

# **S&P U.S. Issued Corporate Bond Index**

*Methodology*

October 2013

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The S&P U.S. Issued Corporate Bond Index is a proprietary index of S&P Dow Jones Indices. Pricing provided by Interactive Data Corporation and index calculated by Interactive Data Corporation.

# Introduction

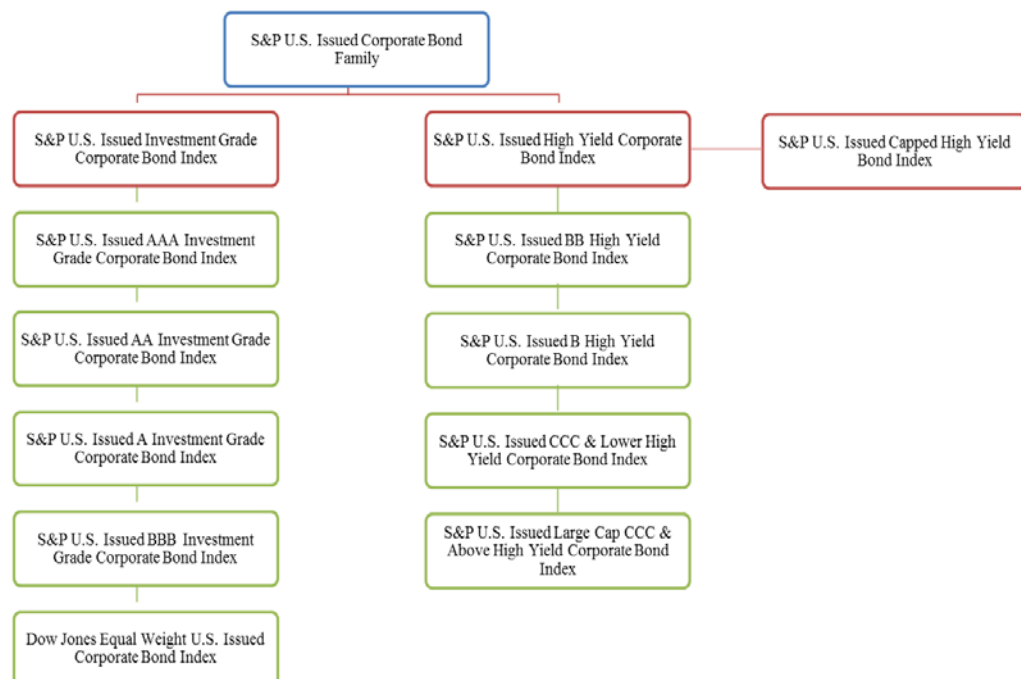
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The S&P U.S. Issued Corporate Bond Family is comprised of a universe of corporate bonds issued by U.S. domiciled corporations denominated in U.S. dollars. The indices in this family facilitate extensive use by institutional investment managers, mutual fund managers, and professional advisors.

## Index Family

The S&P U.S. Issued Corporate Bond Family is designed to measure investment grade and high yield bond market performance for U.S. dollar denominated bonds issued by U.S. domiciled corporations.

The structure of the S&P U.S. Issued Corporate Bond Family currently consists of:



The S&P U.S. Issued Corporate Bond Family covers eligible securities across the ratings spectrum and is designed to measure U.S. issued corporate bond market performance while also meeting investable criteria.

# Eligibility Criteria

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## Eligibility Factors

**Eligible Issuers.** Eligible issuers are described below.

Index	Issuer
S&P U.S. Issued Investment Grade Corporate Bond Index	The issuer must be a U.S. corporation issuing investment grade rated bonds in US\$.
S&P U.S. Issued High Yield Corporate Bond Index	The issuer must be a U.S. corporation issuing below investment grade rated bonds in US\$.

U.S. SEC Registered and 144a securities, with or without registration rights, qualify for inclusion in the Index. Original issue zero coupon bonds and pay-in-kind securities, including toggle notes, bonds that are callable/puttable, and bonds with sinking funds also qualify for inclusion. Step-up coupons and those that change according to a predetermined schedule are also included. Capital securities with coupons that convert from fixed to floating rate are index eligible, given that they are currently fixed rate; the maturity date then equals the conversion date.

Callable perpetual securities qualify. Fixed-to-floating rate securities also qualify. Warrant-bearing, Convertible, Preferred, DRD-eligible (Dividend Received Deduction), Qualified Dividend Income (QDI) eligible securities, structured or linked notes and defaulted securities are excluded from the index

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

**Country.** The country of incorporation of the issuer must be the U.S.

**Maturity.** Each bond must have a maturity greater than or equal to one month from the rebalancing date. No bonds mature in the index. Maturity sub-sectors are defined by the constraints.

**Rating (Investment Grade).** The minimum credit rating for inclusion in investment grade indices is BBB-/Baa3/BBB-. For an issue rated by S&P, Moody's, and Fitch, the lowest of the three ratings is used as the issue's credit rating. When there are two ratings, the lower of the two ratings must be considered investment grade. When there is only one rating, that rating must be considered investment grade. New issues must be rated by at least one rating agency to be considered at the next rebalancing. Bonds that are not rated are removed at the first rebalancing. Defaulted securities are removed at the first

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

**Rating (High Yield).** The maximum credit rating for inclusion in high yield indices is BB+/Ba1/BB+. For an issue rated by S&P, Moody's, and Fitch, the lowest of the three ratings is used as the issue's credit rating. When there are two ratings, the lower of the two is considered. When there is only one rating, that rating must be considered below investment grade. New issues must be rated by at least one rating agency to be considered at the next rebalancing. Bonds that are not-rated are removed at the first rebalancing. For ratings based sub-indices, the above rules are applied to the appropriate rating band.

**Pricing.** Daily pricing is provided by Interactive Data Corporation (IDC).

**Coupon.** Bonds must have a fixed coupon schedule.

**Debt Seniority.** Senior and subordinated bonds are included. Covered bonds and equipment trust certificates are excluded. Non-corporate bonds secured by mortgages are also excluded.

**Bond Type.** The following corporate structures are included: debentures, MTN, zero coupon bonds, corporate PIK bonds, and corporate insured bank notes are eligible. Capital securities (hybrid capital) are eligible during their fixed-rate term and exit the index one month prior to their conversion to floating-coupon securities. Convertible bonds are excluded. Perpetual bonds are included. Fixed-to-Float bonds must have a fixed rate period greater than or equal to one-month as of the rebalancing date to be considered.

The following structures are excluded: Government bonds, convertible securities, Reg S bonds, linked bonds, defaulted bonds, bills, CDs, equipment trust certificates, loan certificates, equity-backed bonds, private placement bonds not governed by 144a, and floating rate notes. If a bond is Fixed-to-Float, it must currently be in the fixed rate period. For fixed-to-float bonds currently in the fixed rate period, the reset date must be greater than or equal to 1 month from the first day of the current index rebalance date.

**Optionality.** Callable/Puttable bonds are included.

**Market of Issue.** Securities must be publicly issued in the U.S. SEC registered or 144a markets.

**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.

### **Timing of Changes**

The indices that are members of the S&P U.S. Issued Corporate Bond Family are reviewed and rebalanced on a monthly basis.

### **Monthly Rebalancing**

Based on new issuance, size and maturity, the bonds in the index are subject to change every month, effective after the close of the last calendar day of the month.

Additions, deletions and other changes to the indices that are members of the S&P U.S. Issued Corporate Bond Family arising from the monthly rebalancing are published on a best efforts basis, after the close of business, three business days prior to the last business day of the month (the announcement date). Any market events post this date that affect the constituent membership are made on the next rebalancing date. Changes to the indices in the S&P U.S. Issued Corporate Bond Family that are published in the announcement are not normally subject to revision and are effective after the close on the last business day of the month (the rebalancing date).

# Sub-Index Rules

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## **S&P U.S. Issued AAA Investment Grade Corporate Bond Index**

This is a sub-index of the S&P U.S. Issued Investment Grade Corporate Bond Index. It is a market weighted index that has ratings constraints.

**Rating.** In addition to the rating rules mentioned above that are applicable to investment grade, the lowest credit rating for inclusion must be AAA/Aaa/AAA.

**Size.** A minimum outstanding value of US\$ 250 million is required.

## **S&P U.S. Issued AA Investment Grade Corporate Bond Index**

This is a sub-index of the S&P U.S. Issued Investment Grade Corporate Bond Index. It is a market weighted index that has ratings constraints.

**Rating.** In addition to the rating rules mentioned above that are applicable to investment grade, the lowest credit rating for inclusion must fall on or between AA+/Aa1/AA+ and AA-/Aa3/AA-.

**Size.** A minimum outstanding value of US\$ 250 million is required.

## **S&P U.S. Issued A Investment Grade Corporate Bond Index**

This is a sub-index of the S&P U.S. Issued Investment Grade Corporate Bond Index. It is a market weighted index that has ratings constraints.

**Rating.** In addition to the rating rules mentioned above that are applicable to investment grade, the lowest credit rating for inclusion must fall on or between A+/A1/A+ and A-/A3/A-.

**Size.** A minimum outstanding value of US\$ 250 million is required.



### **S&P U.S. Issued BBB Investment Grade Corporate Bond Index**

This is a sub-index of the S&P U.S. Issued Investment Grade Corporate Bond Index. It is a market weighted index that has ratings constraints.

**Rating.** In addition to the rating rules mentioned above that are applicable to investment grade, the lowest credit rating for inclusion must fall on or between BBB+/Baa1/BBB+ and BBB-/Baa3/BBB-.

**Size.** A minimum outstanding value of US\$ 250 million is required.

### **Dow Jones Equal Weight U.S. Issued Corporate Bond Index**

The Dow Jones Equal Weight U.S. Issued Corporate Bond Index is a sub-index of the S&P U.S. Issued Investment Grade Corporate Bond Index. It is an equal weighed index comprised of 96 bonds.

**Sectors.** Each bond in the Dow Jones Equal Weight U.S. Issued Corporate Bond Index is classified into one of three sectors: Financials, Industrials or Utilities. The Financials sector includes banks, insurance companies, and financial service companies. The Utilities sector includes gas companies, electric companies, and water companies. The Industrials sector includes companies in all other industries of the Dow Jones Equal Weight U.S. Issued Corporate Bond Index.

**Issuer.** An issuer may have up to four bonds in the index, but no more than one in each maturity cell.

**Rating.** Only ratings issued by S&P and Moody's are considered. A bond must retain its investment grade rating to remain in the index.

**Coupon.** Only fixed rate bonds are considered. Zero coupon bonds are excluded.

**Optionality.** Callable/Puttable bonds are excluded. Bonds with make-whole calls are included.

**Market of Issue.** Securities must be publicly issued in the U.S. SEC registered markets. 144a securities are excluded.

**Size.** A minimum outstanding value of US\$ 500 million is required.

**Monthly Rebalancing.** The index is rebalanced to an equal weighted index at the rebalancing date. The final selection list is distributed on the last day of the month. The review process starts with a review of the current component basket, removing any bonds that fail to meet the above mentioned constraints.

Research on new on-the-run bonds is conducted to identify those issues that meet all constraints. Of these bonds, any issue that has an outstanding value greater than or equal to the outstanding value of the smallest current index component in the corresponding maturity bracket of its sector qualifies for the index. Within each maturity bracket of each

sector, eligible bonds are ranked by the average of their 1-month and 3-month volumes. Bonds with the highest average volumes are added until the specified component count is satisfied.

For scenarios where no on-the-run bonds are eligible for selection and additional components are needed, all qualified outstanding bonds are considered for selection. These bonds are subject to the same requirement for 1-month and 3-month average volume. Newly selected on-the-run bonds are retained in the index for a minimum of three months.

### **S&P U.S. Issued Capped High Yield Corporate Bond Index**

This is the S&P U.S. Issued High Yield Corporate Bond Index with an issuer cap exposure of 2%. Grouping of bonds by issuer is determined by the Interactive Data Corporation's Business Entity Service.

**Rating.** Same rating rules as mentioned above for the S&P U.S. Issued High Yield Corporate Bond Index.

**Size.** A minimum outstanding value of US\$ 100 million is required.

**Capping Rules.** The S&P U.S. Issued Capped High Yield Corporate Bond Index has the same constituents as the U.S. Issued High Yield Corporate Bond Index, with no one issuer having a weight greater than 2% of the index. During the monthly rebalance process, total weight by issuer is calculated and if any one or more issuer has a weight greater than 2% of the index, that excess weight is distributed pro rata to the remaining constituents in the index. If this results in any issuer now having a weight over 2% that previously did not, the process is repeated. This occurs until no issuer has a weight greater than 2%.

### **S&P U.S. Issued BB High Yield Corporate Bond Index**

This is a sub-index of the S&P U.S. Issued High Yield Corporate Bond Index. It is a market weighted index that has ratings constraints.

**Rating.** In addition to the rating rules mentioned above that are applicable to high yield, the lowest credit rating for inclusion must fall on or between BB+/Ba1/BB+ and BB-/Ba3/BB-.

**Size.** A minimum outstanding value of US\$ 100 million is required.

### **S&P U.S. Issued B High Yield Corporate Bond Index**

This is a sub-index of the S&P U.S. Issued High Yield Corporate Bond Index. It is a market weighted index that has ratings constraints.

**Rating.** In addition to the rating rules mentioned above that are applicable to high yield, the lowest credit rating for inclusion must fall on or between B+/B1/B+ and B-/B3/B-.

**Size.** A minimum outstanding value of US\$ 100 million is required.

### **S&P U.S. Issued CCC & Lower High Yield Corporate Bond Index**

This is a sub-index of the S&P U.S. Issued High Yield Corporate Bond Index. It is a market weighted index that has ratings constraints.

**Rating.** In addition to the rating rules mentioned above that are applicable to high yield, the lowest credit rating for inclusion must fall on or between CCC+/Caa1/CCC+ and C/Ca/C.

**Size.** A minimum outstanding value of US\$ 100 million is required.

### **S&P U.S. Issued Large Cap CCC & Above High Yield Corporate Bond Index**

This is a sub-index of the S&P U.S. Issued High Yield Corporate Bond Index. It is a market weighted index that has ratings constraints and a higher minimum outstanding value than its parent index.

**Rating.** In addition to the rating rules mentioned above that are applicable to high yield, the lowest credit rating for inclusion is CCC/Caa2/CCC.

**Size.** A minimum outstanding value of US\$ 500 million is required.

# Index Construction

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## **Index Calculations**

The S&P U.S. Issued Investment Grade Corporate Bond Index and S&P U.S. Issued High Yield Corporate Bond Index and their sub-indices are market-value-weighted indices.

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.

The Dow Jones Equal Weight U.S. Issued Corporate Bond Index is an equal market value weighted index and the total return is the sum of price return and interest return. Weights return to equal market weighting with each monthly rebalancing.

*For further details regarding Index Calculations please refer to the Appendix.*

# Index Maintenance

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## Rebalancing

The indices that comprise the S&P U.S. Issued Corporate Bond Family are reviewed and rebalanced on a monthly basis.

The Index Committee, nevertheless, reserves the right to make adjustments to the indices at any time that it believes appropriate.

Pro-forma additions, deletions and other changes to the indices arising from the monthly rebalancing are published, after the close of business, no earlier than three business days prior to the last business day of the month. These may be subject to change. Final additions, deletions and other changes to the indices arising from the monthly rebalancing are published one business day prior to the last business day of the month (the announcement dates).

Changes are effective after the close on the last business day of the month (the rebalancing date).

## Base Dates and Launch Dates

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

Index	Launch Date	Base Date	Base Value
S&P U.S. Issued Investment Grade Corporate Bond Index	04/09/2013	12/31/2012	100
S&P U.S. Issued AAA Investment Grade Corporate Bond Index	07/22/2013	12/31/2012	100
S&P U.S. Issued AA Investment Grade Corporate Bond Index	07/22/2013	12/31/2012	100
S&P U.S. Issued A Investment Grade Corporate Bond Index	07/22/2013	12/31/2012	100
S&P U.S. Issued BBB Investment Grade Corporate Bond Index	07/22/2013	12/31/2012	100
Dow Jones Equal Weight U.S. Issued Corporate Bond Index	11/30/2006	12/31/1996	100
S&P U.S. Issued High Yield Corporate Bond Index	04/09/2013	12/31/2012	100
S&P U.S. Issued Capped High Yield Corporate Bond Index	09/23/2013	12/31/2012	100
S&P U.S. Issued BB High Yield Corporate Bond Index	07/22/2013	12/31/2012	100
S&P U.S. Issued B High Yield Corporate Bond Index	07/22/2013	12/31/2012	100
S&P U.S. Issued CCC & Lower High Yield Corporate Bond Index	07/22/2013	12/31/2012	100
S&P U.S. Issued Large Cap CCC & Above High Yield Corporate Bond Index	04/09/2013	12/31/2012	100

# Index Governance

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## **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. Meetings are held quarterly, but interim meetings may be held whenever deemed appropriate.

The Index Committee oversees the day-to-day management of the indices, including the monthly rebalancing, determinations of intra-rebalancing changes to the indices, and maintenance and inclusion policies, including additions or deletions of bonds 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.

# Index Policy

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## **Announcements**

Announcements of any relevant information pertaining to the S&P U.S. Issued Investment Grade Corporate Bond Index and S&P U.S. Issued High Yield Corporate Bond Index and their related sub-indices are made at approximately 06:00 PM EST. Press releases are posted on the S&P Dow Jones Indices Web site at [www.spdji.com](http://www.spdji.com).

## **Holiday Schedule**

The S&P U.S. Issued Investment Grade Corporate Bond Index and S&P U.S. Issued High Yield Corporate Bond Index and their related sub-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 on S&P Dow Jones Indices' Web site at [www.spdji.com](http://www.spdji.com).*

# Index Dissemination

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Index levels are available through S&P Dow Jones Indices' Web site at [www.spdji.com](http://www.spdji.com), major quote vendors (see codes below), numerous investment-oriented Web sites, and various print and electronic media.

## Tickers

Index (Total Return)	Bloomberg
S&P U.S. Issued Investment Grade Corporate Bond Index	SPUSCIG
S&P U.S. Issued AAA Investment Grade Corporate Bond Index	SPUSG3AT
S&P U.S. Issued AA Investment Grade Corporate Bond Index	SPUSG2AT
S&P U.S. Issued A Investment Grade Corporate Bond Index	SPUSG1AT
S&P U.S. Issued BBB Investment Grade Corporate Bond Index	SPUSG3BT
Dow Jones Equal Weight U.S. Issued Corporate Bond Index	DJCBT
S&P U.S. Issued High Yield Corporate Bond Index	SPUSCHY
S&P U.S. Issued Capped High Yield Corporate Bond Index	SPUSHY2
S&P U.S. Issued BB High Yield Corporate Bond Index	SPUSH2BT
S&P U.S. Issued B High Yield Corporate Bond Index	SPUSH1BT
S&P U.S. Issued CCC & Lower High Yield Corporate Bond Index	SPUSC3BT
S&P U.S. Issued Large Cap CCC & Above High Yield Corporate Bond Index	SPUSCLC

## FTP

Daily index levels and index data is available via FTP on subscription.

*For further information, please refer to S&P Dow Jones Indices' Web site at [www.spdji.com](http://www.spdji.com).*

## Web site

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# Appendix

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## Calculation of Index Bond Market Values

A market value is calculated for each index bond as of the close on each day, as follows:

$$MV_t = PAR_t * \frac{(P_t + AI_t)}{100} \quad (1)$$

where:

- $MV_t$  = Market value of the index bond on day  $t$ .
- $PAR_t$  = Par amount of the index bond as of the last monthly rebalancing, adjusted for principal pre-payments up to and including day  $t$ .
- $P_t$  = Price of the index bond on day  $t$ .
- $AI_t$  = Accrued interest<sup>1</sup> on the index bond up to and including day  $t$ .

If the valuation date is not a trading day, the market value is based on the price as of the immediate prior trading day, plus interest accrued to the valuation date.

## Calculation of Index Bond Returns

### Total Return

The month-to-date (*MTD*) total return (*TR*) of an index bond on day  $t$  is the sum of the *MTD* interest return and the *MTD* price return:

$$TR_t = IR_t + PR_t \quad (2)$$

where:

- $IR_t$  = *MTD* interest return on day  $t$ .
- $PR_t$  = *MTD* market price return on day  $t$ .

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<sup>1</sup>  $AI_t$  in (1) is calculated on a calendar date basis and uses the conventions for calculating settlement accrued. Accordingly, accrued interest is zero on a coupon payment date.

Price return measures the return due to the change in the market price of the bond. Interest return (or coupon return) includes the return due to the interest earned on that bond.

### Interest Return

The *MTD* interest return on an individual Index Bond on day  $t$  is as follows:

$$IR_t = \frac{PAR_{RB} * \left(\frac{AI_x - AI_{RB}}{100}\right) + PAR_x * \left(\frac{AI_t - AI_x}{100}\right) + Int_{RB,t}}{MV_{RB}} \quad (3)$$

where:

- $IR_t$  = *MTD* interest return at time  $t$ .
- $AI_t$  = Accrued interest, up to and including day  $t$ .
- $AI_{RB}$  = Accrued interest as of the last monthly rebalancing.
- $AI_x$  = Accrued interest, up to the interest payout day  $x$ ,  $RB < x \leq t$ .
- $PAR_{RB}$  = Par amount of the index bond as of the last monthly rebalancing.
- $Int_{RB,t}$  = Interest payment occurring after the prior rebalancing and up to and including day  $t$ .
- $MV_{RB}$  = Market value as of the last monthly rebalancing.

Daily interest return at time  $t$ :

$$ir_t = \frac{(1 + IR_t)}{(1 + IR_{t-1})} - 1 \quad (4)$$

### Price Return

The formula for the price return for an index bond at time  $t$  is as follows:

$$PR_t = \frac{PAR_{RB} * \left(\frac{P_x - P_{RB}}{100}\right) + PAR_x * \left(\frac{P_t - P_x}{100}\right) + Prin_{RB,t}}{MV_{RB}} \quad (5)$$

where:

- $PR_t$  = *MTD* price return on day  $t$ .
- $PAR_{RB}$  = Par amount of the index bond as of the last monthly rebalancing.
- $P_t$  = Bond price on day  $t$ .
- $P_{RB}$  = Bond price as of the last monthly rebalancing.
- $PAR_x$  = Par amount of the index bond from the principal payout date  $x$ ,  $RB < x \leq t$ .

- $P_x$  = Bond price on the principal payout date  $x$ .  
 $Prin_{RB,t}$  = Principal prepayments from last rebalance date  $RB$  to day  $t$ .  
 $MV_{RB}$  = Market value as of the last monthly rebalancing.

Daily price return at time  $t$ :

$$pr_t = \frac{(1 + PR_t)}{(1 + PR_{t-1})} - 1 \quad (6)$$

### Daily Index Returns

The individual index bond returns are aggregated to calculate returns for the index.

Specifically, on a given day, the total return, interest return and price return for the index are equal to a weighted average of the returns of the index bonds that constitute the index. The weight of each index bond return being equal to the relative weight of that index bond in the index as of the previous calendar day (adjusted for principal pre-payments, etc.). The formulae are as follows:

$$IndexTR_t = \frac{\sum_i MV_{t-1}^i * tr_t^i}{\sum_i MV_{t-1}^i + CASH_{t-1}} + \frac{Rate_{t-1} * CASH_{t-1}}{\sum_i MV_{t-1}^i + CASH_{t-1}} \quad (7)$$

$$IndexIR_t = \frac{\sum_i MV_{t-1}^i * ir_t^i}{\sum_i MV_{t-1}^i + CASH_{t-1}} \quad (8)$$

$$IndexPR_t = \frac{\sum_i MV_{t-1}^i * pr_t^i}{\sum_i MV_{t-1}^i + CASH_{t-1}} \quad (9)$$

where:

- $IndexTR_t$  = Index total return on day  $t$ .  
 $IndexIR_t$  = Index interest return on day  $t$ .  
 $IndexPR_t$  = Index price return on day  $t$ .  
 $tr_t^i$  = Total return of index bond  $i$  on day  $t$  ( $ir_t^i + pr_t^i$ ).  
 $ir_t^i$  = Interest return of index bond  $i$  on day  $t$ .  
 $pr_t^i$  = Price return of index bond  $i$  on day  $t$ .  
 $MV_{t-1}^i$  = Market value of index bond  $i$ , at the close of day  $t-1$ .  
 $CASH_{t-1}$  = Cumulative cash received in the index from the rebalancing date

up to the close of day  $t-1$ .

$Rate_{t-1}$  = Daily cash reinvestment rate on day  $t-1$ .

### Daily Index Values

Index values are calculated each day by applying the current day's index return to the previous day's index value, as follows:

$$TRIV_t = TRIV_{t-1} * (1 + IndexTR_t) \quad (10)$$

$$PRIV_t = PRIV_{t-1} * (1 + IndexPR_t) \quad (11)$$

$$IRIV_t = IRIV_{t-1} * (1 + IndexIR_t) \quad (12)$$

where:

$TRIV_t$  = Total return index value on day  $t$

$PRIV_t$  = Price return index value on day  $t$

$IRIV_t$  = Interest return index value on day  $t$

$IndexTR_t$  = Index total return on day  $t$

$IndexIR_t$  = Index interest return on day  $t$

$IndexPR_t$  = Index price return on day  $t$

### Reinvestment Returns from Monthly Cash Flows

The indices that are members of the S&P U.S. Issued Corporate Bond Family are rebalanced monthly. All cash, including interest payments and principal prepayments, are kept in cash until the next rebalance date. In other words,  $Rate_{t-1}$  is zero in the equation (7).

# S&P Dow Jones Indices' Contact Information

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## **Index Management**

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## **Product Management**

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