

Methodology Book for:

- **MSCI World Custom ESG Climate Series A Index**
- **MSCI Emerging Markets Custom ESG Climate Series A Index**
- **MSCI AC Asia ex Japan Custom ESG Climate Series A Index**

October 2021

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1 Introduction

The MSCI World Custom ESG Climate Series A Index, MSCI Emerging Markets Custom ESG Climate Series A Index and MSCI AC Asia ex Japan Custom ESG Climate Series A Index (“The Indexes”) aim to represent the performance of a strategy that is designed to exclude companies based on various ESG and climate change criteria. Additionally, the constituents are reweighted in proportion of their revenue from “Green” sources and the strength of their practices and strategies to manage climate related risks and opportunities.

2 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 Indexes use research provided by MSCI ESG Research. In particular, the Indexes use the following three MSCI ESG Research products: MSCI ESG Controversies Score, MSCI ESG Business Involvement Screening Research and MSCI Climate Change Metrics Data.

For details on MSCI ESG Research’s full suite of ESG products, please refer to: http://www.msci.com/products/esg/about_msci_esg_research.html

2.1 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-9cf85e957245b86b>

2.2 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.

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

2.3 MSCI CLIMATE CHANGE METRICS

MSCI Climate Change Metrics is designed to support investors seeking to achieve a range of objectives, including measuring and reporting on climate risk exposure, implementing low carbon and fossil fuel-free strategies, and factoring climate change research into their risk management processes. It provides Carbon Emissions, Fossil Fuel exposure, environmental impact (i.e., clean technology) data and screens, as well as climate-related risk exposure and management assessment on companies.

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

3 Index Construction Methodology

3.1 APPLICABLE UNIVERSE

The Applicable Universe for the Indexes includes all the constituents of their respective MSCI parent indexes (the “Parent Index”), as shown in the table below.

Index Name	Parent Index
MSCI World Custom ESG Climate Series A Index	MSCI World Index
MSCI Emerging Markets Custom ESG Climate Series A Index	MSCI Emerging Markets Index
MSCI AC Asia Ex Japan Custom ESG Climate Series A Index	MSCI AC Asia Ex Japan Index

3.2 CUSTOM ESG SCREENED UNIVERSE

The Custom ESG Screened Universe includes all existing constituents of the Applicable Universe which are not excluded by any of the screening criteria:

3.2.1 MINIMUM MSCI ESG CONTROVERSIES STANDARDS

Companies that have faced very severe controversies as assessed by MSCI ESG Controversies on any of the following ESG controversies are excluded from the Custom ESG Screened Universe:

- Environment Controversies:** Companies that are involved in very severe environment controversies (“Red Flag”).
- Governance Controversies:** Companies that are involved in very severe governance controversies (“Red Flag”).
- Human Rights Controversies:** Companies that are involved in very severe human rights controversies (“Red Flag”).
- Labor Rights Controversies:** Companies that are involved in very severe labor rights controversies (“Red Flag”).

Additionally, in the MSCI Emerging Markets Custom ESG Climate Series A Index, companies are required to have an MSCI ESG Controversies Score of 1 or above to be eligible for inclusion.

3.2.2 BUSINESS INVOLVEMENT SCREEN

Companies that are involved in the following businesses and meet the business involvement exclusion criteria as detailed in Appendix 1 are excluded from the Custom ESG Screened Universe:

- Civilian Firearms
- Controversial Weapons
- Conventional Weapons
- Nuclear Weapons
- Tobacco

Companies are also evaluated on customized governance criteria for the MSCI Emerging Markets Custom ESG Climate Series A Index and the Emerging Markets region within the MSCI AC Asia ex Japan Custom ESG Index.

3.3 ELIGIBLE UNIVERSE

The Eligible Universe comprises all the constituents of the Custom ESG Screened Universe that are not excluded by any of the below screening criteria

3.3.1 CARBON EMISSION EXCLUSIONS

The Carbon Emissions Exclusions aim to exclude 10% of the number of securities in the Parent Index in the following steps.

1. Companies which derive 30% or more of their total annual revenues (either reported or estimated) from the thermal coal-based power generation are excluded from the Eligible Universe
2. The remaining constituents of the Eligible Universe, after the exclusion in Step 1, are ranked in descending order of Scope 1 + Scope 2 emissions intensity. If two stocks have the same emissions intensity, the stock with the lower parent weight will be assigned a higher rank.
3. Top ranked stocks are excluded till the total number of stocks excluded by the Carbon Emissions Exclusions (including the stocks excluded in Step 1) is not more than 10% of the number of stocks in the Parent Index.
4. Stocks are excluded from any given sector in step 3, only if the cumulative weight of all securities excluded by the Carbon Emission Exclusions (Section 3.2.1) from this sector is less than 30% of the weight of the sector in the Parent Index. In case this limit is reached for any sector, no further securities from that sector are excluded in Step 3.

3.3.2 OWNERSHIP OF FOSSIL FUELS

Constituents which meet any of the screening criteria below are excluded from the Eligible Universe

- Companies with evidence of owning fossil fuel reserves used most likely for energy applications
- Companies that are not covered by ESG Research for fossil fuels data
- Companies that derive 5% or more of their total annual revenues from the mining of thermal coal (including lignite, bituminous, anthracite and steam coal) and its sale to external parties. It excludes revenues 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.

3.3.3 NUCLEAR POWER

Constituents which meet any of the screening criteria below are excluded from the Eligible Universe

- Companies generating 30% or more of their total electricity from nuclear power in a given year
- Companies classified as a “Supplier” to the nuclear power industry that earn 30% or more in revenue from nuclear-power related products
- Companies classified as involved in uranium mining
 - Companies involved in uranium enrichment and processing

3.4 WEIGHTING OF SECURITIES IN ELIGIBLE UNIVERSE

At each rebalancing, securities in the Eligible Universe are first weighted in proportion of their free float adjusted market capitalization. Additionally, the active weight of stocks in the Eligible Universe, with respect to the Parent Index, is capped at 0.2%.

After the capping of active weights of stocks in the Eligible Universe, all the securities from the eligible universe are weighted in proportion of the product of their “capped weight” as defined above and the Combined Tilt Score

$$Security\ Weight = Capped\ Weight * Combined\ Tilt\ Score$$

The above weights are normalized to 100%.

3.4.1 CALCULATION OF COMBINED TILT SCORE

The Combined Tilt Score is calculated for each security in the Eligible Universe based on the percentage of revenues derived from “Green” sources and the Low Carbon Transition Risk Management (TRM) Score¹:

$$\text{Combined Tilt Score} = \text{Green Revenue Tilt Score} * \text{TRM Tilt Score}$$

3.4.1.1 CALCULATION OF GREEN REVENUE TILT SCORE

The Green Revenue Tilt Score is calculated based on the total “Green Revenue (%)” calculated as the aggregate percentage of revenue derived from the following revenue components:

1. Energy Efficiency
2. Alternate Energy
3. Green Building

$$\text{Green Revenue Tilt Score} = 1 + \frac{\text{Green Revenue (\%)}}{100}$$

For any security in the Eligible Universe, if the percentage of revenue derived from any component is unavailable, the revenue from that component is assumed to be 0%.

3.4.1.2 CALCULATION OF TRANSITION RISK MANAGEMENT (TRM) TILT SCORE

The TRM Tilt Score is assigned to each security in the Eligible Universe based on the TRM Score as per the table below:

TRM Score	TRM Tilt Score
TRM Score Unavailable	1.00
TRM Score less than or equal to 6	1.00
TRM Score greater than 6 but less than or equal to 7	1.05
TRM Score greater than 7 but less than or equal to 8	1.10
TRM Score greater than 8 but less than or equal to 9	1.15
TRM Score greater than 9 but less than or equal to 10	1.20

¹ The MSCI Low Carbon Transition Risk Management score is an assessment of companies based on how well a company manages risk and opportunities related to the Low Carbon Transition. For further details, please refer to <https://www.msci.com/climate-change-solutions>

4 Maintaining the Indexes

4.1 QUARTERLY INDEX REVIEWS

The Indexes are reviewed on a quarterly basis, coinciding with the February, May, August and November Index Reviews of the Parent Index. The pro forma Indexes are in general announced nine business days before the effective date.

In general, MSCI uses MSCI ESG Research data (including MSCI ESG Controversies Scores, MSCI Climate Change Metrics Data and MSCI Business Involvement Screening Research) 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.

4.2 ONGOING EVENT-RELATED CHANGES

The general treatment of corporate events in the 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.

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

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 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 be added to the index at an estimated full market capitalization adjustment factor on the date of security inclusion.
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.

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

Appendix 1: Business Involvement Screening Criteria

- **Controversial Weapons**
 - All companies with any tie to Controversial Weapons (cluster munitions, landmines, depleted uranium weapons, biological/chemical weapons, blinding lasers, nondetectable 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>.
- **Conventional Weapons**
 - All companies deriving 5% or more aggregate revenue from weapons systems, components, and support systems and services.
- **Civilian Firearms**
 - All companies deriving 5% or more revenue from the manufacture and retail of civilian firearms and ammunition.
- **Nuclear Weapons**
 - All companies that manufacture key nuclear weapons component.
 - All companies that manufacture nuclear weapons, including nuclear warheads, intercontinental ballistic missiles, and ballistic missile submarines, which are capable of the delivery of nuclear warheads.
- **Tobacco**
 - All companies classified as a “Producer”.
 - All companies deriving 5% or more revenue from the distribution of tobacco products.
 - All companies deriving 5% or more revenue from the retail sales of tobacco products.
 - All companies deriving 5% or more revenue from supplying products essential to the tobacco industry.

- **Governance**

In the MSCI Emerging Markets Custom ESG Climate Series A Index and the Emerging Markets region within the MSCI AC Asia ex Japan Custom ESG Climate Series A Index, Companies are evaluated based on three distinct rules. A company failing in any one of these rules is ineligible for inclusion in the Indexes

Rule 1 - Companies will be excluded from the index if they meet all of the following four criteria:

- Companies with individual holdings of 30% or more of the voting rights
- Companies with less than half of independence on the board
- Companies which do not have an audit committee or have less than half of independence on their audit committee
- Companies which do not have a remuneration committee or have less than half of independence on their remuneration committee

Rule 2 - Companies without an Unqualified auditors opinion will be excluded from the index

Rule 3 - Companies that are state owned entities, with either 85% or more of the voting rights are held by the largest shareholder, or have a MSCI Human Rights Controversy Score of less than 5, and belong to countries² that meet all of the following four criteria, are excluded from the index.

- Countries identified by Freedom House as having weak civil liberties in its Freedom in the World report.
- Countries identified by Freedom House as having weak political rights in its Freedom in the World report.
- Countries identified by Freedom House as Not Free in its Freedom of the Press Index.
- Countries on the U.S. Commission on International Religious Freedom’s list of Tier 1 Countries of Particular Concern.

² As defined by MSCI’s Country of Classification framework.

The following sections have been modified since August 2019 -

Section 3.1: Added MSCI Emerging Markets Custom ESG Climate Series A Index with Parent Index as MSCI Emerging Markets Index.

Section 3.2.1: Added screen for ESG Controversies for Emerging Markets region

Appendix 1: Update to include the Governance screens specific to the MSCI Emerging Markets Custom ESG Climate Series A Index.

The following sections have been modified effective October 12, 2021 -

Section 3.1: Added MSCI AC Asia Ex Japan Custom ESG Climate Series A Index with Parent Index as MSCI AC Asia Ex Japan Index.

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* = toll free

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