

Bloomberg MSCI Global Aggregate Sustainable and Green Bond SRI Index

This document is intended to be read in conjunction with the [Bloomberg Global Aggregate Index](#), the [Bloomberg MSCI Global Green Bond Index](#), and the [Bloomberg MSCI ESG Fixed Income Indices Methodology](#); these documents collectively constitute the index methodology for this Index.

The Bloomberg MSCI Global Aggregate Sustainable and Green Bond SRI Index is a subset of the Bloomberg Global Aggregate Index. It is a multi-currency benchmark that is designed to track investment grade, treasury, government-related, corporate, and securitized, fixed-rate debt. The index includes issuers with MSCI ESG Ratings of BBB or higher and negatively screens issuers that are involved in business activities that are restricted because they are inconsistent with certain values-based business involvement criteria. Issuers with a "red" MSCI ESG Controversy Score, and corporate issuers not covered by MSCI ESG Controversies, are excluded. The index is tilted to allocate at least 10% of the market value to securities classified as Green Bonds and allocate the remaining percentage towards non-Green Bond eligible Euro Aggregate securities. From February 2023, the aggregate exposure of bonds in the index that do not qualify as having Sustainable Exposure is capped at 90% to ensure the minimum weight applicable to the portion of the index comprised of securities qualifying as having Sustainable Exposure is set to a minimum threshold of 10%. The index was created in February 2022, with index history backfilled to January 1, 2016.

The features specific to this Index are set out below.

Description of Index Constituents Global Investment Grade Bonds

Index Ticker I36429US Index: Total Return USD Unhedged

Eligibility Requirements:

Currency Principal and coupon must be denominated in one of the following eligible currencies:

- Americas: CAD, CLP, COP, MXN, PEN, USD
- EMEA: CHF, CZK, DKK, EUR, GBP, HUF, ILS, NOK, PLN, RON, RUB, SEK
- Asian-Pacific: AUD, CNY, HKD, IDR, JPY, KRW, MYR, NZD, SGD, THB

Credit Rating Investment Grade

Sector Treasury, Government-Related, Corporate, and Securitized

Minimum Amount Outstanding Fixed minimum issue sizes are set for all local currency markets:

- 150mn CAD
- 200mn GBP
- 300mn USD, EUR, CHF, AUD
- 500mn NZD, SGD
- 1bn RON, PEN
- 2bn DKK, NOK, PLN, ILS, HKD, MYR
- 2.5bn SEK
- 5bn CNY
- 10bn MXN, CZK, THB
- 20bn RUB
- 35bn JPY
- 100bn CLP
- 200bn HUF
- 500bn KRW

- 1trn COP
- 2trn IDR

Maturity	At least one year until final maturity, regardless of optionality
Minimum Liquidity Requirements	Minimum amount outstanding as specified above.
UNSC Trade Sanctions	The index excludes Treasury, Sovereign, and Local Authority issuers that are subject to UNSC Trade Sanctions.
Rebalance Date	Monthly

Environmental, Social and Governance (ESG)

This section is not intended to be exhaustive and is being provided for information purposes only - detailed ESG disclosures set out in dedicated section below.

The following information applies to all non-Green Bonds in the index:

MSCI ESG Controversies Issuers with a “Red” MSCI ESG Controversy score (equal to zero), and corporate issuers that are not covered by MSCI ESG Controversy research, are excluded.

The following information applies to all non-Green Bonds in the Corporate, Covered Bond, Agency, Supranational sectors.

MSCI ESG Rating Securities must have a MSCI ESG Rating of BBB or higher. Unrated Issuers are excluded.

The following information applies to all non-Green Bonds in the Corporate, Covered Bond, Agency, Supranational sectors. Non-Green Bonds issued by Local Authorities that are covered by MSCI Business Involvement Screening Data are also subject to this screening criteria:

MSCI Standard SRI Screen The index excludes issuers per the standard Bloomberg MSCI SRI screen detailed in the [Bloomberg MSCI Fixed Income ESG Methodology – Section 1: SRI Indices – ESG Eligibility Criteria: Business Involvement Screening](#)

Additional Business Involvement Screens The index excludes issuers deriving revenue from, or being involved in, business activities related to:

- Weapons Systems/Components/Support Systems/Services revenue $\geq 10\%$

The following information applies to all Green Bonds:

MSCI Standard SRI Screen The index excludes issuers per the standard Bloomberg MSCI SRI screen detailed in the [Bloomberg MSCI Fixed Income ESG Methodology – Section 1: SRI Indices – ESG Eligibility Criteria: Business Involvement Screening](#) except for the following categories:

- Nuclear Power
- Thermal Coal
- Fossil Fuel Reserves
- Unconventional Oil and Gas

MSCI ESG Controversies Issuers with a “Red” MSCI ESG Controversy score (equal to zero), and corporate issuers not covered by MSCI ESG Controversy research, are excluded.

Additional Business Involvement Screens The index excludes issuers deriving revenue from, or being involved in, business activities related to:

- Weapons Systems/Components/Support Systems/Services revenue $\geq 10\%$
- Genetically Modified Organisms revenue $\geq 0.1\%$

The following rebalancing information is applied to the overall index:

MSCI Green Bonds The index is tilted to allocate at least 10% of the market value to securities classified as Green Bonds and allocate the remaining percentage towards non-Green Bond eligible Euro Aggregate securities.

MSCI Sustainable Exposure Additionally, the index is required to ensure that a minimum of 10% of its market value weight is attributed to securities classified as having Sustainable Exposure. A description of the Sustainable Exposure methodology can be found [here](#).

Minimum ESG Exclusions On the last business day before month end, using the Forward Universe of the previous day, after applying the non-ESG criteria rules for inclusion, defined above, the number of issuers for the eligible universe are defined. If, after having additionally applied the ESG selection criteria above, less than

20% of the total number of issuers in the eligible universe are excluded, then the eligible issuers are ranked in the order below, according to the following criteria:

- MSCI ESG Rating score
- MSCI ESG Controversies score

Then based on this ranking, the lowest ranking issuers will be excluded from the index, until the number of excluded issuers is higher than 20% of the eligible universe total number of issuers. If more than one issuer has the same ESG Rating and ESG Controversy score and is required to be removed to reach the 20% threshold, then all issuers with the same ESG Rating and ESG Controversy score are removed.

Document Version History

Date	Update
September 2023	Publication in new format

Environmental, Social and Governance (ESG) Disclosures

Where an index applies MSCI screens and a security/issuer is not included in the MSCI research coverage for that screen, unless otherwise noted, this index will include such security/issuer, provided it meets the relevant index eligibility rules. This applies to Government, securitized issuers (ABS, CMBS, and MBS), and corporate issuers not covered by MSCI ESG Business Involvement Screening Data, MSCI ESG Controversy Scores, and MSCI ESG Climate Data & Metrics, and also to Corporate issuers not covered by MSCI ESG Research.

EXPLANATION OF HOW ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY			
1. Name of the benchmark administrator.		Bloomberg Index Services Limited ("BISL")	
2. Type of benchmark		Fixed Income & Sovereign	
3. Name of the benchmark or family of benchmarks.		Bloomberg MSCI Global Aggregate Sustainable and Green Bond SRI Index	
4. Does the benchmark methodology for the benchmark or family of benchmarks take into account ESG factors?		Yes	
5. Where the response to Item 4 is positive, please list below, for each family of benchmarks, those ESG factors that are taken into account in the benchmark methodology, taking into account the ESG factors listed in Annex II to Delegated Regulation (EU) 2020/1816. Please explain how those ESG factors are used for the selection, weighting or exclusion of underlying assets. The ESG factors shall be disclosed at an aggregated weighted average value at the level of the family of benchmarks.			
a) List of environmental factors considered:		See below.	
b) List of social factors considered:		See below.	
c) List of governance factors considered:		See below.	
6. Where the response to Item 4 is positive, please list below, for each benchmark, those ESG factors that are taken into account in the benchmark methodology, taking into account the ESG factors listed in Annex II to Delegated Regulation (EU) 2020/1816, depending on the relevant underlying asset concerned. Please explain how those ESG factors are used for the selection, weighting or exclusion of underlying assets. The ESG factors shall not be disclosed for each constituent of the benchmark, but shall be disclosed at an aggregated weighted average value of the benchmark. Alternatively, all of this information may be provided in the form of a hyperlink to a website of the benchmark administrator included in this explanation. The information on the website shall be easily available and accessible. Benchmark administrators shall ensure that information published on their website remains available for five years.			
a) List of Combined factors considered:	Overall ESG rating of top ten benchmark constituents by weighting in the benchmark	N/A	The Indices do not take this ESG factor into account in the methodology.
	ESG Controversy Score	Exclusion	<p>The Index excludes researched constituents based on the controversy score associated with the issuer. Any issuer with a "Red" MSCI ESG Controversies Score (equal to zero), or corporate issuers not covered by MSCI ESG Controversies research, are excluded from the SRI indices.</p> <p>MSCI ESG Controversies identifies company involvement in major ESG controversies and adherence to international norms and principles such as UNGC and ILO Core Conventions.</p> <p>The methodology measures companies' public profiles based on actual or alleged involvement in adverse impact activities across the 3 ESG pillars. Each controversy is assigned a flag depending on severity, direct vs indirect involvement of the company and whether it's ongoing, partially or fully concluded. The overall company controversy score and corresponding flag is determined by the most severe ESG controversy case:</p>

			<ul style="list-style-type: none"> • A Red Flag indicates an ongoing Very Severe ESG controversy implicating a company directly through its actions, products, or operations. • An Orange Flag indicates a Severe ongoing controversy with the company's direct involvement, or a Very Severe controversy that is either partially resolved or indirectly attributed to companies' actions, products, or operations. • Yellow indicates noteworthy ESG controversies. • Green indicates either less significant ESG controversies or none at all. <p>Please refer to the ESG Controversies and Global Norms Methodology that can be accessed here.</p>
	MSCI ESG Rating	Inclusion	<p>For non-Green Bonds, from the Corporate, Covered Bond, Agency, or Supranational sectors, the Index incorporates ESG ratings in the inclusion of researched index constituents based on a minimum rating threshold.</p> <p>MSCI ESG Ratings provide research, data, analysis and ratings of how well companies manage environmental, social and governance risks and opportunities. MSCI ESG Ratings provides an overall company ESG rating – a seven-point scale from 'AAA' to 'CCC'. In addition, the product provides scores and percentiles indicating how well a company manages each key issue relative to industry peers, as well as underlying data and metrics used to compile the scores and ratings.</p> <p>The index includes issuers with a MSCI ESG Rating of BBB or higher, Unrated non-green bond issuers from Corporate, Covered Bond, Agency and Supranational sectors are excluded. This factor is not applied to the Green Bonds component of this index.</p> <p>Please refer to the MSCI ESG Ratings Methodology that can be accessed here and summary of what an MSCI ESG rating is can be found here.</p>
b) List of environmental factors considered:	Degree of exposure of the portfolio to the sectors listed in Sections A to H and Section L of Annex I to Regulation (EC) No 1893/2006 of the European Parliament and of the Council.	N/A	The Indices do not take this ESG factor into account in the methodology.
	Greenhouse gas (GHG) emissions of the benchmark.	N/A	The Indices do not take this ESG factor into account in the methodology.
	Percentage of GHG emissions reported versus estimated.	N/A	The Indices do not take this ESG factor into account in the methodology.
	Exposure of the benchmark portfolio to companies the activities of which fall under Divisions 05 to 09, 19 and 20 of Annex I to Regulation (EC) No 1893/2006.	N/A	The Indices do not take this ESG factor into account in the methodology.
	Exposure of the benchmark portfolio to activities included in the environmental goods and services sector, as defined in Article 2, point (5) of Regulation (EU) No 691/2011 of the European Parliament and of the Council	N/A	The Indices do not take this ESG factor into account in the methodology.

	Thermal Coal	Exclusion	<p>This factor is applied to non-Green Bonds in the Corporate, Covered Bond, Agency, and Supranational sectors, in addition to Local Authorities covered by MSCI Business Involvement Screening.</p> <ul style="list-style-type: none"> Excludes researched companies deriving 5% or more revenue (either reported or estimated) from thermal coal-based power generation.
	Fossil Fuels	Exclusion	<p>This factor is applied to non-Green Bonds in the Corporate, Covered Bond, Agency, and Supranational sectors, in addition to Local Authorities covered by MSCI Business Involvement Screening.</p> <ul style="list-style-type: none"> Excludes researched companies with evidence of owning proven & probable coal reserves and/or proven oil and natural gas reserves used for energy purposes. Excludes researched companies deriving any revenue from thermal coal mining or unconventional oil and gas extraction.
	Green Bonds	Weighting	<p>The Bloomberg MSCI Global Green Bond Index incorporates the MSCI ESG Research Green Bond label such that it is tilted to allocate at least 10% of the market value to securities classified as Green Bonds. Green Bonds are fixed income securities in which the proceeds 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"> Use of proceeds; Process for project evaluation and selection; Management of proceeds; and Ongoing reporting. <p>Please see MSCI's Green Bond and Green Loan Assessment Methodology for further information.</p>
c) List of social factors considered:	International treaties and conventions, United Nations principles or, where applicable, national law used in order to determine what constitutes a controversial weapon	Exclusion	<p>The list of treaties and conventions related to the "Controversial Weapons %" metric is provided below:</p> <ul style="list-style-type: none"> The Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction. The Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction. Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction. Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects. The Convention on Cluster Munitions.
	Controversial Weapons	Exclusion	<p>This factor is applied to all Green Bonds and non-Green Bonds in the Corporate, Covered Bond, Agency, and Supranational sectors, in addition to Local Authorities covered by MSCI Business Involvement Screening.</p> <ul style="list-style-type: none"> Excludes researched companies with any tie to Controversial Weapons (cluster munitions, landmines, depleted uranium weapons, biological/chemical weapons, blinding lasers, non-detectable fragments, and incendiary weapons).
	Number of benchmark constituents subject to	N/A	The Indices do not take this ESG factor into account in the methodology.

	social violations (absolute number and relative divided by all benchmark constituents), as referred to in international treaties and conventions, United Nations principles and, where applicable, national law.		
	Exposure of the benchmark portfolio to companies without due diligence policies on issues addressed by the fundamental International Labor Organisation Conventions 1 to 8.	N/A	The Indices do not take this ESG factor into account in the methodology.
	Weighted average gender pay gap.	N/A	The Indices do not take this ESG factor into account in the methodology.
	Weighted average ratio of female to male board members.	N/A	The Indices do not take this ESG factor into account in the methodology.
	Weighted average ratio of accidents, injuries, fatalities.	N/A	The Indices do not take this ESG factor into account in the methodology.
	Numbers of convictions and amount of fines for violations of anti-corruption and anti-bribery laws.	N/A	The Indices do not take this ESG factor into account in the methodology.
	Adult Entertainment	Exclusion	<p>This factor is applied to all Green Bonds and non-Green Bonds in the Corporate, Covered Bond, Agency, and Supranational sectors, in addition to Local Authorities covered by MSCI Business Involvement Screening.</p> <ul style="list-style-type: none"> Excludes researched companies either deriving 5% or more revenue from the production of adult entertainment materials, or deriving 15% or more aggregate revenue from the production, distribution, and retail of adult entertainment materials.
	Alcohol	Exclusion	<p>This factor is applied to all Green Bonds and non-Green Bonds in the Corporate, Covered Bond, Agency, and Supranational sectors, in addition to Local Authorities covered by MSCI Business Involvement Screening.</p> <ul style="list-style-type: none"> Excludes researched companies either deriving 5% or more revenue from the production of alcohol related products, or deriving 15% or more aggregate revenue from the production, distribution, retail, and supply of alcohol related products.
	Civilian Firearms	Exclusion	<p>This factor is applied to all Green Bonds and non-Green Bonds in the Corporate, Covered Bond, Agency, and Supranational sectors, in addition to Local Authorities covered by MSCI Business Involvement Screening.</p> <ul style="list-style-type: none"> Excludes researched companies either classified as "Producer" of firearms and small arms ammunitions for civilian markets (which does not include companies that cater to the military, government, and law enforcement markets), or companies deriving 5% or more aggregate revenue from the production and distribution (wholesale or retail) of firearms or small arms ammunition intended for civilian use.
	Conventional Weapons	Exclusion	This factor is applied to all Green Bonds and non-Green Bonds in the Corporate, Covered Bond, Agency, and Supranational sectors, in addition to Local Authorities covered by MSCI Business Involvement Screening.

			<ul style="list-style-type: none"> Excludes researched companies either deriving 5% or more revenue from the production of conventional weapons and components, or deriving 10% or more aggregate revenue from weapons systems, components, and support systems and services.
	Gambling	Exclusion	<p>This factor is applied to all Green Bonds and non-Green Bonds in the Corporate, Covered Bond, Agency, and Supranational sectors, in addition to Local Authorities covered by MSCI Business Involvement Screening.</p> <ul style="list-style-type: none"> Excludes researched companies either deriving 5% or more revenue from ownership or operation of gambling related business activities, or deriving 15% or more aggregate revenue from gambling related business activities.
	Genetic Engineering	Exclusion	<p>This factor is applied to all non-Green Bonds in the Corporate, Covered Bond, Agency, and Supranational sectors, in addition to Local Authorities covered by MSCI Business Involvement Screening.</p> <ul style="list-style-type: none"> Excludes researched companies deriving 5% or more revenue from activities like genetically modifying plants, such as seeds and crops, and other organisms intended for agricultural use or human consumption. For Green Bonds, the threshold described above is lowered such that researched companies deriving 0.1% or more revenue are excluded.
	Nuclear Weapons	Exclusion	<p>This factor is applied to all Green Bonds and non-Green Bonds in the Corporate, Covered Bond, Agency, and Supranational sectors, in addition to Local Authorities covered by MSCI Business Involvement Screening.</p> <ul style="list-style-type: none"> Excludes researched companies that: <ul style="list-style-type: none"> Manufacture nuclear warheads and/or whole nuclear missiles. Manufacture components that were developed or are significantly modified for exclusive use in nuclear weapons (warheads and missiles). Manufacture or assemble delivery platforms that were developed or significantly modified for the exclusive delivery of nuclear weapons. Provide auxiliary services related to nuclear weapons. Manufacture components that were not developed or not significantly modified for exclusive use in nuclear weapons (warheads and missiles) but can be used in nuclear weapons. Manufacture or assemble delivery platforms that were not developed or not significantly modified for the exclusive delivery of nuclear weapons but have the capability to deliver nuclear weapons. Manufacture components for nuclear-exclusive delivery platforms.
	Nuclear Power	Exclusion	<p>This factor is applied to non-Green Bonds in the Corporate, Covered Bond, Agency, and Supranational sectors, in addition to Local Authorities covered by MSCI Business Involvement Screening.</p> <ul style="list-style-type: none"> Excludes researched companies generating 5% or more of their total electricity from nuclear power in a given year. Excludes researched companies that have 5% or more of installed capacity attributed to nuclear sources in a given fiscal year. Excludes researched companies deriving 15% or more aggregate revenue from nuclear power activities.

	Tobacco	Exclusion	<p>This factor is applied to all Green Bonds and non-Green Bonds in the Corporate, Covered Bond, Agency, and Supranational sectors, in addition to Local Authorities covered by MSCI Business Involvement Screening.</p> <ul style="list-style-type: none"> Excludes researched companies either classified as a “Producer,” or deriving 5% or more of their aggregate revenue from the production, distribution, retail, supply, and licensing of tobacco related products.
d) List of governance factors considered:	Weighted Average Governance Rating of the Benchmark	N/A	The Indices do not take this ESG factor into account in the methodology.
7. Data and standards used.			
<p>a) Data input.</p> <p>(i) Describe whether the data are reported, modelled or, sourced internally or externally.</p> <p>(ii) Where the data are reported, modelled or sourced externally, please name the third party data provider.</p>		<p>All ESG data for the benchmarks is sourced externally from:</p> <p>MSCI Research esgclientservice@msci.com https://www.msci.com/research-and-insights</p> <p>MSCI ESG Research relies on a proprietary methodology informed by a range of data sources.</p> <ul style="list-style-type: none"> Reported data <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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. <p>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:</p> <ul style="list-style-type: none"> 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 	

	<ul style="list-style-type: none"> • 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 <p>Refer to the MSCI ESG & Climate Methodologies page for further details on the data sources for the relevant ESG factors.</p>
<p>b) Verification of data and guaranteeing the quality of those data. <i>Describe how data are verified and how the quality of those data is ensured.</i></p>	<p>MSCI Green Bonds</p> <p>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.</p> <p>- 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 Labelled 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.</p> <p>- 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.</p> <p>Please see the MSCI Labelled Bond and Loan Assessment Methodology and MSCI Green Bond and Green Loan Assessment FAQ for further detail.</p>

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:

- Proposed downgrades of controversy cases to Red Flag status must first be approved by the CMC before being escalated to the MSCI ESG Methodology Committee (EMC).
- Proposed upgrades of controversy cases from Red Flag status.
- Proposed significant score changes to existing controversy cases.
- Proposed designation of a case as of Historical Concern (whereby the case no longer has a score or a corresponding flag, but is retained in the company's ESG Controversies report for context and reference).

In addition to ESG controversy case reviews and approvals, the CMC reviews and approves clarifications and updates to the MSCI ESG Controversies and Global Norms methodology.

The CMC escalates selected individual ESG controversy cases, including upgrades from and downgrades to Red Flag status, to the EMC, which governs all MSCI ESG solutions and presides over the development, review and interpretation of all ESG Research methodologies, including the MSCI ESG Controversies and Global Norms methodology. The EMC is also responsible for the review and approval of revisions to the MSCI ESG Controversies and Global Norms methodology.

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

	<p>MSCI Business Involvement Screens</p> <p>Initial company research and analysis is followed by a rigorous quality review process. Data accuracy and company profiles are peer-reviewed, then sent to content leads for final approval. In specific cases in which a company's business activity is not clearly defined by MSCI ESG Research's methodology and there is no precedent, the case is escalated to the Head of Screening Research. Cases that require further interpretation or an update to the methodology are brought to the MSCI ESG Impact and Screening Methodology Committee for resolution.</p> <p>Please see the MSCI Business Involvement Methodology Overview for further detail.</p>
<p>c) Reference standards</p> <p><i>Describe the international standards used in the benchmark methodology.</i></p>	<p>MSCI Green Bonds</p> <p>"Green" categories are currently based on MSCI ESG Research definitions aligned with the International Capital Markets Associations.</p> <p>MSCI ESG Score</p> <p>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.</p> <p>MSCI ESG Controversies and Global Norms</p> <p>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.</p> <p>MSCI Business Involvement Screens</p> <p>The MSCI ESG Research team utilised a combination of industry classifications, business descriptions and keyword searches in company filings to identify potential involvement in each of the screening topics.</p>
<p>Date on which information has been last updated and reason for the update:</p>	<p>September 2023 (first publication)</p>

ESG Factors pertaining to the MSCI Sustainable Investment Exposure Methodology

Note: the application of the below methodology is used to weight the portion of the index that is classified as having Sustainable Investment Exposure ("SI%"). The index is designed to ensure that the SI% remains greater than or equal to a market weight of 10%.

An issuer qualifies as having sustainable exposure if it meets all of the following conditions:	
ESG Company Ratings	<p>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).</p> <p>Issuer must have a rating of BB or higher. The condition is not met if the issuer is not covered by MSCI ESG Ratings.</p>
ESG Controversies	<p>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.</p> <p>Issuer must have controversies score of 2 or higher. The condition is not met if the issuer is not covered by MSCI ESG Controversy research.</p>
At least one of the following conditions must met:	
Sustainable Impact Revenue	<p>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.</p> <p>Issuer must derive revenue greater than or equal to 20%.</p>
Science Based Targets (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).
The issuer is not flagged by the following business involvement criteria:	
Controversial Weapons	Companies that have any ties to cluster munitions, landmines, biological / chemical weapons, depleted uranium weapons, blinding laser weapons, incendiary weapons, and/or non-detectable fragments.
Thermal Coal Revenue	<p>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.</p> <p>Issuer must not derive revenue greater than or equal to 1%.</p>
Tobacco Production	Companies that manufacture tobacco products, such as cigars, blunts, cigarettes, e-cigarettes, inhalers, beedis, kreteks, smokeless tobacco, snuff, snus, dissolvable and chewing tobacco. This also includes companies that grow or process raw tobacco leaves.
Tobacco Revenue	<p>The recent-year percent of revenue, or maximum estimated percent, a company has derived from tobacco-related business activities.</p> <p>Issuer must not derive revenue greater than or equal to 5%.</p>
If an issuer does not meet the above conditions, but has on issue a Green Bond, the Green Bond qualifies as having Sustainable Exposure only if it meets all of the following condition:	
Bond is assessed as a Green Bond per the MSCI ESG Research's Green Bond assessment framework	Refer to the Bloomberg MSCI Green Bond Methodology Appendix 1 ESG Disclosures
ESG Controversies	<p>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.</p> <p>Issuers classified as corporate by the Bloomberg Fixed Income Classification System (BCLASS 1) must have controversies score of 1 or higher.</p> <p>This condition does not apply to non-corporate issuers of Green Bonds.</p>

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