

MSCI ESG Screened Indexes Methodology

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1. Introduction

The MSCI ESG Screened Indexes (“the Indexes”) are free float-adjusted market capitalization-weighted indexes that exclude companies from underlying MSCI indexes (“Parent Indexes”) based on Environmental, Social and Governance (ESG) criteria. The following companies are excluded:

- Companies that are associated with controversial, civilian and nuclear weapons as well as tobacco, palm oil and arctic oil & gas or
- Companies that derive revenues from thermal coal power and extraction of select fossil fuels or
- Companies that are not in compliance with the United Nations Global Compact principles or
- Companies that are involved in Red Flag ESG controversies, Orange Flag Land Use and Biodiversity controversies or Orange Flag Supply Chain Management controversies.

In addition, the Indexes target a minimum 30% reduction in carbon emission intensity relative to the underlying Parent Indexes¹.

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 III for more details.

2. Constructing the Indexes

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

Constructing the Indexes involves the following steps

- Defining the Eligible Universe
- Applying the Greenhouse Gas (GHG) Intensity Reduction

2.1 Eligible Universe

The Eligible Universe for the Indexes is defined by applying the following exclusions from the Parent Index:

- Controversial Weapons
- Nuclear Weapons
- Civilian Firearms
- Tobacco
- Fossil Fuel Extraction
- Thermal Coal Power
- Artic Oil & Gas
- Palm Oil

In addition to the above, companies are also excluded from the Indexes if they exhibit any of the following characteristics:

- Companies assessed as having involvement in ESG controversies that are classified as Red Flags (MSCI ESG Controversy Score of 0). A Red Flag indicates an ongoing Very Severe ESG controversy implicating a company directly through its actions, products, or operations.
- Companies assessed as having involvement in Land Use and Biodiversity controversies that are classified as Orange Flags (MSCI ESG Controversies: Environment – Land Use and Biodiversity Score of 1). An Orange Flag indicates an ongoing Severe ESG controversy implicating a company directly, or a Very Severe ESG controversy that is either partially resolved or indirectly attributed to the company's actions, products, or operations.
- Companies assessed as having involvement in Supply Chain Management controversies that are classified as Orange Flags (MSCI ESG Controversies: Environment – Supply Chain Management Score of 1). An Orange Flag indicates an ongoing Severe ESG

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.

controversy implicating a company directly, or a Very Severe ESG controversy that is either partially resolved or indirectly attributed to the company's actions, products, or operations.

- Failure to comply with the United Nations Global Compact Principles (UN Global Compact Alignment value of "Fail"). Please refer to Appendix I for details on these criteria.

2.2 GHG Intensity Reduction

After excluding companies as per section 2.1, the GHG intensity relative to the Parent Index is assessed. If the GHG intensity³ is not at least 30% lower than the Parent Index, additional securities are excluded from the Eligible Universe to achieve a reduction of 30% GHG intensity relative to the Parent Index. The following iterative process is applied:

1. Securities are ranked in descending order of GHG intensity.
2. The security with the highest GHG intensity is excluded and the resulting Index is compared to the Parent Index, to determine if a 30% reduction in GHG intensity has been achieved.
3. If the reduction has been achieved, no further securities are excluded. If the reduction has not been achieved, further securities are excluded as per steps 1 and 2 until the 30% reduction is achieved.

2.3 Weighting Scheme

The remaining securities, after the exclusions based on sections 2.1 and 2.2, are weighted in proportion of their free float-adjusted market capitalization.

2.4 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 Controversy Score
- MSCI Climate Change Metrics
- MSCI Business Involvement Screening Research (BISR)

For the treatment of unrated companies in the calculation of GHG Intensity, please refer to Appendix II.

³ Please refer to Appendix II for details of the calculation of GHG Intensity.

3. Maintaining the Indexes

3.1 Quarterly Index Reviews

The MSCI ESG Screened Indexes are reviewed on a quarterly basis to coincide with the regular Index Reviews of the MSCI Global Investable Market Indexes. The changes are implemented as of the close of the last business day of February, May, August and November.

In general, MSCI uses MSCI ESG Research data⁴ (including MSCI ESG Controversies Scores, MSCI 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 the Index.

The pro forma Indexes are in general announced nine business days before the effective date.

3.2 Monthly Review of Controversies

Index constituents are reviewed on a monthly basis for the involvement in ESG controversies and for compliance with the United Nations Global Compact Principles. Existing constituents will be deleted if they face controversies as defined as defined by MSCI ESG Controversy Score of 0 ('Red flag' companies), or if they fail to comply with the UN Global Compact Principles. Existing Index constituents with missing MSCI ESG Controversy Scores are not deleted during Monthly Review of Controversies.

MSCI uses MSCI ESG Controversies data as of the end of the month preceding the review (e.g., end of June data for the end of 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 first business day of the month.

3.3 Ongoing Event-Related Maintenance

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

No new securities will be added (except where noted below) to the Indexes between Index Reviews. For cases where additions are noted below, securities will be added to the Index only if added to the Parent Index.

Parent Index deletions will be reflected simultaneously.

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

There are no deletions from the MSCI ESG Screened Indexes between Index Reviews on account of a security becoming ineligible because of a change in business involvement and/or failure to comply with the UN Global Compact Principles and/or decrease in MSCI ESG Controversies Score.

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 not be added to the MSCI ESG Screened Indexes at the time of event implementation. Reevaluation for addition in the Indexes will occur at the subsequent Index Review.

Merger/Acquisition

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.

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

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 Controversies, MSCI ESG Business Involvement Screening Research and MSCI Climate Change Metrics. MSCI Indexes are administered by MSCI Limited and MSCI Deutschland GmbH.

4.1 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/legal/disclosures/esg-disclosures>.

4.2 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.

The MSCI Business Involvement Screening Research methodology can be found at:

<https://www.msci.com/legal/disclosures/esg-disclosures>.

4.3 MSCI Climate Change Metrics

MSCI Climate Change Metrics provides 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-change-solutions>.

Appendix I: ESG Exclusions 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 and Least Restrictive.

Each controversial activity screened by the MSCI ESG Screened Indexes (except Fossil Fuel Extraction, Thermal Coal Power and Global Norms) 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 Ex-Controversial Weapons Indexes available at <https://www.msci.com/index/methodology/latest/XCW>

“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.
- Civilian Firearms
 - All companies classified as “Producer” of firearms and small arms ammunitions for civilian markets. It does not include companies that cater to the military, government, and law enforcement markets.

- All companies deriving 5% or more aggregate revenue from the production and distribution (wholesale or retail) of firearms or small arms ammunition intended for civilian use.
- Tobacco
 - All companies classified as a “Producer”.
 - All companies deriving 5% or more aggregate revenue from the production, distribution, retail, supply and licensing of tobacco-related products.

No specific restrictiveness level applied

- 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.
- Arctic Oil & Gas
 - All companies deriving 5% or more revenue from arctic oil and arctic gas production. The definition of Arctic is geographical and includes production activities north of the 66.5 latitude. This includes offshore or onshore oil and gas production.
- Palm Oil
 - All companies deriving 5% or more aggregate revenue from the production of Palm Oil.
- Global Norms – United Nations Global Compact Compliance
 - All companies that fail to comply with the United Nations Global Compact principles

Appendix II: Calculation of GHG Intensity

The security level and Index level GHG intensity are calculated as per below formula:

$$\text{Security Level GHG Intensity} = \frac{\text{Carbon Emissions Scope 1 + 2 + 3}}{\text{Enterprise Value + Cash (in M\$)}}$$

$$\begin{aligned} \text{Index Level GHG Intensity} \\ = \frac{\text{sum of (Constituent weight * Security Level GHG Intensity)}}{\text{sum of constituent weight with Carbon emissions and EVIC data available}} \end{aligned}$$

Securities with missing Carbon Emissions and/or Enterprise Value + Cash are not considered for potential exclusion under section 2.2.

Appendix III: 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>
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- 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 IV: Changes to this Document

The following sections have been updated as of May 2019:

Appendix I: ESG Exclusions Criteria

- Clarified the screening criteria for companies involved in 'Tobacco'

The following sections have been updated as of November 2019:

Appendix I: ESG Exclusions Criteria

- Clarified the screening criteria for companies involved in 'Civilian Firearms'

The following sections have been updated as of May 2022:

Section 3.2: ESG Exclusions

Added 'Fossil Fuel Extraction' and 'Thermal Coal Power'

- Removed 'Thermal Coal' and 'Oil Sands'

Section 4.2: Ongoing Event-Related Maintenance

- Clarified the maintenance rules

Appendix I: ESG Exclusions Criteria

Added screens for 'Fossil Fuel Extraction' and 'Thermal Coal Power'

- Removed screens for 'Thermal Coal' and 'Oil Sands'

The following sections have been updated as of August 2022:

Section 3.2: ESG Exclusions

Removed footnote for MSCI ESG Controversies Score

- Added reference to companies with missing MSCI ESG Controversies Score

The following sections have been modified as of February 2023:

Section 3.1: Eligible Universe

Added screens for 'Arctic Oil & Gas' and 'Palm Oil'

- Added references to 'Environment – Land Use & Biodiversity Score' and 'Environment – Supply Chain Management Score'

Section 3.2: GHG Intensity Reduction

- New section

Section 4.2: Monthly Review of Controversies

- New section

Appendix I: ESG Exclusions Criteria

- Added screens for 'Palm Oil' and 'Arctic Oil & Gas'

Appendix II: Calculation of GHG Intensity

- New appendix

The following sections have been modified as of May 2023:

Section 2.1: Eligible Universe

- Clarified the exclusion criteria for companies involved in ESG Controversies

Section 3.1: Quarterly Index Reviews

- 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 ESG Screened Indexes).
- Updated the descriptions of MSCI ESG Research products.

The following sections have been modified as of January 2024:

Section 2.4 Treatment of Unrated Companies

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

Appendix III: Methodology Set

- Added details on the Methodology Set for the Indexes

The following sections have been modified as of November 2024:

Section 2.4 Treatment of Unrated Companies

- Added the treatment of companies when data on business involvement screening research or climate change metrics is not available from MSCI ESG Research.

Section 4: MSCI ESG Research

- Updated the descriptions of MSCI ESG Research products.

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