

**S&P Dow Jones
Indices**

A Division of **S&P Global**

iBoxx EUR Sub-Sovereigns, Supranationals & Agencies rating sub-indices & Zero Coupon Curves Index Guide

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1 iBoxx EUR Sub-Sovereigns, Supranationals & Agencies rating sub-indices & Zero Coupon Curves

The following indices will be delivered as a customized solution:

- iBoxx EUR Sub-Sovereigns, Supranationals & Agencies AAA
- iBoxx EUR Sub-Sovereigns, Supranationals & Agencies AA
- iBoxx EUR Sub-Sovereigns, Supranationals & Agencies A
- iBoxx EUR Sub-Sovereigns, Supranationals & Agencies BBB

This document covers the index family structure, rules and calculation methodology.

Index Name	Level 1	Level 2	Rating
iBoxx EUR Sub-Sovereigns, Supranationals & Agencies AAA	Sub-Sovereigns	Exclude-Other Sovereigns	AAA
iBoxx EUR Sub-Sovereigns, Supranationals & Agencies AA	Sub-Sovereigns	Exclude-Other Sovereigns	AA
iBoxx EUR Sub-Sovereigns, Supranationals & Agencies A	Sub-Sovereigns	Exclude-Other Sovereigns	A
iBoxx EUR Sub-Sovereigns, Supranationals & Agencies BBB	Sub-Sovereigns	Exclude-Other Sovereigns	BBB

Zero coupon curves

Zero coupon curves (for up to 50 years maturities) which map interest rates on zero-coupon bonds to different maturities across time will be provided to the client. The curves are determined as the present value of a set of index bonds using non-linear minimization algorithms. The yield curves are constructed to the maturity of the longest bond in the index.

2 Indices Yield Curve Methodology

The annual zero curves $y_t(l, L, Y)$ for date t will be estimated using natural cubic splines with predefined set of knots L and the corresponding points Y . This function will be fitted to the present values of a set of n index bonds using non-linear minimization algorithms (currently Nelder-Mead-Simplex method). The yield curve will be constructed to the maturity of the longest bond in the index. The curve section after the longest bond will be extrapolated constant on the level of the last point.

$$\min_{Y \in \mathbb{R}^n} \left(\sum_{k=1}^n \left\{ PV_{k,t} - \sum_{j=1}^{m_k} CF_j^{k,t} \cdot (1 + y_t(l_j^{k,t}, L, Y))^{-l_j^{k,t}} \right\}^2 \right)$$

where,

- $PV_{k,t}$ is the present value of the bond k at date t
- $CF_j^{k,t}$ is the j -th cash flow of the bond k at date t
- $l_j^{k,t}$ is the years-fraction to the j -th cash flow of the bond k at date t

The knots L are defined as following:

$$L = \{0, Q_{1/3}, Q_{2/3}, Q_{100\%}\}, \text{ (the number of knots may vary but usually 4 or 5, } L_{Q_{100\%}} = l_{max} \text{)}$$

Here Q_p is the p -quantile of the empirical cumulative distribution of all bond's maturities $(x_{1...n})$.

The estimation of p -quantile will be calculated as follows:

$$Q_p = \begin{cases} x_1 & \text{for } p < \frac{1 - \gamma}{n + 1 - \gamma - \delta} \\ (1 - g) \cdot x_i + g \cdot x_{i+1} & \text{for } \frac{1 - \gamma}{n + 1 - \gamma - \delta} < \frac{n - \gamma}{n + 1 - \gamma - \delta} \\ x_1 & \text{for } p > \frac{n - \gamma}{n + 1 - \gamma - \delta} \end{cases}$$

with,

$$i = [(n + 1 - \gamma - \delta)p + \gamma]$$

$$g = (n + 1 - \gamma - \delta)p + \gamma - i$$

Currently used parameters:

$$\gamma = \frac{1}{2}; \delta = \frac{1}{2};$$

3 Bond selection rules

The following selection criteria are used to determine the index constituents:

- Bond type
- Credit rating
- Time to maturity
- Amount outstanding

3.1 Bond type

Only fixed-rate bonds whose cash flow can be determined in advance are eligible for the indices. The indices are comprised solely of bonds. T-Bills and other money market instruments are not eligible. The iBoxx EUR Sub-Sovereigns, Supranationals & Agencies rating sub-indices & Zero Coupon Curves include only Euro and legacy currency denominated bonds. The issuer's domicile is not relevant.

In particular, bonds with the following characteristics are included:

- Fixed coupon bonds ("plain vanilla bonds")
- Zero coupon bonds
- Step-up bonds
- Event-driven bonds with step-up and step-down coupons, such as rating- or tax-driven bonds
- Dated and undated callable subordinated corporate bonds, including fixed-to-floating rate bonds
- Soft bullet bonds. These are bonds with an initial fixed-coupon period, and a variable or step-up coupon period thereafter, that are structured so that they are expected to be redeemed at the end of the initial period
- Bonds with call options where the first and subsequent call dates are on a date when the bond is otherwise no longer eligible for the index, i.e. bonds with American call options within the last year prior to maturity
- Subordinated financial debt with a contingent conversion feature at the point of non-viability, in line with the capital adequacy requirements of Basel III
- Subordinated financial fixed-to-floating rate bonds with a reset date on or after the first call date
- Senior bank bonds with call options where the first call date is 25 months or less prior to final maturity

The following bond types are specifically excluded from the indices:

- Sinking funds and amortizing bonds
- Other callable and undated bonds
- Floating rate notes and other fixed-to-floater bonds
- Optionally and mandatory convertible bonds from non-financial issuers
- Subordinated financial debt with mandatory contingent conversion features that are based on an observable trigger, or with any conversion options before the first call date, is ineligible for the index
- Collateralized Debt Obligations (CDOs) and bonds collateralized by CDOs
- Retail bonds
- Private placements
- Bonds with differences between accrual and coupon payment periods and monthly-paying bonds
- Extended bonds as defined under section 'Maturity extension' in this document

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 S&P DJI's discretion based on the information available at the time of determination. Partial private placements where information

on the specific amounts publicly placed and privately placed can be ascertained are included in the indices with the amount publicly placed. If the amount publicly placed is below the cut-off, the bond is not included in the indices. Any bond classified as retail or private placement is added to the list of excluded private placements and retail bonds. The list is published at <https://www.spglobal.com/spdji/en/> for future reference and to ensure consistency.

In instances where a new bond type is not specifically excluded or included according to the published index rules, S&P DJI will analyze the features of such securities in line with the principles set out in 2.1 of this guide. S&P DJI may consult specific Index 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.

3.2 Credit rating

All bonds in the iBoxx EUR Sub-Sovereigns, Supranationals & Agencies rating sub-indices must have an iBoxx Rating as mentioned in Section 1. 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

Investment grade is defined as BBB- or higher from Fitch Ratings and S&P Global Ratings and Baa3 or higher from Moody's Investor Service. Bonds with an RD/SD rating are excluded from iBoxx EUR Sub-Sovereigns, Supranationals & Agencies rating sub-indices & Zero Coupon Curves.

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. For more information on how the average rating is determined, please refer to the iBoxx Rating Methodology document. The methodology can be found on the <https://www.spglobal.com/spdji/en/> under Methodology.

If a new tranche of a bond is not rated, the rating of its parent applies. Bonds in the Markit iBoxx EUR Eurozone index do not use individual bond rating. The individual countries are subject to a rating requirement. All countries in the Markit iBoxx EUR Eurozone index require a long-term local currency sovereign debt rating of investment grade. The average rating from the aforementioned rating agencies determines the index rating, which is used for all government bonds from the country. Prior to 1 January 2008, the lowest rating was used as the Markit iBoxx Rating.

3.3 Time to maturity

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

The workout date for a bond is determined based on the bond features as follows:

- For plain vanilla bonds, the expected workout date is the final maturity date
- For dated and undated callable financial hybrid capital bonds, the workout date is assumed to be the first call date
- For non-financial hybrid capital bonds with an interest rate reset, the workout date is assumed to be the first reset date
- For soft bullets, the expected workout date is determined using the first call date
- For senior callable bank bonds, the first call date will be considered as the workout date if the call date is more than 11 months prior to the final maturity. In case the first call date is 11 months or less prior to

the maturity date, the final maturity date will be assumed as the workout date to calculate the time to maturity.

3.4 Amount outstanding

All bonds require a specific minimum amount outstanding in order to be eligible for the indices, as shown below. The figure indicates minimum issue size.

- Sub-sovereigns: EUR 1 billion

4 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 S&P DJI, 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 S&P DJI's discretion. S&P DJI will assign the classification according to its evaluation of the business risk presented in the security prospectus and annual reports, if available. S&P DJI will also compare the classification to peers in the potential sectors. Membership lists including classification are published on the FTP server and in the *Indices* section of the webpage for registered users.

4.1 Sub-sovereigns

Bonds issued by entities with explicit or implicit government backing due to legal provision, letters of comfort, or the public service nature of the issuer's business. The issuer requires a strong central government ownership/relationship if its bonds are not explicitly guaranteed by the central government.

The five main sub-sovereign sectors are:

- **Agencies:** Bonds issued by entities with a major focus on government-sponsored, public, non-competitive services. The issuers are financial in nature and carry out government policies through special development programs, often explicitly government-backed or with a business scope defined by a specific law.
- **Supranationals:** Bonds issued by supranational entities, i.e. entities that are owned by more than one central government (e.g. World Bank, EIB).
- **Public Banks:** Bonds issued by publicly owned and backed banks that provide regular commercial banking services (e.g. NV Bank Nederlandse Gemeenten).
- **Regions:** Bonds issued by local governments (e.g. Isle of Man).
- **Other Sub-Sovereigns:** All remaining bonds considered sub-sovereign, classified into the following three main categories:
 - > **Non-Financials:** Bonds issued by entities from the non-financial sector with an explicit or strong implicit debt guarantee from the state. The issuer's credit rating is closely correlated to the sovereign rating and expresses a strong credit uplift based on a high level of government support. S&P DJI expects the issuer's credit rating to be no worse than on par or two notches below the sovereign rating. A 'strong implicit guarantee' means the issuer is 100% owned by the state or public sector with its debt consolidated into state public debt, or the issuer has preexisting access to government financing or funding derived from tax revenues. State-owned issuers that are profit-oriented, provide competitive services, and operate under a regulatory framework are considered Corporates.
 - > **Guaranteed Financials:** A specific bond issued by a private sector financial institution that is irrevocably guaranteed by a government. Most of these bonds are issued under programs set-up after the 2008 financial crisis.
 - > Bonds issued by unguaranteed institutions with an irrevocable and explicit guarantee by a central government that covers amount and timeliness of all interest and principal payments until the maturity of the bond.

5 Index calculation

5.1 Static data

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

5.2 Bond prices

For more details, please refer to the *iBoxx Pricing Methodology* document, available in the *Methodology* section of the webpage at <https://www.spglobal.com/spdji/en/>.

5.3 Rebalancing process

The indices are reviewed and rebalanced once per month at the end of each month. The final composition of the indices is published on the first trading day. The indices are calculated using the same ask and bid prices which are used for the iBoxx EUR benchmark index. If the month-end falls on a non-business day the index would be calculated using the prices from the last business day and the accrued interest as of the calculation date.

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 and in the indices section of the webpage for registered users.

Three business days before the end of each month, a membership list with final amount outstanding for each bond is published.

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. However, if any bonds which are part of the broader EUR universe become eligible two business days prior to rebalancing because of rating or amount changes, they will be included in the Index.

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

5.4 Index data

The calculation of the indices is based on bid prices. New securities are included in the indices at their respective ask prices when they enter the index family. If 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, S&P DJI may consult market participants prior to the next rebalancing date. Decisions are made publicly available on a timely basis and S&P DJI may refer back to previous cases.

The assignment of a bond to a certain maturity bucket is based on its average life. All bonds remain in their maturity bucket for the entire month.

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

5.5 Index calculus

For specific index formulas please refer to the *iBoxx Bond Index Calculus* document available on <https://www.spglobal.com/spdji/en/> under *Methodology*.

5.6 Index and analytics weights

The iBoxx EUR Sub-Sovereigns, Supranationals & Agencies rating sub-indices & Zero Coupon Curves are market-value-weighted. The amount outstanding of a bond is only adjusted within the rebalancing process.

All calculations are based on the adjusted amount outstanding that reflects the outstanding bond notional at the last rebalancing. The bond prices relate to the nominal value of 100.

5.7 Treatment of the special intra-month events

Data for the application of corporate actions in the indices 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.

5.7.1 Funged bonds

Bonds may be issued in several tranches. The different tranches are initially legally separate and therefore trade independently for a certain period. On and after the funged date, the tranches will be combined into one bond, i.e. the parent tranche will contain the original security, as well as the additional notional(s) from the new tranche(s). After the funged date, the prices for both the securities are the same, because they constitute one uniform bond. This is reflected in the indices as follows:

5.7.1.1 Parent and new tranche are both index constituents

- After the funged date, the price from the parent tranche is used for the funged tranche; no price for the funged bond
- Funged tranche leaves the index at the next rebalancing and parent amount outstanding increases accordingly

5.7.1.2 Parent is an index constituent, but the new tranche is not

- No special intra-month treatment necessary
- Parent amount outstanding increases at the next rebalancing

5.7.1.3 Parent is not an index constituent but the new tranche is

- No special intra-month treatment necessary
- Funged tranche leaves the index; parent tranche enters the index at the next rebalancing

5.7.2 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.

5.7.3 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).

5.7.4 Maturity extension

5.7.4.1 Maturity extension for perpetual bonds without a reset date

Maturity	Coupon/call structure	Workout date at issuance	Updated Workout date if not called
Perpetual	Fixed/ Callable	Assume first call date as workout date	Extend workout date until the assumed next call date - 5 years from first call date*.

*Assumes the terms allow for a redemption at the new assumed maturity date.

5.7.4.2 Maturity extension for perpetuials & dated fixed-to-fixed bonds with a reset date

Maturity	Coupon/Call structure	Workout Date at issuance	Updated Workout date if not called
Perpetual	Reset*/Callable	Assume first call date as workout date	Extend workout date until the end of the next reset date*
Dated	Reset/Callable	Assume reset date as workout date	Extend workout date until the end of the next reset date or final maturity date*

*Assumes the bond terms allow for a redemption at the new assumed maturity date

5.7.5 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 indices. The two main categories of bonds are step-up bonds and event-driven bonds.

- **Step-up bonds:** These are bonds with a pre-defined coupon schedule that cannot change during the life of the bond. The coupon schedule is used in all bond calculations.
- **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 (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.

5.7.6 Ex-dividend conventions

Some markets have ex-dividend conventions. Ex-dividend means that the next coupon is detached from the bond several days in advance of the coupon payment date. The date on which the next coupon is detached is the ex-dividend date and the period between the ex-dividend date and the coupon payment date is the ex-dividend period. If a bond is in the ex-dividend period, the next coupon payment will not be paid to a buyer of this bond, but will be paid to the original bond holder.

The indices and analytics calculations take ex-dividend conventions into account. During the ex-dividend period, the accrued interest of the bond is negative, while the next coupon payment is held separate in the variable coupon adjustment. If the bond enters the index during the ex-dividend period, then the next coupon payment and the coupon adjustment will not accrue to the index. However, if the bond was already in the index, the next coupon payment needs to be included in the total return calculations. This is controlled via the ex-dividend indicator which is 0 if the bond enters the index during the current ex-dividend period and 1 if not. The same treatment is also applied to all analytics calculation, i.e. the first cash flow is excluded from the calculations if the bond enters during the current ex-dividend period.

5.8 Determination of benchmarks

A benchmark bond of the Markit iBoxx EUR Benchmark universe is defined as the most liquid and low risk bond in each of the maturity bands listed below.

The procedure starts at first running a regression algorithm on all bonds in the Markit iBoxx Eurozone index in order to determine the benchmark curve, and bonds with a positive spread to the curve are eliminated. The procedure is then repeated until one of the following is met:

1. R-square above 0.99
2. Standard deviation of yield-spread to curve is less than 3.5 bps
3. Number of bonds left is between 15 and 40.

The bonds remaining after running the procedure above are assigned to Sets A or B depending on their age. An eligible bond is assigned to Set A within a maturity band if it is not older than two years. Otherwise, it is assigned to Set B. The age of a bond is calculated from the first settlement date to the current rebalancing date. The largest bond (by amount outstanding) of all bonds in Set A is selected as

the respective benchmark for each defined maturity band. If Set A is empty, then the most recently issued bond of Set B is chosen as the respective benchmark of the band.

Maturity bands are defined as follows:

Benchmark Maturity Bands	Bond Maturity
1 year	< 1.5 years
2 years	1.5 to < 2.5 years
3 years	2.5 to < 3.5 years
4 years	3.5 to < 4.5 years
5 years	4.5 to < 5.5 years
6 years	5.5 to < 6.5 years
7 years	6.5 to < 7.5 years
8 years	7.5 to < 8.5 years
9 years	8.5 to < 9.5 years
10 years	9.5 to < 12.5 years
15 years	12.5 to < 17.5 years
20 years	17.5 to < 25 years
Long	≥ 25 years

For every bond in the Markit iBoxx EUR indices, the benchmark bond with the closest maturity is selected as a benchmark. Therefore, the chosen benchmark is not necessarily the same as the benchmark for the maturity band of the bond. If the time to maturity distance of a bond to its two neighboring benchmarks is exactly the same, then the benchmark bond with the closer coupon is chosen. If the coupon distance of the two neighbouring bonds is also exactly the same, then the younger of the two benchmark bonds is chosen.

5.9 Index history

The history for the indices starts from 31st December 1998 at a base level of 100. The zero coupon curves starts from 30th November 2009.

5.10 Settlement conventions

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

5.11 Calendar

S&P DJI publishes an index calculation calendar available on <https://www.spglobal.com/spdji/en/> under *iBoxx Indices Calendars*. This calendar provides an overview of the index calculation holidays of the iBoxx bond index families each year.

5.12 Publication of the Index

The iBoxx EUR Sub-Sovereigns, Supranationals & Agencies rating sub-indices & Zero Coupon Curves are calculated as end-of-day indices and distributed once daily after market close.

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 at <https://www.spglobal.com/spdji/en/> under *iBoxx Indices 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 of the website for registered users.

5.13 Data publication and access

The table below summarizes the publication of the iBoxx EUR Sub-Sovereigns, Supranationals & Agencies rating sub-indices & Zero Coupon Curves in the Indices section of the website for registered users and on the FTP server.

Table 1: Frequency, File type and Access

Frequency	File Type	Access
Daily	Underlying file – Bond level	FTP Server
	Indices files – Index level	FTP Server / website / Bloomberg for index levels only
	Zero coupon curves	FTP Server
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	FTP Server
Monthly	End of month components	FTP Server / website

The following table delivers an overview of the index identifiers.

Table 2: Index identifiers

Index Name	Version	ISIN	SEDOL
iBoxx EUR Sub-Sovereigns, Supranationals & Agencies AAA	CPI	GB00BQN9T751	BQN9T75
	TRI	GB00BQN9T868	BQN9T86
iBoxx EUR Sub-Sovereigns, Supranationals & Agencies AA	CPI	GB00BQN9T975	BQN9T97
	TRI	GB00BQN9TB93	BQN9TB9
iBoxx EUR Sub-Sovereigns, Supranationals & Agencies A	CPI	GB00BQN9T538	BQN9T53
	TRI	GB00BQN9T645	BQN9T64
iBoxx EUR Sub-Sovereigns, Supranationals & Agencies BBB	CPI	GB00BQN9TC01	BQN9TC0
	TRI	GB00BQN9TD18	BQN9TD1

CPI Clean Price Index Level TRI Total Return Index Level

5.14 Annual index review

In addition to the daily governance of indices and maintenance of index methodologies, at least once within any 12-month period, the Index Committee reviews the methodology to ensure the indices continue to achieve the stated objectives, and that the data and methodology remain effective. In certain instances, S&P Dow Jones Indices may publish a consultation inviting comments from external parties.

6 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
- 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](#).

7 Changes to the iBoxx EUR Sub-Sovereigns, Supranationals & Agencies rating sub-indices & Zero Coupon Curves

01 May 2024	<p>Annual Index Review 2023</p> <ul style="list-style-type: none"> • Update to Agencies' Classification Definition <ul style="list-style-type: none"> > Updated definition of 'Agencies' > Updated definition for 'Other Sub-Sovereigns'
22 December 2022	<p>Launch of iBoxx EUR Sub-Sovereigns, Supranationals & Agencies rating sub-indices & Zero Coupon Curves</p>

8 Further information

Client support

For client support please contact index_services@spglobal.com.

Formal complaints

Formal complaints should be emailed to spdji_compliance@spglobal.com.

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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:		June 2023
Appendix first publication:		June 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.

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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.

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