FIMMDA
Nurturing Markets, Widening Horizons

20 YEARS OF SERVICE

FIMCIR/2018-19/14

07th August 2018

Dear All,

Re: Corporate Bond – Publication of daily Security Level Valuation (SLV) -on trial basis.

For valuation of corporate bonds, FIMMDA is publishing the daily spread matrix w.e.f. 16th April 2018. The users are required to add the spreads to the G-sec par yield for a corresponding maturity and arrive at the yield of a security to be valued. The yield is converted into price using XIRR calculations. The valuation based on segment wise/rating wise/tenor wise spread matrix was not reflecting the value of certain securities correctly.

After studying the trade data for about three years, back testing the model yields with the actual traded yields and discussing with the market participants, FIMMDA evolved a methodology for publishing security level valuation on a daily basis. The methodology as approved by the core committee for valuation of corporate bonds and FIMMDA board is separately placed on FIMMDA website.

As decided in the valuation committee meeting held on 01st August 2018, the SLV from 31st March 2018 to 31st May 2018 is placed on FIMMDA website for testing purpose. SLV for June and July 2018 will be published in the current week and from next week the SLV will be published on daily basis.

Market participants are requested to study the SLV, compare the yields with the security's traded yield or yield as per spread matrix and if deviation is observed the same may kindly be brought to our notice.

FIMMDA will keep reviewing the methodology continuously based on further studies and feedback received from the market participants.

Yours truly,

D.V.S.S.V. Prasad
Chief Executive Officer

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ANNEXURE

Corporate Bond - Methodology for daily Security Level Valuation (SLV)

(Version 07th Aug 2018)

As per the requirement/request of members, FIMMDA undertook the process to publish Security level Valuations. For this purpose, the trade data was collated for about three years, and back testing of the model yields with the actual traded yields was done. The differences, causes, remedial measures were discussed with the market participants and based on these inputs, FIMMDA evolved a methodology for publishing security level valuation on a daily basis. The methodology as approved by the core committee for valuation of corporate bonds and FIMMDA board is as under:-

1) To start with, for each ISIN the traded yield / interpolated yield from the yield matrix as of 29th December 2017 is taken (previous day yield).
2) **Market yield change** is added to the previous day yield to arrive at the current day (1st Jan 2018 in this example) model yield for each ISIN.
3) **Market yield change** is calculated by following the process as described below:
    i. All individual trades reported to the exchanges (NSE, BSE, MSE) are obtained from the Exchanges. Trades above Rs.5 Cr and trades in OTC market (secondary as well as primary) are only considered. Trades in odd lots and IST trades are ignored.
    ii. The yields reported to the exchanges are cross checked by calculating yields afresh using the cash flow details prepared for each ISIN.
    iii. Trades falling one Standard Deviation away from the median are removed as outliers provided the standard deviation is more than 0.15.
    iv. For all the traded ISINs, the volume weighted average yield and price (VWAY/VWAP) are calculated after identifying and removing the outlier trades, if any.
    v. Market yield change in respect of short (1-3 yrs)/medium (3-7yrs)/long (more than 7 yrs) tenor bonds issued by the selected issuers (based on frequency of trading and homogeneity of yields during the past 6 month period) in PSU (PFC, REC, PGC, EXIM, IRFC, NHPC and NTPC) and NBFC (LIC Hsg and HDFC) segments is calculated by comparing the median traded yield as of any trading day with that of immediately preceding trading day. The difference (+/-) is considered as hardening/ softening of yield as of that day as compared to the immediately preceding trading day.
    vi. But, before calculating the median traded yield, outlier ISINs, if any, are statistically identified and removed. Outlier ISINs are those whose yields lie outside one standard deviation provided the standard deviation is more than 0.15.

4) The calculated model yield is replaced with the traded yield if the ISIN is traded on current day.
5) To rule out the possibility of any off-market level trade, filters are applied to the traded yields.
6) The first filter is deviation of the traded yield from the model yield. Traded yield should be within 3% of the model yield. (3% is chosen as it gave the highest matching in back testing. The percentage can be periodically reviewed and changed, if needed).
7) The second filter is the deviation of the traded yield from the ISIN's previous traded yield. The traded yield may be deviating from the model yield by more than 3%; but if the traded yield is within 2% of the ISIN's previous traded yield, then the traded yield is considered to have passed the filter criteria and it shall replace the model yield. (For this purpose, last 24 months traded data were fed into the system).

8) The above two filter criteria and the percentages are the result of extensive research.

9) **The model/traded yield of current day for each ISIN is its yield for valuation**.

10) If the market participants are comfortable with the security level yield, they can use the yield. If they want security level prices, FIMMDA can convert the yield into price by using the cash flow details available with FIMMDA.

11) A software program has been developed to carry out the above steps with least manual intervention.

We will continue the back testing with actual traded yields and necessary modifications will be carried out in consultation with the market participants.

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