# **Bloomberg MSCI Global Green Bond Index**

This document is intended to be read in conjunction with the <u>Bloomberg Fixed Income Index Methodology</u>; these documents collectively constitute the methodology for this Index.

The Bloomberg MSCI Global Green Bond Index aims to track 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 (Green Bonds). An independent research-driven methodology created by MSCI is used to evaluate index-eligible green bonds to ensure they adhere to established Green Bond Principles and to classify bonds by their environmental use of proceeds. From October 2022, the index excludes issuers with a "Red" MSCI ESG Controversy Flag and negatively screens issuers that have business activities related to certain controversial weapons, or that derive revenue from thermal coal mining.

Index Ticker	Ticker (USD Unhedged)	Index
	GBGLTRUU Index	Bloomberg MSCI Global Green Bond

# **Eligibility Requirements: Fixed Income Criteria**

Sector	Treasury, corporate, government-related, and securitized bonds are included. This includes taxable municipals.				
Eligible Currencies	• The Global Green Bond Index is a multi-currency benchmark that includes local currency debt markets tracked by the <u>Bloomberg Global Aggregate Index</u> . Principal and coupon must be denominated in one of the following eligible currencies:				
	o Americas: CAD, CLP, COP, MXN, PEN, USD				
	<ul> <li>EMEA: CHF, CZK, DKK, EUR, GBP, HUF, ILS, NOK, PLN, RON, RUB, SEK</li> </ul>				
	<ul> <li>Asia-Pacific: AUD, CNY, HKD, IDR, JPY, KRW, MYR, NZD, SGD, THB</li> </ul>				
	• Eligible currencies will not necessarily have debt included in the index if no securities satisfy the inclusion rules.				
	• New currency inclusion is reviewed annually through the index governance process. To be considered for inclusion, new currency candidates must be rated investment grade and sufficiently tradable, convertible and hedgeable for international investors.				
Quality	Securities must be rated investment grade (Baa3/BBB-/BBB- or higher) using the middle rating of Moody's, S&P and Fitch; when a rating from only two agencies is available, the lower is used; when only one agency rates a bond, that rating is used. In cases where explicit bond level ratings may not be available, other sources may be used to classify securities by credit quality:				
	<ul> <li>Local currency treasury and hard currency sovereign issues are classified using the middle issuer- level local currency and hard currency debt ratings from each agency for all outstanding bonds, even if bond-level ratings are available.</li> </ul>				
	<ul> <li>Expected ratings at issuance may be used to ensure timely index inclusion or to properly classify split-rated issuers.</li> </ul>				
	<ul> <li>Unrated securities may use an issuer rating for index classification purposes if available. Unrated subordinated securities are included if a subordinated issuer rating is available.</li> </ul>				
	<ul> <li>German Pfandbriefe are assigned ratings that are one full rating category above the issuer's unsecured debt.</li> </ul>				

• For the Canadian Dollar market, DBRS is considered in addition to Moody's, S&P, and Fitch. When all four ratings agencies are available, the highest and lowest ratings are removed and the lower of the two remaining is used.

#### Minimum Amount Outstanding

Fixed minimum issue size are set for all local currency markets:

- 150mn: CAD
- 300mn: USD (excluding MBS, ABS, and CMBS)\*, EUR, CHF, AUD
- 200mn: GBP
- 35bn: JPY
- 1bn: RON, PEN, USD MBS pass-throughs
- 25mn: USD ABS and CMBS tranches\*
- 2bn: DKK, NOK, PLN, ILS, HKD, MYR
- 2.5bn: SEK
- 5bn: CNY\*\*
- 10bn: MXN, CZK, THB
- 20bn: RUB
- 500mn: NZD, SGD
- 200bn: HUF
- 100bn: CLP
- 500bn: KRW
- ltrn: COP
- 2trn: IDR

\*As of April 1, 2017, ABS and CMBS tranches eligible for the US Aggregate between \$25-300mn became eligible for Global Green Bond Index.

\*\*The minimum amount outstanding required for CNY-denominated treasury and policy bank debt is CNY 5bn. The total amount of index-eligible CNY debt will be phased into the Global Aggregate Index at 5% increments over a 20 month period starting April 1, 2019 until November 2020 when 100% of index-eligible debt will be reflected in the index.

Coupon	Fixed-rate coupon.				
	• Callable fixed-to-floating rate bonds are eligible during their fixed-rate term only.				
	• Bonds with a step-up coupon that changes according to a predetermined schedule are eligible.				
Minimum Liquidity Requirements	See Minimum Amount Outstanding specified above.				
Maturity	<ul> <li>Unlike other Bloomberg Aggregate Bond Indices, the Global Green Bond Index does not have a 1-year minimum time to maturity and will hold bonds until final maturity</li> </ul>				
	<ul> <li>Bonds that convert from fixed to floating rate, including fixed-to-float perpetuals, will exit the index before converting to floating-rate. Fixed-rate perpetual bonds are not included.</li> </ul>				
	• Sub-indices based on maturity are inclusive of lower bounds. Intermediate maturity bands include bonds with maturities of 1 to 9.999 years. Long maturity bands include maturities of 10 years or greater.				

Taxability Market of Issue	<ul> <li>Only fully taxable issues are eligible.</li> <li>Build America Bonds (BABs) with the tax credit to the issuer are eligible; those with tax credits issued to Investors are considered tax exempt.</li> <li>Dividend Received Deduction (DRD) and Qualified Dividend Income (QDI) eligible securities are excluded.</li> <li>Publicly issued in the global and regional markets.</li> </ul>			
Seniority of Debt	Senior and subordinated issues are included.			
Security Types	Included	Excluded		
	<ul> <li>Fixed-rate bullet, putable, sinkable/amortizing and callable bonds</li> <li>Taxable municipal securities, including Build America Bonds (BABs)</li> </ul>	<ul> <li>Contingent capital securities, including traditional CoCos and contingent write-down securities, with explicit capital ratio or solvency/balance sheet-based triggers</li> </ul>		
	<ul> <li>Original issue zero coupon bonds</li> <li>Bonds issued through underwritten MTN programs</li> <li>Enhanced equipment trust certificates (EETC)</li> <li>Certificates of deposit</li> <li>Fixed-rate and fixed-to-float (including fixed-to-variable) capital securities</li> <li>Loan participation notes</li> <li>US Agency CMBS (as of July 1, 2014)</li> <li>Malaysian government Sukuk (as of April 1, 2015)</li> </ul>	<ul> <li>Bonds with equity type features (e.g., warrants, convertibles, preferreds, DRD/QDI-eligible issues)</li> <li>Inflation-linked bonds, floating-rate issues</li> <li>Fixed-rate perpetuals</li> <li>Tax-exempt municipal securities</li> <li>Private placements, retail bonds</li> <li>Sinkable Russian OFZ bonds issued prior to 2009</li> <li>USD25/USD50 par bonds</li> <li>Structured notes, pass-through certificates</li> <li>Non-ERISA eligible CMBS</li> </ul>		

#### • US agency MBS hybrid ARMs

- Formosa bonds (as of April 1, 2017)
- Illiquid securities where reliable pricing is unavailable

## **Green Bond Eligibility and Classification**

- For the Bloomberg MSCI Global Green Bond Index, 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 International Capital Market Association's Green Bond Principles (Green Bond Principles) and require commitments about a bond's:
  - o Use of proceeds;
  - o Process for project evaluation and selection;
  - o Process for management of proceeds; and
  - o Ongoing reporting.
- More details can be found at MSCI's <u>Labeled Bond and Loan Assessment Methodology</u>.
- Meeting all four criteria is required for bonds issued after the publication of the Green Bond Principles in 2014. Green bonds issued prior to 2014 that are widely accepted by investors as

green bonds may still qualify for the index, even if all four principles are not satisfied, since no formal guidelines were available to issuers at the time of issuance.

#### **MSCI Business Involvement and Controversy Screens**

MSCI Business Involvement Screens From October 2022, the index excludes issuers involved in the following business lines/activities:

- Cluster Munitions
- Landmines
- Depleted Uranium
- Biological/Chemical Weapons
- Blinding Lasers
- Non-Detectable Fragments
- White Phosphorous
- Incendiary Weapons
- Thermal Coal Mining revenues >= 15%

#### MSCI ESG Controversy The inc Screens measu

The index excludes any issuer with a "Red" MSCI ESG Controversy Score (equal to zero), which measures an issuer's involvement in major ESG controversies and how well they adhere to international norms and principles, and also any issuer with a "Red" MSCI ESG Environment Controversy Flag, which assesses any controversies related to an issuer's impact on the environment. For more details on MSCI ESG Controversies, please refer to: https://www.msci.com/documents/10199/acbe7c8a-a4e4-49de-9cf8-5e957245b86b.

#### Non-covered Issuers

**ered Issuers** If a security/issuer is not included in the MSCI research coverage for any of the above screens, but meets the "Eligibility Requirements: Fixed Income Criteria" set out above, this Index will include such security/issuer. 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.

## **Rebalancing Rules**

#### Frequency

For each index, Bloomberg maintains two universes of securities: the Returns (Backward) and the Projected (Forward) Universes. The composition of the Returns Universe is rebalanced at each monthend and represents the fixed set of bonds on which index returns are calculated for the next month. The Projected Universe is a forward-looking projection that changes daily to reflect issues dropping out of and entering the index but is not used for return calculations. On the last business day of the month (the rebalancing date), the composition of the latest Projected Universe becomes the Returns Universe for the following month.

- The formal list of green bonds evaluated and identified by MSCI ESG Research is updated on the 25th calendar day of each month. MSCI evaluations must be completed by the evaluation date to qualify for inclusion at the next index rebalancing.
- The Bloomberg MSCI Green Bond Index is rebalanced on the last business day of each month. New issues will not be added to the Projected Universe until after the Green Bond Evaluation Date.

Index Changes	During the month, indicative changes to securities (credit rating change, sector reclassification, amount outstanding changes, corporate actions, and ticker changes) are reflected daily in the Projected and Returns Universe of the index. These changes may cause bonds to enter or fall out of the Projected Universe of the index on a daily basis, but will affect the composition of the Returns Universe at month-end only, when the index is next rebalanced.
Reinvestment of Cash Flows	Intra-month cash flows from interest and principal payments contribute to monthly index returns but are not reinvested at a short-term reinvestment rate between rebalance dates. At each rebalancing, cash is effectively reinvested into the returns universe for the following month so that index results over two or more months reflect monthly compounding.
New Issues	Qualifying securities issued, but not necessarily settled on or before the month-end rebalancing date, qualify for inclusion in the following month's index if the required security reference information and pricing are readily available.

#### **Pricing and Related Issues**

**Sources & Frequency** All index-eligible bonds are priced on a daily basis by Bloomberg's evaluated pricing service, BVAL, except CHF-denominated bonds (which are priced by SIX) and JPY-denominated corporates (which are priced by JSDA).

#### Timing

Prices are snapped at the following times:

- North American currency bonds: 4pm (New York time); 4pm (New York time) for taxable municipal bonds; 4pm (Toronto time) for CAD-denominated securities. USD-denominated bonds prior to January 14, 2021 used 3pm New York time pricing snap.
- Pan-European currency bonds: 4:15pm (London time); 4pm (London time) for CHF-denominated securities.
- Asian currency bonds: 5pm (Sydney time) for AUD-denominated and NZD-denominated securities; 3pm (Tokyo time) for JPY-denominated; 5pm (Shanghai time) for CNY-denominated securities; 5pm (Tokyo time) for all other securities.

If the last business day of the month is a public holiday in a major regional market, prices from the previous business day are used to price bonds in that particular market.

- **Bid or Offer Side** Bonds in the index are priced on the bid side. The initial price for new corporate issues entering the index is the offer side; after the first month, the bid price is used. Japanese, Euro, and Sterling treasury bonds use mid prices.
- Settlement Assumptions T+1 calendar day settlement basis for all bonds except MBS, which are priced for Public Securities Association (PSA) settlement in the following month and discounted back to same-day settlement. At month-end, settlement is assumed to be the first calendar day of the following month, even if the last business day is not the last day of the month, to allow for one full month of accrued interest to be calculated.

# VerificationDaily price moves for each security are analyzed by the index pricing team to identify outliers. Index<br/>users may also challenge price levels, which are then reviewed and updated as needed.

Currency Hedging	Returns hedged to various currencies are published for multi-currency indices. The indices' FX hedging methodology takes rolling one-month forward contracts that are reset at the end of each month and hedges each non-reporting currency-denominated bond in the index into the reporting currency terms. No adjustment is made to the hedge during the month to account for price movements of constituent securities in the Returns Universe of the index.
Calendar	The Global Green Bond Index is a global, multi-currency index that is generated every business day of the year except for January 1, the only holiday common to all regional calendars. During holidays observed by local markets, the index will still be generated using prices from the previous business day. FX rates are updated daily using WM Reuters 4pm (London) rates. FX forwards are also sourced from WM Company.

# EXPLANATION OF HOW ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY

<b>1</b> . Name of the benchmark administrator.		Bloomberg Index Services Limited ("BISL")		
<b>2</b> . Type of benchmark		Fixed Incom	e & Sovereign	
<b>3</b> . Name of the benchmark or family benchmarks.		Bloomberg	MSCI Global Green Bond Index	
<b>4</b> . Does the benchmark methodology for the benchmark or family of benchmarks take into account ESG factors?		Yes		
into account in (EU) 2020/1816 Please explain l	the benchmark methodolo now those ESG factors are (	gy, taking into used for the se	elow, for each family of benchmarks, those ESG factors that are taken account the ESG factors listed in Annex II to Delegated Regulation election, weighting or exclusion of underlying assets. ighted average value at the level of the family of benchmarks.	
a) List of Combined factors considered:	ESG Controversy Score	Exclusion	<ul> <li>The Bloomberg MSCI Global Green Bond 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) is excluded from the SRI indices.</li> <li>MSCI ESG Controversies identifies company involvement in major ESG controversies and adherence to international norms and principles such as UNGC and ILO Core Conventions.</li> <li>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 whethe it's ongoing, partially or fully concluded. The overall company controversy score and corresponding flag is determined by the most severe ESG controversy case:</li> <li>A Red Flag indicates an ongoing Very Severe ESG controversy implicating a company directly through its actions, products, or operations.</li> <li>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.</li> <li>Yellow indicates noteworthy ESG controversies.</li> <li>Green indicates either less significant ESG controversies or none at all.</li> </ul>	
b) List of environment al factors considered:	Green Bonds	Inclusion	The Bloomberg MSCI Global Green Bond Index incorporates the MSCI ESG Research Green Bond label as a requirement for inclusion of index constituents. Green Bonds are fixed income securities in which the proceeds wil	
		1	be exclusively and formally applied to projects or activities that	

			promote climate or other environmental sustainability purposes through their use of proceeds. 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: • Use of proceeds; • Process for project evaluation and selection; • Management of proceeds; and • Ongoing reporting. Please see MSCI's <u>Green Bond and Green Loan Assessment</u> <u>Methodology</u> for further information.
	Thermal Coal Mining	Exclusion	Excludes researched companies deriving 15% or more revenue (either reported or estimated) from thermal coal mining.
	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 Index does not take this ESG factor into account in the methodology.
	Greenhouse gas (GHG) emissions of the benchmark.	N/A	The Index does not take this ESG factor into account in the methodology.
	Percentage of GHG emissions reported versus estimated.	N/A	The Index does 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 Index does 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 Index does not take this ESG factor into account in the methodology.
c) List of social factors considered:	Controversial Weapons	Exclusion	Excludes researched companies with any tie to Controversial Weapons (cluster munitions, landmines, depleted uranium weapons, biological/chemical weapons, blinding lasers, non- detectable fragments, white phosphorous, and incendiary weapons).

	Number of benchmark constituents subject to 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.	N/A	The Index does not take this ESG factor into account in the methodology.
	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 Index does not take this ESG factor into account in the methodology.
	Weighted average gender pay gap.	N/A	The Index does not take this ESG factor into account in the methodology.
	Weighted average ratio of female to male board members.	N/A	The Index does not take this ESG factor into account in the methodology.
	Weighted average ratio of accidents, injuries, fatalities.	N/A	The Index does 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 Index does not take this ESG factor into account in the methodology.
d) List of governance factors considered:	Weighted Average Governance Rating of the Benchmark	N/A	The Index does not take this ESG factor into account in the methodology.
account in the 2020/1816, dep Please explain The ESG factor weighted avera Alternatively, a included in th	benchmark methodology, ta bending on the relevant unc how those ESG factors are u rs shall not be disclosed for age value of the benchmark all of this information may be is explanation. The information	aking into acc lerlying asset used for the se each constitue e provided in ion on the wel	elow, for each benchmark, those ESG factors that are taken into ount the ESG factors listed in Annex II to Delegated Regulation (EU) concerned. election, weighting or exclusion of underlying assets. ent of the benchmark, but shall be disclosed at an aggregated the form of a hyperlink to a website of the benchmark administrator bsite shall be easily available and accessible. Benchmark on their website remains available for five years
a) List of environmental factors considered:		taken into a	to above and individual benchmark documentation for ESG factors ccount for each benchmark that can be found within the Bloomberg Income ESG Indices section found <u>here</u> .

b) List of social factors considered:	Please refer to above and individual benchmark documentation for ESG factors taken into account for each benchmark that can be found within the Bloomberg MSCI Fixed Income ESG Indices section found <u>here</u> .
c) List of governance factors considered:	Please refer to above and individual benchmark documentation for ESG factors taken into account for each benchmark that can be found within the Bloomberg MSCI Fixed Income ESG Indices section found <u>here</u> .
7. Data and standards used.	
a) Data input. (i) Describe whether the data are reported, modelled or, sourced internally or externally. (ii) Where the data are reported, modelled or sourced externally, please name the third party data provider.	<ul> <li>All ESG data for the benchmarks is sourced externally from:</li> <li>MSCI Research <ul> <li>esgclientservice@msci.com</li> <li>https://www.msci.com/research-and-insights</li> </ul> </li> <li>MSCI ESG Research relies on a proprietary methodology informed by a range of data sources. <ul> <li>Reported data</li> <li>Corporate documents: annual reports, proxy filings, environmental and social reports, securities filings, websites and Carbon Disclosure Project responses.</li> <li>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.</li> <li>Popular, trade, and academic journals: accessed through websites, subscriptions and searches of online databases.</li> <li>News media: major news publications globally, including locallanguage sources across a range of markets.</li> <li>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</li> </ul> </li> </ul>
	<ul> <li>Modelled data         <ul> <li>For climate-related metrics, when data is not disclosed by companies, MSCI ESG Research uses proprietary GHG emission estimation model.</li> <li>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.</li> </ul> </li> <li>For top level scores (ESG Ratings, Environmental, Social and Governance pillars),</li> </ul>
	<ul> <li>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:</li> <li>Comprehensive Environmental Data Archive (CEDA)</li> <li>US Department of Energy; International Council on Clean Transportation</li> <li>Lamont-Doherty Earth Observatory, Columbia University</li> <li>Organization of Economic Co-Operation and Development (OECD)</li> <li>Canadian Industrial Water Survey</li> <li>Hoekstra, A.Y. and Mekonnen, M.M. (2011)</li> <li>Ecorisk</li> </ul>

	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 <u>MSCI ESG &amp; Climate Methodologies page</u> for further details on the data sources for the relevant ESG factors.
b) Verification of data and guaranteeing	MSCI Green Bonds
the quality of those data. Describe how data are verified and how the quality of those data is ensured.	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 <u>MSCI Labelled Bond</u> <u>and Loan Assessment Methodology</u> . 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.
	<ul> <li>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.</li> </ul>
	Please see the <u>MSCI Labelled Bond and Loan Assessment Methodology</u> and <u>MSCI Green Bond and Green Loan Assessment FAQ</u> 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).
	<ul> <li>Proposed upgrades of controversy cases from Red Flag status.</li> </ul>
	<ul> <li>Proposed significant score changes to existing controversy cases.</li> </ul>
	• 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 <u>ESG</u> <u>Methodologies website</u> for further detail.
	MSCI Business Involvement Screens
	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
	Please see the <u>MSCI Business Involvement Methodology Overview</u> for further detail.
c) Reference standards Describe the international standards used in the benchmark methodology.	<b>MSCI Green Bonds</b> "Green" categories are currently based on MSCI ESG Research definitions aligned with the International Capital Markets Associations.
	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 utilised a combination of industry classifications, business descriptions and keyword searches in company filings to identify potential involvement in each of the screening topics.	
Date on which information has been last updated and reason for the update:	July 2023, Update of the Annex	

#### Disclaimer

This document and the information contained in it, including without limitation all text, data, graphs and charts (collectively, the "Information") is the property of MSCI Inc. and/or its affiliates (collectively, "MSCI"), Bloomberg Index Services Limited and/or its affiliates (collectively, "Bloomberg"), or their licensors, direct or indirect suppliers or any third party involved in making or compiling any Information (MSCI and Bloomberg, collectively, the "Information Providers") and is provided for informational purposes only. The Information may not be reproduced or disseminated in whole or in part without prior written permission from the authorized Information Provider(s). All rights in the Bloomberg MSCI Environmental, Social & Governance (ESG) fixed income indices (the "ESG Indices") vest in MSCI and Bloomberg. The Information may not be used to create derivative works or to verify or correct other data or information. For example (but without limitation), the Information may not be used to create indices, databases, risk models, analytics or software, or in connection with issuing, offering, sponsoring, managing or marketing securities, portfolios, financial products or other investment vehicles utilizing or based on, linked to, tracking or otherwise derived from the Information.

The user of the Information assumes the entire risk of any use it makes or permits to be made of the Information. NONE OF THE INFORMATION PROVIDERS MAKES ANY EXPRESS OR IMPLIED WARRANTIES OR REPRESENTATIONS WITH RESPECT TO THE INFORMATION (OR THE RESULTS TO BE OBTAINED BY THE USE THEREOF) AND, TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, EACH INFORMATION PROVIDER EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES (INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF ORIGINALITY, ACCURACY, TIMELINESS, NON-INFRINGEMENT, COMPLETENESS OR MERCHANTABILITY).

Without limiting any of the foregoing and to the maximum extent permitted by applicable law, in no event shall any Information Provider have any liability regarding any of the Information including with respect to any direct, indirect, special, punitive, consequential (including lost profits) or other damages even if notified of the possibility of such damages. The foregoing shall not exclude or limit liability that may not by applicable law be excluded or limited, including without limitation (as applicable), for death or personal injury to the extent such injury results from the negligence or willful default of itself or its servants, agents or sub-contractors.

Information containing historical information, data or analysis should not be taken as an indication or guarantee of future performance, analysis, forecast or prediction. Past performance does not guarantee future results. All levels, prices and spreads are historical and do not represent current market levels, prices or spreads, some or all of which may have changed since the publication of this document.

None of the Information constitutes an offer to sell (or a solicitation of an offer to buy), any security, financial product or other investment vehicle or any trading strategy.

MSCI's wholly-owned subsidiary, MSCI ESG Research LLC, is a Registered Investment Adviser under the Investment Advisers Act of 1940. Except with respect to any applicable products or services from MSCI ESG Research LLC, none of MSCI's products or services recommends, endorses, approves or otherwise expresses any opinion regarding issuers, securities, financial products or instruments or trading strategies and none of MSCI's products or services is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and no such products or services may be relied on as such.

The ESG Indices use ratings and other data, analysis and information from MSCI ESG Research LLC. Issuers mentioned or included in any MSCI ESG Research materials may include MSCI Inc., clients of MSCI, or suppliers to MSCI, and may also purchase research or other products or services from MSCI ESG Research LLC. MSCI ESG Research LLC materials, including materials utilized in ESG Indices or other products, have not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body. ESG Indices are unmanaged indices that cannot be invested in directly. None of the ESG Indices recommend, endorse, approve or otherwise express any opinion regarding any issuer, securities, financial products or instruments or trading strategies and none of the ESG Indices are intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and they may not be relied on as such. Any funds, products or other securities or investment vehicles using or based on the ESG Indices are not sponsored, endorsed, or promoted by Bloomberg or MSCI.

Any use of or access to the ESG Indices requires a license from both MSCI and Bloomberg. Any use of or access to other products, services or information of Bloomberg requires a license from Bloomberg. Any use of or access to other products, services or information of MSCI requires a license from MSCI. MSCI, Barra, RiskMetrics, MSCI ESG Research, FEA, and other MSCI brands and product names are the trademarks or service marks of MSCI. BLOOMBERG is a trademark and service mark of Bloomberg Finance L.P. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and Standard & Poor's. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and Standard & Poor's.

©2023 Bloomberg Finance L.P. All rights reserved

Take the next step. For additional information, email indexhelp@bloomberg.net or press the <help> key twice on the Bloomberg Terminal* bloomberg.com/indices</help>	<b>Beijing</b> +86 10 6649 7500	Hong Kong +852 2977 6000	<b>New York</b> +1 212 318 2000	<b>Singapore</b> +65 6212 1000
	<b>Dubai</b> +971 4 364 1000	<b>London</b> +44 20 7330 7500	<b>San Francisco</b> +1 415 912 2960	<b>Sydney</b> +61 2 9777 8600
	<b>Frankfurt</b> +49 69 9204 1210	<b>Mumbai</b> +91 22 6120 3600	<b>São Paulo</b> +55 11 2395 9000	<b>Tokyo</b> +81 3 4565 8900

Bloomberg MSCI Global Green Bond Index