

MSCI USA ESG Select Index Methodology

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1 Introduction

The MSCI USA ESG Select Index (the '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 constructed by selecting constituents of the MSCI USA Index through an optimization process that aims to maximize exposure to ESG factors for a target tracking error budget under certain constraints.

The Index is sector-diversified and targets companies with high ESG ratings in each sector. Companies involved in a defined set of controversial businesses are not eligible for inclusion into the Index¹.

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

2 Constructing the MSCI USA ESG Select Index

Constructing the 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 index

2.1 Defining the Parent Index

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

2.2 Defining the Exclusion Criteria

The Indexes use research provided by MSCI ESG Research² to determine the securities eligible for inclusion.

2.2.1 Controversial Business Involvement Criteria

The Index uses MSCI ESG Business Involvement Screening Research and MSCI Climate Change Metrics to identify companies that are involved in the following business activities. Companies that meet the business involvement criteria are excluded from the Index. Please refer to Appendix 4 for details on these criteria.

- Controversial Weapons
- Civilian Firearms
- Nuclear Weapons
- Tobacco
- Alcohol
- Conventional Weapons
- Gambling
- Nuclear Power
- Fossil Fuel Extraction
- Thermal Coal Power

2.2.2 ESG Controversies Score Eligibility

The Index uses MSCI ESG Controversies Scores to identify 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 Index are required to have an MSCI ESG

² See section 4 for further information regarding ESG and climate data used in the Index that MSCI Limited sources 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. MSCI Limited is the benchmark administrator for the MSCI indexes.

Controversies Score above 0 to remain in the index, while companies that are currently not constituents of the Index are required to have an MSCI ESG Controversies Score above 2 to be eligible for inclusion.

2.3 Defining the Optimization Constraints

The Index is constructed using an optimization process that applies the following objective and constraints:

- The Index has a higher exposure (without a defined upper bound) to industry adjusted ESG scores relative to the Parent Index, subject to maintaining similar risk and return characteristics under a predicted tracking error constraint of 1.8%.
- The maximum weight of an Index constituent will be 5%.
- The minimum weight of an Index constituent will be 0.1%.
- The maximum number of Index constituents will be 350 securities.
- The sector weight of the Index will not deviate by more than +/- 3% relative to the Parent Index.
- The one-way turnover of the Index is constrained to a maximum of 10% at May and November Index Review and at 5% at the February and August Index Review.
- One way transaction cost is set to 0.5% which aims to achieve a balance between turnover and ESG Scores
- An AS/CF (Asset Selection/Common Factor) Risk Aversion Ratio of 10 is applied.

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

2.4 Determining the Optimized Index

The 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 2.2 above, as the universe of eligible securities and the specified optimization objective and constraints to determine the constituents of the Index.

2.5 Treatment of Unrated Companies

Companies not assessed by MSCI ESG Research on data for any of the following MSCI ESG Research products are not eligible for inclusion in the Indexes.

- MSCI ESG Ratings
- MSCI ESG Controversies

3 Maintaining the MSCI USA ESG Select Index

3.1 Quarterly Index Reviews

The Index is rebalanced on a quarterly basis to coincide with the regular Index Reviews 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.

In general, MSCI uses MSCI ESG Research data³ (including MSCI ESG Ratings, MSCI ESG Controversies Scores, MSCI ESG Business Involvement Screening Research and MSCI Climate Change Metrics) as of the end of the month preceding the Index Reviews for the rebalancing of the Index. 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 2 is implemented. Companies can only be added to the Index at regular Index Reviews.

3.2 Ongoing Event-Related Maintenance

The general treatment of corporate events in the 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 Index.

The following section briefly describes the treatment of common corporate events within the Index.

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

There are no deletions from the Index between Index Reviews on account of a security becoming ineligible because of decrease in MSCI ESG Controversies Score and/or change in business involvement.

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.

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

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/latest/CE>.

4 MSCI ESG Research

The Index is a product of MSCI Inc. that utilizes 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 Index uses the following MSCI ESG Research products: MSCI ESG Ratings, MSCI ESG Controversies, MSCI ESG Business Involvement Screening Research and MSCI Climate Change Metrics. MSCI Indexes are administered by MSCI Limited.

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/esg-and-climate-methodologies>.

4.2 MSCI ESG Controversies

MSCI ESG Controversies provide assessments of controversies concerning the potential 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.

The MSCI ESG Controversies methodology can be found at: <https://www.msci.com/esg-and-climate-methodologies>

4.3 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

4.4 MSCI Climate Change Metrics

MSCI Climate Change Metrics provide climate data & tools to support institutional investors seeking to integrate climate risk & opportunities into their investment strategy and processes. This includes investors seeking to achieve a range of objectives, including measuring and reporting on climate risk exposure, implementing low carbon and fossil fuel-free strategies, alignment with temperature pathways and factoring climate change research into their risk management processes, in particular through climate scenario analysis for both transition and physical risks.

The dataset spans across the four dimensions of a climate strategy: transition risks, green opportunities, physical risks and 1.5° alignment.

For more details on MSCI Climate Change Metrics, please refer to <https://www.msci.com/climate-solutions>

Appendix I: 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 2.3, the tracking error will be relaxed in steps of 0.2% until an optimal solution is found.

Appendix II: 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.

June 2016

Effective at the May 2016 Index Review, the MSCI USA ESG Select Index reflected enhancements to the MSCI ESG Controversies (formerly 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 3.

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 (GEMLT). The change of optimization setup was completed without any change in the prevailing index methodology.

December 2021

Effective from the November 2021 Index Review, the controversial business involvement criteria have been enhanced to reflect the framework designed by MSCI ESG Research to define significant involvement in controversial activities. According to this framework, there are four restrictiveness

levels: Most Restrictive, Highly Restrictive, Moderately Restrictive, Least Restrictive. Also, screens for Fossil Fuel Reserves, Fossil Fuel Extraction and Thermal Coal Power were added.

Appendix III: Controversial Business Involvement Criteria

MSCI ESG Research has developed a framework designed to define significant involvement in controversial activities. According to this framework, there are four levels of restrictiveness: Most Restrictive, Highly Restrictive, Moderately Restrictive, Least Restrictive.

Each controversial activity screened by the MSCI USA ESG Select Index (except Tobacco, Fossil Fuel Extraction and Thermal Coal Power) is assigned to one of these restrictiveness levels.

“Most Restrictive” screen applied

- 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 Global Ex-Controversial Weapons Indexes available at <https://www.msci.com/index/methodology/latest/XCW>
- Civilian Firearms
 - All companies with any tie to Civilian Firearms, covering the production and distribution (wholesale or retail) of firearms or small arms ammunitions intended for civilian use, as well as ownership of or by another company with involvement. It does not include companies that cater to the military, government, and law enforcement markets

“Highly Restrictive” screen applied

- Nuclear Weapons
 - All companies that manufacture nuclear warheads and/or whole nuclear missiles
 - All companies that manufacture components that were developed or are significantly modified for exclusive use in nuclear weapons (warheads and missiles)
 - All companies that manufacture or assemble delivery platforms that were developed or significantly modified for the exclusive delivery of nuclear weapons
 - All companies that provide auxiliary services related to nuclear weapons
 - All companies that manufacture components that were not developed or not significantly modified for exclusive use in nuclear weapons (warheads and missiles) but can be used in nuclear weapons
 - All companies that manufacture or assemble delivery platforms that were not developed or not significantly modified for the exclusive delivery of nuclear weapons but have the capability to deliver nuclear weapons
 - All companies that manufacture components for nuclear-exclusive delivery platforms

“Least Restrictive” screen applied

- Alcohol

- All companies deriving 10% or more revenue from the production of alcohol-related products
- Conventional Weapons
 - All companies deriving 10% or more revenue from the production of conventional weapons and components
- Gambling
 - All companies deriving 10% or more revenue from ownership or operation of gambling-related business activities
- Nuclear Power
 - All companies deriving 10% or more revenue from the ownership or operation of nuclear power plants

No specific restrictiveness level applied

- Tobacco
 - 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”
- Fossil Fuel Extraction
 - All companies deriving 5% or more aggregate revenue (either reported or estimated) from thermal coal mining and unconventional oil and gas extraction.
 - Thermal Coal Mining: Revenue from the mining of thermal coal (including lignite, bituminous, anthracite and steam coal) and its sale to external parties. It does not cover revenue from metallurgical coal; coal mined for internal power generation (e.g. in the case of vertically integrated power producers); intra-company sales of mined thermal coal; and revenue from coal trading
 - Unconventional Oil & Gas Extraction: Revenue from oil sands, oil shale (kerogen-rich deposits), shale gas, shale oil, coal seam gas, and coal bed methane. It does not cover all types of conventional oil and gas production including Arctic onshore/offshore, deep water, shallow water and other onshore/offshore.
- Thermal Coal Power
 - All companies deriving 5% or more revenue (either reported or estimated) from thermal coal-based power generation.

Appendix IV: Methodology for MSCI USA Extended ESG Select Index

The MSCI USA Extended ESG Select Index follows the index methodology as the MSCI USA ESG Select Index with the only difference being the Monthly Review of Controversies.

Monthly Review of Controversies

Effective November 1, 2023, the MSCI USA Extended ESG Select Index constituents are reviewed on a monthly basis for the involvement in ESG controversies⁴. Existing constituents will be deleted if they are assessed as having involvement in ESG controversies that are classified as Red Flags (MSCI ESG Controversies Score of 0). A Red Flag indicates an ongoing, Very Severe ESG controversy implicating a company directly through its actions, products, or operations.

MSCI uses MSCI ESG Controversies data as of the end of the month preceding the review (e.g., end of June data for the July monthly review). For some securities, such data may not be published by MSCI ESG Research by the end of the month preceding the review. For such securities, MSCI will use ESG data published after the end of month, when available, for the monthly review of the Index.

The pro forma indexes are generally announced nine business days before the effective date.

Controversial Business Involvement Criteria

Prior to the November 2021 Semi-Annual Index Review, the MSCI USA Extended ESG Select Index applied the 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.

Turnover

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.

⁴ The monthly review of ESG controversies was implemented effective November 1, 2023 and the proforma indexes were announced nine business days before the effective date.

Appendix V: 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>
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- MSCI Global Investable Market Indexes Methodology – <https://www.msci.com/index/methodology/latest/GIMI>
- MSCI USA ESG Select Indexes Methodology – <https://www.msci.com/index/methodology/latest/ESGSelect>
- 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 VI: Changes to this Document

The following sections have been modified as of May 2016:

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 as of June 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 as of May 2017:

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 as of June 2017:

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

The following sections have been modified as of November 2017:

- Updated Appendix 3 to add the information on transition of MSCI USA ESG Select Index to GEMTLT
- The following sections have been modified as of May 2018:

Appendix 4: Methodology for MSCI USA Extended ESG Select Index

- New Appendix

The following sections have been modified as of November 2021:

Section 2.4: MSCI Climate Change Metrics

- New section

Section 3.2.1: Controversial Business Involvement Criteria

- Added screens for ‘Fossil Fuel Extraction’ and ‘Thermal Coal Power’

Appendix 2: Methodology Transition

- Added details which highlight the changes to the MSCI USA ESG Select Index effective December 2021

Appendix 3: Controversial Business Involvement Criteria

- Updated the controversial business involvement criteria for each activity according to the framework designed by ESG Research
- Added screens for ‘Fossil Fuel Extraction’ and ‘Thermal Coal Power’

Appendix 4: Methodology for MSCI USA Extended ESG Select Index

- Updated to reflect alignment with MSCI USA ESG Select Index Methodology effective December 2021

The following sections have been modified as of June 2023:

Section 3: Maintaining the MSCI USA ESG Select Index

- 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

- Moved that section after the Section 3 (Maintaining the MSCI USA ESG Select Index)
- Updated the descriptions of MSCI ESG Research products

The following sections have been modified as of November 2023:

Appendix 4: Methodology for MSCI Extended USA ESG Select Index

- The monthly review of ESG controversies is applied within the MSCI Extended USA ESG Select Index effective November 1, 2023 and is not applicable historically prior to that date.

The following sections have been modified as of January 2024:



Section 2.5: Treatment of Unrated Companies

- New section detailing the treatment of companies with ratings and research not available from MSCI ESG Research

Appendix V: Methodology Set

- Added details on the Methodology Set for the Indexes.

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