

METHODOLOGY BOOK FOR:

- MSCI WORLD CUSTOM ESG INDEX***
- MSCI EMERGING MARKETS CUSTOM ESG INDEX***
- MSCI EUROPE CUSTOM ESG INDEX***
- MSCI NORTH AMERICA CUSTOM ESG INDEX***

* a custom index calculated by MSCI based on ESG criteria selected by Northern Trust

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1 INTRODUCTION

The MSCI World Custom ESG Index, MSCI Emerging Markets (EM) Custom ESG Index, MSCI Europe Custom ESG Index and the MSCI North America Custom ESG Index are custom indexes based on customized ESG screening criteria selected by Northern Trust. These indexes aim to exclude companies that do not comply with UN Global Compact Principles, are involved in the production or sale of tobacco products, or are involved in the production of controversial weapons. Additionally, the MSCI EM Custom ESG Index also aims to exclude majority held companies with a controversial board composition. The Indexes are free float-adjusted market capitalization weighted.

Index	Parent Index	ESG Criteria Applied	Governance Screen Applied
MSCI World Custom ESG Index	MSCI World Index	Yes	No
MSCI Emerging Markets Custom ESG Index	MSCI Emerging Markets Index	Yes	Yes
MSCI Europe Custom ESG Index	MSCI Europe Index	Yes	No
MSCI North America Custom ESG Index	MSCI North America Index	Yes	No

2 SCREENING CRITERIA

MSCI ESG Research evaluates companies for exclusion from the MSCI Custom ESG Indexes based on three sets of ratings criteria: Compliance with UN Global Compact Principles, Tobacco, and Controversial Weapons. Companies are also evaluated on customized governance criteria for the MSCI EM Custom ESG Index.

Please refer to [Appendix 1](#) for more details on the implementation of these criteria.

3 CONSTRUCTING THE MSCI CUSTOM ESG INDEXES

3.1 UNDERLYING UNIVERSE

The selection universe for the MSCI Custom ESG Indexes is the respective MSCI Parent Index, as shown in the table in section 1.

3.2 EXCLUSION CRITERIA

Companies that are involved in activities that violate the customized ESG screening criteria described in Section 2 are excluded from the MSCI Custom ESG Indexes.

4 MAINTAINING THE MSCI CUSTOM ESG INDEXES

4.1 INDEX REVIEWS

The MSCI Custom ESG Indexes are reviewed on a quarterly basis to coincide with the regular Semi-Annual and Quarterly 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. The list of companies to be excluded based on the selected ESG criteria is produced based on MSCI ESG Research data as of the end of January, April, July and October, respectively. 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 MSCI Custom ESG Indexes.

The list of companies to be excluded from the MSCI EM Custom ESG Index based on the Governance criteria is produced annually and made effective coinciding with the MSCI February QIR as of the close of the last business day of February.

At the index reviews, all companies in the underlying universe are reviewed and eligible companies are added to the MSCI Custom ESG Indexes. Existing constituents are deleted from the MSCI EM Custom ESG Index if they have been added to the exclusion list. In addition, any constituent that is deleted from the underlying index as a result of an index review is also deleted from the MSCI Custom ESG Index.

4.2 ONGOING EVENT-RELATED MAINTENANCE

The MSCI Corporate Events Methodology is applied for the maintenance of the MSCI Custom ESG Indexes between index reviews.

Companies deleted from the underlying index between index reviews are simultaneously deleted from the MSCI Custom ESG Indexes.

Companies added to the underlying index between index reviews are simultaneously added to the MSCI Custom ESG Indexes. Their inclusion is reviewed at the following Index Review, as described in section 4.1.

The details relating to the handling of specific corporate event types can be found in the MSCI Corporate Events Methodology book available at:

<https://www.msci.com/index-methodology>

APPENDIX 1: SCREENING CRITERIA

MSCI ESG Research creates the list of excluded securities for the MSCI Custom ESG Indexes by identifying companies within its coverage universe based on the following sets of ratings criteria: Compliance with UN Global Compact Principles, Tobacco, and Controversial Weapons; and Governance in case of MSCI EM Custom ESG Index.

COMPLIANCE WITH UN GLOBAL COMPACT PRINCIPLES

Definition: Companies that are involved in controversies classified as “very severe” in the areas of Environment, Human Rights & Community, Labor Rights & Supply Chain, or Governance will be excluded. The following areas are evaluated as part of this screen:

ENVIRONMENT

Controversies related to a firm’s impact on the environment. Factors affecting this evaluation include whether a company is involved in controversies related to land use and biodiversity, toxic spills and releases, energy and climate change, water management, operational non-hazardous waste, environmental impact of products and services, and management of supply chain environmental impact.

HUMAN RIGHTS & COMMUNITY

Controversies related to a firm’s impact on the communities in which it does business. Factors affecting this evaluation include whether a company is involved in controversies related to support for controversial regimes, freedom of expression and censorship, and other human rights abuses and adverse impact on a community.

LABOR RIGHTS & SUPPLY CHAIN

Controversies related to a firm’s employee relations and supply chain. Factors affecting this evaluation include whether a company is involved in controversies related to labor-management relations, employee health & safety, collective bargaining & unions, discrimination and workforce diversity, and management of supply chain employee relations standards.

GOVERNANCE

Controversies related to a firm’s governance practices. Factors affecting this evaluation include whether a company is involved in controversies related to bribery, fraud and governance structures.

TOBACCO

Definition: Companies that derive any revenue from the production of tobacco, or 5% or more revenue from the distribution of, supply of key products for, or retail of tobacco, as further defined below, will be excluded.

TOBACCO PRODUCERS

Companies that manufacture tobacco products, such as cigars, blunts, cigarettes, beedis, kreteks, smokeless tobacco, snuff, snus, and chewing tobacco. This also includes companies that grow or process raw tobacco leaves.

TOBACCO DISTRIBUTORS

Companies that derive 5% or more of total annual revenues from the independent wholesale of tobacco products to retailers and other distributors.

TOBACCO RETAILERS

Companies that derive 5% or more of total annual revenues from the retail of tobacco products.

TOBACCO SUPPLIERS

Companies that derive 5% or more of total annual revenues from the manufacture and supply of key products necessary for the production of tobacco products, such as tobacco flavoring, cigarette filters (acetate tow), tobacco roll paper, cigarette manufacturing machines, and tobacco packaging - specifically cigarette cartons, films, and aluminum foil.

CONTROVERSIAL WEAPONS

Definition: Companies that manufacture cluster bombs, landmines, nuclear weapons, depleted uranium weapons, biological/chemical weapons, or their related components, as further defined below, will be excluded.

CLUSTER BOMB MANUFACTURERS

Companies that manufacture cluster munitions whole systems or components.

LANDMINE MANUFACTURERS

Companies that manufacture landmines whole systems or components.

NUCLEAR WEAPONS SYSTEMS MANUFACTURERS

Companies that manufacture nuclear weapons, including nuclear warheads, intercontinental ballistic missiles, and ballistic missile submarines, which are capable of the delivery of nuclear warheads.

NUCLEAR WEAPONS COMPONENTS MANUFACTURERS

Companies that manufacture critical components for nuclear weapons or nuclear weapons delivery systems.

BIOLOGICAL/CHEMICAL WEAPONS SYSTEMS MANUFACTURERS

Companies that manufacture biological or chemical weapons, which are defined as weapons that use pathogens such as viruses, bacteria, and disease-causing biological agents, toxins, or chemical substances that have toxic properties that kill, injure, or incapacitate.

BIOLOGICAL/CHEMICAL WEAPONS COMPONENTS MANUFACTURERS

Companies that manufacture critical components for chemical or biological weapons systems.

DEPLETED URANIUM WEAPONS MANUFACTURERS

Companies involved in the production of depleted uranium (DU) weapons, ammunition, and armor. Depleted uranium is a by-product of the uranium-enrichment process used to make nuclear weapons and nuclear-reactor fuel.

GOVERNANCE

Companies will be excluded from the index if they meet all of the following three criteria:

- Companies with individual holdings of 50% or more of the voting rights
- Companies with less than one-third of independence on the board
- Companies which do not have an audit committee or a remuneration committee

The following sections have been modified since July 2014:

1. Introduction and 2. Screening Criteria

Update to include the index construction parameters for MSCI World Custom ESG Index and MSCI Europe Custom ESG Index

Appendix 1

Governance section – update to the description

The following sections have been modified since September 2015:

Update to include the index construction parameters for MSCI North America Custom ESG Index

The following sections have been modified since December 2015:

Appendix 1

Governance section – clarification for the exclusions description

The following sections have been modified since May 2017:

Section 4: Maintaining the MSCI Custom ESG Indexes

- Clarification on use of ESG data for securities whose data would be available after the end of the month preceding Index Review.

CONTACT US

clientservice@msci.com

AMERICAS

Americas	1 888 588 4567 *
Atlanta	+ 1 404 551 3212
Boston	+ 1 617 532 0920
Chicago	+ 1 312 675 0545
Monterrey	+ 52 81 1253 4020
New York	+ 1 212 804 3901
San Francisco	+ 1 415 836 8800
Sao Paulo	+ 55 11 3706 1360
Toronto	+ 1 416 628 1007

EUROPE, MIDDLE EAST & AFRICA

Cape Town	+ 27 21 673 0100
Frankfurt	+ 49 69 133 859 00
Geneva	+ 41 22 817 9777
London	+ 44 20 7618 2222
Milan	+ 39 02 5849 0415
Paris	0800 91 59 17 *

ASIA PACIFIC

China North	10800 852 1032 *
China South	10800 152 1032 *
Hong Kong	+ 852 2844 9333
Mumbai	+ 91 22 6784 9160
Seoul	00798 8521 3392 *
Singapore	800 852 3749 *
Sydney	+ 61 2 9033 9333
Taipei	008 0112 7513 *
Tokyo	+ 81 3 5290 1555

* = toll free

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