

**S&P Dow Jones
Indices**

A Division of **S&P Global**

**iBoxx USD FRN Broad
Investment Grade
Corporates TCA Index Guide**

October 2023

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1) iBoxx USD FRN Broad Investment Grade Corporates TCA index

The iBoxx USD FRN Broad Investment Grade Corporates TCA index (Transaction Cost Adjusted) consists of investment grade USD denominated FRN 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 S&P Global Ratings. The index covers senior floating rate securities with a minimum time to maturity of 1 month at rebalancing (1 year at issuance). The index is rebalanced on a monthly basis and is market-value-weighted with a soft cap on each issuer of 3%. In the event that there aren't enough distinct issuers to satisfy the soft cap, a hard cap of 5% will be used.

The bonds in the iBoxx USD FRN Broad Investment Grade Corporates TCA 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 information can be verified as of such date ("bond selection cut-off date"). The new index composition becomes effective on the first business day of the next month.

All iBoxx indices are priced based on multiple data inputs. The iBoxx USD FRN Broad Investment Grade Corporates TCA index uses multi-source prices as described in the *iBoxx Pricing Methodology* available on <https://www.spglobal.com/spdji/en/> under *Methodology*.

This document covers the index selection rules and calculation methodology. For more details on the transaction cost adjustment, please see the *iBoxx Bond Index Calculus* document available on <https://www.spglobal.com/spdji/en/> under *Methodology*.

2) Bond selection rules

The following selection criteria are applied to select the constituents for the Index:

- Bond type
- Credit rating
- Time to maturity
- Amount outstanding
- Liquidity screening
- Bond classification

2.1) Bond type

Only floating rate notes linked to SOFR with a coupon reset of at least once per year are eligible for the indices. The indices are comprised solely of bonds. T-Bills and other money market instruments are not eligible. The Index includes only USD denominated bonds.

In particular, bonds with the following characteristics are included:

- Step-up bonds with coupon schedules known at issuance (or as functions of the issuer's rating)
- Medium term notes ("MTNs")
- Rule 144A offerings
- Callable senior bonds, including those with cleanup calls (i.e. call option within 6 months of maturity)
- Puttable senior bonds
- Non-callable lower tier 2 bonds
- Floating rate notes (FRNs) linked to SOFR with coupon reset at least once per year

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

- Extended bonds as defined under section 'Maturity extension' in this document
- Fixed coupon bonds ("plain vanilla bonds")
- 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
- Bonds with other equity features attached (e.g., options/warrants)
- Private placements and retail bonds. The list of private placements and retail bonds 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.
- Municipal bonds
- Perpetual bonds
- Sinking funds
- Amortizing bonds
- Structured bonds
- Subordinated debt except non-callable Lower Tier 2 bonds
- Fixed-to-floaters
- Leveraged floaters

- Regulation S bonds
- Floaters with a cap and/or floor
- Step-up floaters
- Reverse floaters
- Pay-in kind bonds (during the pay-in-kind period)
- Zero coupon bonds
- Zero step-ups (GAINS)
- Bonds with differences between accrual and coupon payment periods and monthly-paying bonds

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. 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 <https://www.spglobal.com/spdji/en/> 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 this section of the guide. 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.

2.2) Credit rating

All bonds in the iBoxx USD FRN Broad Investment Grade Corporates TCA index must have an iBoxx Rating of 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

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 the iBoxx USD FRN Broad Investment Grade Corporates TCA index.

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*.

2.3) Time to maturity

To qualify for the iBoxx USD FRN Broad Investment Grade Corporates TCA index all eligible bonds must have a remaining time to maturity of at least one month, measured from the respective rebalancing date to the maturity date. The time to maturity for substitutes is measured from the substitution date to the maturity date of the bond.

All bonds must have a time to maturity of at least one year at issuance.

2.4) Amount outstanding

All bonds must have a specific minimum amount outstanding in order to be eligible for the indices. The amount outstanding of a bond must be greater than or equal to USD 300 million as of the bond selection cut-off date.

In the case of 144A/RegS securities that are registered as global securities, the remaining amount of the 144A/RegS version and the registered version are recombined if the bond is not exchanged in full.

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 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 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.

2.5.1) Denomination

Bonds must be denominated in USD, publicly registered in the U.S. with the Securities and Exchange Commission, clear or settle through DTC. Eurobonds are excluded.

2.5.2) Issuer

The bond must be corporate credit, i.e., debt instruments issued by public or private corporations 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).

Issuer country

Bonds from countries classified as developed markets based on the "Markit Global Economic Development Classification" are eligible for the index.

2.5.3) Inclusion and exclusion of countries

A new country is added to the index if it is classified as developed market based on the "Markit Global Economic Development Classification".

A country is no longer eligible for the index if it is classified as emerging market based on the "Markit Global Economic Development Classification". The "Markit Global Economic Development Classification"

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.

2.5.4) Corporates

Bonds issued by public or private corporations. Bonds secured by a 'floating charge' over some or all assets of the issuer are considered corporate bonds. Corporate bonds are further classified into Financials and Non-Financials bonds and then into their multiple-level economic sectors, according to the issuer's business scope. The category Guaranteed & Wrapped is added under Financials for corporate bonds whose timely coupon and/or principal payments are guaranteed by a non-affiliated insurer or through a letter of credit from a non-affiliated bank. 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
			Nonequity Investment Instruments
		Guaranteed & Wrapped	*
	Real Estate	Real Estate	Real Estate Investment & Services
			Real Estate Investment Trusts
	Non-Financials	Energy	Oil & Gas
Oil Equipment / Services & Distribution			
Renewable Energy			Renewable Energy
Basic Materials		Chemicals	Chemicals
		Basic Resources	Industrial Metals
			Mining
Industrials		Construction & Materials	Forestry & Paper
			Construction & Materials
		Industrial Goods & Services	Aerospace & Defense
			Electronic & Electrical Equipment
			General Industrials
			Industrial Engineering
Industrial Transportation			

		Support Services
Consumer Goods	Automobiles & Parts	Automobiles & Parts
	Food & Beverage	Beverages
		Food Producers
	Personal & Household Goods	Household Goods
		Personal Goods
		Tobacco
		Leisure Goods
Health Care	Health Care	Pharmaceuticals & Biotechnology
		Health Care Equipment & Services
Consumer Services	Retail	Food & Drug Retailers
		General Retailers
	Media	Media
	Travel & Leisure	Travel & Leisure
	Education	Academic & Educational Services
Telecommunications	Telecommunications	Integrated Telecommunications
		Wireless Telecommunications
Utilities	Utilities	Electricity
		Gas / Water & Multiutilities
Technology	Technology	Software & IT Services
		Technology Hardware & Equipment

2.5.5) Additional classification

Corporate debt is further classified into senior and subordinated debt. Hybrid capital issued by financial institutions is further detailed into the respective tiers of subordination:

- Lower Tier 2

Only non-callable Lower Tier 2 financial debt qualifies for the Index.

Table 2: Overview of Seniority Levels

Market Sector	Seniority Level 2	Seniority Level 3
Bank	Bank Lower Tier 2	Non-Callable
Insurance	Insurance Lower Tier 2	Non-Callable

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

3.3) Rebalancing process

The iBoxx USD FRN Broad Investment Grade Corporates TCA index is rebalanced monthly on the last business day of the month after the close of business. Changes to outstanding amounts 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.

A preliminary membership list is published on the 10th calendar day of the month (moved to the next business day in case of holiday/weekend).

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 USD 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.

3.3.1) Rebalancing procedure

The filtering rules described in section 2 are applied to the universe of the broader iBoxx USD FRN Broad Investment Grade Corporates TCA index.

3.4) Index data

The calculation of the index is based on mid prices. New securities are included in the index at their respective mid prices when they enter the index family. The index is transaction cost adjusted. 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, S&P DJI may consult the specific Index Committees at the following 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.

3.5) Index weights

Once the eligible bond universe has been defined, the weight for each bond is determined and a soft issuer cap of 3% is applied. In the event that there aren't enough distinct issuers to satisfy the soft cap, a hard cap of 5% will be used.

The weights and capping factors are determined on the last business day of each month using the end-of-month market values.

3.6) 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*.

3.7) 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.

3.7.1) 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.

3.7.2) 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).

3.7.3) 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.

3.7.4) Maturity extension

3.7.4.1) 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

3.7.4.2) 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.

3.8) Index history

The Index history starts on 31 December 2017. The index has a base value of 100 on that date.

3.9) Settlement conventions

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

3.10) 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 in a given year.

3.11) Publication of the index

The iBoxx USD FRN Broad Investment Grade Corporates TCA index is 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 *iBoxx Indices Calendars* for registered users. 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 registered users.

3.12) Data publication and access

The table below summarizes the publication of the iBoxx USD FRN Broad Investment Grade Corporates TCA index at <https://www.spglobal.com/spdji/en/> for registered users and on the FTP server.

Table 2: Frequency, file type and access

Frequency	File Type	Access
Daily	Underlying files – 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 the next index publication day if the 6th calendar day falls on a non-business day)	Forward Files	FTP Server
Monthly	End of Month Components	FTP Server / website
	XREF files	FTP Server

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

Index Name	Version	ISIN	SEDOL	BBG	RIC
iBoxx USD FRN Broad Investment Grade Corporates TCA Index	TRI	GB00BQ52GD75	BQ52GD7	IBXXFTCP	.IBXXFTCP
iBoxx USD FRN Broad Investment Grade Corporates TCA Index	CPI	GB00BQ52GF99	BQ52GF9	IBXXFTCT	.IBXXFTCT

3.13) 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.

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 iBoxx USD FRN Broad Investment Grade Corporates TCA index

30 Jun 2023	Annual Index Review 2022 <ul style="list-style-type: none">• Introduction of 'Maturity extension' section• Index eligibility of bonds with extended workout dates• Creation of 'Renewable Energy Sector' within the 'Corporates' classification
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6) Further information

Client support

For client support please contact:

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Phone:	Asia Pacific	Japan: Singapore:	+81 3 6402 0127 +65 6922 4210
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	USA	General:	+1 877 762 7548

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 indices@ihsmarkit.com.

Disclaimer

Performance Disclosure/Back-Tested Data

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

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

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

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

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

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