

**iBoxx EUR
Investment Grade
Broad Credit Spread
Widening Indices
Methodology**

October 2025

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Introduction

Index Objective

The iBoxx EUR Investment Grade Broad Credit Spread Widening Index provides exposure to euro credit spread changes by taking a long position in German sovereign bonds and a short position in broad EUR Corporates investment grade bonds with adjacent durations. The index shorts EUR corporate investment-grade bonds and invests in German sovereign bonds from the eligible universe with a sovereign-bond position designed to neutralize the duration of the iBoxx EUR Investment Grade Broad Credit Spread Widening Corporate Index.

Eligibility Criteria and Index Construction

Index Universe

iBoxx EUR Investment Grade Broad Credit Spread Widening Index. The index universe is all bonds in the iBoxx EUR Investment Grade Broad Credit Spread Widening Corporate Index and the iBoxx EUR Investment Grade Broad Credit Spread Widening Sovereigns Germany Index.

iBoxx EUR Investment Grade Broad Credit Spread Widening Corporates Sub-Index. The index universe is all bonds in the iBoxx € Corporates index.

iBoxx EUR Investment Grade Broad Credit Spread Widening Sovereigns Germany Sub-Index. The index universe is bonds in the iBoxx € Germany index.

For more information on the iBoxx € Corporates Index and the iBoxx € Germany Index, please refer to the iBoxx EUR Benchmark Index Methodology, available at www.spglobal.com/spdji.

Eligibility Criteria

Bonds in the index universe must satisfy the following criteria to be eligible for index inclusion:

Bond Type

Only fixed-rate bonds whose cash flow can be determined in advance are eligible. The indices are comprised solely of bonds. T-Bills and other money market instruments are not eligible. The index includes only Euro and legacy currency denominated bonds.

Credit Rating

All bonds in the iBoxx EUR Investment Grade Broad Credit Spread Widening 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 EUR Investment Grade Broad Credit Spread Widening Index.

If more than one of the above agencies rates a bond, then the iBoxx rating is the average of the provided ratings. The index consolidates ratings to the nearest rating grade and does not use rating notches. 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/>.

Time to Maturity

All bonds must have a minimum remaining time to maturity of at least one year at the rebalance date. Bonds with a remaining life of less than one year are no longer eligible.

Amount Outstanding

All bonds require a specific minimum amount outstanding in order to be eligible for the indices, as shown below. The figures indicate minimum issue sizes.

Sovereigns: EUR 1 billion

Corporates: EUR 500 million for EUR-issued bonds and EUR 1 billion for legacy bonds (converted from pre-EUR currencies)

Bond Selection Process

iBoxx EUR Investment Grade Broad Credit Spread Widening Corporates Sub-Index. At each rebalancing, select all eligible constituents from the index universe.

iBoxx EUR Investment Grade Broad Credit Spread Widening Sovereigns Germany Sub-Index. At each rebalancing, select bonds from the index universe according to the following process:

1. Group sovereign bonds within the iBoxx € Germany index by calendar maturity year.
2. If multiple bonds are available in a group, rank the eligible bonds as follows:
 - a. Higher notional amount outstanding
 - b. Most recent first settlement date
 - c. Higher ISIN (in alphanumerical order)
3. Select the top ranked bond for each calendar year.

Then, select associated sovereign bonds for each bond in the corporate sub-index according to the following process:

1. Determine the annual modified duration for all corporate bonds in the iBoxx EUR Investment Grade Broad Credit Spread Widening Corporates Sub-Index.
2. Associate each corporate bond with two neighboring sovereign bonds with the closest annual modified duration (one with the closest lower duration and the other with the closest higher duration) to the duration of the corporate bond (referred to as “Comparable bonds”).
3. Calculate the weighted distance (“distribution ratio”) between the “comparable” bonds and the corporate bond to determine the amount of the “comparable” bond according to the following process:
 - a. If the corporates bond can be paired with two sovereign bonds¹, the distribution ratio is determined as follows:

$$\delta_{i,j,t-s} = 1 - \frac{\text{abs}(DUR_{i,t-s}^{Corp} - DUR_{i,j,t-s}^{Sov})}{DUR_{i,j+1,t-s}^{Sov} - DUR_{i,j,t-s}^{Sov}}$$

and:

$$\delta_{i,j+1,t-s} = 1 - \delta_{i,j,t-s}$$

where:

$$DUR_{i,j,t-s}^{Sov} \leq DUR_{i,t-s}^{Corp} \leq DUR_{i,j+1,t-s}^{Sov}$$

1. In some instances, only one neighboring “comparable” bond is available, either because the corporate bond has the longest tenor and there is no sovereign bond with a higher duration or the corporate bond has the shortest tenor and there is no sovereign bond with a lower duration.

In this case, distribution ratios are between 0 and 1. Calculate the weights for the two sovereign bonds as follows:

$$w_{i,j,t-s}^{Sov} = \frac{\delta_{i,j,t-s} w_{i,t-s}^{Corp} DUR_{i,t-s}^{Corp}}{DUR_{i,j,t-s}^{Sov}}$$

and:

$$w_{i,j+1,t-s}^{Sov} = \frac{\delta_{i,j+1,t-s} w_{i,t-s}^{Corp} DUR_{i,t-s}^{Corp}}{DUR_{i,j+1,t-s}^{Sov}}$$

Therefore, the following relationship holds:

$$w_{i,t-s}^{Corp} DUR_{i,t-s}^{Corp} = w_{i,j,t-s}^{Sov} DUR_{i,j,t-s}^{Sov} + w_{i,j+1,t-s}^{Sov} DUR_{i,j+1,t-s}^{Sov}$$

- Once all the corporate bonds have been paired, calculate the weight of each sovereign bond² as follows:

$$w_{j,t-s}^{Sov} = \sum_{i=1}^m w_{i,j,t-s}^{Sov}$$

- The amount is based on the cumulative weight of the sovereign bonds. The notional is determined at the bond selection date (T-2). Calculate the scaling factor between the total corporate bonds and the total “Comparable” sovereign bonds as follows:

$$\Delta_{t-s} = \frac{\sum_{i=1}^m w_{i,t-s}^{Corp}}{\sum_{j=1}^n w_{j,t-s}^{Sov}}$$

Or, simplified:

$$\Delta_{t-s} = \frac{1}{\sum_{j=1}^n w_{j,t-s}^{Sov}}$$

- Calculate the weight of each sovereign bond within the sovereign bond index by normalizing the

$w_{j,t-s}^{Sov}$ weights.

iBoxx EUR Investment Grade Broad Credit Spread Widening Index. The index takes a long position in the iBoxx EUR Investment Grade Broad Credit Spread Widening Sovereigns Germany Sub-Index and a short position in the iBoxx EUR Investment Grade Broad Credit Spread Widening Corporates Sub-Index.

For further information on index calculation, please refer to Total Return Calculation below.

2. Weight before normalization.

Index Calculation

Static Data

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

Bond Prices

The index calculation is based on mid prices.

For more details, please refer to the *iBoxx Pricing Methodology*, available at www.spglobal.com/spdji.

Total Return Calculation

The index is calculated and published as a total return index. Total return index level of the iBoxx EUR Investment Grade Broad Credit Spread Widening Index is calculated as follows:

$$TR_t = TR_{t-1} \left[1 + \left(R_{t-1,t}^{Sov} - \Delta_{t-s} \left(R_{t-1,t}^{Corp} - \frac{days_{ACT}(t-1,t)}{360} r_{t-1}^{Repo} \right) \right) \right]$$

The total returns for the corporates and sovereign indices are calculated based on the standard iBoxx calculation. The “repo return” is calculated as the difference between the Euro short-term rate and the indicative market cost (“Indicative fee”) of borrowing the bonds:

$$r_{t-1}^{Repo} = r_{t-1}^{Euro\ short\ -\ term\ rate} - IndicativeFee_{t-s}^{Corp}$$

After the rebalancing, the index level for next month is adjusted for transaction costs as follows:

$$TR_{t-s} = TR_{t-} \times CostFactor$$

For specific index formulae please refer to the *iBoxx Bond Index Calculus Methodology*, available at www.spglobal.com/spdji.

The following inputs are used for the index calculation:

Euro short-term rate (€STR)

The Euro short-term rate (€STR) as published by the European Central Bank.

Indicative fee for the index

The *Indicative fee* is calculated as the weighted-average indicative fee of the current index constituents’ bonds where an indicative fee is available from Security Finance (S&P Global MI). The indicative fee is observed as the 10-day average over the period from 11 previous business days prior to month-end (T-11) to (T-2). The *Indicative fee* is published after the close of business on the last business day of each month (T-1).

Rebalancing costs

To incorporate costs at rebalancing, which might occur, the following procedure is applied. The cost factor is split into cost that might occur due to rebalancing in the corporates component of the index and the sovereign component of the index.

The index is always evaluated at mid prices. For the sovereigns portfolio, bonds are sold at bid price and bought at ask price; for the corporates portfolio, short positions of bonds are reduced at ask price and increased at bid price. Hence, portfolio prices can be determined by bond weight difference before rebalancing and after rebalancing.

For a detailed description of the cost factor calculation please see *Appendix A*.

Reinvestment of Cash

Payments from coupons, scheduled partial and unscheduled full redemptions are held as cash, without interest, until the next rebalancing. Any cash is then reinvested in the index.

Rebalancing Process

The iBoxx EUR Investment Grade Broad Credit Spread Widening Index rebalances monthly on the last business day of the month after the close of business.

From the sixth day of the month (or the next index publication day if the sixth calendar day falls on a nonbusiness day), a preliminary membership list is published. This list contains preliminary information on notional for all bonds.

Two business days before the end of each month, a membership list with the final notional for each bond is published. This list contains the constituents for the next month.

On the last business day of each month, S&P DJI publishes the final membership with closing prices for the bonds, and various bond analytics based on the index prices of the bonds. The indicative fee for the following month is also published on this day.

Index History

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

Settlement Conventions

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

Calendar

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

Publication of the Index

All indices are calculated as end-of-day and distributed once daily. The publication schedule is presented in the iBoxx Indices SFTP Guide, available at www.spglobal.com/spdji. The indices are calculated every day on which the Euro short-term rate (€STR) is expected to be published by the European Central Bank.

In addition, the indices are calculated on the last calendar day of each month if that day is not a trading day as well as on common bank holidays as published in the iBoxx index calculation calendar. This index calculation calendar is available at www.spglobal.com/spdji. Index data is also available from the main information vendors.

Data Publication and Access

The table below summarizes the publication of the iBoxx EUR Investment Grade Broad Credit Spread Widening 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: 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 nonbusiness day)	XREF files	FTP Server
Monthly	End of Month Components	FTP Server / website

The index identifiers for the publication channels are:

Index Name	Return Type	SEDOL	ISIN	Ticker	RIC
iBoxx EUR Investment Grade Broad Credit Spread Widening Index	TRI	BT975B0	GB00BT975B07	IBXX4B2A	.IBXX4B2A

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](#).

Changes to the iBoxx EUR Investment Grade Broad Credit Spread Widening Index

Oct 10, 2025

• Launch of the iBoxx EUR Investment Grade Broad Credit Spread Widening Index

Appendix A

Cost Factor Calculation

At each rebalancing, the index uses the below informatoin to calculate cost factor:

Transaction cost summary for the long portfolio

Region	Description	Portfolio price ¹	Index Price	New Portion	Old Portion	Cost
1	Bond drops out	Bid	Mid	0	f-	Yes
2	Bond needs to be sold partially	Bid	Mid	f+	f-	Yes
3	(2-) Bond does not need to be purchased	Mid	Mid	f+	f-	No
	(2+) Bond has to be purchased ²	Ask	Mid	f+	f-	Yes
4	New bond to the index	Ask	Mid	f+	0	Yes

Transaction cost summary for the short portfolio

Region	Description	Portfolio price ¹	Index Price	New Portion	Old Portion	Cost
1	Bond drops out	Ask	Mid	0	f-	Yes
2	Short position needs to be reduced partially	Ask	Mid	f+	f-	Yes
3	(2-) Bond's position does not change	Mid	Mid	f+	f-	No
	(2*) short position has to be increased ²	Bid	Mid	f+	f-	Yes
4	New bond to the index	Bid	Mid	f+	0	Yes

The cost factor calculates as follows:

$$CostFactor = (1 - Cost_{t-s}^{long}) (1 - Cost_{t-s}^{short}) (1 - Cost_{t-s}^{borrowing})$$

$$Cost_{t-s}^{long} = 1 - \frac{w_{cash,t-}^{long} + \sum_{i=1}^m \frac{P_i^P + A_i}{P_i^I + A_i} w_{i,t-}^{long}}{w_{cash,t+}^{long} + \sum_{i=1}^m \frac{P_i^P + A_i}{P_i^I + A_i} w_{i,t+}^{long}}$$

1. For the change in amount outstanding during the rebalancing.
 2.2+: Region of all bonds with a weight increase in the portfolio: f+ > f-

where*:

$$w_{i,t-}^{long} = w_{i,t-s}^{long} LCR_{i,t-}^M$$

$$Cost_{t-s}^{short} = 1 - \frac{w_{cash,t-}^{short} + \sum_{i=1}^m \frac{P_i^p + A_i}{P_i^p + A_i} w_{i,t-}^{short}}{w_{cash,t+}^{long} + \sum_{i=1}^m \frac{P_i^p + A_i}{P_i^p + A_i} w_{i,t+}^{short}}$$

$$w_{i,t-}^{short} = w_{i,t-s}^{short} LCR_{i,t-}^M$$

$$Cost_{t-s}^{borrowing} = BidOffer_{short} * \text{Max} \left(\frac{TR_t^{short}}{TR_{t-s}^{short}} - 1; 0 \right)$$

* $w_{i,t-}^{long}$ and $w_{i,t-}^{short}$ is normalized. In the formula, since it is right before rebalancing, $t-s$ stands for the last calendar day of the previous month. For example, if calculation date is Aug 31st, $t-s$ in the formula is Jul 31st.

where:

$$BidOffer_{short} = \sum_{i=1}^m w_{i,t-}^{short} * BidOffer_i^{short}$$

Calculation of Cost Factor Weights

For any index, the weighting per bond before and after rebalancing can be described as follows:

$$\text{Before: } w_i^- = \frac{(P_i^p + A_i) f_i^-}{M^-}$$

$$\text{After: } w_i^+ = \frac{(P_i^p + A_i) f_i^+}{M_i^+}$$

The same applies to cash. Solving for f_i^- and f_i^+ leads to:

$$\text{Before: } f_i^- = \frac{w_i^- M^-}{P_i^p + A_i}$$

$$\text{After: } f_i^+ = \frac{w_i^+ M_i^+}{P_i^p + A_i}$$

The market value using index prices can be expressed using the new amount:

$$M^- = \sum_{i=1}^n (P_i^J + A_i) \cdot f_i^-$$

And using transaction prices:

$$M_P^+ = \sum_{i=1}^n (P_i^J + A_i) \cdot f_i^- + (P_i^P + A_i) \cdot (f_i^+ - f_i^-)$$

Since no cash is added or taken from the portfolio at the rebalancing, the assumption of no further cash addition leads us to the following equation:

$$M^- = M_P^+$$

That is the market value of the portfolio before the rebalancing equals the market value after rebalancing using transaction prices.

Combining the formulas above:

$$\sum_{i=1}^n (P_i^J + A_i) f_i^- = \sum_{i=1}^n (P_i^J + A_i) f_i^- + (P_i^P + A_i) (f_i^+ - f_i^-)$$

Or, simplified:

$$0 = \sum_{i=1}^n (P_i^P + A_i) (f_i^+ - f_i^-)$$

f_i^- and f_i^+ can be replaced in the previous formula:

$$0 = \sum_{i=1}^n (P_i^P + A_i) \left(\frac{w_i^+ M_i^+}{P_i^J + A_i} - \frac{w_i^- M^-}{P_i^J + A_i} \right)$$

Solving for M_i^+ gives:

$$M_i^+ = \frac{\sum_{i=1}^n \frac{P_i^P + A_i}{P_i^J + A_i} w_i^-}{\sum_{i=1}^n \frac{P_i^P + A_i}{P_i^J + A_i} w_i^+} M^-$$

Cost means the relative difference between market value of the portfolio using transaction prices to the portfolio valued with index prices:

$$M_i^+ = M_P^+ (1 - \text{cost})$$

Since $M^- = M_P^+$ leads to:

$$cost = 1 - \frac{\sum_{i=1}^n \frac{P_i^P + A_i}{P_i^J + A_i} W_i^-}{\sum_{i=1}^n \frac{P_i^P + A_i}{P_i^J + A_i} W_i^+}$$

Annotations

A_i	Accrued interest for bond i
$BidOffer_i^{short}$	Bid-offer spread of corporate bond i
$W_{i,j,t-s}^{Sov}$	Weight of sovereign bond j assigned from its pairing corporate bond i at last rebalancing
$W_{j,t-s}^{Sov}$	Total weight (before normalisation) of sovereign bond j at last rebalancing
$DUR_{i,t-s}^{Corp}$	Annual modified duration for corporate bond i at last rebalancing
$DUR_{i,j,t-s}^{Sov}$	Annual modified duration for sovereign bond j at last rebalancing which paired with corporate bond i
f_i	Amount invested for bond i
f_i^+	Amount invested per bond after the rebalancing
f_i^-	Amount invested per bond before the rebalancing
i	Bonds in corporates portfolio
j	Bonds in the sovereigns portfolio
$LCR_{i,t-}^M$	Month to date local return for bond i before the rebalancing
m	Number of bonds in the corporates portfolio
M^-	Market value of the portfolio before the rebalancing
M_I^+	Market value of the portfolio after rebalancing based upon index prices
M_P^+	Market value of the portfolio after rebalancing based upon transaction prices
$MV_{i,t}$	Market value of bond i at date t
MV_t	Market value of all bonds in the index at time t
MV_i^+	Market value of bond i after rebalancing
MV_i^-	Market value of bond i before rebalancing
n	Number of bonds in the sovereigns portfolio
P_i^J	Index price of bond i in the corporates bond index
P_i^P	Portfolio price of bond i in the corporates bond index
P_j^J	Index price of bond j in the sovereigns bond index

P_j^P	Portfolio price of bond j in the sovereigns bond index
$R_{t-1,t}^{Corp}$	Daily total return of the corporates portfolio
$R_{t-1,t}^{Sov}$	Daily total return of the sovereigns portfolio
TR_t	Total return index level at time t
TR_{t-}	Total return index level right before rebalancing
TR_{t-s}	Total return index level at last rebalancing
$w_{i,t-s}^{Corp}$	Weight of bond i in the corporates index at last rebalancing
$w_{i,t-}^{Corp}$	Weight of bond i in the corporates index right before rebalancing
$w_{i,t+}^{Corp}$	Weight of bond i in the corporates index right after rebalancing
$w_{j,t-s}^{Sov}$	Weight of bond j in the sovereigns index at last rebalancing
$w_{j,t-}^{Sov}$	Weight of bond j in the sovereigns index right before rebalancing
$w_{j,t+}^{Sov}$	Weight of bond j in the sovereigns index right after rebalancing
$w_{cash,t-}$	Weight of cash in the index prior to the rebalancing
$w_{cash,t+}$	Weight of cash in the index after the rebalancing
$\delta_{i,j,t-s}$	Distribution ratio corporate bond i to the pairing sovereign bond j at last rebalancing date
Δ_{t-s}	Scaling factor for the corporates index at last rebalancing

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

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.	S&P Dow Jones Indices Limited
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:		Oct 2025
Appendix first publication:		Oct 2025

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.

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.

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