S&P Dow Jones Indices

A Division of S&P Global

Markit iBoxx EUR High Yield Corporates BB Top 50 Index Guide

May 2023

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1) Markit iBoxx EUR High Yield Corporates BB Top 50 Index

The Markit iBoxx EUR High Yield Corporates BB Top 50 Index is designed to reflect the performance of the EUR-denominated, BB-rated corporate debt crossover market. The index rules have been designed to offer exposure to the highest-rated sector of the sub-investment grade market, upholding standards of investability and liquidity. The Markit iBoxx EUR High Yield Corporates BB Top 50 Index has a maximum number of 50 constituents, making it suitable for both OTC and exchange-traded derivatives as well as for Exchange Traded Funds (ETFs).

The Markit iBoxx EUR High Yield Corporates BB Top 50 Index is market-value weighted and based on the Markit iBoxx EUR High Yield Unconstrained Cum Crossover Index.

All iBoxx indices are priced based on multiple data inputs. The iBoxx EUR High Yield Index family uses multisource prices as described in *Markit iBoxx Pricing Rules* available on www.ihsmarkit.com.

The index is rebalanced after market close on the last business day of each month.

This document covers the index selection rules and calculation methodology.

2) Bond selection rules

The following selection criteria are used to determine index constituents:

- Bond type
- Credit rating
- Time to maturity
- Amount outstanding
- Bond Classification
- Index Size, Bond Ranking and Selection

2.1) Bond type

The index consists of EUR-denominated corporate bonds. To ensure that the index is representative of the market, EUR-denominated debt issued by both Eurozone and non-Eurozone issuers are eligible for inclusion.

To ensure illiquid bond types are not included in the index, only certain bond types may be considered for inclusion.

The following bond types are eligible for inclusion consideration:

- Fixed coupon bonds
- Zero coupon bonds
- Sinking funds with known redemption schedules
- Callable bonds
- Bonds with poison put options
- Bonds with make-whole call or tax changes call provisions
- Event driven bonds such as rating and registration-sensitive bonds
- Callable perpetual bonds

The following bond types are specifically excluded from the index:

- Floating rate notes
- Fixed-to-floaters
- Structured notes (CDO, CLO, etc)
- Index-linked notes
- Bonds with redemption linked to an entity other than the issuer
- Step-up bonds
- Convertible bonds
- Payment-In-Kinds (PIKs) bonds
- Retail bonds and private placements

For retail bonds and private placements, publicly available information is not always conclusive and the classification of a bond as a retail bond or a private placement will be made at IHS Markit's discretion based on the information available at the time of determination. IHS Markit may consult with the specific Index Advisory Committees to review potential retail bonds or private placements. Any bond classified as retail or private placement is added to the list of excluded private placements and retail bonds. The list is published on www.ihsmarkit.com under *News & Information* for future reference and to ensure decision's consistency.

In instances where a new bond type is neither specifically included nor excluded according to the published index rules, IHS Markit will analyze the features of such securities in line with the principles set out in 2.1 of this guide. IHS Markit may consult the specific Index Advisory Committees. Any decision as to the eligibility or ineligibility of a new bond type will be published and the index rules will be updated accordingly.

2.2) Credit rating

All bonds in the Markit iBoxx EUR High Yield Corporates BB Top 50 Index must have an iBoxx Rating of sub-investment grade.

Ratings from the following three credit rating agencies are considered for the calculation of the iBoxx Rating:

- Fitch Ratings
- Moody's Investor Service
- S&P Global Ratings

Sub-investment grade is defined as BB+ or lower from Fitch Ratings or S&P Global Ratings and Ba1 or lower from Moody's Investor Service, but not in default.

If a bond is rated by more than one of the above agencies, then the iBoxx rating is the average of the provided ratings. The rating is consolidated to the nearest rating grade. Rating notches are not used.

All ratings must be above D (default). If a bond is distressed or rated "defaulted" by any agency (D by Fitch Ratings or S&P Global Ratings, or no longer rated by Moody's Investor Service), if it trades flat or a debt restructuring has been offered to the bondholders, the bond is no longer eligible for the Markit iBoxx EUR High Yield Corporates BB Top 50 Index and is removed at the next rebalancing.

In addition to the average rating of BB, the majority of the available ratings for any security included in the index needs to be rated BB- or higher. Thus, if ratings are available from all three agencies, at least two should be BB- (Ba3) or higher. If only two ratings are available, they must both be BB- (Ba3) or higher. If a bond is only rated by one agency, it must be at least BB- or Ba3.

For more information on how the average rating is determined, please refer to the *iBoxx Rating Methodology* document. The methodology can be found on www.ihsmarkit.com under *Methodology*.

2.3) Time to maturity

All bonds must have a remaining time to maturity of at least one year at the rebalancing date. The time to maturity is calculated from the rebalancing date to the workout date of the bond by using the day count convention of the bond.

The expected remaining life is expressed in years and calculated as follows:

- For plain vanilla bonds, the expected remaining life of the bond is its time to maturity, calculated as the number of days between the last calendar day of the current month and its maturity.
- For dated and undated callable hybrid capital bonds, the first call date is always assumed to be the expected redemption date. The expected remaining life is calculated as the number of days between the last calendar day of the month and the expected redemption date.
- For soft bullets, the expected remaining life of the bond is its time to the expected maturity and not to its final maturity date.
- For sinking funds, the average life date is used to calculate the remaining maturity.
- For callable perpetual the first call date is taken as the work out date.

2.4) Amount outstanding

The minimum required amount outstanding is EUR 150 million. The cut-off date to determine the amount outstanding is three business days before rebalancing.

2.5) Bond classification

All bonds are classified based on the principal activities of the issuer and the main sources of the cash flows used to pay coupons and redemptions. In addition, a bond's specific collateral type or legal provisions are evaluated. Hence, it is possible that bonds issued from different subsidiaries of the same issuer carry different classifications.

The issuer classification is reviewed regularly based on updated information received by IHS Markit, and status changes are included in the indices at the next rebalancing if necessary.

Where the sector classification of a specific entity is not very clear due to the diversified business of the entity, decision will be made at IHS Markit's discretion. IHS Markit will assign the classification according to its evaluation of the business risk presented in the security prospectus and annual reports, if available. IHS Markit will also compare the classification to peers in the potential sectors, and IHS Markit may consult with the Index Advisory Committees. Membership list including classification is published on the FTP server and in the indices section on www.ihsmarkit.com for registered users for future reference and to ensure decision's consistency.

2.5.1) Denomination

Bonds must be denominated in EUR.

2.5.2) Issuer

The bond must be corporate credit, i.e., debt instruments backed by corporate issuers that are not secured by specific assets. Debt issued by governments, sovereigns, quasi-sovereigns, and government-backed or guaranteed entities is excluded.

For the purposes of selecting candidates for the index, an "issuer" is defined by the ticker (i.e., all bonds sharing a ticker are attributed to the same issuer).

2.5.3) Corporates

Each bond in the index is assigned to one of the following sectors.

Table 1: Overview of Markit iBoxx Corporates Sectors

	Economic Sector	Market Sector	Market Sub-Sector
Financials	Core Financials	Banks	Banks
		Insurance	Life Insurance
			Nonlife Insurance
	Financial Services	Financial Services	General Financial
			Equity Investment Instruments

	Economic Sector	Market Sector	Market Sub-Sector
			Nonequity Investment Instruments
		Insurance-wrapped	*
	Real Estate	Real Estate	Real Estate Investment & Services
			Real Estate Investment Trusts
Non-Financials	Basic Materials	Basic Resources	Forestry & Paper
			Industrial Metals
			Mining
		Chemicals	Chemicals
	Consumer Goods	Automobiles & Parts	Automobiles & Parts
		Food & Beverage	Beverages
			Food Producers
		Personal & Household Goods	Household Goods
			Leisure Goods
			Personal Goods
			Tobacco
	Consumer Services	Education	Academic & Educational Services
		Media	Media
		Retail	Food & Drug Retailers
			General Retailers
		Travel & Leisure	Travel & Leisure
	Health Care	Health Care	Health Care Equipment & Services
			Pharmaceuticals & Biotechnology
	Industrials	Construction & Materials	Construction & Materials
		Industrial Goods & Services	Aerospace & Defense
			Electronic & Electrical Equipment
			General Industrials
			Industrial Engineering
			Industrial Transportation
			Support Services
	Oil & Gas	Oil & Gas	Alternative Energy
			Oil Equipment / Services & Distribution
			Oil & Gas Producers
	Technology	Technology	Software & IT Services

	Economic Sector	Market Sector	Market Sub-Sector
			Technology Hardware & Equipment
	Telecommunications	Telecommunications	Integrated Telecommunications
			Wireless Telecommunications
	Utilities	Utilities	Electricity
			Gas / Water & Multiutilities

2.5.4) Additional classification

Corporate debt is further classified into senior and subordinated debt. Bank senior debt structure additionally differentiates between Bail-in and Preferred bonds. The Bail-in classification captures all senior notes which are subject to write-down or conversion into a subordinated instrument on the occurrence of a resolution event, as well as senior bank debt issued by bank holding companies.

Hybrid capital issued by banking and insurance institutions is further detailed into the respective tiers of subordination.

The market information on the tier of subordination for insurance capital is often less standardized and clear than the equivalent issues by banks. In these cases, the classification is based on the maturity, coupon payment and deferral provisions of the bond from the offering circulars of the bonds. The table below displays the seniority classification of debt issued by both financial and non-financial sectors.

Table 2: Overview of seniority levels

Market Sector	Seniority Level 1	Seniority Level 2	Seniority Level 3
Bank	SEN	Preferred	*
		Bail-in	*
	SUB	T2 (post-Jan '13 issuances)	T2 callable
			T2 non-callable
		T2 (pre-Jan '13 issuances)	LT2 callable
			LT2 non-callable
			UT2
		T1	T1 step
			T1 non-step
Insurance	SEN	*	*
	SUB	T3	*
		T2 dated	T2 dated callable
			T2 dated non-callable
		T2 perpetual	*
		T1	*
Other sectors	SEN	*	*

Market Sector	Seniority Level 1	Seniority Level 2	Seniority Level 3
	SUB	Other	Hybrid**
			Non-hybrid

** Bonds will be required to fulfil the following criteria to be considered hybrids:

- Subordinated
- Deferrable coupons
- First non-call period >= 5 years
- Either perpetual or ‘long-dated’, where ‘long-dated’ is defined as > 25 years of the time to maturity at issuance

2.6) Index size, bond ordering and selection

2.6.1) Index size

To facilitate the replication of the indices, the maximum number of bonds in the Markit iBoxx EUR High Yield Corporates BB Top 50 Index is limited to 50. If the number of eligible bonds is less than or equal to 50, all such bonds will be included in the index.

2.6.2) Ranking criteria

Should more than the maximum number of bonds be eligible for inclusion, ranking criteria are applied and only the highest-ranking bonds are included in the index.

The following four criteria are applied:

1. Higher amount outstanding
2. More recent first settlement date
3. Longer time to maturity
4. Lower coupon

These criteria are applied to each bond in the order stated above until a difference can be established (i.e. if two bonds have identical amounts outstanding and identical first settlement dates but one has a longer time to maturity, then criteria 1 to 3 are applied but 4 is not). With the help of the ranking criteria, a bond hierarchy can be defined, with the bond that has the highest amount outstanding at the top of the hierarchy.

If there is still a tie after these criteria are applied, the bond with higher ISIN (ranked in alpha-numerical order) is selected.

2.6.3) Limit on number of bonds from any issuer in the Index

Only four bonds from any one issuer may enter the index. An issuer is identified by its unique ticker.

2.7) Minimum run

Any bond that enters the Index must remain in the index for a minimum of six months provided that throughout this period it is rated BB, not defaulted, and not fully redeemed.

3) Index calculation

3.1) Static data

Information used in the index calculation is sourced from offering circulars and checked against standard data providers.

3.2) Bond prices

For more details please refer to the *Markit iBoxx Pricing Rules* document, available in the *Methodology* section of the iBoxx Documentation page on www.ihsmarkit.com.

3.3) Rebalancing process

The index is rebalanced every quarter at the end of February, May, August and November. The indices are rebalanced on the last calendar day of the month after the last index calculation. Rebalancing also takes place if the last day of the month falls on a non-business day.

Changes to amounts outstanding are only taken into account if they are publicly known three business days before the end of the month. Changes in ratings are only taken into account if they are publicly known two business days before the end of the month. New bonds issued are taken into account if they are publicly known to settle until the last calendar day of the month, inclusive, and if their rating has become known at least three trading days before the end of the month.

The rebalancing procedure for the Markit iBoxx EUR High Yield Corporates BB Top 50 Index is analogous to the rebalancing of the Markit iBoxx EUR Benchmark indices.

A preliminary membership list is published on the 6th calendar day of the month (moved to the next business day in case of holiday/weekend).

Four business days before the end of each month, another preliminary membership list is published on the FTP server.

Three business days before the end of each month, a membership list with final amount outstanding for each bond is published. This list contains the maximum number of constituents for the next month.

Two business days before the end of each month, the rating information for the constituents is updated and the list is adjusted for all rating changes which are known to have taken place two trading days before the end of the month. Bonds which are known to have been upgraded to investment grade two trading days before the end of the month are not included in the membership, but bonds which are known to have been downgraded to sub-investment grade two trading days before the end of the month do get excluded from the membership.

On the last business day of each month, IHS Markit publishes the final membership with closing prices for the bonds, and various bonds analytics based on the index prices of the bonds.

3.4) Reinvestment of cash

Payments from coupons and scheduled partial and unscheduled full redemptions are held as cash, without interest, until the end of the month. If the end of the month is not a regular rebalancing then the cash is invested in the money market until the end of the next month at a rate of 1-month Euribor minus 12.5 basis points.

The cash is reinvested in the index at next rebalancing. Costs associated with cash reinvestment are captured by the cost factor. The cost factor can be found in the *Index calculus* document that is published in the *Indices* section of www.ihsmarkit.com under *Publications*.

3.5) Weight restrictions

Once the constituent universe has been defined, the weight for each bond is determined on the last business day of each month using end-of-month market values. At each rebalancing, the total market value of an issuer in the index is capped at 5% of the overall index weight. The weight of each bond is determined pro rata based on the security market value and the issuer weight in the overall index weight.

3.6) Index data

The calculation of the index is based on bid prices. New securities are included in the index at their respective ask prices when they enter the index family. In the event that no price can be established for a particular security, the index continues to be calculated based on the last available price. This might be the case in periods of market stress, or disruption as well as in illiquid or fragmented markets. If the required inputs become impossible to obtain, IHS Markit may consult market participants prior to the next rebalancing date. Decisions are made publicly available on a timely basis and IHS Markit may refer back to previous cases.

The rebalancing takes place after close of market on the last trading day of a rebalancing month.

The indices are transaction cost adjusted. For specific cost factor calculation formulae please refer to the Markit iBoxx Bond Index Calculus document, available in the Methodology section of the Markit iBoxx Documentation page on www.ihsmarkit.com.

3.7) Index calculus

For specific index formulas please refer to the *Markit iBoxx Bond Index Calculus* document, available in the *Methodology* section of the iBoxx Documentation page on www.ihsmarkit.com.

3.8) Treatment of the special intra-month events

Data for the application of corporate actions in the index may not be fully or timely available at all times, e.g. the final call prices for make-whole calls or the actual pay-in-kind percentage for PIK-payment options. In such cases, S&P DJI will estimate the approximate value based on the available data at the time of calculation.

3.8.1) Full redemptions: exercised calls, puts and buybacks

If a bond is fully redeemed intra-month, the bond effectively ceases to exist. In all calculations, the redeemed bond is treated as cash based on the last price, the call price or repurchase price, as applicable. The redemption factor, redemption and the redemption price are used to treat these events in the index and analytics calculation. In addition, the clean price of the bond is set to the redemption price, and the interest accrued until the redemption date is treated as an irregular coupon payment.

3.8.2) Bonds trading flat of accrued

If a bond is identified as trading flat of accrued, the accrued interest of the bond is set to 0 in the total return index calculation and is excluded from the calculation of all bond and index analytical values.

Bonds will be considered trading flat of accrued in any of the following situations:

- a bond has been assigned a default rating and/or
- issuer has announced a failure to pay a coupon and/or
- issuer has announced an intention not to make a payment on an upcoming coupon (grace period).

3.8.3) Multi-coupon bonds

Some bonds have pre-defined coupon changes that lead to a change in the annual coupon over the life of the bond. In all instances, the coupon change must be a fixed amount on top of a fixed coupon; i.e. floating coupon bonds are not eligible for the index.

- **Event-driven bonds:** These are bonds whose coupon may change upon occurrence (or non-occurrence) of pre-specified events, such as rating changes, e.g. rating-driven bonds, failure to register a bond (register-driven bonds), or failure to complete a merger, (merger-driven bonds). In the calculation of the indices and the analytics, the coupon schedule as of the calculation date is used. That is to say, any events occurring after the calculation date are ignored in the determination of the applicable coupon schedule.*Example of an event-driven bond:* A bond's rating changes on 31 December 2003 from A- to BBB+, and the coupon steps up from 6% to 6.25% from 1 March 2004 onward. The coupon dates are 1 October and 1 April each year. The correct coupon schedule for the bond and index calculations is date dependent. The index calculation on 20 December 2003 uses the 6% coupon for the whole life of the bond, while the calculation on 31 January 2004 uses a 6% coupon for the current coupon period to 29 February 2004, and a 6.25% coupon for all later interest payments. The index calculation on 20 March uses a 6% coupon until 29 February, a 6.25% coupon for the remainder of the current coupon period and a 6.25% coupon for all future coupon payments. The index calculation after 1 April uses a 6.25% coupon.

3.9) Index history

The Index history starts on 31 December 2014. The index has a base value of 100 on that date.

3.10) Settlement conventions

All iBoxx indices are calculated using the assumption of T+0 settlement days.

3.11) Calendar

IHS Markit publishes an index calculation calendar in the *iBoxx Calendars* section of the iBoxx Documentation page on www.ihsmarkit.com. This calendar provides an overview of the index calculation holidays of the iBoxx bond index families in a given year.

3.12) Publication of the Index

The Markit iBoxx EUR High Yield Corporates BB Top 50 Index is computed and disseminated once per minute between 9:00 am and 5:15 pm CET every day except on common European bank holidays.

Bond and index analytical values are calculated end of day Monday to Friday using that day's closing prices. In addition, bond and index analytical values are calculated using the previous trading day's closing prices on the last calendar day of each month if that day is not a regular trading day as well as on common bank holidays as published in the iBoxx index calculation calendar. This index calculation calendar is available on www.ihsmarkit.com under *iBoxx Calendars*. Index data is also available from the main information vendors.

Closing index values and key statistics are published at the end of each calculation day in the *Indices* section on www.ihsmarkit.com for registered users. In addition, midday fixing levels for bond prices and indices are also published.

3.13) Data publication and access

The table below summarizes the publication of Markit iBoxx EUR High Yield Corporates BB Top 50 Index in the *Indices* section of the IHS Markit website www.ihsmarkit.com for registered users and on the FTP server.

Table 3: File types, frequency and access

Frequency	File Type	Access
Daily	Underlying file – Bond level	IHS Markit FTP Server
	Indices file – Index level	IHS Markit FTP Server / IHS Markit website / Bloomberg for index levels only
Daily from the 6th calendar day of the month (or the next index publication day if the 6th calendar day falls on a non-business day)	Forwards	IHS Markit FTP Server
Monthly	End of Month Components	IHS Markit FTP Server / IHS Markit website
	XREF files	IHS Markit FTP Server

The index identifiers for the publication channels are:

Index name	Markit iBoxx EUR High Yield Corporates BB Top 50	
Return Type	TRi	CPi
SEDOL	BW9P5R1	BW9P5S2
ISIN	GB00BW9P5R18	GB00BW9P5S25
Ticker	IBXXEC5T	IBXXEC5P
RIC	IBXXEC5T	IBXXEC5P

3.14) Annual index review

The rules for the index are reviewed at least once per year during the public annual index review consultation process to ensure that the index provides a balanced representation of the EUR denominated debt market. Decisions made following feedback from market participants, the annual index review and External Advisory Committees (EAC) will be published on www.ihsmarkit.com shortly after the EAC meetings have been held. The publication will contain a detailed overview and timelines for implementation of any rules changes.

4) Governance and regulatory compliance

IHS Markit Benchmark Administration Limited (IMBA UK) is the Index Administrator of iBoxx indices. Information on IMBA UK's governance and compliance approach can be found here. This document covers:

- Governance arrangements, including external committees
- Input data integrity
- Conflicts of interest management
- Market disruption and Force Majeure
- Methodology changes and cessations
- Complaints
- Errors and restatements
- Reporting of infringements and misconduct
- Methodology reviews
- Business continuity

More details about IMBA UK can be found on the Administrator’s website.

5) Changes to the Markit iBoxx EUR High Yield Corporates BB Top 50 Index

30 Jun 2022	● Monthly forward start date updated from 10th calendar day to 6th calendar day
31 Mar 2022	**Annual Index Review 2021** ● Introduction of new market sector classification "Education" with market sub-sector classification "Academic & Educational Services"
01 Sep 2021	● Monthly forward start date updated from 12th calendar day to 10th calendar day
31 Mar 2021	● Governance and Regulatory Compliance section added
31 Jul 2020	**Annual Index Review 2019** ● Introduction of updated corporate classification schema ● Implementation of updated Bank Tier Classification ● Updates as part of the changes in definition and treatment of hybrid bonds
30 Sep 2018	**Annual Index Review 2018** ● Treatment of bond rating upgrades on t-2 ● Clarification on bond eligibility during tender ● Clarification of treatment of called bonds
31 Jul 2017	**Annual Index Review 2017** ● Inclusion of Senior Callable Bank bonds ● Classification of Insurance Tier 3 notes
30 Nov 2016	**Annual Index Review 2016** ● Update of seniority levels for Markit iBoxx indices
30 Nov 2016	**Annual Index Review 2015** ● Eligibility of subordinated financial debt with a contingent conversion feature at the point of non-viability

01 May 2015	**Annual Index Review 2014** ● Change to Markit iBoxx tier classification of subordinated debt issued by insurance entities
01 Dec 2014	● Markit iBoxx EUR index family starts following the pricing methodology described in 'Markit iBoxx Pricing Rules' ● Index restatement and complaints sections added ● Additional clarifications on bond eligibility, classification and corporate actions
28 Feb 2014	● Rule change for the minimum lot size of the bonds eligible for the Markit iBoxx EUR Liquid Non-Sovereigns indices, linked with an additional ranking criterion
31 Aug 2012	● The maximum age rule change for the Markit iBoxx EUR Liquid Corporates Indices
20 Dec 2011	● Introduction of Markit iBoxx EUR Germany Sovereigns & Sub-Sovereigns Liquid index
18 May 2009	● Change to the treatment of bonds under tender in the Markit iBoxx Euro Liquid indices
01 Dec 2008	● Introduction of additional rules for Markit iBoxx Euro Liquid Corporates indices
01 Feb 2006	● Introduction of Markit iBoxx Euro Liquid Sovereigns Extra Short Index ● Introduction Markit iBoxx Euro Liquid Global Index
01 Dec 2005	● Change in the upper limit for minimum lot size ● Change in the amount outstanding cut-off for Corporate bonds
01 Jul 2005	● Implementation of Annual Index Review 2005 ● Introduction of gross price and income index analytics ● Exclusion of retail bonds
01 Mar 2005	● Clarification of exclusion of callable hybrid bank/insurance debt in chapter 2.1.
01 Jan 2004	● Calculation of iBoxx Benchmark spreads
01 Dec 2003	● Modification of iBoxx re-balancing procedure
01 Oct 2003	● Expansion of iBoxx EUR Liquid key data for cash payment ● Revision of the calculation method of portfolio analytics
01 Sep 2003	● Separate Publication of iBoxx index ISINs
06 May 2003	● Clarification about inclusion of new bonds in the index in chapter 2.1. ● Correction of coupon income index calculation formula
23 Oct 2002	● Introduction of Markit iBoxx EUR Liquid indices for Sovereigns, Sub-Sovereigns and Corporates

6) Further information

Glossary of key terms

The Markit iBoxx Glossary document of key terms is available in the *Methodology* section of the iBoxx *Documentation* page on www.ihsmarkit.com.

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Ownership

Markit Indices GmbH is a wholly-owned subsidiary of IHS Markit Limited.

A) ESG Disclosures

EXPLANATION OF HOW ENVIRONMENTAL, SOCIAL & GOVERNANCE (ESG) FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY [1]		
1	**Name of the benchmark administrator.**	IHS Markit Benchmark Administration Limited (IMBA)
2	**Underlying asset class of the ESG benchmark. [2]**	N/A
3	**Name of the S&P Dow Jones Indices benchmark or family of benchmarks.**	iBoxx Benchmark Statement
4	**Do any of the indices maintained by this methodology take into account ESG factors?**	No
Appendix latest update:		May 2023
Appendix first publication		May 2023

[1] The information contained in this Appendix is intended to meet the requirements of the European Union Commission Delegated Regulation (EU) 2020/1817 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards the minimum content of the explanation of how environmental, social and governance factors are reflected in the benchmark methodology and the retained EU law in the UK (The Benchmarks (amendment and Transitional Provision) (EU Exit) Regulations 2019.

[2] The 'underlying assets' are defined in European Union Commission Delegated Regulation (EU) 2020/1816 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards the explanation in the benchmark statement of how environmental, social and governance factors are reflected in each benchmark provided and published.

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.

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