

Markit iBoxx USD Emerging Markets Sovereigns and Sub- Sovereigns Capped Index Guide

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1 Markit iBoxx USD Emerging Markets Sovereigns and Sub-Sovereigns Capped Index

The Markit iBoxx USD Emerging Markets Sovereigns and Sub-Sovereigns Capped Index is designed to reflect the performance of USD denominated sovereigns and sub-sovereigns bonds issued by entities domiciled in the emerging markets. The index rules aim to offer a broad coverage of the emerging market sovereign and sub-sovereigns bond universe, whilst upholding minimum standards of investability and liquidity. The eligible universe of the index is derived from the existing Markit iBoxx USD Emerging Markets Sovereigns and the sub-sovereigns components of the Markit iBoxx USD Emerging Markets Corporates indices. The index is market-value weighted with any countries capped at 7.5%. The index is an integral part of the global Markit iBoxx index families, which provide the marketplace with accurate and objective indices by which to assess the performance of bond markets and investments.

All iBoxx indices are priced based on multiple data inputs. The Markit iBoxx USD Emerging Markets Sovereigns and Sub-Sovereigns Capped Index uses multi-source prices as described in the *iBoxx Pricing Methodology* publicly available on <https://www.spglobal.com/spdji/en/> under *Methodology*.

This document covers the index selection rules and calculation methodology.

1.1 Publication of the index

The Markit iBoxx USD Emerging Markets Sovereigns and Sub-Sovereigns Capped Index is calculated as end-of-day index and distributed once daily after close of US markets.

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 <https://www.spglobal.com/spdji/en/> under *iBoxx Indices 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 <https://www.spglobal.com/spdji/en/> for registered users.

2 Bond selection rules

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

- Bond type
- Issuer type
- Issuer domicile
- Credit rating
- International tradability
- Time to maturity
- Amount outstanding

2.1 Bond type

In general, bonds with known cash-flows are eligible for the indices. In particular, this rule extends to the following bond types:

- Plain vanilla fixed coupon bonds
- Zero coupon and multi coupon bonds with fixed coupon schedules
- Sinking fund and capitalizing bonds with a fixed sinking/capitalizing schedule
- 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 (for Sovereigns only)

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

- Extended bonds as defined under section 'Maturity extension' in this document
- Callable bonds
- Puttable bonds
- Floating rate notes
- Inflation and other index-linked bonds
- Structured notes
- Collateralized bonds
- Covered bonds
- Brady 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
- Municipal bonds
- 144As and private placements
- Retail 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 analyse the features of such securities in line with the principles set out in 2.1 of this 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.

The inclusion rules are reviewed regularly (once a year) and may be changed to capture new market trends if previously excluded bond types start to account for a significant share of a country's or region's bond issuance.

2.2 Issuer type

Only sovereign debts issued by the central government or the central bank are eligible for the indices. Restructured debt is eligible for the indices, but Brady bonds are not.

For sub-sovereigns, only bonds issued by quasi-sovereign issuers are eligible for the index. The quasi-sovereign issuers include (but are not limited to) agencies and local governments as well as certain state-owned enterprises depending on the level of state support and commitment.

2.3 Issuer domicile

Only issuers from countries/territories classified as emerging markets are eligible for the indices. The list of emerging markets is established according to *Markit Global Economic Development Classification Methodology* and is used to determine the eligibility of the issuers' country of risk. The classification methodology, as well as the up-to-date classifications, are available on <https://www.spglobal.com/spdji/en/methodology> under *Methodology*.

The classifications are updated annually and implemented on 30 November each year.

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 debt rating from at least one of Fitch Ratings, Moody's Investor Service or S&P Global Ratings 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 Ratings, C or Ca from Moody's Investor Service and D or SD from S&P Global Ratings.

In addition, a country is considered to be in default in case one of the 6 credit events as defined by the International Swaps and Derivatives Association (ISDA) occurs:

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

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 transaction 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, the Index Committee will assess the likely impact on international bondholders. After the discussion on whether bond holders are impacted, a vote will take place to include or exclude a country based on the sanctions. Any decision to change the list of eligible countries is immediately published under *Indices News* on <https://www.spglobal.com/spdji/en/>.

The information about the sanctions regime is compiled from:

- For the European Union from the [Common Foreign & Security Policy](#).
- For the US from the [Office of Asset Control \(OFAC\)](#).

Based on current information, the following countries are affected by the applicable sanctions:

- Cuba
- Iran
- Myanmar
- North Korea
- Russia
- Sudan
- Syria
- Venezuela

2.4 Credit rating

The minimum average rating for bonds to be considered eligible is CCC.

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

For sub-sovereigns, at least one long-term foreign debt rating from Fitch Ratings, Moody's Investor Service or S&P Global Ratings is required for bonds to qualify. There is no minimum rating requirement from any of the three agencies. All available ratings are used to calculate the iBoxx rating.

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

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* available on <https://www.spglobal.com/spdji/en/> under *Methodology*.

Unrated and defaulted issuers are not eligible for the indices. Bonds that are in default or that trade flat of accrued are removed from the index at the first rebalancing following the default/start of trading flat of accrued.

2.5 International tradability

Sovereigns bonds should be internationally tradable. ISINs are used as a proxy to determine the tradability. Only ISINs originating from Japan, the US or Western Europe are eligible for the indices. The initial list only contains bonds with American ISINs (starting with “US”), German ISINs (starting with “DE” in the EUR index) or international ISINs (Luxembourg – starting with “XS”), ISINs from other Western European countries are also eligible but currently not in issue.

Sub-Sovereigns bonds should be internationally tradable. ISINs are used as a proxy to determine the tradability. Only ISINs originating from Japan, Australia, New Zealand, the US, Western Europe or offshore centers are eligible for the indices. The initial list only contains bonds with American ISINs (starting with “US”), international ISINs (Luxembourg – starting with “XS”) and offshore center ISINs (Cayman Islands – starting with “KY”). ISINs from other offshore centers are also eligible but currently not in issue.

2.6 Time to maturity

For sovereigns bonds, all bonds must have a remaining time to maturity of at least one year at the rebalancing date. Newly issued bonds must meet the minimum initial time to maturity rule. The minimum initial time to maturity as measured from the first settlement date to the maturity date of the bond, must be 18 months or more.

For sub-sovereigns, there is no minimum remaining time to maturity rule. Newly issued bonds must meet the minimum initial time to maturity rule. The minimum initial time to maturity as measured from the first settlement date to the maturity date of the bond, must be 18 months or more.

Dated and undated fixed-to-floater hybrid bank/insurance capital bonds are removed from the index on the last rebalancing prior to the fixed-to-float date unless they have already been called.

2.7 Amount outstanding and denomination

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: USD 500 million
- Sub-Sovereigns: USD 250 million

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.

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 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, decision will be made at S&P DJI's discretion. S&P DJI will assign the S&P DJI 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 on <https://www.spglobal.com/spdji/en/> for registered users.

3.1 Sovereigns

Bonds issued by a central government and denominated in USD.

3.2 Sub-sovereigns

Bonds issued by entities with explicit or implicit government backing due to legal provision, letters of comfort, or the public service nature of the issuer's business. The issuer requires a strong central government ownership/relationship if its bonds are not explicitly guaranteed by the central government.

The four main sub-sovereign sectors are:

- **Agencies:** Bonds issued by entities with a major focus on government-sponsored, public, non-competitive services. The issuers are financial in nature and carry out government policies through special development programs, often explicitly government-backed or with a business scope defined by a specific law.
- **Supranationals:** Bonds issued by supranational entities, i.e. entities that are owned by more than one central government (e.g. World Bank, EIB).
- **Local Government:** Bonds issued by local governments (e.g. Province of Manitoba, Canada).
- **Other Sub-Sovereigns:** All remaining bonds considered sub-sovereign, classified into the following three main categories:
 - > **Non-Financials:** Bonds issued by entities from the non-financial sector with an explicit or strong implicit debt guarantee from the state. The issuer's credit rating is closely correlated to the sovereign rating and expresses a strong credit uplift based on a high level of government support. S&P DJI expects the issuer's credit rating to be no worse than on par or two notches below the sovereign rating. A 'strong implicit guarantee' means the issuer is 100% owned by the state or public sector with its debt consolidated into state public debt, or the issuer has preexisting access to government financing or funding derived from tax revenues. State-owned issuers that are profit-

oriented, provide competitive services, and operate under a regulatory framework are considered Corporates.

- > *Guaranteed Financials*: A specific bond issued by a private sector financial institution that is irrevocably guaranteed by a government. Most of these bonds are issued under programs set-up after the 2008 financial crisis.
- > Bonds issued by unguaranteed institutions with an irrevocable and explicit guarantee by a central government that covers amount and timeliness of all interest and principal payments until the maturity of the bond.

4 Index Calculation

4.1 Static data

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

4.2 Bond prices

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

4.3 Rebalancing process

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

Preview lists of eligible bonds are published on a weekly basis starting on the first Friday that is three business days after the previous month-end rebalance, as well as on the 6th calendar day of the month (or next index publication day if the 6th calendar day falls on a non-business day). Preview lists of eligible bonds are additionally published on T-4, T-3 trading days before the end of the month. Final components are published two business days before the end of the month (T-2).

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

4.4 Index data

The calculation of the index is based on bid prices. New securities are included in the index at their respective ask prices when they enter the index family. If no price can be established for a particular security, the index continues to be calculated based on the last available price. This might be the case in periods of market stress, or disruption as well as in illiquid or fragmented markets. If the required inputs become impossible to obtain, S&P DJI may consult market participants prior to the next rebalancing date. Decisions are made publicly available on a timely basis and S&P DJI may refer back to previous cases.

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

4.5 Index weights

The Markit iBoxx USD Emerging Markets Sovereigns and Sub-Sovereigns Capped Index is market-value-weighted with a restriction on the country of risk.

Once the eligible bond universe has been defined, the weight for each bond is determined, applying the following restriction:

- A 7.5% cap is applied to any given countries of risk.

All capping conditions are applied at the rebalance date. The capped weights are allowed to drift between rebalance dates, based on price/market movements.

4.6 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*.

4.7 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.

4.7.1 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.

4.7.2 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).

4.7.3 Cash

Cash from coupon payments and redemptions is held as cash in the Index and reinvested into the Index at the rebalancing day. During the month the cash component is not earning any interest.

4.7.4 Maturity extension

4.7.4.1 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

4.7.4.2 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.

4.8 Index history

The Index history starts on 31 December 2011. 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

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

4.11 Data publication and access

The table below summarizes the publication of the Markit iBoxx USD Emerging Markets Sovereigns and Sub-Sovereigns Capped Index at <https://www.spglobal.com/spdji/en/> for registered users and on the FTP server.

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
Monthly	End of Month Components	FTP Server / website
	XREF files	FTP Server

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

Name	Version	ISIN	Bloomberg Code	RIC
Markit iBoxx USD Emerging Markets Sovereigns and Sub-Sovereigns Capped	Total Return Index	GB00BD05BC41	IBXXEM11	.IBXXEM11
Markit iBoxx USD Emerging Markets Sovereigns and Sub-Sovereigns Capped	Clean Price Index	GB00BD05BD57	IBXXEM12	.IBXXEM12

4.12 Index review

In addition to the daily governance of indices and maintenance of index methodologies, at least once within any 12-month period, the Index Committee reviews the methodology to ensure the indices continue to achieve the stated objectives, and that the data and methodology remain effective. In certain instances, S&P Dow Jones Indices may publish a consultation inviting comments from external parties.

5 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
- 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 Emerging Markets Sovereigns and Sub-Sovereigns Capped Index

01 May 2024	Annual Index Review 2023 • Update to Agencies' Classification Definition > Updated definition of 'Agencies' > Updated definition for 'Other Sub-Sovereigns'
Jun 2023	Annual Index Review 2022 • Introduction of 'Maturity extension' section
Jul 2022	Monthly forward start date updated from 10th calendar day to 6th calendar day
Mar 2018	Introduction of the Markit iBoxx USD Emerging Markets Sovereigns and Sub-Sovereigns Capped Index

7 Further information

Client support

For client support please contact index_services@spglobal.com.

Formal complaints

Formal complaints should be emailed to spdji_compliance@spglobal.com.

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

General index inquiries

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

A ESG Disclosures

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

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

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

Disclaimer

Performance Disclosure/Back-Tested Data

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

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

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

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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