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

BENCHMARK STATEMENT

FIXED INCOME INDICES

J.P. MORGAN SECURITIES LLC

J.P.Morgan

### **BENCHMARK STATEMENT**

This benchmark statement is intended to provide details for a group of benchmarks provided by the same administrator and determined from input data of the same nature which provides specific measures of the same or similar market or economic reality. This is a wide definition. Limits on the size of any benchmark family are more likely to be imposed by the requirements of the benchmark methodology and benchmark statement.

Benchmark Family: Fixed Income Indices

**Benchmark Administrator**: J.P. Morgan Securities LLC (**J.P. Morgan**)

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**Categorisation**: Non-significant benchmarks

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Appendices 1 and 2 which were last updated

November 2021).

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### 1. Status of this document

This is the **Benchmark Statement** for Global Index Research Group (**GIRG**) indices that are "benchmarks" within the meaning of EU BMR or UK BMR (defined below) for the above Benchmark Family (each a **Benchmark**, and together the **Benchmarks**).

This Benchmark Statement provides an overview of certain key information relating to each Benchmark, as required by either: (1) prior to the end of the "Brexit Transitional Period" (which, as of the date of this Benchmark Statement is scheduled to be 23:00 London time on December 31, 2020) and the EU Benchmarks Regulation (EU) 2016/1011 (EU BMR); or (2) following the end of the Brexit Transitional Period and the UK Benchmarks Regulation (UK BMR), each of which may be amended from time to time.

This Benchmark Statement applies to all Benchmarks administered by the Benchmark Administrator and included on either the ESMA or the FCA register of benchmarks. Details of the ISINs for Benchmarks in the Benchmark Family, where relevant, are available to users on request to the Benchmark Administrator free of charge at the details specified above.

The Benchmark methodologies (**Benchmark Methodologies**) will be published on J.P. Morgan Markets (**JPMM**) and are supplemented by various **Disclosures** (including, but limited to, the IOSCO, EU Benchmarks Regulation and UK

Benchmarks Regulation Supplemental Disclosure). Further information on such Disclosures, and the Benchmark Administrator's complaints handling and conflict of interest processes, are available here: <a href="http://www.jpmorgan.com/pages/jpmorgan/ib/girg.">http://www.jpmorgan.com/pages/jpmorgan/ib/girg.</a>

# Nothing contained in this Benchmark Statement should be construed as an offer or solicitation of any transaction.

This Benchmark Statement will be reviewed and, if necessary, updated at least every two years, but may be updated more frequently in accordance with the requirements of EU BMR and UK BMR.

### 2. Updates and changes to, and cessation of, the Benchmark

Certain factors, including external factors beyond the control of the Benchmark Administrator, may necessitate changes to, or the cessation of, any of the Benchmarks. Changes to, or the cessation of, any of Benchmarks may have an impact upon any financial instruments or financial contracts that reference those Benchmarks and any investment funds in respect of which the performance is measured by reference to such Benchmarks.

### 3. Input data

The Benchmark Administrator uses a single contributor, PricingDirect, and WM/Reuters as providers of input data for the determination of the Benchmarks.

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

**PricingDirect**, which is part of the J.P. Morgan group of companies, is a professional valuation vendor that provides valuation services for fixed income securities and derivatives for its clients. The Benchmark 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.pricingdirect.com/pricingdirect/.

# 4. Market or economic reality measured by each Benchmark and its potential limitations and all key terms

The Benchmarks track the fixed income universe. The data used for a Benchmark should be reasonably expected to be sufficient to accurately and reliably represent each constituent included in the Benchmark, and, where relevant, the market or economic reality that a Benchmark is intended to measure. The Benchmarks in this family provide synthetic exposure to different types of fixed income bonds selected from a universe of bonds, with different geographical boundaries, each as specified in the applicable Benchmark Methodology.

# 5. Limitations of the Benchmark and circumstances in which the measurement of this market or economic reality may become unreliable

In respect of any calculation day that is not a disrupted day, the applicable calculation entity shall calculate the Benchmark in accordance with the Benchmark Methodology.

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 Benchmark Administrator is unable to obtain appropriate input data from the relevant source, the Benchmark Administrator may be unable to calculate and publish levels for any Benchmark.

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

The Benchmark is subject to the risks which arise in the markets for the constituents whose performance it reflects, including potential illiquidity of such constituents and the risk of market disruption affecting such constituents. Further, the overall diversification of the Benchmark is potentially limited and may be less diversified than an investment in any fund, investment portfolio or other product which invests in or tracks a diversified investment portfolio, and therefore could experience greater volatility.

## 6. Benchmark Methodology

### 6.1 Rationale for adopting the Benchmark Methodology

The design principles of the Benchmarks are intended to support an accurate and reliable representation of the relevant underlying asset class which the Benchmarks seek to represent, and mitigate factors that might result in a distortion of a price, rate, index or value of the Benchmark or one of its constituents. The Benchmark design is also intended to reflect the economic reality of the markets for the underlying constituents of the Benchmark. The salient features of the Benchmark design principles which are considered, including without limitation those that follow, as appropriate for the particular Benchmark, are:

- Transparent and clear benchmark composition and Benchmark Methodology.
- Adequacy of the sample used to represent the underlying constituents referenced by the Benchmark, and, where relevant, the market that a Benchmark is intended to measure or the strategy it is intended to reflect.
- Market depth and liquidity.
- Where relevant accessibility of the underlying markets/asset class and the constituents which the Benchmark seeks to represent.
- Replicability of index performance by the Benchmark users.

Each Benchmark must have a clear written Benchmark Methodology, the scope of which includes all procedures and criteria for its operation, including the following details set out below, which may be contained in either the rules for a Benchmark or in the Disclosures that applicable to one or more Benchmarks:

- The objective of the Benchmark.
- Definitions for key terms.
- Available on request, the identification and roles of parties key to the operation
  of the Benchmark (e.g., applicable calculation entity), and contact details for
  the Benchmark Administrator
- Technical specifications, such as, formulas and manner of calculation, including any adjustments if applicable.
- Publication details, details on timing of data availability and modes of delivery.
- Details of data sources, including selection and prioritization of inputs (this is not usually expected to apply, but may apply in circumstances where one particular data source or type is not available), and whether there is a minimum of quantity or quality data required to support a calculation.
- Provisions for market disruptions and extraordinary events (e.g., provisions to deal with periods where data sources may be unavailable).
- Notifications regarding amendments.
- If applicable, disclaimers with respect to use of the intellectual property of a third party that has licensed information or data for use in the Benchmark.
- A summary description of the procedures for dealing with error reports, including possible revisions to a calculated level of the Benchmark.

### 6.2 Procedures for the review and approval of the Benchmark Methodology

The Benchmark Administrator has implemented processes for the design, creation and oversight of Benchmarks.

The processes require that each Benchmark is transparent with respect to its operation. The design of each Benchmark is intended to support an accurate and reliable representation of the objective that such Benchmark 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 Benchmark or one of its constituents. In light of the objective of a Benchmark, the index design should be intended to reflect the economic reality of the markets for the underlying constituents of such Benchmark.

The Benchmark Administrator's processes provide that each Benchmark has a written Benchmark Methodology that includes procedures and criteria for its operation.

Each new Benchmark is approved in accordance with internal approval processes, including historical back testing (where appropriate).

The Index Administration Committee (IAC) will review, assess and approve proposals for the launch of a new Benchmark or family that occurs after the date of this Benchmark Statement.

### 6.3 Criteria and procedures used to determine the Benchmark

The Benchmark Administrator has implemented measures designed to promote the accuracy of published Benchmarks.

The calculation process for Benchmarks 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 Benchmarks.

The Benchmarks typically periodically rebalance in an automated way in accordance with the applicable Benchmark Methodology. For example, a reweighting or inclusion of underling constituents, may rebalance in an automated way at the end of a month pursuant to the applicable Benchmark Methodology.

In addition, where required, employees of the Benchmark Administrator (who are directly involved in the provision of a Benchmark) 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, as set out in Section 5 above, whereby the Benchmark Administrator is unable to obtain appropriate input data from the relevant source, the Benchmark Administrator may be unable to calculate and publish levels for any Benchmark.

### 7. Use of discretion in determination of the Benchmark

The Benchmark Administrator does not use expert judgment in respect of any Benchmark under any circumstances and its operation of all Benchmarks is purely rule-based. Notwithstanding the above, the Benchmark 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 Benchmark Administrator due to 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 Benchmark Methodology of any Benchmark.

PricingDirect may exercise expert judgment in the provision of input data to the Benchmark 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 (as defined below) 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 Benchmark are established. For the purposes of this Benchmark Statement, a Contributor means a natural or legal person contributing input data for a Benchmark, which, as of the date of this Benchmark Statement, is PricingDirect. Further information on how PricingDirect provides its valuation services is available here: https://www.pricingdirect.com/pricingdirect/.

# 8. Procedures for determination of the Benchmark in periods of stress or where transaction data sources may be insufficient, inaccurate or unreliable

Subject to PricingDirect exercising expert judgment, as set out in Section 7 above, in the event of a disruption in the availability of the required input data relating to any Benchmark, depending on the Benchmark Methodology the Benchmark Administrator or calculation entity may:

- have the power to delay determining the level of such input data until such disruption ceases; and/or
- calculate the Benchmark using the alternative calculation method specified in the Benchmark Methodology.

Any such event or circumstance may mean there is a delay or temporary or permanent unavailability of a Benchmark and this may adversely affect any financial transaction that uses the relevant Benchmark.

# 9. Procedures for dealing with errors in input data or in the determination of the Benchmark

The Benchmark Administrator has implemented processes so that errors in the calculation of the levels of Benchmarks are identified and, in the Benchmark Administrator's sole and absolute discretion, addressed. This may include, where applicable, raising such errors to the Index Administration Committee (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 Benchmark and notifying applicable users of such re-publication). The IAC may, in its sole and absolute discretion, escalate any such errors to the Index Escalation Committee (IEC) if deemed necessary. Depending on the severity of the error and its impact on users of the particular Benchmark, a technical notification may be distributed to all applicable users and published on JPMM under the Index Research section.

### 10. ESG Disclosures for ESG Benchmarks and non-ESG Benchmarks

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

For the purposes of this Benchmark Statement:

- Appendix 1 ESG Benchmarks are all 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 Benchmarks that are **not** ESG Benchmarks as defined above.

### **APPENDIX 1 - ESG BENCHMARKS ONLY**

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

FACTORS ARE REFLECTED IN THE BENCHMARK STATEMENT	
SECTION 1 – CONSIDERATION OF ESG FACTORS	
Item 1. Name of the benchmark administrator.	J.P. Morgan Securities LLC
<b>Item 2.</b> Type of benchmark or family of benchmarks.	Fixed Income Indices
Choose the relevant underlying asset from the list provided in "Annex II" of the applicable legislation under EU BMR or UK BMR.	For the purposes of Annex II, the relevant underlying assets are Fixed Income and Sovereign Debt
<b>Item 3.</b> Name of the benchmark or family of benchmarks.	Fixed Income Indices
Item 4. Are there in the portfolio of the benchmark administrator any EU Climate Transition Benchmarks, UK Climate Transition Benchmarks, EU Paris-aligned Benchmarks, UK 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
<b>Item 6.</b> Where the response to Item 5 is positive, provide below the details (score) in relation to the ESG factors listed in Annex II for each family of benchmarks at aggregated level.  The ESG factors shall be disclosed at an aggregated weighted average value at the level	
of the family of benchmarks.  a) List of combined ESG factors:	Details on each factor:
b) List of environmental factors:	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.
c) List of social factors:	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.
d) List of governance factors:	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.

Item 7. Where the response to Item 5 is positive, provide below the details (score) for each benchmark, in relation to the ESG factors listed in Annex II, 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:	Details on each factor for (i) Fixed Income and (ii) Sovereign Debt.
b) List of environmental factors:	The following factors apply for both Fixed Income and Sovereign Debt.
	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.
	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
	middle frame

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\_Taxon omy Tables January 20.pdf

# <u>Sustainalytics</u> ("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 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. Operations Incidents; Environmental Supply Chain Incidents).

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).

A raw score out of 100 is assigned to every indicator, based on a set of detailed and welldocumented 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. 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.

### **Country Risk Monitor**

**Environment indicators** 

are divided into three topics: Energy and climat e, Natural disasters, and Resource use. 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.

### **Country Risk Ratings (introduced 2019)**

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.

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:

<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.

Resource Use: Countries that sustainably utilize the resources available to them have better prospects for long-term wealth generation.

Governance: 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.

The score includes three main components: NCPC performance, NCPC Trend and, if applicable, the Events assessment.

Natural and Produced Capital Risk Score is a measurement of risk that combines NCPC Wealth and NCPC Factors Score.

### c) List of social factors:

The following factors apply for both Fixed Income and Sovereign Debt.

Social Objective: This objective is measured by considering certain key factors such as (i) human rights abuses, (ii) impacts on communities, (iii) participations issues, (iv) social discrimination, (v) forced labor, (vi) child labor, (vii) freedom of association and collective bargaining, discrimination employment, in occupational health and safety issues, (x) poor employment conditions, (xi) satisfaction of basic needs, (xii) health standards, and (xii) equal employment and education opportunity.

### RepRisk further information

RepRisk screens for risk incidents related to Social issues such as Human Rights abuses and

corporate complicity; Impacts on 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.

# <u>Climate</u> <u>Bonds</u> <u>Initiative</u> <u>further</u> 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)

<a href="https://www.climatebonds.net/files/files/CBI\_Taxonomy">https://www.climatebonds.net/files/files/CBI\_Taxonomy</a>

Tables January 20.pdf

# Sustainalytics further information 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).

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- 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 welldocumented 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 pharmaceutical peer group.

### **Country Risk Monitor**

Social indicators are subdivided into the topics of <u>Basic needs</u> and <u>Societal stability</u>, 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 quantitive 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 Trend and, if applicable, the Events assessment. The themes that are covered are:

<u>Basic Needs</u>: The development of Human Capital depends upon the degree to which the basic needs of the population are met.

<u>Health and Well-being</u>: Similarly, Human Capital depends upon populations that are healthy.

<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.

Human Capital Risk Score is a measurement of risk that combines HC Wealth and HC Factors Score.

### d) List of governance factors:

The following factors apply for both Fixed Income and Sovereign Debt.

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.

### RepRisk further information

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 Anticompetitive practices.

# Sustainalytics further information Governance Scores

### **Consolidated Governance Rating**

- Corporates: Governance Pillar Score in the ESG Ratings
- Countries: Institutional Capital Score in Country Risk Monitor, Country Risk Ratings

**How:** Weighted average Governance rating for the index.

#### **ESG Rating**

The ESG rating addresses three themes: Environmental, Social and Governance. The 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 welldocumented 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 <u>Institutional</u> <u>Strength</u> and <u>Sustainability Direction</u>, 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

### **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 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. 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.

### **Country Risk Ratings**

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.

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.

<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.

<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.

<u>Peace and Stability</u>: Long term wealth creation requires peace and social/political stability.

Institutional Capital Risk Score is a measurement of risk that combines IC Wealth and IC Factors Score.

Hyperlink to the information on ESG factors for each benchmark:

Not Applicable.

Item 8. 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.

The methodology of the Benchmark Administrator's ESG Benchmarks relies on an ESG Index Score that is calculated daily by the Benchmark 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.

The Administrator maintains appropriate oversight of all data sourced from ESG providers (including RepRisk, Sustainalytics and Climate Bonds Initiative) 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 provided by RepRisk, Sustainalytics and Climate Initiative, 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 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.

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 green bonds included in Climate Bonds Initiative Green Bond Database are used.

The Climate Bonds Initiative screens self-labelled green debt instruments to identify bonds and similar debt instruments as eligible for inclusion in the Climate Bonds Initiative Green Bond Database. The screening process 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 further information and/or clarify information in existing disclosures. This investigation process is carried out by contacting the issuer, underwriter(s), rating agency and/or green bond external review provider (if applicable) within 30 days after the bond is identified as a green labelled instrument.

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

### **Sustainalytics further information**

### **Data Source:**

Externally sourced through Sustainalytics ESG Research.

### **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.

In particular, this index uses the following ESG Products: Sustainalytics ESG Scores, Global Standards Screening, and Product Involvement.

For details on Sustainalytics ESG Research's full suite of ESG products, please refer to: http://www.sustainalytics.com

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 https://www.sustainalytics.com/legal-disclaimers/

The methodology behind Sustainalytics Global Standards Screening is based on the following international standard:

- 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.

# 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.
- Annual updates to the rating framework (selection of material ESG issues, weighting of indicators).

b) Reference standards.

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

EU BMR or UK BMR

### Climate Bonds Initiative further information

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.

### Climate Bonds Taxonomy

https://www.climatebonds.net/files/files/CBI Taxon omy Tables January 20.pdf

Climate Bonds Initiative Green Bond Database Methodology

https://www.climatebonds.net/standard/taxonomy

### Sustainalytics further information

The methodology behind Sustainalytics Global Standards Screening is based on the following international standard:

- 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.

# SECTION 2 – ADDITIONAL DISCLOSURE REQUIREMENTS FOR EU CLIMATE TRANSITION BENCHMARKS, UK CLIMATE TRANSITION BENCHMARKS, EU PARIS-ALIGNED BENCHMARKS AND UK PARIS-ALIGNED BENCHMARKS

Item 9. Where a benchmark is labelled as 'EU Climate Transition Benchmark', 'UK	
Climate Transition Benchmark', 'EU Paris-aligned Benchmark' or 'UK Paris-aligned	
Benchmark', benchmark administrators shall also disclose the following information:	
a) forward-looking year-on-year	No EU Climate Transition Benchmark, UK Climate
decarbonisation trajectory;	Transition Benchmark, EU Paris-aligned
	Benchmark, or UK Paris-aligned Benchmark.
b) degree to which the IPCC	No EU Climate Transition Benchmark, UK Climate
decarbonisation trajectory (1,5°C	Transition Benchmark, EU Paris-aligned
with no or limited overshoot) has	Benchmark or UK Paris-aligned Benchmark.
been achieved on average per	-
year since creation;	
c) overlap between those	No EU Climate Transition Benchmark, UK Climate
benchmarks and their investable	Transition Benchmark, EU Paris-aligned
universe, as defined in the relevant	Benchmark or UK Paris-aligned Benchmark.

delegated legislation under EU	
BMR or UK BMR, using the active	
share at relevant underlying asset	
level.	

# **SECTION 3 – DISCLOSURE OF THE ALIGNMENT WITH THE OBJECTIVES OF THE PARIS AGREEMENT**

Item 10. By the date of application of the relevant delegated legislation under EU BMR or UK BMR, for significant equity and bond benchmarks, EU Climate Transition Benchmarks, UK Climate Transition Benchmarks, EU Paris-aligned Benchmarks and UK Paris-aligned Benchmarks, benchmark administrators shall also disclose the following information.

By 31 December 2021, benchmark administrators shall, for each benchmark or, where

applicable, each family of benchmarks, disclose the following information:	
a) Does the benchmark align with	No and not applicable.
the target of reducing carbon	
emissions or the attainment of the	
objectives of the Paris Agreement;	
b) the temperature scenario, in	No and not applicable.
accordance with international	
standards, used for the alignment	
with the target of reducing GHG	
emissions or attaining of the	
objectives of the Paris Agreement;	No and not applicable
c) the name of the provider of the temperature scenario used for the	No and not applicable.
alignment with the target of	
reducing GHG emissions or the	
attainment of the objectives of the	
Paris Agreement;	
d) the methodology used for the	No and not applicable.
measurement of the alignment with	
the temperature scenario;	
e) the hyperlink to the website of	No and not applicable.
the temperature scenario used.	
Date on which information has	November 2021 (annual review).
last been updated and reason	
for the update:	

### **APPENDIX 2 - NON-ESG BENCHMARKS ONLY**

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

SECTION 1 - CONSIDERAT	ION OF ESG FACTORS
<b>Item 1.</b> Name of the benchmark administrator.	J.P. Morgan Securities LLC
<b>Item 2.</b> Type of benchmark or family of benchmarks.	Fixed Income Indices
Choose the relevant underlying asset from the list provided in "Annex II" of the applicable legislation under EU BMR or UK BMR.	For the purposes of Annex II, there are no environmental, social and governance (ESG) factors to be considered by the relevant underlying assets of the benchmark.
<b>Item 3.</b> Name of the benchmark or family of benchmarks.	Fixed Income Indices
Item 4. Are there in the portfolio of the benchmark administrator any EU Climate Transition Benchmarks, UK Climate Transition Benchmarks, EU Paris-aligned Benchmarks, UK Paris-aligned Benchmarks, benchmarks that pursue ESG objectives or benchmarks that take into account ESG factors?	Yes
<b>Item 5.</b> Does the benchmark or family of benchmarks pursue ESG objectives?	No
Item 6. Where the response to Item 5 is porelation to the ESG factors listed in Annex aggregated level.  The ESG factors shall be disclosed at an alevel of the family of benchmarks.	II for each family of benchmarks at
a) List of combined ESG factors:	Benchmark Family does not pursue ESG objectives.
b) List of environmental factors:	Benchmark Family does not pursue ESG objectives.
c) List of social factors:	Benchmark Family does not pursue ESG objectives.
d) List of governance factors:	Benchmark Family does not pursue ESG objectives.

**Item 7.** Where the response to Item 5 is positive, provide below the details (score) for each benchmark, in relation to the ESG factors listed in Annex II, 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:	Benchmark Family does not pursue ESG objectives.
b) List of environmental factors:	Benchmark Family does not pursue ESG objectives.
c) List of social factors:	Benchmark Family does not pursue ESG objectives.
d) List of governance factors:	Benchmark Family does not pursue ESG objectives.
Hyperlink to the information on ESG factors for each benchmark:	Not Applicable.
Item 8. Data and standards used	
a) Description of data sources used to provide information on the ESG factors in the benchmark statement.	Benchmark Family does not use ESG factors.
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.	EU BMR or UK BMR
List the supporting standards used for the reporting under item 6 and/or item 7.	

## SECTION 2 – ADDITIONAL DISCLOSURE REQUIREMENTS FOR EU CLIMATE TRANSITION BENCHMARKS, UK CLIMATE TRANSITION BENCHMARKS, EU PARIS-ALIGNED BENCHMARKS AND UK PARIS-ALIGNED BENCHMARKS

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

a) forward-looking year-on-year decarbonisation trajectory;	No EU Climate Transition Benchmark, UK Climate Transition Benchmark, EU Parisaligned Benchmark or UK Paris-aligned Benchmark.

b) degree to which the IPCC	No EU Climate Transition Benchmark,
decarbonisation trajectory (1,5°C with no	UK Climate Transition Benchmark, EU
or limited overshoot) has been achieved	Paris-aligned Benchmark or UK Paris-
on average per year since creation;	aligned Benchmark.
c) overlap between those benchmarks	No EU Climate Transition Benchmark, UK
and their investable universe, as defined	Climate Transition Benchmark, EU Paris-
in the relevant delegated legislation	aligned Benchmark or UK Paris-aligned
under EU BMR or UK BMR, using the	Benchmark.
active shares at asset level.	

# SECTION 3 – DISCLOSURE OF THE ALIGNMENT WITH THE OBJECTIVES OF THE PARIS AGREEMENT

**Item 10.** By the date of application of the relevant delegated legislation under EU BMR or UK BMR, for significant equity and bond benchmarks, EU Climate Transition Benchmarks, UK Climate Transition Benchmarks, EU Paris-aligned Benchmarks and UK Paris-aligned Benchmarks, benchmark administrators shall also disclose the following information.

By 31 December 2021, benchmark administrators shall, for each benchmark or, where applicable, each family of benchmarks, disclose 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 and not applicable.
b) the temperature scenario, in accordance with international standards, used for the alignment with the target of reducing GHG emissions or attaining of the objectives of the Paris Agreement;	No and not applicable.
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;	No and not applicable.
d) the methodology used for the measurement of the alignment with the temperature scenario;	No and not applicable.
e) the hyperlink to the website of the temperature scenario used.	No and not applicable.
Date on which information has last been updated and reason for the update:	November 2021 (annual review).