NYSE 7-10 Year Treasury Bond Index (AXSVTN)

The NYSE 7-10 Year Treasury Bond Index (AXSVTN) is a multiple-security fixed income index that aims to track the total returns of the intermediate 7 to 10 year maturity range of the U.S. Treasury bond market. The index constituent bonds are weighted by their relative amounts outstanding:

As of September 1, 2015, the index methodology was updated to perform float adjustments to each bond's amount outstanding. These adjustments accounted for any purchases and sales of the relevant bond within Federal Reserve open market operations, as of the latest System Open Market Account (SOMA) Holdings Report released by the Federal Reserve Bank of New York on the rebalance determination date. The adjustments also took into account any issuance or reissuance of a bond that was bought by the Federal Reserve in an auction.

The index divisor was determined to yield a benchmark value of 1000.00 at the close of trading on December 29, 2006. In order to be eligible for inclusion in the index, a bond must meet the following requirements:

- Must be issued by the U.S. Treasury Department
- Must have a time to maturity of 7-10 years
- Must be U.S.-dollar denominated
- Must be either a callable or non-callable (bullet) issue
- Must have a fixed, non-zero coupon
- Must not be classified as belonging to the TIPS or STRIPS universes (Treasury Inflation-Protected Securities / Separate Trading of Registered Interest and Principal Securities)

The index is calculated and published to the consolidated tape every 15 seconds from approximately 8:00 AM thru 4:30 PM EST on days on which the U.S. markets are open for trading. Midpoint prices representing the average of the bonds' bid and ask are applied in the intraday calculation of the index.

At the end of each trading day, a closing price is derived for each US Treasury bond contained in the index. This price represents the fair value bid of each bond as of 4 PM EST. On days when the U.S. equity markets close early, the bond prices are derived at the closing time of the New York Stock Exchange, or 1 PM EST. On days when the U.S. bond market has a suggested early close as determined by SIFMA, the bond prices are derived at the suggested close of 2 PM EST. The index is not calculated or published on days on which the U.S. bond market is closed for trading as per SIFMA's recommendations. An official index close is calculated and published each trading day that utilizes these fair value bond prices.

The calculation of the current index level including the official closing price is derived as follows:

$$Index\ Value = \frac{\sum\limits_{Bond=1}^{X}\left[(P_{Bond} \times O_{Bond}) + AI_{Bond} + CR_{Bond}\right]}{Index\ Divisor}$$

where:

P_{Bond}	= Price of the bond ["Clean price"; quoted without accrued interest]
O_{Bond}	= Amount outstanding of the bond as of the last rebalance date [Float-Adjusted]
AI_{Bond}	= Total accrued interest on the index bond since last coupon payment
CR_{Bond}	= Coupon payments received for the index bond since the last rebalancing
Bond=1	= Calculation performed for first bond in the index
X	= Number of bonds in the index; Calculation is performed for each bond in the index

Accrued interest and coupon payments that are earned or received during the month from all of the bonds are accounted for within the index through separate cash components. Accrued interest is calculated for the bonds within the index using the standard U.S. Treasury actual/actual day count method. In addition, the accrued interest for the bonds reflects the accepted convention of calculating accrued interest up to and including the settlement date (T+1 business days for U.S. Treasuries, where T is the current day of index calculation):

$$Accrued\ Interest = \left(\frac{CPN}{P_{Freq}}\right) \times \left[\frac{(ST_{Date} - PD_{Prev})}{(PD_{Next} - PD_{Prev})}\right] \times (FVAL_{Bond})$$

where:

CPN	= Coupon of the bond
P_{Freq}	= Frequency of coupon payments on the bond per year
ST_{Date}	= Settlement date of the calculation [T+1 business days; T = Current day of index calculation]
PD_{Prev}	= Previous payment date of the bond coupon
PD_{Next}	= Next payment date of the bond coupon
$FVAL_{Bond}$	= Face value of the bond

If any coupon payments are paid by the index bonds during the month, they are held in the index until the next rebalance date, at which time they will be reinvested back into the new index composition. The coupon payments that are received for the index's constituent bonds are not revinvested at any short-term cash rate.

The index rebalances effective after the close of the last business day of each month. The monthly rebalance is designed to include all qualified issues in a fixed set of bonds utilized for

pricing the index in the following month. All existing index bonds that no longer qualify for inclusion are dropped at that time. The weighting of the bonds within the index is reset during the rebalance to represent each issue's market value based off of its float-adjusted amount outstanding. In addition, any coupons for existing issues in the index paid out during the month ended will be reinvested back into the index.

The post-rebalance composition is determined and publicly announced after the close of the third to last business day of each month. At that time, all securities in the relevant universe are screened for the requirements listed above and the new set of bonds to be included in the index along with their corresponding float-adjusted amounts outstanding are determined and announced to the public. All new bonds to be included in the next month's index composition must settle on or before the last business day of the current month.

During most rebalances, the total market value of the new post-rebalance index composition will not match the total market value of the old pre-rebalance index composition. Therefore, the divisor for the index will adjust during a rebalance in order to keep the index current value constant from the close of the last business day of the month and the open of the first business day of the following month. The divisor adjustment is designed so that the change in index composition from the old to new set of bonds with their corresponding float-adjusted amounts outstanding do not have any impact on the index level via an increase or decrease in the total index market value:

$$DIV_{New} = \frac{TMV_{NewComp}}{LEV_{Close}}$$

where:

DIV_{New} = New Divisor to be utilized in the next month's index calculation (post-rebalance)

$TMV_{NewComp}$ = Total Index Market Value of the post-rebalance new index composition utilizing bond prices and accrued interest as of the last business day of the month

LEV_{Close} = Exact Index Level/Close as of the last business day of the month

All index constituent changes use standard settlement conventions. As a result, any issues being deleted are removed at a "dirty price" equal to its quoted "clean price" plus accrued interest up to the T+1 settlement date, where T is equal to the current index calculation day. Similarly, a new bond issue is added into the index at a "dirty price" equal to its quoted "clean price" plus accrued interest up to the T+1 settlement date. In the post-rebalance index composition, each new bond's "clean price" is utilized along with its determined float-adjusted bond amount outstanding in the calculation of its index market value. All of the accrued interest for the new bond issues is added into the index as cash.

Index Governance

The NYSE Arca® Index Committee (the "Index Committee") is responsible for the day-to-day management of the Index. The Index Committee reviews all rule book modifications and Index constituent changes to ensure that they are made objectively and without bias. NYSE Arca® believes that information regarding rule book modifications and Index constituent changes is material and can have an impact on the market. Consequently, all Index Committee discussions and decisions are confidential. The NYSE Arca® Index Committee will be comprised of a selected group of NYSE Group, Inc. employees.