

**BENCHMARK STATEMENT
FIXED INCOME INDICES**

**GLOBAL INDEX RESEARCH GROUP
J.P. MORGAN SECURITIES LLC**

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) J.P. Morgan Global Index Research Group 383 Madison Avenue, New York, NY 10179 index.research@jpmorgan.com
Categorisation:	Non-significant benchmarks
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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 ended 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 not 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: <https://www.jpmorgan.com/disclosures/girg>.

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.pricing-direct.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, which can be found [here](#).

The Benchmarks aim to track the performance of the broad fixed income universe of securities available in defined segments of the market. The benchmarks cover a range of market segments; including Emerging market hard and local currency sovereign, quasi-sovereign, corporate global investment grade treasury, investment grade, high yield corporate, inflation linked, money market, and securitized debt products.

The benchmark design looks to balance broad coverage to ensure representativeness, with adequate liquidity to allow for replicability, so that the

benchmark represents an investors' ability to replicate the economic performance of that market segment.

A set of core attributes are commonly used to assess a security's appropriateness for benchmark eligibility on a monthly basis to align with the representativeness and replicability requirements of the benchmark.

These core attributes include, but are not limited to, the currency of the security, the sector classification and country of risk of the issuer, the rating of the issue, the amount outstanding and maturity of the security, the market of issue and type of investor the security is accessible to and the subordination of the security within the issuers capital structure.

Other attributes can also be incorporated to align the benchmark with the segment of the market the benchmark is looking to represent.

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 re-weighting or inclusion of underlying 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 expert judgement and discretion in determination of the Benchmark

In the ordinary course the Administrator does not use expert judgment in respect of any GIRG Administered Index, and its operation of all GIRG Administered Indices is purely rule-based. However, under extraordinary circumstances such as market disruptions or other extraordinary events that may materially and/or adversely affect the operation of any GIRG Administered Index, the Administrator may exercise expert judgment to the extent necessary to ensure that such GIRG Administered Index continues to operate as intended. In exercising expert judgement under such circumstances, the Administrator's primary objectives are to minimize the impact of adverse market conditions on the indices and to maintain the stability, replicability and transparency of the benchmarks. The Administrator will determine the appropriate course of action to take to achieve these objectives in accordance with its ad-hoc and annual governance review processes, including consultation with Users and other market participants where necessary and appropriate. Such actions may include, by way of example, adjusting, disregarding, or substituting the

input data provided by the pricing provider for factors that materially and adversely affect the data's fitness for use in any GIRG Administered Index under the circumstance or the data's ability to represent accurately and reliably the market or economic reality that the GIRG Administered Index is intended to measure. This could result in different data being used to that stated in the Index Methodology, including the use of a single price or value only, or using a price or value arrived at by the Administrator utilizing expert judgment.

The Administrator may exercise discretion in the ordinary course of the Provision of Indices for quality assurance purposes and to maintain the integrity of the index and its underlying components, including reference data and analytics. For this purpose, reference data means any characteristics of a bond, including but not limited to notional amount, ratings, sector/region classification, coupon rate, and issuance and maturity dates. Analytics is data derived from pricing input data and includes but is not limited to yield and spread.

Such discretion is exercised within the parameters in accordance with the pre-determined rules-based Index Methodology and related procedures, which are designed to maintain the integrity and continuity of the index by overriding, adjusting or taking other actions as necessary to address incomplete, missing or erroneous data, or changes in market practices or conventions such as day count conventions, settlement periods, business day conventions, coupon frequency, or treatment of defaults.

PricingDirect, as a contributor of input data to the Administrator (the “**Contributor**”), may exercise expert judgment in the provision of input data to the Administrator. This is done in accordance with established guidelines and processes governing the use of such expert judgment which sets out 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. These guidelines and processes are set out in the Code of Conduct established by the Administrator and in relation to which the Contributor is required to attest to compliance. 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/>.

In addition, if PricingDirect is unable to provide input data to the Administrator because of exceptional market circumstances or extraordinary events, the Administrator reserves the right to consider the use of an alternate input data source, or to provide such data itself. 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.

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 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 – **non-ESG Benchmarks** are all Benchmarks that are **not** ESG Benchmarks as defined above.

APENDIX 1 – NON-ESG BENCHMARKS ONLY

EXPLANATION OF HOW ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) 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
Item 2. Type of benchmark or family of benchmarks. Choose the relevant underlying asset from the list provided in “ Annex II ” of the applicable legislation under EU BMR or UK BMR.	Fixed Income Indices 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.
Item 3. Name of the benchmark or family of benchmarks.	Fixed Income Indices Family
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?	No
<p>Item 6. 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.</p> <p>The ESG factors shall be disclosed at an aggregated weighted average value at the level of the family of benchmarks.</p>	
a) List of combined 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. <i>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.</i>	Benchmark Family does not use ESG factors.
b) Reference standards. <i>List the supporting standards used for the reporting under item 6 and/or item 7.</i>	Benchmark Family does not use ESG factors.

**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 decarbonization trajectory;	No EU Climate Transition Benchmark, UK Climate Transition Benchmark, EU Paris-aligned Benchmark or UK Paris-aligned Benchmark.
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b) degree to which the IPCC decarbonization trajectory (1,5°C with no or limited overshoot) has been achieved on average per year since creation;	No EU Climate Transition Benchmark, UK Climate Transition Benchmark, EU Paris-aligned Benchmark or UK Paris-aligned Benchmark.
c) overlap between those benchmarks and their investable universe, as defined in the relevant delegated legislation under EU BMR or UK BMR, using the active shares at asset level.	No EU Climate Transition Benchmark, UK Climate Transition Benchmark, EU Paris-aligned Benchmark or UK Paris-aligned Benchmark.
<p align="center">SECTION 3 – DISCLOSURE OF THE ALIGNMENT WITH THE OBJECTIVES OF THE PARIS AGREEMENT</p>	
<p>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.</p> <p>By 31 December 2021, benchmark administrators shall, for each benchmark or, where applicable, each family of benchmarks, disclose the following information:</p>	
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:	August 2024 (annual review).