

S&P 500 Bond Index *Methodology*

April 2018

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Introduction

Index Objective

The S&P 500 Bond Index is a market value-weighted index that seeks to measure the performance of corporate debt issued in the U.S. by companies (and their subsidiaries) in the S&P 500.

Highlights

S&P 500 Bond Index. The index is composed of bonds that are issued in the U.S. by companies (and their subsidiaries) in the S&P 500.¹ Investment grade, high yield, sector, S&P rated, maturity, and ratings based sub-indices are also available. For more information on these indices, please refer to *Sub-Index Rules*.

S&P 500 Dividend Aristocrats Bond Select 30 Index. The index is composed of up to 30 bonds issued by unique “Aristocrat” dividend issuers based on specific selection criteria. The bonds are drawn from the S&P 500 Investment Grade Corporate Bond Index, a sub-index of the S&P 500 Bond Index and each bond issuer’s ultimate parent must be a constituent of the S&P 500 Dividend Aristocrats.¹

S&P 500 Bond Mega Indices. The S&P 500 Bond Mega 30 Investment Grade Index and the S&P 500 Bond Mega 30 High Yield Index are composed of 30 bonds each, representing the largest investment grade and high yield issuances from S&P 500 issuers. The bonds are selected from the S&P 500 Investment Grade Corporate Bond Index and the S&P 500 High Yield Corporate Bond Index respectively.

The indices undergo a rebalancing process once a month, with the intent of keeping the indices current.

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.

¹ For information on the S&P 500 and S&P 500 Dividend Aristocrats, please refer to their respective methodology documents available at www.spdji.com.

Eligibility Criteria

Index Universe

The index universe consists of debt issued in the U.S. by companies (and their subsidiaries) in the S&P 500. This starting universe is determined from data obtained from FactSet. Descriptive data used to determine bond eligibility is sourced from Thomson Reuters.

Eligibility Factors

Maturity. Each bond must have a maturity greater than or equal to one month from the rebalancing date. No bond matures in an index.

Country. Securities must be issued in the U.S.

Currency. Securities must be issued in U.S. dollars.

Coupon Type. The following coupon types are included:

- Fixed
- Zero
- Step-Up
- Fixed-to-Float (provided they are fixed and one month prior to their float date)

Credit Rating. A bond's credit rating is determined by up to three eligible credit rating agencies: S&P, Moody's, and Fitch. The lowest rating is used for index eligibility purposes. New issues must be rated by at least one rating agency to be considered at the next rebalancing. Bonds that are no longer rated or are in default are removed at the next rebalancing.

- **Investment Grade.** The minimum credit rating for inclusion in investment grade indices is BBB-/Baa3/BBB-.
- **High Yield.** The maximum credit rating for inclusion in high yield indices is BB+/Ba1/BB+. The lowest credit rating for inclusion must fall on or between BB+/Ba1/BB+ and C/Ca/C.

For ratings based sub-indices, the above rules are applied to the appropriate ratings band.

Size. For investment grade bonds, a minimum par of US\$ 250 million at each rebalancing is required. For high yield bonds, a minimum par of US\$ 100 million at each rebalancing is required.

Optionality. Bullets, callable and puttable securities are included. Fixed-to-floating rate securities also qualify provided they are callable within the fixed rate period and are at least one month from the last call prior to the date the bond transitions from a fixed to a floating rate security.

Settlement. Bonds that are issued but not settled prior to the month-end rebalancing are included in the indices.

Exclusions. The following bond types are specifically excluded from the indices:

- Floating-rate issues
- Preferred Stock

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

Sub-Index Rules

Investment Grade and High Yield Sub-Indices

The following are sub-indices of the S&P 500 Bond Index. They are market weighted indices subject to the constraints detailed in the table below:

Index	Constraint
S&P 500 Investment Grade Corporate Bond Index	The lowest credit rating for index inclusion must be BBB-/Baa3/BBB-.
S&P 500 High Yield Corporate Bond Index	The lowest credit rating for index inclusion must fall on or between BB+/Ba1/BB+ and C/Ca/C.

GICS Sector Sub-Indices

Sector sub-indices are created based on the constituents of the S&P 500 Bond Index and their respective Global Industry Classification Standard (GICS) designation as determined for the parent entity in the S&P 500 as of the security universe reference date.² The sectors are:

- Consumer Discretionary
- Consumer Staples
- Energy
- Financials
- Health Care
- Industrials
- Information Technology
- Materials
- Real Estate
- Telecommunications Services
- Utilities

Sector exclusion indices are also offered. The following Ex-Energy sector sub-indices are available and include all sectors except Energy:

- S&P 500 Ex-Energy Corporate Bond Index
- S&P 500 Ex-Energy Investment Grade Corporate Bond Index
- S&P 500 Ex-Energy High Yield Corporate Bond Index

For more information on GICS, please refer to S&P Dow Jones Indices' GICS Methodology.

S&P Rated Sub-Indices

Select sub-indices have a corresponding sub-index where only S&P ratings are considered. Investment Grade and High Yield classifications for these indices are based on the S&P rating only. Bonds not rated by S&P are excluded from these indices. All other inclusion criteria are the same.

Maturity and Ratings Based Sub-Indices

Maturity and ratings based sub-indices of the S&P 500 Bond Index are created based on maturity and credit quality buckets.

² Effective September 1, 2016, real estate securities previously classified as part of the Financials GICS sector are now classified as part of the Real Estate GICS sector.

S&P 500 Dividend Aristocrats Bond Select 30 Index

Index bonds are drawn from the S&P 500 Investment Grade Corporate Bond Index. Only those bonds that have a time to maturity of at least one year, but less than seven years from the rebalancing date qualify for index consideration. In addition, each bond issuer's ultimate parent must be a constituent of the S&P 500 Dividend Aristocrats in order to qualify. Bonds satisfying these criteria form the selection universe.

S&P 500 Bond Mega 30 Investment Grade Index

This is an equal weighted sub-index of the S&P 500 Investment Grade Corporate Bond Index containing the 30 largest investment grade bonds subject to one bond per issuer. Bonds with 144A registration are excluded.

S&P 500 Bond Mega 30 High Yield Index

This is an equal weighted sub-index of the S&P 500 High Yield Corporate Bond Index containing the 30 largest high yield bonds subject to one bond per issuer. Bonds with 144A registration are excluded.

For a full list of sub-indices, please refer to S&P Dow Jones Indices' Fixed Income Index Directory available at www.spdji.com.

Index Construction

S&P 500 Bond Index

All bonds that meet the eligibility criteria are selected and form the index.

S&P 500 Bond Index Sub-Indices

With the exception of the S&P 500 Dividend Aristocrats Bond Select 30 Index, all bonds in the S&P 500 Bond Index that meet the sub-index rules are selected for inclusion in the relevant sub-index.

S&P 500 Dividend Aristocrats Bond Select 30 Index

Issuers in the S&P 500 Dividend Aristocrats are ranked by their full market capitalization as of the security universe reference date. Starting with the largest issuer, at most one bond per issuer is selected from the selection universe based on the following:

1. If there are multiple eligible bonds per issuer, the eligible bond with the largest par amount outstanding is selected.
2. If multiple eligible bonds remain, the most recently issued eligible bond is selected.
3. If multiple eligible bonds remain, the eligible bond with the longest time to maturity is selected.
4. If multiple eligible bonds remain, the Index Committee will determine the eligible issue at its discretion.

This selection process is then applied to the next largest issuers, sequentially, until a maximum of 30 bonds are selected.

S&P 500 Bond Mega Indices

The S&P 500 Bond Mega 30 Investment Grade Index and S&P 500 Bond Mega 30 High Yield Index are constructed using their respective selections universes and the following selection logic.

Bonds in the selection universe are ranked by par amount outstanding. The 30 largest bonds by par amount outstanding as of the universe reference date are selected to form the index. In the case where more than one bond has the same par amount outstanding, the ranking is determined based on the following:

1. The most recently issued eligible bond is given preference.
2. If multiple eligible bonds remain, the eligible bond with the longest time to maturity is given preference.
3. If multiple eligible bonds remain, the Index Committee will determine the eligible issue at its discretion.

S&P 500 Bond Mega Maturity Sub-Indices. Additional S&P 500 Bond Mega Indices are constructed using the maturity-based sub-indices of the S&P 500 Bond Index as the starting universe, with 144A securities excluded. Index selection is performed using the above rules to select 30 unique bonds for each maturity-based index.

Index Calculations

The indices are market value-weighted, except where otherwise noted.

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 document.

Index Maintenance

Rebalancing

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

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.³ On this date, the composition of the S&P 500 is observed. 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.⁴ For indices which use an additional weight factor (AWF) to modify index weights, all AWFs for the upcoming composition are set on the descriptive data reference date.

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
Security Universe Reference Date	T minus 6

All days reflect after the close and count business days

Ongoing Maintenance

The indices are 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.

³ 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.

⁴ Terms and conditions data are subject to Thomson Reuters data availability.

Currency and Currency Hedged Indices

The indices are calculated in U.S. dollars.

Additional currency and currency hedged versions of the indices, as well as maturity, sector and rating-based sub-indices are 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 Dates and History Availability

Index history availability, base dates and base values are shown in the table below.

Index	Launch Date	First Value Date	Base Date	Base Value
S&P 500 Bond Index	07/08/2015	12/30/1994	12/30/1994	100
S&P 500 Investment Grade Corporate Bond Index	07/08/2015	12/30/1994	12/30/1994	100
S&P 500 High Yield Corporate Bond Index	07/08/2015	12/30/1994	12/30/1994	100
S&P 500 Dividend Aristocrats Bond Select 30 Index	03/10/2017	12/31/2010	12/31/2010	100
S&P 500 Bond Mega 30 Investment Grade Index	01/12/2018	09/30/2015	09/30/2015	100
S&P 500 Bond Mega 30 High Yield Index	01/12/2018	09/30/2015	09/30/2015	100
S&P 500 Bond Mega 30 Investment Grade 3-5 Year Index	01/12/2018	09/30/2015	09/30/2015	100
S&P 500 Bond Mega 30 Investment Grade 5-7 Year Index	01/12/2018	09/30/2015	09/30/2015	100
S&P 500 Bond Mega 30 High Yield 3-5 Year Index	01/12/2018	09/30/2015	09/30/2015	100
S&P 500 Bond Mega 30 High Yield 5-7 Year Index	01/12/2018	09/30/2015	09/30/2015	100
<i>Sector Indices:</i>				
S&P 500 Consumer Discretionary Corporate Bond Index	07/08/2015	12/30/1994	12/30/1994	100
S&P 500 Consumer Staples Corporate Bond Index	07/08/2015	12/30/1994	12/30/1994	100
S&P 500 Energy Corporate Bond Index	07/08/2015	12/30/1994	12/30/1994	100
S&P 500 Financials Corporate Bond Index	07/08/2015	12/30/1994	12/30/1994	100
S&P 500 Health Care Corporate Bond Index	07/08/2015	12/30/1994	12/30/1994	100
S&P 500 Industrials Corporate Bond Index	07/08/2015	12/30/1994	12/30/1994	100
S&P 500 Information Technology Corporate Bond Index	07/08/2015	12/30/1994	12/30/1994	100
S&P 500 Materials Corporate Bond Index	07/08/2015	12/30/1994	12/30/1994	100
S&P 500 Real Estate Corporate Bond Index	09/01/2016	08/31/2016	08/31/2016	100
S&P 500 Telecommunication Services Corporate Bond Index	07/08/2015	12/30/1994	12/30/1994	100
S&P 500 Utilities Corporate Bond Index	07/08/2015	12/30/1994	12/30/1994	100
S&P 500 Ex-Energy Corporate Bond Index	03/07/2016	12/30/1994	12/30/1994	100
S&P 500 Ex-Energy Investment Grade Corporate Bond Index	03/07/2016	12/30/1994	12/30/1994	100
S&P 500 Ex-Energy High Yield Corporate Bond Index	03/07/2016	12/30/1994	12/30/1994	100

Index Governance

Index Committee

S&P Dow Jones Indices' Fixed Income Index Committee maintains the indices. 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 indices, including determinations of intra-rebalancing changes, maintenance and inclusion policies, and other matters affecting the maintenance and calculation of the indices.

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

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

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

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

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

For 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 indices 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 indices are 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.

Real-Time Calculation

Real-time, intra-day, index calculations are executed for the S&P 500 Bond Index and S&P 500 Investment Grade Corporate Bond Index when the U.S. bond market is open. Real-time calculations are based on Thomson Reuters best bid pricing and incorporate data from MarketAxess. At its sole discretion, S&P Dow Jones Indices may change its data sources for real-time calculations or may cease publishing real-time index values. Real-time indices are not restated.

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 codes 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 Bond Index	SP500BDT
S&P 500 Investment Grade Corporate Bond Index	SP5IGBIT
S&P 500 High Yield Corporate Bond Index	SP5HYBIT
S&P 500 Dividend Aristocrats Bond Select 30 Index	SP5DABDT
S&P 500 Bond Mega 30 Investment Grade Index	SP5MBIGT
S&P 500 Bond Mega 30 High Yield Index	SP5MBHYT
S&P 500 Bond Mega 30 Investment Grade 3-5 Year Index	SP5MI35T
S&P 500 Bond Mega 30 Investment Grade 5-7 Year Index	SP5MI57T
S&P 500 Bond Mega 30 High Yield 3-5 Year Index	SP5MH35T
S&P 500 Bond Mega 30 High Yield 5-7 Year Index	SP5MH57T
<i>Sector Indices:</i>	
S&P 500 Consumer Discretionary Corporate Bond Index	SP5CDBIT
S&P 500 Consumer Staples Corporate Bond Index	SP5CSBIT
S&P 500 Energy Corporate Bond Index	SP5ENBIT
S&P 500 Financials Corporate Bond Index	SP5FIBIT
S&P 500 Health Care Corporate Bond Index	SP5HCBIT
S&P 500 Industrials Corporate Bond Index	SP5INBIT
S&P 500 Information Technology Corporate Bond Index	SP5ITBIT
S&P 500 Materials Corporate Bond Index	SP5MABIT
S&P 500 Real Estate Corporate Bond Index	SP5REBIT
S&P 500 Telecommunication Services Corporate Bond Index	SP5TSBIT
S&P 500 Utilities Corporate Bond Index	SP5UTBIT
S&P 500 Ex-Energy Corporate Bond Index	SP500XET
S&P 500 Ex-Energy Investment Grade Corporate Bond Index	SP5IGXET
S&P 500 Ex-Energy High Yield Corporate Bond Index	SP5HYXET

FTP

Daily constituent and index level data are available via FTP 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 July 8, 2015 are as follows:

Change	Effective Date (After Close)	Previous	Methodology Updated
Index Eligibility of 144A Securities for the S&P 500 Bond Mega Indices	4/30/2018	144A securities are eligible for index inclusion.	144A securities are ineligible for index inclusion.

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