

CP and CD valuation
Methodology document
July 2024

Valuation Methodology to determine security level valuation:

Step 1: Same security – Trade (Ex-Outliers)

· We consider trade data from the reporting platform – CCIL (FTrac). The traded volume should be a minimum of Rs.25 crores. T+1 settlement is given priority over T+0 settlement. VWAY is considered.

Step 2: Same security – Quotes (Ex-Outliers)

· Two-way quotes are collected from market participants and considered for securities that are not traded or for trades that are considered as an outlier.

Step 3: Same Issuer Similar Maturity – Trade (Ex-Outliers)

· The trades of same issuer with similar maturity are considered. In case there are multiple trades, average of all traded securities of same issuer and similar maturity is considered

Step 4: Same Issuer Similar Maturity – Quotes (Ex-Outliers)

· Two-way quotes of same issuer with similar maturity are considered. In case there are multiple quotes, average of the quotes is considered

Step 5: Same Issuer Similar Maturity – Primary issuance (Ex-Outliers)

· In case of no information on trade and two-way quotes, primary issuance yields by the same issuer of similar maturity are used for valuation. The primary issuance data is collected from the reporting platform – CCIL (Ftrac)

Step 6: Similar Issuer Similar Maturity – Trade/Quote/Primary issuance (Ex-Outliers)

· If there are multiple trades/quotes/primary issuance reported for similar issuer, average of all traded/quoted/issued securities (as the case may be) of similar issuer and maturity is considered

Step 7: Issuer /sector/market specific changes or information

· Any issuer/sector/market specific changes like credit rating changes are considered.

Step 8: Matrix Movement

· If there is no availability of traded data, two-way quotes, primary issuance data, same issuer with similar maturity data points and similar issuer with similar maturity data points, then matrix movement for specific sector with same bucket is used for yield estimation.

For matrix computation, benchmark issuers are identified for each sector. Movement in these benchmark issuers according to the trade/quotes/primary issuance is considered for computing the matrix.

Step 9: Quality Check

· Valuation is reviewed by secondary analyst.

Step 10: Price Computation

· After performing estimation of yield, security level clean price, accrued interest, dirty price, modified duration, mac duration and convexity are calculated using the tool.

Exceptions Policy

Following may be deviations in the valuation approach:

- Giving priority to two-way quotes over trades
- Giving priority to LTY over WAY
- Change in approach to incorporate issuer specific/sector specific/market specific changes or information
- Considering odd lots for yield estimation
- Giving priority to one trade/quote/primary issuance over others

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.

Illustrative Example

Consider for a March 2025 maturity ISIN, 7.67% is the VWAY of trades reported on CCIL (FTrac) with a traded volume of a minimum of Rs.25 crores. Now, if for the same ISIN, a two-way quote with a mid-point of 7.68% was received, then as per the methodology, the trade will get preference over the quote, unless the trade is considered as an outlier.

Once the yield is estimated, in the above example, 7.67% being the VWAY, security level clean price, accrued interest, dirty price, modified duration, Macaulay's duration and convexity are calculated using the tool.

If in another scenario, there is no availability of trade data, two-way quotes, primary issuance data, same issuer with similar maturity data points and similar issuer with similar maturity data points, then matrix movement for specific sector with same bucket is used for yield estimation. Let's say yesterday's yield level for the ISIN was 7.65% and the movement is 0.02 in March 2025 bucket in same sector, accordingly today's yield of the ISIN will be 7.67%.