

# **Markit iBoxx USD Liquid Asia ex-Japan Corporates Large Cap Investment Grade Index Rules**

***May 2023***

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# 1) Markit iBoxx USD Liquid Asia ex-Japan Corporates Large Cap Investment Grade Index

The Markit iBoxx USD Liquid Asia ex-Japan Corporates Large Cap Investment Grade index reflects the performance of USD denominated investment grade rated corporate bonds from Asian issuers outside Japan. The indices are an integral part of the Markit iBoxx USD Asia ex-Japan index family, which provides the marketplace with accurate and objective benchmarks by which to assess the performance of bonds markets and investments. The index rules aim to offer coverage to the USD Asia ex-Japan bond universe, whilst upholding minimum standards of investability and liquidity.

The bonds in the 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 Markit's sole discretion, as of such date ("bond selection cut-off date").

All iBoxx indices are priced based on multiple data inputs. The index uses multi-source prices as described in the document "Markit iBoxx Pricing Rules" publically available on the Methodology page of <http://www.markit.com/Documentation/Product/IBoxx>.

## 2) Bond Eligibility Rules

Only bonds that are constituents of the Underlying Index qualify for inclusion. The specific inclusion rules are detailed below.

### 2.1) Country eligibility

#### 2.1.1) Issuer domicile

Only issuers from countries/territories belonging to the Asia ex-Japan region are eligible for the indices.

As of 29 February 2016, the following countries/territories are represented in the Underlying Index:

Country/territory		
China	Malaysia	South Korea
Hong Kong	Philippines	Taiwan
India	Singapore	Thailand
Indonesia		

#### 2.1.2) Defaulted countries and sovereign debt rating

Issuers that are domiciled in countries in default on their external debt or that do not have a long term foreign currency debt rating from at least one of Fitch, Moody's or S&P are excluded from the indices. A default is determined based on information from the rating agencies, either through rating reports or ratings of D or RD from Fitch, C or Ca from Moody's and D or SD from S&P.

In addition, a country is considered to be in default in case one of the 6 credit events as defined by ISDA occurs:

- Bankruptcy
- Obligation Acceleration
- Obligation Default
- Failure to Pay
- Repudiation/Moratorium
- Restructuring

#### 2.1.3) Countries on financial sanction regimes

Issuers which are domiciled in countries that are on the financial sanctions" lists of the European Union or the US are excluded from the indices, unless:

- Sanctions are applied to specific individuals only, or
- Funds, funding and financial transactions of the government and government-related entities are unaffected by the sanctions.

When a country is placed on the EU or the US sanctions lists, IHS Markit will assess the likely impact on international bondholders. Any decision to change the list of eligible countries will be reviewed by the Asian iBoxx Oversight Committee and is immediately published on the internet.

The information about the sanctions regime is compiled from:

- For the European Union from the Common Foreign & Security Policy at [http://eeas.europa.eu/cfsp/sanctions/docs/measures\\_en.pdf](http://eeas.europa.eu/cfsp/sanctions/docs/measures_en.pdf)
- For the US from the Office of Asset Control (OFAC) at <http://www.treas.gov/offices/enforcement/ofac>

Based on current information, the following countries are excluded from the indices because of applicable sanctions:

- Myanmar
- North Korea

## **2.2) Bond Eligibility**

### **2.2.1) Issuer type**

Only bonds issued by corporate issuers are eligible for the index. The index follows the classification structure of Markit iBoxx USD Asia ex-Japan Index. An overview of the corporate classification scheme is provided in chapter 3.

### **2.2.2) Bond type**

Only fixed coupon and step-up coupon bonds are eligible for the index, In particular, this rule extends to the following bond types:

- Fixed coupon bonds (“plain vanilla bonds”)
- Callable bonds
- Step-ups and event-driven bonds such as rating-driven or registration-driven bonds
- Dated and undated fixed-to-floater hybrid bank/insurance capital bonds

All other bond types are excluded from the Index including:

- Zero Coupon Bonds
- Amortizing bonds and sinking funds
- Puttable bonds
- Floating rate notes
- 144As and private placements
- Retail bonds.
- Inflation and other index-linked bonds
- Structured notes
- Collateralized bonds
- Covered bonds
- Catastrophe bonds

- Payment-In-Kinds (PIKs)
- Convertibles
- Bonds cum-or ex-warrant
- Dated and undated fixed-to-floater non-hybrid bank/insurance capital bonds
- New bonds entering the index that have already been called prior to rebalancing

For retail bonds and private placements, publicly available information is not always conclusive and the classification of a bond as a retail bond or a private placement will be made at IHS Markit's discretion based on the information available at the time of determination. IHS Markit may consult with the specific Index Advisory Committees to review potential retail bonds or private placements. Any bond classified as retail or private placement is added to the list of excluded private placements and retail bonds. The list is published on [www.markit.com/NewsInformation/GetNews/IBoxx](http://www.markit.com/NewsInformation/GetNews/IBoxx) 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, IHS Markit will analyse the features of such securities in line with the principles set out in 2.1 of this guide. IHS Markit may consult the specific Index Advisory Committees. Any decision as to the eligibility or ineligibility of a new bond type will be published and the index rules will be updated accordingly.

### **2.2.3) Rating**

At least one rating from Fitch, Moody's or S&P is required for bonds to qualify. All available ratings are used to calculate the iBoxx composite rating. The iBoxx composite rating for each bond must be BBB or higher. The description of the ratings consolidation procedure can be found in the Markit iBoxx Rating Methodology published on [www.markit.com/indices](http://www.markit.com/indices).

Unrated and defaulted issuers are not eligible for the indices.

### **2.2.4) Time to maturity**

The minimum remaining time to maturity for bonds already included in the index is 1 year as of the rebalancing date. New bonds need to have a minimum time to maturity of 1.5 years when they first enter the index.

### **2.2.5) Amount outstanding and denomination**

Eligible bonds must be denominated in USD. The minimum outstanding amount is USD 750 m.

### **2.2.6) International tradability**

Bonds should be internationally tradable. ISINs are used as a proxy to determine tradability. Only ISINs originating from Australia, Hong Kong, Japan, New Zealand, Singapore, the US, Western Europe or offshore financial centers are eligible for the indices.

### **2.2.7) Tender Offers and Calls**

Any bond subject to a firm call or tender offer in the quarter immediately following the rebalancing date will be excluded from the index, provided that IHS Markit is aware of such tender offer or call as of the Bond selection cut-off date.

### 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 IHS Markit, and status changes are included in the indices at the next rebalancing if necessary.

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

#### 3.1) 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. The sector overview is shown in the tables below.

*Table 1: Overview of Markit iBoxx Corporate 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
		Insurance wrapped	*
		Guaranteed & Wrapped	*
	Real Estate	Real Estate	Real Estate Investment & Services
			Real Estate Investment Trusts
Non-Financials	Oil & Gas	Oil & Gas	Oil & Gas Producers
			Oil Equipment / Services & Distribution
	Basic Materials	Chemicals	Chemicals



	Economic Sector	Market Sector	Market Sub-Sector
		Basic Resources	Industrial Metals
			Mining
			Forestry & Paper
	Industrials	Construction & Materials	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
			Leisure Goods
			Personal Goods
			Tobacco
	Health Care	Health Care	Pharmaceuticals & Biotechnology
			Health Care Equipment & Services
	Consumer Services	Education	Academic & Educational Services
		Retail	Food & Drug Retailers
			General Retailers
		Media	Media
		Travel & Leisure	Travel & Leisure
	Telecommunications	Telecommunications	Integrated Telecommunications
			Wireless Telecommunications
	Utilities	Utilities	Electricity
			Gas / Water & Multiutilities
	Technology	Technology	Software & Computer Services
			Technology Hardware & Equipment

## 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 *Markit iBoxx Pricing Rules* document, available in the *Methodology* section of the iBoxx Documentation page on [www.ihsmarkit.com](http://www.ihsmarkit.com).

### 4.3) Rebalancing process

The Markit iBoxx USD Liquid Asia ex-Japan Corporates Large Cap Investment Grade 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.

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

Two business days before the end of each month, the rating information for the constituents is updated and the list is adjusted for all rating changes which are known to have taken place two trading days before the end of the month. Bonds which are known to have been upgraded to investment grade two trading days before the end of the month are not included in the membership, but bonds which are known to have been downgraded to sub-investment grade two trading days before the end of the month do get excluded from the membership. However, if any bonds which are part of the broader EUR universe become eligible two business days prior to rebalancing because of rating or amount changes, they will be included in the Index.

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

### 4.4) Index Data

The calculation of the indices is based on bid quotes. New bonds are included in the indices at their respective ask prices when they enter the index. In the event that no consolidated price can be established for a particular bond, the index continues to be calculated based on the last-available consolidated price.

On the last trading day of a month, the re-balancing takes place after the daily index calculation for the current month's list, including the calculation of the last calendar day's indices, has been performed.

## **4.5) Index calculus**

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

## **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, IHS Markit will estimate the approximate value based on the available data at the time of calculation.

### **4.6.1) Index and analytics weightings**

The Markit iBoxx USD Asia ex-Japan indices are volume-weighted indices, with a bond's market value as the weighting factor. The amount outstanding of a bond is only adjusted within the monthly re-balancing process at the end of each month. However, bonds that are fully redeemed intra-month are taken into account immediately. Fully redeemed bonds are bonds that are fully called or have been completely repurchased.

All calculations are based on the adjusted amount outstanding that reflects the outstanding bond notional at the last rebalancing. The bond prices contributed by the banks and the iBoxx consolidated price relate to the nominal value of 100.

### **4.6.2) Scheduled partial redemptions: sinking funds and amortizing bonds**

*Amortizing bonds* are bonds whose face value is redeemed according to a schedule at more than one redemption date. Interest payments are made on the basis of the remaining outstanding amount of the bond. *Sinking funds* are bonds, where money is applied periodically to redeem part of the outstanding before maturity. At the redemption dates, the appropriate amount of bonds may either be retired randomly from the outstanding bonds, or may be purchased on the open market and thus retired. Interest payments are made on the remaining outstanding bonds.

For the two bond types above, price and accrued interest are quoted and calculated to the actual amount outstanding (par). Scheduled redemptions within the period are taken into account immediately. Coupon payments, however, refer to the scheduled amount outstanding over the last coupon period; scheduled redemptions within the month are not taken into account.

### **4.6.3) 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.

### **4.6.4) 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).

#### 4.6.5) Multi-coupon bonds

Some bonds have pre-defined coupon changes that lead to a change in the annual coupon over the life of the bond. In all instances, the coupon change must be a fixed amount on top of a fixed coupon, i.e. floating coupon bonds are not eligible for the indices. The two main categories of bonds are step-up bonds and event-driven bonds.

- **Step-up bonds:** These are bonds with a pre-defined coupon schedule that cannot change during the life of the bond. The coupon schedule is used in all bond calculations.
- **Event-driven bonds:** These are bonds whose coupon may change upon occurrence (or non-occurrence) of pre-specified events, such as rating changes, e.g. rating-driven bonds, failure to register (register-driven bonds), or failure to complete a merger (merger-driven bonds). In the calculation of the indices and the analytics, the coupon schedule as of the calculation date is used. That is to say, any events occurring after the calculation date are ignored in the determination of the applicable coupon schedule. *Example of an event-driven bond:* A bond's rating changes on 31 December 2003 from A- to BBB+ and the coupon steps up from 6% to 6.25% from 1 March 2004 onward. The coupon dates are 1 October and 1 April each year. The correct coupon schedule for the bond and index calculations is date dependent. The index calculation on 20 December 2003 uses the 6% coupon for the whole life of the bond, while the calculation on 31 January 2004 uses a 6% coupon for the current coupon period to 29 February 2004, and a 6.25% coupon for all later interest payments. The index calculation on 20 March uses a 6% coupon until 29 February, a 6.25% coupon for the remainder of the current coupon period and a 6.25% coupon for all future coupon payments. The index calculation after 1 April uses a 6.25% coupon.

#### 4.6.6) Ex-dividend conventions

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

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

#### 4.7) Index history

The Index history starts on 31 December 2012. The index has a base value of 100 on that date.

#### 4.8) Settlement conventions

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

#### 4.9) Data publication and access

The table below summarizes the publication of the Markit iBoxx USD Liquid Asia ex-Japan Corporates Large Cap Investment Grade Index in the *Indices* section of the IHS Markit website [www.ihsmarkit.com](http://www.ihsmarkit.com) for registered users and on the FTP server.

*Table 2: Publication types and access*

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

Markit iBoxx indices are also published through a number of information service providers including Bloomberg and Thomson Reuters. Below is a summary of the IDs for each publication channel:

Index Name	Return Type	ISIN	SEDOL	Bloomberg	RIC
iBoxx USD Liquid Asia ex-Japan Corporates Large Cap Investment Grade	CPI	GB00BYYTTG93	BYYTTG9	IBXXAXJ2	.IBXXAXJ2
iBoxx USD Liquid Asia ex-Japan Corporates Large Cap Investment Grade	TRI	GB00BYYTTF86	BYYTTF8	IBXXAXJ1	.IBXXAXJ1

#### 4.10) Index review

The rules for the index are reviewed once per year during the annual index review process to ensure that the index provides a balanced representation of the local currency debt markets of the economies covered by the indices. Decisions made following the Annual Index Review will be published on [www.ihsmarkit.com](http://www.ihsmarkit.com) under *Indices News* shortly committee has been held. The publication will contain a detailed overview and timelines for implementation of the rules changes.

## 5) 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](#).

## 6) Changes to the Markit iBoxx USD Liquid Asia ex-Japan Corporates Large Cap Investment Grade Index

<b>31 Jul 2022</b>	Monthly preview start date updated from 10th calendar day to 6th calendar day
<b>01 Sep 2021</b>	Update of monthly forward start date from 12th calendar day to 10th calendar day
<b>31 Mar 2021</b>	Governance and Regulatory Compliance section added
<b>01 Oct 2014</b>	<ul style="list-style-type: none"> <li>• Added Index Restatement and Complaints Sections</li> <li>• Additional Clarification on bond eligibility, classification and corporate actions</li> </ul>
<b>25 Jun 2013</b>	<ul style="list-style-type: none"> <li>• Launch of the Markit iBoxx USD Liquid Asia ex-Japan Corporates Large Cap Investment Grade Index</li> </ul>

## 7) Further information

### Glossary of key terms

The Markit iBoxx Glossary document of key terms is available in the *Methodology* section of the iBoxx *Documentation* page on [www.ihsmarkit.com](http://www.ihsmarkit.com).

### Contractual and content issues

For contractual or content issues please contact:

Markit Indices GmbH Friedrich-Ebert-Anlage 35-37 60327 Frankfurt am Main Germany email: <a href="mailto:indices@ihsmarkit.com">indices@ihsmarkit.com</a> web: <a href="http://www.ihsmarkit.com">www.ihsmarkit.com</a>
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### Technical issues and client support

For technical issues and client support please contact:

<b>E-mail:</b>	<a href="mailto:indices@ihsmarkit.com">indices@ihsmarkit.com</a>		
<b>Phone:</b>	<b>Asia Pacific</b>	Japan: Singapore:	+81 3 6402 0127 +65 6922 4210
	<b>Europe</b>	General: UK:	+800 6275 4800 +44 20 7260 2111
	<b>USA</b>	General:	+1 877 762 7548

### Licences and data

iBoxx is a registered trademark of Markit Indices GmbH. Markit Indices GmbH owns all iBoxx data, database rights, indices and all intellectual property rights therein. A licence is required from Markit Indices GmbH to create and/or distribute any product that uses, is based upon or refers to any iBoxx index or iBoxx data.

### Ownership

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



# A) ESG Disclosures

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

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

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

# Disclaimer

## Performance Disclosure/Back-Tested Data

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

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

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

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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