

# **Bloomberg MSCI Fixed Income ESG Disclosures**

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## Contents

Introduction	3
MSCI ESG Ratings	3
MSCI ESG Controversies and Global Norms	9
MSCI Business Involvement Screening Research	11
MSCI Climate Change Metrics Research	31
MSCI SFDR Research	43
MSCI Global Sanctions	43
MSCI Green Bonds	45
Appendix I: Data Input	46
Appendix II: Verification and Data Quality	48
Appendix III: Reference Standards	50
Appendix IV: Document Version History	51

## Introduction

Bloomberg Index Services Limited ("BISL"), a leader in fixed income indexing, and MSCI, a leading provider of ESG (environmental, social, and governance) equity indices and research, have collaborated on the development of a family of rules-based benchmark indices that incorporate measures of ESG risk and exposures. The Bloomberg MSCI Fixed Income Indices are administered by BISL.

This document provides details of how ESG factors are reflected in the key elements of the benchmark methodology of Bloomberg MSCI Fixed Income ESG Indices, Bloomberg MSCI Climate Transition Indices, and Bloomberg MSCI Paris-Aligned Indices.

Further information on BISL's handling of issuers not covered by MSCI for these factors can be found in the following documents:

- [Bloomberg MSCI Fixed Income Indices Methodology](#) - Section 7: Treatment of Non-Covered Issuers
- [Bloomberg MSCI Climate Transition and Paris-Aligned Indices Methodology](#) - Section 5: Treatment of Non-Covered Issuers
- [Bloomberg MSCI Fixed Income Treatment of Non-Covered Issuers Supplement](#)

## MSCI ESG Ratings

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and Quality	Reference Standards
Accounting Investigations	Has the company announced an internal investigation into its accounting or come under investigation from a regulatory body, or been subject to fine, settlement or conviction for issues related to its accounting practices? Or has the company's auditor come under investigation for issues related to its work on the audit of the company? Flagged if yes. The duration of the flag is dependent on the severity assessment.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Adjusted Government ESG Score	Sovereign entity's Government ESG Score adjusted on the MSCI ESG Corporate Ratings scale. Please refer to the MSCI ESG Government Ratings Methodology documents, Section - Determining the Government Adjusted ESG Scores for details.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Board Diversity - Percentage of Women	The percentage of board directors who are women.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Board gender diversity - disclosed	Flagged as "Yes" if the company has disclosed board gender diversity.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Board gender diversity - female to male ratio (%)	The company's female-to-male board members ratio. This metric meets the requirements of the Benchmark Regulation. It should not be used for SFDR Reporting, which requires Female Directors Percentage for PAI 1.13.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Board Independent of Management Percentage	The percentage of board members that meets our independent of management criteria, as defined by MSCI ESG Research. For companies with a two-tier board, the calculation is based on members of the Supervisory Board only.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Carbon Emissions Score	Assesses the company's level of exposure to and management of risks related to the carbon intensity of its operations and climate-related risks. (Score: 0-10)	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Child Labor Controversy	Companies that have been the subject of alleged child labor controversies.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Climate Change Theme Score	This Score represents the weighted average of the Key Issue Scores that fall under the Climate Change Theme: Carbon Emissions, Product Carbon Footprint, Climate Change Vulnerability, and Financing Environmental Impact. (Score: 0-10)	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and Quality	Reference Standards
Combined CEO/Chair	Does the company have a combined CEO/chair? Flagged if yes.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI ESG Score</a>	<a href="#">Refer to Appendix III – MSCI ESG Score</a>
Corporate Behavior Theme Score	The Corporate Behavior Theme Score evaluates the extent to which companies may face ethics issues such as fraud, executive misconduct, corruption scandals, money laundering, anti-trust violations, or tax-related controversies. Each company starts with a “perfect 10” and points are deducted based on the triggering of Key Metrics across Business Ethics and Tax Transparency. (Score: 0-10)	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI ESG Score</a>	<a href="#">Refer to Appendix III – MSCI ESG Score</a>
Corporate Governance Percentage of Women on the Board	This figure indicates the number of women on the board as a percentage of total board members.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI ESG Score</a>	<a href="#">Refer to Appendix III – MSCI ESG Score</a>
Corporate Governance Theme Score	The Corporate Governance Theme Score is equal to the Corporate Governance Issue Score. (Score: 0-10)	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI ESG Score</a>	<a href="#">Refer to Appendix III – MSCI ESG Score</a>
Corruption Control Risk Management Score	Sovereign entity's management of corruption control risks based on the assessment of perceptions of public-sector corruption, and the extent to which public power is exercised for private gain. Values range from 0 (worst) to 10 (best).	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI ESG Score</a>	<a href="#">Refer to Appendix III – MSCI ESG Score</a>
Environmental Opportunities Theme Score	This Score represents the weighted average of the Key Issue Scores that fall under the Environmental Opportunities Theme: Opportunities in Clean Tech, Opportunities in Green Building, and Opportunities in Renewable Energy. (Score: 0-10)	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI ESG Score</a>	<a href="#">Refer to Appendix III – MSCI ESG Score</a>
Environmental Pillar Score	The Environmental Pillar Score represents the weighted average of all Key Issues that fall under the Environment Pillar.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI ESG Score</a>	<a href="#">Refer to Appendix III – MSCI ESG Score</a>
Environmental Risk Pillar Score	Sovereign entity's overall performance on Environmental (E) risk factors calculated as a simple average of: (1) Environmental Risk Exposure Score (rescaled by subtracting the score from 10) and (2) Environmental Risk Management Score. Values range from 0 (worst) to 10 (best).	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI ESG Score</a>	<a href="#">Refer to Appendix III – MSCI ESG Score</a>
Environmental Risk Pillar Weight	The weight assigned to the Environmental Risk Pillar in the ESG Government Ratings model is 25% for all sovereign entities.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI ESG Score</a>	<a href="#">Refer to Appendix III – MSCI ESG Score</a>
ESG Government Rating	Sovereign entity's letter rating indicating the overall Environmental, Social and Governance (ESG) risk assessment. ESG Government Ratings are at a global level on a seven-rating band from AAA (Best-in-Class) to CCC (Worst-in-Class).	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI ESG Score</a>	<a href="#">Refer to Appendix III – MSCI ESG Score</a>
ESG Government Score	Sovereign entity's overall Environmental, Social and Governance (ESG) performance calculated as a simple average of: (1) ESG Risk Exposure Score (rescaled by subtracting the score from 10) and (2) ESG Risk Management Score. Values range from 0 (worst) to 1 (best).	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI ESG Score</a>	<a href="#">Refer to Appendix III – MSCI ESG Score</a>
ESG Rating	A company's final ESG Rating. To arrive at a final letter rating, the weighted average of the key issue scores are aggregated and companies are ranked from best (AAA) to worst (CCC).	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI ESG Score</a>	<a href="#">Refer to Appendix III – MSCI ESG Score</a>
ESG Rating Trend	The ESG Rating Trend indicates the rating change from previous to current in terms of the number of rating notches downgraded or upgraded. For example; +3 = three notch	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI ESG Score</a>	<a href="#">Refer to Appendix III – MSCI ESG Score</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and Quality	Reference Standards
	upgrade, -2 = two notch downgrade, 0 = maintain, and blank = new rating.			
European Union (EU) Sanctions	Countries alleged to be involved in human rights violations and abuses can be subject to EU sanctions. Restrictive measures imposed by the EU may target governments of third countries, or non-state entities and individuals. Sanctions may consist of asset freezes, travel bans, economic and financial measures or arms embargoes, among other measures.  Data source: European External Action Service	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI ESG Score</a>	<a href="#">Refer to Appendix III – MSCI ESG Score</a>
Final Industry-Adjusted Company Score	The score is calculated by normalizing the Weighted Average Key Issue Score to the Industry peer set, adjusted to reflect any Ratings Review Committee overrides; see the ESG Rating Methodology document for details.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI ESG Score</a>	<a href="#">Refer to Appendix III – MSCI ESG Score</a>
Freedom House Global Freedom Status	This indicator will identify whether Freedom House has identified a country as Free, Not Free or Partially Free in its Global Freedom Scores.  Source: Freedom House	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI ESG Score</a>	<a href="#">Refer to Appendix III – MSCI ESG Score</a>
Gender Inequality Index	This indicator will identify whether a country has large gender inequalities in reproductive health, political empowerment, educational attainment, and labor market participation, as assessed in the UNDP Gender Inequality Index	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI ESG Score</a>	<a href="#">Refer to Appendix III – MSCI ESG Score</a>
Geneva Conventions	This indicator will identify whether a country has ratified all of the Geneva Conventions (I-IV) and Additional Protocols (I-III) (Source: ICRC)	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI ESG Score</a>	<a href="#">Refer to Appendix III – MSCI ESG Score</a>
GHG Emissions per Capita (tCO <sub>2</sub> e/capita)	Scope 1 emissions intensity of greenhouse gases excluding land use, land-use change and forestry (LULUCF) for the country territory, in tons of CO <sub>2</sub> equivalent per capita per year (tCO <sub>2</sub> e/capita). Data sources: MSCI ESG Research, EDGAR, World Bank, IMF.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI ESG Score</a>	<a href="#">Refer to Appendix III – MSCI ESG Score</a>
Gini Index (0-100 score)	The extent to which the distribution of income in the population deviates from a perfectly equal distribution. Values range from 0 (best) to 100 (worst). Data sources: World Bank, UNU WIDER, WHO, CIA, national sources.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI ESG Score</a>	<a href="#">Refer to Appendix III – MSCI ESG Score</a>
Governance Pillar Score	The Governance Pillar Score provides an assessment of risk and management practices related to Corporate Governance and Corporate Behavior. The 0-10 score is based on the sum of deductions derived from Key Metrics included in the Corporate Governance (including Board, Pay, Ownership & Control, and Accounting) and Corporate Behavior (including Business Ethics and Tax Transparency) themes. Low scores correspond to companies with weak corporate governance practices, weak business ethics programs, high exposure to corruption risk, and/or involvement in business ethics-related controversies. (Score: 0-10)	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI ESG Score</a>	<a href="#">Refer to Appendix III – MSCI ESG Score</a>
Governance Risk Pillar Score	Sovereign entity's overall performance on Governance (G) risk factors calculated as a simple average of: (1) Governance Risk Exposure Score (rescaled by subtracting the score from 10) and (2) Governance Risk Management Score. Values range from 0 (worst) to 10 (best).	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI ESG Score</a>	<a href="#">Refer to Appendix III – MSCI ESG Score</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and Quality	Reference Standards
Governance Risk Pillar Weight	The weight assigned to the Governance Risk Pillar in the ESG Government Ratings model is 50% for all sovereign entities.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Human Capital Theme Score	This Score represents the weighted average of the Key Issue Scores that fall under the Human Capital Theme: Labor Management, Health and Safety, Human Capital Development, and Supply Chain Labor Standards. (Score: 0-10)	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Implementation of fundamental ILO Conventions - due diligence policies	Flagged as "Yes" if the company has due diligence policies on issues addressed by the fundamental ILO Conventions 1 to 8.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
ITUC Global Rights Index	This indicator will identify whether a country has been noted by the International Trade Union Confederation (ITUC) as having no guarantee of worker rights.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Natural Capital Theme Score	This Score represents the weighted average of the Key Issue Scores that fall under the Natural Capital Theme: Water Stress, Biodiversity and Land Use, and Raw Material Sourcing. (Score: 0-10)	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Number of very severe business ethics controversies	The number of ongoing business ethics controversies that have a 'Very Severe' severity assessment.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Number of very severe corruption controversies	The number of ongoing corruption and bribery controversies that have a 'Very Severe' severity assessment.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Overall ESG Rating	The Overall ESG Rating represents either the Intangible Value Assessment (IVA) Rating or Government ESG Rating of the issuer. IVA Ratings indicate how well an issuer manages its most material ESG risks relative to sector peers. Government Ratings indicates overall environmental, social, and governance (ESG) performance of a region. Regions with low risk exposure and strong management of ESG risk factors score highest (AAA); regions with high risk exposure and weak management of ESG risk factors score lowest (CCC). Ratings are based on a seven-letter scale: best (AAA) to worst (CCC).	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Overall ESG Rating Trend	The Overall ESG Rating Trend indicates either the Intangible Value Assessment (IVA) Rating or Government ESG Rating change from previous to current in terms of the number of rating notches downgraded or upgraded. Blank indicates a rating was "initiated".	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Party to Anti-Personnel Landmines Convention	Ratification status of different countries. Countries which have deposited any of the ratification instruments are considered as party to this protocol. Countries which have not used any ratification tool (even if they have signed to it) are not considered party to the protocol.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Party to Basel Convention	Ratification status of Basel Convention by different countries. Countries which have deposited any of the ratification instruments (such as Ratification, Succession, Accession, Approval, Acceptance and Formal Confirmation) are considered as party to this protocol. Countries which have not used any ratification tool (even if they have signed to it) are not considered party to the protocol.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Party to Biological Weapon Convention	Ratification status of different countries. Countries which have deposited any of the ratification instruments are considered as party to this protocol. Countries which have	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and Quality	Reference Standards
	not used any ratification tool (even if they have signed to it) are not considered party to the protocol.			
Party to Chemical Weapon Convention	Ratification status of different countries. Countries which have deposited any of the ratification instruments are considered as party to this protocol. Countries which have not used any ratification tool (even if they have signed to it) are not considered party to the protocol.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Party to Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment	This indicator will identify whether a country is a party to the Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment. (Source: UN OHCHR)	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Party to Convention on Biological Diversity (CBD)	Ratification status of Convention on Biological Diversity by different countries. Countries which have deposited any of the ratification instruments (such as Ratification, Succession, Accession, Approval, Acceptance etc) are considered as party to this protocol. Countries which have not used any ratification tool (even if they have signed to it) are not considered party to the protocol.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Party to Convention on Certain Conventional Weapons	Ratification status of different countries. Countries which have deposited any of the ratification instruments are considered as party to this protocol. Countries which have not used any ratification tool (even if they have signed to it) are not considered party to the protocol.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Party to Convention on Cluster Munitions	Ratification status of different countries. Countries which have deposited any of the ratification instruments are considered as party to this protocol. Countries which have not used any ratification tool (even if they have signed to it) are not considered party to the protocol.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Party to Convention on International Trade in Endangered Species of Wild Fauna and Flora	Ratification status of different countries. Countries which have deposited any of the ratification instruments (such as Ratification, Succession, Accession, Approval, Acceptance and Continuation) are considered as party to this protocol. Countries which have not used any ratification tool (even if they have signed to it) are not considered party to the protocol.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Party to International Convention for the Protection of All Persons from Enforced Disappearance	This indicator will identify whether a country is a party to the International Convention for the Protection of All Persons from Enforced Disappearance. (Source: UN OHCHR)	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Party to Kyoto Protocol	Ratification status of Kyoto Protocol by different countries. Countries, which have deposited any of the ratification instruments (such as Ratification, Accession, Approval) are considered as party to the protocol. Countries which have not used any ratification tool (even if they have signed to it) are not considered party to the protocol.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Party to United Nations Convention against Corruption	Ratification status of different countries. Countries which have deposited any of the ratification instruments are considered as party to this protocol. Countries which have not used any ratification tool (even if they have signed to it) are not considered party to the protocol.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>



MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and Quality	Reference Standards
Party to United Nations Convention against Transnational Organized Crime	Ratification status of different countries. Countries which have deposited any of the ratification instruments are considered as party to this protocol. Countries which have not used any ratification tool (even if they have signed to it) are not considered party to the protocol.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Party to World Health Organization Framework Convention on Tobacco Control	Ratification status of different countries. Countries which have deposited any of the ratification instruments (such as Ratification, Succession, Accession, Approval, Acceptance, Formal Confirmation etc) are considered as party to this protocol. Countries which have not used any ratification tool (even if they have signed to it) are not considered party to the protocol.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Policy addressing internationally recognized labor conventions (Yes, No)	Flagged as "Yes" if company has a policy addressing internationally recognized labor conventions for its workforce.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Pollution and Waste Theme Score	This Score represents the weighted average of the Key Issue Scores that fall under the Pollution & Waste Theme: Toxic Emissions and Waste, Packaging Material and Waste, and Electronic Waste. (Score: 0-10)	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Press Freedom (Yes, No)	Indicates whether Reporters Without Borders have identified sovereign entity as good or satisfactory in its World Press Freedom Index. Data source: Reporters Without Borders.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Product Liability Theme Score	This Score represents the weighted average of the Key Issue Scores that fall under the Product Liability Theme: Product Safety and Quality, Chemical Safety, Privacy and Data Security, Consumer Financial Protection, Responsible Investment, and Health and Demographic Risk. (Score: 0-10)	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Rule of Law (-2.5 to 2.5 score)	Perceptions of the extent to which agents have confidence in and abide by the rules of society, including the quality of contract enforcement, property rights, the police and the courts, and the likelihood of crime and violence. Scores range from 2.5 (best) to -2.5 (worst). Data source: World Bank.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Social Opportunities Theme Score	This Score represents the weighted average of the Key Issue Scores that fall under the Social Opportunities Theme: Opportunities in Nutrition and Health, Access to Communications, Access to Health Care, and Access to Finance. (Score: 0-10)	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Social Pillar Score	The Social Pillar Score represents the weighted average of all Key Issues that fall under the Social Pillar.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Social Risk Pillar Score	Sovereign entity's overall performance on Social (S) risk factors calculated as a simple average of: (1) Social Risk Exposure Score (rescaled by subtracting the score from 10) and (2) Social Risk Management Score. Values range from 0 (worst) to 10 (best).	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Social Risk Pillar Weight	The weight assigned to the Social Risk Pillar in the ESG Government Ratings model is 25% for all sovereign entities.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Sovereign Rated Entity Type	Type of a government entity that is rated under the MSCI ESG Government Ratings Methodology. Government entity types can be categorized as: (1) sovereign, (2) local authority, (3) agency or (4) supranational.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>



MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and Quality	Reference Standards
Stability and Peace Risk Management Score	Sovereign entity's management of stability and peace risks based on the assessment of relative peacefulness of a nation, and the likelihood of political instability or politically-motivated violence. Values range from 0 (worst) to 10 (best).	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
Total number of Bribery and Corruption Controversies	Total number of controversy cases in last three years related to company's involvement in: Bribery & corruption issues.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
United Nations (UN) Sanctions	UNSC trade sanctions - trade sanctions may be limited to certain materials e.g. arms, diamond etc. In such cases, the nature of trade sanction (embargo) is specified.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>
World Press Freedom Index (0-100 score)	The ability of journalists as individuals and collectives to select, produce and disseminate news in the public interest independent of political, economic, legal and social interference, and in the absence of threats to their physical and mental safety. Values range from 100 (best) to 0 (worst). Data source: Reporters Without Borders.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Score</a>	<a href="#">Refer to Appendix III - MSCI ESG Score</a>

### MSCI ESG Controversies and Global Norms

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and Quality	Reference Standards
Company Summary - Overall Flag	Assesses whether a company has a notable controversy related to a company's operations and/or products, and the severity of the social or environmental impact of the controversy. The possible values are Green, Yellow, Orange or Red flag. See the MSCI ESG Controversies and Global Norms methodology document for detailed explanations.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Controversies and Global Norms</a>	<a href="#">Refer to Appendix III - MSCI ESG Controversies and Global Norms</a>
Company Summary - Overall Score	The overall company assessment signals whether a company has a notable controversy related to a company's operations and/or products, and the severity of the social or environmental impact of the controversy.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Controversies and Global Norms</a>	<a href="#">Refer to Appendix III - MSCI ESG Controversies and Global Norms</a>
Company Summary - Very Severe Controversies count	Number of all active (ongoing, partially concluded, or concluded) very severe controversies	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Controversies and Global Norms</a>	<a href="#">Refer to Appendix III - MSCI ESG Controversies and Global Norms</a>
Customers - Controversy Score	This ESG pillar is an assessment of controversies (if any) related to a firm's customers. Factors affecting this evaluation include whether a company is involved in controversies related to anticompetitive practices, marketing and advertising, product quality and safety, and customer relations.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Controversies and Global Norms</a>	<a href="#">Refer to Appendix III - MSCI ESG Controversies and Global Norms</a>
Environment - Controversy Flag	This ESG pillar is an assessment of controversies (if any) 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	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Controversies and Global Norms</a>	<a href="#">Refer to Appendix III - MSCI ESG Controversies and Global Norms</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and Quality	Reference Standards
	waste, environmental impact of products and service, and management of supply chain environmental impact.			
Environment - Controversy Score	This ESG pillar is an assessment of controversies (if any) 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, and management of supply chain environmental impact.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Controversies and Global Norms</a>	<a href="#">Refer to Appendix III - MSCI ESG Controversies and Global Norms</a>
Governance - Controversy Score	This ESG pillar is an assessment of controversies (if any) 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	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Controversies and Global Norms</a>	<a href="#">Refer to Appendix III - MSCI ESG Controversies and Global Norms</a>
Human Rights - Controversy Score	This ESG pillar is an assessment of controversies (if any) 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 freedom of expression and censorship, and other human rights abuses and adverse impact on a community.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Controversies and Global Norms</a>	<a href="#">Refer to Appendix III - MSCI ESG Controversies and Global Norms</a>
Human Rights - Human Rights Concerns Assessment	This indicator measures the severity of controversies related to the impact of a firm's operations on human rights. Factors affecting this evaluation include, but are not limited to, a history of involvement in human rights-related legal cases, widespread or egregious complicity in killings, physical abuse, or violation of other rights, resistance to improved practices, and criticism by NGOs and/or other third-party observers.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Controversies and Global Norms</a>	<a href="#">Refer to Appendix III - MSCI ESG Controversies and Global Norms</a>
ILO Alignment - Fundamental Principles and Rights at Work (ex H&S).	This factor indicates an assessment on whether the company is aligned with the International Labour Organization's (ILO) Fundamental Conventions and Declaration on fundamental Principles and Rights at Work (excluding health and safety) based on MSCI ESG Research methodology. The possible values are Fail, Watch List, or Pass. See the MSCI ESG Controversies and Global Norms methodology document for detailed explanations.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Controversies and Global Norms</a>	<a href="#">Refer to Appendix III - MSCI ESG Controversies and Global Norms</a>
ILO Alignment - Fundamental Principles and Rights at Work.	This factor indicates an assessment on whether the company is aligned with the International Labour Organization's (ILO) Fundamental Conventions and Declaration on fundamental Principles and Rights at Work based on MSCI ESG Research methodology. The possible values are Fail, Watch List, or Pass. See the MSCI ESG Controversies and Global Norms methodology document for detailed explanations	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Controversies and Global Norms</a>	<a href="#">Refer to Appendix III - MSCI ESG Controversies and Global Norms</a>
INACTIVE FACTOR - Company Summary - Controversy Flag	The overall controversy assessment signals whether a company has a notable controversy related to a company's operations and/or products, and the severity of the social or environmental impact of the controversy.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Controversies and Global Norms</a>	<a href="#">Refer to Appendix III - MSCI ESG Controversies and Global Norms</a>
Labor Rights - Controversy Score	This ESG pillar is an assessment of controversies (if any) related to a firm's employee relations and supply chain.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II -</a>	<a href="#">Refer to Appendix III -</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and Quality	Reference Standards
	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.		<a href="#">MSCI ESG Controversies and Global Norms</a>	<a href="#">MSCI ESG Controversies and Global Norms</a>
Social - Controversy Score	This Social pillar is an assessment of controversies (if any) related to a firm's impact on Customers, Human Rights & Community, and Labor Rights & Supply Chain. The score is derived from the lowest scoring sub-pillar (Customers, Human Rights & Community, and Labor Rights & Supply Chain) within the Social pillar.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Controversies and Global Norms</a>	<a href="#">Refer to Appendix III - MSCI ESG Controversies and Global Norms</a>
UN Global Compact Alignment	Assesses whether the company is aligned with the United Nations Global Compact principles based on MSCI ESG Research methodology. The possible values are Fail, Watch List, or Pass. See the MSCI ESG Controversies and Global Norms methodology document for detailed explanations.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Controversies and Global Norms</a>	<a href="#">Refer to Appendix III - MSCI ESG Controversies and Global Norms</a>
UNGP Alignment	Assesses whether the company is aligned with the United Nations Guiding Principles (UNGP) for Business and Human Rights based on MSCI ESG Research methodology. The possible values are Fail, Watch List, or Pass. See the MSCI ESG Controversies and Global Norms methodology document for detailed explanations.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI ESG Controversies and Global Norms</a>	<a href="#">Refer to Appendix III - MSCI ESG Controversies and Global Norms</a>

## MSCI Business Involvement Screening Research

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and quality	Reference standards
Abortifacients - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from the production of abortifacients as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Abortifacients - Producer	Companies that develop or produce products that are, or could be, used as abortifacients.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Abortion - Any Tie	Indicates whether the company provides abortions, owns or operates acute care facilities, is involved in the production of abortifacients, or is involved indirectly through ownership ties to companies involved in such products or services. The value is "True" if one or more of the underlying involvement factors is "True."	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Adult Entertainment - Any Tie	Indicates whether the company is involved in the production, distribution or retail of adult entertainment products or services, or is involved indirectly through ownership ties to companies involved in such products or services. The value is "True" if one or more of the underlying involvement factors is "True."	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and quality	Reference standards
Adult Entertainment - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from the production, distribution or retail of adult entertainment products or services as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Adult Entertainment - Maximum Total Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from the production, distribution or retail of adult entertainment products or services in its most recently completed fiscal year. Expressed in USD.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Adult Entertainment - Ownership by an Adult Entertainment Company	Companies that are 50 percent or more owned by a company with involvement.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Adult Entertainment - Ownership of an Adult Entertainment Company	Companies that own 20 to 49.99 percent of a company with involvement. When a company owns 50 percent or more of a subsidiary with involvement, MSCI treats it as a consolidated subsidiary.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Adult Entertainment - Revenue	The recent-year revenue a company has derived from adult entertainment.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Adult Entertainment Distributor - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from adult entertainment distribution as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Adult Entertainment Producer	Companies involved in the production of adult entertainment.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Adult Entertainment Producer - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from adult entertainment production as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Adult Entertainment Retailer - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from the retail of adult entertainment products as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and quality	Reference standards
Alcohol - Any Tie	Indicates whether the company is involved in the production, distribution, or retail of alcoholic products, as a licensor of brand names for alcoholic products, as a supplier for alcoholic products or is involved indirectly through ownership ties to companies involved in such products or services. The value is "True" if one or more of the underlying involvement factors is "True."	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Alcohol - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from alcohol and related activities as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Alcohol - Maximum Total Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from alcohol and related activities in its most recently completed fiscal year. Expressed in USD.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Alcohol - Ownership by an Alcohol Company	Companies that are 50 percent or more owned by a company with involvement.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Alcohol - Ownership of an Alcohol Company	Companies that own 20 to 49.99 percent of a company with involvement. When a company owns 50 percent or more of a subsidiary with involvement, MSCI treats it as a consolidated subsidiary.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Alcohol - Revenue	The recent-year revenue a company has derived from the manufacturing, distribution, retailing, and licensing of alcoholic products.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Alcohol Producer	Companies that produce alcoholic products.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Alcohol Producer - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from alcohol production as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Animal Welfare - Any Tie	Indicates whether the company is involved in animal testing, factory farming, exhibiting animals, breeding animals, or is involved indirectly through ownership ties to companies involved in such activities or services. The value is "True" if one or more of the underlying involvement factors is "True."	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and quality	Reference standards
Animal Welfare - Non-medical Testing	Companies that conduct animal testing for non-medical products.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Animal Welfare - Support Alternatives (Positive Indicator)	Companies that disclose statements in support of researching or employing alternatives to animal testing.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Animal Welfare - Testing Policy (Positive Indicator)	Companies that disclose statements or policies addressing the welfare of animals used for laboratory testing.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Burma - Involvement Type	Type of involvement - Equity, Non-Equity, or Other	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Burma - Military Tie	Company has contracts with the Burmese military forces to provide goods/services or for the military/police to provide security.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Cannabis - Any Tie	Indicates whether the company is involved in the production or retail of cannabis products, research for such products, or is involved indirectly through ownership ties to companies involved in such products or activities. The value is “True” if one or more of the underlying involvement factors is “True.”	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Cannabis - Recreational	Companies that produce or sell cannabis products for recreational use.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Civilian Firearms - Any Tie	Indicates whether the company is involved in the production or retail of civilian firearms intended for civilian use, ammunition for such products, or is involved indirectly through ownership ties to companies involved in such products or services. The value is “True” if one or more of the underlying involvement factors is “True.”	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Civilian Firearms - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from the production, wholesale or retail of firearms and ammunition intended for civilian use as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>



MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and quality	Reference standards
Civilian Firearms - Maximum Total Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from the production, wholesale or retail of firearms and ammunition intended for civilian use in its most recently completed fiscal year. Expressed in USD.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Civilian Firearms - Ownership by a Firearms Company	Companies that are 50 percent or more owned by a company with involvement.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Civilian Firearms - Ownership of a Firearms Company	Companies that own 20 to 49.99 percent of a company with involvement. When a company owns 50 percent or more of a subsidiary with involvement, MSCI treats it as a consolidated subsidiary.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Civilian Firearms - Recent Year Revenue Derived	Civilian Firearms - Recent Year Revenue Derived	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Civilian Firearms - Revenue	The recent-year revenue the company has derived from the manufacture of civilian firearms and ammunition.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Civilian Firearms Producer	Companies that produce firearms and small-arms ammunitions intended for civilian markets.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Civilian Firearms Retailer	Companies that distribute, either wholesale or retail, firearms or small-arms ammunition intended for civilian use.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Civilian Firearms Retailer - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from the wholesale or retail distribution of firearms or small-arms ammunition intended for civilian use as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Cluster Munitions - Any Tie	Indicates whether the company is involved in the production of cluster munitions, components for such products, delivery platforms for such products, or is involved indirectly through ownership ties to companies involved in production of such goods. The value is "True"	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>



MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and quality	Reference standards
	if one or more of the underlying involvement factors is "True."			
Cluster Munitions - Ownership by a Cluster Munitions Company	Companies that are owned at least 50 percent by a company flagged for Whole Weapons Systems Manufacturer, Intended Use Components, Dual Use Components, and/or Delivery Platforms with a Strong Evidence rating.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Cluster Munitions - Ownership of a Cluster Munitions Company	Companies that own 20 to 49.99 percent of a company flagged for Whole Weapons Systems Manufacturer, Intended Use Components, Dual Use Component, and/or Delivery Platforms with a Strong Evidence rating. When a company owns 50 percent or more of an involved subsidiary, MSCI ESG Research treats the involved subsidiary as a consolidated subsidiary and the company is given a direct involvement tie. NOTE: Per MSCI ESG Research's methodology, financial institutions are never given a direct involvement tie due to the nature of their business. As such, for financial institutions, the Ownership of a Cluster Munitions Company category covers equity ownership from at least 50 to 100 percent.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Cluster Munitions - Tie to Manufacturing	Companies that produce cluster munitions whole weapons systems, intended-use components, dual-use components, or delivery platforms.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Contraceptives - Any Tie	Indicates whether the company is involved in the production of contraceptives, as a licensor of contraceptive products, or is involved indirectly through ownership ties to companies involved in such products or services. The value is "True" if one or more of the underlying involvement factors is "True."	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Contraceptives - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from the production of contraceptives or as a licensor of contraceptive products as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Controversial Weapons - Any Tie	Indicates whether the company is involved in the production of whole weapon systems, delivery platforms or components of cluster munitions; production of whole weapon systems or components of landmines and biological or chemical weapons; production of depleted uranium weapons, blinding laser weapons, incendiary weapons, or weapons with non-detectable fragments; or is involved indirectly through ownership ties to companies involved in such products. Nuclear weapons are not considered for this screen. The value is "True" if one or more of the underlying involvement factors is "True."	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Cuba - Involvement Type	Type of involvement - Equity, Non-Equity, or Other	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business</a>	<a href="#">Refer to Appendix III - MSCI Business</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and quality	Reference standards
			<a href="#">Involvement Screens</a>	<a href="#">Involvement Screens</a>
EU - Has Any Russia Designated Entity Annex Tie	Companies that are included in any and all of the EU Russia Designated Entity Sanctions Lists. Includes the following European Council Decisions: 269/2014, 512/2014/CFSP, 833/2014.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
For Profit Prisons - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from for-profit prisons and the provision of integral services to these types of facilities as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Gambling - Any Tie	Indicates whether the company owns or operates gambling facilities, including online or mobile gambling, provides support services for gambling operations, licenses its brand name to gambling operations or products, or is involved indirectly through ownership ties to companies involved in such products, services, or activities. The value is "True" if one or more of the underlying involvement factors is "True."	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Gambling - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from gambling operations, including online or mobile gambling, and supporting activities in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Gambling - Maximum Total Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from gambling operations, including online or mobile gambling, and supporting activities in its most recently completed fiscal year. Expressed in USD.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Gambling - Operations	Companies that own or operate gambling facilities, online gambling websites, platforms, or mobile applications.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Gambling - Ownership by a Gambling Company	Companies that are 50 percent or more owned by a company with involvement.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Gambling - Ownership of a Gambling Company	Companies that own 20 to 49.99 percent of a company with involvement. When a company owns 50 percent or more of a subsidiary with involvement, MSCI treats it as a consolidated subsidiary.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Gambling - Revenue	The recent-year revenue a company has derived from gaming-related business activities.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI</a>	<a href="#">Refer to Appendix III - MSCI</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and quality	Reference standards
			<a href="#">Business Involvement Screens</a>	<a href="#">Business Involvement Screens</a>
Gambling - Support	Companies that provide products or support services fundamental to gambling operations.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Gambling Operations - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from gambling operations, including online or mobile gambling, in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Gambling Support - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from products or support services fundamental to gambling operations as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Genetic Engineering - Agriculture	Companies that produce and sell genetically modify plants, such as seeds and crops, and other organisms intended for agricultural use or human consumption.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Genetic Engineering - Any Tie	Indicates whether the company is involved in genetic engineering or is involved indirectly through ownership ties to companies involved in genetic engineering. The value is "True" if one or more of the underlying involvement factors is "True."	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Genetic Engineering - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from genetic engineering as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Genetic Engineering - Ownership by a GMO Company	Companies that are 50 percent or more owned by a company with involvement.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Genetic Engineering - Ownership of a GMO Company	Companies that own 20 to 49.99 percent of a company with involvement. When a company owns 50 percent or more of a subsidiary with involvement, MSCI treats it as a consolidated subsidiary.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Iran - Involvement Type	Type of involvement - Equity, Non-Equity, or Other	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business</a>	<a href="#">Refer to Appendix III - MSCI Business</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and quality	Reference standards
			<a href="#">Involvement Screens</a>	<a href="#">Involvement Screens</a>
Iran - Military Tie	Company with a business tie to the Iranian military.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Landmines - Any Tie	Indicates whether the company is involved in the production of anti-personnel or anti-vehicle landmines, essential intended or dual-use components of such products or is involved indirectly through ownership ties to companies involved in such products. The value is "True" if one or more of the underlying involvement factors is "True."	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Landmines - Ownership by a Landmine Company	Companies that are owned at least 50 percent by a company flagged for Anti-Personnel Landmines Whole Weapons Systems Manufacturer, Intended Use Components, Dual-use Components, and/or Anti-vehicle Landmines Whole Weapons Systems Manufacturer with a Strong Evidence rating.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Landmines - Ownership of a Landmine Company	Companies that own 20 to 49.99 percent of a company flagged for Anti-Personnel Landmines Whole Weapons Systems Manufacturer, Intended Use Components, Dual-use Components, and/or Anti-vehicle Landmines Whole Weapons Systems Manufacturer with a Strong Evidence rating. When a company owns 50 percent or more of an involved subsidiary, MSCI ESG Research treats the involved subsidiary as a consolidated subsidiary and the company is given a direct involvement tie. NOTE: Per MSCI ESG Research's methodology, financial institutions are never given a direct involvement tie due to the nature of their business. As such, for financial institutions, the Ownership of a Landmine Company category covers equity ownership from at least 50 to 100 percent.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Landmines - Tie to Manufacturing	Companies that produce whole weapons systems or essential intended or dual-use components for anti-personnel landmines and anti-vehicle landmines.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Lending Practices - Direct Link to Predatory Lending	Companies that provide products and services associated with certain controversial lending practice.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Lending Practices - Maximum Percentage of Revenue from Predatory Lending	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from predatory lending as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
North Korea - Involvement Type	Type of involvement - Equity, Non-Equity, or Other	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II -</a>	<a href="#">Refer to Appendix III -</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and quality	Reference standards
			<a href="#">MSCI Business Involvement Screens</a>	<a href="#">MSCI Business Involvement Screens</a>
North Korea - Military Tie	Company with a business tie to the North Korean military.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Northern Ireland - Involvement Type	Companies with operations in Northern Ireland (equity or franchise).	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Nuclear Power - Any Tie	Indicates whether the company owns or operates nuclear power plants, provides services or materials for nuclear power generation, or is involved indirectly through ownership ties to companies involved in such products or services. The value is "True" if one or more of the underlying involvement factors is "True."	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Nuclear Power - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from nuclear power and related activities as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Nuclear Power - Nuclear Percentage of Power	Nuclear power as a percentage of the company's total generation in the most recently completed fiscal year	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Nuclear Power - Ownership by a Nuclear Power Company	Companies that are 50 percent or more owned by a company with involvement.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Nuclear Power - Ownership of a Nuclear Power Company	Companies that own 20 to 49.99 percent of a company with involvement. When a company owns 50 percent or more of a subsidiary with involvement, MSCI treats it as a consolidated subsidiary.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Nuclear Power - Percent Nuclear Installed Capacity	The percentage of installed capacity attributed to nuclear power in the company's most recently completed fiscal year.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Nuclear Power - Uranium Mining	Companies that own or operate active uranium mines.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI</a>	<a href="#">Refer to Appendix III - MSCI</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and quality	Reference standards
			<a href="#">Business Involvement Screens</a>	<a href="#">Business Involvement Screens</a>
Nuclear Power Supplier	Companies that provide essential products or services to active nuclear power plants.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Nuclear Power Supplier - Fuel Enrichment	Companies involved in uranium enrichment and processing.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Nuclear Power Supplier - Nuclear Reactor Construction/Design	Companies that design and engineer nuclear power reactors.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Nuclear Power Uranium Mining - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from the ownership or operation of active uranium mines as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Nuclear Power Utility	Companies that own or operate active nuclear power plants.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Nuclear Power Utility - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from nuclear power generation as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Nuclear Weapons – Any Tie	Indicates whether the company is involved in the production of nuclear weapons, exclusive and dual-use delivery platform capable to delivery such products, intended and dual-use components of such products, services provided for such products, or is involved indirectly through ownership ties to companies involved in such products or services. The value is “True” if one or more of the underlying involvement factors is “True.”	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
OFAC - Has OFAC Cases	Companies that have been assessed a penalty or agreed to a settlement of actual, alleged or apparent violations of OFAC economic or trade sanctions regulations within the last 60 months.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Palm Oil - Any Tie	Indicates whether the company is involved in the production or distribution of palm oil or is involved	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II –</a>	<a href="#">Refer to Appendix III –</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and quality	Reference standards
	indirectly through ownership ties to companies involved in such products or services. The value is "True" if one or more of the underlying involvement factors is "True."		<a href="#">MSCI Business Involvement Screens</a>	<a href="#">MSCI Business Involvement Screens</a>
Palm Oil - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from the production or distribution of palm oil as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Palm Oil Producer	Companies that cultivate oil palm trees and harvest fresh fruit bunches (FFBs) used to produce palm oil products.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Pork - Any Tie	Indicates whether the company is involved in the production, distribution, or retail of pork products, or is involved indirectly through ownership ties to companies involved in such activities. The value is "True" if one or more of the underlying involvement factors is "True."	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Pork - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from the production or retail of pork products as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Standard: Catholic Tie (Old Methodology)	Companies that fail investment criteria commonly restricted using broad Catholic faith based investment guidelines.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Standard: Catholic USCCB Core Values Tie	Companies that fail the core investment criteria as defined by the US Catholic College of Bishops. Companies with any tie to Abortion, Contraceptives, Adult Entertainment, Landmines, Custer Bombs, Predatory Lending, and Stem Cells are restricted. Bio-Chemical and Nuclear Weapons are restricted at 0% or more of total company revenue. Conventional weapons are restricted at 5% or more of total revenue. Also, companies with a Labor Rights - Discrimination & Workforce Diversity Score <= 2 are restricted.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Standard: Religious restriction Tie	Restrictions based on general conservative religious beliefs. Matches the restriction criteria in the Standard Religious datafeed.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Standard: Sharia / Islamic Restriction Tie	Companies that fail investment criteria used for Sharia or Islamic screens.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business</a>	<a href="#">Refer to Appendix III - MSCI Business</a>



MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and quality	Reference standards
			<a href="#">Involvement Screens</a>	<a href="#">Involvement Screens</a>
Stem Cell Research - Any Tie	Indicates whether the company conducts stem cell research or is involved indirectly through ownership ties to companies involved in stem cell research. The value is "True" if one or more of the underlying involvement factors is "True."	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Stem Cell Research - Embryonic	Companies that conduct stem cell research with cells derived from human embryos.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Stem Cell Research - Fetal Tissue	Companies that conduct stem cell research with cells derived from human fetal tissue.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Sudan - Involvement Type	Type of involvement - Equity, Non-Equity, or Other	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Sudan - Military Tie	Company with a business tie to the Sudanese military.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Syria - Involvement Type	Type of involvement - Equity, Non-Equity, or Other	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Syria - Military Tie	Company with a business tie to the Syrian military.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Tobacco - Any Tie	Indicates whether the company is involved in the production, distribution or retail of tobacco products, as a licensor of brand names for tobacco products, as a supplier for tobacco products or is involved indirectly through ownership ties to companies involved in such products or services. The value is "True" if one or more of the underlying involvement factors is "True." Tobacco products include nicotine-containing products, including traditional and alternative tobacco smoking products.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Tobacco Distributor	Companies involved in the wholesale of tobacco products to retailers and other distributors. Tobacco products	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II -</a>	<a href="#">Refer to Appendix III -</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and quality	Reference standards
	include nicotine-containing products, including traditional and alternative tobacco smoking products.		<a href="#">MSCI Business Involvement Screens</a>	<a href="#">MSCI Business Involvement Screens</a>
Tobacco Distributor - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from the distribution of tobacco products as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%. Tobacco products include nicotine-containing products, including traditional and alternative tobacco smoking products.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Tobacco Licensor	Companies that license brand names to tobacco products. Tobacco products include nicotine-containing products, including traditional and alternative tobacco smoking products.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Tobacco Licensor - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from licensing brand names to tobacco products as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%. Tobacco products include nicotine-containing products, including traditional and alternative tobacco smoking products.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Tobacco Producer	Companies involved in the production of tobacco products. Tobacco products include nicotine-containing products, including traditional and alternative tobacco smoking products.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Tobacco Producer - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from the production of tobacco products as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%. Tobacco products include nicotine-containing products, including traditional and alternative tobacco smoking products.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Tobacco Retailer	Companies that sell tobacco products to consumers. Tobacco products include nicotine-containing products, including traditional and alternative tobacco smoking products.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Tobacco Retailer - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from the retail of tobacco products as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%. Tobacco products include nicotine-containing products, including traditional and alternative tobacco smoking products.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Tobacco Supplier	Companies that produce and supply essential products for the production of tobacco products. Tobacco products	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II -</a>	<a href="#">Refer to Appendix III -</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and quality	Reference standards
	include nicotine-containing products, including traditional and alternative tobacco smoking products.		<a href="#">MSCI Business Involvement Screens</a>	<a href="#">MSCI Business Involvement Screens</a>
Tobacco Supplier - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from supplying essential products to the tobacco industry as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Tobacco Total - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from the production, distribution or retail of tobacco products, as a licensor of brand names for tobacco products, or as a supplier for tobacco products as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%. Tobacco products include nicotine-containing products, including traditional and alternative tobacco smoking products.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Tobacco Total - Ownership by a Tobacco Company	Companies that are 50 percent or more owned by a company with involvement.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Tobacco Total - Ownership of a Tobacco Company	Companies that own 20 to 49.99 percent of a company with involvement. When a company owns 50 percent or more of a subsidiary with involvement, MSCI treats it as a consolidated subsidiary.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Weapons - Any Tie	Indicates whether the company is involved in the production of conventional weapons, components for such products or support systems and services for such products; production of biological or chemical weapons, components for such products; production of nuclear weapons, exclusive and dual-use delivery platform capable to deliver such products, intended and dual-use components of such products, services provided for such products; production of blinding laser, incendiary or non-detectable fragments weapons, or is involved indirectly through ownership ties to companies involved in such products or services. The value is "True" if one or more of the underlying involvement factors is "True." Excludes companies involved in the production of whole weapon systems, delivery platforms or components of cluster munitions and the production of whole weapon systems or components of landmines.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Weapons - Bio/chem Components	Companies that produce critical components for biological and chemical weapons systems.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and quality	Reference standards
Weapons - Bio/chem Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from the production of biological and chemical weapons and components for such products as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Weapons - Bio/chem Maximum Total Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from the production of biological or chemical weapons in its most recently completed fiscal year. Expressed in USD.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Weapons - Bio/chem Systems	Companies that produce biological or chemical weapons systems.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Weapons - Blinding Laser	Companies that produce blinding laser weapons, that cause permanent blindness to the target.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Weapons - Components of Nuclear Exclusive Delivery Platforms	Companies that produce essential components for delivery platforms exclusively for deploying nuclear weapons.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Weapons - Conventional Components	Companies that produce critical components for conventional weapons systems.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Weapons - Conventional Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from conventional weapons or components for such products as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Weapons - Conventional Maximum Total Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from conventional weapons or components for such products in its most recently completed fiscal year. Expressed in USD.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Weapons - Conventional Systems	Companies that produce conventional weapon systems intended for military markets.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and quality	Reference standards
Weapons - Depleted Uranium Manufacturer	Companies involved in the production of depleted uranium weapons, ammunition and armor.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Global Conventional Recent-year Revenue	Weapons - Global Conventional Recent-year Revenue	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Global Supplier Recent-year Revenue	Weapons - Global Supplier Recent-year Revenue	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Global Total Recent-year Revenue	Weapons - Global Total Recent-year Revenue	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from the production of conventional weapons, components for such products or support systems and services for such products; production of biological or chemical weapons, components for such products; production of nuclear weapons, exclusive and dual-use delivery platform capable to deliver such products, intended and dual-use components of such products, services provided for such products; and the production of blinding laser, incendiary or non-detectable fragments weapons in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Maximum Total Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from the production of conventional weapons, components for such products or support systems and services for such products; production of biological or chemical weapons, components for such products; production of nuclear weapons, exclusive and dual-use delivery platform capable to deliver such products, intended and dual-use components of such products, services provided for such products; and the production of blinding laser, incendiary or non-detectable fragments weapons in its most recently completed fiscal year. Expressed in USD.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Non-Detectable Fragments	Companies that produce weapons that use non-detectable fragments.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and quality	Reference standards
Weapons - Nuclear Components	Companies that produce essential intended or dual-use components for nuclear weapons and nuclear weapon delivery systems.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Nuclear Dual-Use Components	Companies that produce essential components that could be used for nuclear weapons, but were not developed or significantly modified exclusively for such purpose.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Nuclear Dual-Use Delivery Platforms	Companies that produce delivery platforms capable of deploying nuclear weapons, but were not developed or significantly modified exclusively for such purpose.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Nuclear Exclusive Delivery Platforms	Companies that produce delivery platforms exclusively for deploying nuclear weapons.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Nuclear Intended-Use Components	Companies that produce essential components developed or significantly modified for exclusive use in nuclear weapons.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Nuclear Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from nuclear weapons, intended and dual-use components for such products, delivery platforms capable of deploying nuclear weapons, essential components for such delivery platforms, and support services for such products as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Nuclear Maximum Total Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from nuclear weapons, intended and dual-use components for such products, delivery platforms capable of deploying nuclear weapons, essential components for such delivery platforms, and support services for such products in its most recently completed fiscal year. Expressed in USD.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Nuclear Systems	Companies that produce nuclear warheads, missiles, and delivery platforms capable of deploying nuclear weapons.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Nuclear Warheads & Missiles	Companies that produce nuclear warheads or missiles.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI</a>	<a href="#">Refer to Appendix III – MSCI</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and quality	Reference standards
			<a href="#">Business Involvement Screens</a>	<a href="#">Business Involvement Screens</a>
Weapons - Nuclear Weapons Support Services	Companies that provide support services for nuclear weapons.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Ownership by a Bio/Chem Weapons Company	Companies that are 50 percent or more owned by a company with biological and chemical weapons involvement.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Ownership by a Blinding Laser Weapons Company	Ownership by a Blinding Laser Manufacturer	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Ownership by a Conventional Weapons Company	Companies that are 50 percent or more owned by a company with conventional weapons involvement.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Ownership by a Depleted Uranium Weapons Company	Companies that are 50 percent or more owned by a company with depleted uranium weapons involvement.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Ownership by a Incendiary Weapons Company	Ownership By a Incendiary Weapons Manufacturer.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Ownership by a Non-detectable Fragments Company	Ownership by a Non-detectable Weapons Manufacturer	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Ownership by a Nuclear Weapons Company	Companies that are 50 percent or more owned by a company with nuclear weapons involvement.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Ownership by a Weapons Company	Companies that are 50 percent or more owned by a company with involvement.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business</a>	<a href="#">Refer to Appendix III – MSCI Business</a>



MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and quality	Reference standards
			<a href="#">Involvement Screens</a>	<a href="#">Involvement Screens</a>
Weapons - Ownership of a Bio/Chem Weapons Company	Companies that own 20 to 49.99 percent of a company with involvement. When a company owns 50 percent or more of a subsidiary with involvement, MSCI treats it as a consolidated subsidiary.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Ownership of a Blinding Laser Weapons Company	Ownership of a Blinding Laser Manufacturer	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Ownership of a Conventional Weapons Company	Companies that own 20 to 49.99 percent of a company with involvement. When a company owns 50 percent or more of a subsidiary with involvement, MSCI treats it as a consolidated subsidiary.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Ownership of a Depleted Uranium Weapons Company	Companies that own 20 to 49.99 percent of a company with involvement. When a company owns 50 percent or more of a subsidiary with involvement, MSCI treats it as a consolidated subsidiary.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Ownership of a Incendiary Weapons Company	Ownership Of a Incendiary Weapons Manufacturer.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Ownership of a Non-Detectable Fragments Company	Ownership of a Non-detectable Weapons Manufacturer	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Ownership of a Nuclear Weapons Company	Companies that own 20 to 49.99 percent of a company with involvement. When a company owns 50 percent or more of a subsidiary with involvement, MSCI treats it as a consolidated subsidiary.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Ownership of a Weapons Company	Companies that own 20 to 49.99 percent of a company with involvement. When a company owns 50 percent or more of a subsidiary with involvement, MSCI treats it as a consolidated subsidiary.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Weapons - Support Systems and Services	Companies that provide weapons support and services, including research, development, testing and evaluation; analysis and planning; equipment maintenance, repair, and overhaul; systems support; weapons training and simulation systems and services.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business</a>	<a href="#">Refer to Appendix III – MSCI Business</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and quality	Reference standards
			<a href="#">Involvement Screens</a>	<a href="#">Involvement Screens</a>
Weapons - Support Systems Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from weapons support systems and services as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Weapons - Support Systems Maximum Total Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from support services for weapon systems in its most recently completed fiscal year. Expressed in USD.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Weapons - White Phosphorous	Companies that produce incendiary weapons using white phosphorus.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Abortifacients - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from the production of abortifacients as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>

### MSCI Climate Change Metrics Research

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and Quality	Reference Standards
Aggressiveness of carbon emissions reduction target	Indicates whether the company has a carbon emissions reduction target and our assessment of how aggressive any target is. Best practice is to aggressively seek to reduce emissions from a level that is already relatively low.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Alternative Energy - Maximum Percentage of Revenue	The recent-year percentage of revenue, or maximum estimated percent, a company has derived from products, services, or infrastructure projects supporting the development or delivery of renewable energy and alternative fuels.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Arctic Gas - Maximum Percentage of Revenue	This factor identifies the maximum percentage of revenue (either reported or estimated) greater than 0% that a company derives from Arctic Gas production. The definition of Arctic is geographical and includes production activities north of the 66.5 latitude. This factor includes offshore or onshore gas production.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Arctic Oil - Maximum Percentage of Revenue	This factor identifies the maximum percentage of revenue (either reported or estimated) greater than 0% that a company derives from Arctic Oil production. The definition of Arctic is geographical and includes	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business</a>	<a href="#">Refer to Appendix III - MSCI Business</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and Quality	Reference Standards
	production activities north of the 66.5 latitude. This factor includes offshore or onshore oil production.		<a href="#">Involvement Screens</a>	<a href="#">Involvement Screens</a>
Biofuel - Maximum Percentage of Revenue	This factor identifies the maximum percentage of revenue that a company derives from biofuel production and/or sales.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Carbon Emissions - Scope 1+2 (metric tons)	This figure represents the company's most recently reported or estimated Scope 1 + Scope 2 greenhouse gas emissions (if available). Scope 1 emissions are those from sources owned or controlled by the company, typically direct combustion of fuel as in a furnace or vehicle. Scope 2 emissions are those caused by the generation of electricity purchased by the company.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Carbon Emissions - Scope 1+2 Intensity (t/USD million sales)	This figure represents the company's most recently reported or estimated Scope 1 + Scope 2 greenhouse gas emissions normalized by sales in USD, which allows for comparison between companies of different sizes.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Carbon Emissions - Scope 1+2 KEY	This field indicates whether the Scope 1 + 2 emissions figure was reported by the company or estimated. See the Carbon Estimation Methodology for details.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
CO2 emissions (tons)	Total CO2 emissions per year in a country. Represented in Tons. This data contains CO2 emission related to fossil fuel use and industrial processes (e.g. cement production etc.). (Source: EDGAR)	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
CO2 emissions (tons) trend, 3 year CAGR (%)	% change in Total CO2 emissions (3 year trend - CAGR) in a country. This data contains CO2 emission related to fossil fuel use and industrial processes (e.g. cement production etc.). (Source: EDGAR)	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
CO2 intensity (kg per 2017 PPP USD of GDP)	This data point represents CO2 intensity of an economy. This data contains CO2 emission related to fossil fuel use and industrial processes (e.g. cement production etc.). GDP is in 2017 PPP USD terms. (Source: WDI and EDGAR)	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
CO2 intensity (kg per 2017 PPP USD of GDP) trend, 3 year CAGR (%)	% change in Total CO2 emissions (3 year trend - CAGR) in a country. This data contains CO2 emission related to fossil fuel use and industrial processes (e.g. cement production etc.). GDP is in 2017 PPP USD terms. (Source: WDI)	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Company has science-based approved emission target (SBTi)	Flagged as "T" if the company has one or more active carbon emissions reduction target/s approved by the Science Based Targets initiative (SBTi).	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business</a>	<a href="#">Refer to Appendix III - MSCI Business</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and Quality	Reference Standards
	This is a calculated, target summary-level datapoint.		<a href="#">Involvement Screens</a>	<a href="#">Involvement Screens</a>
Conventional O&G - Maximum Percentage of Revenue	This factor identifies the maximum percentage of revenue (either reported or estimated) greater than 0% that a company derives from conventional oil and gas. It includes all types of conventional oil and gas production including Arctic onshore/offshore, deepwater, shallow water and other onshore/offshore. It excludes revenues from unconventional oil & gas (oil sands, shale oil, shale gas).	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Conventional Oil & Gas Febelfin - Maximum Percentage of Revenue	This factor identifies the maximum percentage of revenue (either reported or estimated) greater than 0% that a company derives from conventional oil and gas as per the definition of Febelfin. It includes revenues from conventional oil and gas production, deepwater, shallow water and other onshore/offshore. It excludes unconventional oil and gas production (sands, oil shale (kerogen-rich deposits), shale gas, shale oil, coal seam gas, coal bed methane) as well as Arctic onshore/offshore.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Enterprise Value Including Cash (USD million)	Fiscal year-end Enterprise Value Including Cash (EVIC) in million USD. EVIC = market capitalization at fiscal year-end date + preferred stock + minority interest + total debt.  EVIC is an alternate measure to Enterprise Value (EV) to value a company by adding cash and cash equivalents to EV. EV is calculated as total company value (market capitalization of the company, preferred equity, minority interest, total debt) minus cash and cash equivalents. For non-listed fixed income issuers, the value poses the sum of total equity and total debt.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Environmental Impact Solutions - Maximum Percentage of Revenue	This field represents the total of all revenues derived from any of the six environmental impact themes including alternative energy, energy efficiency, green building, pollution prevention, sustainable water, or sustainable agriculture.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
EU Sustainable Investment Screen	The factor signals if the company meets all the criteria to be considered a sustainable investment under SFDR Article 2(17), based on MSCI's interpretation of the three building blocks: good governance, do no significant harm, and positive contribution criteria. Positive contribution can be demonstrated either by meeting the economic activity test (at least 20% of revenue from MSCI defined Sustainable Impact Solutions) or having a carbon emissions reduction target approved by the Science Based Targets initiative (SBTi).	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Evidence of Metallurgical Coal Reserves	This field identifies companies that provide evidence of owning metallurgical coal, also sometimes referred to as coking coal reserves, including those that own less than 50% of a reserves field. Evidence of owning reserves includes companies providing the exact volume of reserves, and companies making a statement about their ownership of reserves.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and Quality	Reference Standards
Evidence of Thermal Coal Distribution Involvement	Identifies companies with evidence of thermal coal distribution or transport involvement. This includes transport of thermal coal by road, rail, shipping or air, and physical trading of thermal coal. It does not include involvement in storage of thermal coal, or involvement in metallurgical coal-related activities.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Evidence of Thermal Coal Production	This field identifies companies disclosing evidence of thermal coal production. Disclosure may range from precise volumes to more general statements about thermal coal production.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Evidence of Thermal Coal Reserves	This field identifies companies that provide evidence of owning thermal coal including those that own less than 50% of a reserves field. Evidence of owning reserves includes companies providing the exact volume of reserves, and companies making a statement about their ownership of reserves. Thermal coal is used to fire power plants that produce steam for electricity and industrial uses.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Evidence of Total Oil & Gas Reserves	This field identifies companies that provide evidence of owning oil and/or gas reserves, including those that own less than 50% of a reserves field. Evidence of owning reserves includes companies providing the exact volume of reserves, and companies making a statement about their ownership of reserves.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Fossil Fuel Reserves	This field identifies companies with evidence of owning fossil fuel reserves regardless of their industries, including companies that own less than 50% of a reserves field. Fossil reserves are defined as proved and probable reserves (i.e. 1P and 2P) for coal and proved reserves (i.e. 1P) for oil and natural gas. Evidence of owning reserves includes companies providing the exact volume of reserves, and companies making a statement about their ownership of reserves.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Fossil Fuel Reserves - Energy Application	This factor identifies companies, regardless of their industries, with evidence of owning fossil fuel reserves used most likely for energy applications. For high intensity industries (Energy, Utilities, Diversified Metals & Mining), this factor flags companies with evidence of fossil fuel reserves (excluding metallurgical coal). For other industries, it flags companies with evidence of fossil fuel reserves (excluding metallurgical coal) and deriving revenue from business segments associated with energy application of fossil fuels such as thermal coal mining, oil & gas exploration & production and downstream activities e.g. refining; distribution & retail; pipeline & transportation; trading and fossil fuel based power generation. Fossil fuel reserves are defined as proved and probable reserves (i.e. 2P) for coal and proved reserves (i.e. 1P) for oil and natural gas. Evidence of owning reserves includes companies providing the exact volume of reserves, and companies making a statement about their ownership of reserves.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and Quality	Reference Standards
Fossil Fuels - Any Tie	Identifies companies with reserves, mining (or extraction), distribution or transport of fossil fuels (thermal coal, oil and gas), other oil and gas related revenues and fossil fuel-based power generation. Company involvement in metallurgical coal is not flagged.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Gas - extraction and production - maximum percentage of revenue	The maximum percentage of revenue (either reported or estimated) that a company derives from the extraction and production of natural gas. The data point includes revenue from conventional and unconventional gas extraction and production.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Gas - pipelines - maximum percentage of revenue	The maximum percentage of revenue (either reported or estimated) that a company derives from natural gas pipelines.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Gas - processing - maximum percentage of revenue	The maximum percentage of revenue (either reported or estimated) that a company derives from the processing of natural gas fuels.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Gas - transportation - maximum percentage of revenue	The maximum percentage of revenue (either reported or estimated) that a company derives from the transportation of natural gas. The data point does not include revenue from natural gas pipelines.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Gas distribution - maximum percentage of revenue	The maximum percentage of revenue (either reported or estimated) that a company derives from the distribution of gas and related products. The data point includes revenues from liquefied petroleum gas and natural gas distribution.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Generation Fossil Fuels - Maximum Percentage of Revenue	Identifies the maximum percentage of revenue (either reported or estimated) that a company derives from the fossil fuel (thermal coal, liquid fuel and natural gas) based power generation.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Generation Liquid Fuel - Maximum Percentage of Revenue	This factor identifies the maximum percentage of revenue (either reported or estimated) that a company derives from the liquid fuel based power generation.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Generation Natural Gas - Maximum Percentage of Revenue	This factor identifies the maximum percentage of revenue (either reported or estimated) that a company derives from the natural gas based power generation.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>



MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and Quality	Reference Standards
Generation Nuclear - Maximum Percentage of Revenue	This factor identifies the maximum percentage of revenue (either reported or estimated) that a company derives from the nuclear energy based power generation.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Generation Nuclear (%)	Percentage of power generation from nuclear power	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Generation Oil & Gas - Maximum Percentage of Revenue	This factor identifies the maximum percentage of revenue (either reported or estimated) that a company derives from liquid fuel and natural gas based power generation.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Generation Oil & Gas (%)	Percentage of power generation from liquid fuel and natural gas	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Generation Thermal Coal - Maximum Percentage of Revenue	This factor identifies the maximum percentage of revenue (either reported or estimated) that a company derives from the thermal coal based power generation.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Generation Thermal Coal (%)	Percentage of power generation from thermal coal	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
GHG emissions (tons of CO2 eq)	Total Greenhouse Gas emissions in a country represented in terms of Tons CO2 equivalent. Six greenhouse gases, considered under Kyoto Protocol, are considered for this data point. These gases are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. (Source: EDGAR)	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
GHG emissions (tons of CO2 eq) trend, 3 year CAGR (%)	% change in Total GHG emissions (3 year trend - CAGR) in a country. (Source: EDGAR)	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
GHG emissions per capita (tons of CO2e) trend, 3 year CAGR (%)	% change in per capita GHG emissions (3 year trend - CAGR) in a country. (Source: EDGAR)	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>



MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and Quality	Reference Standards
GHG intensity (kg per USD GDP nominal)	This data point represents GHG intensity of an economy (in kg per USD GDP nominal). The higher the value the more carbon intensive the economy is. Six greenhouse gases, considered under Kyoto Protocol, are considered for this data point. These gases are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. GDP is in nominal terms. (Sources: EDGAR, WDI)	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
GHG intensity (kg per USD GDP nominal) trend, 3 year CAGR (%)	This data point represents % change in GHG intensity of an economy (3 year trend - CAGR). Six greenhouse gases, considered under Kyoto Protocol, are considered for this data point. These gases are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. (Source: EDGAR, WDI)	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
GHG intensity (t/USD million GDP nominal)	This data point represents GHG intensity of an economy (in tons per USD million GDP nominal). The higher the value the more carbon intensive the economy is. Six greenhouse gases, considered under Kyoto Protocol, are considered for this data point. These gases are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. GDP is in nominal terms. (Sources: EDGAR, WDI). The unit used is aligned with the one for corporates intensity data (Scope 1+2 Intensity (t/USD million sales))	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Febelfin - Highly Restrictive	This screening factor is designed to capture issuers that have been flagged for one or more of the underlying Febelfin restriction criteria at the highly restrictive tolerance level. This includes involvement in controversial weapons, conventional weapons, tobacco, fossil fuels, and issuers that fail the MSCI ESG Research Global Compact Compliance screen. The highly restrictive screen sets the restriction threshold for conventional oil and gas involvement at 0% of total revenue with less than 40% of the total revenue being derived from alternative energy.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Industry - Energy Application	Companies with fossil fuel reserves used for energy application. This includes companies with reserves in the following industries (GICS): Oil & Gas and Consumable Fuels; Metals and Mining; Energy Equipment & Services and Utilities.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Installed Capacity Liquid Fuel (%)	Installed capacity for liquid fuel as maximum percentage of total	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Installed Capacity Natural Gas (%)	Installed capacity for natural gas as maximum percentage of total	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Installed Capacity Nuclear (%)	Installed capacity for nuclear power as maximum percentage of total	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and Quality	Reference Standards
			<a href="#">MSCI Business Involvement Screens</a>	<a href="#">MSCI Business Involvement Screens</a>
Installed Capacity Oil & Gas (%)	This factor provides aggregate installed capacity for liquid fuel and natural gas as maximum percentage of total.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Installed Capacity Thermal Coal (%)	Installed capacity for thermal coal as maximum percentage of total	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Installed Capacity Thermal Coal (MW)	Installed capacity for thermal coal in MW	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Low Carbon Transition Category	This classification scheme assigns a Low Carbon Transition Category to a company based on its exposure to low carbon transition risks and opportunities. The category assignment is based on the size and nature of the company's current emissions profile and can be adjusted if the company's Low Carbon Transition Management Score is in the top or second quartile of its peer set. The categories are: Asset Stranding, Product Transition, Operational Transition, Neutral and Solutions.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Low Carbon Transition Management Score	This indicator measures how well a company manages risk and opportunities related to the Low Carbon Transition. It combines Management assessments for the following Key Issues: Carbon Emission for all companies, Product Carbon Footprint, Financing Environmental Impact, Opportunities in Clean Tech, Opportunities in Renewable Energy where available. Higher scores on management indicate greater capacity to manage risk. See the Low Carbon Transition Score methodology for details. (Score: 0-10)	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Low Carbon Transition Management Score Quartile	Company's Low Carbon Transition Management Score Quartile relative to companies in the relevant GICS Sub-Industry that are constituents of the MSCI ACWI IMI (Investable Market Index). A value of 1 represents the top quartile and 4 represent the bottom quartile.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Low Carbon Transition Score	A company level score that measures a company's level of alignment to the Low Carbon Transition. Companies with higher Low Carbon Transition score are more aligned with the Low Carbon Transition compared to the companies with lower scores. (Score: 0-10)	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and Quality	Reference Standards
O&G - Distribution / Retail - Maximum Percentage of Revenue	The maximum percentage of revenue (either reported or estimated) that a company derives from the distribution and retailing of oil and gas and related products. It includes revenues from crude and petroleum products storage facilities and terminals, bulk stations, gasoline and fuel oil retail stations as well as liquefied petroleum gas stations natural gas distribution and gas retail sales.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
O&G - Equipment and Services - Maximum Percentage of Revenue	Identifies the maximum percentage of revenue (either reported or estimated) that a company derives from equipment and services for the exploration and production of oil and natural gas. It includes revenues from oil and gas exploration services, related equipment manufacturing, seismic surveys, engineering services and heavy construction related to oil and gas exploration activities. It does not include revenues from extraction & production.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
O&G - Extraction and Production - Maximum Percentage of Revenue	Identifies the maximum percentage of revenue (either reported or estimated) that a company derives from the extraction and production of oil and gas.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
O&G - Petrochemicals - Maximum Percentage of Revenue	This factor identifies the maximum percentage of revenue (either reported or estimated) that a company derives from petrochemical products. It includes revenues from industrial organics, inorganics, not elsewhere classified and lubes and greases.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
O&G - Pipelines and Transportation - Maximum Percentage of Revenue	Identifies the maximum percentage of revenue (either reported or estimated) that a company derives from oil and gas pipelines and transportation. It includes revenues from mid-stream operations but excludes revenues from terminals and storage facilities.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
O&G - Refining - Maximum Percentage of Revenue	The maximum percentage of revenue (either reported or estimated) that a company derives from refining oil and processing natural gas.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
O&G - Trading - Maximum Percentage of Revenue	This factor identifies the maximum percentage of revenue (either reported or estimated) that a company derives from the trading of oil and gas and related products.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
O&G exploration - maximum percentage of revenue	The maximum percentage of revenue (either reported or estimated) that a company derives from the exploration as a service to the of oil and natural gas industries. The data point includes revenues from oil and gas exploration services and seismic surveys and does not include revenues from extraction & production.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
O&G Related Activities - Maximum Percentage of Revenue	The maximum percentage of revenue (either reported or estimated) that a company derives from oil and gas related activities, including distribution, retail, equipment	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI</a>	<a href="#">Refer to Appendix III - MSCI</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and Quality	Reference Standards
	and services, extraction and production, petrochemicals, pipelines and transportation, refining, gas processing and gas retail sales but excluding biofuel production and sales and oil and gas trading activities.		<a href="#">Business Involvement Screens</a>	<a href="#">Business Involvement Screens</a>
O&G wells drilling - maximum percentage of revenue	The maximum percentage of revenue (either reported or estimated) that a company derives from drilling wells as a service to the exploration and production of oil and natural gas. The data point does not include revenues from extraction & production.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Oil - extraction and production - maximum percentage of revenue	The maximum percentage of revenue (either reported or estimated) that a company derives from the extraction and production of oil and natural gas liquids. The data point includes revenue from conventional and unconventional oil extraction and production.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Oil and Gas - Any Tie	Identifies companies with oil and gas reserves or production or other oil and gas related revenues and oil and gas-based power generation. Companies generating revenues from biofuels are not flagged.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Oil refining - maximum percentage of revenue	The maximum percentage of revenue (either reported or estimated) that a company derives from the refining of oil fuels.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Oil Sands - Any Tie	This factor identifies companies with an industry tie to oil sands, in particular reserve ownership and production activities.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Oil Sands - Maximum Percentage of Revenue	This factor identifies the maximum percentage of revenue (either reported or estimated) greater than 0% that a company derives from oil sands extraction for a set of companies that own oil sands reserves and disclose evidence of deriving revenue from oil sands extraction. This factor does not include revenue from non-extraction activities (e.g. exploration, surveying, processing, refining); ownership of oil sands reserves with no associated extraction revenues; revenue from intra-company sales.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Oil/Oil products - pipelines - maximum percentage of revenue	The maximum percentage of revenue (either reported or estimated) that a company derives from oil and oil products or natural gas liquids pipelines.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Oil/Oil products - transportation - maximum percentage of revenue	The maximum percentage of revenue (either reported or estimated) that a company derives from the transportation of oil and oil products. The data point does not include revenue from oil/ oil products pipelines.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and Quality	Reference Standards
			<a href="#">Involvement Screens</a>	<a href="#">Involvement Screens</a>
Oil/Oil products distribution - maximum percentage of revenue	The maximum percentage of revenue (either reported or estimated) that a company derives from the distribution of oil and related products. The data point includes revenues from crude and petroleum products storage facilities and terminals and bulk stations.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Palm Oil - Maximum Percentage of Revenue	The company's reported revenue (or, where not disclosed, maximum estimated revenue) from the production or distribution of palm oil as a percentage of total revenue in its most recently completed fiscal year. Expressed as a percentage, where a value of 1.0 represents 1%.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Sales used for Carbon Intensity (Scope 1 and 2)	This figure represents the company's sales (USD million) used to calculate the most recent Scope 1, 2, and 1+2 Carbon Intensity.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Scope 3 - Total EVIC Intensity	This figure represents the company's Scope 3 total emissions relative to the Enterprise Value including cash (EVIC) in USD millions. The EVIC is as of fiscal year end which corresponds to the same reporting year of the company's emissions.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI GHG Emissions</a>
Scope 3 - Total Sales Intensity	This figure represents the company's most recently estimated Scope 3 total emissions normalized by sales in million USD, which allows for comparison between companies of different sizes. The ratio uses estimates and sales of the same year. [t/million USD]	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI GHG Emissions</a>
Shale Gas - Maximum Percentage of Revenue	This factor identifies the maximum percentage of revenue (either reported or estimated) greater than 0% that a company derives from shale gas production. This factor does not capture revenue from non-extraction activities (e.g. exploration, surveying, processing, refining); ownership of shale gas reserves with no associated extraction revenues; revenue from intra-company sales.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Shale Oil - Maximum Percentage of Revenue	This factor identifies the maximum percentage of revenue (either reported or estimated) greater than 0% that a company derives from shale oil production. This factor does not capture revenue from non-extraction activities (e.g. exploration, surveying, processing, refining); ownership of shale gas reserves with no associated extraction revenues; revenue from intra-company sales.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Sustainable Impact Solutions - Maximum Percentage of Revenue	This field represents the total of all revenues derived from any of the thirteen social and environmental impact themes including nutrition, sanitation, major diseases treatment, SME finance, education or affordable real estate, alternative energy, energy efficiency, green building, pollution prevention and sustainable water. Overlapping scores may occur in certain themes.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Thermal Coal - Any Tie	Identifies companies with reserves, mining (or extraction), distribution or transport of thermal coal or thermal coal-	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II -</a>	<a href="#">Refer to Appendix III -</a>

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and Quality	Reference Standards
	based power generation. Company involvement in metallurgical coal is not flagged.		<a href="#">MSCI Business Involvement Screens</a>	<a href="#">MSCI Business Involvement Screens</a>
Thermal Coal Mining - Maximum Percentage of Revenue	This factor identifies the maximum percentage of revenue (either reported or estimated) greater than 0% that a company derives from the mining of thermal coal (including lignite, bituminous, anthracite and steam coal) and its sale to external parties. It excludes: 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.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Total Emissions Estimated - Scope 3 (metric tons)	The company's estimated Scope 3 emissions (total) as defined by the Greenhouse Gas Protocol [tCO2e/yr]. See the Scope 3 Carbon Emissions Methodology for details.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI GHG Emissions</a>
Total Potential Emissions (MtCO2)	This field represents the potential carbon emissions of the coal, oil and gas reserves owned by a company. It is computed as the sum of the potential carbon emissions of the total coal, total oil and total gas reserves owned by the company.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Unconventional O&G - Maximum Percentage of Revenue	This factor identifies the maximum percentage of revenue (either reported or estimated) greater than 0% that a company derives from unconventional oil and gas. It includes revenues from oil sands, oil shale (kerogen-rich deposits), shale gas, shale oil, coal seam gas, and coal bed methane. It excludes all types of conventional oil and gas production including Arctic onshore/offshore, deepwater, shallow water and other onshore/offshore.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Unconventional Oil & Gas Febelfin - Maximum Percentage of Revenue	This factor identifies the maximum percentage of revenue (either reported or estimated) greater than 0% that a company derives from unconventional oil and gas as per the definition of Febelfin. It includes revenues from oil sands, oil shale (kerogen-rich deposits), shale gas, shale oil, coal seam gas, coal bed methane as well as Arctic onshore/offshore.  It excludes conventional oil and gas production, deepwater, shallow water and other onshore/offshore. This factor returns figures for all companies with relevant revenue regardless of the amount; the threshold recommended by Febelfin is 10% (as of 2019).	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>



**MSCI SFDR Research**

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and Quality	Reference Standards
Evidence of Thermal Coal Distribution Involvement	Identifies companies with evidence of thermal coal distribution or transport involvement. This includes transport of thermal coal by road, rail, shipping or air, and physical trading of thermal coal. It does not include involvement in storage of thermal coal, or involvement in metallurgical coal-related activities.	Refer to <a href="#">Appendix I</a>	Refer to <a href="#">Appendix II</a> – MSCI Business Involvement Screens	Refer to <a href="#">Appendix III</a> – MSCI Business Involvement Screens

**MSCI Global Sanctions**

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and Quality	Reference Standards
Burma - Involvement Type	Type of involvement - Equity, Non-Equity, or Other	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Burma - Military Tie	Company has contracts with the Burmese military forces to provide goods/services or for the military/police to provide security.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Cuba - Involvement Type	Type of involvement - Equity, Non-Equity, or Other	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
EU - Has Any Russia Designated Entity Annex Tie	Companies that are included in any and all of the EU Russia Designated Entity Sanctions Lists. Includes the following European Council Decisions: 269/2014, 512/2014/CFSP, 833/2014.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Iran - Involvement Type	Type of involvement - Equity, Non-Equity, or Other	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
Iran - Military Tie	Company with a business tie to the Iranian military.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>
North Korea - Involvement Type	Type of involvement - Equity, Non-Equity, or Other	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III – MSCI Business Involvement Screens</a>



MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and Quality	Reference Standards
			<a href="#">Involvement Screens</a>	<a href="#">Involvement Screens</a>
North Korea - Military Tie	Company with a business tie to the North Korean military.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Northern Ireland - Involvement Type	Companies with operations in Northern Ireland (equity or franchise).	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
OFAC - Has OFAC Cases	Companies that have been assessed a penalty or agreed to a settlement of actual, alleged or apparent violations of OFAC economic or trade sanctions regulations within the last 60 months.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Sudan - Involvement Type	Type of involvement - Equity, Non-Equity, or Other	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Sudan - Military Tie	Company with a business tie to the Sudanese military.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Syria - Involvement Type	Type of involvement - Equity, Non-Equity, or Other	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>
Syria - Military Tie	Company with a business tie to the Syrian military.	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II - MSCI Business Involvement Screens</a>	<a href="#">Refer to Appendix III - MSCI Business Involvement Screens</a>

MSCI Green Bonds

MSCI Factor Name	Research Methodology Description	Data Input	Data Verification and Quality	Reference Standards
MSCI Green Bonds	<p>Green Bonds are fixed income securities in which the proceeds, or an equivalent amount, will be exclusively and formally applied to projects or activities that promote climate or other environmental sustainability purposes through their use of proceeds.</p> <p>Securities are independently evaluated by MSCI ESG Research along four dimensions to determine whether they should be classified as a green bond. These eligibility criteria reflect themes articulated in the Green Bond Principles and require commitments about a bond’s:</p> <ul style="list-style-type: none"><li>• Use of proceeds;</li><li>• Process for project evaluation and selection;</li><li>• Management of proceeds; and</li><li>• Ongoing reporting.</li></ul> <p>MSCI Green Bond and Green Loan Assessment Methodology may take into account the business involvement area of the funding associated with the proceeds of the bond.</p>	<a href="#">Refer to Appendix I</a>	<a href="#">Refer to Appendix II – MSCI Green Bonds</a>	<a href="#">Refer to Appendix III – MSCI Green Bonds</a>

## Appendix I: Data Input

(iii) Describe whether the data are reported, modelled or sourced internally or externally.

(iv) Where the data are reported, modelled, or sourced externally, please name the third-party data provider.

All ESG data is sourced externally from:

### MSCI Research

[esgclientservice@msci.com](mailto:esgclientservice@msci.com)

<https://www.msci.com/research-and-insights>

MSCI ESG Research relies on a proprietary methodology informed by a range of data sources.

- Reported data
  - Corporate documents: annual reports, proxy filings, environmental and social reports, securities filings, websites and Carbon Disclosure Project responses. Externally sourced data
  - Government data: central bank data, U.S. Toxic Release Inventory, Comprehensive Environmental Response and Liability Information System (CERCLIS), RCRA Hazardous Waste Data Management System, etc. We continue to assess the value of other, similar information sources, particularly for European companies.
  - Popular, trade, and academic journals: accessed through websites, subscriptions and searches of online databases.
  - News media: major news publications globally, including local-language sources across a range of markets.
  - Relevant organizations and professionals: reports from and interviews with trade groups, industry experts and nongovernmental organizations familiar with the companies' operations and any related controversies
- Modelled data
  - For climate-related metrics, when data is not disclosed by companies, MSCI ESG Research uses a proprietary GHG emission estimation model.
  - When companies do not report exact revenue figures for a covered business activity, MSCI ESG Research provides an estimate of the extent of companies' involvement in the subject activity.

For top level scores (ESG Ratings, Environmental, Social and Governance pillars), MSCI ESG Research estimates macro-level risk exposure for companies' based on the type and location of operations, distribution of products. Data sources used in the exposure calculations include, but not limited to:

- Comprehensive Environmental Data Archive (CEDA)
- US Department of Energy; International Council on Clean Transportation
- Lamont-Doherty Earth Observatory, Columbia University
- Organization of Economic Co-Operation and Development (OECD)
- Canadian Industrial Water Survey
- Hoekstra, A.Y. and Mekonnen, M.M. (2011)
- Ecorisk
- World Development Indicators (WDI)
- Annual Change of Forest Resources \_ Food and Agriculture Organization (FAO)
- World Wildlife Fund (WWF)
- US EPA's Toxics Release Inventory (TRI)
- Risk-Screening Environmental Indicators (RSEI)
- US Bureau of Labor Statistics (BLS)
- International Labour Organization (ILO)
- US Occupational Health & Safety Administration (OSHA)
- UK Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)
- International Chemical Secretariat (ChemSec) Substitute It Now (SIN) List
- International Monetary Fund (IMF)
- World Health Organization (WHO)
- UN Principles for Responsible Investments (UN PRI)
- World Resource Institute (WRI)
- Consultative Group to Assist the Poor (CGAP)
- US Census Bureau Current Population Survey Supplement
- World Bank Governance Indicators (WGI)
- Transparency International (TI)

- World Bank (WB)
- SNL Financial
- Thomson Financial

Refer to the [MSCI ESG & Climate Methodologies page](#) for further details on the data sources for the relevant ESG factors

## Appendix II: Verification and Data Quality

*Describe how data is verified and how the quality of the data is ensured.*

### BISL Data Verification Overview

BISL performs additional completeness checks for changes in securities coverage and securities attributes coverage, checks for the integrity of data payload transmitted by suppliers (e.g. file size, structure and format). BISL may also perform outlier detection for individual and aggregated data points and checks for data change frequency. The BISL index production process incorporates challenge/verification to a data provider for data quality check failures (where possible and appropriate).

### MSCI Data Verification

#### MSCI ESG Score

The ESG Ratings process includes multiple steps to review the quality of the analysis and consistent application of the methodology.

The following quality assurance and oversight processes are observed:

- Quality review process: Data quality checks are conducted on all companies prior to the publication of their ESG Rating.
- Analytical review: All ESG Ratings are subject to review by an analyst and a reviewer. In cases where the analyst review results in a proposal for a change to an ESG Rating, and for defined other circumstances, the Rating is subject to a review by a second senior analyst.
  - Ratings Methodology Committee: This committee addresses the following specific cases, as well as other escalations related to methodology application:
    - Proposal to add a company-specific Key Issue in a company's assessment
    - Ratings change of two letters or more
    - New AAA- or CCC-rated company
    - Requests for deviations from the weights for industry Key Issues due to significant differences in business model from the industry peer set
    - Requests to deviate from standard methodology for including or excluding controversies cases in a company's ratings analysis.
  - ESG Methodology Committee: This committee addresses escalations from the Ratings Methodology Committee and reviews changes to the ESG Ratings methodology, including:
    - Updates to the ESG Industry Materiality Map, which determines the relevance of ESG Key Issues to sub-industries
    - Changes to data sources or calculations used in ESG Ratings
    - Methodology proposals for consultation

Please see the MSCI ESG Ratings Methodology and Process via the [MSCI ESG Methodologies website](#) for further detail.

### MSCI ESG Controversies and Global Norms

The consistency of ESG controversies assessments and scoring based on MSCI ESG Controversies and Global Norms Methodology is ensured through ongoing peer review and MSCI ESG Controversies Methodology Committee (CMC) reviews. The CMC has direct oversight of the content of the company ESG Controversies reports and of the consistent application of the methodology.

The following situations require CMC review and approval:

- Review new and existing Very Severe controversy cases resulting in a Red Flag with the final assessment subject to approval by the ESG Assessment Committee (EAC).
- Confirm that appropriate processes are applied in reviewing and approving assessment of Orange Flag cases and Severe or Very Severe cases with a score changes of 3 points, either up or down.
- Review and approve assessments of cases, including new or existing Orange Flag cases or Severe or Very Severe cases resulting in a score change of 3 points up or down, escalated for CMC review by sub-committees or analysts.
- Develop and approve proposals for MSCI ESG Controversies and Global Norms Methodology.

- Review and escalate deviations from standard assessment methodology or overrides of controversy case assessments to the ESG Methodology Committee (EMC).
- Review and approve the additions to controversy case categories and corresponding mapping to international Global Norms and conventions included in the scope of MSCI ESG product solutions (e.g., the United Nations Global Compact Principles)
- Review and approve changes to data sources (news and academic publications, NGOs, industry organizations, and government sources)

Please see the MSCI ESG Controversies and Global Norms Process via their [ESG Methodologies website](#) for further details.

### MSCI Business Involvement Screens

The initial company research and analysis is followed by a rigorous quality assurance process. Data accuracy and company profiles are peer-reviewed by a second MSCI analyst, then sent to the relevant content lead for final approval. In specific cases, in which some aspects of a company's business activities, practices, or performance are not clearly defined by MSCI ESG Research's methodologies, the case is escalated to relevant Methodology Committees. Cases that require further interpretation or an update to the relevant methodology are brought to the main governing committee: MSCI ESG Impact and Screening Methodology Committee for resolution.

Please see the [MSCI ESG Business Involvement Screening Research, Global Sanctions, and Sustainable Impact Metrics Methodology Summary Guide for Corporate Issuers](#) for further details.

### MSCI Green Bonds

For labeled bonds or labeled loans within MSCI ESG Research's standard coverage universe, MSCI ESG Research reviews adherence to the annual reporting requirements, including the confirmation of whether the use of proceeds continues to meet the eligibility criteria.

- Use of Proceeds: MSCI ESG Research evaluates annually the amounts disbursed to each project or project type and assesses whether the proceeds continue to meet the requirements in Figure 2 of the [MSCI Labeled Bond and Loan Assessment Methodology](#). Where the reported use of proceeds deviates from the use of proceeds requirements, the bond or loan will no longer be considered to meet the labeled bond or loan criteria as per MSCI ESG Research's assessment.
- Availability of reporting: Starting one year from issuance of the labeled bond or initiation of the labeled loan or one year since the previous annual reporting date, MSCI ESG Research reviews reporting, where available. If the required reporting is not available three months after the reporting due date, the labeled bond or labeled loan is assessed as "On Watch". If the required reporting is not available six months after the reporting due date, the bond or loan will no longer be considered to meet the labeled bond or loan criteria as per MSCI ESG Research's assessment.

Please see the [MSCI Labeled Bond and Loan Assessment Methodology](#) and [MSCI Green Bond and Green Loan Assessment: Frequently Asked Questions](#) for further detail.

## Appendix III: Reference Standards

*Describe the international standards used in the benchmark methodology.*

### MSCI ESG Score

MSCI ESG Research relies on a proprietary methodology informed by a range of data sources. MSCI ESG Research does not explicitly mandate reporting along specific disclosure standards. Commonly utilized disclosure frameworks for data collected and used by MSCI ESG Research include GRI, SASB, UN Global Compact; and, for specific performance indicators, GHG Protocol, and applicable ISO standards.

### MSCI ESG Controversies and Global Norms

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 Principles.

### MSCI Business Involvement Screens

The MSCI ESG Research team identifies companies within the coverage universes to perform detailed research for each involvement activity. For each involvement activity, MSCI ESG Research uses a combination of industry classifications, business descriptions and keywords to help narrow down the scope of issuers that are researched by analysts. When the initial review process identifies the potential for involvement, an analyst will review company sources to determine if a company is in fact involved in one of the covered activities.

### MSCI Green Bonds

"Green" categories are currently based on MSCI ESG Research definitions aligned with the International Capital Markets Associations.

### MSCI GHG Emissions

MSCI uses the Greenhouse Gas Protocol framework as the conceptual basis for estimation modelling. For further information, please refer to <https://ghgprotocol.org/>.



Appendix IV: Document Version History

Date	Update
June 2025	Publication in new format
July 2025	Additional factors added
August 2025	Addition of GHG Protocol to Appendix III Reference Standards – MSCI GHG Emissions

Disclaimer

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