



*Nurturing Markets,  
Widening Horizons*

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FIMCIR/2018-19/038

Date: 29 March 2019.

To

ALL FIMMDA MEMBERS

Dear All,

Re: VALUATION OF INVESTMENTS as at 31st March 2019.

In accordance with the RBI instructions, as enshrined in their Master Circular No. DBR No BP.BC.6 /21.04.141/2015-16, dated 1st July, 2015 as amended from time to time, FIMMDA jointly with PDAI publishes prices/ rates for valuation of government securities, bonds, debentures and swaps. FIMMDA also issues guidelines / clarifications at periodical intervals in respect of the methodology to be followed for valuation.

Enclosed is the updated version of the guidelines.



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

## ANNEXURE

### GUIDELINES / CLARIFICATIONS FOR VALUATION OF INVESTMENTS

The market participants should ensure that the valuation of their investment portfolio is in accordance with the directions / guidelines / circulars issued by the Reserve Bank of India both for Banks and Primary dealers with particular reference to:

- i. RBI Master Circular- Prudential norms for classification, valuation, and operation of investment portfolio by banks dated July 1, 2015 as amended up to date.
- ii. Master Direction – Operational Guidelines for Primary Dealers (Updated as on November 22, 2018)

### 1.0 VALUATION OF GOVERNMENT SECURITIES

#### 1.1 Central Government Securities:

All Central Government securities which qualify for SLR as well as which do not qualify for SLR will be valued as per prices (yields) published by FBIL (FIMMDA is the calculating agent).

#### 1.2 State Government Securities:

FBIL publishes the prices and yields for all the State Government Securities calculated in accordance with “para 3.6.2 of RBI Master Circular for banks dated July 1, 2015”. This will remain in force till 12th April 2019. FIMMDA is the calculating agent.

The methodology is revised with RBI’s approval by FBIL and is scheduled to be implemented wef 15<sup>th</sup> April 2019. The methodology document will be placed on the websites of FBIL and FIMMDA. FIMMDA is the calculating agent.

#### 1.3 Treasury Bills:

**For Banks and Bank PDs:** Treasury Bills will be valued at carrying cost. [Para 3.6.1 (ii) of RBI Master Circular for banks dated July 01, 2015 and Section II, Para 3.8 of Master Circular for PD’s dated July 01, 2015]

**For Standalone Primary Dealers:** All securities in AFS and HFT will be valued on mark to market basis. FBIL publishes T-Bill yield curve. Traded T-Bills be valued at traded prices; (Minimum Rs. 5 Crs. on the same day) non-traded T-Bills be valued at yields interpolated from T-Bill curve published by FBIL.

#### 1.4 Floating Rate Bonds (Issued by Central Government):

These rates are published by FBIL with FIMMDA as the calculating agent.

When traded, traded price is to be used for valuation; when not traded MOT (Market observable and Tradable) price, if available, will be taken; and in the absence of above,

the model prices are generated as per procedure appearing on FIMMDA's website (under Homepage: /G-sec & Valuations:/Valuation of FRBs). The desired spread added is illiquidity spread, as the coupon is that of short term T-Bill whereas the bond is to be held for longer tenor. The desired spreads are determined based on polls conducted once in a fortnight. The submitters identified by FIMMDA will submit the polls. The outliers (two STD Deviation) will be eliminated and a simple average of the remaining polls will be taken for consideration as the spread for the FRB concerned.

### **1.5 Inflation Indexed Bonds:**

These rates are published by FBIL with FIMMDA as the calculating agent. When traded, traded price is to be used for valuation; when not traded, model prices are generated as per detailed valuation methodology available on FIMMDA's website (under Homepage: /G-sec valuations /Inflation Indexed Bonds). The model price (Real Clean Price) is multiplied by Inflation Index Ratio and Nominal Clean Price is calculated and published.

### **1.6 Other SLR bonds / securities:**

Other eligible SLR bonds will be valued as per Para 3.6.3 of RBI Master Circular by adding 25 bps to the Base Yield curve.

### **1.7 Special Securities issued by Govt. of India:**

Special Securities like Oil Bond, Fertilizer Bond, etc issued by Govt. of India will be valued as per Para 3.7.1 of RBI Master Circular by adding 25 bps to the Base Yield curve.

## **2.0 Valuation of Non-SLR Bonds:**

### **A) Traded Bonds:**

As per RBI Master Circular – Prudential Norms for Classification and Operation of Investment Portfolio by Banks dated July 1 2015, “where the debentures/ bonds are quoted and there have been transactions within 15 days prior to the valuation date, the value adopted should not be higher than the rate at which the transaction is recorded on the stock exchange”.

Explanation: The traded price is to be used for valuation of those traded bonds traded in the last 15 calendar days. For this purpose, the volume weighted average price (VWAP) is considered. When a bond is traded on more than one exchange or OTC trades in a bond are reported to more than one exchange the VWAP of all the exchanges is considered. If a bond is traded on more than one day in the last 15 calendar days, the latest VWAP is considered. Bonds traded in the last 15 calendar days (with a minimum of Rs. 5 Cr on any day) only are considered.

**FIMMDA's role for providing traded prices** (in compliance of the RBI guideline)  
In order to obviate the need to refer to websites of different Exchanges, FIMMDA consolidates and puts up the following traded data on its website on daily basis.

- i) On the working day next to the last trading day Corporate Bond Trades during the last 15 calendar days (Including probable Failed Trades but excluding Inter Scheme Transfer deals done by MFs)" are given.
- ii) This is a provisional sheet showing the volume weighted average price and volume weighted average yield of a bond traded and reported on the Reporting Platforms of NSE (CBRICS), BSE (ICDM) and MCX SX-FIRST.
- iii) As decided in the valuation committee meeting held on 01.01.2017 FIMMDA is publishing primary issuance data along with the secondary market trades with a separate remark as 'secondary/primary' for valuation purpose.
- iv) If a bond is traded more than one day during the last 15 calendar days, then the data pertaining to the latest trades are only given.
- v) This sheet consolidates all trades in the individual bonds (whether the settlement is T+0, T+1 or T+2) reported on platforms of all three Exchanges.
- vi) On the third working day after the last trading day, when the fate of T+2 trades will also be known, "Corporate Bond Trades during the last 15 calendar days (Excluding failed trades and Inter Scheme Transfer deals done by MFs)" are given.

This is the final sheet showing the volume weighted average price and volume weighted average yield of a bond traded, reported and settled. Since failed trades and trades which were not finally settled cannot be considered as "trades" only the second sheet is to be referred to for Valuation purpose.

#### **B) NON- TRADED BONDS- RATED:**

As per RBI guidelines, all non-traded debentures / bonds should be valued on the YTM basis. Such debentures / bonds may be of different companies having different ratings. These will be valued with appropriate mark-up over the YTM rates for Central Government Securities as put out by PDAI / FIMMDA / FBIL periodically. The mark-up will be graded according to the ratings assigned to the debentures / bonds by the rating agencies subject to the following: -

- (a) The rate used for the YTM for rated debentures / bonds should be at least 50 basis points above the rate applicable to a Government of India loan of equivalent maturity.

#### **CORPORATE BOND SPREAD MATRIX METHODOLOGY:**

The methodology used for arriving at Corporate Bond spread Matrix is as under:-

- 1) Yield is an important input for valuation. Publication of daily yield matrix will

be preferable for valuation of corporate bonds on a daily basis. Since polling is done only once in a fortnight for construction of matrix polls in terms of yields are converted into spreads over G-sec yields and published. Publication of matrix in terms of spreads enables daily valuation.

2) Yield matrix is constructed as a first step. By subtracting the corresponding G-Sec annualized par yield, the spread matrix is constructed.

3) **Construction of Yield Matrix:**

For Yield Matrix construction the bonds are grouped into the following three major industry segments;

- i) PSU, FIs & Banks
- ii) NBFCs
- iii) Corporates

4) For each segment yields for the following ratings are polled / arrived at:

Ratings: AAA, AA+, AA, AA-, A+, A, A-, BBB+, BBB and BBB-.

- Where a security has two or more different ratings from different rating agencies, the lowest of the ratings shall be considered for valuation purposes.
- A rating is considered as valid only if it is not more than 12 months old as on the date of valuation.

5) For each segment/rating the yields for the following maturities are polled / arrived at:

Maturities: 0.5, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 15 years.

6) Yield matrix is constructed by using the polls received from FIMMDA's identified submitters.

7) **Procedure for obtaining polls:**

a) Identification of submitters: The submitters are identified by FIMMDA based on their secondary market volume. It is ensured that different segments of the market are given due representation in the polling. At present there are 21 identified submitters consisting of PSU, Private and Foreign banks and Primary Dealers.

b) Identification of representative issuers: On the last trading day of a month, FIMMDA will circulate the traded data of all bonds (excluding AT1) during the month (eg.31.07.2017 to 30.08.2017) to the identified submitters (Pollers) and ask them to identify a representative issuer in each segment and rating (AAA, AA+, AA and AA-). 'SO' rated bonds will not be selected as representative issuers. The list of identified issuers is discussed in the monthly valuation committee meeting and got approved with modifications, if any.

Example:

Rating	Segments	Issuers
AAA	PSU/FI/Banks	NABARD and PGC
AAA	NBFCs	HDFC and LIC Housing Finance

AAA	Corporates	Reliance Industries
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c) One day prior to polling on each fortnight / month, FIMMDA will circulate the traded data of all bonds of the fortnight/month along with the names of the identified representative issuers which could, subject to the individual submitter's policy, be used as a reference issuer/bond for polling in that segment and rating. If the representative issuer is not identified, then the submitters will continue to poll as per their expert judgment/internal policy.

d) Submissions from the identified submitters are web based (FIMMDA website) and the data are analyzed through Straight Through Processing (STP). Outliers in each segment/rating/tenor are removed using median and two standard deviation method. That is, any poll/s which is/are away from the median value by two standard deviation (2SD) is/are removed as outlier/s. After the removal of the outlier/s, the median is taken as the representative value.

e) Yield matrix is for 0.5, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 15 years. However, the submitters are required to poll only for the 1 yr., 3 yr., 5 yr. and 10 yr. tenors for NBFC & Corporate segments and 1 yr., 3 yr., 5 yr., 7 yr., 10 yr. and 15 yr. tenors for PSU/FI/ Banks segment. For 0.5 yr. tenor, the yields polled for 1 year tenor less 50 bps (to be reviewed every quarter) are used. For 15 yr. tenor in NBFC & Corporate segments the yield is arrived at by extrapolation method. For intermediate tenors, the yields are arrived at by linear interpolation.

f) Similarly, the submitters are required to poll only for AAA, AA+, AA, and AA- ratings. For ratings below AA-, a different methodology is used as explained elsewhere.

8) Replacing the polled yields in the matrix by traded yields:

Traded yields should be always given priority over polled yields.

- 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 are only considered. Trades in odd lots and IST trades are ignored.
- ii. 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.
- iii. Outlier trades are those whose yields lie outside one standard deviation provided 1 standard deviation is 0.15 or more. If the standard deviation is less than 0.15 no outlier is removed.
- iv. The yields reported to the exchanges are cross checked by calculating yields afresh using the VWAP and cash flow details prepared for each ISIN.

The volume weighted average yields (VWAY) of bonds issued by representative issuers are considered.

A band of +/- 0.50 year around the data point in the matrix is used for considering traded securities. For eg. Trades in securities with residual maturity from 0.51 year to 1.50 year will be considered as 1.00 year segment, 1.51 years to 2.50 years as 2 year segment, etc.

While replacing the polled yields with the traded yields, the traded yields fulfilling certain filter criteria only should be considered and not the outlier trades because that will distort the yield matrix.

- A. Filter criteria for recognizing traded yields:
  - a) Bonds having call / put options, though issued by the representative issuer will not be considered for replacement.
  - b) The traded yields will be considered if the difference between the traded yield and polled yield is less than or equal to 15 bps.
  - c) If the difference between the traded yield and polled yield is 16 to 24 bps, the same will be considered provided number of trades in the particular ISIN is at least 3 and the volume Rs. 50 Crs.
- B. Outlier traded yields: - A traded yield will be considered as outlier if the difference between the traded yield and the polled yield is 25 bps or more.
- C. In order to facilitate identification of outlier trades as mentioned above, the yield matrix will be first constructed using polled yields and interpolated yields for in between tenors for which polls are not taken and then the polled / interpolated yields will be replaced by the traded yields after fulfilling above criteria.
- D. while replacing polled yields with traded yields in 0.5 yr. tenor, trades of securities with less than 3 months residual tenor are to be ignored and for other securities the traded yields are to replace polled ones even if the difference is more than 25 bps (for 0.5 yr. tenor only).
- E. Identification of outlier trades and ignoring them is only for matrix construction. For valuing the traded ISIN, the traded price will be used as per RBI guidelines.
- F. The traded yields of the bond issued by the representative issuers will replace the polled yields. For this purpose trades of the following bonds will not be considered:-
  - a. Tax Free Bonds
  - b. Structured bonds
  - c. Zero Coupon bonds
  - d. Low coupon (deep discount) bonds

9) Construction of Spread Matrix:

FIMMDA published G-sec annualized par yields for 0.5, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 15 years are used for arriving at the spreads. The spread matrix is arrived at by subtracting the G-sec annualized par yields from the yields in the yield matrix. For intermediate tenors, the yields are arrived at by linear interpolation.

10) **Fixed spreads for bonds rated below AA-:**

The spreads for ratings up to AA- are determined by the traded levels / polls. The spreads for ratings below AA- are determined based on the traded levels of these bonds during the last three months (excluding AT1 bonds, Tax free bonds and SO rated bonds), in the Valuation Committee meeting. These spreads are kept fixed for 3 months. FIMMDA will announce the fixed spreads to be applied for the next 3 months or period as may be determined in the Valuation Committee Meeting.

11) FIMMDA spread matrix is to be used for valuation of bonds which have not traded in the market. The spreads must be added to the base yield corresponding to the residual maturity and not the original maturity. The rated bonds are to be valued by adding the credit spreads to the Par/Base Yield Curve. The Par/Base Yield Curve starts from three-month tenor. For valuation of securities with maturities less than three months, the yield for three-month tenor should be considered. Yield for intermediate tenors for each curve may be arrived at by linear interpolation.

12) The Spread Matrix starts from six-month tenor. For valuation of securities with maturities less than six months the spread for six-month tenor should be considered. Spread for intermediate tenors for each curve may be arrived at by linear interpolation.

13) For securities where the residual maturity is more than 15 years, the spreads of 15 years should be added to the base yield of applicable maturity.

14) Whenever a Corporate Bond is traded and reported, the 'traded spread' (of the weighted average traded yield) of that bond, over the G. Sec Par/Base Yield curve would be used for valuing all other bonds of similar rating of the particular Corporate in the particular traded tenor. (Thus, if AAA bond of 'PFC' maturing in 2025 was traded at a price of Rs. 98.53 with a spread of 68 bps over the G. Sec Par/Base Yield, all AAA rated PFC bonds maturing in 2025 would be valued with a spread of 68 bps over the G. Sec Par/Base Yield, whereas the traded bond would be valued at Rs. 98.53).



15) If more than one bond of the particular corporate with the same rating was traded in that tenor, the higher traded spread would be used for valuing all other similar rated bonds of that corporate in that particular tenor. (Thus, if AAA, 8.84 % PGC -2025 was traded with a spread of 57 bps and AAA, 8.40 % PGC - 2025 was traded with a spread of 60 bps all other AAA rated PGC bonds maturing in 2025 would be valued with a spread of 60 bps).

*(Rationale: To bring the valuation of corporate bonds closer to market traded yield and prices and move away from polled yields and prices)*

16) FIMMDA may from time to time stipulate different spreads for any specific category, if warranted.

**A) BONDS NOT RATED BY A RATING AGENCY BUT A CORRESPONDING RATED BOND OF THE ISSUER EXISTS**

As per RBI guidelines, the rate used for the YTM for unrated debentures/ bonds should not be less than the rate applicable to rated debentures/ bonds of equivalent maturity. The mark-up for the unrated debentures/ bonds should appropriately reflect the credit risk borne by the bank.

Explanation: Bonds and debentures, which are NOT rated by a rating agency or have become 'unrated' during their tenor, but a corresponding rated bond of the issuer exists, then the unrated bonds will be valued by marking up the credit spread by a minimum of 25% over the equivalent rated long term bond of the same issuer.

**B) BONDS, DEBENTURES AND PREFERENCE SHARES WHICH ARE NOT RATED BY A RATING AGENCY, AND NO CORRESPONDING RATED BOND OF THE ISSUER EXISTS**

The spreads of BBB- for residual tenor marked up by 25 % will be the applicable credit spreads.

**C) BONDS AND DEBENTURES WHICH WERE RATED BY A RATING AGENCY, BUT BECAME UNRATED DURING THEIR TENOR AND NO CORRESPONDING RATED BOND OF THE ISSUER EXISTS**

The spreads of BBB- for residual tenor marked up by 25 % will be the applicable credit spreads.

## D) BONDS / DEBENTURES HAVING SPECIAL FEATURES

1. As per RBI guidelines, the special securities, which are directly issued by Government of India to the beneficiary entities, which do not carry SLR status, may be valued at a spread of 25 basis points above the corresponding yield on Government of India Securities, with effect from the financial year 2008 - 09. At present, such special securities comprise Oil Bonds, Fertilizer Bonds, bonds issued to the State Bank of India (during the recent rights issue), Unit Trust of India, Industrial Finance Corporation of India Ltd., Food Corporation of India, Industrial Investment Bank of India Ltd., the erstwhile Industrial Development Bank of India and the erstwhile Shipping Development Finance Corporation.

### 2. Floating Rate Bonds (NON SLR):

Floating Rate Bonds are instruments where the coupon rate is variable and is calculated using a certain predetermined methodology. Crucial to the concept of a floating rate bond is the "Benchmark Rate", which is a market determined interest rate, used for the computation of the coupon rate from time to time. The frequency at which the coupon rate is reset is called the reset frequency, while the frequency at which coupon payment takes place is the coupon payment frequency.

Method of Valuation of Floating Rate Bonds:

1) Compute the forward benchmark rate for each reset date.

#### Computation of the forward rate:

$$(1 + R_1)^{T_1} \times (1 + F)^{(T_2 - T_1)} = (1 + R_2)^{T_2}$$

Where,

$R_1$  = zero rate for time  $T_1$ ,

$R_2$  = zero rate for time  $T_2$ ,

$F$  = forward rate for period  $(T_2 - T_1)$  at time  $T_1$

While the above formula is most accurate, an approximation may be made as follows:

$$F = (R_2 \times T_2 - R_1 \times T_1) / (T_2 - T_1)$$

2) Using the same find the coupon (benchmark plus markup, if any) and the cash flows on the interest payment dates.

3) Discount these cash flows by any one of the following methods:

i. Discount each cash flow using the Zero-Coupon Yields for that cash flow adjusted for the credit spread corresponding to the rating of the bond.

ii. Discount each cash flow using the G-Sec YTM for the full residual maturity of the bond adjusted for the credit spread corresponding to the rating of the bond.

The zero-coupon rates may be taken from any recognized source viz. FIMMDA - PDAI, CCIL, etc.

**3. MIBOR linked Bonds:**

For bonds linked to MIBOR, the Overnight Index Swap (OIS) market quotes will be used to convert MIBOR into fixed rate for the outstanding tenor. The spread over MIBOR (as per the original terms of the issue) will be added to arrive at the notional fixed coupon. Then the bond will be valued similar to a fixed coupon bond and the valuation methodology given above for corporate bonds/debentures should be followed.

**4. Bonds with Floor and Cap:**

Bonds with a Collar spread of 25 basis points or less will be valued like a fixed coupon bond with the coupon being the average of the cap and floor. *(Rationale: If the Collar spread is small the likelihood of the bond hitting the cap or the floor is higher and the bond would behave like a fixed coupon bond).*

For bonds with higher collar spread, the banks should separately value the collar through any recognized model and account for the changes in the P & L account as per rules.

**5. Staggered redemption bonds:**

Staggered redemption bonds would be valued as under:

Approach	Discounting rate	Spreads
Treat as a plain-vanilla bond with residual maturity equal to weighted average maturity of principal flows.	As per weighted average maturity	As per weighted average maturity

**6. Perpetual Bonds:**

For Perpetual Bonds with single/multiple call option, compute the price for all option dates till the longest point on the base yield curve. Use the price which is the lowest for valuing the bond.

- a. The cash flow of the security relating to the longest point on the Government Securities yield curve is to be considered.
- b. If the securities have a Call Option by the issuer and there is a step-up coupon after the call option, the cash flow should be considered with the step-up coupon after considering the regular coupons up to Call Option date.

**7. Coupon bearing and non-coupon bearing Deep Discount Bonds:**

The coupon bearing Deep Discount Bonds would be valued as:

- i) Zero Coupon Bonds (Without the coupons)
- ii) The individual coupon flows would be valued as Zero Coupon STRIPS.
- iii) The grossed up present values of (i) + (ii) above would be the price of the coupon bearing Deep Discount Bond at which the bond would be marked to market.

The non-coupon bearing Deep Discount Bonds would be valued as per Para 3.7.3 of RBI Master Circular dated July 1, 2015. That is, ZCBs should be shown in the books at carrying cost, i.e., acquisition cost plus discount accrued at the rate prevailing at the time of acquisition, which may be marked to market with reference to the market value. In the absence of market value, the ZCBs may be marked to market with reference to the present value of the ZCB. The present value of the ZCBs may be calculated by discounting the face value using the 'Zero Coupon Yield Curve', with appropriate mark up as per the zero coupon spreads put out by FIMMDA periodically.

#### 8. **Commercial Paper / Certificate of Deposits:**

Commercial Papers/Certificate of Deposits of tenor less than one year should be valued at carrying cost (Para 3.7.7 of RBI Master Circular). For knowing the market value of CDs, the CD yield curve published by FBIL may be used.

#### 9. **Bonds with Call and Put Options:**

- a. Where bonds have simultaneous call, and put options (on the same day) and there are several such calls & put options in the life of the bond, the nearest date should be taken for Price/YTM calculation
- b. Only Callable Bonds: Bonds, which are only callable by the issuer, will be valued at the lowest of the value/s as obtained by valuing the security to final maturity (weighted average maturity in the case of staggered redemption) and valuing the security to call option date/s.
- c. Only Puttable Bonds: Bonds puttable by the investor should be valued at the highest of the value/s as obtained by valuing the security to final maturity (weighted average maturity in the case of staggered redemption) and valuing the security to put option date/s.

#### 10. **Discom Bonds issued under Financial Restructuring Plan (FRP) and UDAY Bonds:**

Under the FRP, initially the **Discom** will issue their bonds which will be converted into Special Securities of the concerned State Government on or before 5 years. The coupon of the bonds issued by Discoms may undergo change when the State Government takes over the liability and issues its own

Special Security. The **Discom** bonds are valued as per RBI circular No.DBOD.BP.BC.No.105/21.04.132/2012-13 dated 27.06.2013, considering the bond's maturity as stated by **Discom** on its face and/or Term Sheet for which the coupon payments are known. As and when the bond is replaced by a special security by the respective State Government, it will be valued based on the relevant YTM rate for Central Government Securities of equivalent residual maturities of the Special Security issued by the State Government. UDAY Bonds issued by various state governments to repay the DISCOM loans will also be valued (in case the Bonds are not classified under HTM) by adding 50 bps to the Base Yield Curve till specific RBI guidelines for valuation of UDAY Bonds are issued.

**This procedure will remain in operation till 12<sup>th</sup> April 2019.** The methodology for the Uday bonds and discom bonds is under revision along with state Development Loans( SDL)methodology and the **revised methodology as approved by RBI is scheduled to be implemented wef 15<sup>th</sup> April 2019. The methodology will be placed on the websites of FBIL and FIMMDA.** FIMMDA will be the calculating agent.

#### 11. Tax-Free Bonds:

Tax-Free bonds are to be valued at traded price in case a tax free bond was traded in the last 15 days. In case of other Tax Free bonds, the coupon will be grossed up by a factor equal to the income tax rate applicable for the holder. Thereafter, the bond will be valued as any other bond.

The rationale for grossing up coupon is as under:

The price/ value of a bond is the present value of future cash flows. The market yield meant for discounting taxable coupon inflows cannot be obviously used for discounting tax free coupon inflows. So, the option is to gross up the coupon using the applicable tax rate to arrive at taxable coupon. So, if a tax-free coupon is 8% and the tax rate is 33%, then the coupon is grossed up to 11.94%. This grossed up coupon is discounted at the market yield and spread applicable to the issuer segment, credit rating and residual tenor. This logic is tenable if the tax-free bonds give really tax free income.

Income tax angle to the treatment of tax-free bonds:

As per Income Tax Act, the holder of a tax-free bond can deduct the interest income of tax free bonds from the profit. However, as per Section 14A of the Act, no deduction shall be allowed in respect of any expenditure incurred by the assessee for earning the tax-free income for the purpose of computing the taxable income. As per the amendment made in 2016, interest expenses pertaining to investment in tax free bonds will no longer be disallowed. Only

general expenses at a fixed rate of 1% of the investment in tax free bonds will be disallowed.

Therefore, banks having investments in tax free bonds may gross up the coupon minus general expenses of 1% of investment and value the investment. Depending upon the tax rates applicable to the individual investor, the grossing up of coupon will vary.

Example:

Tax Free Coupon	=	8.00%
Tax rate applicable to the investor/bank	=	33%
Presumptive general expenditure	=	1.00%
Coupon to be grossed up	=	7.00% (8.00-1.00)
Grossed up coupon	=	7/ (1-33%)
	=	10.45%

#### Accepted Methodology -

It is noticed that the presumption general expense of 1 year as per section 14 A of Income Tax act is calculated as reduction in yield instead of tax on such expenditure. As the valuation should reflect the cash flow that an investor gets, we have worked out the valuation as under;

Particulars	Amount (Rs)
Coupon (A)	8
Less: Presumptive general expenditure disallowed under Section 14A (B)	1
⇒ Tax Free Income (C =A-B)	7
⇒ And Taxable income (B)	1
○ Tax rate applicable to the investor/ bank (%) (D)	33
Tax on Taxable income (E) = (B) * (D)	0.33
Post Tax Income (F)	0.67
Total Income (net of tax) (G) = (C) + (F)	7.67
Grossed up yield (H)	7.67/(1-0.33) = 11.45%

#### **12. Security Receipts / Pass through Certificates issued by Reconstruction Company / Securitization Company:**

Security Receipts will be valued as per Net Asset Value (NAV) given by the issuing Reconstruction Company / Securitization Company.

The valuation of PTC should be done using the spread matrix applicable to NBFC category.

#### **13. Priority Sector PTCs:**

Prior to June 2016, PTCs were valued as equivalent to tax-free bonds. As the Finance Bill 2016 changed the tax-treatment of such instruments, the earlier valuation process for PTCs needed a change. Further, PSL-PTCs additionally

serve the purpose of being PSL compliant. The valuation committee, in its meetings during June-Aug 2016, recommended to value the PSL-PTC bonds at book value. However, As PSL-PTCs are invested by banks to meet their PSL related regulatory requirement, they are generally bought and held to maturity by the banks. This leads to a total lack of secondary market trades thus resulting in lack of market valuation. Further, there is no mechanism to report primary market deals in PSL-PTCs on to a reporting platform. A parallel, however, could be drawn from investments in RIDF scheme (which serve the purpose of meeting PSL targets). These are carried at cost and are classified as other assets. Given that PSL-PTCs are also to be included in the ANBC computation by the banks (like the RIDF) and lack of a market-determined valuation mechanics, the Valuation Committee in its meetings during June-Aug 2016 had concluded that PSL-PTC bonds may be valued at book value and recommended to the Board which accepted the same vide its meeting on 29<sup>th</sup> August 2016.

RBI felt that these instruments still are non-SLR in nature and so, an alternate valuation methodology was suggested and the same is being discussed with them.

#### **14. Basel III Compliant AT1 Perpetual Bonds:**

Based on the actual trades in AT1 bonds during a particular month, FIMMDA publishes spreads for AT1 bonds after discussions in the monthly valuation committee meetings. The spreads are published for two ratings viz. AA & Above and AA- & Below and for two tenor's viz. up to 5 years and above 5 years. Valuation of AT 1 perpetual bonds will be done at Yield to first call basis. Traded bonds spreads (Volume Weighted Average) will be considered for calculation of spreads as above. For all bonds in each rating segment & tenor bracket, volume weighted average will be calculated.

The individual spreads so calculated will be pooled for each rating segment & tenor (up to 5 years / Above 5 years) (AA & above, AA- & below) and their volume weighted average will be arrived. Total of 4 spreads will be published. In case there are no trades in any tenor, of a rating, then the spreads prevailing in the other tenor will be considered. (eg. Up to AA category, up to 5 years tenor is traded with a spread of 128 but above 5 years is not traded, then 128 will be considered for above 5 years & vice versa.

In view of the difficulties faced by FIMMDA in getting the details of ISIN whenever a new Security is issued, the issuing bank should inform the ISIN details like description, coupon, date of issue (DOI), date of maturity (DOM), date of call/put details, ratings etc. to FIMMDA immediately after the issue has been made.

#### **15. Bonds issued as part of a restructuring of an advance:**

Valuation of such instruments is covered under paragraph 18.3 and 19.3 of RBI's Master Circular - "Prudential norms on Income Recognition, Asset Classification and Provisioning pertaining to Advances dated July 01, 2015".

**16. Preference Shares:**

Preference shares should be valued as per Para 3.7.4 of the RBI Master Circular (for banks) mentioned above.

However, since dividend on Preference shares is Tax free in the hands of the investor, the valuation treatment indicated in Para 10 above (for Tax free bonds) will be applied with the provision that the Preference share is not valued above its redemption value (Ref Para 3.7.4 (f) of the RBI Master Circular for banks).

**17. Priority Sector Bonds:**

Priority sector bonds issued by All India Financial Institutions (AIFI) and Public Sector Undertakings should be valued as a PSU/FI 'AAA' rated paper.

**18. Securitized Paper:**

All Securitized papers would be valued on the basis of the Base Yield Curve and the applicable spreads as per the spread matrix relative to the Weighted Average Maturity of the paper.

**19. Unrated Government guaranteed Non-SLR bonds:**

Those bonds that are issued outside the approved market-borrowing programme may be valued as follows:

- a. Spreads over the sovereign risk free yield curve, at the time of issue, will be applicable.
- b. The spread shall be marked up by 15% if the issue is more than 12 months old.
- c. SGL data, available from January 1, 1996 at RBI website ([www.rbi.org.in](http://www.rbi.org.in)), should be used for arriving at the credit spreads at the time of issue. In case of debenture/ bond issued prior to January 1, 1996 the bonds will be valued at cost.

**20. Valuation of Bonds / NCDs issued by NBFCs now converted as Banks:**

In the absence of sufficient traded data and also considering the fact that the NBFCs which originally issued the bonds are no more existing, it was decided in the valuation committee meeting held on 04.12.2017 that the bonds will be valued as bonds issued by banks.



## 21. VALUATION OF SWAPS:

- a. FIMMDA /FBIL publishes the following benchmarks on a daily basis.
  - i. FBIL - OVERNIGHT MIBOR
  - ii. FBIL - TERM MIBOR
  - iii. FBIL - MIFOR
  - iv. FBIL - MIOIS
  - v. FBIL - Treasury bill
  - viii. FBIL - Certificate of Deposits

Where these benchmarks are used for swap transactions, the same will be used for valuing the swap except MIFOR swaps.

### **Valuation of MIFOR Swaps:**

MIFOR curve will be published at 17:00 from 02.04.2018 IST. At 4:15 p.m the Rolling forwards rates will be published which are the underlying for MIFOR. Due to movement of swap differences during the course of the day, the day end MIFOR value may always undergo a change depending on the time of valuation. Though different banks use MIFOR value taken at different times for valuation of their MIFOR Swaps, there should be consistency in following a particular method as per comprehensive circular issued by RBI in 2007 on derivatives. However, in order to bring in uniformity in month end valuation, the banks should use the FEDAI announced Fx-swap differences for arriving at MIFOR values and that should be used for month end valuation of portfolios.

- b. In respect of the others, the same should be valued at the same benchmarks that were used at the time of entering into the swap transactions.

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