S&P Dow Jones Indices

A Division of S&P Global

iBoxx USD Liquid High Yield Infrastructure Index Methodology

March 2025

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1 Markit iBoxx USD Liquid High Yield Infrastructure Index

The Markit iBoxx USD Liquid High Yield Infrastructure Index is designed to reflect the performance of USD denominated high yield corporate infrastructure debt. The index rules aim to offer broad coverage of the USD high yield corporate infrastructure bond universe and consist of a subset of the bonds from the Markit iBoxx USD Liquid High Yield index. The infrastructure index is an integral part of the suite of iBoxx indices, which provide the marketplace with accurate and objective indices by which to assess the performance of bond markets and investments. The USD Liquid High Yield infrastructure index covers companies from the Energy, Telecommunication, Transportation and Utilities sector with specific characteristics. The index is market-value weighted.

The Markit iBoxx USD Liquid High Yield Infrastructure Index is rebalanced once a month at the month-end (the “rebalancing date”) and consists of sub-investment grade USD denominated bonds issued by corporate issuers from developed countries and rated by at least one of three rating services: Fitch Ratings, Moody’s Investors Service, or Standard & Poor’s Rating Services.

The bonds in the Markit iBoxx USD Liquid High Yield Infrastructure Index must meet all the criteria described below as of the close of business three business days prior to the rebalancing date provided that the relevant bond data can be verified, at S&P DJI’s sole discretion, as of such date (“bond selection cut-off date”). The new index composition becomes effective on the first business day of the next month (the “composition month”).

This document covers the index selection rules and calculation methodology.

2 Bond selection rules

The following selection criteria are applied to select the constituents for the Markit iBoxx USD Liquid High Yield Infrastructure Index:

- Bond type
- Credit rating
- Time to maturity
- Amount outstanding
- Classification
- Lockout period

2.1 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 Markit iBoxx USD Liquid High Yield Infrastructure Index include only USD denominated bonds.

In particular, bonds with the following characteristics are included:

- Fixed coupon bonds
- Step-up bonds with coupon schedules known at issuance (or as functions of the issuer’s rating)
- Sinking funds and amortizing bonds
- Medium term notes (“MTNs”)
- Rule 144A offerings
- Callable bonds
- Putable bonds
- Pay-in kind bonds

The following instrument bond types are specifically excluded from the indices:

- Preferred shares
- Optionally and mandatory convertible bonds
- Subordinated bank or insurance debt with mandatory contingent conversion features or with any conversion options before the first call date is ineligible for the index
- Bonds with other equity features attached (e.g., options/warrants)
- Private placements. The list of private placements is updated every month and published on https://www.spglobal.com/spdji/en/ under *Indices News*. 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.
- Perpetual bonds (unless callable with eligible expected remaining life as per chapter 2.3)
- Floating rate notes
- Zero coupon bonds
- Zero step-ups (GAINS)
- Bonds with differences between accrual and coupon payment periods and monthly-paying bonds.
- Regulation S offerings
- Extended bonds as defined under section 'Maturity extension' in this document

For private placements, publicly available information is not always conclusive and the classification of a bond as a private placement will be made at S&P DJI's discretion based on the information available at the time of determination. Any bond classified as private placement is added to the list of excluded private placements. The list is published on https://www.spglobal.com/spdji/en/ under *Indices News* for future reference and to ensure decision's 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 methodology. S&P DJI may consult the 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.

2.1.1 Tender offers and calls

Any bond subject to a firm call or tender offer, with the exception of exchange offers, in the month immediately following the rebalancing date will be excluded from the index, provided that S&P DJI is aware of such tender offer or call as of the bond selection cut-off date.

2.2 Credit rating

All bonds in the Markit iBoxx USD Liquid High Yield Infrastructure 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. For more information on how the average rating is determined, please refer to the *iBoxx Rating Methodology* document available at https://www.spglobal.com/spdji/en/ under *Methodology*.

Defaulted bonds are ineligible for the index. Bonds that are in default or that trade flat of accrued are removed from the index at the first rebalancing following the default/start of trading flat of accrued. Issues rated D by Fitch Ratings or S&P Global Ratings or that have been subject to a default press release by Moody's Investor Service cannot enter the index; those issues in the index that are subsequently downgraded to D by S&P Global Ratings or Fitch or are subject to a default press release by Moody's Investor Service (as of the bond selection cut-off date) will be taken out of the index on the next rebalancing date. In case of an ID change or exchange of a 144A version into a registered bond the ratings from the 144A bond are also used for the registered bond.

Bonds with a rating downgrade to RD/SD will remain eligible in the Markit iBoxx USD Liquid High Yield Infrastructure Index until the second rebalancing after the downgrade. If such bonds have not been upgraded by T-3 of the second rebalance following the initial downgrade, they will be removed from the index. This means RD/SD rated bonds remain eligible in the Markit iBoxx USD Liquid High Yield Infrastructure Index for the first rebalancing after their downgrade to allow for sufficient time to complete a distressed debt exchange or change of terms (assuming they meet all other criteria).

2.3 Time to maturity

2.3.1 Expected remaining life

All bonds must have at the rebalancing day an expected remaining life:

- Of at least one year, and
- All new insertions must have an expected remaining life of at least one year and 6 months.

The expected remaining life 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

2.3.2 Expected remaining life at issuance

All bonds must have at issuance an expected remaining life of 15 years or less.

2.4 Amount outstanding

2.4.1 Issue amount outstanding

The outstanding face value of a bond must be greater than or equal to USD 400 million as of the bond selection cut-off date. Partial buybacks or increases affect the outstanding face value of a prospective bond. S&P DJI considers changes to the outstanding face value of a candidate bond as a result of partial or full buybacks or increases, provided that S&P DJI is aware of such changes as of the bond selection cut-off date. In the case of 144A securities that are registered as global securities, the remaining amount of the 144A version and the registered version are recombined if the bond is not exchanged in full if the remaining amount of the 144A version reduces the amount outstanding below the eligibility threshold.

2.4.2 Issuer amount outstanding

The outstanding face value of all bonds denominated in USD from the issuer in the broader "iBoxx USD High Yield Developed Markets Index" and the "iBoxx USD Corporates (IG)" universe must be greater than or equal to USD 1 billion as of the bond selection cut-off date. The issuer amount outstanding is based on the issuer ticker.

2.5 Lockout period

A bond that drops out of the Markit iBoxx USD Liquid High Yield Infrastructure Index at the rebalancing day is excluded from re-entering the index for a three-month period.

The rule for the lockout period takes precedence over the other rules for the Markit iBoxx USD Liquid High Yield Infrastructure Index selection. A locked out bond will not be selected, even if it qualifies for the index.

3 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 index at the next rebalancing if necessary.

Where the sector classification of a specific entity is not clear due to the diversified business of the entity, a decision is made at S&P DJI's discretion. S&P DJI assigns the classification according to its evaluation of the business risk presented in the security prospectus and annual reports, if available. S&P DJI also compares 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.

3.1 Infrastructure sector classification

Each bond in the Markit iBoxx USD High Yield Infrastructure Index is classified as infrastructure based on their current iBoxx Sector Level 8. Bonds with an iBoxx Sector Level 8 equal to Alternative Electricity, Conventional Electricity, Gas Distribution, Pipelines or Water are always considered to be infrastructure. Bonds with an iBoxx Sector Level 8 of Integrated Oil & Gas, Refining & Marketing, Wireless Telecommunications, Multiutilities, Railroads, Specialty REITs, Transportation Services, and Waste & Disposal Services are reviewed for material infrastructure exposure and may be classified as infrastructure based on the profile of the issuer.

The Table below shows all of the corporate sectors that have infrastructure exposure and therefore may be reflected in the index, within which are definitions for the sectors that require additional review to determine their infrastructure exposure of how infrastructure firms within those sectors are described.

Infrastructure businesses offer essential services, are hard-backed and generally have steady cash flows that are predictable and have low volatility. They generally operate in a regulated market/monopolistic like market or have long-term concessions/contractual agreements.

Non-publicly listed companies are eligible if the non-infrastructure business makes only an insignificant part of the business.

iBoxx Sector Level 5	iBoxx Sector Level 8	Infrastructure Definition
Financials	Specialty REITs	The business behind the REIT owns & operates telecommunications towers and contracted fiber optic networks.
Industrials	Railroads	Railroad companies that own the land or rights of way, track and terminals over which they operate, plus motive power and most rolling stock. Also any project bond related to longterm concessions in Light Rail Transit.
	Transportation Services	Firms that own or operate airports, public or private highways and toll roads, and/or ports.
	Waste & Disposal Services	Providers of pollution control and environmental services for the

iBoxx Sector Level 5	iBoxx Sector Level 8	Infrastructure Definition
		management, recovery and disposal of solid and hazardous waste materials. These firms typically own waste facilities, such as landfills and recycling centers, and have long-term contracts in place or natural monopolies.
Oil & Gas	Integrated Oil & Gas	Companies that transmit, store, and/or distribute oil and gas. For firms involved with oil & gas, significant E&P activity would disqualify the firm from infrastructure consideration.
	Pipelines	Firms that operate pipelines for the transport of fuel, such as oil and gas.
	Refining & Marketing	Companies engaged in the distribution business within the downstream vertical; refining and marketing of oil, gas and/or refined products. Significant refining activity as compared to distribution activity, would disqualify the firm from infrastructure consideration.
Telecommunications	Wireless Telecommunications	The business owns & operates telecommunications towers (would exclude mobile carrier firms as well as satellite companies) and contracted fiber optic networks. The infrastructure index includes firms where the telecom towers and optic networks would be the main operating business and not companies mainly servicing their own business further down the value chain.
Utilities	Alternative Electricity	Companies generating and distributing electricity from a renewable source. Includes companies that produce solar, water, wind and geothermal electricity.
	Conventional Electricity	Companies generating and distributing electricity through the burning of fossil fuels such as coal, petroleum and natural gas, and through nuclear energy.
	Gas Distribution	Firms that operate distribution of gas to end users.
	Multiutilities	Companies that mainly generate electricity, transmit, or distribute electricity, oil and/or gas. For firms involved with oil & gas, significant E&P activity would disqualify the firm from infrastructure consideration.
	Water	Firms that deliver water to end users or that treat water via water treatment plants.

3.2 Denomination

Bonds must be denominated in USD.

3.3 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 Bloomberg ticker (i.e., all bonds sharing a ticker are attributed to the same issuer).

3.4 Issuer country

Bonds from countries classified as developed markets based on the “S&P Global iBoxx Global Economic Development Classification Methodology” are eligible for the index.

The issuer or, in the case of a finance subsidiary, the issuer’s guarantor, must be domiciled, incorporated and the country of risk must be in the countries listed as developed markets in “S&P iBoxx Country Classifications”.

The classification is available at: https://www.spglobal.com/spdji/en/ under Methodology -> S&P iBoxx Country Classifications

3.5 Inclusion and exclusion of countries

A new country is added to the index if it is classified as developed market based on the “S&P Global iBoxx Global Economic Development Classification Methodology”.

A country is no longer eligible for the index if it is classified as emerging market based on the “S&P Global iBoxx Global Economic Development Classification Methodology”. The “S&P Global iBoxx Global Economic Development Classification Methodology” is updated once per year. The results are published at the end of July. The inclusion/exclusion of a country becomes effective at the end of October.

4 Index calculation

4.1 Static data

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

4.2 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/.

4.3 Rebalancing process

The index rebalances monthly after market close on the last business day of the month. Any inclusion after the index cut-off day (T-3) is not considered in the rebalancing process but becomes effective at the end of the following month. New bonds issued are considered if publicly known to settle until the last calendar day of the month, inclusive, and if the rating and amount outstanding has become known at least three trading days before the end of the month.

Preview lists of eligible bonds are published on a weekly basis starting on the first Friday three business days after the previous month-end rebalance, as well as on the sixth calendar day of the month (or next index publication day if the sixth calendar day falls on a non-business day). Preview lists of eligible bonds are additionally published on before the end of the month. Final components are published two business days before the end of the month (T-2).

Two business days before the end of each month, the rating and amount information for the constituents is updated and the list is adjusted for all rating and amount changes which are known to have taken place three business days before the end of the month which could also result in exclusion of the bond. However, if bonds which are part of broader U.S. Dollar indices become eligible into the Index two business days prior to rebalancing because of rating and/or amount changes, the bonds are included in the index.

4.3.1 Rebalancing procedure

In a first step the selection criteria set out in chapter 2 are applied to the universe of USD denominated bonds.

- Bond ratings and amount outstanding are used as of the bond selection cut-off date
- Maturity dates remain fixed for the life of the bond
- Only bonds with a first settlement date on or before the rebalancing date are included in the selection process

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

4.5 Index Calculus

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

4.6 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.

4.6.1 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.

4.6.2 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).

4.6.3 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 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.

4.6.4 Maturity extension

4.6.4.1 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.

4.6.4.2 Maturity extension for perpetuals & 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

4.7 Index history

The Index history starts on 31 December 2009. The index has a base value of 100 on that date.

4.8 Settlement conventions

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

4.9 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.

4.10 Publication of the Markit iBoxx USD Liquid High Yield Infrastructure Index

All indices are calculated as end-of-day and distributed once daily after 4 p.m. EST. The indices are calculated every day except on common U.S. bank holidays. In addition, the indices are calculated with the previous trading day's close on the last calendar day of each month if that day is not a trading day. S&P DJI publishes an index calculation calendar which is available in the indices section on https://www.spglobal.com/spdji/en/ under Calendar for data subscribers. Index data and bond price information is also available from the main information vendors.

Bond and index analytical values are calculated each trading day using the daily closing prices. Closing index values and key statistics are published at the end of each business day in the indices section on https://www.spglobal.com/spdji/en/ for data subscribers.

4.11 Data publication and access

The table below summarizes the publication of Markit iBoxx USD Liquid High Yield Infrastructure Index at https://www.spglobal.com/spdji/en/ for registered users and on the FTP server.

In addition to the indices detailed in this methodology, other indices covered by this document may be available. For a list of available indices, please refer here.

Table 1: ***Data publication 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
Daily from the 6th calendar day of the month (or next index publication day if the 6th calendar day falls on a non-business day)	Forwards	FTP Server
Weekly (Friday)[1]	Preview components	FTP Server / website
T-4, T-3 & T-2	Preview components	FTP Server / website
Monthly	End of month components	FTP Server / website
	XREF files	FTP Server

[1]Previews will be published starting from the first Friday that is three business days after the previous month-end rebalance.

Below is a summary of the IDs for each publication channel:

Index Name	Version	ISIN	BBG	RIC
Markit iBoxx USD Liquid High Yield Infrastructure	TRI	GB00BYT24H97	IBXXINFH	.IBXXINFH
Markit iBoxx USD Liquid High Yield Infrastructure	CPI	GB00BYT24J12	IBXXINF4	.IBXXINF4

4.12 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.

5 Index Governance

Index Committee

An S&P Dow Jones Indices Index Committee maintains the indices. All committee members are full-time professionals at S&P Dow Jones Indices. Meetings are held regularly. The Index Committee oversees the management of the indices, including determinations of intra-rebalancing changes, maintenance and inclusion policies, and other matters affecting the maintenance and calculation of the indices.

In fulfilling its responsibilities, the Index Committee has full and complete discretion to (i) amend, apply, or exempt the application of index rules and policies as circumstances may require and (ii) add, remove, or by-pass any bond in determining the composition of an index.

The Index Committee may rely on any information or documentation submitted to it or gathered by it that the Index Committee believes to be accurate. The Index Committee reserves the right to reinterpret publicly available information and to make changes to the indices based on a new interpretation of that information at its sole discretion. All Index Committee discussions are confidential.

The Index Committee is separate from and independent of other analytical groups at S&P Global. In particular, the Index Committee has no access to or influence on decisions by S&P Global Ratings analysts.

S&P Dow Jones Indices' Index Committees reserve the right to make exceptions when applying the methodology if the need arises. In any scenario where the treatment differs from the general rules stated in this document or supplemental documents, clients will receive sufficient notice, whenever possible.

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.

For more information on index governance policies, please refer here.

6 Changes to the Markit iBoxx USD Liquid High Yield Infrastructure Index

31-Mar-2025	**Annual Index Review 2024** ● Removal of the minimum run rule
01-Mar-2024	**Annual Index Review 2023** ● Inclusion of payment-in-kind (PIK) bonds
30-Jun-2023	**Annual Index Review 2022** ● Introduction of 'Maturity extension' section ● Index eligibility of bonds with extended workout dates ● Distressed Debt Exchanges – Rule Update
30-Jun-2022	Monthly forward start date updated from 10th calendar day to 6th calendar day
01-Sep-2021	Monthly forward start date updated from 12th calendar day to 10th calendar day
01-Mar-2021	Governance and Regulatory Compliance section added
28-Feb-2021	**Implementation of Annual Index Review 2020** • Updated Issuer amount outstanding determination parameters • Removed Rating Stabilization Rule
31-Jul-2020	**Implementation of Annual Index Review 2019** • Introduction of updated corporate classification schema • Updates as part of the changes in definition and treatment of hybrid bonds
26-Jul-2016	Launch of the Markit iBoxx USD Liquid High Yield Infrastructure Index

7 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.

Please note: spdji_compliance@spglobal.com should only be used to log formal complaints.

General index inquiries

For general index inquiries, please contact index_services@spglobal.com.

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 by 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. Also, the treatment of corporate actions in back-tested performance may differ from treatment for live indices due to limitations in replicating index management decisions. 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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