Bloomberg Index Services Limited

Benchmark Statement for

Bloomberg Fixed Income Indices

This benchmark statement (this "Statement") is provided by Bloomberg Index Services Limited ("BISL" and, with its affiliates, "Bloomberg") as the administrator of the Bloomberg Fixed Income Index Family (collectively, the "Indices" and each, an "Index") and is intended to meet the requirements of the European Union's regulation on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds (Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016, herein the "EU BMR"), including the regulatory technical standards ("RTS") promulgated thereunder, as and to the extent the EU BMR and related RTS were "on-shored" in the UK from 1 January 2021 (the "BMR").

	Requirement [Regulatory Reference]	Benchmark Family Information
(1)	General disclosure requirements	
	The benchmark statement shall state:	Date of publication: 10 September 2021
	(a) the date of publication of the statement and, where applicable, the date of its last update;	Date of last update: 10 September 2021
	(b) where available, the international securities identification number (ISIN)	BISL does not assign ISINs to all of the Indices. ISINs that have been assigned may be found at www.isindb.com/ .
	of the benchmark or benchmarks; alternatively, for a family of benchmarks, the statement may provide details of where the ISINs are publicly accessible free	Users should be aware that ISINs may have been obtained on the Indices by third parties and, in doing so, such third parties may have supplied inaccurate or incomplete information with regard to the underlying Index or may have obtained multiple ISINs for the same Index. Users should contact BISL if they have questions regarding the proper identification of its Indices.
	of charge;	BISL does assign a unique Financial Instrument Global Identifier ("FIGI") to its Indices. FIGIs may be found at https://openfigi.com/ by searching for the relevant Index within the family.
	(c) whether the benchmark, or any benchmark in the family of benchmarks, is determined using contributions of input data;	The Indices do not utilize contributions of input data.
	(d) whether the benchmark or any benchmark in the family of benchmarks qualifies as one of the types of benchmarks listed under Title III of Regulation (EU) 2016/1011, including the specific provision by virtue of which the benchmark qualifies as that type.	None of the Indices are 'regulated-data benchmarks', 'interest rate benchmarks' or 'commodity benchmarks' as those terms are defined in the BMR. In addition, none of the Indices are 'critical benchmarks' as that term is defined in the BMR. Certain of the Indices are 'significant' benchmarks as they serve as a reference for financial instruments or financial contracts or for measuring the performance of investments funds having a total average value of at least €50 billion. The remaining Indices would be deemed 'non- significant'.
	[RTS 1(1)]	

(2)

The benchmark statement shall clearly and unambiguously define the market or economic reality measured by the benchmark and the circumstances in which such measurement may become unreliable.

[BMR 27(1)(a)]

In defining the market or economic reality, the benchmark statement shall include at least the following information:

- (a) a general description of the market or economic reality.
- (b) the geographical boundaries, if any, of the market or economic reality;
- (c) any other information that the administrator reasonably considers to be relevant or useful to help users or potential users of the benchmark to understand the relevant features of the market or economic reality, including at least the following elements insofar as reliable data on these elements is available:
 - (i) information on actual or potential participants in the market;
 - (ii) an indication of the size of the market or economic reality.

[RTS 1(2)]

Market or economic reality measured by the benchmark family:

The Indices offer a comprehensive set of fixed income benchmarks spanning the investment grade, high yield, inflation-linked, hard and local currency EM, municipal, and convertible bond markets.

Product coverage is currently at more than 70,000 securities with over USD50 trillion in market value representing 110 countries and 39 local currency debt markets. The base Bloomberg Fixed Income Index methodology is available here.

BISL publishes more than 100,000 unique standard and bespoke Indices daily. Bespoke or custom versions of the Indices are in general derived from and (except as otherwise customized) calculated and maintained in accordance with the base methodology.

The central design of any fixed income index such as the Indices starts with an evaluation of security attributes to determine whether a bond will be Index eligible as of the rebalancing date.

While the threshold for inclusion varies from Index to Index, most benchmarks evaluate a core set of common attributes. This section explains the most commonly used Index eligibility criteria and how they are applied to a variety of the Indices. The criteria include:

- Currency denomination of a bond's principal and interest payments.
- Sector classification of the bond issuer, recognizing the wide range of issuer types in the fixed income market including corporate, government and securitized borrowers.
- Credit quality of a bond as measured by the ratings agencies, such as Moody's, Standard and Poor's, and Fitch. This is important for index users with investment guidelines that make a clear distinction between investment grade (rated Baa and higher) and high yield (rated Ba and lower) securities.
- Amount outstanding of a bond, with larger bonds generally more widely held by investors and viewed as more liquid.
- Time to maturity of a bond's principal repayment.
- Country of risk of the issuing entity, especially in cases where an investor may make a distinction between developed and emerging markets in their portfolios.
- Market of issue/placement type of a security reflecting whether a bond is (or will soon be) publicly registered, exempt from registration or privately placed. This also indicates whether a bond is being marketed and sold to local investors only, non-local investors or globally offered in multiple markets.
- Taxability of a security's cash flows and principal payments from an issuer's and an
 investor's perspective. From the issuer perspective, distinctions are made when cash
 payments are made by a borrower on a pre-tax basis (debt) vs. after-tax basis (equity
 dividend). From the investor perspective, bonds that offer tax-exempt proceeds
 (particularly US municipal securities) are generally bought by a different investor base
 than taxable bonds.
- Subordination of a security, which identifies where an investor's claim is within the borrower's capital structure, distinguishing between bonds that have senior claims and those that have subordinated claims in a credit event.

Other attributes that are used to determine index inclusion include whether a bond contains explicit optionality on the earlier repayment of principal (callable, putable, etc.) and the coupon type used to determine interest payments (fixed- vs. floating-rate).

Some breakdowns of sub-components and associated fact sheets may be found $\underline{\text{here}}$ or by entering INP <GO> on the Bloomberg Terminal® and selecting "Fact Sheets".

Market participants in the fixed income markets underlying the benchmarks mainly comprise of institutional investors, investment banks and broker-dealers. Participation of retail investors in the fixed income market is limited.

(3) In defining the potential limitations of the benchmark and the circumstances in which the measurement of the market or economic reality may become unreliable, the benchmark statement shall include at least:

(a) a description of the circumstances in which the administrator would lack sufficient input data to determine the benchmark in accordance with the methodology;

(b) where relevant, a description of instances when the accuracy and reliability of the methodology used for determining the benchmark can no longer be ensured, such as when the administrator deems the liquidity in the underlying market as insufficient;

(c) any other information that the administrator reasonably considers to be relevant or useful to help users and potential users to understand the circumstances in which the measurement of the market or economic reality may become unreliable, including a description of what might constitute an exceptional market event.

[RTS 1(3)]

Benchmark Limitations

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 market interests which the Indices intend to measure or upon which the Indices are dependent in order to achieve their stated objective. For example, illiquidity can have an impact on the quality or amount of data available to BISL 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 fixings for some or all users.

In addition, certain subindices may be designed to measure smaller subsets of the Indices such as specific sectors, maturities, or credit quality bands. Some of these subindices have very few qualifying constituents and may have none for a period of time. During such period, the subindex 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 issuance trends and other factors), the subindex may be discontinued. In such an event, this discontinuation will be announced to index users.

The benchmark statement shall lay down technical specifications that clearly and unambiguously identify the elements of the calculation of the benchmark in relation to

Other than as set forth in the methodology for the Indices available here, there are no minimum liquidity requirements for Index constituents and/or minimum requirements or standards for the quantity or quality of the input data.

The Indices are rules-based (methodology available <u>here</u>), and their construction is designed to consistently produce values without the exercise of expert judgment or

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(4)

which discretion may be exercised, the criteria applicable to the exercise of such discretion and the position of the persons that can exercise discretion, and how such discretion may be subsequently evaluated.

[BMR 27(1)(b)]

In specifying the controls and rules that govern any exercise of judgement or discretion by the administrator or any contributors in calculating the benchmark or benchmarks, the benchmark statement shall include an outline of each step of the process for any ex-post evaluation of the use of discretion, together with a clear indication of the position of any person(s) responsible for carrying out the evaluations.

discretion. Nevertheless, BISL may use expert judgment or discretion with regards to the following:

- Index restatements
- Extraordinary circumstances during a market emergency
- Data interruptions, issues, and closures

When expert judgment or discretion is required, BISL undertakes to be consistent in its application, with recourse to written procedures outlined in the methodology of the Indices and internal procedures manuals. In certain circumstances exercises of expert judgment or discretion are reviewed by senior members of BISL management and Bloomberg Compliance teams, and are reported to the Product, Risk & Operations Committee ("PROC"), BISL's governance committee, which operates under the supervision of BISL's oversight function, the Benchmark Oversight Committee ("BOC"). BISL also maintains and enforces a code of ethics to prevent conflicts of interest from inappropriately influencing index construction, production, and distribution, including the use of expert judgment or discretion.

[RTS 1(4)]

A benchmark statement shall contain at least the rationale for adopting the benchmark methodology and procedures for the review and approval of the methodology.

[BMR27(2)(b)]

In specifying the procedures for review of the methodology, the benchmark statement shall at least outline the procedures for public consultation on any material changes to the methodology.

[RTS 1(5)]

Since 1973, the Indices have been the market standard for fixed income investors seeking objective, rules-based, and representative benchmarks to measure asset class risk and return. Whether published under the banner of Kuhn Loeb, Lehman Brothers, Barclays Capital or Bloomberg, the Indices have provided investors with a wealth of market information, with the scope of index solutions growing substantially to mirror broad asset class expansions and capital markets innovations.

BISL will review the Indices (both the rules of construction and data inputs) on a periodic basis, not less frequently than annually, to determine whether they continue to reasonably measure the intended underlying market interest, the economic reality or otherwise align with their stated objective. More frequent reviews may result from extreme market events and/or material changes to the applicable underlying market interests.

Criteria for data inputs include reliable delivery and active underlying markets. Whether an applicable market is active depends on whether there are sufficient numbers of transactions (or other indications of price, such as indicative quotes) in the applicable constituents that a price may be supplied for such constituent(s).

Other than as set forth in the Index Methodology, there are no minimum liquidity requirements for Index constituents and/or minimum requirements or standards for the quantity or quality of the input data.

The review will be conducted by product managers of the Indices at least annually or as otherwise appropriate in light of significant market changes or other developments.

Any resulting change to the Index Methodology deemed to be material (discussed below) will be subject to the review of the PROC under the oversight of the BOC, each of which committees shall be provided all relevant information and materials it requests relating to the change. Details regarding the PROC and BOC are described above.

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(5)

Material changes will be reflected and tracked in updated versions of this Index Methodology.

BISL's Index administration is also subject to Bloomberg's Compliance function which periodically reviews various aspects of its businesses in order to determine whether it is adhering to applicable policies and procedures, and assess whether applicable controls are functioning properly. Material changes related to the Indices will be made available in advance to affected stakeholders whose input will be solicited. The stakeholder engagement will set forth the rationale for any proposed changes as well as the timeframe and process for responses. BISL will endeavour to provide at least two weeks for review prior to any material change going into effect. For material changes anticipated to have a significant operational impact on stakeholders, this period may be longer. But in the event of exigent market circumstances, this period may be shorter. Subject to requests for confidentiality, stakeholder feedback and BISL's responses will be made accessible upon reasonable request.

In determining whether a change to an Index is material, the following factors shall be taken into account:

- The economic and financial impact of the change;
- Whether the change affects the original purpose of the Index; and/or
- Whether the change is consistent with the overall objective of the Index and the underlying market interest it seeks to measure.

In addition to material changes, BISL may from time to time terminate one or more Indices ("**Discontinued Indices**"), whether due to changes in market structure, a lack of requisite data, insufficient usage, or for other regulatory or practical concerns. The process for terminating such Discontinued Indices is as follows:

The PROC will review proposed terminations, taking into account the reasons for termination, the impact on users (if any), the availability of alternative products and other such factors. If termination is approved, users will be provided as much prior notice as is reasonable under the circumstances, typically 90 days. In the event there is little or no known usage identified, the Discontinued Indices may be terminated with less (or no) notice, as applicable. In the event the Discontinued Indices are licensed for use as the basis of an ETF or other widely-available financial product or is otherwise determined by BISL to be an important benchmark without reasonable substitutes, the notice period may be extended, as warranted. Any advance notice period is subject to BISL being reasonably able to continue administering and calculating such benchmark during such period (for example, BISL has access to requisite data on commercially reasonable terms, is not subject to any litigation or other claims, has adequate internal resources and capabilities, etc.). Terminations and associated user engagement decisions made by the PROC are subject to review by BISL's oversight function, the BOC.

Index Advisory Councils (IACs)

IACs are composed of key market participants and other influential individuals to assist BISL in setting index priorities, to discuss potential rules changes (including material changes, as discussed above) and to provide ideas for new products. IACs are generally constituted on an annual basis. While potential benchmark changes are discussed through this process, all feedback received is non-binding and all final decisions on benchmark index rules are made by BISL after the review period has ended.

(6) The benchmark statement shall provide notice of the possibility that factors, including external factors beyond the control of the administrator, may necessitate changes to, or the cessation of the benchmark.

Users should be aware that factors, including external factors beyond the control of BISL, may necessitate changes to, or the cessation of the Indices or components thereof. For example, markets measured by the Indices may undergo structural changes which may affect the liquidity of underlying constituents of the Indices. In addition, regulatory changes can adversely impact the effectiveness of methodology design.

[BMR 27(1)(c)]

(7) The benchmark statement shall advise users that changes to, or the cessation of, the benchmark may have an impact upon the financial contracts and financial instruments that reference the benchmark or the measurement of the performance of investment funds.

If financial product issuers or investment managers choose to use one of the Indices as the basis of an index-linked financial product or an investment fund, they should consider the possibility that factors, including external factors, may necessitate changes to, or the cessation of the Indices or components thereof, including the potential need to terminate or modify the terms of a financial product resulting from the termination of the calculation of one or more of the Indices

[BMR 27(1)(d)]

(8) A benchmark statement shall contain at least the definitions for all key terms relating to the benchmark.

All key terms and other relevant information are set forth in the methodology for the Indices available <u>here</u>.

[BMR 27(2)(a)]

(9)

The administrator shall review and, where necessary, update the benchmark statement for each benchmark or family of benchmarks in the event of any changes to the information to be provided under this Article and at least every two years.

BISL shall review this Statement on a periodic basis, at least once every two years, or as otherwise warranted in the event of any material changes to the information provided herein.

[BMR 27(1)]

In addition to the cases referred to in the third subparagraph of Article 27(1) of Regulation (EU) 2016/1011, an update of the benchmark statement shall be required whenever the information contained in the statement ceases to be correct or sufficiently precise, and

including in any event in the following cases:

(a) whenever there is a change in the type of the benchmark;

(b) whenever there is a material change in the methodology used for determining the benchmark or, if the benchmark statement is for a family of benchmarks, in the methodology used for determining any benchmark within the family of benchmarks.

[RTS 6]

(10)

A benchmark statement shall contain at least the criteria and procedures used to determine the benchmark, including a description of the input data, the priority given to different types of input data, the minimum data needed to determine a benchmark, the use of any models or methods of extrapolation and any procedure for rebalancing the constituents of a benchmark's index.

[BMR 27(2)(c)]

Constituent Selection

As described under "Market or economic reality measured by the benchmark family" in row (2) above, a number of criteria and characteristics are utilized to determine the index eligibility of particular securities among and across the various Indices.

Rebalancing

Most Indices are rebalanced monthly, offering intra-month stability in Index composition. Securities that meet all published Index inclusion rules and eligibility criteria at the beginning of a given month will remain in the Index for purposes of return calculations until the following month-end, when index composition is next reset. Unlike the rebalancing of traditional equity indices, which occurs less often, the monthly rebalancing of the Indices better suits the more frequent issuance and the more dynamic borrowing needs of fixed income issuers.

For each Index, two universes of securities are maintained: one that is held constant throughout the month from the previous Index rebalancing date and one that changes daily to reflect the latest composition of the market since the last rebalancing. The former, the "Returns Universe" (also referred to as the "backwards" universe), is a static set of securities that is determined at the beginning of each month and is not reset until the beginning of the next month. This fixed universe is used to calculate daily, and monthly index returns and is the basket of bonds against which Index users are officially measured against. The Returns Universe is not adjusted for securities that become ineligible for inclusion during the month (e.g., due to ratings downgrades, called bonds, securities falling below one year to maturity, etc.) or for issues that are newly eligible (e.g., ratings changes, new issuance, etc.). Because the Returns Universe is held constant throughout the month, fund managers avoid having to hit a moving target. The "Projected Universe" (or "forward" universe) is a dynamic set of bonds that changes daily to reflect the latest set of Index-eligible securities. As an up-todate projection of the next month's Returns Universe, the Projected Universe assists active managers by providing them with the necessary insight to modify their portfolios ahead of any Index changes and assists passive managers by preparing them for any executions needed ahead of monthly rebalancing. Indicative changes to securities are reflected daily in both the Projected and Returns Universes of the Index and may cause bonds to enter or

fall out of the Projected Universe, but will affect the composition of the Returns Universe only at month-end.

Pricing

Once the universe of securities for a particular Index is determined, most constituents are priced using Bloomberg's own evaluated pricing service, BVAL, with certain limited asset classes priced by third party sources. The high quality of index pricing is maintained by employing a variety of statistical techniques applied on day-to-day movements and point-in-time levels using tolerance bands set at the issuer, sector, quality and maturity levels. Possible outliers resulting from the verification process are resolved by the index team dedicated to pricing validation. Index users may also challenge price levels, which are then reviewed by the pricing team. If a discrepancy arises, prices may be adjusted on a going forward basis.

For greater detail regarding the criteria and procedures used to determine the Indices, please refer to the publicly available methodology for the Indices available here.

(11) A benchmark statement shall contain at least the controls and rules that govern any exercise of judgement or discretion by the administrator or any contributors, to ensure consistency in the use of such judgement or discretion.

The Indices are rules-based (methodology available here), and their construction is designed to consistently produce values without the exercise of expert judgment or discretion. Nevertheless, BISL may use expert judgment or discretion with regards to the following:

- Index restatements
- Extraordinary circumstances during a market emergency
- Data interruptions, issues, and closures

[BMR27(2)(d)]

For the purpose of providing information on the controls and rules that govern any exercise of judgment or discretion in the calculation of the benchmark or of the family of benchmarks, the benchmark statement shall at least:

(a) indicate the position of each function or body who may exercise discretion;

(b) outline each step of the expost evaluation process for the use of discretion.

[RTS 27(1)(4)]

(12)

When expert judgment or discretion is required, BISL undertakes to be consistent in its application, with recourse to written procedures outlined in the methodology of the Indices and internal procedures manuals. In certain circumstances exercises of expert judgment or discretion are reviewed by senior members of BISL management and Bloomberg Compliance teams, and are reported to the Product, Risk & Operations Committee (PROC), BISL's governance committee, which operates under the supervision of BISL's oversight function, the Benchmark Oversight Committee (BOC). BISL also maintains and enforces a code of ethics to prevent conflicts of interest from inappropriately influencing index construction, production, and distribution, including the use of expert judgment or discretion.

A benchmark statement shall contain at least the procedures which govern the determination of the benchmark in periods of stress or periods where transaction data sources may be insufficient, inaccurate or unreliable and the potential

See "Benchmark Limitations" in row (3) above.

	limitations of the benchmark in such periods.		
	[BMR 27(2)(e)]		
(13)	A benchmark statement shall contain at least the procedures for dealing with errors in input data or in the determination of the benchmark, including when a re-determination of the benchmark is required. [BMR 27(2)(f)]	To the extent a material error in Index values is uncovered following its publication and dissemination, a notification will be sent to Index clients alerting them of such error and the expected date of a revised publication, if warranted. BISL considers the following factors to determine whether to restate. Not all conditions need to be present to warrant a restatement, and certain factors may be more determinative that others depending on the circumstances of the given error. • The relative importance of the data field impacted by the error; • When the error occurred and when it was discovered; • The number of Indices and sub-Indices affected; • Whether the impacted Indices are linked to tradable products; • The magnitude of the error; • The burden of restatement on client re-processing relative to the impact of the error; and • The impact of the restatement on analytical tools.	
(14)	A benchmark statement shall contain at least the identification of potential limitations of the benchmark, including its operation in illiquid or fragmented markets and the possible concentration of inputs. [BMR 27(2)(g)]	See "Benchmark Limitations" in row (3) above.	
(15)	Specific disclosure requirements for regulated data benchmarks. In addition to the information to be included pursuant to Article 1, for a regulated-data benchmark or, where applicable, family of regulated- data benchmarks, the benchmark statement shall state	Not applicable.	

at least the following in its description of the input data: (a) the sources of the input data used; (b) for each source, the relevant type, as listed in Article 3(1)(24) of Regulation (EU) 2016/1011. [RTS 2] (16)Specific disclosure Not applicable. requirements for interest rate benchmarks 1. In addition to the information to be included pursuant to Article 1, for an interest rate benchmark or, where applicable, family of interest rate benchmarks, the benchmark statement shall include at least the following information: (a) a reference alerting users to the additional regulatory regime applicable to interest rate benchmarks under Annex I to Regulation (EU) 2016/1011; (b) a description of the arrangements that have been put in place to comply with that Annex. [RTS 3] (17) Specific disclosure Not applicable. requirements for commodity benchmarks In addition to the information to be included pursuant to Article *1, for a commodity benchmark* or, where applicable, family of commodity benchmarks, the benchmark statement shall at least: (a) indicate whether the requirements of Title II of, or Annex II to, Regulation (EU) 2016/1011 apply to the benchmark, or family of

benchmarks as prescribed by Article 19 of that Regulation;

(b) include an explanation as to why Title II of or, as the case may be, Annex II to that Regulation applies;

(c) include in the definitions of key terms a concise description of the criteria that define the relevant underlying physical commodity;

(d) where applicable, indicate where the explanations are published that the administrator is required to publish under paragraph 7 of Annex II to that Regulation.

[RTS 4]

(18)Specific disclosure requirements for critical benchmarks

In addition to the information to be included pursuant to Article 1, for a critical benchmark, or, where applicable, a family of benchmarks that contains at least one critical benchmark, the benchmark statement shall include at least the following information:

(a) a reference alerting users to the enhanced regulatory regime applicable to critical benchmarks under Regulation (EU) 2016/1011;

(b) a statement indicating how users will be informed of any delay in the publication of the benchmark or of any redetermination of the benchmark, and indicating the (expected) duration of measures.

Not applicable.

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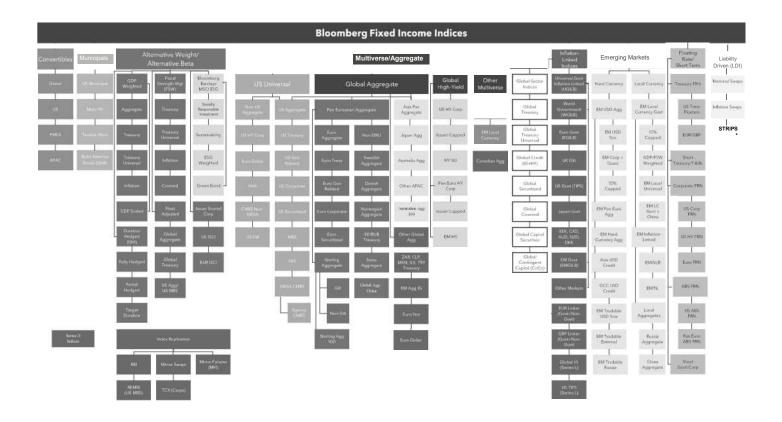
[RTS 5]

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Annex 1



Annex 2 - Climate-Related Disclosures (Indices without ESG objectives)

	EXPLANATION OF HOW ESG FACTORS ARE REFLECTED IN THE BENCHMARK STATEMENT SECTION 1 - CONSIDERATION OF ESG FACTORS		
	n 1 . Name of the benchmark ninistrator.	Bloomberg Index Services Limited	
	n 2 . Type of benchmark or family of chmarks.	Fixed Income Corporate Benchmarks Sovereign Debt Benchmarks	
	n 3 . Name of the benchmark or family enchmarks.	All Bloomberg Fixed Income Indices, excluding those listed in Annex 3	
	n 4 . Does the benchmark pursue 6 objectives?	No	
neg Ben Ben the the ben	n 5 . Where the response to (4) is ative, is any EU Climate Transition chmark or EU Paris- aligned chmark available in the portfolio of benchmark administrator or does benchmark administrator have chmarks that pursue ESG objectives ake into account ESG factors?	Yes - See Annex 3	
con The	cerned.	each constituent of the benchmarks but shall be disclosed at an aggregated	
a)	List of combined ESG factors:	N/A	
b)	List of environmental factors:	N/A	
c)	List of social factors:	N/A	
d)	List of governance factors:	N/A	
lten	n 7 . Data and standards used.		
a)	Description of data sources used to provide information on the ESG factors in the benchmark statement.	N/A	
	Describe how the data used to provide information on the ESG factors in the benchmark statement are sourced and whether, and to what extent, data are estimated or reported.		
b)	Reference standards. List the supporting standards used for the reporting under item 6 and/or item 7.	N/A	

SECTION 2 - ADDITIONAL DISCLOSURE REQUIREMENTS

	8 . Where a benchmark is labelled as thmark administrators shall also disclo	'EU Climate Transition Benchmark' or 'EU Paris-aligned Benchmark', se the following information:	
a)	forward-looking year-on-year decarbonisation trajectory;	N/A	
b)	degree to which the IPCC decarbonisation trajectory (1,5°C with no or limited overshoot) has been achieved on average per year since creation;	N/A	
c)	overlap between those benchmarks and their investable universe, as defined in Article 1, point (e), of Commission Delegated Regulation (EU) 2020/1818, using the active share at asset level.	N/A	
	SECTION 3 - DISCLOSURE OF THE A	ALIGNMENT WITH THE OBJECTIVES OF THE PARIS AGREEMENT	
ltom	• For cignificant aquity banchmarks	significant bond benchmarks, EU Climate Transition Benchmarks and EU	
		ninistrators shall also disclose the following information:	
a)	The temperature scenario, in accordance with international standards, used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement;	N/A	
b)	The name of the provider of the temperature scenario used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement;	N/A	
c)	The methodology used for the measurement of the alignment with the temperature scenario;	N/A	
d)	The hyperlink to the website of the temperature scenario used.	N/A	
Info	ormation updated on:	22 April 2020	



Annex 3 - Climate-Related Disclosures (Indices with ESG objectives)

A. MSCI ESG Fixed Income Paris Aligned Indices

EXPLANATION OF HOW ESG FACTORS ARE REFLECTED IN THE BENCHMARK STATEMENT		
SECTION 1 - CONSIDERATION OF ESG FACTORS		
Bloomberg Index Services Limited		
Fixed Income		
Bloomberg MSCI Fixed Income Paris-Aligned Indices (the "Indices" and each, an "Index").		
Yes		
Yes		
e, provide below the details (score) in relation to the following ESG factors: and governance for each family of benchmarks at an aggregated level.		
gated weighted average value at the level of the family of benchmarks.		
Details of these factors can be found in the Bloomberg MSCI Paris-Aligned Disclosure Data available <u>here</u>		
Details of these factors can be found in the Bloomberg MSCI Paris-Aligned Disclosure Data available <u>here</u>		
Details of these factors can be found in the Bloomberg MSCI Paris-Aligned Disclosure Data available here		
Details of these factors can be found in the Bloomberg MSCI Paris-Aligned Disclosure Data available <u>here</u>		

Item 7. Where the response to Item 5 is positive, provide below the details (score) for the benchmark or family of benchmarks, in relation the following ESG factors: combined ESG factors, environmental, social and governance, depending on the relevant underlying asset concerned.

Alternatively, all of this information may be provided in the form of a hyperlink to a website of the benchmark administrator included in the benchmark statement. 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.

The score of 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.

a)	List of combined ESG factors:	Please see hyperlink below
b)	List of environmental factors:	Please see hyperlink below
c)	List of social factors:	Please see hyperlink below
d)	List of governance factors:	Please see hyperlink below

Hyperlink to the information on ESG factors for		Details of the ESG factors are available <u>here</u>
	penchmark or family of benchmarks:	
Item	18 . Data and standards used.	
a)	Description of data sources used to provide information on the ESG factors in the benchmark statement. Describe how the data used to provide information on the ESG factors in the benchmark statement are sourced and	MSCI Research esgclientservice@msci.com https://www.msci.com/research-and-insights
	whether, and to what extent, data are estimated or reported.	Refer to <u>Bloomberg MSCI Fixed Income Indices</u> and MSCI's <u>Methodology</u> <u>Executive Summary</u> for further information.
b)	Reference standards. <i>List the supporting standards used for</i>	The Greenhouse Gas Protocol is used for GHG estimation. For further information, please refer to https://ghgprotocol.org/
	reporting under item 6 and/or item 7.	To align with the precautionary principle, a company not covered by MSCI for exclusions is not included.
		The percentage of reported vs estimated data used can be found in the ESG Disclosure Report.
		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
SEC		QUIREMENTS FOR EU CLIMATE TRANSITION AND EU GNED BENCHMARKS
	9 . Where a benchmark is labelled as 'EU chmark administrators shall also disclose t	Climate Transition Benchmark' or 'EU Paris-aligned Benchmark', he following information:
a)		Details of the forward-looking year-on-year decarbonisation trajectory for each benchmark can be found in the ESG Disclosures Report available here .
b)	-	Details of the achievement of the IPCC decarbonisation trajectory can be found in the ESG Disclosures Report available <u>here</u>
c)		The active share measure can be found in the ESG Disclosures Report available here

SECTION 3 - DISCLOSURE OF THE ALIGNMENT WITH THE OBJECTIVES OF THE PARIS AGREEMENT

Item 10. By the date of application of this Regulation, for significant equity and bond benchmarks, EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks, benchmark administrators shall, for each benchmark, or where applicable, the family of benchmarks, disclose the following information:



(EU) 2020/1818, using the active

share at asset level.

a)	Does the benchmark align with the target of reducing carbon emissions or the attainment of the objectives of the Paris Agreement;	Yes
b)	The temperature scenario, in accordance with international standards, used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement;	The Indices use the reference 1.5 °C temperature scenario, with no or limited overshoot.
c)	The name of the provider of the temperature scenario used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement;	The Special Report on Global Warming of 1.5 °C from the Intergovernmental Panel on Climate Change (the "IPCC").
d)	The methodology used for the	Decarbonisation Trajectory
d)	measurement of the alignment with the temperature scenario;	The Absolute GHG Emissions for EU Paris-aligned Benchmarks, including Scope 1, 2 and 3 GHG emissions, shall be at least 50% lower than the Absolute GHG Emissions of the investable universe. Therefore, at the start of the decarbonisation trajectory, a Reference Absolute GHG Emissions is derived as 50% of the Absolute GHG Emissions of the Parent Index on the Base Date (2020-12-31).
		On subsequent rebalances, the annualized Absolute GHG Emissions of the Index shall be less than the lower of 50% of the Absolute GHG Emissions of the Parent Index, or an Absolute GHG Emissions level implied by 7% year on year geometric reduction relative to the Absolute GHG Emissions on index Base Date.
		Therefore, for rebalance i , the Absolute GHG Emissions of the Index shall be no more than: $Min\left(\frac{Base\ Date_GHG\times 0.93^{i/12}}{},\ 50\%\times Parent_GHG_i\right)$
		Where: i is the rebalance as an integer counted in ascending order from the Base Date, for the avoidance of doubt i is equal to 0 on the Base Date; $Base\ Date_GHG$ is the Absolute GHG Emissions derived as 50% of $Parent_GHG_0$; $Parent_GHG_i$ is the Absolute GHG Emissions level of the Parent Index on the Date of rebalance i ; $Parent_GHG_0$ is the Absolute GHG Emissions level of the Parent Index on the Base Date.
		Should a significant change occur in the calculation methodology of the Absolute GHG Emissions a new Base Date shall be set for measuring against the decarbonisation trajectory.
		Absolute GHG Emissions
		MSCI gathers GHG emissions figures from publicly-available, company-reported annual accounts or sustainability reports, or any other public source these figures are included in. When reported GHG emissions are not available, MSCI

	provides estimates.
	Absolute GHG Emissions of an Index, calculated monthly, is the weighted Absolute GHG Emissions of the underlying constituents of the Index:
	$Index_GHG_d = \frac{\sum_{i=1}^{n_d} w_d^i \times GHG \ Emissions \ _s^i}{\sum_{i=1}^{n_d} w_d^i}$
	Securities with no Absolute GHG Emissions values are excluded from the calculation of the Absolute GHG Emissions of an Index.
	Where: i is an index constituent; n_d is with respect to Rebalance Date, d , the number of index constituents; w_d^i is with respect to Rebalance Date, d , the weight of constituent, i , in the index; and $Absolute\ GHG\ Emissions_s^i$ is with respect to Rebalance Date, s , the Absolute GHG Emissions of constituent, i .
	Absolute GHG Emissions for an index constituent is the total Absolute GHG Emissions:
	Absolute GHG Emmssions $_{t}^{i} = \frac{Scope \ 1_{t}^{i} + Scope \ 2_{t}^{i} + Scope \ 3_{t}^{i}}{}$
	If any of the following criteria are met, the Absolute GHG Emissions in respect of constituent <i>i</i> and Rebalance Date <i>s</i> is considered invalid: 1) There are no estimates available for either Scope 1, Scope 2, or Scope 3 GHG emissions in respect of constituent <i>i</i> and Rebalance Date <i>s</i> .
	Where: i is an index constituent; t is the date when the Absolute GHG Emission is measured; Scope 1 and Scope 2 are reported GHG emissions for the constituent if available, otherwise, estimates are obtained MSCI GHG emissions estimate model; Scope 3 data is estimated by MSCI for constituents across all sectors
e) The hyperlink to the website of the temperature scenario used.	https://www.ipcc.ch/sr15/
Date on which information has last been updated and reason for the update:	February 2023, updated link to disclosures report

B. MSCI ESG Fixed Income Indices

EXPLANATION OF HOW ESG FACTORS ARE REFLECTED IN THE BENCHMARK STATEMENT SECTION 1 - CONSIDERATION OF ESG FACTORS		
Item 2 . Type of benchmark or family of benchmarks.	Fixed Income	
Item 3 . Name of the benchmark or family of	Bloomberg MSCI ESG Fixed Income Indices:	
benchmarks.	• The 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 indices.	
	• The Bloomberg MSCI Sustainability Indices positively screen issuers from existing Bloomberg parent indices based on MSCI ESG Ratings, which are a "best in class" 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 indices is an ESG rating of BBB and better for investment grade indices and BB and better for high yield indices.	
	• The 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.	
Item 4. Are there in the portfolio of the benchmark administrator any EU Climate Transition Benchmarks, EU Paris-aligned Benchmarks, benchmarks that pursue ESG objectives or benchmarks that take into account ESG factors?	Yes	
Item 5. Does the benchmark or family of benchmarks pursue ESG objectives?	Yes	
	e, provide below the details (score) in relation to the following ESG factors: d governance for each family of benchmarks at an aggregated level.	
The ESG factors shall be disclosed at an aggre	gated weighted average value at the level of the family of benchmarks.	
a) List of combined ESG factors:	Details of these factors can be found in the Bloomberg MSCI Fixed Income Disclosure Report available <u>here</u>	
b) List of environmental factors:	Details of these factors can be found in the Bloomberg MSCI Fixed Income Disclosure Report available <u>here</u>	
c) List of social factors:	Details of these factors can be found in the Bloomberg MSCI Fixed Income Disclosure Report available <u>here</u>	
d) List of governance factors:	Details of these factors can be found in the Bloomberg MSCI Fixed Income Disclosure Report available <u>here</u>	

Item 7. Where the response to Item 5 is positive, provide below the details (score) for the benchmark or family of benchmarks, in relation the following ESG factors: combined ESG factors, environmental, social and governance, depending on the relevant underlying asset concerned.

Alternatively, all of this information may be provided in the form of a hyperlink to a website of the benchmark administrator included in the benchmark statement. 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.

The score of 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.

a)	List of combined ESG factors:	Please see hyperlink below
b)	List of environmental factors:	Please see hyperlink below
c)	List of social factors:	Please see hyperlink below
d)	List of governance factors:	Please see hyperlink below
Hyperlink to the information on ESG factors for the benchmark or family of benchmarks:		Details of the ESG factors are available <u>here</u>

Item 8. Data and standards used.

 Description of data sources used to provide information on the ESG factors in the benchmark statement.

Describe how the data used to provide information on the ESG factors in the benchmark statement are sourced and whether, and to what extent, data are estimated or reported.

All ESG data for the benchmarks is sourced externally from:

MSCI Research
esgclientservice@msci.com
https://www.msci.com/research-and-insights

Refer to <u>Bloomberg MSCI Fixed Income Indices</u> and MSCI's <u>Methodology</u> Executive Summary for further information.

b) Reference standards.

List the supporting standards used for reporting under item 6 and/or item 7.

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.

SECTION 2 - ADDITIONAL DISCLOSURE REQUIREMENTS FOR EU CLIMATE TRANSITION AND EU PARIS-ALIGNED BENCHMARKS

Item 9. Where a benchmark is labelled as 'EU Climate Transition Benchmark' or 'EU Paris-aligned Benchmark', benchmark administrators shall also disclose the following information:

a)	forward-looking year-on-year decarbonisation trajectory;	Not applicable
b)	degree to which the IPCC decarbonisation trajectory (1,5°C with no or limited overshoot) has been achieved on average per year since creation;	Not applicable
c)	overlap between those benchmarks and their investable universe, as defined in Article 1, point (e), of	Not applicable

	Commission Delegated Regulation (EU) 2020/1818, using the active			
	share at asset level.			
	SECTION 3 - DISCLOSURE OF THE ALIGNMENT WITH THE OBJECTIVES OF THE PARIS AGREEMENT			
Bend		egulation, for significant equity and bond benchmarks, EU Climate Transition arks, benchmark administrators shall, for each benchmark, or where use the following information:		
a)	Does the benchmark align with the target of reducing carbon emissions or the attainment of the objectives of the Paris Agreement;	No		
b)	The temperature scenario, in accordance with international standards, used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement;	Not applicable. The benchmark is not aligned with the target of reducing carbon emissions or the attainment of the objectives of the Paris Agreement and therefore no temperature scenario is used.		
c)	The name of the provider of the temperature scenario used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement;	Not applicable. There is no temperature scenario provider as no temperature scenario is used.		
d)	The methodology used for the measurement of the alignment with the temperature scenario;	Not applicable. The benchmark does not use a methodology to measure alignment with a temperature scenario as no temperature scenario is used.		
e)	The hyperlink to the website of the temperature scenario used.	Not applicable. There is no temperature scenario used.		
	te on which information has last been dated and reason for the update:	February 2023, updated link to disclosures report		



C. Bloomberg SASB ESG Fixed Income Indices

EXPLANATION O	F HOW ESG FACTORS ARE REFLECTED IN THE BENCHMARK STATEMENT	
SECTION 1 - CONSIDERATION OF ESG FACTORS		
Item 1. Name of the benchmark administrator.	Bloomberg Index Services Limited	
Item 2. Type of benchmark or family of benchmarks.	Fixed Income	
Item 3 . Name of the benchmark or family of benchmarks.	Bloomberg SASB Fixed Income Indices	
Item 4. Are there in the portfolio of the benchmark administrator any EU Climate Transition Benchmarks, EU Paris-aligned Benchmarks, benchmarks that pursue ESG objectives or benchmarks that take into account ESG factors?	Yes	
Item 5 . Does the benchmark or family of benchmarks pursue ESG objectives?	Yes	
combined ESG factors, environmental, social an	e, provide below the details (score) in relation to the following ESG factors: d governance for each family of benchmarks at an aggregated level.	
a) List of combined ESG factors:	Details of these factors can be found in the Bloomberg Global Fixed Income SASB ESG Disclosure Report available <u>here</u>	
b) List of environmental factors:	Details of these factors can be found in the Bloomberg Global Fixed Income SASB ESG Disclosure Report available here	
c) List of social factors:	Details of these factors can be found in the Bloomberg Global Fixed Income SASB ESG Disclosure Report available here	
d) List of governance factors:	Details of these factors can be found in the Bloomberg Global Fixed Income SASB ESG Disclosure Report available here	
benchmarks, in relation the following ESG factor on the relevant underlying asset concerned. Alternatively, all of this information may be prov included in the benchmark statement. The infor	, provide below the details (score) for the benchmark or family of es: combined ESG factors, environmental, social and governance, depending ided in the form of a hyperlink to a website of the benchmark administrator mation on the website shall be easily available and accessible. Benchmark lished on their website remains available for five years.	
·	ed for each constituent of the benchmark, but shall be disclosed at an	
a) List of combined ESG factors:	Please see hyperlink below	
b) List of environmental factors:	Please see hyperlink below	
c) List of social factors:	Please see hyperlink below	
d) List of governance factors:	Please see hyperlink below	
Hyperlink to the information on ESG factors for he benchmark or family of benchmarks: Details of the ESG factors are available here		

Item 8. Data and standards used.

 Description of data sources used to provide information on the ESG factors in the benchmark statement.

Describe how the data used to provide information on the ESG factors in the benchmark statement are sourced and whether, and to what extent, data are estimated or reported.

Modelled ESG data for the benchmarks is sourced externally from:

State Street Global Advisors - State Street Global Advisors (SSGA) provides the list of constituents that will be excluded from the Base index based on business involvement. SSGA additionally provides R-Factor (ESG) scores for index constituents, which determine the weight of constituents in the index. R-Factor scores are proprietary scores generated by SSgA from a composite framework of underlying ESG score providers (ISS-ESG, Sustainalytics, and VigeoEIRIS.)

Please see below for an additional explanation of R-Factor.

https://www.ssga.com/us/en/intermediary/ic/cap abilities/esg/data-scoring/r-factor-transparentesg-scoring

https://www.ssga.com/librarycontent/products/esg/inst-r-factor-reinventingesg-through-scoring-system.pdf

b) Reference standards.

List the supporting standards used for reporting under item 6 and/or item 7.

All data for controversial exclusion and score weighting is generated and provided by SSgA independently (R-Factor Score).

The R-Factor Score is a proprietary score created and maintained by SSgA. The ESG component of R-Factor is created by mapping raw data from three third party providers (ISS-ESG, Sustainalytics, and Vigeo- EIRIS) to the financial materiality framework published by SASB.

SECTION 2 - ADDITIONAL DISCLOSURE REQUIREMENTS FOR EU CLIMATE TRANSITION AND EU PARIS-ALIGNED BENCHMARKS

Item 9. Where a benchmark is labelled as 'EU Climate Transition Benchmark' or 'EU Paris-aligned Benchmark', benchmark administrators shall also disclose the following information:

a)	forward-looking year-on-year decarbonisation trajectory;	Not applicable
b)	degree to which the IPCC decarbonisation trajectory (1,5°C with no or limited overshoot) has been achieved on average per year since creation;	Not applicable
c)	overlap between those benchmarks and their investable universe, as defined in Article 1, point (e), of Commission Delegated Regulation (EU) 2020/1818, using the active share at asset level.	Not applicable

SECTION 3 - DISCLOSURE OF THE ALIGNMENT WITH THE OBJECTIVES OF THE PARIS AGREEMENT

Item 10. By the date of application of this Regulation, for significant equity and bond benchmarks, EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks, benchmark administrators shall, for each benchmark, or where applicable, the family of benchmarks, disclose the following information:



b)	Does the benchmark align with the target of reducing carbon emissions or the attainment of the objectives of the Paris Agreement;	No
b)	The temperature scenario, in accordance with international standards, used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement;	Not applicable. The benchmark is not aligned with the target of reducing carbon emissions or the attainment of the objectives of the Paris Agreement and therefore no temperature scenario is used.
c)	The name of the provider of the temperature scenario used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement;	Not applicable. There is no temperature scenario provider as no temperature scenario is used.
d)	The methodology used for the measurement of the alignment with the temperature scenario;	Not applicable. The benchmark does not use a methodology to measure alignment with a temperature scenario as no temperature scenario is used.
e)	The hyperlink to the website of the temperature scenario used.	Not applicable. There is no temperature scenario used.
_	te on which information has last been dated and reason for the update:	February 2023, updated link to disclosures report

D. Bloomberg Green Social Sustainability Bond Indices

EXPLANATION OF HOW ESG FACTORS ARE REFLECTED IN THE BENCHMARK STATEMENT SECTION 1 - CONSIDERATION OF ESG FACTORS		
Item 2 . Type of benchmark or family of benchmarks.	Fixed Income	
Item 3 . Name of the benchmark or family of benchmarks.	Bloomberg Green Social Sustainability Bond Indices	
Item 4. Are there in the portfolio of the benchmark administrator any EU Climate Transition Benchmarks, EU Paris-aligned Benchmarks, benchmarks that pursue ESG objectives or benchmarks that take into account ESG factors?	Yes	
Item 5. Does the benchmark or family of benchmarks pursue ESG objectives?	No	
combined ESG factors, environmental, social	tive, provide below the details (score) in relation to the following ESG factors: and governance for each family of benchmarks at an aggregated level.	
a) List of combined ESG factors:	Details of these factors can be found in the Bloomberg Global Aggregate GSS Bond Index ESG Disclosure Report available here	
b) List of environmental factors:	Details of these factors can be found in the Bloomberg Global Aggregate GSS Bond Index ESG Disclosure Report available here	
c) List of social factors:	Details of these factors can be found in the Bloomberg Global Aggregate GSS Bond Index ESG Disclosure Report available here	
d) List of governance factors:	Details of these factors can be found in the Bloomberg Global Aggregate GSS Bond Index ESG Disclosure Report available here	
	tive, provide below the details (score) for the benchmark or family of ctors: combined ESG factors, environmental, social and governance, depending	
included in the benchmark statement. The in	rovided in the form of a hyperlink to a website of the benchmark administrator formation on the website shall be easily available and accessible. Benchmark published on their website remains available for five years.	
The score of 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.		
a) List of combined ESG factors:	Please see hyperlink below	
b) List of environmental factors:	Please see hyperlink below	
c) List of social factors:	Please see hyperlink below	
d) List of governance factors:	Please see hyperlink below	

	erlink to the information on ESG factors he benchmark or family of benchmarks:	Details of the ESG fa	actors are available <u>here</u>
ten	n 8 . Data and standards used.		
a)	Description of data sources used to provide information on the ESG factors in the benchmark statement.	All ESG data for the benchmarks is sourced externally from: Bloomberg SFS -bond classification data based on a review described in Section 2 of this Methodology document.	
	Describe how the data used to	Contact details are	available <u>here</u> .
	provide information on the ESG factors in the benchmark statement are sourced and whether, and to what extent, data are estimated or reported.		ion on classification process, please refer to Terminal > otherwise this can be made available upon request.
		Sustainalytics - Proc Rating data libraries	duct Involvement, Global Standards Screening and Risk s.
		For further informat http://www.sustaina	ion and contact details, please refer to alytics.com/
b)	Reference standards.		apital Market Association (ICMA) Green Bond, Social Bond ond Principles and Guidelines.
	List the supporting standards used for reporting under item 6 and/or item 7.	For further information, please refer to: https://www.icmagroup.org/sustainable-finance/the-principles-guidelines- and-handbooks/	
		The Greenhouse Gas Protocol is used for GHG estimation. For further information, please refer to https://ghgprotocol.org/	
		The percentage of reported vs estimated data used can be found in the ESG Disclosure Report.	
SE	ECTION 2 - ADDITIONAL DISCLOSURE EU PARIS-A	REQUIREMENTS FO	
		U Climate Transition	Benchmark' or 'EU Paris-aligned Benchmark',
a)	forward-looking year-on-year decarbo	nisation trajectory;	N/A
b)	b) degree to which the IPCC decarbonisation trajectory (1,5°C with no or limited overshoot) has been achieved on average per year since creation;		N/A
c)	overlap between those benchmarks a universe, as defined in Article 1, point Delegated Regulation (EU) 2020/1818 share at asset level.	(e), of Commission	N/A
	SECTION 3 - DISCLOSURE OF THE AL	IGNMENT WITH THE	OBJECTIVES OF THE PARIS AGREEMENT
Tra		Benchmarks, benchr	nt equity and bond benchmarks, EU Climate mark administrators shall, for each benchmark, or g information:
Does the benchmark align with the target of reducing carbon emissions or the attainment of the objectives of the Paris Agreement;			No

b)	The temperature scenario, in accordance with international standards, used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement;	Not applicable. The benchmark is not aligned with the target of reducing carbon emissions or the attainment of the objectives of the Paris Agreement and therefore no temperature scenario is used.
c)	The name of the provider of the temperature scenario used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement;	Not applicable. There is no temperature scenario provider as no temperature scenario is used.
d)	The methodology used for the measurement of the alignment with the temperature scenario;	Not applicable. The benchmark does not use a methodology to measure alignment with a temperature scenario as no temperature scenario is used.
e)	The hyperlink to the website of the temperature scenario used.	Not applicable. There is no temperature scenario used.
Dat	e on which information has last been updated and reason for the update:	February 2023, initial publication

E. Bloomberg Global Fixed Income Paris-Aligned Indices

EXPLANATION OF HOW ESG FACTORS ARE REFLECTED IN THE BENCHMARK STATEMENT SECTION 1 - CONSIDERATION OF ESG FACTORS		
Item 2 . Type of benchmark or family of benchmarks.	Fixed Income	
Item 3 . Name of the benchmark or family of benchmarks.	Bloomberg Global Fixed Income Paris-Aligned Indices	
Item 4. Are there in the portfolio of the benchmark administrator any EU Climate Transition Benchmarks, EU Paris-aligned Benchmarks, benchmarks that pursue ESG objectives or benchmarks that take into account ESG factors?	Yes	
Item 5. Does the benchmark or family of benchmarks pursue ESG objectives?	Yes	
combined ESG factors, environmental, socia	itive, provide below the details (score) in relation to the following ESG factors: I and governance for each family of benchmarks at an aggregated level. gregated weighted average value at the level of the family of benchmarks.	
a) List of combined ESG factors:	Details of these factors can be found in the Bloomberg Global Fixed Income Paris-Aligned ESG Disclosure Report available <u>here</u>	
b) List of environmental factors:	Details of these factors can be found in the Bloomberg Global Fixed Income Paris-Aligned ESG Disclosure Report available <u>here</u>	
c) List of social factors:	Details of these factors can be found in the Bloomberg Global Fixed Income Paris-Aligned ESG Disclosure Report available <u>here</u>	
d) List of governance factors:	Details of these factors can be found in the Bloomberg Global Fixed Income Paris-Aligned ESG Disclosure Report available <u>here</u>	
· ·	tive, provide below the details (score) for the benchmark or family of ctors: combined ESG factors, environmental, social and governance, depending	
included in the benchmark statement. The ir	provided in the form of a hyperlink to a website of the benchmark administrator aformation on the website shall be easily available and accessible. Benchmark bublished on their website remains available for five years.	
The score of the ESG factors shall not be disc aggregated weighted average value of the b	closed for each constituent of the benchmark, but shall be disclosed at an enchmark.	
a) List of combined ESG factors:	Please see hyperlink below	
b) List of environmental factors:	Please see hyperlink below	
c) List of social factors:	Please see hyperlink below	
d) List of governance factors: Please see hyperlink below		

share at asset level.

	erlink to the information on ESG factors he benchmark or family of benchmarks:	Details of the ESG	factors are available <u>here</u>
	18 . Data and standards used.		
a)	Description of data sources used to provide information on the ESG factors in the benchmark statement. Describe how the data used to provide information on the ESG factors in the benchmark statement are sourced and whether, and to what extent, data are estimated or reported.	Bloomberg Finance GHG emissions data Contact details are a For further informatic Estimates and the EU BESG <go> otherwi Sustainalytics US, Inc Involvement, Global For further informatic http://www.sustainal In particular, the Indi</go>	on on the Distributional Greenhouse Gas Emissions I taxonomy methodology, please refer to Terminal function se this can be made available upon request. ("Sustainalytics") - reported and modelled from Product Standards Screening and Risk Rating data libraries. on and contact details, please refer to
b)	Reference standards. List the supporting standards used for reporting under item 6 and/or item 7.	information, please r To align with the pre Sustainanlytics for ex the uncertainty in GI estimated 75 th perce	s Protocol is used for GHG estimation. For further efer to https://ghgprotocol.org/ cautionary principle, a company not covered by clusions is not included. Distributional estimates measure HG emissions, using the precautionary principle where the ntile is applied. eported vs estimated data used can be found in the ESG
SE	ECTION 2 - ADDITIONAL DISCLOSURE EU PARIS-	 REQUIREMENTS FO ALIGNED BENCHMA	
	n 9 . Where a benchmark is labelled as 'l nchmark administrators shall also disclos		Benchmark' or 'EU Paris-aligned Benchmark', nation:
a)	forward-looking year-on-year decarb	onisation trajectory;	Details of the forward-looking year-on-year decarbonisation trajectory for each benchmark can be found in the ESG Disclosures Report available here .
b)	degree to which the IPCC decarbonis (1,5°C with no or limited overshoot) h on average per year since creation;		Details of the achievement of the IPCC decarbonisation trajectory can be found in the ESG Disclosures Report available here
c)	overlap between those benchmarks a universe, as defined in Article 1, point Delegated Regulation (EU) 2020/1816 share at asset level	t (e), of Commission	The active share measure can be found in the ESG Disclosures Report available <u>here</u>

:	SECTION 3 - DISCLOSURE OF THE ALIGNMENT WITH TH	IE OBJECTIVES OF THE PARIS AGREEMENT
Trans	10 . By the date of application of this Regulation, for signification Benchmarks and EU Paris-aligned Benchmarks, benche applicable, the family of benchmarks, disclose the following	mark administrators shall, for each benchmark, or
b)	Does the benchmark align with the target of reducing carbon emissions or the attainment of the objectives of the Paris Agreement;	Yes
b)	The temperature scenario, in accordance with international standards, used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement;	The Indices use the reference 1.5 °C temperature scenario, with no or limited overshoot.
c)	The name of the provider of the temperature scenario used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement;	The Special Report on Global Warming of 1.5 °C from the Intergovernmental Panel on Climate Change (the "IPCC").
d)	The methodology used for the measurement of the alignment with the temperature scenario;	Absolute GHG Emissions
,		Bloomberg gathers GHG emissions figures from publicly-available, company-reported annual accounts or sustainability reports, or any other public source these figures are included in. Company-reported emissions figures are checked by the Bloomberg for completeness, consistency and accuracy.
		Absolute GHG Emissions of an Index is the GHG emissions weighted by the market value of the underlying constituents of the Index:
		$Index_GHG_d = \sum_{i=1}^{n_d} w_d^i \times GHG \ Emissions \ _s^i$
		Where: i is an index constituent; n_d is with respect to Rebalance Date, d , the number of index constituents; w_d^i is with respect to Rebalance Date, d , the weight of constituent, i , in the index; and $GHG\ Emissions_s^i$ is with respect to Rebalance Date, s , the Absolute GHG Emissions of constituent, i .
		GHG Emissions for an index constituent is the total GHG Emissions:
		GHG Emissions $_t^i$ = Scope 1 + Scope 2 + Scope 3

Where:

i is an index constituent;

t is the date when the GHG Emission is measured;

Scope 1 and Scope 2 are reported GHG emissions for the constituent if available, otherwise, estimates are obtained at the 75th;

Scope 3 data are estimates obtained at the 75th percentile from the Bloomberg GHG Estimate Model and is applied to constituents which can be mapped to the equivalent BICS Level 2 sub-industry codes of Oil & Gas and BICS Level 3 Metals & Mining.

Should a significant change occur in the calculation methodology of the Absolute GHG Emissions a new Base Date shall be set for measuring against the Decarbonization Trajectory.

Decarbonisation Trajectory

At index inception ("Base Date"), the weighted average absolute GHG emissions for EU Paris-aligned Benchmarks, including Scope 1, 2 and 3 GHG emissions, shall be at least 50% lower than the absolute GHG emissions of the Parent Index:

 \sum (Security weight in index

* Security level absolute GHG emission)

Note: securities with no reported or estimated (across Scope 1, 2 and 3) emissions calculations are excluded from the weighted average emissions calculation for the Parent Index.

On subsequent rebalances, the weighted average absolute GHG emissions of the Index shall be the lower of 50% of the absolute GHG emissions of the Parent Index, or an absolute GHG emissions level implied by 7% year-on-year geometric reduction relative to the absolute GHG emissions of the Index on the Base Date:

Therefore, for rebalance *ii*, the absolute GHG emission of the Index shall be no more than:

$$W_t = W_1 \times 0.93^{\frac{(t-1)}{12}}, 50\% \text{ x Parent_GHG}$$

Where:

t is the number of monthly index rebalances W_1 is the weighted average absolute GHG emission of the Index at Base Date

Should a significant change occur in the calculation methodology of the absolute GHG emissions a new Base Date shall be set for measuring against the decarbonization trajectory. For each year in which the

		targets laid down are not achieved, those missed targets are compensated by upwardly adjusting the targets in their decarbonization trajectory for the following year.
		Please refer to the ESG Disclosure Report for further details on the decarbonization trajectory of the Indices, including the Base Date used for determination and details relating to any instances where the decarbonization trajectory is not met.
e) The hypused.	perlink to the website of the temperature scenario	https://www.ipcc.ch/sr15/
Date on which information has last been updated and reason for the update:		February 2023, initial publication

F. MSCI Green Bond Indices

EXPLANATION OF HOW ESG FACTORS ARE REFLECTED IN THE BENCHMARK STATEMENT SECTION 1 - CONSIDERATION OF ESG FACTORS			
			Item 1 . Name of the benchmark administrator.
Item 2 . Type of benchmark or family of benchmarks.	Fixed Income		
Item 3 . Name of the benchmark or family of benchmarks.	Bloomberg MSCI Green Bond Indices		
Item 4. Are there in the portfolio of the benchmark administrator any EU Climate Transition Benchmarks, EU Paris-aligned Benchmarks, benchmarks that pursue ESG objectives or benchmarks that take into account ESG factors?	Yes		
tem 5. Does the benchmark or family of Penchmarks pursue ESG objectives?			
	e, provide below the details (score) in relation to the following ESG factors: d governance for each family of benchmarks at an aggregated level.		
The ESG factors shall be disclosed at an aggree	gated weighted average value at the level of the family of benchmarks.		
a) List of combined ESG factors:	Details of these factors can be found in the Bloomberg MSCI Fixed Income Disclosure Report available <u>here</u>		
b) List of environmental factors:	Details of these factors can be found in the Bloomberg MSCI Fixed Income Disclosure Report available <u>here</u>		
c) List of social factors:	Details of these factors can be found in the Bloomberg MSCI Fixed Income Disclosure Report available <u>here</u>		
d) List of governance factors:	Details of these factors can be found in the Bloomberg MSCI Fixed Income Disclosure Report available <u>here</u>		
	r, provide below the details (score) for the benchmark or family of rs: combined ESG factors, environmental, social and governance, depending		
included in the benchmark statement. The infor	ided in the form of a hyperlink to a website of the benchmark administrator mation on the website shall be easily available and accessible. Benchmark lished on their website remains available for five years.		
The score of the ESG factors shall not be disclos aggregated weighted average value of the bend	ed for each constituent of the benchmark, but shall be disclosed at an chmark.		
a) List of combined ESG factors:	Please see hyperlink below		
b) List of environmental factors:	Please see hyperlink below		
c) List of social factors: Please see hyperlink below			

tails of the ESG factors are available here ESG data for the benchmarks is sourced externally from: GCI Research gclientservice@msci.com ps://www.msci.com/research-and-insights				
CI Research gclientservice@msci.com				
CI Research gclientservice@msci.com				
fer to <u>Bloomberg MSCI Fixed Income Indices</u> and MSCI's <u>Methodology</u> ecutive <u>Summary</u> for ESG Ratings and <u>Green Bond and Green Loan</u> sessment <u>Methodology</u> on Green Bond classification for further ormation.				
mmonly utilized disclosure frameworks for data collected and used by SCI ESG Research include GRI, SASB, UN Global Compact; and, for ecific performance indicators, GHG Protocol, and applicable ISO ndards relation to Green Bonds, "Green" categories are currently based on MSC G Research definitions aligned with the International Capital Markets sociations. EU Taxonomy will be used once finalized and formalized.				
SECTION 2 - ADDITIONAL DISCLOSURE REQUIREMENTS FOR EU CLIMATE TRANSITION AND EU PARIS-ALIGNED BENCHMARKS				
1				

benchmark administrators shall also disclose the following information:

a)	forward-looking year-on-year decarbonisation trajectory;	Not applicable
b)	degree to which the IPCC decarbonisation trajectory (1,5°C with no or limited overshoot) has been achieved on average per year since creation;	Not applicable
c)	overlap between those benchmarks and their investable universe, as defined in Article 1, point (e), of Commission Delegated Regulation (EU) 2020/1818, using the active share at asset level.	Not applicable

SECTION 3 - DISCLOSURE OF THE ALIGNMENT WITH THE OBJECTIVES OF THE PARIS AGREEMENT

Item 10. By the date of application of this Regulation, for significant equity and bond benchmarks, EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks, benchmark administrators shall, for each benchmark, or where applicable, the family of benchmarks, disclose the following information:

c)	Does the benchmark align with the target of reducing carbon emissions or the attainment of the objectives of the Paris Agreement;	No
b)	The temperature scenario, in accordance with international standards, used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement;	Not applicable. The benchmark is not aligned with the target of reducing carbon emissions or the attainment of the objectives of the Paris Agreement and therefore no temperature scenario is used.
c)	The name of the provider of the temperature scenario used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement;	Not applicable. There is no temperature scenario provider as no temperature scenario is used.
d)	The methodology used for the measurement of the alignment with the temperature scenario;	Not applicable. The benchmark does not use a methodology to measure alignment with a temperature scenario as no temperature scenario is used.
e)	The hyperlink to the website of the temperature scenario used.	Not applicable. There is no temperature scenario used.
	e on which information has last been dated and reason for the update:	February 2023, initial publication

Take the next step.

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