Bloomberg MSCI Global Green Bond Index

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

The Bloomberg MSCI Global Green Bond Index aims to track fixed-income securities in which the proceeds, or an equivalent amount, will be applied to projects or activities that promote climate or other environmental sustainability purposes (Green Bonds). An independent research-driven methodology created by MSCI ESG Research, called the MSCI Green Bond and Green Loan Assessment Methodology, is used to evaluate index-eligible green bonds. The index excludes issuers with a "Red" MSCI ESG Controversy Flag and negatively screens issuers involved in certain business activities related to certain controversial weapons, or that derive 15% or more revenue from thermal coal mining. Unlike the Bloomberg Global Aggregate Index, the Bloomberg MSCI Global Green Bond Index does not have a minimum time to maturity of one year. Instead, the Index will hold bonds until final maturity. The Index was created in October 2014, with history backfilled to January 1, 2014.

Index ID 31572

Base Currency Index Ticker

1315724US Index / GBGLTRUU Index: Total Return USD Unhedged

Eligibility Requirements: Fixed Income Criteria

Sector Treasury, Government-Related, Corporate, and Securitized

Eligible Currencies 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, SEK

Asian-Pacific: AUD, CNY, HKD, IDR, JPY, KRW, MYR, NZD, SGD, THB

Credit Rating Investment Grade

Minimum Amount Outstanding

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

- AUD 300mn
- CAD 150mn
- CHF 300mn
- CLP 100bn
- CNY 5bn1
- COP 1trn
- CZK 10bn
- DKK 2bn
- EUR 300mn
- GBP 200mn
- HKD 2bn
- HUF 200bn
- IDR 2trn
- ILS 2bn
- JPY 35bn
- KRW 500bn

- MXN 10bn
- MYR 2bn
- NOK 2bn
- PEN 1bn
- PLN 2bn
- RON 1bn
- SEK 2.5bn
- SGD 500mn
- THB 10bn
- USD:
 - Treasury, government-related and corporate securities: 300mn
 - MBS: 1bn at the Cohort level
 - ABS: 500mn deal size / 25mn tranche size
 - CMBS: 500mn deal size / 25mn tranche size / 300mn remaining in the deal

¹ 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



Bloomberg

Maturity

Unlike other Bloomberg Aggregate Bond Indices, the Bloomberg MSCI Global Green Bond Index does not have a minimum time to maturity of one year. Instead, the index will hold bonds until final maturity

Minimum Liquidity Requirements

See Minimum Amount Outstanding specified above

Rebalance Date

Monthly

Eligibility Requirements: Green Bonds

Green Bond 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 (ICMA) Green Bond Principles and require commitments about a bond's:

- Use of proceeds
- Process for project evaluation and selection
- Process for management of proceeds
- Ongoing reporting

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 are subject only to criterion one, i.e. Use of proceeds.

More details can be found at MSCI's Green Bond and Green Loan Assessment Methodology, which is a part of the MSCI Labeled Bond and Loan Assessment Methodology.

Eligibility Requirements: Environment, Social and Governance (ESG)

MSCI Business Involvement Screens

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 revenue >= 15%

MSCI ESG Controversy Screens

The index excludes issuers with a:

- "Red" MSCI ESG Controversy Flag (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
- "Red" MSCI ESG Environment Controversy Flag (score equal to zero), which assesses any controversies related to an issuer's impact on the environment.

For more details on MSCI ESG Controversies, please refer to the link here.

Non-covered Issuers

Only securities classified as 'Green Bonds', per the <u>Eligibility Requirements: Green Bonds</u> section above, are eligible for inclusion into the Index. If an eligible Green Bond security/issuer is not included in the MSCI research coverage for any of the Business Involvement or ESG Controversy screens defined in <u>Eligibility Requirements: Environmental, Social and Governance</u> section above, such Green Bond security/issuer will be eligible for inclusion into the Index. This applies to government, securitized issuers, and corporate issuers not covered by MSCI ESG Business Involvement Screening Data, MSCI ESG Controversy Scores, and MSCI ESG Climate Data and Metrics, and corporate issuers not covered by MSCI ESG Research.

Available Indices

Bloomberg publishes various maturity, sector, currency, credit quality and capped sub-indices of the Bloomberg MSCI Global Green Bond Index. The indices below follow the rules as described in this methodology document with the exception of the specific maturity, sector, currency, credit quality and capping features listed below:

Maturity	Name	Index ID
0-1 year	Bloomberg MSCI Global Green Bond Index: 0-1	131600
1+ year	Bloomberg MSCI Global Green Bond Index: >1 Year	131667
1-5 year	Bloomberg MSCI Global Green Bond Index: 1-5	131569
1-10 year	Bloomberg MSCI Global Green Bond Index: 1-10	131602
5-10 year	Bloomberg MSCI Global Green Bond Index: 5-10	131601
10+ year	Bloomberg MSCI Global Green Bond Index: 10+	131603

Sector - BCLASS 1	Name	Index ID
Corporates	Bloomberg MSCI Global Green Bond Index: Corporate	131591
Government-Related	Bloomberg MSCI Global Green Bond Index: Gov-Related	131588

Sector - BCLASS 2	Name	Index ID
Financial	Bloomberg MSCI Global Green Bond Index: Financial	131593
Industrial	Bloomberg MSCI Global Green Bond Index: Industrial	131594
Utility	Bloomberg MSCI Global Green Bond Index: Utility	131592
Agency	Bloomberg MSCI Global Green Bond Index: Agency	131589
Local Authority	Bloomberg MSCI Global Green Bond Index: Local Authority	131590
Supranational	Bloomberg MSCI Global Green Bond Index: Supranational	131570
Securitized/ABS	Bloomberg MSCI Global Green Bond Index: Securitized/ABS	131595

Currency	Name	Index ID
AUD	Bloomberg MSCI Global Green Bond Index: AUD	131579
CAD	Bloomberg MSCI Global Green Bond Index: CAD	131575
CHF	Bloomberg MSCI Global Green Bond Index: CHF	131578
EUR	Bloomberg MSCI Euro Green Bond Index	131574
GBP	Bloomberg MSCI Global Green Bond Index: GBP	131576
JPY	Bloomberg MSCI Global Green Bond Index: JPY	131580
SEK	Bloomberg MSCI Global Green Bond Index: SEK	131577
USD	Bloomberg MSCI US Green Bond Index	131573
ex-JPY	Bloomberg MSCI Global Green Bond Index: ex-JPY	135234
ex-USD	Bloomberg MSCI Global Green Bond Index: ex-USD	131847
Other Currencies ²	Bloomberg MSCI Global Green Bond Index: Other Currencies	131581

Credit Quality	Name	Index ID
Aaa	Bloomberg MSCI Global Green Bond Index: Aaa	131596
Aa	Bloomberg MSCI Global Green Bond Index: Aa	131597
A	Bloomberg MSCI Global Green Bond Index: A	131598
Baa	Bloomberg MSCI Global Green Bond Index: Baa	131599

Capped	Name	Index ID
10% Issuer capped	Bloomberg MSCI Global Green Bond Index: 10% Issuer Capped	131606

² The Bloomberg MSCI Global Green Bond Index: Other Currencies (Index ID 31581) includes all currencies except for: AUD, CAD, CHF, EUR, GBP, JPY, SEK, and USD.

Publication Currency

Bloomberg may offer these indices in additional currencies for both unhedged and hedged indices:

- See Appendix 2 of the <u>Bloomberg Fixed Income Index Methodology</u> for Currency Hedging and Currency Returns
- See Appendix 12 of the <u>Bloomberg Fixed Income Index Methodology</u> for Index Identification and Publication Currency

Document Version History

Date	Update
September 2023	Publication in new format
July 2024	Addition of available indices section

Appendix I: 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, the security/issuer will be eligible for inclusion into this Index. This applies to government, securitized issuers, and corporate issuers not covered by MSCI ESG Business Involvement Screening Data, MSCI ESG Controversy Scores, and MSCI ESG Climate Data & Metrics, and to corporate issuers not covered by MSCI ESG Research.

			TAL, SOCIAL AND GOVERNANCE (ESG) FACTORS ENTS OF THE BENCHMARK METHODOLOGY		
1. Name of the benchmark administrator.		Bloomberg In	Bloomberg Index Services Limited ("BISL")		
2. Type of benc	hmark	Fixed Income	and Sovereign		
3 . Name of the benchmarks.	benchmark or family	Bloomberg N	Bloomberg MSCI Global Green Bond Index		
	nchmark methodology for the amily of benchmarks take into ctors?	Yes			
the benchmark Please explain h The ESG factors	methodology, taking into accou now those ESG factors are used shall be disclosed at an aggreg	int the ESG factor for the selection pated weighted	or each family of benchmarks, those ESG factors that are taken into account in ors listed in Annex II to Delegated Regulation (EU) 2020/1816. In, weighting or exclusion of underlying assets. average value at the level of the family of benchmarks.		
a) List of Combined factors considered:	MSCI ESG Controversy Score	Exclusion	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 Controversy Flag (score equal to zero), or a "Red" MSCI ESG Environment Controversy Flag (score equal to zero), is excluded from the index. MSCI ESG Controversies is designed to provide timely and consistent		
			assessments of ESG-related controversies, whether actual or alleged, involving publicly traded companies and fixed income issuers. An ESG controversy case is defined as either an event or an ongoing situation in which company operations and/or products allegedly have a negative environmental, social and/or governance impact. MSCI ESG Controversies assessments measure companies' reputational/brand risk based on actual or alleged involvement in adverse impact activities as reported by the media, nongovernmental organizations (NGOs), civil society groups, academia, regulators and other stakeholders.		
			Cases include alleged company violations of existing laws and/or regulations to which they are subject to, or an alleged company action or event that violates commonly accepted international norms, including, but not limited to, norms represented by global conventions, such as the International Labour Organization (ILO) Fundamental Conventions. ³		
			MSCI ESG Controversies analytical framework organizes ESG controversies within three Pillars: Environment, Social and Governance. In particular, the Social Pillar is further divided into three Sub-Pillars representing different stakeholders: community (Human Rights & Community Impact Sub-Pillar), workers (Labor Rights & Supply Chain Sub-Pillar) and customers (Customers Sub-Pillar). Pillars and Sub-Pillars are further divided into 28 Themes. All assessed ESG controversy cases are associated with at least one Theme.		
			Each ESG controversy case receives a Score and an associated color-coded Flag based on a combination of the assessed Severity of the controversy as well as the assessments of the company's alleged Role and the Status of the case remediation and resolution. In the event that a company has multiple		

³ For all references to laws, rules or regulations, please note that the information is provided "as is" and does not constitute legal advice or any binding interpretation. Any approach to comply with regulatory or policy initiatives should be discussed with your own legal counsel and/or the relevant competent authority, as needed

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			ESG controversy cases, the Overall Company Score and the corresponding Flag are determined by the lowest scoring case.
			Thag are determined by the lowest scoring case.
			A company level Overall Flag indicates the following:
			A Red Flag indicates that a company is directly involved in one or
			more Very Severe Ongoing controversies.
			An Orange Flag indicates that a company has either:
			Settled most but not all of the Stakeholders' concerns
			related to its involvement in one or more Very Severe
			controversies;
			 Continues to be indirectly involved in one or more Very Severe controversies; or
			o Is indirectly involved in one or more Severe controversies
			A Yellow Flag indicates that a company either:
			o Has been implicated in one or more Concluded Very
			Severe or Severe controversies; o Has settled at least some of the stakeholders' concerns
			o Has settled at least some of the stakeholders' concerns related to its alleged direct involvement in one or more
			Severe controversies or indirect involvement in one or
			more Very Severe controversies;
			Continues to be indirectly involved in one or more Severe
			controversies or directly involved in one or more
			Moderate controversies.
			A Green Flag indicates that a company either:
			 Has fully or partially settled one or more Moderate
			severity controversies in which it was directly involved; or
			Is indirectly implicated in one or more Moderate
			controversies; or
			o Is either directly or indirectly implicated in one or more Ongoing or Concluded Minor controversies; or
			Not implicated in any controversies.
			o Not implicated in any controversies.
			Please refer to the MSCI ESG Controversies and Global Norms Methodology that can be accessed <u>here.</u>
b) List of environmental factors considered:	Green Bonds	Inclusion	The Bloomberg MSCI Global Green Bond Index incorporates fixed income securities eligible using the MSCI Green Bond and Green Loan Assessment Methodology as a requirement for inclusion of index constituents.
considered.			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.
			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.
			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.
			Please see MSCI's Green Bond and Green Loan Assessment Methodology for further information.
	Thermal Coal Mining	Exclusion	The Index excludes researched companies deriving 15% or more revenue (either reported or estimated) from thermal coal mining.

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	The list of treaties and conventions related to the "Controversial Weapons %" metric is provided below: • 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	Excludes researched companies with any tie to Controversial Weapons (cluster munitions, landmines, depleted uranium weapons, biological/chemical weapons, blinding lasers, nondetectable fragments, and incendiary weapons).
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

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 environmental factors considered:	Please see above.
b) List of social factors considered:	Please see above.
c) List of governance factors considered:	Please see above.
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.	All ESG data for the benchmarks is sourced externally from: MSCI Research 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.

b) Verification of data and guaranteeing the quality of those data. Describe how data are verified and how the quality of those data is ensured.	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 MSCI Business Involvement Methodology Overview for further detail.
c) Reference standards Describe the international standards used in the benchmark methodology.	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:	May 2024 (enhancement of ESG factor descriptions)

Disclaimer

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