



Nasdaq BulletShares[®]
USD High Yield
Corporate Bond
Indexes Methodology
July 2018

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Description

Overview

Nasdaq BulletShares® USD High Yield Corporate Bond Indexes (“the Indexes”) measure the performance of maturity-targeted segments of the US dollar-denominated high yield corporate bond market. The BulletShares® methodology allocates bonds from the Index family’s universe of eligible securities into the Nasdaq BulletShares® Indexes based on maturity or, in some cases, effective maturity date.

History

The Indexes have available history back to their base dates, which begins as early as December 31, 2010 for the Nasdaq BulletShares® USD High Yield Corporate Bond 2018 Index. Each year, as one Index matures, a new Index is added. Invesco Indexing acquired the Nasdaq BulletShares® USD High Yield Corporate Bond Indexes in April 2018.

Related Indexes

Nasdaq BulletShares® USD High Yield Corporate Bond Indexes include:

- Nasdaq BulletShares® USD High Yield Corporate Bond 2018 Index
- Nasdaq BulletShares® USD High Yield Corporate Bond 2019 Index
- Nasdaq BulletShares® USD High Yield Corporate Bond 2020 Index
- Nasdaq BulletShares® USD High Yield Corporate Bond 2021 Index
- Nasdaq BulletShares® USD High Yield Corporate Bond 2022 Index
- Nasdaq BulletShares® USD High Yield Corporate Bond 2023 Index
- Nasdaq BulletShares® USD High Yield Corporate Bond 2024 Index
- Nasdaq BulletShares® USD High Yield Corporate Bond 2025 Index
- Nasdaq BulletShares® USD High Yield Corporate Bond 2026 Index
- Nasdaq BulletShares® USD High Yield Corporate Bond 2027 Index
- Nasdaq BulletShares® USD High Yield Corporate Bond 2028 Index

Other related indexes include:

- Nasdaq BulletShares® USD Corporate Bond Indexes

Index Construction

Universe of Eligible Securities

The eligible universe includes US dollar-denominated bonds issued by companies domiciled in the US, Canada, Western Europe¹ or Japan. The bonds must pay fixed amounts of taxable interest. Eligible bonds include fixed-coupon bonds; callable bonds; step-ups; event-driven, rating-driven and registration-driven bonds; amortizing bonds and sinking funds with fixed sinking schedules, and Rule 144A bonds. The bonds must be high yield with a maximum credit rating of BB+ from Fitch Investor Services or Standard and Poor's Rating Group or Ba1 by Moody's Investors Service, Inc., and a minimum average rating of CCC- from Fitch, S&P and Moody's. The minimum average credit rating is computed by calculating the simple average of a bond's ratings published by Fitch, S&P and Moody's and then rounding down to the nearest rating step. The bonds must be sufficiently liquid, with an outstanding face value of at least \$200 million (existing bonds in the eligible universe require \$150 million face value to remain). To ensure adequate investability, the following bond types are specifically excluded from Index consideration: non-SEC registered bonds (Reg S bonds, private placements, Eurodollar bonds and EuroMTN bonds); retail bonds; floating rate bonds; zero coupon bonds; convertible bonds; bonds cum or ex-warrant; bonds with one cash flow only; new bonds that have already been called; inflation or other index-linked bonds; corporate bonds guaranteed by an agency, national or supranational government (including FDIC or TLGP); perpetual securities (including Trust Preferred); and securities for which the Index Calculation Agent is unable to, or is prohibited from providing an evaluated price; distressed bonds, defined as bonds whose yield to worst ranks among the top 1% by market value among bonds passing all other eligibility criteria and whose dirty price is below \$80. Bonds defined as distressed will be excluded for the next three monthly rebalances (including the current rebalance) regardless of yield and price changes.

Index Creation

On a semi-annual basis (last calendar day of June and December), existing bonds in the eligible universe are distributed into Nasdaq BulletShares® USD High Yield Corporate Bond Indexes in accordance with their effective maturities. If no embedded issuer call option exists, then effective maturity is the actual year of maturity. If a bond contains an embedded issuer call option, with the first call date within 13 months of maturity and a par call price, then the effective maturity shall be its actual year of maturity. In other cases, the effective maturity shall be its actual year of maturity unless the yield to next call date is less than the yield to maturity, in which case its effective maturity shall be the year of the next call date.

Security Weighting

Nasdaq BulletShares® USD High Yield Corporate Bond Indexes employ a market value weighting methodology to weight individual positions, subject to a 5% limit on individual issuers in each Index applied at each monthly rebalancing prior to the final maturing year of an Index. Once set, target weights are free to float due to market movement. Weights are reviewed and the Index rebalanced according to the rules described on page 5.

Reinvestment

Market values of coupon payments, matured and called proceeds (including any accrued interest paid in connection with the redemption of the bond) are deemed reinvested as of the payment date in 13-week U.S. Treasury Bills until the next Index rebalance. In the maturing year, all reinvestments will remain in the U.S. Treasury Bill until the termination of the Index. In the last two months of the maturing year, the U.S. Treasury Bill that matures soonest after year end will be used.

¹ Western Europe here includes: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and United Kingdom.

Updates

Index Reconstitution and Rebalancing

Prior to the maturing year of an Index, the Index is reconstituted on a semi-annual basis on the last calendar day of June and December and rebalanced monthly on the last calendar day of each month.

During Index reconstitution, each Nasdaq BulletShares® USD High Yield Corporate Bond Index is reconstituted to reflect changes in the eligible universe, as well as changes in the deemed effective maturities of callable bonds as determined by the processes set forth above. Migration of bonds between Indexes resulting from effective maturity changes is limited to turnover of 20% market value of each Index following the process below:

- For existing bonds in the eligible universe, locate those whose effective maturities changed.
- Rank these bonds by the percentage difference between yield to next call date (YTNC) and yield to maturity (YTM) in descending order.
- Starting from the bond with the largest percentage difference between YTNC and YTM, move the bond from the old Index to the new Index, while recording the market value of bonds moved out of and into each Index.
- If the old Index already has 20% market value moved out or the new Index already has 20% market value moved in, the bond will stay in the original Index.

During Index rebalance, each Index is rebalanced to reflect the current relative market values of its constituents and to incorporate any new bonds in the eligible universe that qualify for inclusion in accordance with the effective maturity process described above. Existing bonds deleted because of price, face value or credit rating changes will be excluded for the next three monthly rebalances (including the current rebalance) regardless of any further changes in price, face value or credit ratings.

During the maturing year of an Index, there is no reconstitution. The portfolio of bonds established in connection with the reconstitution at previous year end will be fixed for the remainder of the life of the Index. The Index's constituents are set to float due to market value changes and are no longer rebalanced on a monthly basis. If the originally assigned effective maturity date has passed and no call announcement is made, the bond's effective maturity date will be reassessed and the bond will be reassigned at the next monthly rebalancing.

Index Termination

Any remaining bonds or US Treasury Security in a Nasdaq BulletShares® USD High Yield Corporate Bond Index as of the end of the Index's year of maturity are valued as of the close of business on the last business day of December in the Index's designated year of maturity, and the Index is terminated as of December 31st, whether or not such date is the last business day.

Calculation Agent

The calculation agent for the Index (“the Calculator”) is Nasdaq. The Calculator is responsible for gathering securities information for the eligible universe and applying the Nasdaq BulletShares® USD High Yield Corporate Bond Index methodology to create individual Indexes. The Calculator is also responsible for determining an evaluated price for each security in the Indexes and for compiling, calculating, maintaining, and disseminating the values of the Indexes.

Index Key Dates

The key dates surrounding each rebalance are outlined in the table below. The Index Review Team (see Governance on page 7) may change these dates for reasons including market holidays. Any such changes will be publicly announced with as much advance notice as possible under the circumstances. All events take place after the close.

Event	Day	Description
Reference Date	The 15 th calendar day of the month, or the first business day prior to the 15 th day	Data is captured for Index construction
Announcement Date	Six business days before the last calendar day of the month	Upcoming changes to the Index constituent list will be made publicly available
Pro-Forma Date	Five business days before the last calendar day of the month	Preliminary Index weights begin to be distributed to Index subscribers
Effective Date	Calendar month-end, whether or not the date is also a business day	Rebalanced Index weights are finalized

Index Policy

Changes to Index Methodology

Best efforts are made to announce any changes to Index methodology well ahead of time via the Invesco Indexing website and via email to all Index clients.

Holiday Schedule

The Index is calculated daily, throughout the calendar year. The Index follows the holiday schedule outlined by the Securities Industry and Financial Markets Association (SIFMA).

Governance

The Index is managed by the Index Review Team (IRT). The IRT consists solely of members of Invesco Indexing. The IRT meets at least annually to review and revise Index methodology described in this document as appropriate. The IRT meets at least monthly to review additions and deletions to the Index. All potential monthly changes to the Index are subject to the approval of the IRT, and the IRT may adjust the Index at its discretion when such changes are reasonable.

Return Types and Tickers

The Calculator computes the total return for the Index on a daily basis.

Index Name	Bloomberg Ticker
Nasdaq BulletShares® USD High Yield Corporate Bond 2018 Index	BSJKI
Nasdaq BulletShares® USD High Yield Corporate Bond 2019 Index	BSJKJ
Nasdaq BulletShares® USD High Yield Corporate Bond 2020 Index	BSJKK
Nasdaq BulletShares® USD High Yield Corporate Bond 2021 Index	BSJKL
Nasdaq BulletShares® USD High Yield Corporate Bond 2022 Index	BSJKM
Nasdaq BulletShares® USD High Yield Corporate Bond 2023 Index	BSJKN
Nasdaq BulletShares® USD High Yield Corporate Bond 2024 Index	BSJKO
Nasdaq BulletShares® USD High Yield Corporate Bond 2025 Index	BSJKP
Nasdaq BulletShares® USD High Yield Corporate Bond 2026 Index	BSJKQ
Nasdaq BulletShares® USD High Yield Corporate Bond 2027 Index	BSJKR
Nasdaq BulletShares® USD High Yield Corporate Bond 2027 Index	BSJKS

Index Information and Data Dissemination

Data Vendors

Daily index levels are available from major quote vendors and at www.invescoindexing.com.

FTP

Daily constituent data and Index level data are available via the Invesco Indexing secure FTP site for index subscribers. Please contact Invesco Indexing customer service at indexsupport@invesco.com for more information.

File Types

The Invesco Indexing secure FTP site for index subscribers will distribute the standard overnight index files from the Calculator. These include:

File Description	File Extension
Index Levels	yyyymmdd_IW38_ticker_VFI2EOD_01.txt
Constituent Details	yyyymmdd_IW38_ticker_WFI2EOD_01.txt
Constituent Details Pro-Forma	yyyymmdd_IW38_ticker_PROFI_01.txt

Website

Index information is available on the Invesco Indexing website at www.invescoindexing.com.

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Indexes are unmanaged and it is not possible to invest directly in an index. Exposure to an asset class or trading strategy represented by an index is only available through investable instruments (if any) based on that index. Invesco Indexing LLC does not issue, sponsor, endorse, market, offer, review or otherwise express any opinion regarding any fund, derivative or other security, financial product or trading strategy that is based on, linked to or seeks to track the performance of any Invesco Indexing LLC index.

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