

DECEMBER 17, 2020
(THE ESG DISCLOSURES IN APPENDICES 1
AND 2 WERE UPDATED NOVEMBER, 2021)

IOSCO, EU BENCHMARKS REGULATION AND UK
BENCHMARKS REGULATION SUPPLEMENTAL DISCLOSURE

GLOBAL INDEX RESEARCH GROUP INDICES

J.P. MORGAN SECURITIES LLC

J.P.Morgan

1. PURPOSE OF THIS DISCLOSURE

This supplemental disclosure (this **Disclosure**) is provided by J.P. Morgan Securities LLC (**J.P. Morgan**) and is designed to:

- (a) supplement the IOSCO Compliance Statement published by the Administrator in respect of certain GIRG Administered Indices; and
- (b) provide general information as required by EU BMR and UK BMR about the process by which GIRG Administered Indices are provided by the Administrator.

This Disclosure relates solely to **GIRG Administered Indices** that J.P. Morgan Securities LLC, in its role as **Administrator** for the Global Index Research Group (**GIRG**) benchmarks, has identified as:

- (i) **EU Benchmarks** within the meaning of EU Benchmarks Regulation (EU) 2016/1011 (**EU BMR**);
- (ii) **UK Benchmarks** within the meaning of UK Benchmarks Regulation (**UK BMR**); or
- (iii) **“benchmarks”** within the meaning of the International Organization of Securities Commissions (**IOSCO**) in its Principles for Financial Benchmarks (July 2013).

This Disclosure does not apply to any other activities by JPMorgan Chase & Co., together with its subsidiaries (the **J.P. Morgan Group**), including, as an example, the Investable Index business. This Disclosure is current as of December 17, 2020 (apart from the ESG disclosures in Appendices 1 and 2 which were last updated November, 2021).

If stakeholders, users or subscribers (each a **“User”** and collectively **“Users”**) have any questions in relation to this Disclosure, they may contact their usual representative within GIRG or email the team at index.research@jpmorgan.com.

2. MAIN FEATURES OF THE CONTROL FRAMEWORK

The Administrator has developed a control framework for the GIRG Administered Indices (the **Control Framework**). The Control Framework provides a governance framework for the Administrator. The Control Framework sits alongside additional internal standards, policies, procedures, and guidelines that are applicable to the Administrator.

2.1. Oversight

The day-to-day responsibility for the creation, operation and management for each GIRG Administered Index lies with the Index Administration Committee (**IAC**), with the Administrator having ultimate responsibility for the creation and operation of a GIRG Administered Index. In addition, the Administrator has established a permanent and effective oversight function, the Index Escalation Committee (**IEC**), to oversee all aspects of the provision of such GIRG Administered Indices.

The roles of the IAC and IEC are disclosed in more detail to an applicable User in Section 3 (Main Features of the Oversight Procedures) below.

Prior to the end of the **“Brexit Transitional Period”** (which, as of the date of this Disclosure, is scheduled to be 23:00 London time on December 31, 2020), the Administrator’s legal

representative for the purposes of its recognition benchmark administration licence under EU BMR is J.P. Morgan Securities plc.

Following the end of the Brexit Transitional Period, the Administrator's EU BMR recognition licence is expected to be converted into a benchmark administration recognition licence under UK BMR. When this occurs, J.P. Morgan Securities plc will be the legal representative for the Administrator under UK BMR and will cease to be the Administrator's legal representative under EU BMR.

J.P. Morgan Securities plc, acting as the Administrator's legal representative under either EU BMR or UK BMR, is referred to in this Disclosure as the **Legal Representative**.

The Legal Representative shall be represented in the IEC. Further information on the role of the Legal Representative in the IEC, and its role in overseeing all aspects of the provision of EU Benchmarks or UK Benchmarks, is disclosed in Section 3 below. The Legal Representative can be contacted by any person within the European Union (in respect of EU BMR) or the United Kingdom (in respect of UK BMR) by (A) post at the following address: Attention: Global Index Research Group – J.P. Morgan Securities plc Legal Representative, 25 Bank Street, London, E14 5JP, United Kingdom; or (B) email to bmr_uk_legal_representative@jpmchase.com.

The Administrator ensures that the Control Framework is followed to protect the integrity of the operation of each GIRG Administered Index.

To the extent that the operation of a proposed GIRG Administered Index will be outsourced to one or more service providers (for example, calculation agents and data providers but, for this purpose, excluding any regulated market or exchange), the Administrator has implemented processes so that it has the ability to exercise appropriate oversight on such service providers.

The Administrator will make available upon request to an applicable User and any relevant regulatory authority the identity and roles of such third parties and affiliated service providers that participate in a GIRG Administered Index determination process.

2.2. GIRG Administered Index Design, methodology and hierarchy of input data

The Administrator has implemented processes for the design, creation and oversight of GIRG Administered Indices.

The processes require that each GIRG Administered Index is transparent with respect to its operation. The design of each GIRG Administered Index is intended to support an accurate and reliable representation of the objective that such GIRG Administered Index seeks to represent. The design process also seeks to mitigate factors that might result in a distortion of a price, rate, index or value of the GIRG Administered Index or one of its constituents. In light of the objective of a GIRG Administered Index, the GIRG Administered Index design should be intended to reflect the economic reality of the markets for the underlying constituents of such GIRG Administered Index. In particular, the factors that, as appropriate, should be considered in the design of a GIRG Administered Index, are as follows:

- transparent and clear composition and methodology for such GIRG Administered Index;
- adequacy of the sample used to represent the underlying constituents referenced by the GIRG Administered Index and, where relevant, the market that it is intended to measure or the strategy it is intended to reflect;
- market depth and liquidity;
- accessibility of the constituents that the GIRG Administered Index seeks to represent; and
- usability by an applicable User of the GIRG Administered Index.

The Administrator does not exercise discretion in evaluating input data, and relies solely on professional (commercial) valuation providers, in addition to WM/Reuters, for all input data needs.

As of the date of this Disclosure, the Administrator uses a single Contributor, PricingDirect, and WM/Reuters as providers of input data for the determination of the GIRG Administered Indices.

Therefore, there is only one provider for each source of input data and, accordingly, there is no defined hierarchy for input data.

WM/Reuters provides spot, forward and non-deliverable foreign exchange benchmark rates.

PricingDirect, which is part of the J.P. Morgan Group, is a professional valuation vendor that provides valuation services for fixed income securities and derivatives for its clients. The Administrator has in place appropriate checks and balances to review the accuracy and data quality of the calculations provided by PricingDirect. Further information on how PricingDirect produces its valuation services is available here:

<https://www.pricing-direct.com/pricingdirect/>.

Further information on the Contributors Code of Conduct, together with how expert judgment is exercised by the Contributor, is given in Sections 2.6 and 4 below. For these reasons, the Administrator believes it is appropriate to have PricingDirect as the Contributor to the GIRG Administered Indices.

Certain circumstances may arise where such input data is unavailable. In such circumstances, the methodology for the applicable GIRG Administered Index may specify the steps that should be taken.

The Administrator's processes provide that each GIRG Administered Index has a written methodology that includes procedures and criteria for its operation.

Each new GIRG Administered Index is approved in accordance with internal approval processes, including historical back testing (where appropriate). Back-tested levels of a GIRG Administered Index are calculated for a historical period of time that may be determined based on the availability of historical input data or by regulatory requirements applicable to certain Users. While such back-tested levels of a GIRG Administered Index may provide illustrative historical performance of such GIRG Administered Index, caution is warranted, as past performance is not indicative of future results. Additionally, although calculated on a rule-based approach, back-tested data is illustrative only and does not consider historical market conditions or other circumstances that would have been taken into consideration had the GIRG Administered Index been live at the time, or it may apply assumptions that differ from those that would have been made had such GIRG Administered Index been live at the time.

The IAC will review, assess and approve proposals for the launch of a new GIRG Administered Index or family that occurs after October 24, 2019, which is the date the first version of this Disclosure was published.

The methodology of a GIRG Administered Index will be published on J.P. Morgan Markets (**JPMM**) and is supplemented by this Disclosure. If the operation of a GIRG Administered Index contemplates the collection of data from an internal or external source, the Administrator's processes include appropriate internal controls over the applicable data collection and data transmission processes.

2.3. Periodic Reviews

GIRG Administered Indices are subject to a periodic review requirement and must be reviewed annually. In addition, the Administrator continuously monitors each GIRG Administered Index in the context of daily calculations and periodic rebalancing and reconstitution cycles.

The Administrator has implemented processes so that it periodically reviews each GIRG Administered Index to consider the functioning of the methodology and whether any changes to the methodology are appropriate.

In addition to the annual periodic review, the Administrator may undertake an *ad hoc* review of a GIRG Administered Index at any time and for any reason.

Following a review of a GIRG Administered Index, the Administrator may, among other actions, choose to amend the methodology or cease to calculate the GIRG Administered Index. The Administrator will make available on request to applicable Users details of any material revisions that have been made to a GIRG Administered Index as a result of a review. Further information is given in Section 2.7 below.

2.4. Calculation, Automated Rebalancings and Market Disruptions

The Administrator has implemented measures designed to promote the accuracy of published GIRG Administered Index levels.

The calculation process for GIRG Administered Indices is fully automated and performed on software systems with audit trails and managed by dedicated information technology (IT) teams. Material changes made to these software systems require a notice and approval from IT Change Management and Operational Risk teams. The IT teams have their own contingency and resiliency plans for disaster recovery. These measures help maintain the integrity and quality of the determination process of the GIRG Administered Indices.

GIRG Administered Indices typically periodically rebalance in an automated way in accordance with the applicable methodology. For example, a re-weighting or inclusion of underlying constituents, may rebalance in an automated way at the end of a month pursuant to the applicable methodology. In addition, the Administrator may also change the methodology of a GIRG Administered Index as set out in Section 2.7 below.

In addition, where required, employees of the Administrator (who are directly involved in the provision of a GIRG Administered Index) are registered with the local supervisory agency of their domicile (e.g., FINRA-registered in the case of US-based personnel).

In exceptional circumstances involving a *force majeure* event (including, but not limited to, acts of God, acts or regulations of government or other authorities, war, fire, strikes or other industrial disputes, power failure, failure of telecommunication lines, connection or equipment, or failure or defects in any hardware or software owned or supplied by third parties), whereby the Administrator is unable to obtain appropriate input data from the relevant source, the Administrator may be unable to calculate and publish levels for any GIRG Administered Index.

However, regardless of a *force majeure* event occurring, the Administrator hereby notifies all Users of such GIRG Administered Index the possibility that it may discontinue generating any level of such GIRG Administered Index at any time and disclaims responsibility for any such disruptions.

2.5. Error Handling

The Administrator has implemented processes so that errors in the calculation of the levels of GIRG Administered Indices are identified and, in the Administrator's sole and absolute

discretion, addressed. This may include, where applicable, raising such errors to the IAC for their consideration in relation to the appropriate course of action (which may include, but is not limited to, republishing the level of the applicable GIRG Administered Index and notifying applicable Users of such re-publication). The IAC may, in its sole and absolute discretion, escalate any such errors to the IEC if deemed necessary. Depending on the severity of the error and its impact on an applicable User of the particular GIRG Administered Index, a technical notification may be distributed to all applicable Users and published on JPMM under the Index Research section.

2.6. Use of Expert Judgement and Discretion

The Administrator does not use expert judgment in respect of any GIRG Administered Index under any circumstances, and its operation of all GIRG Administered Indices is purely rule-based. Notwithstanding the above, the Administrator reserves the right to consider the use of an alternate input data source if, by way of example, PricingDirect is unable to provide input data to the Administrator because of exceptional market circumstances or extraordinary events. If a permanent switch for the input data source is necessary, clients will be notified in advance prior to any official switch. Any such decisions will not affect the rules-based methodology of any GIRG Administered Index.

PricingDirect may exercise expert judgment in the provision of input data to the Administrator in accordance with established guidelines and processes on the use of such expert judgment in contributing input data to the Administrator specifying at least the following: (i) the circumstances in which the Contributor may exercise discretion; (ii) the persons within the Contributor who are permitted to exercise discretion; (iii) the internal controls that govern the exercise of the Contributors' discretion in accordance with its established guidelines and processes; and (iv) any persons within the Contributor who may evaluate ex-post the exercise of discretion. The existence of such established guidelines and processes is confirmed in the **Code of Conduct** established by the Administrator and adhered to by the Contributor, where the Contributor's responsibilities with respect to the contribution of input data for a GIRG Administered Index are established. For the purposes of this Disclosure, a **Contributor** means a natural or legal person contributing input data for a GIRG Administered Index, which, as of the date of this Disclosure, is PricingDirect. Further information on how PricingDirect provides its valuation services is available here:

<https://www.pricing-direct.com/pricingdirect/>.

2.7. Changes in Methodology

Annual governance review

The Administrator has established an annual governance review process to solicit comments and feedback from applicable Users of the GIRG Administered Indices on various topics that can include potential changes related to methodologies, conventions, and overall governance of the GIRG Administered Indices. Such review process will include disclosing the following information in relation to a GIRG Administered Index: (A) the key elements of the methodology that would, in the Administrator's view, be affected by the proposed material change; and (B) a rationale of any potential material changes to a methodology.

The IAC will consider whether the proposed changes are material (in consultation with the IEC where appropriate) or non-material and may consider the following in making such determination:

- any impact on historical or future performance of the GIRG Administered Index (to the extent that the Administrator has actual knowledge of such information);

- the extent to which the change is consistent with the objective of the GIRG Administered Index; and
- any other information provided by the Administrator.

During the review process, feedback will be gathered by the IAC through solicited and unsolicited applicable User, consultant, and other interested party conversations and written communications. The comments collected from these external parties will be considered by the IAC, which shall report a summary of the comments received during the consultation to the IEC for review and oversight prior to making any material changes to the Methodology.

Details of the annual governance review are disseminated simultaneously to internal and external applicable Users via JPMM.

The Administrator may, for any annual governance review, publish a summary of the results.

Where the IAC decides (in consultation with the IEC, where appropriate) that a material change is required to the methodology of a GIRG Administered Index, the updated relevant methodology documents will be published on JPMM and distributed to all applicable Users. The Administrator will aim to provide a reasonable lead time, taking into consideration the scale of the changes and the magnitude of implications for applicable Users of such GIRG Administered Index.

Ad-hoc reviews

In addition to the annual governance review process set out above, the Administrator may also conduct off-cycle *ad-hoc* reviews for material changes whereby the Administrator typically follows the same procedures in respect of an annual governance review as outlined above.

The Administrator may, solely in relation to *ad-hoc* reviews for material changes, decide that:

- it may not be reasonably practicable or proportionate to make available the rationale or to consult applicable Users, when proposing to make changes to the GIRG Administered Indices' methodologies; and
- the Administrator will decide at the time of making a change to a methodology what constitutes a material change and the method and timing for consulting (if any) or notifying (if any) applicable Users (and others where appropriate and practicable, taking into account the breadth and depth of the applicable GIRG Administered Index's use) in relation to changes.

2.8. Cessation of a GIRG Administered Index

The Administrator has clear written policies and procedures to address the need for possible cessation of a GIRG Administered Index.

Any cessation of a GIRG Administered Index must be approved by the IAC, which may consult with the IEC. The IAC should consider how the relevant GIRG Administered Index is used and by whom, the potential impact on the economic and financial stability that might result from the cessation of the calculation and publication of the GIRG Administered Index and the expected timing of, and rationale for, the proposed cessation.

GIRG is under no obligation to continue the calculation, publication or dissemination of any GIRG Administered Index; however, the IAC will consider whether the Administrator should attempt a consultation with applicable Users of any proposed cessation of a GIRG Administered Index.

A summary of any comments provided during any such consultation will be provided to the IEC for review prior to any potential cessation of the relevant GIRG Administered Index.

If the IAC (in consultation with the IEC, as applicable) decides that a GIRG Administered Index should cease to be calculated and published, the IAC will be responsible for ensuring that:

- the relevant business and control functions are notified;
- any agreed-upon consultation or notification approach is implemented (if relevant); and
- the levels of the GIRG Administered Index are removed from all applicable publication sites, or a notice is included on such site informing visitors to the relevant page that no new levels of the GIRG Administered Index will be published and historical data is available for informational purposes only, if relevant.

2.9. Notification of and Consultation with Users

Notification of and consultation with, applicable Users may be undertaken by the Administrator as appropriate. In particular, the Administrator has implemented processes governing the potential notification to and potential consultation with, applicable Users in relation to proposed changes or cessation of a GIRG Administered Index. The method and timing of consultation or notification may vary, depending on the particular GIRG Administered Index and the particular applicable Users (including whether the Administrator is able to obtain information regarding the identity of the applicable Users).

2.10. Complaints

All complaints will be handled in a manner consistent with the Administrator's complaints handling policy. Further information is available at:

<https://www.jpmorgan.com/country/US/en/jpmorgan/ib/girg>.

A copy is also available from the Administrator upon request.

2.11. Prohibited Activities

The operation of a GIRG Administered Index is conducted in a manner that mitigates the risk that a person could manipulate or seek to manipulate or influence any input data used to calculate such GIRG Administered Index.

The Administrator has a number of internal policies that set out procedures and processes setting out reporting obligations for any employee who witnesses or is involved in any actual or potential wrongdoing, or suspects potential wrongdoing related to a GIRG Administered Index (including, but not limited to, the manipulation of a price assessment, insider trading, or front-running).

In addition, the IAC shall escalate the following to the IEC:

- any suspected misconduct by Contributors or the Administrator and any suspicious or anomalous data, where appropriate; and
- any conduct that has been identified through monitoring of input data that may involve manipulation or attempted manipulation of a GIRG Administered Index.

The IAC may also notify Research Compliance and the Legal Representative if appropriate and relevant. Research Compliance may in turn further report such matters to the relevant regulatory authorities. In addition to the Administrator's internal policies referred to above, the IAC, IEC and any employees of the Administrator may also use the Firm-wide internal escalation procedures to escalate any such matters, as appropriate.

2.12. Record-keeping

The J.P. Morgan Group's general record-keeping requirements apply to the Administrator. Records in relation to GIRG Administered Indices will be maintained to document satisfaction of the procedural steps contemplated in the Control Framework and any supporting procedures and processes in accordance with such record-keeping requirements.

PricingDirect, as Contributor for the GIRG Administered Indices, is required to maintain a record-keeping policy in compliance with the Code of Conduct.

2.13. Conflicts of Interest

GIRG is part of Global Research within the Corporate and Investment Bank division of the J.P. Morgan Group. The J.P. Morgan Group has established and maintains several procedures, processes and controls for identifying and managing the conflicts of interest that arise in the course of its business, including the Administrator's business. These controls include a global Conflicts of Interest Policy that requires the Administrator and its employees to identify and manage actual, potential and perceived conflicts of interest, including by overseeing, maintaining and operating effective organizational, procedural and administrative arrangements and controls.

In addition, there is also an established information barriers policy that specifically applies to GIRG.

Conflicts of interest and potential conflicts of interest (including those arising from the ownership structure or the control of the Administrator) are disclosed or published to applicable Users here: <https://www.jpmorgan.com/country/US/en/jpmorgan/ib/girg>.

3. MAIN FEATURES OF THE OVERSIGHT PROCEDURES

The IAC is responsible for the creation, operation and regular oversight of the GIRG Administered Indices. This includes, but is not limited to, the following responsibilities:

- review, assess and approve proposals for the launch of a new GIRG Administered Index (or family);
- conduct the annual index governance review, together with any consequences following such review, as set out in more detail in Section 2.7 above;
- monitor that the Administrator adheres to the Control Framework on a day-to-day basis;
- oversee that individuals who are involved in the provision, supervision and administration of a GIRG Administered Index have the necessary skills, knowledge and experience to perform their duties;
- review the performance of existing third parties or affiliated service providers on an ongoing basis and report any material issues to the IEC;
- provide oversight for the day-to-day activities of the determination and dissemination of levels of GIRG Administered Indices;
- monitor and assess the adherence to the Code of Conduct by the Contributor and escalate any breaches of the Code of Conduct to the IEC where appropriate, together with any proposed measures to be taken in relation to any such breach; and
- report any suspected misconduct by Contributors, or the Administrator, and any anomalous or suspicious input data, to the IEC.

The IAC is composed of GIRG representatives involved in the GIRG Administered Indices.

The IAC meets regularly and at least on a quarterly basis. While a formal quorum is not required, at least three voting members are expected to vote on proposals that have been put to a vote.

The IAC may escalate any matter in the provision of any GIRG Administered Index to the IEC. The IEC has oversight of all aspects of the provision of a GIRG Administered Index, together with the Control Framework and the management and operation of such GIRG Administered Indices. The IEC includes representation from senior management in the Corporate and Investment Bank Global Research Function, a senior regulatory and compliance officer, a senior business control manager and the Legal Representative. Certain members of the IEC are generally conflicted by virtue of their role within the business of the Administrator. However, GIRG has controls in place to manage such conflicts of interest.

The Legal Representative, together with or independent of, the IEC may from time to time suggest action to the IAC to remediate any identified issues of non-compliance with EU BMR or UK BMR by the Administrator. If the Legal Representative, together with or independent of, the IEC, determines that any such non-compliance with EU BMR or UK BMR has not been remediated within a reasonable time frame, it may consider what further action to take, including, but not limited to: (i) notifying the Financial Conduct Authority that the Administrator no longer meets the conditions under which it was recognised as a third country benchmark administrator; or (ii) withdrawing from its role as the Legal Representative of the Administrator.

4. MAIN FEATURES OF THE CONTRIBUTOR'S CODE OF CONDUCT

As indicated above, the Administrator relies on submissions from a Contributor for purposes of calculating each GIRG Administered Index. As of the date of this Disclosure, PricingDirect is the Contributor for all GIRG Administered Indices. The Administrator has developed a Code of Conduct which PricingDirect has adhered to in respect of Contributions it makes for the GIRG Administered Indices.

The IAC conducts a review of the available audit reports of Contributors as a means of monitoring the Contributors' continued compliance with the Code of Conduct and escalates any material issues to the IEC where appropriate. The IEC also carries out an annual review of the Code of Conduct to ensure it remains fit for purpose.

If new GIRG Administered Indices are developed in the future that include input data submitted by a new Contributor other than PricingDirect, then such Contributor must adhere to the Code of Conduct before such input data can be used in any GIRG Administered Indices.

A copy of the Code of Conduct will be made available upon request to the relevant regulatory authorities and to applicable Users of a relevant GIRG Administered Index.

5. ESG DISCLOSURES FOR EU ESG BENCHMARKS OR UK ESG BENCHMARKS

As required under the EU BMR or UK BMR, specific ESG disclosure annexes apply to EU Benchmarks and UK Benchmarks as prescribed under the relevant legislation and these are set out in the appendices to this Disclosure.

For the purposes of this Disclosure:

- Appendix 1 - **ESG Benchmarks** are all EU Benchmarks or UK Benchmarks that are labelled as or refer to 'ESG' or any of the environmental, social or governance objectives described below under their respective methodologies; and
- Appendix 2 – **non-ESG Benchmarks** are all EU Benchmarks or UK Benchmarks that are **not** ESG Benchmarks as defined above.

APPENDIX 1

INDEX METHODOLOGY – ESG BENCHMARKS

EXPLANATION OF HOW ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY	
Item 1. Name of the benchmark administrator.	J.P. Morgan Securities LLC
Item 2. Type of benchmark or family of benchmarks. <i>Choose the relevant underlying asset from the list provided in “Annex II” of the applicable legislation under EU BMR or UK BMR</i>	Fixed Income Indices For the purposes of Annex II, the relevant underlying assets are Fixed Income and Sovereign Debt
Item 3. Name of the benchmark or family of benchmarks.	Fixed Income Indices
Item 4. Does the benchmark methodology for the benchmark or family of benchmarks take into account ESG factors?	Yes
<p>Item 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 the applicable legislation under EU BMR or UK BMR.</p> <p>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 environmental factors considered	<p>Selection, weighting or exclusion:</p> <p>Environmental Objective: This objective is measured by considering certain key factors such as (i) emissions, effluents and waste, (ii) energy use and GHG emissions, (iii) energy efficiency and/or GHG emissions of the company’s services and products, (iv) environmental or social impacts of the company’s products or services, (v) energy and climate change, (vi) natural disasters, and (vii) long-term sustainability of resource use.</p>

<p>b) List of social factors considered:</p>	<p>Selection, weighting or exclusion:</p> <p>Social Objective: This objective is measured by considering certain key factors such as (i) human rights abuses, (ii) impacts on communities, (iii) local participations issues, (iv) social discrimination, (v) forced labor, (vi) child labor, (vii) freedom of association and collective bargaining, (viii) discrimination in employment, (ix) occupational health and safety issues, (x) poor employment conditions, (xi) satisfaction of basic needs, (xii) health standards, and (xii) equal employment and education opportunity.</p>
<p>c) List of governance factors considered:</p>	<p>Selection, weighting or exclusion:</p> <p>Governance Objective: This objective is measured by considering certain key factors such as (i) corruption, bribery, extortion and money laundering, (ii) executive compensation issues, (iii) misleading communication, (iv) fraud, (v) tax evasion, (vi) tax optimization, (vii) anti-competitive practices, (viii) business ethics, (ix) quality of institutions, regulations, and the rule of law, (x) level of protection of freedoms and rights, and (xi) peace and social and political stability.</p>
<p>Item 6. Where the response to Item 4 is positive, please list below, for each benchmark, those ESG factors that are taken into account in the benchmark methodology, taking into account the ESG factors listed in Annex II to the applicable legislation under EU BMR or UK BMR, 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>	
<p>a) List of environmental factors considered:</p>	<p>The following factors apply for both Fixed Income and Sovereign Debt.</p> <p>Environmental Objective: This objective is measured by considering certain key factors such as (i) emissions, effluents and waste, (ii) energy use and GHG emissions, (iii) energy efficiency and/or GHG emissions of the company's services and products, (iv) environmental or social impacts of the</p>

company's products or services, (v) energy and climate change, (vi) natural disasters, and (vii) long-term sustainability of resource use.

RepRisk AG (“RepRisk”) further information

RepRisk screens for risk incidents related to Environmental issues such as Climate Change, GHG emissions and global pollution; Local pollution; Impacts on landscapes, ecosystems, and biodiversity; Overuse and wasting of resources; Waste issues, Animal mistreatment.

Climate Bonds Initiative (“Climate Bonds Initiative”) further information

The climate and environmental factors identified by the Climate Bonds Taxonomy are consistent with the maximum 2-degree global warming target set by the COP 21 Paris Agreement. The list of factors and associated screening indicators and criteria can be found in the following document. Climate Bonds Taxonomy (2020 version)

https://www.climatebonds.net/files/files/CBI_Taxonomy_Tables_January_20.pdf

Selection

The three-step screening process to classify a green bond as eligible covers the following:

1. Identification of climate-themed, self-labelled debt.
2. Screening use of proceeds categories and the relevant green credentials to determine if the proceeds will finance eligible expenses, assets, projects or activities are in line with the Climate Bonds Taxonomy. The EU taxonomy may be used as a point of reference or proxy for sector-specific criteria for which there are currently no Climate Bonds Sector Criteria.
3. Evaluating the use of proceeds threshold. Only bonds which are expected to allocate all net proceeds to aligned green assets, projects or activities are included.

Exclusion

Bonds are excluded if

1. Proceeds are used or expected to be used for projects, assets or expenditures that do not align to the Climate Bonds Taxonomy (e.g. fossil fuel projects, or hydropower projects that do not meet power density threshold), or
2. There is insufficient information to determine

alignment.

Detailed exclusion criteria can be found in the Climate Bonds Taxonomy (2020 version)
https://www.climatebonds.net/files/files/CBI_Taxonomy_Tables_January_20.pdf

Sustainalytics (“Sustainalytics”) further information

Environmental Factors

Consolidated Environmental Rating

Sustainalytics research type:

- Corporates: Environmental Pillar score in the ESG Ratings
- Countries: Country Risk Monitor, Country Risk Ratings

How: the weighted average for the index will be calculated using the above research scores.

ESG Rating

The ESG rating addresses three themes: Environmental, Social and Governance. The Environmental theme includes a set of environmental indicators selected at the peer group level. Indicators can be divided into four types: Preparedness, Disclosure, Qualitative Performance, and Quantitative Performance.

- **Preparedness:** assessments of company management systems and policies designed to manage material E risks (e.g. Environmental Policy, GHG Reduction Programme, Environmental Management System).
- **Disclosure:** assessments of whether company reporting meets international best practice standards and is transparent with respect to most material E issues (e.g. Scope of GHG Reporting).
- **Quantitative Performance:** assessments of company E performance based on quantitative metrics such as carbon intensity (e.g. Renewable Energy Use, Carbon Intensity Trend).
- **Qualitative Performance:** assessments of company E performance based on the analysis of controversial incidents that the company may be involved in (e.g.

	<p>Operations Incidents; Environmental Supply Chain Incidents).</p> <p>Depending on the peer group companies operate in, a variety of environmental indicators are taken into consideration, including but not limited to: Environmental Policy; GHG Reduction Programme; Environmental Management System; Hazardous Waste Management; Renewable Energy Programmes; Green Procurement Policy; EMS Certification; Scope of GHG Reporting; Water Intensity, Renewable Energy Use, Carbon Intensity Trend, Carbon Intensity; Product & Service Incidents; Operations Incidents; Environmental Supply Chain Incidents; Effluents Management, GHG Risk Management; (this is not an exhaustive list as there are in total 50 environmental indicators). To see the exact environmental indicators considered when assessing a certain company, please check the company's ESG Report (see below an example for companies operating in the pharmaceutical peer group).</p> <p>A raw score out of 100 is assigned to every indicator, based on a set of detailed and well-documented internal criteria. In turn, these raw scores are aggregated based on a specific set of weights that reflects the relative importance of the indicator for assessing E performance for that peer group. Weights are unique and specific to every indicator and range from a low of 0.20% to 9%. Each indicator raw score is multiplied by the assigned weight to get the indicator weighted score.</p> <p>The weight of environmental factors on the overall ESG rating score is defined at the peer group level (it can range from 25 % to 45%). For example, environmental theme account for 25% of the overall ESG rating score for companies operating in the pharmaceutical peer group.</p> <p>Country Risk Monitor</p> <p>Environment indicators are divided into three topics: <u>Energy and climate</u>, <u>Natural disasters</u>, and <u>Resource use</u>. The other key resources are found under Resource use, which covers resources that are considered relevant to all countries in the world. These indicators can impact the long-run development of a country.</p> <p>Country Risk Ratings</p>
--	---

	<p>Wealth - The 'E' pillar combines Natural and Produced Capitals. Natural Capital includes the stock of natural resources as well as ecological services upon which an economy depends on. Produced Capital includes the stock of infrastructure, machinery, buildings, equipment, residential and nonresidential urban land.</p> <p>NCPC Factors Score (aligns with Environmental) - considers the environmental risks that can impact NCPC wealth generation and preservation as well as the management of these risks. The themes that are covered are:</p> <p><u>Energy and Climate Change</u>: Countries that are reducing their carbon intensity and preparing for the transition to a carbon constrained world will be better able to generate long term wealth.</p> <p><u>Resource Use</u>: Countries that sustainably utilize the resources available to them have better prospects for long-term wealth generation.</p> <p><u>Governance</u>: Countries with effective governance and the rule of law are more likely to be able to ensure the sustainable use and preservation of Natural and Produced Capital.</p> <p>The score includes three main components: NCPC performance, NCPC Trend and, if applicable, the Events assessment.</p> <p>Natural and Produced Capital Risk Score is a measurement of risk that combines NCPC Wealth and NCPC Factors Score.</p>
<p>b) List of social factors considered:</p>	<p>The following factors apply for both Fixed Income and Sovereign Debt.</p> <p>Social Objective: This objective is measured by considering certain key factors such as (i) human rights abuses, (ii) impacts on communities, (iii) local participations issues, (iv) social discrimination, (v) forced labor, (vi) child labor, (vii) freedom of association and collective bargaining, (viii) discrimination in employment, (ix) occupational health and safety issues, (x) poor employment conditions, (xi) satisfaction of basic needs, (xii) health standards, and (xiii) equal employment and education opportunity.</p> <p><u>RepRisk further information</u> RepRisk screens for risk incidents related to Social issues such as Human Rights abuses and corporate complicity; Impacts on</p>

Communities; Local participations issues; Social discrimination; Forced Labor; Child Labor; Freedom of association and collective bargaining; Discrimination in employment; Occupational health and safety issues; and Poor employment conditions.

Climate Bonds Initiative further information

Social factors are considered for certain project types. For example, bond issuers financing hydropower projects have to show there are no controversies because of loss of habitat/biodiversity and/or displacement of people.

For power plants and dedicated supporting infrastructure (excluding uranium mining), safety and social aspects need to be considered.

Detailed social factor considerations can be found in the Climate Bonds Taxonomy (2020 version)

https://www.climatebonds.net/files/files/CBI_Taxonomy_Tables_January_20.pdf

Selection/exclusion Social factors are considered for certain green project types.

Detailed social factor considerations can be found in the Climate Bonds Taxonomy (2020 version)

https://www.climatebonds.net/files/files/CBI_Taxonomy_Tables_January_20.pdf

Sustainalytics further information

Social Factors

Consolidated Social Rating

- Corporates: Social Pillar in the ESG Ratings
- Countries: Human Capital Score in the Country Risk Monitor, Country Risk Ratings

How: Weighted average Social rating for the index

ESG Rating

The ESG rating addresses three themes: Environmental, Social and Governance. The Social theme includes a set of social indicators selected at the peer group level. Social indicators can be divided into four types: Preparedness, Disclosure, Qualitative Performance, and Quantitative Performance.

- **Preparedness:** assessments of company management systems and policies designed to manage material S risks (e.g. Freedom of Association Policy, QMS Certifications, Health and Safety Management System).
- **Disclosure:** assessments of whether company reporting meets international best practice standards and is transparent with respect to most material S issues.
- **Quantitative Performance:** assessments of company S performance based on quantitative metrics (e.g. Employee Turnover Rate, Employee Fatality Rate).
- **Qualitative Performance:** assessments of company S performance based on the analysis of controversial incidents that the company may be involved in (e.g. Social Supply Chain Incidents, Society & Community Incidents).

Depending on the peer group companies operate in, a variety of social indicators are taken into consideration, including but not limited to: Freedom of Association Policy; Discrimination Policy; Health and Safety Management System; Health & Safety Certifications; QMS Certifications; Diversity Programmes; Supply Chain Monitoring; Scope of Social Supplier Standards; Employee Turnover Rate; Collective Bargaining Agreements; Activities in Sensitive Countries; (this is not an exhaustive list as there are in total 47 social indicators). To see the exact social indicators considered when assessing a certain company, please check the company's ESG Report (see below an example for companies operating in the pharmaceutical peer group).

A raw score out of 100 is assigned to every indicator, based on a set of detailed and well-documented internal criteria. In turn, these raw scores are aggregated based on a specific set of weights that reflects the relative importance of the indicator for assessing S performance for that peer group. Weights are unique and specific to every indicator and range from a low of 0.20% to 9%. Each indicator raw score is multiplied by the assigned weight to get the indicator weighted score.

The weight of social factors on the overall ESG rating score is defined at the peer group level (it can range from 30% to 50%). For example, social factors account for 45% of the overall ESG rating

score for companies operating in the pharmaceutical peer group.

Country Risk Monitor

Social indicators are subdivided into the topics of Basic needs and Societal stability, where the former looks at the conditions to which each individual in society is entitled and the latter looks at the aspects of society that are at risk when people interact together. These indicators can impact the long-run development of a country.

Social Violations

- Countries: Country Risk Monitor

How: Number of index constituents with social violation and issues (absolute number and relative divided by all index constituents).

Human Rights Index

- Countries: Country Risk Monitor

How: Sustainalytics suggests aggregating these datapoints using an average, obtaining an aggregated quantitative indicator.

Freedom of Expression

- Countries: Country Risk Monitor

How: This indicator captures perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association and a free media. The indicator is computed by the World Governance Indicators (WGI) Project and delivered by the World Bank.

The data is transformed by Sustainalytics in a 0-100 scale to make it more intuitive, and then used in the Country Risk Rating. Countries receive a higher score only if they outperform their peers on the given indicator.

Country Risk Ratings

Wealth - The Human Capital (HC) or 'S' pillar of wealth includes stock of knowledge and skills among economic participants (i.e. working class)

Human Capital Factors Score (aligns with Social) - considers the social risks that can impact HC wealth generation and preservation as well as the management of these risks. The score includes three main components: HC performance, HC

	<p>Trend and, if applicable, the Events assessment. The themes that are covered are:</p> <p><u>Basic Needs</u>: The development of Human Capital depends upon the degree to which the basic needs of the population are met.</p> <p><u>Health and Well-being</u>: Similarly, Human Capital depends upon populations that are healthy.</p> <p><u>Equity and Opportunity</u>: Economies that treat participants fairly, provide equal opportunity, and provide educational opportunity will generate Human Capital more fully over time.</p> <p>Human Capital Risk Score is a measurement of risk that combines HC Wealth and HC Factors Score.</p>
<p>c) List of governance factors considered:</p>	<p>The following factors apply for both Fixed Income and Sovereign Debt.</p> <p>Governance Objective: This objective is measured by considering certain key factors such as (i) corruption, bribery, extortion and money laundering, (ii) executive compensation issues, (iii) misleading communication, (iv) fraud, (v) tax evasion, (vi) tax optimization, (vii) anti-competitive practices, (viii) business ethics, (ix) quality of institutions, regulations, and the rule of law, (x) level of protection of freedoms and rights, and (xi) peace and social and political stability.</p> <p><u>RepRisk further information</u> RepRisk screens for risk incidents related to Governance issues such as Corruption, bribery, extortion and money laundering; Executive compensation issues; Misleading communication; Fraud; Tax evasion; Tax optimization; and Anti-competitive practices.</p> <p><u>Sustainalytics further information</u> Consolidated Governance Rating</p> <ul style="list-style-type: none"> - Corporates: Governance Pillar Score in the ESG Ratings - Countries: Institutional Capital Score in Country Risk Monitor, Country Risk Ratings <p>How: Weighted average Governance rating for the index.</p> <p>ESG Rating The ESG rating addresses three themes: Environmental, Social and Governance. The</p>

Governance theme includes a set of governance indicators selected at the peer group level. Governance indicators can be divided into four types: Preparedness, Disclosure, Qualitative Performance, and Quantitative Performance.

- **Preparedness:** assessments of company management systems and policies designed to manage material G risks (e.g. Board Leadership, Board Independence, Board Diversity).
- **Disclosure:** assessments of whether company reporting meets international best practice standards and is transparent with respect to most material G issues (e.g. Tax Disclosure, Verification of ESG Reporting).
- **Quantitative Performance:** assessments of company G performance based on quantitative metrics.
- **Qualitative Performance:** assessments of company G performance based on the analysis of controversial incidents that the company may be involved in (e.g. Business Ethics Incidents, Governance Incidents).

Depending on the peer group companies operates in, a variety of governance indicators are taken into consideration, including but not limited to: Board Leadership; Board Diversity; Board Independence; Political Involvement Policy; Whistleblower Programmes; Bribery & Corruption Policy; Auditor Fees; ESG Governance; ESG Performance Targets; (this is not an exhaustive list as there are in total 34 governance indicators). To see the exact governance indicators considered when assessing a certain company, please check the company's ESG Report (see below an example for companies operating in the pharmaceutical peer group).

A raw score out of 100 is assigned to every indicator, based on a set of detailed and well-documented internal criteria. In turn, these raw scores are aggregated based on a specific set of weights that reflects the relative importance of the indicator for assessing G performance for that peer group. Weights are unique and specific to every indicator and range from a low of 0.20% to 9%. Each indicator raw score is multiplied by the assigned weight to get the indicator weighted score.

The weight of Governance factors on the overall ESG rating score is defined at the peer group level (it can range from 25% to 48%). For example,

governance factors account for 30% of the overall ESG rating score for companies operating in the pharmaceutical peer group.

Country Risk Monitor

Governance is divided into the topics of Institutional Strength and Sustainability Direction, such that a country's government is assessed not only on the capacity of the state to enact policies and programmes, but also on the direction it chooses to go. In the latter case, a government is assessed on its policies and programmes related to environmental and social governance. These indicators also can impact the long-run development of a country.

Corruption

- Countries: Country Risk Monitor

How:

This indicator captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests. The indicator is computed by the World Governance Indicators (WGI) Project and delivered by the World Bank. The data is transformed by Sustainalytics in a 0-100 scale to make it more intuitive, and then used in the Country Risk Rating. Countries receive a higher score only if they outperform their peers on the given indicator.

Political Stability

- Countries: Country Risk Monitor

How: This indicator measures perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism. The indicator is computed by the World Governance Indicators (WGI) Project and delivered by the World Bank.

The data is transformed by Sustainalytics in a 0-100 scale to make it more intuitive, and then used in the Country Risk Monitor. Countries receive a higher score only if they outperform their peers on the given indicator.

Rule of Law

- Countries: Country Risk Monitor

How:

This indicator captures perceptions of the extent to

	<p>which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence. The indicator is computed by the World Governance Indicators (WGI) Project and delivered by the World Bank.</p> <p>The data is transformed by Sustainalytics in a 0-100 scale to make it more intuitive, and then used in the Country Risk Monitor. Countries receive a higher score only if they outperform their peers on the given indicator.</p> <p>Country Risk Ratings</p> <p>Wealth - The Institutional Capital (IC) or 'G' pillar of wealth includes the social and institutional infrastructure that enables the productive functioning of a society and economy. IC is assessed to account for 15% of a nation's wealth generated from natural, physical and human capital.</p> <p>IC Factors Score (aligns with Governance) - considers governance risks that can impact IC wealth generation and preservation as well as the management of these risks. The score includes three main components: IC performance, IC Trend and, if applicable, the Events assessment.</p> <p><u>Institutional Strength</u>: Quality of institutions, regulations, and the rule of law have a major impact on the ability of a nation to effectively utilize available resources, including other Capitals, to create long term wealth.</p> <p><u>Rights and Freedoms</u>: The greater the protection of rights and freedoms enjoyed by a population, the more it can contribute to wealth creation.</p> <p><u>Peace and Stability</u>: Long term wealth creation requires peace and social/political stability.</p> <p>Institutional Capital Risk Score is a measurement of risk that combines IC Wealth and IC Factors Score.</p>
Hyperlink to the information on ESG factors for each benchmark:	Not Applicable.
Item 7. Data and standards used	
a) Data input.	The methodology of the Administrator's ESG Benchmarks relies on an ESG Index Score

*(i) Describe whether the data are reported, modelled or sourced internally or externally.
(ii) Where the data are reported, modelled or sourced externally, please name the third party data provider.*

that is calculated daily by the Administrator based on an average of ESG scores that are provided by RepRisk Sustainalytics and/or the Climate Bonds Initiative, three of the leading industry ESG providers.

RepRisk further information

RepRisk is a global leader and pioneer in data science, specializing in premium ESG and business conduct risk research and quantitative solutions. Since 2006, RepRisk has been leveraging the combination of AI and machine learning with human intelligence to translate big data into actionable business intelligence and risk metrics.

RepRisk screens, on a daily basis, over 90,000 public sources and stakeholders in 20 languages. These include print media, online media, social media including Twitter and blogs, government bodies, regulators, think tanks, newsletters, and other online sources. These sources range from the international to the regional, national, and local level.

RepRisk’s core research scope is comprised of 28 ESG Issues that are broad, comprehensive, and mutually-exclusive. The 28 Issues drive the entire research process, as every risk incident in RepRisk’s ESG Risk Platform is linked to at least one of these Issues. When RepRisk screens the sources and stakeholders, it screens for any company or project linked to these Issues.

Climate Bonds Initiative further information

Climate Bonds Taxonomy
https://www.climatebonds.net/files/files/CBI_Taxonomy Tables January 20.pdf

Climate Bonds Initiative Green Bond Database Methodology
<https://www.climatebonds.net/standard/taxonomy>

Sourced externally:
Screened green bond data is provided by the Climate Bonds Initiative.

Sustainalytics further information

Data Source:

	<p>Externally sourced through Sustainalytics ESG Research.</p> <p>Sustainalytics Sustainalytics is a leading independent ESG and corporate governance research, ratings and analytics firm that support investors around the world with the development and implementation of responsible investment strategies.</p> <p>In particular, this index uses the following ESG Products: Sustainalytics ESG Scores, Global Standards Screening, and Product Involvement.</p> <p>For details on Sustainalytics ESG Research’s full suite of ESG products, please refer to: http://www.sustainalytics.com</p> <p>Sustainalytics’ research process involves the collection and analysis of information made available by third parties, including civil society, corporate, government, industry association, investor, media and regulatory sources. Sustainalytics also uses 3rd party data providers about which information is available at https://www.sustainalytics.com/legal-disclaimers/</p> <p>The methodology behind Sustainalytics Global Standards Screening is based on the following international standard:</p> <ul style="list-style-type: none"> • UN Global Compact Principles • OECD • World Governance Indicators • On top of these international (convention-based) standards Sustainalytics also looks at industry specific standards or initiatives. Examples are the Round Table on Sustainable Palm Oil, the standards for Systemically Important Banks, local Corporate Governance codes, and many others. • Said industry specific standards are incorporated in Sustainalytics assessments of companies’ management of ESG issues in Sustainalytics ESG Risk Rating.
<p>b) Verification and quality of data.</p> <p><i>Describe how data are verified and how the quality of those data is ensured.</i></p>	<p>The Administrator maintains appropriate oversight of all data sourced from ESG providers (including RepRisk, Climate Bonds Initiative and Sustainalytics) involved in the ESG Benchmark determination process. As part of this oversight function, the Administrator has implemented (i) automated controls that allow the Administrator to regularly assess changes in ESG data</p>

provided by RepRisk, Climate Bonds Initiative and Sustainalytics, and (ii) manual reviews in the form of regular meetings (at the beginning and at the end of each month) where the ESG data is appropriately assessed and approved by the Administrator's personnel for purposes of re-weighting and calculating the ESG Benchmarks. Additionally, the Administrator undertakes the verification and validation of ESG data on an ad-hoc basis by comparing it with historic ESG data that the Administrator's personnel receive through automated reports.

RepRisk further information

RepRisk does not verify or validate any allegations made; RepRisk's role is to serve as a provider of relevant information and transparency. Its work therefore focuses on identifying and assessing the risk incidents in a systematic and rules-based way.

Climate Bonds Initiative further information

The Climate Bonds Initiative screens self-labelled debt instruments to identify bonds and similar debt instruments as eligible for inclusion in the Climate Bonds Initiative Green Bond Database. The screening references the Climate Bonds Taxonomy.

In some cases, the information available on a bond's use of proceeds is insufficient for an immediate decision as to whether the bond should be included or excluded. Such bonds are marked as "Pending" and further work is undertaken to obtain or clarify information. This investigation process is carried out by contacting the issuer, underwriter(s), rating agency and/or the green bond external review provider (if applicable) within 30 days after the bond is identified as carrying a green label.

Climate Bonds Initiative also tracks the post issuance disclosure of green bonds. If a green bond is included but the issuer cannot fulfil the criteria at a later date or the proceeds are eventually applied to "non-green" assets, it may be removed from the Climate Bonds Initiative Green Bond Database. Conversely, excluded bonds may be re-classified if satisfactory information confirming alignment with Climate Bonds definitions is provided or obtained at a later date.

Sustainalytics further information

Sustainalytics Quality Approach to ESG Rating:

Universe Management

- Centralized universe definitions and processes for rebalancing;
- Quarterly rebalances of Sustainalytics' standard coverage and compliance universes;
- Clear, transparent and consistent approach to the allocation of research versus coverage entities.

Company Research

- Continuous improvement and maintenance of quality and research standards;
- Feedback that is received from Companies in Sustainalytics' Coverage Universe and that are a part of Sustainalytics ESG Risk Ratings and controversy research is taken into consideration, and whenever relevant included;
- Quality reviews of ESG assessments before publication;
- Reviewing controversy ratings by the Events Oversight Committee – focus on controversy level changes to and from level 4 and 5.

Data and deliverable management

- Quality and reliability of Sustainalytics Covered Company and identifier data through automated quality assurance;
- Quality and reliability of Sustainalytics proprietary (i.e. research) data through automated quality assurance, prior to publication;
- Quality and reliability of standard deliverables through end-of-gate quality assurance process.
- Quality and reliability of custom client deliverables through end-of-gate quality assurance processes (automated and manual);
- Monitoring and investigating ESG score fluctuations and their root causes using automated tools.

Update cycle

- Sustainalytics aims for annual updates of management indicators for the Covered Companies';
- Continuous updates are made as incidents occur and feed into updates of event indicators, which is not disclosure driven;

	<ul style="list-style-type: none"> Annual updates to the rating framework (selection of material ESG issues, weighting of indicators).
<p>c) Reference standards</p> <p><i>Describe the international standards used in the benchmark methodology.</i></p>	<p>EU BMR or UK BMR</p> <p><u>Climate Bonds Initiative further information</u></p> <p>The Climate Bonds Taxonomy identifies the assets and projects needed to deliver the transition to a low carbon economy and gives GHG emissions screening criteria consistent with the maximum 2-degree global warming target set by the COP 21 Paris Agreement. It has been developed based on the latest climate science including research from the Intergovernmental Panel on Climate Change (IPCC) and the International Energy Agency (IEA), and has benefited from the input of hundreds of technical experts across sectors and from around the world. It can be used by any entity looking to identify which assets and activities, and associated financial instruments, are compatible with a 2-degree trajectory. First released in 2013, the Climate Bonds Taxonomy is regularly updated based on the latest climate science, emergence of new technologies and on the Climate Bonds Standard Sector Criteria.</p> <p><u>Sustainalytics further information</u></p> <p>The methodology behind Sustainalytics Global Standards Screening is based on the following international standard:</p> <ul style="list-style-type: none"> UN Global Compact Principles OECD World Governance Indicators On top of these international (convention-based) standards Sustainalytics also look at industry specific standards or initiatives. Examples are the Round Table on Sustainable Palm Oil, the standards for Systemically Important Banks, local Corporate Governance codes, and many others. Said industry specific standards are incorporated in Sustainalytics assessments of companies' management of ESG issues in Sustainalytics ESG Risk Rating.
<p>Date on which information has been last updated and reason for the update:</p>	<p>November, 2021 (annual review)</p>

APPENDIX 2

INDEX METHODOLOGY – NON- ESG BENCHMARKS

EXPLANATION OF HOW ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY	
Item 1. Name of the benchmark administrator.	J.P. Morgan Securities LLC
Item 2. Type of benchmark or family of benchmarks. <i>Choose the relevant underlying asset from the list provided in “Annex II” of the applicable delegated legislation under EU BMR or UK BMR.</i>	Fixed Income Indices For the purposes of Annex II, the relevant underlying asset are Fixed Income and Sovereign Debt
Item 3. Name of the benchmark or family of benchmarks.	Fixed Income Indices
Item 4. Does the benchmark methodology for the benchmark or family of benchmarks take into account ESG factors?	No
<p>Item 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 the applicable delegated legislation under EU BMR or UK BMR.</p> <p>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 environmental factors considered:	Benchmark Family does not pursue ESG objectives.
b) List of social factors considered:	Benchmark Family does not pursue ESG objectives.
c) List of governance factors considered:	Benchmark Family does not pursue ESG objectives.
<p>Item 6. Where the response to Item 4 is positive, please list below, for each benchmark, those ESG factors that are taken into account in the benchmark methodology, taking into account the ESG factors listed in Annex II to the applicable delegated legislation under EU BMR or UK BMR, 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. 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</p>	

the website shall be easily available and accessible. Benchmark administrators shall ensure that information published on their website remains available for five years.	
a) List of environmental factors considered:	Benchmark Family does not pursue ESG objectives.
b) List of social factors considered:	Benchmark Family does not pursue ESG objectives.
c) List of governance factors considered:	Benchmark Family does not pursue ESG objectives.
Hyperlink to the information on ESG factors for each benchmark:	Not Applicable.
Item 7. Data and standards used	
a) Data input. <i>(i) Describe whether the data are reported, modelled or sourced internally or externally. (ii) Where the data are reported, modelled or sourced externally, please name the third party data provider.</i>	Benchmark Family does not pursue ESG objectives.
b) Verification and quality of data. <i>Describe how data are verified and how the quality of those data is ensured.</i>	Benchmark Family does not pursue ESG objectives.
c) Reference standards <i>Describe the international standards used in the benchmark methodology.</i>	EU BMR or UK BMR.
Date on which information has been last updated and reason for the update:	November, 2021 (annual review)