

# Bloomberg MSCI ESG Fixed Income Indices Methodology

10 May, 2024

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## Bloomberg MSCI ESG Fixed Income Family

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

The Bloomberg MSCI ESG Fixed Income Indices include a range of aggregate and corporate index benchmarks addressing the evolving needs of institutional investors, who increasingly aim to incorporate ESG considerations into their strategic asset allocation.

- **Bloomberg MSCI ESG-Weighted Indices** use MSCI ESG Ratings and MSCI ESG Ratings momentum to overweight/underweight issuers within an existing Bloomberg parent index. These indices include the full universe of index eligible securities and then apply tilts to the natural market value weights in favor of higher rated/positive momentum issuers and against lower rated/negative momentum issuers.
- **Bloomberg MSCI Socially Responsible (SRI) Indices** negatively screen out issuers from existing Bloomberg parent indices that may be involved in business lines or activities that are in conflict with investment policies, values or social norms. These indices use MSCI Business Involvement Screening Research (BISR) and MSCI ESG Controversies to identify exposure to screened issues.
- **Bloomberg MSCI Sustainability Indices** positively screen issuers from existing Bloomberg parent indices based on MSCI ESG Ratings, which are an assessment of how well an issuer manages ESG risks relative to its industry peer group. ESG Ratings are available for corporate, sovereign, and government-related issuers. The minimum threshold applied to Bloomberg flagship investment grade indices is an ESG rating of BBB or better, and for emerging market and high yield indices, the minimum ESG rating is reduced to BB. These indices also use MSCI ESG Controversies to identify exposure to screened issues.
- **Bloomberg MSCI Catholic Values Screened Indices** negatively screen out issuers from existing Bloomberg parent indices that may be involved in business lines or activities that are in conflict with investment policies, values or social norms defined by the US Catholic College of Bishops. These indices use MSCI Business Involvement Screening Research (BISR) to identify exposure to screened issues.

This document is intended to be read in conjunction with the [Bloomberg Fixed Income Index Methodology](#).

*An Established Standard for Environmental, Social, and Governance Investing*

## Bloomberg Fixed Income Indices

### Eligible Bond Universe

The eligible bond universe for each index in the Bloomberg MSCI ESG Fixed Income Index Series is one of several flagship Bloomberg Indices. The underlying universes in the Bloomberg MSCI ESG Fixed Income Index Series cover a wide swath of Bloomberg fixed income indices including the following:

1. The Global Aggregate Index
2. Regional Aggregate Indices - the US Aggregate, Euro Aggregate, and Sterling Aggregate Indices
3. Other flagship indices including the following:
  - Global High Yield Index (including HY Corporate and Emerging Market issuers)
  - Canada Aggregate Index
  - Australia 100mn Index
  - China Aggregate Index
  - EM Local Currency Government Index
  - EM Asia USD Credit Index
  - Short-term (<1 year) USD and EUR Corporate Indices

Methodologies for each of these indices can be found [here](#) and the methodologies for these indices should be read in conjunction with the [Bloomberg Fixed Income Index Methodology](#).

### Index Mechanics

The same core index rules and mechanics applied to flagship aggregate indices are used within the Bloomberg MSCI ESG Fixed Income Indices, as per the Bloomberg Fixed Income Methodology.

## MSCI ESG Research Ratings and Controversies

### MSCI ESG Ratings

MSCI ESG Ratings are designed to help investors identify the environmental, social and governance (ESG) risks and opportunities of their investments and to integrate these factors into their portfolio construction. Companies are rated on a 7-point 'AAA' to 'CCC' scale according to their exposure to industry-specific ESG risks and their ability to manage those risks relative to peers.

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](#).

### MSCI ESG Government Ratings

Government, government-related issuers and regions (as set out in the Bloomberg Fixed Income Methodology) are assessed using a separate MSCI ESG Government Ratings model. The MSCI ESG Government Ratings model assesses a country's performance based on 92 data points across six environmental, social and governance risk factors. Countries and regions are rated on a 7-point 'AAA' to 'CCC' scale, which reflects how countries' exposure to and management of ESG risk factors may affect the long-term sustainability and long-term competitiveness of their economies. ([MSCI ESG Government Ratings Methodology](#))

## MSCI ESG Controversies

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.

The tool monitors company involvement in notable ESG controversies related to the company's operations and/or products, possible breaches of international norms and principles such as the UN Global Compact, and performance with respect to these norms and principles. Each ESG Controversy is attributed a 0-10 score and a corresponding flag color 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.

Figure 1

### MSCI ESG Controversies Matrix

Severity of the case	Company role	Status of the case		
		Ongoing	Partially Concluded	Concluded
Very Severe	Direct	0	1	2
Very Severe	Indirect	1	2	3
Severe	Direct	1	2	3
Severe	Indirect	2	3	4
Moderate	Direct	4	5	6
Moderate	Indirect	5	6	7
Minor	Direct	6	7	8
Minor	Indirect	7	8	9

Source: MSCI ESG Research

For more details on MSCI ESG Controversies, please refer to:

<https://www.msci.com/documents/1296102/14524248/ESG-Research-Controversies-Methodology.pdf/b0a2bb88-2360-1728-b70e-2f0a889b6bd4?t=1692378693072>

### MSCI ESG Business Involvement Screening Research (BISR)

Business Involvement Screening Research provides issuer-level data on the extent of involvement in products, services or events that may cause, contribute to, or be associated with adverse social or environmental impacts. Business Involvement Screening Research also provides data on issuers' involvement in products and services that may conflict with certain investors' values.

Figure 2  
**MSCI ESG BISR**

**MSCI Screening Solutions**



Source: MSCI ESG Research  
 For more details on MSCI ESG Business Involvement Screening Research, please refer to:  
[http://www.msci.com/resources/factsheets/MSCI\\_ESG\\_BISR.pdf](http://www.msci.com/resources/factsheets/MSCI_ESG_BISR.pdf)

**Non-covered Issuers**

Where an index applies MSCI screens and a security/issuer is not included in the MSCI research coverage for that screen, unless otherwise noted, such 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 & Metrics, and also to Corporate issuers not covered by MSCI ESG Research.

**Categories of Indices**

**Common Bond Index Criteria**

The following Bond Index Criteria apply to all of the Bloomberg MSCI ESG Fixed Income Indices ([Bloomberg Fixed Income Index Methodology](#)):

1. Bonds must meet the same eligibility criteria for Bloomberg indices based on credit quality, minimum issue size, etc.
2. Other index conventions on rebalancing, security weighting, return calculations, etc. follow existing index conventions.

**(1) SRI Indices**

SRI benchmark indices provide an option for institutional investors who wish to exclude issuers involved in business activities that are restricted because they are inconsistent with certain values-based criteria. The flagship SRI indices exclude issuers with revenue derived from sources such as alcohol, tobacco, controversial military weapons, nuclear power, and genetically modified organisms (GMOs) - refer to Figure 3 for the revenue thresholds specific to each category. Additional SRI screens, such as the exclusion of bonds from sanctioned countries (e.g., Burma, Iran) or issuers involved in predatory lending, are also available.

**Additional Bond Index Criteria**

There is no BISR coverage of treasury or sovereign issuers, or securitized issuers including ABS, CMBS and MBS. Broader SRI indices (e.g. Credit, Aggregate) are available, but with SRI screening applied only to applicable issuers.

## ESG Eligibility Criteria

### 1. Business Involvement Screening

Figure 3 details the level of involvement that disqualifies an issuer for inclusion in the standard SRI Indices. These thresholds can be adjusted in bespoke indices to be more restrictive (up to zero tolerance for any tie) or less restrictive.

### 2. MSCI ESG Controversies Screening

Any issuer with a “Red” MSCI ESG Controversies Flag (MSCI ESG Controversy Score of zero) is excluded from the SRI indices. The Controversy Score measures an issuer’s involvement in major ESG controversies and how well they adhere to international norms and principles.

#### *Additional Screening*

MSCI ESG BISR also monitors a variety of other business involvement activities that may be restricted by some investors, but are not part of the SRI index definition, including predatory lending, child labor, board diversity, stem cells, and abortion/contraception. Bespoke indices can be constructed for screening these additional activities. (Figure 4)

Screening is also available on an issuer’s exposure/involvement in markets that may be under sanctions within a particular local market (Iran, Burma, Cuba, etc.). Bespoke indices can be constructed on these additional exposures.

Figure 3

#### **Bloomberg MSCI Socially Responsible Index Involvement Thresholds for Index Exclusion (Effective on September 13, 2021)**

Adult Entertainment	<ul style="list-style-type: none"> <li>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.</li> </ul>
Alcohol	<ul style="list-style-type: none"> <li>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.</li> </ul>
Gambling	<ul style="list-style-type: none"> <li>Excludes researched companies either deriving 5% or more revenue from owning or operating gambling related business activities, or deriving 15% or more aggregate revenue from gambling related business activities.</li> </ul>
Tobacco	<ul style="list-style-type: none"> <li>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.</li> </ul>
Conventional Weapons	<ul style="list-style-type: none"> <li>Excludes researched companies either deriving 5% or more revenue from the production of conventional weapons and components, or deriving 15% or more aggregate revenue from weapons systems, components, and support systems and services.</li> </ul>
Civilian Firearms	<ul style="list-style-type: none"> <li>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.</li> </ul>
Nuclear Weapons	<ul style="list-style-type: none"> <li>Excludes researched companies that manufacture nuclear warheads and/or whole nuclear missiles.</li> <li>Excludes researched companies that manufacture components that were developed or are significantly modified for exclusive use in nuclear weapons (warheads and missiles).</li> </ul>

	<ul style="list-style-type: none"> <li>Excludes researched companies that manufacture or assemble delivery platforms that were developed or significantly modified for the exclusive delivery of nuclear weapons.</li> <li>Excludes researched companies that provide auxiliary services related to nuclear weapons.</li> <li>Excludes researched companies that 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.</li> <li>Excludes researched companies that 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.</li> <li>Excludes researched companies that manufacture components for nuclear-exclusive delivery platforms.</li> </ul>
Controversial Weapons	<ul style="list-style-type: none"> <li>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).</li> </ul>
Nuclear Power	<ul style="list-style-type: none"> <li>Excludes researched companies generating 5% or more of their total electricity from nuclear power in a given year.</li> <li>Excludes researched companies that have 5% or more of installed capacity attributed to nuclear sources in a given fiscal year.</li> <li>Excludes researched companies deriving 15% or more aggregate revenue from nuclear power activities.</li> </ul>
Thermal Coal	<ul style="list-style-type: none"> <li>Excludes researched companies deriving 5% or more revenue (either reported or estimated) from thermal coal-based power generation.</li> </ul>
Fossil Fuels	<ul style="list-style-type: none"> <li>Excludes researched companies with evidence of owning proven &amp; probable coal reserves and/or proven oil and natural gas reserves used for energy purposes.</li> <li>Excludes researched companies deriving any revenue from thermal coal mining or unconventional oil and gas extraction.</li> </ul>
Genetically Modified Organisms	<ul style="list-style-type: none"> <li>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.</li> </ul>

Source: MSCI ESG Research, Bloomberg

Figure 4  
**Business Involvement Categories Available for Bespoke Screening**

Abortion & Contraceptives	Defense & Weapons	Nuclear Power
Adult Entertainment	Gambling	Pork
Alcohol	Genetic Engineering	Predatory Lending
Animal Welfare	Global Norms	Religious Values
Board Diversity	Global Sanctions	Stem Cell
Child Labor	Human Rights	Tobacco

Source: MSCI ESG Research, Bloomberg

## (2) Sustainability Indices

Sustainability indices offer an option to investors who are committed to investing in companies that better manage and address ESG risks relative to peers based on MSCI ESG Rating (Corporate and Government). Issuers included in flagship investment grade ESG Sustainability indices must have ESG Ratings of BBB or higher (High Yield and Emerging Markets indices use a BB or higher threshold). The indices also incorporate the MSCI ESG Controversies score, screening out on a timely basis any issuers in significant breach of ESG norms. Additional Sustainability indices are available with broader inclusion criteria (e.g., an ESG Rating threshold of BB and above).



## ESG Eligibility Criteria

### 1. MSCI ESG Rating

- Standard Investment Grade Sustainability indices include issuers with an MSCI ESG Rating of BBB or higher using the MSCI ESG Corporate or Government Rating model. Emerging Markets and High Yield indices include issuers with an MSCI ESG Rating of BB or higher using the MSCI ESG Corporate or Government Rating model.
- ESG ratings are applied at bond level.
- ESG Ratings are available for Treasury, government-related, corporate, and covered bond issuers. They are not applied to MBS, ABS, and CMBS issues.
- Unrated issuers from sectors with ratings are excluded.
- ESG Ratings for each issuer are generally updated by MSCI on an annual basis but may be reviewed more frequently as needed.

### 2. MSCI ESG Controversies Screening

- Any issuer with a “Red” MSCI ESG Controversies Score is excluded from Sustainability indices. The ESG Controversy Score measures an issuer’s involvement in major ESG controversies and how well the issuer adheres to international norms and principles.

#### *Security and Sector Weights*

- Index eligible securities are market value weighted after screening based on MSCI ESG Rating and Controversy scores have been conducted. Therefore, sector weights may differ from the base index that does not apply any ESG screening.
- Sector Neutral versions of Bloomberg MSCI Sustainability Indices preserve the same sector exposure (Bloomberg Sector Class 1 or Bloomberg Sector Class 2) of the non-ESG versions of the same benchmark, while maintaining market value security weights within each sector.

For example, the Class 1 sector neutral US Aggregate Sustainability Index will have the same Treasury, government-related, corporate, and securitized sector weights as the flagship US Aggregate Index. However, the composition of the government-related and corporate sectors will consist solely of issuers rated BBB or better, and with an ESG Controversy score of “Green”, “Yellow” or “Orange”.

Other notable Indices within the Sustainability Indices:

- BB or Better indices: Sustainability indices with broader inclusion criteria using a lower ratings threshold for positive screening
- Sustainability indices with additional MSCI ESG BISR negative screening
- Sub-indices by ESG Rating, sector, maturity (intermediate and long), etc.

## (3) ESG-Weighted Indices

ESG-Weighted Indices depart from market capitalization-based issuer weights in existing Bloomberg indices by using MSCI ESG Ratings to tilt issuer allocations above or below their baseline market value weights. These tilts are determined by an issuer’s current MSCI ESG Rating, as well as its MSCI ESG Rating momentum, which is determined by any upgrades or downgrades of the issuer’s MSCI ESG Rating relative to its prior rating in the previous 12 months. This allocation rule is meant to reward issuers that exhibit stronger ESG fundamentals, as well as those that are demonstrating improving fundamentals.

### Bond Index Criteria

- The underlying universes for ESG-Weighted indices are identical to their non-ESG weighted equivalents. There is no positive or negative screening of issuers.

- ESG-Weighted indices are available for corporate as well as Aggregate benchmark indices.

### ESG Eligibility Criteria

The weight of each index eligible issuer (and security) is adjusted by a fixed multiplier (Figure 5), which is determined by its MSCI ESG Rating (AAA, AA, A, BBB, BB, B, CCC, NR) and its MSCI ESG Ratings momentum (Positive, Neutral, Negative since its last evaluation). Security weights are then normalized using these adjusted market values.

Figure 5

#### Market Value Adjustments Based on ESG Rating and Momentum

ESG Rating	Tilt	ESG Rating Momentum	Tilt
AAA, AA, A	1.5x	Positive	2.0x
BBB	1.0x	Neutral	1.0x
BB	0.8x	Negative	0.5x
B	0.67x		
CCC	0.50x		
NR	0.75x		
MBS / ABS / CMBS	1.0x		

Source: MSCI ESG Research, Bloomberg

- Factor tilts are based on beginning of the month ratings, so rating changes during the month would not affect index weights and returns until the next index rebalancing date.
- ESG ratings are applied at bond level.
- MSCI ESG Ratings are available for treasury, government-related, corporate, and covered bond issuers. They are not applied to MBS, ABS, and CMBS issues. However, all unrated issuers remain eligible for ESG-Weighted indices.
- MSCI ESG Ratings are generally updated annually throughout the year however may be reviewed more frequently as needed.

### Security and Sector Weights

- Index eligible securities are market value weighted using the adjusted market values.
- Sector neutral versions of Bloomberg MSCI ESG-Weighted Indices preserve the same sector exposure (Bloomberg sector class 1 or Bloomberg sector class 2) of the non-ESG versions of the same benchmark, while maintaining adjusted market value security weights within each sector.
  - For example, the Class 1 sector neutral US Aggregate Sustainability Index will have the same Treasury, government-related, corporate, and securitized sector weights as the flagship US Aggregate Index. However, the weights within the government-related and corporate sectors will reflect the relative tilts of each issuer based on ratings and ratings momentum.

## (4) Catholic Values Screened Indices

Catholic Values Screened Indices negatively screen out issuers from existing Bloomberg parent indices that MSCI have defined as involved in business lines or activities that are in conflict with the socially responsible investment guidelines as set out by the US Catholic College of Bishops.

### **Business Involvement Screening**

For standard Bloomberg MSCI Catholic Values indices, issuers involved in the following business activities are negatively screened using MSCI ESG Business Involvement Screening Research (BISR). Issuers with:

- Any tie to abortion, contraceptives, landmines, cluster bombs, and stem cells are excluded.
- Predatory Lending rating equal to "Needs to Improve" or "Substantially Non-Compliant" are excluded.
- Adult Entertainment revenue greater than or equal to 5% are excluded.
- Issuers deriving any revenue from Bio-Chemical or Nuclear Weapons are excluded.
- Conventional weapons revenue greater than or equal to 5% are excluded.
- Labor Rights - Discrimination and Workforce Diversity Score of 2 or less are excluded.

## Risks & Limitations of the Indices

Though the Indices are designed to be representative of the markets they measure or otherwise align with their stated objective, they may not be representative in every case or achieve their stated objective in all instances. They are designed and calculated strictly to follow the rules detailed in the methodology, and any index level or other output is limited in its usefulness to such design and calculation.

Markets can be volatile, including those equity markets which the Indices intend to measure. For example, illiquidity can have an impact on the quality or amount of data available to BISL (or its underlying sources of data) for calculation and may cause the Indices to produce unpredictable or unanticipated results. In addition, market trends and changes to market structure may render the objective of the Indices unachievable or to become impractical to replicate by investors.

In particular, the Indices measure global fixed income markets. As with all fixed income investing, the Indices are exposed to interest rate risk. The value of bonds fluctuates with the changes in the interest rate policies established by central banks and the natural movement of rates over time. Bonds with optionality will also be impacted by interest rate volatilities. Most fixed income securities often trade at a spread to the base interest rate curve. The level of the spread reflects the additional premium an investor requires for taking the additional credit risk, liquidity risk, and other risks. The change of the spread, which reflects primarily the change in perceived risk of a security, comes from both common forces, affecting all bonds with similar characteristics, and information specific to a particular issuer. As the Indices are designed to measure those markets, its Indices could be materially impacted by market movements, thus significantly impacting the use or usefulness of the fixing for some or all users.

BISL relies on external data providers for the provision of ESG data used in the selection, weighting and calculation of the benchmarks. This includes climate models, estimations and sourcing of underlying ESG data used to calculate such scores. BISL places reliance on such external data providers with respect to their ESG data, oversight over the quality of that data, and the maintenance of that data's underlying methodology to ensure its representativeness. BISL does not have control over, or detailed insight into, the reliability of the raw data sourced external providers and their respective calculation models. External providers may restate historical ESG data. External provider ESG data methodologies may furthermore be subject to change. The measurement of the benchmark may become unreliable should the ESG data become unavailable or inaccurate. ESG data may not cover the entire universe of eligible constituents for a particular Index - eligible constituents not covered by ESG data may be included in the Indices.

In addition, certain sub-indices may be designed to measure smaller subsets of the Indices such as specific styles, size, and sector. Some of these sub-indices have very few qualifying constituents and may have none for a period of time. During such period, the relevant sub-index will continue to be published at its last value, effectively reporting a 0% return, until new constituents qualify. If no constituents are expected to qualify (due to changes in market structure and other factors), such sub-index may be discontinued. In such an event, this discontinuation will be announced to index users.

## Benchmark Oversight and Governance

### **Benchmark Governance, Audit and Review Structure**

Please refer to the BISL Benchmark Procedures Handbook available [here](#).

### **Index and Data Reviews**

Please refer to the BISL Benchmark Procedures Handbook available [here](#).

### **Expert Judgement and Discretion**

Please refer to the BISL Benchmark Procedures Handbook available [here](#).

### **Data Providers and Data Extrapolation**

Please refer to the BISL Benchmark Procedures Handbook available [here](#).

### **Conflicts of Interest**

Please refer to the BISL Benchmark Procedures Handbook available [here](#).

### **Restatement Policy**

Please refer to the BISL Benchmark Procedures Handbook available [here](#).

## Appendix 1: Environmental, Social and Governance 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, such 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 & Metrics, and also to corporate issuers not covered by MSCI ESG Research.

### A. Bloomberg MSCI Socially Responsible (SRI) Indices

<b>EXPLANATION OF HOW ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY</b>			
<b>1.</b> Name of the benchmark administrator.		Bloomberg Index Services Limited ("BISL")	
<b>2.</b> Type of benchmark		Fixed Income & Sovereign	
<b>3.</b> Name of the benchmark or family of benchmarks.		Bloomberg MSCI SRI Fixed Income Indices	
<b>4.</b> Does the benchmark methodology for the benchmark or family of benchmarks take into account ESG factors?		Yes	
<p><b>5.</b> 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.</p>			
a) List of Combined factors considered:	ESG Controversy Score	Exclusion	<p>The Bloomberg MSCI SRI Fixed Income Indices exclude 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.</p> <p>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.</p> <p>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.<sup>1</sup></p> <p>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 &amp; Community Impact Sub-Pillar), workers (Labor Rights &amp; 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.</p> <p>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</p>

<sup>1</sup> 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

			<p>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 ESG controversy cases, the Overall Company Score and the corresponding Flag are determined by the lowest-scoring case.</p> <p>A company-level Overall Flag indicates the following:</p> <ul style="list-style-type: none"> <li>• A <b>Red Flag</b> indicates that a company is directly involved in one or more Very Severe Ongoing controversies.</li> <li>• An <b>Orange Flag</b> indicates that a company has either: <ul style="list-style-type: none"> <li>• Settled most but not all of the stakeholders' concerns related to its involvement in one or more Very Severe controversies;</li> <li>• Continues to be indirectly involved in one or more Very Severe controversies; or</li> <li>• Is directly involved in one or more Severe controversies.</li> </ul> </li> <li>• A <b>Yellow Flag</b> indicates that a company either: <ul style="list-style-type: none"> <li>• Has been implicated in one or more Concluded Very Severe or Severe controversies;</li> <li>• 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,</li> <li>• Continues to be indirectly involved in one or more Severe controversies or directly involved in one or more Moderate controversies.</li> </ul> </li> <li>• A <b>Green Flag</b> indicates that a company either: <ul style="list-style-type: none"> <li>• Has fully or partially settled one or more Moderate severity controversies in which it was directly involved; or</li> <li>• Is indirectly implicated in one or more Moderate controversies; or</li> <li>• Is either directly or indirectly implicated in one or more Ongoing or Concluded Minor controversies; or</li> <li>• Not implicated in any controversies.</li> </ul> </li> </ul> <p>Please refer to the ESG Controversies and Global Norms Methodology that can be accessed <a href="#">here</a>.</p>
<p>b) List of environmental factors considered:</p>	<p>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.</p>	<p>N/A</p>	<p>The Indices do not take this ESG factor into account in the methodology.</p>
	<p>Greenhouse gas (GHG) emissions of the benchmark.</p>	<p>N/A</p>	<p>The Indices do not take this ESG factor into account in the methodology.</p>
	<p>Percentage of GHG emissions reported versus estimated.</p>	<p>N/A</p>	<p>The Indices do not take this ESG factor into account in the methodology.</p>
	<p>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.</p>	<p>N/A</p>	<p>The Indices do not take this ESG factor into account in the methodology.</p>

	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	<ul style="list-style-type: none"> <li>Excludes researched companies deriving 5% or more revenue (either reported or estimated) from thermal coal-based power generation.</li> </ul>
	Fossil Fuels	Exclusion	<ul style="list-style-type: none"> <li>Excludes researched companies with evidence of owning proven &amp; probable coal reserves and/or proven oil and natural gas reserves used for energy purposes.</li> <li>Excludes researched companies deriving any revenue from thermal coal mining or unconventional oil and gas extraction.</li> </ul>
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"> <li>The Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction.</li> <li>The Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction.</li> <li>Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction.</li> <li>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.</li> <li>The Convention on Cluster Munitions.</li> </ul>
	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, 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 Indices do 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 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	<ul style="list-style-type: none"> <li>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.</li> </ul>
	Alcohol	Exclusion	<ul style="list-style-type: none"> <li>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.</li> </ul>
	Civilian Firearms	Exclusion	<ul style="list-style-type: none"> <li>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.</li> </ul>
	Conventional Weapons	Exclusion	<ul style="list-style-type: none"> <li>Excludes researched companies either deriving 5% or more revenue from the production of conventional weapons and components, or deriving 15% or more aggregate revenue from weapons systems, components, and support systems and services.</li> </ul>
	Gambling	Exclusion	<ul style="list-style-type: none"> <li>Excludes researched companies either deriving 5% or more revenue from ownership of operation of gambling related business activities, or deriving 15% or more aggregate revenue from gambling related business activities.</li> </ul>
	Genetic Engineering	Exclusion	<ul style="list-style-type: none"> <li>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.</li> </ul>
	Nuclear Weapons	Exclusion	<ul style="list-style-type: none"> <li>Excludes researched companies that: <ul style="list-style-type: none"> <li>Manufacture nuclear warheads and/or whole nuclear missiles.</li> <li>Manufacture components that were developed or are significantly modified for exclusive use in nuclear weapons (warheads and missiles).</li> <li>Manufacture or assemble delivery platforms that were developed or significantly modified for the exclusive delivery of nuclear weapons.</li> <li>Provide auxiliary services related to nuclear weapons.</li> <li>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.</li> <li>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.</li> <li>Manufacture components for nuclear-exclusive delivery platforms.</li> </ul> </li> </ul>
	Nuclear Power	Exclusion	<ul style="list-style-type: none"> <li>Excludes researched companies generating 5% or more of their total electricity from nuclear power in a given year.</li> </ul>

			<ul style="list-style-type: none"> <li>Excludes researched companies that have 5% or more of installed capacity attributed to nuclear sources in a given fiscal year.</li> <li>Excludes researched companies deriving 15% or more aggregate revenue from nuclear power activities.</li> </ul>
	Tobacco	Exclusion	<ul style="list-style-type: none"> <li>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.</li> </ul>
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.
<p><b>6.</b> 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</p>			
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.		
<b>7.</b> 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 <a href="mailto:esgclientservice@msci.com">esgclientservice@msci.com</a>  <a href="https://www.msci.com/research-and-insights">https://www.msci.com/research-and-insights</a></p> <p>MSCI ESG Research relies on a proprietary methodology informed by a range of data sources.</p> <ul style="list-style-type: none"> <li>Reported data <ul style="list-style-type: none"> <li>Corporate documents: annual reports, proxy filings, environmental and social reports, securities filings, websites and Carbon Disclosure Project responses. Externally sourced data</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 local-language 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> <li>Modelled data <ul style="list-style-type: none"> <li>For climate-related metrics, when data is not disclosed by companies, MSCI ESG Research uses a 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> </ul> <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</p>		

	<p>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"> <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> <li>• World Development Indicators (WDI)</li> <li>• Annual Change of Forest Resources _ Food and Agriculture Organization (FAO)</li> <li>• World Wildlife Fund (WWF)</li> <li>• US EPA’s Toxics Release Inventory (TRI)</li> <li>• Risk-Screening Environmental Indicators (RSEI)</li> <li>• US Bureau of Labor Statistics (BLS)</li> <li>• International Labour Organization (ILO)</li> <li>• US Occupational Health &amp; Safety Administration (OSHA)</li> <li>• UK Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)</li> <li>• International Chemical Secretariat (ChemSec) Substitute It Now (SIN) List</li> <li>• International Monetary Fund (IMF)</li> <li>• World Health Organization (WHO)</li> <li>• UN Principles for Responsible Investments (UN PRI)</li> <li>• World Resource Institute (WRI)</li> <li>• Consultative Group to Assist the Poor (CGAP)</li> <li>• US Census Bureau Current Population Survey Supplement</li> <li>• World Bank Governance Indicators (WGI)</li> <li>• Transparency International (TI)</li> <li>• World Bank (WB)</li> <li>• SNL Financial</li> <li>• Thomson Financial</li> </ul> <p>Refer to the <a href="#">MSCI ESG &amp; Climate Methodologies page</a> 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><b>MSCI ESG Controversies and Global Norms</b></p> <p>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.</p> <p>The following situations require CMC review and approval:</p> <ul style="list-style-type: none"> <li>• Review new and existing Very Severe controversy cases resulting in a Red Flag with the final assessment subject to approval by the ESG Assessment Committee (EAC).</li> </ul>

	<ul style="list-style-type: none"> <li>• Confirm that appropriate processes are applied in reviewing and approving assessment of Orange Flag cases and Severe or Very Severe cases with a score changes of 3 points, either up or down.</li> <li>• Review and approve assessments of cases, including new or existing Orange Flag cases or <u>S</u>evere or <u>V</u>ery Severe cases resulting in a score change of 3 points up or down, escalated for CMC review by sub-committees or analysts.</li> <li>• Develop and approve proposals for MSCI ESG Controversies and Global Norms Methodology.</li> <li>• Review and escalate deviations from standard assessment methodology or overrides of controversy case assessments to the ESG Methodology Committee (EMC).</li> <li>• Review and approve the additions to controversy case categories and corresponding mapping to international Global Norms and conventions included in the scope of MSCI ESG product solutions (e.g., the United Nations Global Compact Principles)</li> <li>• Review and approve changes to data sources (news and academic publications, NGOs, industry organizations, and government sources)</li> </ul> <p>Please see the MSCI ESG Controversies and Global Norms Process via their <a href="#">ESG Methodologies website</a> for further detail.</p> <p><b>MSCI Business Involvement Screens</b></p> <p>The initial company research and analysis is followed by a rigorous quality assurance process. Data accuracy and company profiles are peer-reviewed by a second MSCI analyst, then sent to the relevant content lead for final approval. In specific cases, in which some aspects of a company’s business activities, practices, or performance are not clearly defined by MSCI ESG Research’s methodologies, the case is escalated to relevant Methodology Committees. Cases that require further interpretation or an update to the relevant methodology are brought to the main governing committee: MSCI ESG Impact and Screening Methodology Committee for resolution.</p> <p>Please see the <a href="#">MSCI ESG Business Involvement Screening Research, Global Sanctions, and Sustainable Impact Metrics Methodology Summary Guide for Corporate Issuers</a> for further detail.</p>
<p>c) Reference standards Describe the international standards used in the benchmark methodology.</p>	<p><b>MSCI ESG Controversies and Global Norms</b></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><b>MSCI Business Involvement Screens</b></p> <p>The MSCI ESG Research team identifies companies within the coverage universes to perform detailed research for each involvement activity. For each involvement activity, MSCI ESG Research uses a combination of industry classifications, business descriptions and keywords to help narrow down the scope of issuers that are researched by analysts. When the initial review process identifies the potential for involvement, an analyst will review company sources to determine if a company is in fact involved in one of the covered activities.</p>
<p>Date on which information has been last updated and reason for the update:</p>	<p>September 2023, Update of the Annex</p>

## B. Bloomberg MSCI Sustainability Indices

<b>EXPLANATION OF HOW ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY</b>			
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 benchmarks.		Bloomberg MSCI Sustainability Fixed Income Indices	
4. Does the benchmark methodology for the benchmark or family of benchmarks take into account ESG factors?		Yes	
<p>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.</p>			
a) List of Combined factors considered:	MSCI ESG Rating	Inclusion	<p>The Bloomberg MSCI Sustainability Fixed Income Indices incorporate ESG ratings in the inclusion of researched index constituents based on a minimum rating threshold. Investment grade Sustainability indices include issuers with a MSCI ESG Rating of BBB or higher using the MSCI ESG Corporate or Government Rating Model. Emerging Markets and High Yield indices include issuers with a MSCI ESG Rating of BB or higher using the MSCI ESG Corporate or Government Rating model.</p> <p>MSCI ESG Ratings provide an opinion of companies' management of financially relevant ESG risks and opportunities. MSCI ESG Research defines ESG risks and opportunities as environmental, social, or governance-related issues that may result in financial losses or benefits to the company. MSCI ESG Ratings are industry-relative measures and are determined at the company level. Each rating takes into consideration the company's exposure to potentially material ESG risks, the quality of companies' management systems and governance structures to mitigate such risks, and where applicable, positioning to meet market demand for the provision of products and services that have a positive environmental or social contribution.</p> <p>Please refer to the MSCI ESG and Climate Symbols and Definitions <a href="#">here and</a> the MSCI ESG Ratings Methodology that can be accessed <a href="#">here</a>. The summary of what an MSCI ESG rating is can be found <a href="#">here</a>.</p>
	ESG Controversy Score	Exclusion	<p>The Bloomberg MSCI Sustainability Fixed Income Indices exclude researched constituents based on the controversy score associated with the issuer. Any issuer with a "Red" MSCI ESG Controversies Score (score equal to zero) is excluded from the Sustainability indices.</p> <p>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.</p> <p>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</p>

			<p>not limited to, norms represented by global conventions, such as the International Labour Organization (ILO) Fundamental Conventions.<sup>2</sup></p> <p>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 &amp; Community Impact Sub-Pillar), workers (Labor Rights &amp; 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.</p> <p>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 ESG controversy cases, the Overall Company Score and the corresponding Flag are determined by the lowest-scoring case.</p> <p>A company-level Overall Flag indicates the following:</p> <ul style="list-style-type: none"> <li>• A <b>Red Flag</b> indicates that a company is directly involved in one or more Very Severe Ongoing controversies.</li> <li>• An <b>Orange Flag</b> indicates that a company has either:             <ul style="list-style-type: none"> <li>• Settled most but not all of the stakeholders’ concerns related to its involvement in one or more Very Severe controversies;</li> <li>• Continues to be indirectly involved in one or more Very Severe controversies; or</li> <li>• Is directly involved in one or more Severe controversies.</li> </ul> </li> <li>• A <b>Yellow Flag</b> indicates that a company either:             <ul style="list-style-type: none"> <li>• Has been implicated in one or more Concluded Very Severe or Severe controversies;</li> <li>• 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,</li> <li>• Continues to be indirectly involved in one or more Severe controversies or directly involved in one or more Moderate controversies.</li> </ul> </li> <li>• A <b>Green Flag</b> indicates that a company either:             <ul style="list-style-type: none"> <li>• Has fully or partially settled one or more Moderate severity controversies in which it was directly involved; or</li> <li>• Is indirectly implicated in one or more Moderate controversies; or</li> <li>• Is either directly or indirectly implicated in one or more Ongoing or Concluded Minor controversies; or</li> <li>• Not implicated in any controversies.</li> </ul> </li> </ul> <p>Please refer to the ESG Controversies and Global Norms Methodology that can be accessed <a href="#">here</a>.</p>
<p>b) List of environmental factors considered:</p>	<p>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.</p>	<p>N/A</p>	<p>The Indices do not take this ESG factor into account in the methodology.</p>

<sup>2</sup> 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

	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.
c) List of social factors considered:	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 Indices do 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 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.

<p>d) List of governance factors considered:</p>	<p>Weighted Average Governance Rating of the Benchmark</p>	<p>N/A</p>	<p>The Indices do not take this ESG factor into account in the methodology.</p>
<p><b>6.</b> 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</p>			
<p>a) List of environmental factors considered:</p>		<p>Please see above.</p>	
<p>b) List of social factors considered:</p>		<p>Please see above.</p>	
<p>c) List of governance factors considered:</p>		<p>Please see above.</p>	
<p><b>7.</b> Data and standards used.</p>			
<p>a) Data input. <i>(iii) Describe whether the data are reported, modelled or, sourced internally or externally.</i> <i>(iv) Where the data are reported, modelled or sourced externally, please name the third party data provider.</i></p>		<p>All ESG data for the benchmarks is sourced externally from:</p> <p>MSCI Research <a href="mailto:esgclientservice@msci.com">esgclientservice@msci.com</a> <a href="https://www.msci.com/research-and-insights">https://www.msci.com/research-and-insights</a></p> <p>MSCI ESG Research relies on a proprietary methodology informed by a range of data sources.</p> <ul style="list-style-type: none"> <li>• Reported data             <ul style="list-style-type: none"> <li>○ Corporate documents: annual reports, proxy filings, environmental and social reports, securities filings, websites and Carbon Disclosure Project responses. Externally sourced data</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 local-language 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> <li>• Modelled data             <ul style="list-style-type: none"> <li>○ For climate-related metrics, when data is not disclosed by companies, MSCI ESG Research uses a 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> </ul> <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"> <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> </ul>	



	<ul style="list-style-type: none"> <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> <li>• World Development Indicators (WDI)</li> <li>• Annual Change of Forest Resources _ Food and Agriculture Organization (FAO)</li> <li>• World Wildlife Fund (WWF)</li> <li>• US EPA’s Toxics Release Inventory (TRI)</li> <li>• Risk-Screening Environmental Indicators (RSEI)</li> <li>• US Bureau of Labor Statistics (BLS)</li> <li>• International Labour Organization (ILO)</li> <li>• US Occupational Health &amp; Safety Administration (OSHA)</li> <li>• UK Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)</li> <li>• International Chemical Secretariat (ChemSec) Substitute It Now (SIN) List</li> <li>• International Monetary Fund (IMF)</li> <li>• World Health Organization (WHO)</li> <li>• UN Principles for Responsible Investments (UN PRI)</li> <li>• World Resource Institute (WRI)</li> <li>• Consultative Group to Assist the Poor (CGAP)</li> <li>• US Census Bureau Current Population Survey Supplement</li> <li>• World Bank Governance Indicators (WGI)</li> <li>• Transparency International (TI)</li> <li>• World Bank (WB)</li> <li>• SNL Financial</li> <li>• Thomson Financial</li> </ul> <p>Refer to the <a href="#">MSCI ESG &amp; Climate Methodologies page</a> 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><b>MSCI ESG Score</b></p> <p>The ESG Ratings process includes multiple steps to review the quality of the analysis and consistent application of the methodology.</p> <p>The following quality assurance and oversight processes are observed:</p> <ul style="list-style-type: none"> <li>• Quality review process: Data quality checks are conducted on all companies prior to the publication of their ESG Rating.</li> <li>• 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.</li> <li>• Ratings Methodology Committee: This committee addresses the following specific cases, as well as other escalations related to methodology application:             <ul style="list-style-type: none"> <li>- Proposal to add a company-specific Key Issue in a company’s assessment.</li> <li>- Ratings change of two letters or more.</li> <li>- New AAA- or CCC-rated company.</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>- Requests for deviations from the weights for industry Key Issues due to significant differences in business model from the industry peer set.</li> <li>- Requests to deviate from standard methodology for including or excluding controversies cases in a company’s ratings analysis.</li> </ul> <ul style="list-style-type: none"> <li>• ESG Methodology Committee: This committee addresses escalations from the Ratings Methodology Committee and reviews changes to the ESG Ratings methodology, including:             <ul style="list-style-type: none"> <li>- Updates to the ESG Industry Materiality Map, which determines the relevance of ESG Key Issues to sub-industries.</li> <li>- Changes to data sources or calculations used in ESG Ratings.</li> <li>- Methodology proposals for consultation.</li> </ul> </li> </ul> <p>Please see the MSCI ESG Ratings Methodology and Process via the MSCI <a href="#">ESG Methodologies website</a> for further detail.</p> <p><b>MSCI ESG Controversies and Global Norms</b></p> <p>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.</p> <p>The following situations require CMC review and approval:</p> <ul style="list-style-type: none"> <li>• Review new and existing Very Severe controversy cases resulting in a Red Flag with the final assessment subject to approval by the ESG Assessment Committee (EAC).</li> <li>• Confirm that appropriate processes are applied in reviewing and approving assessment of Orange Flag cases and Severe or Very Severe cases with a score changes of 3 points, either up or down.</li> <li>• Review and approve assessments of cases, including new or existing Orange Flag cases or Severe or Very Severe cases resulting in a score change of 3 points up or down, escalated for CMC review by sub-committees or analysts.</li> <li>• Develop and approve proposals for MSCI ESG Controversies and Global Norms Methodology.</li> <li>• Review and escalate deviations from standard assessment methodology or overrides of controversy case assessments to the ESG Methodology Committee (EMC).</li> <li>• Review and approve the additions to controversy case categories and corresponding mapping to international Global Norms and conventions included in the scope of MSCI ESG product solutions (e.g., the United Nations Global Compact Principles)</li> <li>• Review and approve changes to data sources (news and academic publications, NGOs, industry organizations, and government sources).</li> </ul> <p>Please see the MSCI ESG Controversies and Global Norms Process via their <a href="#">ESG Methodologies website</a> for further detail.</p>
<p>c) Reference standards Describe the international standards used in the benchmark methodology.</p>	<p><b>MSCI ESG Score</b></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><b>MSCI ESG Controversies and Global Norms</b></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>

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Date on which information has been last updated and reason for the update:	January 2024, Update of the Annex
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### C. Bloomberg MSCI ESG-Weighted Indices

<b>EXPLANATION OF HOW ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY</b>			
<b>1.</b> Name of the benchmark administrator.		Bloomberg Index Services Limited (“BISL”)	
<b>2.</b> Type of benchmark		Fixed Income & Sovereign	
<b>3.</b> Name of the benchmark or family benchmarks.		Bloomberg MSCI ESG-Weighted Fixed Income Indices	
<b>4.</b> Does the benchmark methodology for the benchmark or family of benchmarks take into account ESG factors?		Yes	
<p><b>5.</b> 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.</p>			
a) List of Combined factors considered:	MSCI ESG Rating	Weighting	<p>The Bloomberg MSCI ESG-Weighted Fixed Income Indices incorporate MSCI ESG ratings into the weight of each researched index eligible issuer (and security) within the index, where the weight is adjusted by a fixed multiplier, which is determined by its MSCI ESG Rating (AAA, AA, A, BBB, BB, B, CCC, NR) and its MSCI ESG Ratings momentum (Positive, Neutral, Negative since its last evaluation). Security weights are then normalized using these adjusted market values.</p> <p>Sector neutral versions of Bloomberg MSCI ESG-Weighted Indices preserve the same sector exposure (Bloomberg sector class 1 or Bloomberg sector class 2) of the non-ESG versions of the same benchmark, while maintaining adjusted market value security weights within each sector.</p> <p>MSCI ESG Ratings provide an opinion of companies’ management of financially relevant ESG risks and opportunities. MSCI ESG Research defines ESG risks and opportunities as environmental, social, or governance-related issues that may result in financial losses or benefits to the company. MSCI ESG Ratings are industry-relative measures and are determined at the company level. Each rating takes into consideration the company’s exposure to potentially material ESG risks, the quality of companies’ management systems and governance structures to mitigate such risks, and where applicable, positioning to meet market demand for the provision of products and services that have a positive environmental or social contribution.</p> <p>Please refer to the MSCI ESG and Climate Symbols and Definitions <a href="#">here</a>.</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	N/A	The Indices do not take this ESG factor into account in the methodology.

	companies the activities of which fall under Divisions 05 to 09, 19 and 20 of Annex I to Regulation (EC) No 1893/2006.		
	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.
c) List of social factors considered:	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 Indices do 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 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.
	d) List of governance factors considered:	Weighted Average Governance Rating of the Benchmark	N/A
<p><b>6.</b> 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.</p> <p>Please explain how those ESG factors are used for the selection, weighting or exclusion of underlying assets.</p> <p>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.</p>			

<p>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</p>	
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.
<b>7. Data and standards used.</b>	
<p>a) Data input.                  (v) Describe whether the data are reported, modelled or, sourced internally or externally.                  (vi) 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  <a href="mailto:esgclientservice@msci.com">esgclientservice@msci.com</a>  <a href="https://www.msci.com/research-and-insights">https://www.msci.com/research-and-insights</a></p> <p>MSCI ESG Research relies on a proprietary methodology informed by a range of data sources.</p> <ul style="list-style-type: none"> <li>● Reported data                         <ul style="list-style-type: none"> <li>○ Corporate documents: annual reports, proxy filings, environmental and social reports, securities filings, websites and Carbon Disclosure Project responses. Externally sourced data</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 local-language 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> <li>● Modelled data                         <ul style="list-style-type: none"> <li>○ For climate-related metrics, when data is not disclosed by companies, MSCI ESG Research uses a 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> </ul> <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"> <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> <li>● World Development Indicators (WDI)</li> <li>● Annual Change of Forest Resources _ Food and Agriculture Organization (FAO)</li> <li>● World Wildlife Fund (WWF)</li> </ul>

	<ul style="list-style-type: none"> <li>• US EPA’s Toxics Release Inventory (TRI)</li> <li>• Risk-Screening Environmental Indicators (RSEI)</li> <li>• US Bureau of Labor Statistics (BLS)</li> <li>• International Labour Organization (ILO)</li> <li>• US Occupational Health &amp; Safety Administration (OSHA)</li> <li>• UK Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)</li> <li>• International Chemical Secretariat (ChemSec) Substitute It Now (SIN) List</li> <li>• International Monetary Fund (IMF)</li> <li>• World Health Organization (WHO)</li> <li>• UN Principles for Responsible Investments (UN PRI)</li> <li>• World Resource Institute (WRI)</li> <li>• Consultative Group to Assist the Poor (CGAP)</li> <li>• US Census Bureau Current Population Survey Supplement</li> <li>• World Bank Governance Indicators (WGI)</li> <li>• Transparency International (TI)</li> <li>• World Bank (WB)</li> <li>• SNL Financial</li> <li>• Thomson Financial</li> </ul> <p>Refer to the <a href="#">MSCI ESG &amp; Climate Methodologies page</a> 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><b>MSCI ESG Score</b></p> <p>The ESG Ratings process includes multiple steps to review the quality of the analysis and consistent application of the methodology.</p> <p>The following quality assurance and oversight processes are observed:</p> <ul style="list-style-type: none"> <li>• Quality review process: Data quality checks are conducted on all companies prior to the publication of their ESG Rating.</li> <li>• 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.</li> <li>• Ratings Methodology Committee: This committee addresses the following specific cases, as well as other escalations related to methodology application:             <ul style="list-style-type: none"> <li>- Proposal to add a company-specific Key Issue in a company’s assessment.</li> <li>- Ratings change of two letters or more.</li> <li>- New AAA- or CCC-rated company.</li> <li>- Requests for deviations from the weights for industry Key Issues due to significant differences in business model from the industry peer set.</li> <li>- Requests to deviate from standard methodology for including or excluding controversies cases in a company’s ratings analysis.</li> </ul> </li> <li>• ESG Methodology Committee: This committee addresses escalations from the Ratings Methodology Committee and reviews changes to the ESG Ratings methodology, including:             <ul style="list-style-type: none"> <li>- Updates to the ESG Industry Materiality Map, which determines the relevance of ESG Key Issues to sub-industries.</li> <li>- Changes to data sources or calculations used in ESG Ratings.</li> </ul> </li> </ul>

	<p>- Methodology proposals for consultation.</p> <p>Please see the MSCI ESG Ratings Methodology and Process via the MSCI <a href="#">ESG Methodologies website</a> for further detail.</p>
<p>c) Reference standards <i>Describe the international standards used in the benchmark methodology.</i></p>	<p><b>MSCI ESG Score</b></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>Date on which information has been last updated and reason for the update:</p>	<p>September 2023, Update of the Annex</p>



**D. Bloomberg MSCI Catholic Values Screened Indices**

<b>EXPLANATION OF HOW ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY</b>			
<b>1. Name of the benchmark administrator.</b>		Bloomberg Index Services Limited ("BISL")	
<b>2. Type of benchmark</b>		Fixed Income & Sovereign	
<b>3. Name of the benchmark or family benchmarks.</b>		Bloomberg MSCI Catholic Values Screened Fixed Income Indices	
<b>4. Does the benchmark methodology for the benchmark or family of benchmarks take into account ESG factors?</b>		Yes	
<p><b>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.</b></p>			
a) 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.
b) List of social factors considered:	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,	N/A	The Indices do not take this ESG factor into account in the methodology.

	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	Excludes researched companies that are deriving 5% or more revenue from adult entertainment.
	Abortion	Exclusion	Excludes researched companies that have any ties to abortion
	Contraceptives	Exclusion	Excludes researched companies that have any ties to contraceptives
	Cluster Bombs	Exclusion	Excludes researched companies with any industry tie to cluster munitions.
	Landmines	Exclusion	Excludes researched companies that have any industry tie to the manufacture of landmines except for Safety, which is a positive indicator.
	Predatory Lending	Exclusion	Excludes researched companies that have predatory lending rating of "Needs to Improve" or "Substantially Non-Compliant". Financial institutions may receive these ratings are taking the Community Reinvestment Act (CRA) examination.
	Stem Cells	Exclusion	Excludes researched companies that conduct stem cell research with cells derived from human embryos or fetal tissue. Additionally companies that develop or produce products for scientific research specifically on embryonic or fetal stem cells.
	Conventional Weapons	Exclusion	Excludes researched companies that have derived 5% or more revenue from the production of conventional weapons.
	Labor Rights	Exclusion	Excludes researched companies with an MSCI Labor Rights - Discrimination & Workforce Diversity Score of 2 or less.  The Labor Rights - Discrimination & Workforce Diversity Score measures the severity of controversies related to a firm's workforce diversity. Factors

			affecting this evaluation include, but are not limited to, a history of involvement in discrimination-related legal cases, widespread or egregious instances of discrimination on the basis of sex, race, or ethnicity, resistance to improved practices, and criticism by NGOs and/or other third-party observers.
	Nuclear Weapons	Exclusion	Excludes researched companies that have derived any revenue from the production of nuclear weapons.
	Bio-Chemical Weapons	Exclusion	Excludes researched companies that have derived any revenue from the manufacture of chemical or biological weapons and related systems or components.
c) 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.
<p><b>6.</b> 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</p>			
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.	
<b>7. Data and standards used.</b>			
a) Data input. (vii) Describe whether the data are reported, modelled or, sourced internally or externally. (viii) 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 <a href="mailto:esgclientservice@msci.com">esgclientservice@msci.com</a> <a href="https://www.msci.com/research-and-insights">https://www.msci.com/research-and-insights</a>  MSCI ESG Research relies on a proprietary methodology informed by a range of data sources. <ul style="list-style-type: none"> <li>• Reported data                         <ul style="list-style-type: none"> <li>○ Corporate documents: annual reports, proxy filings, environmental and social reports, securities filings, websites and Carbon Disclosure Project responses. Externally sourced data</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 local-language 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> <li>• Modelled data                         <ul style="list-style-type: none"> <li>○ For climate-related metrics, when data is not disclosed by companies, MSCI ESG Research uses a proprietary GHG emission estimation model.</li> </ul> </li> </ul>	

	<ul style="list-style-type: none"> <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> <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"> <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> <li>• World Development Indicators (WDI)</li> <li>• Annual Change of Forest Resources _ Food and Agriculture Organization (FAO)</li> <li>• World Wildlife Fund (WWF)</li> <li>• US EPA's Toxics Release Inventory (TRI)</li> <li>• Risk-Screening Environmental Indicators (RSEI)</li> <li>• US Bureau of Labor Statistics (BLS)</li> <li>• International Labour Organization (ILO)</li> <li>• US Occupational Health &amp; Safety Administration (OSHA)</li> <li>• UK Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)</li> <li>• International Chemical Secretariat (ChemSec) Substitute It Now (SIN) List</li> <li>• International Monetary Fund (IMF)</li> <li>• World Health Organization (WHO)</li> <li>• UN Principles for Responsible Investments (UN PRI)</li> <li>• World Resource Institute (WRI)</li> <li>• Consultative Group to Assist the Poor (CGAP)</li> <li>• US Census Bureau Current Population Survey Supplement</li> <li>• World Bank Governance Indicators (WGI)</li> <li>• Transparency International (TI)</li> <li>• World Bank (WB)</li> <li>• SNL Financial</li> <li>• Thomson Financial</li> </ul> <p>Refer to the <a href="#">MSCI ESG &amp; Climate Methodologies page</a> 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><b>MSCI Business Involvement Screens</b></p> <p>The initial company research and analysis is followed by a rigorous quality assurance process. Data accuracy and company profiles are peer-reviewed by a second MSCI analyst, then sent to the relevant content lead for final approval. In specific cases, in which some aspects of a company's business activities, practices, or performance are not clearly defined by MSCI ESG Research's methodologies, the case is escalated to relevant Methodology Committees. Cases that require further interpretation or an update to the relevant</p>

	<p>methodology are brought to the main governing committee: MSCI ESG Impact and Screening Methodology Committee for resolution.</p> <p>Please see the <a href="#">MSCI ESG Business Involvement Screening Research, Global Sanctions, and Sustainable Impact Metrics Methodology Summary Guide for Corporate Issuers</a> for further detail.</p>
<p>c) Reference standards <i>Describe the international standards used in the benchmark methodology.</i></p>	<p><b>MSCI Business Involvement Screens</b></p> <p>The MSCI ESG Research team identifies companies within the coverage universes to perform detailed research for each involvement activity. For each involvement activity, MSCI ESG Research uses a combination of industry classifications, business descriptions and keywords to help narrow down the scope of issuers that are researched by analysts. When the initial review process identifies the potential for involvement, an analyst will review company sources to determine if a company is in fact involved in one of the covered activities.</p>
<p>Date on which information has been last updated and reason for the update:</p>	<p>May 2024, Update of the Annex to include additional disclosures</p>

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