

iBoxx Index Family

Benchmark Statement

Mar 2024

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General Disclosures

Benchmark family name	iBoxx
Benchmark administrator	IHS Markit Benchmark Administration Ltd. (IMBA UK)
Date of initial publication of this document	9 July 2018
Date of last update to this document	13 March 2024
ISIN (where available)	The list of ISIN's for the numerous indices and sub-indices can be found on the list of benchmarks that are administered by IMBA UK, available on the Administrator's website here .
Determination by contributions of input data	The administrator receives contributions of "input data" (as defined by the BMR) in relation to this family of benchmarks. The iBoxx indices utilize bond prices contributed by IHS Markit Evaluated Bond Pricing , who is subject to annual attestation of a Contributor Code of Conduct. Other local pricing sources are also used to determine the prices used for the index calculations.
Qualification of the benchmark family	The iBoxx indices are administered as significant benchmarks.

Market or Economic Reality of the Benchmark

General description of the market or economic reality

iBoxx indices track the performance of fixed income bond markets and are used for benchmarking as underlying for structured products and for passive investment products such as ETFs. The history of the indices goes back as far as 31 December 1997 for some indices.

Geographical boundaries of the market or economic reality

The iBoxx indices cover bond markets globally. Many of the indices are designed to reflect the performance of regional bond markets in a specific currency such as EUR, GBP and USD.

Other relevant information relating to the market or economic reality

The main participants in the global fixed income market are a multitude of institutional investors, investment banks and brokers. The involvement of retail investors is limited. There are several competing bond index offerings and there are no material barriers of entry.

The size of the global bond market is \$100.1 trillion according to SIFMA's Factbook 2018. Investors differentiate between an active and a passive investment style. Amongst variety of use cases, Benchmark indices are relevant for passive and active investments where passive investments have been growing significantly.

Potential Limitations of the Benchmark

Circumstances in which we would lack sufficient input data to determine the benchmark according to the methodology

Scenarios may arise where underlying input data is not available in order to determine the index. In the situation of extreme market dislocation where bonds are no longer quoted in the market, iBoxx would need to resort to modelled pricing provided by IHS Markit Evaluated Bonds, instead of using observable quotes.

Such scenarios remain rare. The Index Committee serves as the index governance body tasked with ensuring that:

- The index objective is clearly stated, and the index is expected to achieve its objective.
- The procedures documented in the methodology are transparent and clearly described.
- The eligible universe, selection criteria and weighting method for constituents are fully detailed and described.
- All aspects of an index – data, calculation, maintenance, presentation and governance – are consistent with IMBA's practices and any exceptions are explicitly discussed and decided upon by the Index Committee.

Circumstances in which the degree of liquidity of the underlying market becomes insufficient to ensure the integrity and reliability of the benchmark determination according to the methodology

See above.

Exercise of Expert Judgment and Discretion

Position of each function or body that may exercise discretion in the calculation of a benchmark and governance thereof

The indices are rules based and do not typically permit the use of discretion unless there are exceptional circumstances that are not addressed by either the index rules or policy. Such scenarios may include (but are not limited to):

- Failure of data providers;
- Significant changes to the underlying market;
- Action by governmental or regulatory bodies that causes market disruption; and
- Events beyond human control.

In the event that IMBA needs to take action or make a decision that has not been foreseen by the methodology or associated policy, the Index Committee conveys and makes a determination that is consistent with the objective of the index in question and that causes minimal disruption to index stakeholders.

Ex-post evaluation process

As above, the exercise of judgment or discretion in the calculation of the iBoxx indices would need to be approved by the Index Committee prior to the publication of the iBoxx indices to ensure that no conflict of interest arises and the index continues to reflect the underlying economic reality. A record of the Index Committee decision detailing the nature of the expert judgment or exercised discretion is maintained.

Methodology Changes and Benchmark Cessations

The methodology

1. The iBoxx methodology is applied to produce a large number of standardized indices defined by different regions, currencies, issuer types and other criteria that may be relevant to investors. The indices are published on each working day and the index membership is updated at regular intervals to reflect new issuance and redemptions in the underlying bond market. The indices allow investors to get an aggregate view of the performance of the overall market as well as the performance of specific sub-sections of the market. The index rules are subject to at least annual review by the administrator, including seeking feedback from market participants, including via its Index Advisory Committees.
2. In addition to its daily governance of indices and maintenance of index methodologies, the Index Committee reviews, at least once within any 12-month period, the index methodology to ensure the indices continue to achieve the stated objectives, are transparent, and that the data and methodology remain effective. This is the Annual Review Process. In the case that an index methodology is reviewed off cycle from the Annual Review, the Index Committee reserves the right to cancel the Annual Review if the requested review covers all the relevant issues.
3. The membership of iBoxx indices is determined by clear, transparent and objective rules that are recorded in the publicly available iBoxx index methodologies: www.spglobal.com/spdji/en. Example criteria are the amount outstanding of a bond, the rating, bond type and currency. The pricing is sourced from IHS Markit Evaluated Bond Pricing and additional local pricing providers are included. IHS Markit Evaluated Bond Pricing is a standalone service that is independent of the administrator and is based on contributed data, observed quotes in the market, parsed data. Experienced bond evaluators manage the process of determining the final evaluated price based on defined rules to determine the final evaluated price. The indices are rebalanced at regular intervals following the index rules. As part of this process index previews are made available in the run-up to the month-end to give investors clear understanding of the upcoming composition changes.
4. The exercise of judgment or discretion is governed as described above.
5. In periods of stress and market dislocation iBoxx may use modelled data provided by the Market Evaluated Bond Pricing service. A notification will be sent to users if there is a situation where the indices cannot be calculated or when the calculation of a significant part of the index is based on assumptions due to the lack of available data. In exceptional situations where it is not possible to calculate an index at all, a working day may be declared a non-trading.
6. iBoxx has an official *Restatement Policy* in place that describes how errors in the calculation or the membership is handled. The key determinants to decide if an index needs to be restated following an error are the magnitude of the error on the index performance as well as the impact on the users of the index.
7. The identification of potential limitations of the benchmark indices, including its operation in illiquid or fragmented markets are addressed above. iBoxx indices pricing is based on a multi-source methodology that addresses risks posed by a possible concentration of data sources.

Further details of the *iBoxx Restatement Policy* are available on the website [here](#).

Rationale for adopting the methodology

The iBoxx benchmark family consists of a large number of indices and sub-indices across regions, currencies, issuer types and other criteria and is published calculated daily Monday-Friday (and where

relevant on Sundays). Key elements of the methodology that these indices have in common are (1) rules for inclusion, (2) regular rebalancing, and (3) the sources of input data.

1. *Rules for bond inclusion* - The index rules are clear, transparent, objective, and replicable. For a bond to be included, the index rules consider characteristics such as the amount outstanding, credit rating(s), maturity, bond type, sector classification, age and currency. The use of and thresholds set for these various criteria ensures sufficient liquidity of the bonds that are included, it also allows for the split into Investment Grade and High Yield indices, maturity buckets, sectors, as well as currencies. The type of bond criteria ensure that the index is representative of the segment of the fixed income markets it is aiming to capture and measure.
2. *Regular rebalancing* - The index composition is updated at regular intervals. Such regular rebalancing is used to ensure that the index is current and continues to measure the economic reality it is supposed to measure. On the rebalancing dates, updates to the index composition are performed to reflect new issuance, redemptions, other corporate actions as well as changes in ratings and tenors. The frequency of rebalancing is chosen to balance this objective with the goal to avoid overly frequent adjustments.
3. *Sources of input data* - Input data for the determination of the indices is sourced from IHS Markit Evaluated Bond Pricing (EVB) and from additional local pricing providers. The use of a matrix based / evaluated pricing service such as EVB ensures that pricing can be received daily for the large number of bonds in the indices. In few instances, EVB might not cover a market or might not be the best pricing source in which case local pricing providers are used.

Possible impact of Changes or the Cessation of the Benchmarks

The iBoxx indices are used for benchmarking, risk and performance reporting, and underlying for passive investments, total return swaps and other structured products. The impact of a cessation of the iBoxx indices would be that users would need to switch to other comparable indices. There is a number of standardized and non-standardized total return swaps that specifically reference iBoxx indices. These contracts would have to be moved to similar indices from different providers or settled in the case of a cessation.

Where it consults, IMBA will make reasonable efforts to address stakeholder concerns expressed in response to consultations and to allow for reasonable advance notice for stakeholders to accommodate changes, unwind existing positions in contracts/instruments referencing the benchmark, or seek an appropriate substitute benchmark.

There may be circumstances where external factors beyond the control of IMBA could lead to short-term changes or the termination of the Index, e.g. where a continuous disruption of the underlying market or an underlying data point requires a change to the methodology or impacts the viability of the index. In such cases, IMBA may shorten the notice period as is appropriate to the urgency of the situation.

Further details of the *S&P Dow Jones Indices Index Cessation Policy* can be found [here](#).

Key Terms

BMR	means the retained EU law version of the Benchmarks Regulation ((EU) 2016/1011) that has applied in the UK from the end of the Brexit transition period (11pm on 31 December 2020).
Board	means the Board of Directors of IMBA.
ESG	means Environmental, Social, Governance.
IHS Markit Benchmark Administration Ltd. (IMBA)	means the administrator, which is the UK entity authorised by the FCA responsible for the daily provision of the iBoxx indices.
IHS Markit Evaluated Bond Pricing	means the IHS Markit standalone service based on contributed data, observed quotes in the market and parsed data. The service is run by experienced bond evaluators and is independent from the administrator.
Index Committee	means the committee with responsibility for overseeing day to day administration of the iBoxx Indices.
Index Advisory Committee(s)	means the iBoxx Technical Advisory Committee, which is an advisory committee comprising of representatives from market makers/banks (sellside), and the iBoxx General Advisory Committee, which is an advisory committee comprising of representatives from a broad range of asset managers (buyside) and consultants.
Internal Oversight Committee	means the Internal Oversight Committee, the independent function which coordinates and directs IMBA's benchmark oversight function.

Additional Information

Updates to this Benchmark Statement

This Benchmark Statement will be updated whenever the information it provides is no longer correct or sufficiently precise and at least where:

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

(b) there is a material change in the methodology for determining the benchmark or, where the Benchmark Statement refers to a family of benchmarks, in the methodology for determining any benchmark within the family of benchmarks.

This Benchmark Statement will be updated at least every two years.

Further Information

For more information, including methodology documents please visit www.spglobal.com/spdji/en/.

Appendix I - Consideration of ESG Factors

Type of benchmark family	Fixed Income Corporate benchmarks, Sovereign Debt, and Private Debt benchmarks
Name of the benchmarks	iBoxx Indices
Does the benchmark pursue ESG objectives?	No
Where the answer to the above question is negative, is any EU Climate Transition Benchmark or EU Paris-Aligned Benchmark available in the portfolio of IMBA UK or does IMBA UK have benchmarks that pursue ESG objectives or benchmarks that take into account ESG factors?	Yes

Appendix II - Disclosure of the Alignment with the Objectives of the Paris Agreement

Does the benchmark align with the target of reducing carbon emissions or the attainment of the objectives of the Paris Agreement?	No
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.	Not applicable. The benchmarks do not pursue the objective of seeking to reduce carbon emissions or attaining the objectives of the Paris Agreement and therefore a temperature scenario is not relevant to the benchmarks.
The name of the provider of the temperature scenario used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement.	Not applicable
The methodology used for the measurement of the alignment with the temperature scenario.	Not applicable
The hyperlink to the website of the temperature scenario used.	Not applicable
Date on which information has last been updated and reason for the update.	Not applicable

Disclaimer

Performance Disclosure/Back-Tested Data

Where applicable, S&P Dow Jones Indices and its index-related affiliates (“S&P DJI”) defines various dates to assist our clients in providing transparency. The First Value Date is the first day for which there is a calculated value (either live or back-tested) for a given index. The Base Date is the date at which the index is set to a fixed value for calculation purposes. The Launch Date designates the date when the values of an index are first considered live: index values provided for any date or time period prior to the index’s Launch Date are considered back-tested. S&P DJI defines the Launch Date as the date by which the values of an index are known to have been released to the public, for example via the company’s public website or its data feed to external parties. For Dow Jones-branded indices introduced prior to May 31, 2013, the Launch Date (which prior to May 31, 2013, was termed “Date of introduction”) is set at a date upon which no further changes were permitted to be made to the index methodology, but that may have been prior to the Index’s public release date.

Please refer to the methodology for the Index for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations.

Information presented prior to an index’s launch date is hypothetical back-tested performance, not actual performance, and is based on the index methodology in effect on the launch date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. In addition, forks have not been factored into the back-test data with respect to the S&P Cryptocurrency Indices. For the S&P Cryptocurrency Top 5 & 10 Equal Weight Indices, the custody element of the methodology was not considered; the back-test history is based on the index constituents that meet the custody element as of the Launch Date. Back-tested performance reflects application of an index methodology and selection of index constituents with the benefit of hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk that may affect results and may be considered to reflect survivor/look ahead bias. Actual returns may differ significantly from, and be lower than, back-tested returns. Past performance is not an indication or guarantee of future results.

Typically, when S&P DJI creates back-tested index data, S&P DJI uses actual historical constituent-level data (e.g., historical price, market capitalization, and corporate action data) in its calculations. As ESG investing is still in early stages of development, certain datapoints used to calculate certain ESG indices may not be available for the entire desired period of back-tested history. The same data availability issue could be true for other indices as well. In cases when actual data is not available for all relevant historical periods, S&P DJI may employ a process of using “Backward Data Assumption” (or pulling back) of ESG data for the calculation of back-tested historical performance. “Backward Data Assumption” is a process that applies the earliest actual live data point available for an index constituent company to all prior historical instances in the index performance. For example, Backward Data Assumption inherently assumes that companies currently not involved in a specific business activity (also known as “product involvement”) were never involved historically and similarly also assumes that companies currently involved in a specific business activity were involved historically too. The Backward Data Assumption allows the hypothetical back-test to be extended over more historical years than would be feasible using only actual data. For more information on “Backward Data Assumption” please refer to the FAQ. The methodology and factsheets of any index that employs backward assumption in the back-tested history will explicitly state so. The methodology will include an Appendix with a table setting forth the specific data points and relevant time period for which backward projected data was used. Index returns shown do not represent the results of actual trading of investable assets/securities. S&P DJI maintains the index and calculates the index levels and performance shown or discussed but does not manage any assets.

Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the Index or investment funds that are intended to track the performance of the Index. The imposition of these fees and charges would cause actual and back-tested performance of the securities/fund to be lower than the Index performance shown. As a simple example, if an index returned 10% on a US \$100,000 investment for a 12-month period (or US \$10,000) and an actual asset-based fee of 1.5% was imposed at the end of the period on the investment plus accrued interest (or US \$1,650), the net return would be 8.35% (or US \$8,350) for the year. Over a three-year period, an annual 1.5% fee taken at year end with an assumed 10% return per year would result in a cumulative gross return of 33.10%, a total fee of US \$5,375, and a cumulative net return of 27.2% (or US \$27,200).

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