA Index after application of the exclusion criteria as described in section 3.2 above, as the universe of eligible securities and the specified optimization objective and constraints to determine the constituents of the MSCI USA ESG Select Index.

4 MAINTAINING THE MSCI USA ESG SELECT INDEX

4.1 QUARTERLY INDEX REVIEWS

The MSCI USA ESG Select Index is rebalanced on a quarterly basis to coincide with the regular Index Reviews (Semi-Annual Index Reviews in May and November and Quarterly Index Reviews in February and August) of the MSCI Global Investable Market Indexes. The changes are implemented at the end of February, May, August and November. The pro forma indexes are in general announced nine business days before the effective date.

ESG scores used for the Quarterly Index Reviews will be taken as of the end of the month preceding the Index Review, i.e., January, April, July and October. 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 MSCI USA ESG Select Index.

At each Index Review, the optimization process outlined in Section 3 is implemented. Companies can only be added to the MSCI USA ESG Select Index at regular Index Reviews.

4.2 ONGOING EVENT-RELATED MAINTENANCE

The general treatment of corporate events in the MSCI USA ESG Select Index 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.

Additionally, if the frequency of Index Reviews in the Parent Index is greater than the frequency of Index Reviews in the MSCI USA ESG Select Index, the changes made to the Parent Index during intermediate Index Reviews will be neutralized in the MSCI USA ESG Select Index.

The following section briefly describes the treatment of common corporate events within the MSCI USA ESG Select Index.

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

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.

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.

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 book 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>

APPENDIX 1: TOBACCO EXCLUSION CRITERIA

Companies which meet the following Tobacco involvement criteria are excluded from the MSCI USA ESG Select Index

- All companies classified as “Producer” or “Licensor”
- All companies classified as “Distributor”, “Retailer”, or “Supplier” that earn 15% or more of revenues from tobacco products
- All companies classified as “Ownership by a Tobacco Company” or “Ownership of a Tobacco Company”

APPENDIX 2: HANDLING INFEASIBLE OPTIMIZATIONS

During the Quarterly Index Review, in the event that there is no optimal solution that satisfies all the optimization constraints defined in Section 3.3, the tracking error will be relaxed in steps of 0.2% until an optimal solution is found.

APPENDIX 3: METHODOLOGY TRANSITION

May 2012 – May 2013

The MSCI USA ESG Select Index transitioned to the methodology described in the above document starting from the May 2012 Index Review. As part of the enhancements to the MSCI USA ESG Select Index Methodology, the annual turnover budget is reduced from 50% to 30% (10% at Semi-Annual Index Reviews and 5% at Quarterly Index Reviews). The lower annual turnover budget of 30% will be applied starting from the May 2012 Index Review.

May 2016

Effective at the May 2016 Index Review, the MSCI USA ESG Select Index transitioned to the methodology described in the methodology book, following enhancements to the MSCI ESG Controversies (earlier known as MSCI Impact Monitor). The details of the changes are as given below.

The changes to MSCI ESG Controversies included adjusting the scoring model to align the scores with individual controversy case levels, including the introduction of an Orange flag, and the removal of specific controversial business involvement (CBI) criteria from the model to refocus the ESG Controversies scores on event-driven controversies.

MSCI implemented the following changes to the MSCI USA ESG Select Index methodology effective June 1, 2016 to maintain consistency with the existing index construction objectives:

- 1 - As per the old MSCI ESG Impact Monitor methodology, securities which had an Impact Monitor score of 0 and 1 had a Red controversy flag. Under the new methodology, only securities with an ESG controversies score of 0 have a Red controversy flag. For indexes where constituents were ineligible to be included in the index if their Impact Monitor score was 0 or 1 (current Red controversy flag), the exclusion criteria was changed to ESG Controversies score = 0 in order to continue to only exclude securities with Red controversy flag in the MSCI USA ESG Select Index.
- 2 - Additional exclusion rules based on the controversial business involvement criteria related to alcohol, gambling, nuclear power, conventional weapons and controversial weapons that were incorporated in the old MSCI Impact Monitor scores were introduced as part of the methodology of the MSCI USA ESG Select Index. Since, the rule for exclusion of securities with tobacco involvement was already more stringent in MSCI USA ESG Select methodology, it was not included. The details of the exclusion rules are mentioned in Appendix 4.

November 2017

In order to meet its objective, the MSCI USA ESG Select Index construction, since inception, made use of the Barra Global Equity Model (GEM2L) within the optimization setup. However, starting from the November 2017 Semi-Annual Index Review, the index construction used an optimization setup that used the Barra Global Equity Model for Long-Term Investors (GEMTL). The change of optimization setup was completed without any change in the prevailing index methodology.

APPENDIX 4: CONTROVERSIAL BUSINESS SCREENING CRITERIA

Companies that are involved in certain controversial business activities are ineligible to be included in the MSCI USA ESG Select Index because of the high potential for negative social and/or environmental impacts of these activities. The details for the ineligibility criteria are as follows –

- Alcohol
 - All companies classified as a “Producer” that earn either 50% or more revenue or more than \$1 billion in revenue from alcohol-related products.
- Gambling
 - All companies classified as involved in “Operations” and “Support” that earn 50% or more in revenue, or more than \$1 billion in revenue, from gambling-related products
- Nuclear Power
 - All companies involved in nuclear fuel enrichment for nuclear power generation
 - All companies involved in uranium mining for nuclear power generation
 - All companies involved in nuclear reactor design or construction for nuclear power generation
 - All companies with 6000 MW or more of installed capacity attributed to nuclear sources or with 50% or more of installed capacity attributed to nuclear sources
- Conventional Weapons
 - All companies that manufacture conventional weapons components or conventional weapons and weapons systems and earn 50% or more in revenue, or \$3 billion or more in revenue from these activities
- Nuclear Weapons
 - All companies involved in manufacturing of nuclear weapon components or nuclear weapon systems
- Controversial Weapons
 - All companies with any tie to Controversial Weapons (cluster munitions, landmines, depleted uranium weapons, biological/chemical weapons, blinding lasers, non-detectable fragments and incendiary weapons), as defined by the methodology of the MSCI Ex-Controversial Weapons Indexes available at <https://www.msci.com/index-methodology>

- Civilian Firearms
 - All companies classified as a “Producer” that earn either 50% or more revenue or more than \$100 million in revenue from civilian firearms

APPENDIX 5: METHODOLOGY FOR MSCI USA EXTENDED ESG SELECT INDEX

The MSCI USA Extended ESG Select Index generally follows the same index methodology as the MSCI USA ESG Select Index except that it applies stricter ineligibility criteria for civilian firearms, as described below:

- Civilian Firearms
 - All companies classified as a “Producer”
 - All companies classified as a “Retailer” that earn 5% or more in revenue or more than \$20 million in revenue from civilian firearms-related products.

In addition, during the February 2018 Quarterly Index Review, the turnover of the MSCI USA Extended ESG Select Index was calculated with respect to the constituents of the MSCI USA ESG Select Index.

The following sections have been modified since February 2013:

Section 3.2.1: Controversial Business Involvement criteria

- Added section

Section 3.2.3: ESG Controversies Score Eligibility

- Updated the MSCI ESG Controversies Score eligibility requirements

Appendix 3: Methodology Transition

- Added details pertaining to the methodology changes effective as of May 2016

Appendix 4: Controversial Business Screening Criteria

The following sections have been modified since May 2016:

Section 3.2.1: Controversial Business Involvement criteria

- Added Civilian Firearms to the list of controversial business involvement criteria

Appendix 4: Controversial Business Screening Criteria

- Addition of the controversial business screening criteria pertaining to Civilian Firearms

The following sections have been modified since June 2016:

Section 4.1: QUARTERLY INDEX REVIEWS

- 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:

- The details on the Corporate Events treatment are now included in Section 4.2.

The following sections have been modified since June 2017:

- Updated Appendix 3 to add the information on transition of MSCI USA ESG Select Index to GEMTL

The following sections have been modified since November 2017:

Appendix 5: Methodology for MSCI USA Extended ESG Select Index

- New Appendix

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