



IBOXX ESG – BENCHMARK STATEMENT

1. General Disclosures	
Benchmark family name	iBoxx ESG
Benchmark administrator	IHS Markit Benchmark Administration Ltd. (IMBA UK)
Date of initial publication of this document	30 April 2020
Date of last update to this document	8 June 2021
ISIN (where available)	The list of ISINs 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	<p>The administrator receives contributions of “input data” (as defined by the BMR) in relation to this family of benchmarks.</p> <p>The iBoxx ESG 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.</p>
Qualification of the benchmark family	iBoxx ESG indices are administered as a significant benchmark.
2. Climate-related disclosures	
Type of benchmark family	Fixed Income Corporate benchmarks and/or Sovereign Debt benchmarks
Name of the benchmark	iBoxx ESG benchmarks

Does the benchmark pursue ESG objectives?	Yes
Data and standards used	<p>ESG research ratings/scores, country risk ratings, sustainable products research, business/product involvement screens, climate change metrics and carbon intensity, impact metrics, controversies, and global norms/standards screens is sourced from various 3rd party providers, including MSCI ESG Research LLC (“MSCI ESG Research”) and Sustainalytics ESG Research.</p> <p>MSCI ESG Research uses the following data and standards for the below ESG factors:</p> <ul style="list-style-type: none"> • ESG ratings data – is a derived signal based on proprietary model, informed by company and external data sources. MSCI ESG Research relies on a proprietary methodology informed by a range of data sources. MSCI ESG Research does not explicitly mandate reporting along specific disclosure standards. Commonly utilized disclosure frameworks for data collected and used by MSCI ESG Research include GRI, SASB, UN Global Compact; and, for specific performance indicators, GHG Protocol, and applicable ISO standards. • ESG Government ratings – derived signal based on proprietary model, informed by a range of data sources (e.g. UN, World Bank, IMF, IEA, amongst others). • United Nations Global Compact Violations – is based on data from news sources, NGO reports, and corporate disclosure. The United Nations Global Compact principles are referenced for violation data mapping. • Fossil Fuel Sector Exposure – is based on data reported by companies and other public records such as sustainability reports. To identify potential companies with fossil fuel ties, MSCI ESG Research also utilizes GICS© classification, business segments, and/or company business description. MSCI ESG Research relies on a proprietary methodology informed by a range of data sources. MSCI ESG Research does not explicitly mandate reporting along specific disclosure standards. Commonly utilized disclosure frameworks for data collected and used by MSCI ESG Research include IPCC guidelines, GHG Protocols, and/or GICS© and SIC classifications. • Social violations – is based on data input from news sources, NGO reports, corporate disclosure. Output (e.g. assessment) is based on MSCI ESG Controversies methodology (full methodology is available to MSCI ESG Research clients). The United Nations Global Compact principles, the United Nations Guiding Principles on Business and Human Rights (UNGPs), International Labour Organization core conventions are referenced for violation data mapping.

	<ul style="list-style-type: none"> Controversial weapons and Tobacco – are based on the data reported by companies, their subsidiaries, and business partners (joint ventures). <p>Sustainalytics ESG Research collects and analyses information made available by third parties, including civil society, corporate, government, industry association, investor, media and regulatory sources. Sustainalytics also uses 3rd party data providers about which information is available at https://www.sustainalytics.com/legal-disclaimers/.</p> <p>The methodology behind Sustainalytics Global Standards Screening is based on the following international standard:</p> <ul style="list-style-type: none"> UN Global Compact Principles OECD World Governance Indicators In addition to above international (convention-based) standards, Sustainalytics also look at industry specific standards or initiatives. Examples are the Round Table on Sustainable Palm Oil, the standards for Systemically Important Banks, local Corporate Governance codes, and many others. <p>Said industry specific standards are incorporated in Sustainalytics’ assessments of companies’ management of ESG issues in the ESG Risk Rating.</p> <p>For details on Sustainalytics ESG Research, please refer to: http://www.sustainalytics.com.</p> <p>Green bonds determination is made based on information sourced from Climate Bonds Initiative, Environmental Finance and IHS Markit Reference Data.</p> <ul style="list-style-type: none"> Climate Bond Initiative applies a proprietary standard for green bond labelling that uses rigorous scientific criteria to ensure that it is consistent with the 2 degrees Celsius warming limit in the Paris Agreement. Environmental Finance data tracks self-labelled green, social, and sustainability bonds where either the issuer and/or lead manager explicitly states that they are green, social, or sustainability-focused. IHS Markit Reference Data offers detailed reference data for bonds which enables a comprehensive view of assets from issuance to maturity. Self-labelled green, social and sustainability bonds are captured based on information provided in the bond prospectus.
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	<p>Sovereigns GHG intensity information is sourced from the World Bank Sovereign Environmental Social Governance (ESG) database. For details see https://datatopics.worldbank.org/esg/index.html.</p> <p>Average Inequality Scores is are sourced from the United Nations Sustainable Development Goals (SDG) database. For details see https://unstats.un.org/sdgs/indicators/database/</p>
ESG Factors	Please refer to separate disclosures listed for individual iBoxx ESG benchmarks, available on the administrator's website here .
3. Key information relating to the benchmark or family of benchmarks	
General description of the market or economic reality	iBoxx ESG 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 ESG 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	<p>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.</p> <p>The size of the global bond market is \$105.9 trillion according to SIFMA's 2020 Global Markets Fact Book (here). 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.</p>
4. The potential limitations of the benchmark and the circumstances in which the measurement of the market or economic reality may become unreliable	
Circumstances in which we would lack sufficient input data to determine the benchmark according to the methodology	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.

<p>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</p>	<p>See above.</p>
<p>5. The controls and rules that govern the exercise of judgment or discretion in the calculation of the benchmark or family of benchmarks</p>	
<p>Position of each function or body that may exercise discretion in the calculation of a benchmark and governance thereof</p>	<p>The administrator's 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 an administrator policy. Such scenarios may include (but are not limited to):</p> <ul style="list-style-type: none"> • Failure of data providers; • Significant changes to the underlying market; • Complex corporate events; • Action by governmental or regulatory bodies that causes market disruption; • Events beyond human control. <p>In the event that the administrator needs to take action or make a decision that has not been foreseen by the methodology or associated policy, senior members of the administration team will consult internally with the applicable Index Administration Committee (IAC) and externally, when appropriate, with the Index Advisory Committee; this is to arrive at a decision that is consistent with the objective of the index in question and that causes minimal disruption to index stakeholders.</p> <p>Any changes to the index methodology or cessations will be decided upon as per IMBA's Benchmark Methodology Changes and Cessation policy (available here). Where a proposed methodology change is material IMBA will launch a wider consultation which is addressed to all relevant stakeholders. It will also notify the Board and the Benchmark Oversight Committee who will oversee the consultation process and can challenge the suggested approach. A methodology change is likely to be material if it has a substantial impact on the index calculation process or formula, the quality of the input data, the index selection rules, the underlying market or reality measured, the panel of contributors to the benchmark, or the benchmark level.</p>
<p>Ex-post evaluation process</p>	<p>As above, the exercise of judgment or discretion in the calculation is guided by precise internal guidelines to ensure that no conflict of interest arises and that the iBoxx ESG indices continue to reflect the underlying economic reality. To the extent there is feedback or comment on the use of</p>

	expert judgment or discretion, the administrator will review those comments at the earliest opportunity.
6. Review of the methodology and changes to, or cessation of, the benchmark or family of benchmarks	
The methodology	<ol style="list-style-type: none"> <li data-bbox="920 403 2033 616">1. The iBovx ESG 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. Such review is approved by the IMBA UK Board of the administrator and reported the Benchmark Oversight Committee. <li data-bbox="920 775 2033 1098">2. The membership of iBovx ESG indices is determined by clear, transparent and objective rules that are recorded in the publicly available iBovx ESG index guides: www.ihsmarkit.com. 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 are clear understanding of the upcoming composition changes. <li data-bbox="920 1225 2033 1313">3. The exercise of judgment or discretion is very rarely used and governed by defined procedure that ensure any such cases are referred to a wider internal forum as described above in section 4. <li data-bbox="920 1337 2033 1388">4. In periods of stress and market dislocation iBovx ESG may use modelled data provided by the Market Evaluated Bond Pricing service. A notification will be sent to users if there is

	<p>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.</p> <ol style="list-style-type: none"> 5. iBoxx has an official restatement policy in place that describes how errors in the calculation or in the membership are 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. 6. The identification of potential limitations of the benchmark indices, including its operation in illiquid or fragmented markets are addressed above in section 3. iBoxx ESG indices pricing is based on a multi-source methodology that addresses risks posed by a possible concentration of data sources. 7. Circumstances might arise that would warrant a cessation of a benchmark such as: lack of demand for the benchmark, a deterioration in data sufficiency or changes in market structure. In considering whether to discontinue an index, the administrator will conduct stakeholder consultation and assess downstream usage of the index by market participants as part of wider procedures identified in the administrator's Change and Cessation policy. <p>Further details of the administrator's Change and Cessation and the iBoxx Restatement policies are available on the administrator's website here.</p>
<p>Rationale for adopting the methodology</p>	<p>The iBoxx ESG 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.</p> <p>Rules for bond inclusion</p> <p>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, ESG factors 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.</p>

	<p>Regular rebalancing</p> <p>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.</p> <p>Sources of input data</p> <p>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.</p>
<p>Possible impacts of changes to, or the cessation of the benchmarks upon the financial contracts, financial instruments that reference the benchmark or the measurement of the performance of investment funds</p>	<p>The iBoxx ESG 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 ESG indices would be that users would need to switch to other comparable indices.</p> <p>There is a number of standardized and non-standardized total return swaps that specifically reference iBoxx ESG indices. These contracts would have to be moved to similar indices from different providers or settled in the case of a cessation.</p> <p>Further details of the administrator’s Change and Cessation policy is available on the administrator’s website here.</p>
<p>7. Key Terms</p>	
<p>Benchmark Oversight Committee</p>	<p>means the Benchmark Oversight Committee, the independent function overseeing the IMBA UK Board with regard to the administration of the iBoxx ESG indices.</p>
<p>Board</p>	<p>means the Board of Directors of IMBA UK.</p>
<p>ESG</p>	<p>means Environmental, Social, Governance, recognised as the three central pillars measuring sustainability and societal impact of institutions, sovereigns, or other entities.</p>

IHS Markit Benchmark Administration Ltd. (IMBA UK)	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 Administration Committee (IAC)	means the committee with responsibility for overseeing day to day administration of the iBoxx ESG Indices.
Index Advisory Committee(s)	means the iBoxx Technical Committee, which is an advisory committee comprising of representatives from market makers/banks (sellside), and the iBoxx Oversight Committee, which is an advisory committee comprising of representatives from a broad range of asset managers (buyside) and consultants.
8. Additional information Name of	
Additional information	For more information, visit www.ihsmarkit.com or contact us at indices@ihsmarkit.com .
9. Document governance	
Document name	iBoxx ESG Benchmark Statement
Document owner	Regulatory Compliance
Applies to	iBoxx ESG benchmark family
Approved by	Board of IHS Markit Benchmark Administration Ltd. and Benchmark Oversight Committee
Date of Last review	8 June 2021

IMPORTANT:

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.

ABOUT US

IHS Markit (NYSE: INFO) is a world leader in critical information, analytics and expertise to forge solutions for the major industries and markets that drive economies worldwide. The company delivers next-generation information, analytics and solutions to customers in business, finance and government, improving their operational efficiency and providing deep insights that lead to well-informed, confident decisions. IHS Markit has more than 50,000 key business and government customers, including 85 percent of the Fortune Global 500 and the world's leading financial institutions. Headquartered in London, IHS Markit is committed to sustainable, profitable growth.

CONTACT US

For more information, including methodology documents please visit <https://ihsmarkit.com/products/indices.html> or contact us at indices@ihsmarkit.com.

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