

**Markit iBoxx EUR Liquid
Sovereigns Capped
AAA-AA 1-5 Index Guide**

May 2023

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1) Markit iBoxx EUR Liquid Sovereigns Capped AAA-AA 1-5 Index

The Markit iBoxx EUR Liquid Sovereigns Capped AAA-AA 1-5 Index is published by IHS Markit and consist of a subset of the bonds in the iBoxx EUR index family of benchmark indices. The index rules have been designed to offer a broad coverage of the market with emphasis on liquidity to be suitable for over the counter (OTC) and exchange-traded derivatives, and Exchange Traded Funds (ETFs). The indices are an integral part of the global suite of iBoxx Liquid Indices which provide the marketplace with liquid and investable versions of the broader iBoxx benchmark index families. Portfolio managers tracking an index from the broad iBoxx EUR Benchmark index family incur substantial costs in attempting to replicate or hedge the individual bonds in the portfolio. Furthermore, bonds with special features or smaller amounts outstanding usually suffer from illiquid trading, resulting in relatively large bid-ask spreads. The iBoxx EUR Liquid Indices are intended to address these deficiencies by limiting the number of bonds per index and excluding special bond types, thus reducing tracking and hedging costs.

The Markit iBoxx EUR Liquid Sovereigns Capped AAA-AA 1-5 Index consists of a maximum of 15 bonds and the weight of each sovereign country is capped at 30%.

All iBoxx indices are priced based on multiple data inputs. The Markit iBoxx EUR Liquid Sovereigns Capped AAA-AA 1-5 Index uses multi-source prices as described in the document *Markit iBoxx Pricing Rules* publicly available under Methodology on www.ihsmarkit.com.

This document covers the index rules and calculation methodology of the Markit iBoxx EUR Liquid Sovereigns Capped AAA-AA 1-5 Index.

2) Bond selection rules

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

- Bond type
- Credit rating
- Time to maturity
- Amount outstanding
- Index size
- Minimum number of bonds
- Limit on number of bonds from any issuer
- Weight capping

2.1) Bond type

T-Bills and other money market instruments are not eligible for inclusion in the indices.

The list of eligible bond types is as follows:

- Bullet fixed coupon bonds (plain vanilla bonds)
- Zero-coupon bonds

The following bond types are specifically excluded from the index:

- All callable and perpetual debt – including callable dated and undated hybrid bank/insurance capital
- Bonds with odd last coupons
- Sinking funds
- Amortizing bonds

Retail bonds and private placements are excluded from the index.

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.ihsmarkit.com under *News & Information* 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 analyze 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) Credit rating

All bonds in the Markit iBoxx EUR Liquid Sovereigns Capped AAA-AA 1-5 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.

If a bond is rated by more than one of the above agencies, then the iBoxx rating is the average of the provided ratings. The rating is consolidated to the nearest rating grade. Rating notches are not used. For more information on how the average rating is determined, please refer to the *iBoxx Rating Methodology* document. The methodology can be found on www.ihsmarkit.com under *Methodology*.

In order to be eligible for the Markit iBoxx EUR Liquid Sovereigns Capped AAA-AA 1-5 Index, bonds must have an iBoxx rating of AAA or AA.

2.3) Time to maturity

To qualify for the index all eligible bonds must have a remaining time to maturity of no less than 1.5 years, and no greater than 5.5 years, measured from the respective re-balancing date to the maturity date. Bonds in the index with a remaining time to maturity of less than 1.25 years will be excluded from the indices at the next rebalancing.

The time to maturity is measured from the rebalancing date to the maturity date of the bond.

2.4) Amount outstanding

All bonds require a minimum amount outstanding of EUR 2 billion in order to be eligible for the Markit iBoxx EUR Liquid Sovereigns Capped AAA-AA 1-5 Index.

2.5) Index size, issuer ordering and bond selection

This chapter describes the selection procedure that is applied to determine the liquid bonds for the Markit iBoxx EUR Liquid Sovereigns Capped AAA-AA 1-5 Index.

Index size

The maximum number of bonds in the index is 15.

Minimum number of bonds

The index is calculated if there are at least three bonds available that match all index criteria. If less than three bonds qualify for the index, then the index level will remain constant. Should at least three bonds qualify again, the index calculation is resumed from the last calculated level.

Ranking criteria

Should more than the maximum number of bonds be available for the index, the following ordering criteria are applied in order to rank the eligible bonds.

The following five criteria are applied to establish a bond hierarchy:

- Higher amount outstanding
- More recent first settlement date
- Longer time to maturity
- Higher rating
- Lower coupon

These criteria are applied to each pair of bonds in the order stated above until a difference can be established (i.e. if two bonds have the same amount outstanding and the same first settlement date, but one has a longer time to maturity, then criteria 1 to 3 are applied, but 4 and 5 are not). With the help of the ranking criteria, a bond hierarchy can be defined, with the bond that has the highest amount outstanding at the top of the hierarchy.

Limit on number of bonds from any issuer

The number of bonds from an issuing institution that may enter an index is limited to three bonds.

Weight capping

The weight of a country in the Markit iBoxx EUR Liquid Sovereigns Capped AAA-AA 1-5 Index is capped at 30%.

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 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 and may consult with the Index Advisory Committees. Membership lists including classification are published on the FTP server and in the *Indices* section of products.markit.com for registered users.

3.1) Sovereigns

Bonds issued by a central government of a member country of the Eurozone and denominated in Euro or in a pre-Euro currency. The bonds are further broken down into Issuer Country.

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.

4.3) Rebalancing process

The index is rebalanced every quarter at the end of February, May, August and November. The indices are rebalanced on the last calendar day of the month after the last index calculation. Rebalancing also takes place if the last day of the month falls on a non-business day.

Changes to amounts outstanding 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.

The rebalancing procedure for the Markit iBoxx EUR Liquid Sovereigns Capped AAA-AA 1-5 Index is analogous to the rebalancing of the Markit iBoxx EUR Benchmark indices.

A preliminary membership list is published on the 6th calendar day of the month (moved to the next business day in case of holiday/weekend).

Four business days before the end of each month, another preliminary membership list is published on the FTP server.

Three business days before the end of each month, a membership list with final amount outstanding for each bond is published. This list contains the maximum number of constituents for the next month.

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.

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.

4.3.1) Rebalancing procedure

In a first step the selection criteria are applied to determine an eligible universe for the Markit iBoxx EUR Liquid indices:

- Bond ratings and amounts outstanding are applied as of three business days before the rebalancing date
- A bond remains in its respective maturity bucket until the next re-balancing
- Only bonds with a first settlement date on or before the re-balancing date are included in the selection process

Once the eligible bond universe has been defined, the ranking criteria are employed to determine a distinct hierarchy of bonds in the universe. Bonds enter the respective index according to their rank in the hierarchy (with the highest rank entering first) until the maximum number of bonds per index has been reached. This does not apply to the Markit iBoxx EUR Liquid Corporates Overall where a special procedure is applied.

4.3.2) Weekly preview

In addition to the regular rebalancing, a preview list (including sector classification for new bonds) is published each Friday of the rebalancing month with predicted changes to the index constituents at the next rebalancing. The preview list includes the next month's index constituents and shows bonds joining or leaving the indices at the next rebalancing, based on information available on such Fridays.

The first weekly preview will be published on the Friday of the rebalancing month that is at least three business days after the preceding month-end.

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. 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, IHS Markit may consult market participants prior to the next rebalancing date. Decisions are made publicly available on a timely basis and IHS Markit may refer back to previous cases.

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

The indices are transaction cost adjusted. For specific cost factor calculation formulae please refer to the Markit iBoxx Bond Index Calculus document, available in the Methodology section of the Markit iBoxx Documentation page on www.ihsmarkit.com.

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.

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) Index adjustments between scheduled rebalancings

Coupon changes

While most index adjustments are made during the quarterly rebalancing procedure, coupon changes will be effective immediately and the indices are adjusted in the same way.

Bonds no longer in benchmark index

Bonds may drop out of the Liquid index at the end of a month, because they have left the benchmark indices. In this case they are replaced by suitable substitutes, or the proceeds are invested in existing bonds.

Cash investment

Cash from coupon payments and proceeds from bonds that could not be used to buy other suitable bonds is invested in the money market at the end of each month.

4.6.2) Monthly bond substitution between scheduled rebalancings

Bonds can leave the Markit iBoxx EUR Liquid Sovereigns Capped AAA-AA 1-5 Index universe due to:

- Default of the issue or issuer
- Rating downgrade to sub-investment grade of the issue or issuer
- Reduction in the amount outstanding due to repurchases below threshold level
- Other reasons

Bonds dropping out of the benchmark index will also leave the liquid index at month-end. The procedures described below are applied only if a bond has left a liquid index between rebalancing dates.

Substitution list

At the end of the month, the eligible bond universe for the coming month is compiled and published for all liquid indices in accordance with the selection and ranking criteria. These are applied to establish a hierarchy within the eligible bond universe. For each index, all bonds already in the index are eliminated from the hierarchy, resulting in a substitution list for each index.

In case of multiple substitutions, all substitutes and deleted bonds are ranked in order to assign one specific substitute to each deleted bond. Ranking criteria from section 2 are applied. The assignment is essential for the determination of the fictitious amount outstanding.

Bond substitution

If the bonds are no longer in the Markit iBoxx EUR Corporates benchmark index, they will also leave the liquid indices. For each bond that has left, another bond will become a substitute and enter the index. The proceeds from the sale of a dropped bond are invested in its substitute. The substitute will have a fictitious amount outstanding:

$$O_{substitute} = \frac{(P_{dropped}^b + A_{dropped}) \cdot O_{dropped}}{P_{substitute}^a + A_{substitute}}$$

where:

$A_{dropped}$	Accrued interest of a dropped bond
$A_{substitute}$	Accrued interest of a substitute bond
$O_{dropped}$	Amount outstanding of a dropped bond
$O_{substitute}$	Fictitious amount outstanding of a substitute bond
$P_{substitute}^a$	Ask price of a substitute bond
$P_{dropped}^b$	Bid price of a dropped bond

The substitute will have a notional amount outstanding based on formula above.

In the Markit iBoxx EUR Liquid indices a substitute bond enters the index at the ask price.

In the event that no substitute is available, the proceeds from the sale of the dropped bond are invested as cash.

4.6.3) Monthly cash reinvestment between scheduled rebalancing dates

Cash from received coupons and non-substituted bonds is reinvested at the end of each month in the money market until the end of the following month. Cash from earlier months is also re-invested at the end of each month at the 1-month EURIBOR minus 12.5 basis points. At the next scheduled rebalancing cash is invested back in the index.

4.7) Determination of benchmarks

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

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

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

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

Maturity bands are defined as follows:

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

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

4.8) Index history

The Index history starts on 31 December 1998. The index has a base value of 100 on that date.

4.9) Settlement conventions

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

4.10) Calendar

IHS Markit publishes an index calculation calendar in the *iBoxx Calendars* section of the iBoxx Documentation page on www.ihsmarkit.com. This calendar provides an overview of the index calculation holidays of the iBoxx bond index families in a given year.

4.11) Publication of the Index

The Markit iBoxx EUR Liquid Sovereigns Capped AAA-AA 1-5 Index is calculated as end-of-day index and distributed once daily after market close.

Bond and index analytical values are calculated end of day Monday to Friday using that day's closing prices. In addition, bond and index analytical values are calculated using the previous trading day's closing prices on the last calendar day of each month if that day is not a regular trading day as well as on common bank holidays as published in the iBoxx index calculation calendar. This index calculation calendar is available on www.ihsmarkit.com under *iBoxx Calendars*. Index data is also available from the main information vendors.

Closing index values and key statistics are published at the end of each calculation day in the *Indices* section on www.ihsmarket.com for registered users.

4.12) Data publication and access

The table below summarises the publication of Markit iBoxx EUR Liquid Sovereigns Capped AAA-AA 1-5 Index in the *Indices* section of the IHS Markit website www.ihsmarket.com for registered users and on the FTP server.

Table 1: Data publication and access

Frequency	File Type	Access
Daily	Underlying file – Bond level	IHS Markit FTP Server
	Indices files – Index level	IHS Markit FTP Server / IHS Markit website/ Bloomberg for index levels only
T-4, T-3, T-2	Preview components	IHS Markit FTP Server / IHS Markit website
Monthly	End of month components	IHS Markit FTP Server / IHS Markit website
	XREF files	IHS Markit FTP Server

The index identifiers for the publication channels are:

Index Name	Markit iBoxx EUR Liquid Sovereigns Capped AAA-AA 1-5 Index	
Return Type	TRi	CPi
ISIN	GB00B8GB2Y00	GB00B744TF43
Ticker	IBXXS15T	IBXXS15P
RIC	.IBXXS15T	.IBXXS15P

4.13) Annual index review

The rules for the index are reviewed at least once per year during the public annual index review consultation process to ensure that the index provides a balanced representation of the EUR denominated debt market. Decisions made following feedback from market participants, the annual index review and External Advisory Committees (EAC) will be published on www.ihsmarket.com shortly after the EAC meetings have been held. The publication will contain a detailed overview and timelines for implementation of any 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 EUR Liquid Sovereigns Capped AAA-AA 1-5 Index

31 Mar 2021	<ul style="list-style-type: none"> • Governance and Regulatory Compliance section added
31 Jan 2020	<p>Annual Index Review 2019</p> <ul style="list-style-type: none"> • Definition update of 'Other Sub-Sovereigns' classification • Addition of German structural covered bonds as eligible bond type under 'Covered bonds' • Inclusion of zero coupon bonds into EUR Liquid indices
29 Nov 2019	Rebranding to IHS Markit
30 Sep 2018	<p>Annual Index Review 2018</p> <ul style="list-style-type: none"> • Treatment of bond rating upgrades on t-2 • Clarification on bond eligibility during tender • Clarification of treatment of called bonds
01 Dec 2014	<ul style="list-style-type: none"> • Markit iBoxx EUR index family will follow the pricing methodology described in the document 'Markit iBoxx Pricing Rules' • Index restatement, complaints sections added • Additional clarifications on bond eligibility, classification and corporate actions
16 Oct 2012	Index name change from Markit iBoxx EUR Liquid Sovereigns Capped AAA-AA 1.5-5.5 Index to Markit iBoxx EUR Liquid Sovereigns Capped AAA-AA 1-5 Index

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.

Contractual and content issues

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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.	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 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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