

# **STRIPS valuation**

## Methodology

## **Background:**

CRISIL Funds and Fixed Income Research provides valuation for client requested STRIPS on Government securities to subscribers on a daily basis. This methodology document covers the valuation methodology, maker checker process, policy for exceptions and governance structure.

## **STRIPS Overview:**

Separate Trading of Registered Interest and Principal Securities (STRIPS) are government bonds, whose interest and principal component have been split/separated/stripped; which can be resold separately as zero coupon bonds.

### **Features and Characteristics**

- The STRIPS prices are based on zero rates derived using reference benchmark rates from 'CRISIL Gilt Valuation', which contains prices for dated outstanding government securities and is used by mutual funds and insurance companies to generate the Net Asset Value of their schemes on a daily basis.
- The two key inputs used for STRIPS valuations are:
  - CRISIL benchmark rates across tenors as per "CRISIL Gilt Valuation"
  - Zero coupon rates

## **Valuation Methodology**

STRIPS, being zero coupon securities, trade at a discount and are redeemed at face value. Thus, STRIPS have to be valued and accounted for as Zero Coupon Bonds (ZCBs).

While valuing STRIPS market trades are not considered because of lower volumes and trades reported at same levels across curve. Methodology used for valuation is stated below:

- Plot G-sec benchmarks and their yields
- Interpolate G-sec yields for tenors where benchmarks are not available
- Bootstrap the curve to arrive at zero rates
- Interpolate zero rate curve for more granular tenors
- Calculate the applicable zero rate as per the residual tenor of each STRIP
- Discount the face value by zero rate to arrive at the price of the STRIP

### **Bootstrapping:**

Bootstrapping is a method for constructing a (zero-coupon) fixed-income yield curve from the prices of a set of coupon-bearing products.

## Policy for exceptions

- Valuation approach may see following deviations:
  - Priority to market polls over trades
  - Approach change to incorporate security specific/market dynamics
  - Any other necessary steps based on CRISIL's valuation committee's discussion
- Exceptional days include but are not limited to:
  - Monetary Policies
  - Annual Budget
  - Quarter end days
  - Policy announcements
  - Macro-Economic data release days
  - Any day with high volatility

## Governance mechanism

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- **Criteria Committee:** Valuation policy and any changes to such policies are discussed with the committee and are incorporated post approval by the committee.
- **Valuation Committee:** Matters pertaining to exceptions, are discussed with valuation committee and acted upon based on its feedback. Exceptions may include any methodology changes, regulatory changes, market events impacting yields ,etc.

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