

# **G-sec STRIPS Valuation Methodology document July 2025**

## STRIPS Overview:

STRIPS stands for Separate Trading of Registered Interest and Principal of Securities. STRIPS are created by separating a standard coupon-bearing government bond into its individual coupon and principal components, which can be sold/purchased/traded separately. STRIPS are essentially zero-coupon government securities.

Valuation requires estimating the zero-rate corresponding to the respective maturity of the STRIP. Zero rate curve is constructed based on government securities valuations as done by NSE Data & Analytics. Please refer the below mentioned link for detailed methodology of government securities valuation.

<https://www.nseindia.com/nse-data-and-analytics/nse-fixed-income-valuations>

## Valuation Methodology to determine price and yield of G-sec STRIPS:

### Step 1: Deriving yield curve for standard maturities

Based on the government securities yields of outstanding maturities, the yield curve is derived by linear regression for all standard maturities.

### Step 2: Bootstrapping and calculating the zero yield curve

- Treating the above yield curve as par curve, it is bootstrapped to arrive at the Zero yield curve.

### Step 3: Determining the yields for G-Sec STRIPS

- Based on the residual maturity of each STRIP, the zero yield is estimated by linear regression of the Zero yield curve.

### Step 4: Price Computation for STRIPS

- After determining zero yield, price is computed for each ISIN by discounting their face values.

### Step 5: Quality Check

- Valuation is reviewed by secondary analyst.

## Illustrative Example

Consider an ISIN with 10<sup>th</sup> October 2024 as maturity and settlement date 7<sup>th</sup> November 2022.

Based on the yields of outstanding maturities of the government securities, the yield curve is derived by linear regression for all standard maturities. Treating the above yield curve as par curve, it is bootstrapped to arrive at the Zero yield curve. Consider the dummy zero yields mentioned below for illustrative purposes.

<b>Residual Maturity (in years)</b>	<b>Dummy Zero Yield (As on 7<sup>th</sup> November 2022)</b>
1.5	5%
2	5.50%

We estimate the yield of 5.40 % for the ISIN by performing linear regression on the Zero yield curve based on the residual maturity of the ISIN. Post which, the price is computed by discounting the face value.

## Exceptions Policy

Following may be deviations in the valuation approach:

- Change in approach to incorporate market specific changes or information

These deviations are typical, but not restricted to below days:

- Quarter/year ends
- Macro-economic data release dates
- Budgetary announcement dates
- Days with high volatility in the market
- Policy announcement dates like monetary policy by RBI

## Committee Policy

NSE Data & Analytics has constituted two committees as mentioned below:

- Bond Valuation Advisory Committee: To provide guidance on macro issues pertaining to fixed income valuations.
- Bond Valuation Oversight Committee: To oversee the operational guidelines for bond valuation, approve changes to the valuation criteria and approve any exceptions.
- Details of the committee members of these two committees are available on the NSE website on the following link. <https://www.nseindia.com/nse-data-and-analytics/committees>

## Disclosure of Changes to the Methodology

NSE Data & Analytics Limited shall endeavor to give a notice of at least 15 days, prior to any amendment to the above methodology. Where giving such notice is not practical, the same shall be done on shorter notice with the committee's approval.

## Error Handling

In principle the valuations are recalculated whenever errors occur. However, where the correction of a historical error would lead to difficulties for users or investors, the committee retains the right to override the correction. Users of the valuations are notified through appropriate channel of communication of both corrections and decisions to protect investors by not correcting an error.