

**S&P 500/MarketAxess Investment
Grade Corporate Bond Index
*Methodology***

October 2018

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Introduction

Index Objective

The S&P 500/MarketAxess Investment Grade Corporate Bond Index is a market value-weighted index that measures the performance of corporate debt subject to certain liquidity rules and issued in the U.S. by companies in the S&P 500.

For information on the S&P 500 Investment Grade Corporate Bond Index, please refer to the S&P 500 Bond Index methodology available at www.spdji.com.

Highlights

The S&P 500 Investment Grade Corporate Bond Index is a subset of the S&P 500 Bond Index. The S&P 500 Bond Index is comprised of a universe of bonds that are issued in the U.S. by companies (and their subsidiaries) in the S&P 500.

The index undergoes a rebalancing process once a month, with the intent of keeping the index current.

The index is rules based, although the Index Committee reserves the right to exercise discretion, when necessary. The hallmark of a rules-based index is transparency and, broadly speaking, predictability. As an aide to transparency, this document sets out the rules by which the index is governed, index calculation and management procedures, and the various formulae used to calculate index returns and other statistics.

Supporting Documents

This methodology is meant to be read in conjunction with supporting documents providing greater detail with respect to the policies, procedures and calculations described herein. References throughout the methodology direct the reader to the relevant supporting document for further information on a specific topic. The list of the main supplemental documents for this methodology and the hyperlinks to those documents is as follows:

Supporting Document	URL
S&P Dow Jones Indices' Fixed Income Policies & Practices Methodology	Fixed Income Policies & Practices
S&P Dow Jones Indices' Fixed Income Index Mathematics Methodology	Index Mathematics Methodology

This methodology was created by S&P Dow Jones Indices to achieve the aforementioned objective of measuring the underlying interest of the indices governed by this methodology document. Any changes to or deviations from this methodology are made in the sole judgment and discretion of S&P Dow Jones Indices so that the indices continue to achieve their objective.

Eligibility Criteria

Index Universe

The index universe consists of bonds which are members of the S&P 500 Investment Grade Corporate Bond Index.

Eligibility Factors

The index applies the same criteria as the S&P 500 Investment Grade Corporate Bond Index as well as some additional criteria as detailed below.

Liquidity. Bonds must be TRACE eligible with volume reported within the last 60 trading days.

The following bond types from the index universe are excluded:

- 144a Private Placement
- Floating-rate securities
- Fixed-to-Float
- Puttable
- Pay in Kind

Maturity. Each bond must have a maturity greater than or equal to one (1) year from the rebalancing date and a maturity at first issuance of at least two and a half (2.5) years.

Size. The minimum par amount for index eligibility is US\$ 750 million.

Pricing. Bid Price – Thomson Reuters. Bonds that are not priced by Thomson Reuters are not eligible for index inclusion.

Bond Selection

A maximum of 1,000 constituents are selected from the eligible bonds in the index universe. For further details, please see *Index Construction*.

Index Construction

Ranking. Subject to the buffering rule described below, eligible bonds are ranked based on liquidity, in descending order. Liquidity is measured by each bond's trailing 60 trading day average volume, as reported by TRACE. The top 1,000 ranked bonds are selected and form the index.

For a bond which was issued more than 60 business days prior to rebalancing, the average is the cumulative volume over 60 days divided by 60 (this accounts for days with no trades). For bonds issued less than 60 days prior to rebalancing the average is the cumulative volume divided by the number of days since issuance. There is no minimum number of trading days required as long as a bond has sufficient liquidity. For example, newly issued securities which exhibit sufficient liquidity and meet eligibility criteria, are included in the ranking.

In the event of a tie in the scoring of the 1,000th bond, the index will follow waterfall logic, selecting the bond which:

1. Has a shorter time since issuance;
2. Has a larger par amount outstanding;
3. Has a longer maturity date.

Buffering. The index has a minimum run and lock-out period to control turnover. Bonds which are selected for addition to the index will remain in the index for a minimum of three months. Bonds selected for the index remain in the index provided their liquidity ranking in the eligible universe is less than or equal to 1200. Bonds which are dropped from the index are locked out from re-inclusion for a period of three months. Buffering rules only apply to ranking, and not to the rules stated in *Eligibility Criteria*.

Index Calculations

The index is market value-weighted.

The total return is calculated by aggregating the interest return, reflecting the return due to paid and accrued interest, and price return, reflecting the gains or losses due to changes in the end-of-day price and principal repayments.

For further details regarding index calculations, please refer to S&P Dow Jones Indices' Fixed Income Index Mathematics Methodology.

Index Maintenance

Rebalancing

The index is reviewed and rebalanced in accordance with its stated schedule. The Index Committee, nevertheless, reserves the right to make adjustments to the index at any time that it believes appropriate.

The S&P 500/MarketAxess Investment Grade Corporate Bond Index is derived from the constituents of the S&P 500 Investment Grade Corporate Bond Index, which is a subset of the S&P 500 Bond Index. For the S&P 500 Bond Index, the security universe reference date is six business days prior to the last business day of the month.¹ On this date, the composition of the S&P 500 is observed and all outstanding bond issuances associated with these companies and their subsidiaries are then used to construct the starting universe for the S&P 500 Bond Index.

The descriptive data reference date is three business days prior to the last business day of the month. Terms and conditions data as of this date is used to determine which securities in the starting universe are eligible for the following month's composition.²

Additions, deletions and other changes to the index arising from the rebalancing are made provided the security's reference information and pricing are available by designated pricing and data providers on the rebalancing reference dates. Changes to the index are published on the announcement date and become effective on the rebalancing date. Information related to the rebalancing is obtained and disseminated after the close of business.

Rebalancing Schedule	
Rebalancing Frequency	Monthly
Rebalancing Date	Last Day of the rebalancing period (T)
Announcement Date	T minus 3
Descriptive Data Reference Date	T minus 3
Volume Data Reference Date	T minus 4
Security Universe Reference Date	T minus 6

All days reflect after the close and count business days

Ongoing Maintenance

The index is also reviewed on an ongoing basis to account for the following:

- When an index bond is in default or misses an interest payment, the price reported by the pricing source is used. However, the Index Committee may determine that the bond be removed from the index at a different price and may specify a price of 0.00. The decision of the Index Committee is final.
- If an index bond is no longer priced by the pricing source, the last available price is used. However, the Index Committee may determine that a different price be used. The decision of the Index Committee is final. For clarity, index bonds that are no longer priced by the pricing source fail to meet the pricing eligibility factors and are removed at the next rebalancing date. If the bond is priced for at least one of the five business days prior to the rebalancing announcement date, the bond remains in the index. Otherwise, it is removed from the index at the subsequent rebalancing date.

¹ The security universe reference date for history prior to the launch date was the last business day of each month. Effective with the index launch, the security universe reference date is six business days prior to the last business day of each month.

² Terms and conditions data are subject to Thomson Reuters data availability.

Currency and Currency Hedged Indices

The index is calculated in U.S. dollars.

Additional currency and currency hedged versions of the indices, as well as maturity, sector and rating-based sub-indices may be available. For a list of available sub-indices and tickers, please refer to S&P Dow Jones Indices' Fixed Income Index Directory available at www.spdji.com.

For more information on currency and currency hedged indices, please refer to S&P Dow Jones Indices' Fixed Income Index Mathematics Methodology.

Base Date and History Availability

Index history availability, base date and base value are shown in the table below.

Index	Launch Date	First Value Date	Base Date	Base Value
S&P 500/MarketAxess Investment Grade Corporate Bond Index	01/09/2017	12/31/2008	12/31/2008	100

Index Governance

Index Committee

S&P Dow Jones Indices' Fixed Income Index Committee maintains the index. All committee members are full-time professionals at S&P Dow Jones Indices. This methodology is reviewed annually by the committee and additional committee meetings are held whenever deemed appropriate.

The Index Committee oversees the management of the index, including determinations of intra-rebalancing changes, maintenance and inclusion policies, and other matters affecting the maintenance and calculation of the index.

In fulfilling its responsibilities, the Index Committee has full and complete discretion to (i) amend, apply, or exempt the application of index rules and policies as circumstances may require and (ii) add, remove, or by-pass any bond in determining the composition of the index.

The Index Committee may rely on any information or documentation submitted to it or gathered by it that the Index Committee believes to be accurate. The Index Committee reserves the right to reinterpret publicly available information and to make changes to the index based on a new interpretation of that information at its sole discretion. All Index Committee discussions are confidential.

The Index Committee is separate from and independent of other analytical groups at S&P Global. In particular, the Index Committee has no access to or influence on decisions by S&P Global Ratings analysts.

S&P Dow Jones Indices' Index Committees reserve the right to make exceptions when applying the methodology if the need arises. In any scenario where the treatment differs from the general rules stated in this document or supplemental documents, clients will receive sufficient notice, whenever possible.

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

For information on Quality Assurance and Internal Reviews of Methodology, please refer to S&P Dow Jones Indices' Fixed Income Policies & Practices document.

Index Policy

Announcements

Announcements of any relevant information pertaining to the index are made after market close. Press releases are posted on the S&P Dow Jones Indices Web site at www.spdji.com.

Holiday Schedule

The index is calculated when the Securities Industry and Financial Markets Association (SIFMA®) declares the U.S. fixed income markets to be open.

A complete holiday schedule for the year is available at www.spdji.com.

Rebalancing

The Index Committee may change the date of a given rebalancing for reasons including market holidays occurring on or around the scheduled rebalancing date. Any such change will be announced with proper advance notice where possible.

End-of-Day Calculation

Index levels are calculated at the end of each business day, via S&P Dow Jones Indices' Web site. This may be subject to change.

Index Releases

Releases are issued by S&P Dow Jones Indices at the end of the business day.

Recalculation Policy

For information on the recalculation policy please refer to S&P Dow Jones Indices' Fixed Income Policies & Practices document.

For information on Calculations and Pricing Disruptions, Expert Judgment and Data Hierarchy, please refer to S&P Dow Jones Indices' Fixed Income Policies & Practices document.

Contact Information

For questions regarding an index, please contact: index_services@spglobal.com.

Index Dissemination

Index levels are available through S&P Dow Jones Indices' website at www.spdji.com, major quote vendors (see code below), numerous investment-oriented websites, and various print and electronic media.

Tickers

The table below lists headline indices covered by this document. All currency, currency hedged, maturity, sector and rating-based sub-indices as well as return type versions of the below indices that may exist are also covered by this document. Please contact index_services@spglobal.com for a complete list of indices covered by this document.

Total Return Index	Ticker
S&P 500/MarketAxess Investment Grade Corporate Bond Index	SP5MAIGT

Index Data

Daily index level data is available via subscription.

For product information, please contact S&P Dow Jones Indices, www.spdji.com/contact-us.

Web site

For further information, please refer to S&P Dow Jones Indices' Web site at www.spdji.com.

Appendix

Methodology Changes

Methodology changes since January 9, 2017 are as follows:

Change	Effective Date (After Close)	Previous	Methodology Updated
Eligibility Buffer Rule	10/31/2018	Bonds selected for addition to the index remain in the index for a minimum of three months. Bonds dropped from the index are locked out from re-inclusion for a period of three months.	Bonds selected for addition to the index remain in the index for a minimum of three months. Bonds selected for the index remain in the index provided their liquidity ranking in the eligible universe is less than or equal to 1200. Bonds dropped from the index are locked out from re-inclusion for a period of three months.

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