Month	Updated as on 15th March, 2017 Chronology of Decisions / Changes given effect to Valuation Methodology
For the month of **December** -meeting held on 1-Jan-11	**Defining Liquid, Semi-liquid and Illiquid GOI Securities:** A member bank requested FIMMDA to put up proper definition/criteria for defining "liquid", "semi-liquid" and "illiquid" GOI securities. The valuation committee reviewed each security's aggregate trades and volumes for the last 3 months. The committee decided that all "benchmarks" will be termed as "liquid" securities, any security having an aggregate of at least 5 Crs in volume for the last 3 months will be termed as "semi-liquid" and rest will be treated as "illiquid". The committee will identify such securities every month at the valuation committee meeting.
For the month of **January** -meeting held on 1-Feb-11	**Further refining the definitions of Liquid, Semi-Liquid and Illiquid GOI Securities:** In the last valuation committee meeting (1st Jan 2011) the committee defined "liquid", "semi-liquid" and "illiquid" GOI securities. The above definition does not take into consideration the status of securities which may have been Benchmarks, but get overtaken by other securities in the same tenor, or securities which may be becoming more popular but not yet a benchmark. In brief, while a "Benchmark" security has to be invariably a "liquid" security; all "liquid" securities may not be benchmarks. To overcome the above anomaly, the committee decided that benchmarks should remain as per the criteria they are selected which itself defines a benchmark and its purpose for a tenor. A "liquid" security should be the one which has at least 50 trades and Rs.500 Crs of volume in aggregate for the month (should satisfy both trade and volume criteria). Definitions of "semi-liquid" and "illiquid" securities remains the same as it was decided i.e. any security having an aggregate of at least Rs.5 Crs in volume for the last 3 months will be termed as "semi-liquid" and rest will be treated as "illiquid". The committee also made it clear that these are definitions and have nothing to do with the FIMMDA G-Sec Valuation process.
	Development, hosting and maintenance of Corporate Bond Reporting Platform with Clearcorp – Business Requirement Solution: The committee members were circulated with a draft regarding business/functionality requirements for the FIMMDA platform for reporting secondary market outright trades in corporate bonds. The committee decided to let the members send their feedback if any by 4th of February 2011.
For the month of **February** -meeting held on 1-Mar-11	**Day Count Convention for GOI Securities of residual maturity of less than 6 months:** The committee agreed for the need to use money market convention i.e Actual/365 for valuation of bonds of maturity less than 6 months. **GOI FRB Polling:** It has been decided that the practice of sending prices based on different Spreads will be discontinued. A single sheet containing Average Rate/Current Benchmark will be sent for the members to poll the "Desired Spread". The committee also concurred on FIMMDA's decision whereby a minimum of 5 polls will be needed to calculate the Desired Spread. Less than 5 polls on a particular polling day will not be taken into consideration and the spreads being used for the last fortnight will be repeated. All members were once again requested to poll an unbiased "Fair Value Desired Spread". **Feedback on reducing the standard lot size on NDS-OM from Rs. 5 cr. To Rs. 1 cr:** The consensus view was that the "Regular Market" as displayed on the NDS-OM should continue to be a minimum market lot of Rs 5 crore, because it is meant for large ticket Interbank Deals. For lot sizes of Rs 1 crore, it was suggested that the "Odd-Lot" segment of the NDS-OM should be used, and the Primary Dealers be mandated to quote narrow spreads in lots of Rs 1 crore, at least for the FIMMDA Benchmark securities. This feedback was forwarded to RBI.
For the month of **February** -meeting held on 1-Mar-11	**Computation of second leg price on Repo in Corporate Bonds:** A query was raised by Nomura on the applicability of haircut on the second leg price of a corporate bond repo transaction. It was clarified that a corporate bond repo transaction is treated as a borrowing and lending transaction, hence the computation of second leg price on a Repo in Corporate Bond does not arise. **SBI Query on Valuation of Preference Shares:** A query was raised on the method of valuation to be adopted in case of preference shares of a company received on account of debt restructuring. The committee debated on this and provided the following clarification: i) The case in question would attract Method II for valuation of FIMMDA's circular NoFIMCIR/2009-10/50 dated March 17, 2010 as mentioned under" Bonds, Debentures and Preference Shares which are not rated by a Rating Agency and no corresponding rated bond of the issuer exists". Therefore : a) The spread over the sovereign at the time of issue is negative. b) By adding a positive mark –up of 25 % to the negative spread, the result would continue to be a negative spread over the sovereign. c) In the light of the above, as per Point 2 (Method II) the current spread applicable to a AAA bond of similar residual tenor would be applied on the base yield curve and the bond valued accordingly . ii) If the valuation as per (iii)(c) above gives a valuation which is higher than that arrived at using the methodology spelt out in paragraph 3.7.3 of RBI's Master Circular on "Prudential Norms for classification, Valuation and Operation of Investment Portfolio by Banks dated July 01. 2010 then the lower valuation arrived at as per this paragraph would stand. **Classification of Infrastructure Finance Companies as NBFCs:** A clarification was sort by Oriental Bank of Commerce about the classification of Infrastructure Finance Companies such as PFC/IRFC/REC etc. FIMMDA currently classifies these bonds as PSU & FIs. It was clarified that even though FIMMDA provides an indicative list regarding the classification of these bonds, RBI or any other Govt or Regulatory classification would override the classification done by FIMMDA. For the use of market participants the following links and circulars are suggested: 1. For Financial Institutions: RBI Cir No: RBI/2010-11/68 DBOD No.Dir.BC. 14/13.03.00/ 2010-11 dated July 1, 2010 2. For NBFCs: www.mca.gov.in/MCA21/dca/RegulatoryRep/pdf/Nbfc_Companies.pdf full and exhaustive list available 3. For PSU: as per Govt holding and offer document 4. Others: As per Offer Document
For the month of **March** -meeting held on 1-Apr-11	**G Sec: Putting FRBs separately in the EOD FIMMDA, PDAI GOI Prices file** End-of-Day(EOD) FIMMDA, PDAI GOI Prices file has coupon bonds arranged according to their maturity. This sheet also includes FRBs between coupon bonds, arranged according to their maturity. Once the Cubic-Spline Yield Curve is generated and prices are calculated for coupon bonds, prices calculated for FRBs as per A. V. Rajwade's calculator need to be put in manually. As this process involves changes to be made at places between the fixed coupon model generated prices it may lead to errors at times. In order to minimize errors due to manual intervention while preparing the EOD Valuation File the idea of removing FRBs from respective tenors and adding them at the end of the file was put up in front of the committee. This is also in line with RBI's intention to keep manual intervention at its minimum. The response of the committee was affirmative and thus the change will apply to EOD prices starting 5th April, 2011.
	Corporate Bond: Valuation of less-than-1 yr NCDs A query was raised by a member bank about the valuation methodology to be adopted for valuation of less than one year NCDs. The ratings assigned by the rating agencies for these instruments are similar to that of CDs and CPs i.e., the rating scale for these instruments will be like P1+ or PR1 or P1 etc instead of AAA, AA, BBB etc which are issued for medium term to long term instruments. The committee decided to circulate the query to the rest of the market participants to source their opinions on the same.
	G Sec:Criteria to define Semi-liquid Securities: On being requested by a member bank, FIMMDA defined Liquid, Semi-Liquid & Illiquid Securities in the End-of-day (EOD) FIMMDA, PDAI GOI Prices sheet. These definitions were as follows: Benchmark Securities- 100 trades and Rs.1000 crores turnover per month in each tenor (***) Liquid Securities- 50 trades and 500 Crs turnover per month in any tenor (**) Semi - Liquid Securities- Total turnover of Rs.5 crores or above in last 3 months (*) Illiquid Securities- Total turnover of less than Rs.5 crores in last 3 months From May 2011 onwards, these definitions stand withdrawn. Instead, FIMMDA has the following categories now: Benchmark Securities with 100 Trades and Rs.1000 crores Turnover per month in each tenor (P Benchmark) Pseudo Benchmark: Highest Turnover and Trades in maturity tenors 1-7 yrs (regardless of volumes & trades)

	(***) Securities with 100 Trades & 1000 Crores Turnover per month (**) Securities with more than 25 Crores but less than 1000 Crores turnover and less than 100 Trades in a month (*) Securities with less than 25 Crores Turnover in a month (#) Securities with no Trades in the past three months There will be only one Benchmark per tenor While a Benchmark has to be (***) security, all (***) securities are not Benchmarks
For the month of **April** -meeting held on 2-May-11	<u>**Corporate Bond:**</u> **Valuation and Accounting norms for LAF with RBI:** A query raised by HDFC Bank was regarding valuation of securities under Repo with the RBI. RBI's Prudential norms on Investment say that: "In order to ensure uniform accounting treatment for accounting Repo/Reverse Repo transactions and to impart an element of transparency, uniform accounting principles, have been laid down for Repo/Reverse Repo transactions undertaken by all the regulated entities. However, for the present, these norms would not apply to Repo/Reverse Repo transactions under the Liquidity Adjustment Facility (LAF) with RBI." Similarly, RBI's guidelines for Accounting of Repo/Reverse Repo Transactions state that: "The revised accounting guidelines will apply to market repo transactions in government securities and corporate debt securities. These accounting norms, however, not apply to Repo/Reverse Repo transactions conducted under the Liquidity Adjustment Facility (LAF) with RBI" Both the above mentioned documents do not mention Valuation/Accounting norms for Securities held under LAF with RBI. On being asked for suggestions, members present during the meeting concurred on the rules being followed by their respective organizations with respect to this particular issue. Members reported the following: For Repo in RBI LAF, securities which are: • Repo'ed out of Available-for-sale (AFS) portfolio are Marked to Market. • Repo'ed out of Held to Maturity are not Marked to Market.
	<u>**Corporate Bond:**</u> **Valuation of preference shares:** A query was raised by yes bank for the valuation treatment of premium received on redemption of preference shares. The committee has requested Yes bank to provide a detailed working of the process suggested, to enable FIMMDA to seek approval from RBI. **Valuation methodology for CDS:** The proposed valuation methodology for CDS as discussed by the Core product development committee for CDS was presented to the valuation committee, and explained.
For the month of **May** -meeting held on 1-Jun-11	<u>**G Sec:**</u> **Valuation of Floating Rate Bonds:** The letter submitted by a member bank requesting approaching RBI to waive marking FRB's to market was discussed. As FRB's had actually appreciated from April 1st 2011 to 31st May 2011 and no other bank had any problems regarding marking FRB's to market, it was decided to have one to one discussions with RBI in this matter. **Incorporating traded prices in valuation of STRIPS:** It was discussed and decided that for the traded prices to be recognized for valuation purpose, a minimum of 5 trades is required otherwise the model generated prices would be considered. **Valuation methodology for CDS:** The revised valuation methodology for CDS as discussed by the Core product development committee for CDS was presented to the valuation committee, for information.
For the month of **June** -meeting held on 1-Jul-11	<u>**G Sec:**</u> **Criteria to recognize LTP of SDL and Special Securities for Day-End Valuations:** It was suggested that the criteria for recognizing the LTP of SDL and Special Securities would be a minimum of 5 Trades and 5 Crores. **Discussion on "Code of Conduct – NDS OM":** The draft of the Code of conduct for the usage of Negotiated Dealing System – Order Matching was discussed with the committee. The members were requested to acquaint themselves with the discipline sought to be introduced in the G-sec market by the code and be ready for its implementation from August 01, 2011 or earlier. **PUBLISHING DAILY VALUATION PRICES FOR SDL AND SPECIAL SECURITIES:** At the request of RBI, w. e. f. 30-06-2011 FIMMDA has started uploading the Day-End Valuations of State Development Loans and Special Securities (Oil Bonds, Fertilizer Bonds, SBI Bonds, etc.) based on the methodology detailed in paragraph 3.6.2, 3.6.3, and the "Note" under paragraph 3.7.1 of RBI's Master Circular "Prudential Norms for Classification, Valuation and Operation of Investment Portfolio by Banks" dated July 1, 2011. These valuations would have to be used while calculating the "Price - Bands" mentioned in the Code of Conduct for usage of NDS-OM.
For the month of **July** -meeting held on 1-Aug-11	<u>**G Sec:**</u> **Criteria to identify Last Traded Price and Yield on NDS:** It was discussed that we may recognize traded price of "Benchmark Securities" reported on NDS where there are a minimum of 5 Trades and 25 Crores. **Discussion regarding RBI's letter requesting FIMMDA's feedback on SBI's request to waive FRB's from Marking to Market** The Committee discussed the issue and concluded as follows: 1. SBI's letter consisted of two parts: a) Reliability of current methodology (A.V. Rajwade – Model) for ascertaining Fair Value of FRB's for marking to market. b) Reasons for discontinuing marking FRB's to market. 2. The Committee felt that the current methodology was in order, as the FRB's showed a maximum depreciation of 87 paise for the period 31-03-2011 to 31-07-2011 while "Benchmark" coupon bonds showed a maximum depreciation of Rs. 3.75 during the same period, when interest rates were rising. 3. Regarding (1) (b) above, and answering RBI's letter to FIMMDA, it was decided that FIMMDA would confirm that there was no problem regarding methodology of valuation. The Director nominee of SBI would draft the portion giving reasons for waiving MTM process for FRBs. The consolidated reply would be vetted by the Valuation Committee members, then submitted to the FIMMDA Board and thereafter forwarded to RBI for their consideration. **Valuation of Securities as on Month - End:** It was clarified that the last trading day of the month would be the date for which the closing prices and model price would be used for Valuation for month-end, quarter-end and year-end. If the month-end date happens to be a holiday, the last trading day's prices would be used but the valuation sheet would be dated with the month-end date. Thus, if 31st July is a Sunday, 30th July is a Saturday, both being non-trading days, the prices as on 29th July 2011 would be the valuation prices applicable for 31st July 2011, and the valuation sheet for month-end would be dated 31st July 2011 although it is a Sunday/holiday.
For the month of **August** -meeting held on 2-Sep-11	<u>**G Sec:**</u> **Criteria to recognize LTP of FRB for Day-End Valuations w.r.t. no. of Trades and volume :** As some of the members had represented the fact that FRBs when traded, are at prices which are about Rs. 2.47 lower than the "Model Price" there is a wide fluctuation in Daily MTM of the Traded FRB in the books of the Banks and PDs. This is because the "Model Price" is used for Valuation on days when the FRB is not traded. To smoothen the day to day fluctuations in valuation of traded FRB's, it was decided as follows: i. A minimum number of 3 trades and minimum volume of Rs. 25 Crores on any single day would be the criteria for using the last traded price for daily valuation. ii. Once a traded price is used for valuation as per (i) above, the "Desired Spread" over the Floating Benchmark would be calculated using the LTP. iii. In case the FRB is not traded subsequently the "Desired Spread" obtained from (ii) above would be used for valuing the specific FRB for the next 14 days, instead of the "polled" Desired Spread. iv. While the floating Benchmark would change every alternate Wednesday and usual polling would be done for revised "Desired Spread", the spread used for arriving at the Model Price of the traded FRB would be the one as indicated in (ii) above instead of the "polled" Spread as long as the trade is not more than 14 days old. v. If there is no trade for an FRB for the last 14 days, then the "polled" Desired Spread would be used for the Daily Valuation.
For the month of **September** -meeting held on 30-Sep-11	<u>**G Sec:**</u> **Discussion on the Code of Conduct for using RBI's "Negotiated Dealing System – Order Matching (NDS-OM)" – Dated October 1st, 2011:** A brief on the "Code of Conduct for NDS-OM" was discussed, and market participants were cautioned to be extra careful not to violate the Code, as the current system did not have facilities for preventing big figure and other mistakes.

For the month of **October** -meeting held on 1-Nov-11	<u>**G Sec:**</u> **Valuation of State Development Loan and Special Securities (Oil, Fertilizer Bonds) based on last traded prices – Minimum Volume / Minimum Trades:** The criteria to recognize the last traded price/yield of SDL/Special Securities is revised to at least one trade for 5 crores or higher volume. The rationale for this change is because these securities do not trade daily. **Valuation of Securities auctioned, but not traded after auction (E.g.: 8.30-2040 on 28th Oct):** If a security is auctioned, but no trade happens after the auction, then the cut-off price/yield will be considered for the day – end valuation, on the auction date only. From the next day onwards, the "Model Price" will prevail, if no trade takes place.
	<u>**Corporate Bond:**</u> **Method to be used for Amortization of CPs:** It was clarified that the market participants can use any of the amortization methods, i.e. straight line method or discounted price method as FIMMDA does not prescribe any particular method. The method used should be uniform and mentioned in the individual Bank's Principal Accounting Policy.
For the month of **November** -meeting held on 1-Dec-11	<u>**G Sec:**</u> **Valuation of State Development Loan and Special Securities (Oil, Fertilizer Bonds) 25 basis points above G-Sec Valuation:** It was observed that the State Development Loan and Special Securities (Oil, Fertilizer Bonds) are traded above the prescribed price band. The committee discussed and reviewed the need for valuing the State Development Loan and Special Securities (Oil, Fertilizer Bonds) around 5 to 10 basis point higher than the corresponding G-sec yields instead of the regular practice of valuing it at 25 bps above the G-sec curve. As the cases of breach of bonds were only for 1 or 2 Oil & Fertilizer Bonds, it was not felt necessary to pursue the matter with RBI at this stage. **Treatment of Open Short Positions for SLR computation:** Open short sell position is to be adjusted in such a way that there is no negative SLR position for Banks. To cover the short position one needs to borrow through market Repo, thus it will be included in the computation for the SLR holding of the bank.
For the month of **December** -meeting held on 31-Dec-11	<u>**G Sec:**</u> **Price Bands of State Development Loan and Special Securities (Oil, Fertilizer Bonds):** As noticed after the implementation of Price Bands for trading on NDS-OM and applicable to OTC trades reported on PDO-NDS, a number of SDLs and Special securities have breached the prescribed bands. General consensus in the market says that these securities trade at levels quite different from the ones at which these are valued by FIMMDA and are in turn used to derive the price bands. A request was thus raised by market participants to re-consider the method which is being used to calculate the price bands for these securities. Currently, FIMMDA does the valuation at G Sec +25 bps and then uses a band of 1.25% (above and below) over last FIMMDA closing (across all tenors) for SDLs and Special securities. Market participants concurred on using a 75 bps band on the FIMMDA closing yields (both sides) for SDLs and Special securities and requested if the same can be put in use. The matter will be taken up with RBI for approval. **Valuation of Callable Bonds:**A query was raised by HDFC Bank in relation to Valuation of Bonds with Call/Put options. FIMMDA Valuation guidelines say that bonds with Call options need to be valued on Yield to Worst basis. As per the Bank's query, highest yield may not lead to the lowest price. They wanted to confirm whether, in such a situation, the price given by the highest yield be considered or should the bond be valued at the yield that gives the worst (lowest price). FIMMDA clarified that the idea behind using Yield to Worst basis is to follow a conservative valuation methodology and thus, a yield that gives the worst (lowest) price (call option date or maturity date), should be used.
	<u>**Corporate Bond:**</u> **Valuation of Compulsorily Convertible Debentures:** Another query raised by HDFC Bank was regarding the maturity date to be used in the valuation of Compulsorily Convertible Debentures. FIMMDA confirmed that the conversion date of Compulsorily Convertible Debentures is to be taken as the maturity date for calculations. HDFC bank also came forth with a query on valuation of SDLs on the month end. They stated that month end valuation of SDLs at their end is being done with month end date as the valuation date, whereas FIMMDA valuation is being done on a T+1 basis and thus needed clarification on the same. FIMMDA clarified saying that all SDL valuations being done using FIMMDA published curves need to be done on a T+1 basis. **Valuation of Compulsorily Convertible Debentures:** Another query raised by HDFC Bank was regarding the maturity date to be used in the valuation of Compulsorily Convertible Debentures. FIMMDA confirmed that the conversion date of Compulsorily Convertible Debentures is to be taken as the maturity date for calculations. HDFC bank also came forth with a query on valuation of SDLs on the month end. They stated that month end valuation of SDLs at their end is being done with month end date as the valuation date, whereas FIMMDA valuation is being done on a T+1 basis and thus needed clarification on the same. FIMMDA clarified saying that all SDL valuations being done using FIMMDA published curves need to be done on a T+1 basis.
For the month of **January** -meeting held on 1-Feb-12	<u>**G Sec:**</u> **NDS – Auction Web – Based Module:** During the afore–mentioned Bi-Monthly Meeting, RBI also asked for a feedback from the Gilt Account holders on the demo of the module. A copy of the write-up on the "NDS Auction – Web Based Module for Gilt A/c Holders" was distributed to all the committee members for their perusal. They were asked for their feedbacks on the functioning of the module, to enable us to get back to RBI on the same. **Automated IRF Polling:** The committee members were informed about the automated polling done on the FIMMDA website to arrive at the settlement yield of 2yr and 5yr Interest Rate Future. The process was explained in detail with a 'Walk Through' the FIMMDA website. **SDL Valuation:** It was discussed that there are certain discrepancies in the FIMMDA published and calculated price. So, it was suggested that the members should use the FIMMDA published price for their valuations. It was also suggested that this issue would be taken up in the annual valuation meeting.
For the month of **January** -meeting held on 1-Feb-12	<u>**Corporate Bond:**</u> **Discussion on the F-TRAC Counter-party Issue of Double Reporting:** While the committee discussed the daily volumes in Corporate Bond markets, it was observed that there may be a case of double reporting on F-TRAC and Clearing Corporation of Exchanges. This is because of the following reasons: 1. RBI regulated entities report their trades to FIMMDA 2. Non RBI regulated entities trading with RBI regulated entities have to compulsory settle through the clearing corporation of exchanges. 3. Thus in such a case, the RBI regulated entity reports twice. Once to FIMMDA and once to the clearing corporation for settlement. The above could be avoided if all entities register with FIMMDA as this would also provide ease of settlement through the STP solution and be better for market transparency. Thus, the committee decided that the members would inform all non members to register with FIMMDA's Platform F-TRAC to avoid the problem of Double Reporting. **Corporate bond REPO:** The CEO informed the committee about FIMMDA's bimonthly meeting with RBI on January 23, 2012 wherein the RBI asked FIMMDA about the reasons for the lack of liquidity in the Corporate Bond Repo market. The Valuation committee members responded that the lack of liquidity is due to lack of participation from other non banking market participants who are generally active in the G Sec repo market. Also the margining requirements may make the funding rate for corporate bond repo trades unviable as banks can borrow at lower rates in the interbank uncollateralized market. **CDS:** In the bimonthly meeting between RBI and FIMMDA held on 23rd January 2012 the RBI wanted a response on the level of preparedness of the market in participating in the CDS market. All members were requested to send their feedback by February 9, 2012.
For the month of **February** -meeting held on 1-Mar-12	<u>**G Sec:**</u> **Discussion on the revision of the cut-off volume for recognizing the SDLs and Special Securities LTP & LTY from Rs. 1 Cr to Rs. 5 Cr on NDS – OM and PDO - NDS:** As the price bands have been relaxed from a percentage over the closing prices to yield-based trading band, the following revision in recognizing the traded prices for replacing the model prices for SDL & Special Securities valuation was decided. i) Aggregate of traded prices, if it exceeds of Rs. 5 cr., the weighted average of those trades, which are within the permissible trading band range would be used for substituting the model price. Otherwise the Model Price would prevail. (Rationale: As odd lot trades are no longer within the purview of the trading bands, small value trades would distort the fair value yield curve) ii) Single trades of Rs. 5 Cr and above would qualify for SDL and Special Securities prices. If there are small trades and trades of Rs. 5 Cr and above during the day, then the weighted average of small trades within the permissible band and the latest available trade of Rs. 5 Cr and above would be used for substitution of the Model Price. **Discussion on the Annual Valuation Circular:** The changes made in the Annual Valuation Circular were discussed and the final copy was distributed to the committee.

For the month of **February** -meeting held on 1-Mar-12	**Requesting RBI for a second LAF (REPO) on 31st March 2012 Evening:** The committee was asked for the requirement of second (REPO) LAF on 31st March 2012. The committee was of the view that FIMMDA may approach RBI for a single LAF window after 12 noon, to enable banks to square their surplus/deficit cash positions at the financial year end. Discussion on the Valuation of G-sec with residual Maturity upto 1yr: As NDS-OM uses the "Money Market" formula for pricing the G-secs with maturity less than 6 months, the need for FIMMDA G-sec valuations to follow the same methodology was discussed. In the light of SEBI circular dated 21st February 2012, regarding valuation of debt instrument with maturity upto 60 days, it was felt that this matter may be taken up in the Market Practices Committee. **SDL Valuations to changes w.e.f. FY – 13:** The committee was advised that consequent upon the relaxation given for tradin bands in SDL & Special Securities and Fair Value Measurements moving towards IFRS, the day end valuation of SDLs may no longer be at a "Model" yield mark-up of 25 bps over the G-sec Par Yield. On the contrary the valuations would depend upon auction cut-off of SDL & Special Securities and the actual traded prices in the market from FY 2013. Market participants were advised to take note of this possible forthcoming change in the SDL & Special Securities Valuation methodology in FY 2013.
For the month of **April** -meeting held on 2-May-12	**G Sec: Relaxation in the Trading Bands for SDL/Special Securities and Securities of residual maturity less than one –year:** The committee was informed about the new circular issued by FIMMDA dated 27th April 2012 on the relaxation in the Trading Bands for SDLs / Special Securities and now this is the part of FIMMDA's Code of Conduct for the Usage of NDS-OM and OTC trades in G Sec, SDL / Special Securities. Also, there will be no Trading Bands for the securities with a residual maturity of less than one year. **Discussion on the Curve Generation for daily valuation on account of illiquidity in the tenors from 1yr to 6yr:** The committee discussed on curve generation for Daily Valuation of Illiquid Securities on the shorter end of the curve. The following suggestions were made: • To use average of "bid-offer" prices for inputting in the model for 2013(1 yrs) and 2015 (3yrs) to get a more Fair-Value Yield curve.
May For the month of **May** -meeting held on 1-Jun-12	**G sec: Discussion on the Valuation Methodology for SDL/Special Securities to shift from the current 25bps mark up over G-sec Par-yield to Market Based Methodology** The Committee discussed the possibility of change of Valuation Methodology for SDL/Special Securities from the current 25 bps mark-up over G-sec Par-yield to Market Based Methodology. The following suggestions were made: • Moving Average of the Weighted Average yield of all the SDL's for the period of 1 year. • Weighted Average of the Weighted Average of the latest auctioned SDL's. • State-wise Moving Average and Valuation, as per the trades. It was decided to constitute a Working Group consisting of the Banks and PD's on the Board of FIMMDA, ICICI Bank, Kotak Bank, Bank of Baroda, and Bank of India to examine suggestions and suggest a methodology to be approved by the FIMMDA Board, which would then be submitted to RBI for their consideration. Members were requested to send their suggestions by June 8th, 2012
May For the month of **May** -meeting held on 1-Jun-12	Treatment of HFT portfolio for G-sec in Bank PD's: The Committee discussed on the Treatment of HFT portfolio for G-sec in Bank PD's. It was observed that different Bank PD's followed different practices regarding HFT portfolio. Some Banks have two books for trading, one for their "Bank" department and one for their "PD" department, although there was only one SGL A/c with RBI for the entity. To decide upon the criteria (Amount and Spread) for bids/offers to be placed on the NDS-OM to qualify for "Observable Market Input" for inputting into Cubic Spline Model for Valuation of Government Securities, SDL's and Special Securities: As per IFRS , there are three levels used for Valuation of Securities. 1. Actually Traded 2. Observable Market Input 3. Model calculated. As the number of actually traded securities as per norms are less, we would be using the Observable Market Input for inputting into the Cubic Spline Model for Valuation of G-secs, SDL'S and Specials. The Committee discussed the criteria (Amount and Spread) for bids/offers to be placed on the NDS-OM to qualify for "Observable Market Input" for inputting into Cubic Spline Model for Valuation of Government Securities, SDL's and Special Securities. Following suggestions were made: • It was decided by the Committee that we take NDS-OM Screen shots three times i.e. at 12:00 p.m., 2:00 p.m., and 4:00 p.m. in a day. The minimum bid and offer amount will be 15 crores each with a spread of not more than 10 bps. If this mark is reached FIMMDA will recognize it for inputting into Cubic Spline Model for Valuation of securities. It was decided to send a Circular to all members requesting above quotes to enable better 'fair valuation'.
For the month of **June** -meeting held on 21-June-12	**G Sec: Discussion on examining the existing methodology for arriving at the "Illiquidity Factor"** which is added to the model generated prices, in the light of the changed market conditions (frequent auctions and OMOs) which distort the model prices with the existing methodology **The following points were discussed:** 1. Pseudo Benchmark Securities: Pseudo Benchmark, that got traded but did not qualify the Daily Filter, we will take the Weighted Average Yields of the Bid and Offer from the Observable Market Input (Level II IFRS) from NDS-OM at three intervals in a day (12:00 p.m., 2:00 p.m. and 4:00 p.m.) and the traded level. 2. Benchmark & Pseudo Benchmark Securities: If not traded then the weighted average yields of the Bid and Offer from the Observable Market Input will be considered. 3. When a new paper is issued in any tenor, which results in the existing papers of the same tenor trading at different yields, the choice of input point and the "Illiquidity Factor" will be calculated as follows: i) Input Point: The yield of the New Paper (Par-Bond) will be used as an "Input Point" if: a. It passes the "Trading Filter". b. There is no other paper in the respective tenor or has not been used as an "Input Point" (i.e. either a Benchmark/P. Benchmark). c. The yield of the new paper is lower than the existing Benchmark/P. Benchmark. d. The yield of the new paper is "Higher" than the existing Benchmark/P. Benchmark, but the volume and number of trades are more than existing security. In all other cases, the existing security will continue to be an input point. ii) Illiquidity Factor: when a new paper is issued, the illiquidity factor is calculated as follows: a. The "Par-Yields" will be generated after inputting the new/existing paper in the CS Model. b. The difference between the traded prices (on NDS - OM) in the same tenor papers and the respective "Par-Yield" would be the "Illiquidity Factor". In case of more than one paper in the tenor being traded, the IFs will be averaged, removing the "Outlier" if any. iii) The issue of a new paper results in widening of the "Illiquidity Factor" of the existing papers of similar tenor. Therefore, 3 day Moving Average of the IF calculated as above, would be applied to the existing papers instead of the normal 4 week Moving Average. iv) If the existing papers become totally illiquid (i.e. no trades in a day) the last IF would continue to be used till the immediately next quarter end.
For the month of **June** -meeting held on 30-Jun-12	**G Sec: Discussion on the Valuation Methodology and Trading Band for Oil bonds to shift from the present valuation to Market Base methodology:** The Committee discussed the possibility of change of Valuation Methodology for Oil Bonds on the basis of a joint representation made by the Oil Marketing Companies. It has been decided to consider their proposal to value Oil bond trading band at +/- 25 bps of the corresponding G-sec par yield and refer the matter to RBI for their consideration.
For the month of **July** -meeting held on 1-Aug-12	**G Sec: Discussion on the Oil Bonds definition for recognition of minimum amount traded for valuation purposes:** The Committee discussed on the Oil Bonds definition for recognition of minimum amount traded for valuation purposes. It was decided that the last traded marketable lot will be taken for recognition of day end valuation.
	Corporate Bond **Matrix prepared by Fact Entry (FE):** The members compared the CB matrix with that prepared by Crisil. The general opinion was that the matrix prepared by Fact Entry was more realistic. As the daily matrix upto BBB is required by Insurance companies for the valuation of their Unit linked Insurance Products, FIMMDA shall start displaying FE Matrix on daily basis on the website. Members were requested to revert with any discrepancy that they may notice to enable us to fine tune the FE Corporate Bond matrix.
For the month of **August** -meeting held on 1-Sep-12	**G Sec: Polling for Floating Rate Bond:** It was decided in the meeting that from the month of October, 2012 instead of Polling for the Desired Spreads of FRB's, the Desired Spreads will be fixed by the Valuation Committee Members on the basis of average of last 6/3 T-bill cut offs. **Discussion on Marketable Observable and Tradable Input:** The Committee discussedthe Cubic Spline Valuation Methodology and the "Filter" Criteria for Marketable Observable and Tradable Input (MOT) for Securities other than Benchmarks and Pseudo Benchmarks. It was decided by the Committee that the Filter criteria for Traded Securities will be equally applicable to securities other than the Benchmarks and Pseudo Benchmarks. If a security has not traded sufficiently to pass the "Filter", the traded data plus MOT inputs would be considered for passing the filter and for model inputs/yield substitution.

	Corporate Bond **Matrix prepared by Fact Entry (FE):** It was decided that since there are no trades in Banks and Corporates in 0.5 Tenor Category, the average of the traded spreads of PSU&FI's and NBFC will be taken for arriving at 0.5 category spreads. It was also decided by the Valuation Committee that Fact Entry spreads will be displayed on daily basis on the website, and Crisil spread on monthly basis till 1st October, 2012 after which only Fact Entry spread will be published.
For the month of **September** -meeting held on 29-Sep-12	**Parameters for Fixing 0.5 Years Maturity in Corporate Bonds:** It was decided in the meeting that bonds with residual maturity of less than three months even if traded will be ignored. Traded bonds with residual maturity of four to eight months will be taken for the construction of matrix. If there are no trades in the above mentioned category, or if the spread is higher than that for one year, then one year spread will be repeated for 0.5 category. **Valuation of Corporate Bonds Spread Matrix :** The spreads of CRISIL and FACT ENTRY were discussed and it was decided to continue observing both the values for some more time till refinement is brought about in Fact Entry Matrix. The valuation will be done as per the CRISIL Matrix (uploaded in Month-End file) till such time.
For the month of **October** -meeting held on 1-Nov-12	**Discussion on the Disqualification criteria of a Benchmark for G-Securities** : The criterion for G-Securities to become a benchmark for a particular month is 100 trades & 1000 crs. It was also discussed that disqualification criteria of a Benchmark for a particular tenor to become a non-benchmark would be less than 50 trades & 500 Crs. in a month.
	Discussion on the Comparison of Cumulative Corporate Bond spreads for 15 trading days: FIMMDA would upload a Corporate Bond "traded data" sheet for all bond traded as on Month-end date and 15 days prior thereto. This "traded-data" could be used for Level 1 valuation of Corporate Bonds. However, since there could be misreporting of yields, members were requested to get back to FIMMDA with errors if any, so that this Level 1 valuation could be cleaned and finalized before 31st March, 2013.
For the month of **February** -meeting held on 1-Mar-13	**Month-End Corporate Bond Spread Matrix :** The committee was informed that with effect from 1st April, 2013 FactEnrty Spread Matrix provided for month end valuations and CRISIL Matrix will be discontinued. However, Average Trades Spreads of Corporate Bonds over FIMMDA-PDAI Gilt Curve are also being put on website on daily basis.
For the month of **April** -meeting held on 2-May-13	**G Sec: Amendments to Cubic Spline Valuation Methodology - Illiquidity Factor** :When a new paper is issued, or when there are more than one paper traded in a particular tenor, one qualifying for a Nodal Point input, and the other passing the "Filter Criteria" for recognition of the traded price for valuation purposes, the illiquidity factor would be calculated as follows: a. The "Par-Yields" will be generated after inputting the new/Nodal Point Qualifier/ in the CS model. b. The difference between the traded /reported prices (on NDS-OM) in the same tenor papers and the respective "Par-Yields" would be the "Illiquidity Factor". In case two or more papers are traded in the same tenor the Illiquidity Factor (IFs) will be averaged ignoring the lowest IF amongst the traded securities in the particular tenor. c. 3–Day Moving Average of the IFs (Illiquidity Factors) calculated as above, would be applied to the existing papers instead of the normal 4-Week Moving Average. d. If there are no trades in a particular tenor, the Model Yield plus the IF would give the final yield for valuation of bonds in that tenor. e. If the outstanding papers in a tenor become totally illiquid (i.e. no trades in a day) the last IF would continue to be used till the immediately next quarter end. f. If, after adding the "Illiquidity Factor", the non-traded bonds in a particular tenor show a yield which is lower than the yield of a traded bond whose volume and trades have passed the filter for recognition for valuation purposes, the model –determined yield (including the IF) would be increased to equal the yield of the traded bond. Thus : Yield of a non-traded bond in a particular tenor would be = or > than the yield of the traded bond with the lowest yield in that tenor.
For the month of **May** -meeting held on 1-Jun-13	**G Sec: Discussion on Inflation Indexed Bonds (IIBs):** The committee members approved the following criteria For Level 1, 2 for recognizing the closing price and yield:- **Level 1**:- If Traded, then filter criteria would be a minimum of 3 trades with a volume of Rs. 15 Crs. **Level 2**:- Bids and Offer should appear at two intervals in the day at 12.00 pm and 4.00 pm with a minimum volume of 5 Crs and a maximum spread of 10 Bps. **Level 3**:- When the Bond does not fulfill the criteria mentioned in Level 1 and Level 2 the valuation and pricing will be based on Interim Model Price which is based on Fisher Equation as per model exhibited on the website. Note: - FIMMDA has uploaded guidelines for IIBs on their website with captioned bullets:-
For the month of **July** -meeting held on 1-Aug-13	**G Sec: Current Market Conditions:** The Committee members were informed that IBA and FIMMDA have already approached RBI for appealing the central bank to reverse or ease the stance, they have taken in sucking up the liquidity. FIMMDA Members were requested to approach RBI with their individual hit they have taken on their P & L on account of these measures. The following requests were made by FIMMDA on behalf of members: • Increase LAF from 0.5 to 1% • Reduction of CRR from 99 to 90%, to reduce wastage of product • Restoration of HTM level to 25%
	Corporate Bond: Discussion on PTC Securitized paper: Extract as per Section 115TA: From 1st June, 2013 investors would be receiving net income from securitization trust on PTC's and this income will be exempted from income tax in the hands of the investors. Accordingly, this investment in PTCs (Securitized paper) can be treated as tax free investments. Axis Bank paper was discussed and members observed that in view of the specific tax section quoted, the valuation of PTC bonds may be done similar to a tax free bond.
For the month of **September** - meeting held on 1st Oct 13	**GSec: Deal Time limit for recognizing the deals done on NDS-OM / RD for valuation purposes**: it was noticed that, if a nodal point is traded on NDS OM or reported under Reported Deal section of NDS-OM and subsequently the market yields change substantially due to some events, but the nodal point security was not traded after the event, then taking the pre-event traded price of the nodal point security may distort the yield curve. The committee discussed and felt that there should be cut off time and only the trades done after the cut off time should be recognised for input purpose. After elaborate discussions it was decided that if a nodal point is traded after 3 pm, it would be recognised as an input in the model for curve generation and valuation. If there is any trade before 3pm, it will not be used for 'input' but after the yield curve is generated, the value obtained for the nodal point security as per yield curve, will be replaced by the actual price at which the security was traded before 3 pm.
	Corporate Bond: The Committee decided the Filter Criteria for the Recognition of Price for Last 15 days. 1. The minimum number of Trades for recognition of prices of last 15 days Cumulative Corporate Bond Spreads will be 1 and Volume will be Minimum Rs. 5 crore. 2. If Corporate Bonds are traded below the G-Sec Par yield or have a negative spread, such Corporate Bond trades will not be published and considered for Price Recognition. 3. Tax Free Corporate Bond will be considered even,if they are traded below the G-Sec Par Yield. 4. Corporate Bonds that do not fulfill above mentioned criteria for price recognition will be valued by the Matrix Spread which is uploaded by FIMMDA every month.
For the month of **October** -meeting held on 1st Nov 13	**Corporate Bond: Valuation Of Bonds issued by Rajasthan State Power Distribution Companies (DISCOMs) under Financial Restructuring Plan:** The Committee discussed on the valuation of Bonds issued by Rajasthan DISCOMs as referred to by Andhra Bank. The Members of the Valuation Committee decided that the actual tenor mentioned in the bond (5 years in case of Rajasthan DISCOM bonds) will be considered as the original maturity period of bonds and accordingly the G-sec yield for residual maturity period with a markup of 75 bps/100 bpswill be taken for Valuation Purposes as per RBI circular No. DBOD.BP.BC.No.105/21.04.132/2012-13 dated 27th June, 2013. However, the members also stated that ratings and listings are not available for these DISCOMs bonds and as the banks are compelled to buy these unrated bonds the same should be kept outside the purview of 10% limit stipulated by RBI for investing in unrated/unlisted bonds. It was decided that FIMMDA should take up this matter with RBI and get the desired exemption.

For the month of **November** -meeting held on 30 Nov 13	**Valuation Of Bonds issued by State Power Distribution Companies (DISCOMs) under Financial Restructuring Plan** In respect of the minutes pertaining to decision taken during the valuation committee meeting held on November 1, 2013, on the captioned subject, it was clarified as under: 1. The specified initial period of the bonds issued by all Discoms under FRP will be taken as 5 years for valuation and other maturity based calculations. 2. The Discom bonds issued under FRP which are unrated and unlisted will be outside the purview of 10% limit stipulated by RBI for investing in unrated/unlisted bonds as per para. 16.4 of RBI Master Circular dated July 1, 2013 on IRAC norms on Advances.
For the month of **February** -meeting held on 1 March 14	**Fixation of FRB Spreads:** When traded, FRBs last traded price will be taken for valuation provided the volume and number of trades meets the filter criteria (3 Trades and 25 Crores). The members' attention was invited to the report of the committee on financial Benchmarks published by RBI on 7th Feb, 2014 and to their observations on Floating Rate Bonds Para 4.9.1. Non Traded FRBs and their recommendations contained in 4.9.3. It has been decided to restart the polling for the desired spread from the holders of the bonds once in every fortnight for FRBs that are not traded and failed to qualify the MOT criteria. A minimum of 5 polls will be required. The outliers (Highest & Lowest) will be eliminated and a simple average of the remaining polls will be taken for consideration as the spread for the FRB concerned. In case minimum polls are not received then the spreads of the previous fortnight will be repeated till the same is discussed in the next valuation committee meeting.
For the month of **April** -meeting held on 2 May 14	**Status of implementation of measures advised to Benchmark Submitters for strengthening the governance framework. (RBI Circular Dt. 16.04.14)** RBI circular dt. 16.04.14 on governance framework for Benchmark submitters was discussed. The members felt that the modalities to be followed by the Benchmark submitters should be discussed in detail during next meeting and informed to the members.
For the month of **July** -meeting held on 1 Aug 14	**Corporate Bond:** Matrix: The Monthly matrix for July 2014 was discussed and approved by members. Discussion with regards to bond rated below AA- : There are 6 ratings till BBB-. Presently, for bonds rated below AA-, a fixed spread is added to the AA- spread (segment wise) to arrive at the spread for the bond concerned. The spreads have been in vogue since a long time. In the Report of the Committee on Financial Benchmark, a mention was made of the valuation of Corporate Bonds below AA- rating [(4.11.2/4.11.3 (iii)] and to consider polling for the above purpose. But, data for the period 2013-14 (F-TRAC) indicated that the number of bonds traded below AA- was very less and the percentage / volume of bond traded by banks / PD's is still very small. So, it may be difficult for Banks / PDs to poll on a regular basis. So, in the Valuation Committee held on 1st July, 2014 a committee consisting of Central Bank of India, ICICI Bank, Bank of Baroda, Punjab National Bank, YES Bank and ANZ Bank was formed to examine the possibilities of changing the fixed spread for the bonds rated below AA- The committee met on 16th July, 2014 and examined the fixing of spreads on the basis of : 1) Banks spreads for lending to entities below AA- on the basis of their internal rating. 2) Spreads observed for traded bonds 3) Polling by Banks on the basis of their expert judgment / perception of such bonds keeping in view the traded level. Accordingly data were collected by the members and the same was analyzed by FIMMDA. Polls were also received from banks. Discussion took place on the basis of the following data: a) Analysis of traded spreads of bonds rated below AA- done by FIMMDA from F-TRAC data. b) Analysis of polled spreads for the bonds rated below AA- (polled by 8 banks). The polls from ICICI Bank were received after the stipulated time so were not considered for calculation of spreads (after considering ICICI Bank's polls - in all 9 banks polled) c) Analysis of credit spreads of banks collated and refined on the basis of banks internal rating vis-à-vis external rating. SPREADS OVER AA- FOR BONDS RATED BELOW AA- RATING FIMMDA Spreads As EXISTING on 30/06/2014 (January-14 to March-14) TRADED July 2014 POLLS As per Banks Website CREDIT SPREADS RECOMMENDED SPREADS IN THE MEETING AA- As arrived at the end of each month (As of 30-06-2014: 111) -------- Add following spreads to AA- Spreads -------- A+ 25 89 27 31 25 A 55 31 51 58 50 A- 90 71 73 124 75 BBB+ 130 64 101 143 100 BBB 175 127 98 125 BBB- 225 159 162 150 The matrix approved by Valuation Committee members will be valid for next 3 month end valuation (31.08.14, 30.09.2014 and 31.10.14). An attempt will be made if the same can be replaced by traded spreads subject to improvement in the trade volumes in those bonds (Below AA- & up to BBB-) in the intervening period. An analysis and discussion will be made once again in October 2014 to arrive at a decision for the future course of action.
For the month of **August** -meeting held on 30 Aug 14	**Corporate Bond:**Matrix: It was informed to the members that as discussed and decided in the last valuation committee meeting, the following fixed spreads were considered for the securities rated A+, AA-, BB+,BBB and BBB-. The monthly matrix for September 2014 prepared accordingly was discussed and approved by members. SPREADS OVER AA- FOR BONDS RATED BELOW AA- RATING FIMMDA Spreads As EXISTING on 31/07/2014 RECOMMENDED SPREADS IN THE MEETING w.e.f 31/08/2014 AA- As arrived at the end of each month (As of 31-07-2014: 111) -------- Add following spreads to AA- Spreads --- A+ 25 25 A 55 50 A- 90 75 BBB+ 130 100 BBB 175 125 BBB- 225 150
	Valuation of Tax Free Bonds: The valuation methodology adopted/to be adopted for tax free bonds was discussed in detail. 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. This becomes logical provided the tax free bonds give really tax free income.
	Bond price calculator appearing on FIMMDA website: :Long back, in a valuation committee meeting, it was decided to use yield of residual tenor of the bond for discounting the cash flows as the formula in the calculator that FIMMDA provides on the website. But it was found that the calculator on the website still uses zero coupon yields for discounting the cash flows. So, it was decided to change the formula in the calculator to "yield of residual maturity of the bond"for discounting cash flows. It was also revealed that most of the banks use the same method.
For the month of **September** -meeting held on 1 Oct 14	**Trades done on Reported Deal Section**: It was discussed and decided unanimously in the meeting that considering the time stipulation for reporting the OTC deals on Reported Deals section, they will be considered for valuation, in the absence of sufficient trades on NDS-OM.
	Modification in the computation of Ratios for criteria based selection of LTPs The Valuation committee members' attention was drawn to the steep rise/fall in the ratios during the last two months. It was explained that while the highest volume is that of 10year Nodal point security, the lowest volume (above Rs.1000 Cr.) security gets, sometimes, skipped because of not meeting the no. of trades criterion (100 trades) and other security with higher volume is considered for computation of the ratio, thereby leading to rise in the ratio and vice-versa. The members felt that the condition of 100 trades and Rs. 1000 Cr volume should not be changed. In order to smoothen the rise/fall, it was decided to calculate the ratio based on "3 month moving average ratio" starting from 1st November, 2014.

For the month of **October** -meeting held on 1 Nov 14	**Corporate Bond Matrix:** The monthly spread matrix for November 2014 was discussed and approved by members. **Discussion with regards to bond rated below AA-** : There are 6 ratings till BBB-. Presently, for bonds rated below AA-, a fixed spread is added to the AA- spread (segment wise) to arrive at the spread for the bond concerned on the basis of valuation committee decision on 01st August, 2014 for a period of 3 months till end October valuation. In October, FIMMDA have analyzed the traded spread over the corresponding G-sec for July, August, September and October (till 22/10/2014). The bonds were chosen as per the rating given on the NSE/BSE reporting platforms. The finding was that in general the spread are lower than that of July 2014. The participants were also shown the following tables. • G-sec month end closing price comparison Sept – Oct 2014. • Movement in AAA rated bonds traded spread (For HDFC, REC and LIC Housing Finance) in July, August, September and October (22.10.2014). • Movement in spreads of AA- rated bonds in July, Aug, Sept and Oct (22/10/2014). • The participants observed that in some cases, the ratings given by NSE/BSE to some corporates were not updated by them and hence the traded spreads are showing greater variance from the actual spreads. However, since there was a large movement in AA- spreads themselves, the participants felt that the existing spreads (for ratings below AA-) may continue for the next 3 months (end November to end January 2015). **SPREADS OVER AA- FOR BONDS RATED BELOW AA-** RATING FIMMDA Spreads As EXISTING on 31/10/2014 (July-14 to 22-Oct-14) TRADED As per Banks Website CREDIT SPREADS SPREADS DECIDED IN THE MEETING AA- As arrived at the end of each month -------- Add following spreads to AA- Spreads -------- A+ 25 As per tables shown in the meeting 31 25 A 50 58 50 A- 75 124 75 BBB+ 100 143 100 BBB 125 98 125 BBB- 150 162 150 The matrix approved by Valuation Committee members will be valid for next 3 month end valuations (end November-2014, end December-2014 and end January-2015).

For the month of **November** -meeting held on 29 Nov 14	**Discussions regarding the Benchmark Submitters:** CEO informed the participants the status of the Benchmark Committee, the progress made in shifting overnight rates, term money polling, corporate bonds and MIFOR. The list of submitters were shown to the participants. The same will be disclosed on the website along with introduction of the respective Benchmarks and in consultation with RBI.
For the month of **December** -meeting held on 1 Jan 15	**Discussion on Polling for Corporate Bond:** After detailed discussion the following decisions were taken: **1) <u>Rationalisation of segments / categories:</u>** It was unanimously felt that the category 'Banks' is no longer necessary. It was introduced when the bank's subordinate debt bonds were traded at a different level. Now the bank bonds are trade on par with any other PSU bonds. Hence, it was decided to merge 'Banks' with 'PSU&FIs' and have only one category called "PSU/FI/Banks". **2) <u>Rationalisation of tenors:</u>** Presently, the submitters are polling for 8 tenors- 0.5, 1, 2, 3, 5, 7, 10 and 15 years. The tenor 15 years in mostly applicable to Banks/PSU/FI bonds. The tenors 0.5, 2 and 7 year tenor are hardly traded and it is difficult to judge the yields. Hence, it was decided to reduce the polling tenors as under:- o For PSU/FI/Banks : 1,3,5,10& 15 years o For other categories : 1,3,5 & 10 years o For other tenors: the spread will be decided on the base on simple interpolation / extrapolation between the polled tenors. **3) <u>Miscellaneous issues:</u>** Some of the member banks who have been selected as submitters desired that in view of stringent norms for polling, the fixing of corporate bond benchmarks be done only based on traded rates and not on polls. It was explained that since trading is very less and confined to very few securities, for supplementing the traded rates polled rates are necessary. Another member bank told that since banks & PDs hold only about 5% of total outstanding, it is not advisable to take polls from them. It was clarified that banks and PDs contribute significantly in the trading of corporate bonds and hence they have to participate in the polling as per RBI Circular dated 16th April, 2014.
For the month of **January** -meeting held on 31 Jan 15	**Discussion on fixed spread for Corporate Bonds rated below AA** There are 6 ratings below AA- till BBB-. For bonds rated below AA-, a fixed spread is added to the AA- spread in each segment and that fixed spread is reviewed by the Valuation Committee once in three months. In January, FIMMDA have analyzed the traded spread over the corresponding G-sec (rating wise & segment wise) for the period from 1st October 2014 to 23rd January 2015. The ratings of the bonds were cross checked from NSDL website. The outliers were also removed. The finding was that in general the spreads are higher than that of last quarter ended January 2015. Since the spreads were based on actual trades, it was decided by the committee to fix the fixed spreads as per the traded spreads (after rounding of). Wherever, there was no traded data, or traded spreads were found to be away from the trend, the gaps were filled in by simple interpolation. The fixed spreads decided for three months period from February end to April end 2015 are as under. SPREADS OVER AA- FOR BONDS RATED BELOW AA- RATING FIMMDA Spreads As EXISTING on 31/1/2015 SPREADS FIXED IN THE MEETING for all Segments PSU FIs & Banks Corporate's NBFC's AA- As arrived at the end of each month -------- Add following spreads to AA- Spreads -------- A+ 25 50 75 100 A 50 75 150 125 A- 75 100 175 150 BBB+ 100 125 200 175 BBB 125 150 225 200
For the month of February -meeting held on 28 Feb 15	**<u>Fixation of FRB Spreads.</u>** As per the valuation committee decision 1st March 2014, we started taking polls from the identified holders of FRB (holders of HFT/HTM/AFS) every fortnight and desired spreads were calculated as per methodology described on website. The RBI announced implementation of the recommendation of its committee on Financial Benchmark in the first bi-monthly monetary policy statement for 2014-15 on 1.4.2014. FIMMDA was identified as Benchmark Administrator. We obtained the data of FRB's traded on NDS-OM platform for period April '14 – Sep'14 and identified the submitters as per RBI instructions. The identified submitters were intimated in November 2014 along with code of conduct and advised to put in place the required policies and procedures prescribed there under. In consultation with RBI, the FRB polls from newly identified submitters would start wef 2nd March 2015. Such polls would also be published on our website, without submitter's names. So effective 2nd March the polls would be taken from identified summiteers and desired spread will be calculated as per methodology published on FIMMDA website. Likewise another poll will be taken on 16th March and desired spread will be calculated which will be applicable from 16th March to 31st March. The polls submitted may be made public with submitter's names on our website after receipt of approval from the regulator with suitable intimation to the submitters. **<u>Discussion on FIMMDA draft on Valuation of Investment Circular 2015-</u>** The draft circular incorporating the suggestion received from the members and clarification given during April 2014 to Feb 2015 was discussed and approved with certain modifications. The same will be sent to RBI for vetting before publishing the same on FIMMDA website. The following points related to valuation were also discussed:- **A. Valuation of CP, CD & T- Bill:** Only T-Bills are required to be marked to market by standalone PDs, whereas banks and bank PDs are allowed to carry T-Bills at carrying cost. Pending adoption of IFRS, standalone PDs may also be allowed to carry T-Bills at carrying cost. FIMMDA will take up the matter with RBI. **B. Infra Bonds:** They will be valued like normal bonds. **C. Valuation of MIFOR:** Market participates desired to follow their own valuation method on a consistent basis for day to day valuation and go by rates published by FEDAI for month end valuation. FIMMDA will take up the matter with RBI. **D. Valuation of Compulsorily Convertible (Partly or Fully) Bonds:** Members sought time to study the matter. **E. Corporate Bond Valuation Removal of minimum spread of 50bps:** As per para 3.7.1 of RBI Master Circular dated 1.7.2014, the rate used for the YTM for rated debentures/bonds should be at least 50 bps above the rate applicable to a G-Sec of equivalent maturity. The members pointed out that the traded spreads especially in AAA rated PSU bonds are much less than 50bps. Some bonds are even traded at negative spreads. In order to bring the valuation of bonds closer to market traded yield and prices, FIMMDA was requested to take up the matter with RBI for removal of minimum spread of 50bps clause.

For the month of **March** -meeting held on 01 Apr 15

Fixation of FRB Spreads.

It was noticed that in the existing methodology, one lowest and one highest polled spreads are removed as outliers though they are close to mean value. Besides, if the lowest/highest values are quoted by more than one submitters, only one value is removed. To make the process more scientific it was decided to follow the below methodology.

- The Mean and Standard Deviation (STDEV) will be calculated for all polled spreads.
- A Max-Min range will be computed – (**Max will be Mean + 2* Standard Deviation and Min will be Mean - 2* Standard Deviation).**
- Removing Outliers: Spreads outside the said Max and Min range will be considered as outliers and dropped from the data (i.e. Higher than Max and Lower than Min).
- Simple average of remaining polled spreads will be considered for valuation.

Discussion on FIMMDA circular on Valuation of Investment 2015-

The valuation committee members wanted the following change in the valuation circular issued by FIMMDA on 30th March 2015: Para 2.1.2 (B)

Exiting as per circular dated 30-3-2015

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:

1. The unrated bonds will be valued by marking up the credit spread by a minimum of 20 % over the equivalent rated bond of similar tenure.

2. For the above purpose, "corresponding" would mean, if the unrated bond has a maturity of 't' years, the rated bond should have a maturity not less than t - 0.5 years. For example, if the unrated bond has a residual maturity of 3 years, then the rated bond to be treated as corresponding should have a maturity of at least 2.5 years.

Suggested Change

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:

1. 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.

It was decided to issue a revised circular incorporating the above change.

The following points related to valuation were also discussed:-

A. Infra Bonds:

They will be valued like normal bonds.

B. Valuation of Compulsorily Convertible (Partly or Fully) Bonds:

Members sought time to study the matter.

For the month of **April** -meeting held on 2nd May 2015

Discussion on fixed spread for Corporate Bonds rated below AA-:

For bonds rated below AA-, a fixed spread is added to the AA- spread in each segment and that fixed spread is reviewed by the Valuation Committee once in three months.

FIMMDA have analyzed the traded spread over the corresponding G-sec (rating wise & segment wise) for the period from 1st January 2015 to 31st March 2015. The ratings of the bonds were cross checked from NSDL & CRISIL website.

The methodology appraised to the Valuation Committee was as under;

1. Calculate yields wherever its blank 2. Arrange as per segment wise 3. Arrange as per segment wise 4. Sort as per spreads 5. Calculate weighted average spreads
6. Calculate standard deviation of spreads 7. Remove outliers which are away from weighted average by 2 standard deviations 8. Calculate weighted average spreads for the remaining

It was decided by the committee to fix the fixed spreads as per the traded spreads (after rounding of). Wherever, there was no traded data, or traded spreads were found to be far away from the trend, the gaps were filled in by simple interpolation. Also if the traded spread was negative then in that case valuation committee members felt that a minimum positive spread should be considered.

Analysis of Traded Spreads (Over G-Sec) of bonds rated below AA- (Jan 15 to March 15)

Segment / Ratings	PSU FIs & Banks	Diff. over AA-	Corporates	Diff. over AA-	NBFCs	Diff. over AA-
AA-	136 (118)		229 (162)		233 (191)	
A+	135 (176)	-1 (58)	155 (234)	-74 (72)	223 (299)	-10 (108)
A	108 (116)	-28 (-2)	307 (304)	78 (142)	322 (315)	89 (124)
A-	130	-6	386	157	470 (173)	237 (-18)
BBB+	427	291	NA (373)	NA (211)		
BBB			175 (146)	-54 (-16)		

SPREADS OVER AA- FOR BONDS RATED BELOW AA-
RATING FIMMDA Spreads As EXISTING on 30/4/2015 SPREADS DECIDED IN THE MEETING
PSU FIs & Banks Corporates NBFCs PSU FIs & Banks Corporates NBFCs
AA- As arrived at the end of each month
-------- Add following spreads to AA- Spreads -------- The spreads approved by Valuation Committee members will be valid for next 3 month- end valuations (end May-2015, end June-2015 and end July-2015
A+ 50 75 100 25 25 25
A 75 150 125 50 75 100
A- 100 175 150 75 150 200
BBB+ 125 200 175 100 175 225
BBB 150 225 200 125 200 250
BBB- 175 250 225 150 225 275

Discussion on consideration of traded prices of Corporate Bonds which are traded below G-sec Par yield:At present, the trades in corporate bonds with negative spreads as compared to G-sec par yield are not considered as trades for valuation purpose. This is as per the decision taken in Valuation Committee meeting in the month of October 2013.It was pointed out that of late many bonds are traded at negative spreads and excluding them will amount to not valuating the bonds at traded price during the last 15 calendar days. Therefore, it was decided by the Valuation Committee members that all trades (with positive or negative spreads) will be considered as trades for valuation purpose.

Discussion on Valuation of AT-1 Bonds: Members desired to have a separate treatment for valuation of AT-1 bonds. After detailed discussion, it was decided as under:

a) Traded data for the past one month will be considered for arriving at the additional spread over & above the spread Matrix published.

b) If not traded, then the spreads at which the bonds were issued will be considered for arriving at additional spreads.

c) Additional spreads will be given by way of footnote.

For the month of **May**-meeting held on 30th May 15

Discussion on fixed spread for AT1 Corporate Bond -:

The spreads on AT-1 bonds issued by banks for the month of May 2015 were disused and it was decided to amend the methodology as approved in the Valuation Committee held on May 2,2015. Point no 8. (b) stands amended to read as "Only traded Bonds spreads will be considered for arriving at the average spreads and the same average spreads will be applied to non traded bonds". This will be effective from June 2015.

The spread calculated for the month of May (160 bps) and circulated in the meeting as per the previous procedure was approved.

For the month of **June**-meeting held on 01st July 15

Fixed spread for AT1 Corporate Bond:
The spreads on AT-1 bonds issued by banks for the month of June 2015 were discussed and it was decided to amend existing methodology.

The AT-1 bonds will be divided into two categories depending upon (A) Rating up to AA & (B) Rating AA- & Below with Residual tenors 3 to 5 years & 7 to 10 years in each category.

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 (3 to 5 years / 7 to 10 years) (AA & above, AA- & below) and their volume weighted average will be arrived. Total 4 spreads will be published.
In case there are no trades in any tenor, of a rating, then the spreads prevailing in the second tenors will be considered. (eg. Up to AA category, 3 to 5 years tenor is traded with a spread of 128 but 7 to 10 years is not traded, then **128** will be considered for 7 to 10 years & vice versa.
Valuation of AT-1 corporate bonds may be done at Yield to first call basis.
Based on Traded data & Methodology, following spreads are approved for June 2015;

Ratings / Tenors	3 to 5 Years	7 to 10 Years
AA & Above		
AA- & Below		

For the month of **July** -meeting held on 01st August 15

Corporate Bond Matrix:
The monthly spread matrix for August 2015 was discussed and approved by members. Participants were requested to participate in the polling. It was decided to continue to publish the issuers of 2-3 largely traded bonds so as to serve as indicative securities for polling.
Discussion on fixed spread for Corporate Bonds rated below AA-:
For bonds rated below AA-, a fixed spread is added to the AA- spread in each segment and that fixed spread is reviewed by the Valuation Committee once in three months.
FIMMDA have analyzed the traded spread over the corresponding G-sec (rating wise & segment wise) for the period from 1st April 2015 to 30th June 2015. The ratings of the bonds were cross checked from NSDL & CRISIL website.
The methodology appraised to the Valuation Committee was as under;

1. Calculate yields wherever its blank 2. Arrange as per segment wise 3. Arrange as per segment wise 4. Sort as per spreads 5. Calculate weighted average spreads
6. Calculate standard deviation of spreads 7. Remove outliers which are away from weighted average by 2 standard deviations 8. Calculate weighted average spreads for the remaining

It was decided by the committee to fix the fixed spreads as per the traded spreads (after rounding of). Wherever, there was no traded data, or traded spreads were found to be far away from the trend, the gaps were filled in by simple interpolation. Also if the traded spread was negative then in that case valuation committee members felt that a minimum positive spread should be considered.

Analysis of Traded Spreads (Over G-Sec) of bonds rated below AA- (April 15 to June 15)

Analysis of Traded Spreads (Over G-Sec) of bonds rated below AA- (Jan 15 to March 15)

Segment / Ratings	PSU FIs & Banks	Diff. over AA-	Corporates	Diff. over AA-	NBFCs	Diff. over AA-
AA-	184 (136)		186(229)		227(233)	
A+	254 (135)	70 (-1)	246(155)	60(-74)	261(223)	34(-10)
A	98 (108)	- 86 (-28)	283(307)	97(78)	341(322)	114(89)
A-	158 (130)	- 26 (-6)	402(386)	216(157)	(470)	(237)
BBB+	(427)	(291)	507 (NA)	321(NA)		
BBB			371(175)	185(-54)		

Note: Figures in brackets are spreads of last quarter (1st January 2015 to 31st March 2015).
Based on the above analysis, the fixed spreads decided for three months period from August end to October end 2015 were as under

<u>SPREADS OVER AA- FOR BONDS RATED BELOW AA-</u>

RATING FIMMDA Spreads As EXISTING on 31/7/2015				SPREADS DECIDED IN THE MEETING		
Segment / Ratings	PSU FIs & Banks	Corporates	NBFCs	PSU FIs & Banks	Corporates	NBFCs
AA-		As arrived at the end of each month				
A+	25	25	25	50	50	50
A	50	75	100	75	75	75
A-	75	150	200	125	125	125
BBB+	100	175	225	175	175	175
BBB	125	200	250	225	225	225

The above spreads approved by Valuation Committee members will be valid for next 3 month- end valuations (end August-2015, end September-2015 and end October-2015).
<u>Discussion on Valuation of AT-1 Bonds: Based on Traded data & Methodology, following spreads are approved for August 2015</u>

Ratings / Tenors	3 to 5 Years	7 to 10 Years
AA & Above	131	179
AA- & Below	179	225*

For the month of **August** -meeting held on 01st September 15

Valuation of AT-1 Bonds:
Based on Traded data & Methodology, following spreads are approved for September 2015;
Ratings / Tenors 3 to 5 Years 7 to 10 Years
AA & Above 130 140
AA- & Below 170* 180
Note * - Weighted average traded spread was 216, which was not accepted by the committee. The pattern observed for AA & above was followed and a spread of 170 was approved.

For the month of **Septembe**r -meeting held on 01st October, 2015	**Valuation of AT-1 Bonds: Based on Traded data & Methodology, following spreads are approved for October 2015**; Ratings / Tenors 3 to 5 Years 7 to 10 Years AA & Above 138 (130) 193 (140) AA- & Below 253 (170) 274 (180) *Figures in bracket are that of last month **Issue in Polling of spreads for Corporate Bond Valuation:** Since July 2015, FIMMDA is identifying the most traded bonds in each category / ratings/ tenor and sending to the submitters to enable them to submit their polls based on some uniform traded bonds. It was pointed out by some of the market participants that the rating considered by FIMMDA for this purpose is at variance with the latest ratings of the bonds. FIMMDA modifies the ratings as appearing on the website of exchanges or rating agencies by referring to the NSDL – Corporate Bond Database (www.indiabondinfo.com). To explain the procedure of updating the ratings and to clarify as to why there should be difference in ratings of some bonds, NSDL was requested to participate in the valuation committee meeting. Mr. Chetan R. Sakharkar (Assistant Manager) from NSDL participated and informed that Credit Rating Agencies have been mandated by SEBI vide circular No.: CIR/IMD/DF/17/2013 dated October 22, 2013, inter alia, to update the ratings of the bonds. The rating agencies are required to inform the ratings / review of ratings to NSDL within 3 days of such rating / review. NSDL follows up with the rating agencies regularly to update / review the ratings of ISIN. Most of the market participants intimated that referring to the NSDL database for seeking information on instruments and are finding it to be useful for further decisions as it is the database where most of the updated information including rating changes as updated by credit rating agencies are available. It was pointed out by market participants that in some cases, the information related to ratings differ between NSDL and stock exchanges. It might be due to; 1) The ratings were updated on NSDL corporate bond database but the data on stock exchanges was not updated 2) Non-updating of credit ratings on Depositories by Credit Rating Agencies who have been provided secure logins for updating the information. The participants discussed the issue in detail and it was felt that the change in the rating is sensitive information and the issuer / rating agencies are obliged to inform the change in rating to the Depositaries as per SEBI Circular and the exchanges are obliged to access the database on daily basis and update the information. It was decided that FIMMDA discusses the issue with the exchanges and takes up with SEBI the cases of issuers / rating agencies not reporting the change in the rating.
For the month of September -meeting held on 01st October, 2015	Valuation of AT-1 Bonds:Based on Traded data & Methodology, following spreads are approved for November 2015; Ratings / Tenors 3 to 5 Years 7 to 10 Years AA & Above 154* (138) 154 (193) AA- & Below 288 (253) 255 (274) Note: * Figures in bracket are that of last month. * No Trades in AA & Above - 3 to 5 Years, so spread of 7 – 10 Years taken Discussion on fixed spread for Corporate Bonds rated below AA-: For bonds rated below AA-, a fixed spread is added to the AA- spread in each segment and that fixed spread is reviewed by the Valuation Committee once in three months. FIMMDA have analyzed the traded spread over the corresponding G-sec (rating wise & segment wise) for the period from 1st July 2015 to 30th September 2015. The ratings of the bonds were cross checked from NSDL & CRISIL website.The methodology appraised to the Valuation Committee was as under; • Calculate yields wherever its blank • Calculate residual maturity • Calculate Spread over G-sec of corresponding maturity (Nearest 0.25 years). • Arrange as per segment wise • Sort as per spreads • Calculate weighted average spreads • Calculate standard deviation of spreads • Remove outliers which are away from weighted average by 2 standard deviations • Calculate weighted average spreads for the remaining spreads It was decided by the committee to fix the fixed spreads as per the traded spreads (after rounding of). Wherever, there was no traded data, or traded spreads were found to be far away from the trend, the gaps were filled in by simple interpolation. Also if the traded spread was negative, valuation committee members felt that a minimum positive spread should be considered.It was decided not to consider Additional Tier 1 (AT1) bonds for this analysis. Analysis of Traded Spreads (Over G-Sec) of bonds rated below AA- (July 15 to September 15)

For the month of October -meeting held on 31st October, 2015

. Valuation of AT-1 Bonds:
Based on Traded data & Methodology, following spreads are approved for November 2015;
Ratings / Tenors 3 to 5 Years 7 to 10 Years
AA & Above 154* (138) 154 (193)
AA- & Below 288 (253) 255 (274)
Note: * Figures in bracket are that of last month , * No Trades in AA & Above - 3 to 5 Years, so spread of 7 – 10 Years taken

8. **Discussion on fixed spread for Corporate Bonds rated below AA**-: For bonds rated below AA-, a fixed spread is added to the AA- spread in each segment and that fixed spread is reviewed by the Valuation Committee once in three months.
FIMMDA have analyzed the traded spread over the corresponding G-sec (rating wise & segment wise) for the period from 1st July 2015 to 30th September 2015. The ratings of the bonds were cross checked from NSDL & CRISIL website.
The methodology appraised to the Valuation Committee was as under;
- Calculate yields wherever its blank, Calculate residual maturity, Calculate Spread over G-sec of corresponding maturity (Nearest 0.25 years), Arrange as per segment wise,
- Sort as per spreads, Calculate weighted average spreads, Calculate standard deviation of spreads, Remove outliers which are away from weighted average by 2 standard deviations
- Calculate weighted average spreads for the remaining spreadsIt was decided by the committee to fix the fixed spreads as per the traded spreads (after rounding of). Wherever, there was no traded data, or traded spreads were found to be far away from the trend, the gaps were filled in by simple interpolation. Also if the traded spread was negative, valuation committee members felt that a minimum positive spread should be considered. It was decided not to consider Additional Tier 1 (AT1) bonds for this analysis.

Analysis of Traded Spreads (Over G-Sec) of bonds rated below AA-(July 15 to September 15)
Segment / Ratings PSU FIs & Banks Diff. over AA- Corporates Diff. over AA- NBFCs Diff. over AA-
AA- 134 (184) 216 (186) 202 (227)
A+ 99 (254) 35 (70) 269 (246) 53 (60) 263 (261) 61 (34)
A 92 (98) -42 (-86) 368 (283) 152 (97) 446 (341) 244 (114)
A- 159 (158) 25 (-26) 336 (402) 120 (216) 503 (NA) 301 (NA)
BBB+ 839 (507) 623 (321)
BBB NA (371) NA (185)
BBB- NA (488) NA (261) Note: Figures in brackets are spreads of last quarter (1st April 2015 to 30th June 2015). Based on the above analysis, the fixed spreads decided.
SPREADS OVER AA- FOR BONDS RATED BELOW AA-
RATING FIMMDA Spreads As existing on 31/10/2015 SPREADS DECIDED IN THE MEETING
PSU FIs & Banks Corporates NBFCs PSU FIs & Banks Corporates NBFCs
AA- As arrived at the end of each month

For the month of November -meeting held on 1st December, 2015

Polling of Corporate Bond spreads for valuation- Issuers of Top Traded bonds:In the valuation committee meeting held on 01.07.2015, it was decided that FIMMDA should indicate the names of 2/3 top traded issuers in each tenor/rating/category based on which the submitters would poll. FIMMDA is following the practice since then.The members pointed out that sometimes, some a specific bond gets traded more due to various reasons bringing it to the top 1st or 2nd position but that bond may not be a regularly traded bond or representative bond for that tenor / rating / category.
When such a bond is identified as top traded, the polls given by the submitters may vary as some might be considering some other bond in that segment / tenor for submitting polls. So it was decided that instead of giving one or two most traded bond in a segment /tenors FIMMDA may circulate the list of all traded bonds in the month (Excluding failed trades, tax free, AT 1 bonds and rating below AA-) to enable the submitters to study the trades and give their polls for all the tenors and segments required in the matrix.
8. Valuation of AT-1 Bonds:
Based on Traded data & Methodology, following spreads are approved for AT – 1 Bonds;
Ratings / Tenors 3 to 5 Years 7 to 10 Years
AA & Above 141 (154) 171 (154)

For the month of December -meeting held on 1st January, 2016

The monthly spread matrix as of 31st December 2015 was discussed and approved by members.
7. Valuation of AT-1 Bonds:
Based on Traded data & Methodology, following spreads are approved for AT – 1 Bonds;

Ratings / Tenors	3 to 5 Years	7 to 10 Years
AA & Above	127 (141)	158 (171)
AA- & Below	228 (273)	138 (264)

Note:* Figures in brackets are that of last month.

For the month of January -meeting held on 30th January, 2016

8.Discussion on fixed spread for Corporate Bonds rated below AA-:
For bonds rated below AA-, a fixed spread is added to the AA- spread in each segment and that fixed spread is reviewed by the Valuation Committee once in three months.
FIMMDA have analyzed the traded spread over the corresponding G-sec (rating wise & segment wise) for the period from 1st October 2015 to 31st December 2015. The ratings of the bonds were cross checked from NSDL & CRISIL website.
The methodology appraised to the Valuation Committee was as under;
- Calculate yields wherever its blank
- Remove duplicates, Tax free bonds & AT1 bonds.
- Calculate residual maturity
- Calculate Spread over G-sec of corresponding maturity.
- Arrange segment wise
- Sort as per spreads
- Ignore the trades with negative spreads
- Calculate weighted average spreads
- Calculate standard deviation of spreads
- Remove outliers which are away from weighted average by 2 standard deviations
- Calculate weighted average spreads for the remaining spreads

It was decided by the committee to fix the fixed spreads as per the traded spreads (after rounding of). Wherever, there was no traded data, or traded spreads were found to be far away from the trend, the gaps were filled in by simple interpolation

Segment / Ratings	PSU FIs & Banks	Diff. over AA-	Corporates	Diff. over AA-	NBFCs	Diff. over AA-
AA-	98 (134)		217 (216)		206 (202)	
A+	117 (99)	19 (35)	264 (269)	47 (53)	253 (263)	47 (61)
A	NA (92)	NA (-42)	289 (368)	72 (152)	224 (446)	18 (244)
A-	230 (159)	132 (25)	297 (336)	80 (120)	NA (503)	NA (301)
BBB+			NA (839)		NA (623)	
BBB			282 (NA)	65 (NA)	877 (NA)	664 (NA)
BBB-			1275 (NA)	1058(NA)	NA (488)	NA (286)

Note: Figures in brackets are spreads of last quarter (1st July 2015 to 30th September 2015).
Based on the above analysis, the fixed spreads were decided as under :
SPREADS OVER AA- FOR BONDS RATED BELOW AA-
RATING FIMMDA Spreads As existing on 31/01/2016 SPREADS DECIDED IN THE MEETING
PSU FIs & Banks Corporates NBFCs PSU FIs & Banks Corporates NBFCs
AA- As arrived at the end of each month
-------- Add following spreads to AA- Spreads --------

A+	50	100	100	25	75	75
A	75	175	200	50	150	175
A-	125	200	225	125	175	200
BBB+	175	225	250	150	200	225
BBB	200	250	275	175	225	250
BBB-	225	275	300	200	250	275

The above spreads approved by Valuation Committee members will be valid for next 3 month- end valuations (end February -2016, end March -2016 and end April -2016).

Discussion on Cubic Spline Methodology

For the month of **February** -meeting held on 1st March, 2016

a) The valuation committee noted that maturity date of the traded T-Bill does not impact the yield curve. However the yield of the traded T-Bill is impacting the yield curve up to 1st year tenor. It was decided to continue the present practice of inputting of the recent cut-off yield of 91-Day T-Bill as first input. FIMMDA will do further analysis by inputting all the T-Bill traded yields (crossing the filter). When the residual tenor of traded T-Bill is more than 6 months, the yield is to be input by converting T-Bill yield to G-sec yield.

b) All the last traded Government Securities prices/yield on NDS – OM platform will replace the model generated prices/yield in the Valuation sheet irrespective of crossing the filter criteria from 1st April, 2016.

The Inter-scheme trades of Corporate Bonds:

The Valuation Committee has decided not to consider inter scheme transfer deals in corporate Bonds reported on the reporting platforms maintained by the exchanges while consolidating the trades and publishing on FIMMDA platform.

For the month of **March** - meeting held on 1st April, 2016

Valuation of AT-1 Bonds: **Based on Traded data & Methodology, following spreads are approved for AT – 1 Bonds;**

Ratings / Tenors	**3 to 5 Years**	**7 to 10 Years**
AA & Above	131 (136)	190 (166)
AA-& Below	191 (197)	274 (272)

Note:* Figures in brackets are that of last month

Discussion on Sovereign Gold Bonds Valuation:

The Valuation Committee has decided to consider previous week's (Monday - Friday) simple average post meridiem (p.m.) closing price for gold of 999 Purity, published by the India Bullion and Jewellers Association Ltd. (IBJA) for valuation of Sovereign Gold Bonds till valuation guidelines are issued by RBI.

For the month of **April** - meeting held on 30th April, 2016

Valuation of AT-1 Bonds: **Based on Traded data & Methodology, following spreads are approved for AT – 1 Bonds;**

Ratings / Tenors	**3 to 5 Years**	**7 to 10 Years**
AA & Above	131 (131)	164 (190)
AA-& Below	265 (191)	265 (274)

Note:* Figures in brackets are that of last month.

Discussion on PSL compliant PTCs Corporate Bonds Valuation:

The Valuation Committee has decided to send mail to all who has attended the meeting on 30th April, 2016 for their views on Valuation of PTCs in the light of changes proposed in the budget bill for valuation of this instrument.

For the month of **May** - meeting held on 1st June, 2016

Valuation of AT-1 Bonds: Based on Traded data & Methodology, following spreads are approved for AT – 1 Bonds;

Ratings / Tenors	3 to 5 Years	7 to 10 Years
AA & Above	154 (131)	172 (164)
AA-& Below	245 (265)	352 (265)

7. Discussion on fixed spread for Corporate Bonds rated below AA-:

For bonds rated below AA-, a fixed spread is added to the AA- spread in each segment and that fixed spread is reviewed by the Valuation Committee once in three months.

FIMMDA have analyzed the traded spread over the corresponding G-sec (rating wise & segment wise) for the period from 1st January 2016 to 30th April 2016. The ratings of the bonds were cross checked from NSDL & CRISIL website.The methodology appraised to the Valuation Committee was as under;

• Calculate yields wherever its blank• Remove duplicates, Tax free bonds & AT1 bonds.• Calculate residual maturity • Calculate Spread over G-sec of corresponding maturity.

• Arrange segment wise • Sort as per spreads • Ignore the trades with negative spreads • Calculate weighted average spreads • Calculate standard deviation of spreads

• Remove outliers which are away from weighted average by 2 standard deviations • Calculate weighted average spreads for the remaining spreads

It was decided by the committee to fix the fixed spreads as per the traded spreads (after rounding of). Wherever, there was no traded data, or traded spreads were found to be far away from the trend, the gaps were filled in by simple interpolation.

Analysis of Traded Spreads (Over G-Sec) of bonds rated below AA- (Jan 16 to March 16)

Segment / Ratings	PSU FIs & Banks	Diff. over AA-	Corporates	Diff. over	AA- NBFCs	Diff. over AA-
AA-	113 (98)		365 (217)		269 (206)	
A+	NA (117)	NA (19)	272 (264)	-93 (47)	275 (253)	6 (47)
A	237 (NA)	124 (NA)	347 (289)	-18 (72)	224 (446)	18 (244)
A-	230 (159)	132 (25)	297 (336)	-5 (80)	361 (NA)	92 (NA)
BBB+			754 (NA)	389 (NA)		
BBB			1053 (282)	688 (65)	NA (877)	NA (664)
BBB-			NA (1275)	NA (1058)		

Based on the above analysis, the fixed spreads were decided as under:

SPREADS OVER AA- FOR BONDS RATED BELOW AA-

RATING FIMMDA Spreads as existing on 31/01/2016 SPREADS DECIDED IN THE MEETING

PSU FIs & Banks Corporates NBFCs PSU FIs & Banks Corporates NBFCs

AA- As arrived at the end of each month

-------- Add following spreads to AA- Spreads --------

A+ 25 75 75 25 75 75

A 50 150 175 125 150 175

A- 125 175 200 125 150 200

BBB+ 150 200 225 150 200 225

BBB 175 225 250 175 225 250

BBB- 200 250 275 200 250 275

The above spreads approved by Valuation Committee members will be valid for next 3 month- end valuations (end May -2016, end June -2016 and end July -2016).

8. Valuation of PSL compliant PTCs: With the requirement of quarterly monitoring of priority sector advances, the issue of PSL compliant PTCs is happening throughout the year and the volume is increasing. The number of banks purchasing these PTCs is also increasing. Hence the members felt that there should be a relook at the valuation of PSL compliant PTCs. Till 31st March 2016, PTCs are valued as tax free bonds i.e., the coupon should be grossed up at the rate of tax applicable to the investor and then the instrument is to be valued as per para 3.7.1 of RBI Master Circular dated 01.07.2015. Spread matrix applicable to NBFC category is used for the relevant rating and tenor of PTCs. After discussion, it was agreed that the spreads applicable to NBFCs category only be used as the issuer SPVs (Special Purpose Vehicles) are floated by NBFCs. Even if the SPV is floated by corporates the spreads applicable to NBFCs category only may be used as the original guidelines are to value them at "worst spreads".

Since the budget for 2016-17 has taken out the tax free status of PTCs, the grossing up of the coupon will not happen. Since the coupon is very low, all PSL compliant PTCs may be valued much below par value. Because of the demand for PSL compliant PTCs, the issuers are not increasing the coupon. Therefore, the prevailing yield for PSL compliant PTCs in the primary market is around 6 to 8 % only. Primary market yields and prices are not reflected in the valuation and hence the members suggested to ascertain the primary market yields through polls or collecting issuance details from the purchasers and use the same for valuation.It is informed that the deals are mostly bilateral and the yields are privy to the issuers and the purchasers and all banks may not be ready to share the data. Though certain coupons are informed to Central Repositories like NSDL and CDSL they are not indicative of the yields at which the primary market transactions took place. Secondly, the low yields are due to demand from the banks which have not achieved the priority sector targets and the same yields may not be acceptable to other investors and hence may not represent "Market Yield". There is no trade in secondary market to indicate the secondary market yield / price without which the polling will be near impossible. The banks were requested to share the primary market issuance data for further analysis. Another suggestion emanated during the discussion was excluding the PSL compliant PTCs from valuation as in the case of RIDF (Rural Infrastructure Development Fund). Though PTCs are tradable and RIDF is in the nature of deposits with NABARD, FIMMDA may take up the matter with RBI as both instruments are to meet the short fall in priority sector lending.

For the month of **June** - meeting held on 01st July, 2016

1. Identification of Nodal Points for the Month of July, 2016 –Application of Filter Criteria for selection of Nodal points:Present practice for yield curve generation: Please refer to our methodology document on the website. On the first working day of every month, the FIMMDA Valuation Committee would identify "Nodal Points" (one bond pe calendar year tenor) from the outstanding stock of Government of India Securities. There will be only ONE Nodal Point for a calendar year of maturity (2016, 2017, 2018 .... 2045, 2055 etc). For important input tenors (1-7 and 10 years) the security having the highest product of trades and volume in that Tenor (Trades*volumes) will be selected as Nodal Point without applying any minimum for number of trades and volume. For other tenors, the "Nodal Points" should have had a minimum number of 100 trades and minimum volume of Rs.1000 Crore traded both on the NDS-OM and reported on NDS-OM Reported Deal Section, in the immediate preceding month. If a Nodal Point security fails to meet the above criteria in the subsequent month, it would still qualify to be a Nodal Point if it meets the criteria of 50 trades and 500 Cr, volume. (for the subsequent month only).

The valuation committee will have powers to identify a security for a nodal point even if it fails the filter criteria if it feels that such continuation will aid/improve yield curve generation(Eg: long gap between two nodal points or steepness of the curve between two tenors.)

Problem faced: Trades in longer tenor securities are comparatively less. There is no security outstanding for tenors like 2031,2037,2038, 2046-2054. Out of the remaining long tenor securities if criteria of 100 trades and Rs.1000 cr volume is applied, only few securities qualify for being Nodal Point securities. The yield curve will be better and more qualitative if more input points are used.

Suggestion: It is observed that by reducing the filter criteria, more securities in more tenors will get identified for consideration for inputs for yield curve generation. Reducing the minimum number of trades to 50 and minimum volume to Rs.500 crore will facilitate more securities to qualify for consideration and particularly in the 2030-2045 segment. It indicated possibility of more input points than the present case.

Daily Filter Criteria:

i. The bond selected for curve construction should have traded during the day.

ii. For important input tenors, even a single trade for Rs. 5 crore will enable the nodal point for being considered as Level 1 input. (1-7 years & 10 yrs)

iii. For other tenors, the security selected as nodal point should have reached/ crossed "Filter" set for the month by the Valuation Committee.

Setting daily Filter Criteria:

Identify the Nodal Point with largest number of Trades (T1) and Volumes (V1) and also the Nodal Point with Minimum Number of Trades (T2) and Volumes (V2) during a month.

The daily criterion is a ratio of: % of T2/T1 and % of V2/V1

A 3 month moving average of the ratio calculation as above will be used for moderating the volatility in the ratio.

Problem faced: In any month, the Nodal Point with largest number of Trades (T1) and Volumes (V1) is the highly traded 10 year Nodal Point. This is denominator.

While searching for the Nodal Point with Minimum Number of Trades (T2) and Volumes (V2) (numerator), the criteria of minimum 100 trades and minimum volume of Rs.1000 crore is applied. As a result, the filter criteria is the ratio of lowest traded security (subject to minimum 100 trades and volume of Rs.1000 crore) to the highest traded security. When we reduce the minimum number of trades to 50 and minimum volume to Rs.500 crore for selecting nodal point security, we should make necessary changes in the calculation of ratio for daily filter criteria. Otherwise, even after selecting a security as nodal point it will not pass the daily filter criteria for being considered as Level 1 input.

Valuation of AT-1 Bonds:Traded spreads during the month of June were presented to the members along with the previous month spreads. After discussion it has been decided to value the AT-1 bonds with the following spreads over corresponding G-sec.

Ratings / Tenors 3 to 5 Years 7 to 10 Years

AA & Above 167 (154) 185 (172)

AA-& Below 258 (245) 289 (352)

Note: * Figures in brackets are that of last month.

8. Change in Polling of Corporate Bond below AA+: During the previous valuation committee meetings we were debating whether it is possible to reduce the no. of polls (ratings, tenors, segments) by the identified submitters of polls. In this direction, FIMMDA collated the daily volumes reported by the three exchanges for the years 2014-15 and 2015-16 as published on our website every day. The traded data from the year 2014-15 & 2015-16 was presented for discussion on polling.

Traded Data of Corporate Bond

Sr. No. Rating 2014-15 (%) 2015-16 (%)
1 AAA 80.20 75.88
2 AA+ 6.44 7.76
3 AA 5.43 5.82
4 AA- 3.81 4.80
5 A+ 1.21 1.46
6 A 1.25 1.09
7 A- 0.46 0.16
8 BBB+ 0.04 0.07
9 BBB 0.00 0.16
10 BBB- 0.06 0.26
11 Other 0.17 0.27
12 NA & No Rating 0.93 2.26

Analysis revealed that while AAA accounts for 75-80%, the trades with ratings of AA+, AA & AA- account for 7-5% each. In fact the percentage of AA- rating improved from 3.81 pc to 4.80 pc. i.e. and we cannot ignore AA- . So it was decided to continue polling for the rating up to AA- till further notice.

The CCIL data for the total trades (NDSOM+ Reported) will continue to be considered for identifying Nodal points in each tenor the minimum threshold being 50 trades and Rs500 crores.

FIMMDA will explore the possibility of getting the time wise deals reported on R.D. segment of NDS-OM so that the last traded yield of Nodal point (NDS-OM & RD combined) can be used for curve generation.

3.**Daily Filter criteria for the month**: We are presently experiencing problems in getting sufficient no. of Level 1 – Traded prices in tenors 2032-2055 i.e. say 16 to 40-year segment. Earlier in June 2016 Valuation committee meeting the Filter criteria for identifying nodal points in each tenor (other than 1-7 year) was reduced from 100 trades and Rs1000 Crores to 50 trades and Rs500 crores. The reduction resulted in adding more number of nodal point in tenor 2032-2055 but the daily traded levels did not pass the daily filter criteria which is the ratio of nodal point to the highest traded security – both in terms of no. of trades & volume. The high turnover of the G-sec on NDS –OM in July 2016 was the reason as July saw the total turnover each day going up substantially due to aggressive trading volumes. The NDS-OM grossed a highest turnover of Rs165, 000 crores on a single day in July 2016. The highest traded security went up a level of about 20-25 000 crores which resulted in the daily filter criteria going up to 10-15 trades and 80-120 crores. But the securities in the 2032-2055 segment continued to be trading in their own normal range of 3-6 trades with a volume of Rs. 30-50 Crores. So, to get more Level 1 inputs for generation of yield curve it was found necessary to rationalize the threshold for these segments. The following data was considered:

1. The threshold for fixing the nodal points on the first day of the month for the previous month is 50 trades and Rs500 crores. Daily numbers translate to 3 trades and 25 crores (20 trading days)

2. The data of no. of trades/volume of nodal points in the segment 2035-2045 for the period July 2015 to 23rd June 2016 which failed to pass the daily filter criteria was studied and shown to the members (annexed) The data showed that the average of trades and volume for securities which failed to pass the daily filter criteria was 3 trades and 30 Crores during this period.

So, it has been decided to adopt the following procedure:

Daily Filter criteria will be calculated as per the present rule described in the methodology.

For the segments 16-40 years, the no. of trades and volume calculated as per the filter criteria or 3 trades and Rs25 crores whichever is less will be the daily filter criteria for considering the securities traded yields to be input into the Matlab yield curve generation.

Corporate Bond Matrix:

i) The monthly spread matrix as on 30th July 2016 was discussed and approved by members.

ii) Corporate bond matrix generation:

The methodology of matrix generation was explained to the valuation committee members. In a waterfall mechanism traded spreads are considered first. For that, bonds issued by certain issuers in certain segments/ratings are considered.

Rating Segments Issuers
AAA PSU/FI/Banks REC and PFC
AAA NBFCs HDFC and LIC Housing Finance
AAA Corporates

Input the last traded yield levels for above mentioned issuers, where available. In case of multiple trades, simple average of last traded yields of same/similar issuer is used for the maturity segment. A band of +/- 0.25 calendar year around the matrix segment is used for considering traded securities. These are level 1 inputs.

For the remaining segments and tenors, the polls received from FIMMDA's identified submitters are considered. Outliers in each segment/rating/tenor are removed using median and one standard deviation method. That is, any poll/s which is/are away from the median value by one standard deviation is/are removed as outlier/s. After the removal of the outlier/s, the median is taken as the representative value. After detailed discussion, the committee approved the method of removing the outlier and using the median as representative value.

For the month of **July** - meeting held on 30th July, 2016	The committee also approved the representative issuers for various segments/ratings as under: Rating Segments Issuers AAA PSU/FI/Banks REC AAA NBFCs HDFC and LIC Housing Finance AA+ NBFCs Sundaram Finance AAA Corporates Nil The traded yields of the bonds issued by the above issuers will be used as Level 1 input for calculating spread matrix. Going forward, it was decided that every fortnight, we circulate the traded data of all bonds during the fortnight/month to the pollers and ask them to identify an issuer in each segment and rating. The traded yields of the bonds issued by the identified issuer/s will be used as Level 1 input while calculating spread matrix.Earlier, in the valuation committee meeting held on 01.07.2015, it was decided that FIMMDA should indicate the names of 2/3 top traded issuers in each tenor/rating/category based on which the submitters would poll. In about 4-5months' time (1st December 2015), the submitters opined that sometimes, a bond trades the most due to various reasons but it may not be a representative of the rating, tenor. So, we discontinued the practice and gave the details of all Bonds traded during the month. The polling was being done for each rating and tenor as per the perception of the submitter (as there could be many bonds in the same tenor and rating). So, the polls vary and sometimes, the difference could be large. So, in the meeting held on 30-07-2016, it was decided that identification of representative issuers may be done by the identified submitters on the basis of traded data 2-3 days before the month / fortnight end. These identified representative issuers name will be shared with all the Valuation of AT-1 Bonds:Traded spreads during the month of July were presented to the members along with the previous month spreads. After discussion it has been decided to value the AT-1 bonds with the following spreads over corresponding G-sec. Ratings / Tenors 3 to 5 Years 7 to 10 Years AA & Above 215 (167) 314 (185) AA-& Below 342 (258) 335 (289) Note: * Figures in brackets are that of last month. 7. Discussion on fixed spread for Corporate Bonds rated below AA-:For bonds rated below AA-, a fixed spread is added to the AA- spread in each segment and that fixed spread is reviewed by the Valuation Committee once in three months. FIMMDA have analyzed the traded spread over the corresponding G-sec (rating wise & segment wise) for the period from 1st May 2016 to 25th July 2016. The ratings of the bonds were cross checked from NSDL & CRISIL website. It was decided by the committee to fix the fixed spreads as per the traded spreads (after rounding of). Wherever, there was no traded data, or traded spreads were found to be far away from the trend, the gaps were filled in by simple interpolation. Analysis of Traded Spreads (Over G-Sec) of bonds rated below AA-(01-05-2016 to 25-07-2016) Segment / Ratings PSU FIs & Banks Diff. over AA- Corporates Diff. over AA- NBFCs Diff. over AA- AA- 215 (113) 253 (365) 220 (269) A+ 361 (NA) 146 (NA) 321 (272) 38 (-93) 265 (275) 45 (6) A 190 (237) -25 (124) 366 (347) 113 (-18) 444 (460) 224 (191) A- 251 (246) 36 (133) 458 (360) 205 (-5) NA (361) NA (92) BBB+ NA (754) NA (389) BBB 1076 (1053) 823 (688) NA (877) NA (664) BBB- 855 (NA) 602 (NA) Note: Figures in brackets are spreads of last quarter (1st January 2016 to 30th April 2016). Based on the above analysis, the fixed spreads were decided as under: SPREADS OVER AA- FOR BONDS RATED BELOW AA- RATING FIMMDA Spreads as existing on 31/07/2016 SPREADS DECIDED IN THE MEETING PSU FIs & Banks Corporates NBFCs PSU FIs & Banks Corporates NBFCs AA- As arrived at the end of each month -------- Add following spreads to AA- Spreads --------
For the month of **August** -meeting held on 1st Sept, 2016	2. **Continuation of a Selected Nodal Point in a Tenor for input during a month** : The committee decides Nodal Points for the subsequent month for generation of G-Sec curve on daily basis. The Nodal points are selected on the basis of traded data (trades*volume criterion) of the previous month. However on day if a security other than Nodal point has more traded volume then, that paper /security, is chosen as nodal point for that tenor and that day (as per extant rules). Change in input point with different yield changes the yield curve on the specific day with respect to previous day. Par Yield is derived from the G-Sec yield curve on daily basis. This par yield is used for generating model prices of SDL for non-traded securities. Change in G-Sec yield and Par Yield when the input points change, affect the SDL prices. This distortion in price and yield made an impact on the auction day of SDL UDAY Bonds recently. So it was decided in the meeting that once a Nodal Point is decided for a month, it should be taken as input for curve construction throughout the month irrespective of its level of trading volume during the month. However the rule for taking input in tenor where new security is introduced remains unchanged. . Corporate Bond Matrix: i) The monthly spread matrix as on 31st August 2016 was discussed and approved by members. ii) Corporate bond matrix generation: 7. **Security level Valuation** : Member were informed that FIMMDA is contemplating to give security level valuation for Corporate Bonds. In this direction, a core team is invited and formed. The core team will meet and discuss ways and methods of arriving at valuation. 8. **Valuation of AT-1 Bonds**: Traded spreads during the month of July were presented to the members along with the previous month spreads. After discussion it has been decided to value the AT-1 bonds with the following spreads over corresponding G-sec. Ratings / Tenors 3 to 5 Years 7 to 10 Years AA & Above 199 (215) 286 (314) AA-& Below 406 (342) 335 (335) Note: * Figures in brackets are that of last month.
	Change in the Proxy determination: The methodology was discussed and approved by the FIMMDA Board on 10th December 2015 and the valuation committee on 28th November 2015 and on 31st December 2015as under:For any year if the Nodal Point does not trade on a particular day, then proxy yield for that tenor has to be generated. Proxy yield would be generated as follows: For Nodal Point that did not get traded, the proxy yield would be calculated by adding a factor to that bond's traded/proxy yield of the previous day. The factor would be calculated as follows: a. Difference in yield is computed for the traded Nodal Point security of the tenor immediately preceding the tenor for which proxy yield is required. Similar difference in yield is computed for immediately succeeding tenor. b. Average of the difference in yield of the two tenors (traded on the day) is computed as the factor. c. If no preceding Nodal Point is traded then the factor would be the difference in yield of the immediate succeeding traded Nodal Point; or d. If no succeeding Nodal Point is traded, then the factor would be the difference in yield of the immediate preceding traded Nodal Point. e. If both preceding and succeeding Nodal Points are not traded on both days, then the difference between the proxy yields will be used as the factor. In a scenario of (e), earlier, it was being computed manually and proxy input into the system. Recently, FIMMDA implemented automation of G-sec valuation and during implementation it was found difficult to implement sub point (e), ie when the proxy had to be calculated in the absence of both preceding and succeeding securities. The system was unable to compute in such a scenario. So, to proceed with automation the rule is amended as follows: Revised (e). If both preceding and succeeding Nodal Points are not traded on that day as well as the previous day, then the difference between the preceding Nodal Point yields irrespective of traded/proxy on both days will be used as the factor. The no. of such observed cases are very less and the impact is estimated as minimal. The change was implemented w.e.f. 8th September 2016. Proxy for the 1st year: As per the methodology, there is no filter for the tenors 1-7 years. In cases where there is no trade in 1st year, as per proxy rules, it was computed from the 2nd year tenor if traded. We have come across case where even the second year was not traded. Earlier, we used to compute the same manually out of the immediately preceding traded tenor (from the 2nd or 3rd year whichever is traded) But in automation, it was found difficult to give a formula for such cases. So, for automation purposes, we amended the rule as under: f. Proxy calculation for 1st Year paper: If 1st year paper is not traded nor has MOT, and we are unable to use point©, the proxy will be calculated by using the difference between previous day's 1st Year paper and the 2nd year paper and adding the same to previous day's 1st year paper. This also came into effect from 8th September 2016, the day of automation. Even here, the no.of such cases and the likely impact is expected to be minimal. The changes are confirmed and approved by the valuation committee members. 6. Change in methodology of SDL and Special securities: Presently, for arriving at valuations of traded SDLs, firstly, the trades in NDS-OM, NDS-Reported and ODD lots above Rs.5 Cr are all downloaded. The last trade out of all the three sections is identified and is picked up for inputting into the system as a traded yield/price for that security (replacing the model generated price/yield- par yiled+25 bps). It is known that NDS-OM is an anonymous platform. NDS reported are bilateral OTC deals, reported after endorsement by both the counterparties. ODD lots being for nonmarketable lots, the price/yield are more related to the size etc. So, it is observed that for selection of trades, first priority shall be NDS-OM, second to NDS-reported and third to ODD lots above Rs.5 Crores.

For the month of **Septembe**r -meeting held on 1st Oct, 2016

We are in the process of automation of SDLs as well. For giving formulas for picking up the trades, we wish to implement the rule as under:
If a SDL is traded on all sections, the last trade on NDS –OM will be selected.
If a SDL is traded on NDS-OM and any of the other two, last trade on NDS-OM will be selected.
If a SDL is traded on NDS reported as well as ODD lots, last trade on NDS reported will be selected.
If a SDL is traded only on ODD lots, ODD lot last trade will be selected.
We have analyzed the differences in the valuations that may arise on account of the change in the procedure. The differences are minimal in the range of 0.00 to 0.03 bps. The analysis is enclosed.
The change is explained and after discussion, was approved by the members of the committee.
The revised procedure will be implemented w.e.f. 3rd October 2016.

Discussion on T-Bill Yield curve:
Ina move towards implementation of Ind AS recommendations, FIMMDA tried calculation of T .Bill yield curve on the basis of trades happening on NDS-OM as the curve /data attached.
Suggestions for filling up non traded T-bill are as under:
-averaging of preceding and succeeding T. Bills traded and applying the yield to arrive at price/yield for nontraded T-Bills. For 364 T. Bills if not traded, it may be computed on the basis of traded difference of preceding T. Bill or an average of the traded differences of 91 day and 812 da day T. Bills. These will be tested and mails sent to participants for their views.

Corporate Bond Matrix:
i) The monthly spread matrix as on 30th September 2016 was discussed and approved by members.
ii) Corporate bond matrix generation:
FIMMDA will be following the below steps for construction of fortnightly matrix for corporate bond from the end of month i.e. September-2016.
a) Trades that took place during the past 15 days (fortnight) and 30 days (for month end) are available to all market participants in the FIMMDA website.
b) Two days prior to every fortnight, these lists are sent o all identified submitters for identifying representative issuers for rating / tenor / segment wise.
c) The responses are collected and sent to all identified submitters on e day before the polls are given by the submitters.
d) Based on the above data polls are collected and sent to CRISIL, using polls received from polling participants through FIMMDA will observe the following;

    i. Identification of outlier polls based on 2 standard deviations from median of all polls.
    ii. Median of polls to be used for construction of matrix after exclusion of outlier polls identified in step 2.

e) Dissemination of final matrix and consolidated.

8. Valuation of PSL PTC Bonds:
The valuation issues with PSL PTC bonds were discussed extensively in valuation committee meetings in August and September 2016 as well as in the Board meeting dated 29th August 2016. The gist of the minutes is as under:

These Bonds are invested by banks to meet regulatory requirements and the investment decisions are not necessarily for commercial reasons. PSL PTCs are generally held till maturity. So, this results in almost a total lack of secondary market trades to arrive at proper valuation. There is no mechanism to report primary market deals on to a reporting platform. These Bonds will have to be differentiated from normal NON SLR investments as the economic value is different. Further the cap applicable to banks for Non SLR bonds excludes these bonds, as these are unlisted. Investments in RIDF which are similar in nature are classified as HTM. So, the market participants felt that the PSL PTC bonds may be classified similarly and the Board concurred with the idea.

In the view of the above, PSL PTC Bonds may be valued at book value.

9. Security level Valuation:
FIMMDA have formed core committee for Security level valuations for Corporate Bonds comprising of SBI, PNB, ICICI, HDFC, Kotak, Barclays, I-Sec PD, Axis and SBI DFHI to arrive at methodology for computation of valuations.
FIMMDA asked for traded data of the Corporate Bond portfolio from the identified submitters, which can help understand the possibility of generating such value.

10. Valuation of AT-1 Bonds:
Traded spreads during the month of July were presented to the members along with the previous month spreads. After discussion it has been decided to value the AT-1 bonds with the following spreads over corresponding G-sec.

Ratings / Tenors	**3 to 5 Years**	**7 to 10 Years**
AA & Above	**169 (199)**	**242 (286)**
AA-& Below	**373 (406)**	**363 (335)**

For the month of **October** -meeting held on 29th Oct, 2016

Amendment in the Proxy calculation for 1st Year Paper: Existing Rule

Proxy calculation for 1st Year paper: "If 1st year paper is not traded nor has MOT, and we are unable to use the difference in yield of the immediate succeeding Nodal Point, the proxy will be calculated by using the difference between previous day's 1st Year paper and the 2nd year paper and adding the same to previous day's 1st year paper"

Problem faced : on 13th October, 2016 the proxy for 1st year was calculated in terms of above rule for 1st year proxy. The system gave proxy yield of 6.0264 for 7.49 GS 2017, which was found to be much below the money market yield, whereas the yield of the next tenor paper did not undergo much change. The calculation of proxy for 2017 tenor Nodal Point as per the rule modified on 1st Oct, 2016 was as under

Tenor	Nodal Point	Previous Day Yield (10 - 10- 2016)	Current Day Yield (13- 10 – 2016)	Difference
2017	07.49 GS 2017	6.2891 (proxy)	No Trade/MOT	
2018	07.83 GS 2018	6.5518 (MOT)	No Trade/MOT	-0.2627

i.e. the yield of 2017 tenor was 26.27 bps less than the yield of 2018 tenor. When this difference is added to the previous day yield of 2017 tenor, we get proxy for 2017 tenor as 6.0264 which is much below the money market yield. In addition; this problem will accentuate if no trades take place on the next day in 2017/2018 tenors as the yield may drop further. Hence it is felt necessary to have a relook at the existing rule. Two solutions were offered for discussion

After discussion, it was unanimously decided that when the first-year Nodal Point paper does not trade on a particular day and there is no trade in the succeeding tenor to enable proxy calculation then we may take the yield of traded treasury bill having maturity date closer to the maturity date of the 1st year Nodal Point. The money market yield is converted into a semiannual YTM and taken as proxy input for the 1st year Nodal Point.

6. Filter criteria for considering trades in Oil Bonds: Presently for recognition of a traded price, there has to be a minimum of 5 trades totaling at least Rs. 25 Crores. The liquidity in this segment reduced considerably and due to the filter criteria, we are unable to input trades. Presently for SDLs the filter criteria is 1 trade of Rs 5Crs. In G-Sec segment even if one trade for Rs.5 Cr takes place its model generated price is replaced with traded value. So, it has been decided to apply the same rule as criteria for oil bonds as well i.e 1 trade and Rs. 5 Cr.

7.**Valuation for securities in When Issued (WI) segment**: Presently, FIMMDA is not providing valuation for these securities. After discussion and the need of the market participants to value their portfolio, it has been decided that FIMMDA will provide valuation. As the announcement for auction of security is presently made in the beginning of the week and WI trading starts from Tuesday till Friday auction result, it has been decided to give valuation for WI security from Tuesday to Thursday based on the closing traded price/yield. On Friday, the closing price of WI security will be the same as the usual securities and so no separate price will be announced.

Corporate Bond Matrix:
i) The monthly spread matrix as on 29th October 2016 was discussed and approved by members.
ii) Dates for publication of fortnightly corporate bond matrix:
While the month end valuations are given on the last working day of the month, there is a need to formulate the rule for publication of dates for the first fortnightly. It has been decided that it will be polled and matrix generated on 15th of a month. But if it happens to be a holiday, then polling will be done and matrix generated on the previous working day. Matrix will be uploaded on next working day.
9. Discussion on fixed spread for Corporate Bonds rated below AA-:
For bonds rated below AA-, a fixed spread is added to the AA- spread in each segment and that fixed spread is reviewed by the Valuation Committee once in three months.FIMMDA have analyzed the traded spread over the corresponding G-sec (rating wise & segment wise) for the period from 1st August 2016 to 25th October 2016. The ratings of the bonds were cross checked from NSDL & CRISIL website.
Analysis of Traded Spreads (Over G-Sec) of bonds rated below AA-
(01-August to 25-October 16)
Segment / Ratings PSU FIs & Banks Diff. over AA- Corporates Diff. over AA- NBFCs Diff. over AA-
AA- 109 (215) 206 (253) 147 (220)
A+ 198 (361) 89 (146) 391 (321) 185 (68) 302 (265) 55 (45)
A 259 (190) 150 (-25) 321 (366) 115 (113) 172 (444) -75 (224)
A- NA (251) NA (36) 650 (458) 444 (205)
BBB+ 757 (NA) 551 (NA) 438 (NA) 191 (NA)
BBB 1090 (1076) 884 (823) 505 (NA) 258 (NA)
BBB- 300 (855) 94 (602)
Note: Figures in brackets are spreads of last quarter (1st May 2016 to 25th July 2016)

	Based on the above analysis, the fixed spreads were decided as under: SPREADS OVER AA- FOR BONDS RATED BELOW AA- RATING FIMMDA Spreads as existing on 31/10/2016 SPREADS DECIDED IN THE MEETING PSU FIs & Banks Corporates NBFCs PSU FIs & Banks Corporates NBFCs AA- As arrived at the end of each month -------- Add following spreads to AA- Spreads -------- A+ 50 75 50 75 100 50 A 50 100 175 100 125 125 A- 50 175 175 100 175 175 BBB+ 75 175 175 100 175 175 BBB 100 200 200 100 200 200 BBB- 125 225 250 125 275 250 The above spreads approved by Valuation Committee members will be valid for next 3 months' fortnightly matrix (end November-2016, December-2016 and end January-2017). 10. Valuation of AT-1 Bonds: Traded spreads during the month of October were presented to the members along with the previous month spreads. After discussion, it has been decided to value the AT-1 bonds with the following spreads over corresponding G-sec. Ratings / Tenors 3 to 5 Years 7 to 10 Years AA & Above 150 (169) 211 (242) AA-& Below 353 (373) 284 (363)
For the month of **November** -meeting held on 1st Dec, 2016	5) Define limits for Securities with (**) and (*) It was decided to discontinue the practice of assigning * marks to each security. Instead only Nodal Point securities will be marked as 'Nodal Point' 6. Corporate Bond Matrix: The monthly spread matrix as on 30th November 2016 was discussed and approved by members. 7. Valuation of AT-1 Bonds: Traded spreads during the month of November were presented to the members along with the previous month spreads. After discussion, it has been decided to value the AT-1 bonds with the following spreads over corresponding G-sec. Ratings / Tenors 3 to 5 Years 7 to 10 Years AA & Above 180 (150) 232 (211) AA-& Below 376 (353) 343 (284)

For the month of **December** - meeting held on 31st Dec, 2016	**SDL valuation methodology as per Ind A.S.** Every tenor will have a spread for the day end valuation of all SDLs maturing in that year. Spread applicable to a tenor will be the average of spreads calculated for that tenor, provided the number of ISINs traded in that tenor for that day is at least three. If 3 traded ISINs are not available in a tenor, 20 days moving average will be taken provided minimum 5 ISINs trades in 20 working days. If a tenor has no day's average or 20 day moving average spread, spreads would be derived for those tenors by taking average of changes in immediate preceding and succeeding tenor spreads and adding/subtracting the changes to/from the previous day spread of the tenor for which proxy spread is required. If only immediate preceding or succeeding tenor spread is available, use the change in that spread. If spreads of immediate tenors are not available, the change in spread (current day traded spread over previous day traded/proxy spread) of the nearest tenor security will be added or subtracted to/from the previous day 6. Treasury bill valuation methodology as per Ind A.S. It was decided in the earlier meeting that yields of non-traded T-Bill will be calculated by linear interpolation method instead of extrapolation. If the T-Bill with the shortest outstanding tenor is not traded, Fixed Repo rate will be used as proxy yield. Discussion took place regarding the proxy yield to be used if the T-Bill with the longest outstanding tenor is not traded. Extrapolation of previous tenor traded T-Bill yield or extrapolation of traded yield of + - 90 day T-Bill and + - 180 day T-Bill were not found to give acceptable results. The extrapolation yields were at much higher/lower levels, when back testing was done. Repeating the yield of previous tenor traded T-Bill as proxy to the longest outstanding tenor T-Bill gave acceptable results in back testing but not recommended by the members of valuation committee because the shape of yield curve will change to a flat one even when the shape of the curve is otherwise raising or falling. After a lot of discussion, it was suggested that the change in yield (current day traded yield over previous day's traded/proxy yield) of previous tenor traded T-bill be added to the previous day traded/proxy yield of last tenor T-Bill to get proxy yield of last tenor T-bill. This will ensue continuity in the shape of the yield curve. 7. Corporate Bond Matrix a) The monthly spread matrix as on 31st December 2016 was discussed. It was pointed out that yields of AAA NBFC for 7, 10, 15 yrs. Tenors and AA NBFC for 2 yr. tenor were out of sync. Yield of 7 yr. & 15 yr. tenors were interpolated / extrapolated. Yield of AAA NBFC for 10 year tenor presents the traded yield of Reliance Capital and yield of 2yr. AA NBFC represents traded yield of ECL Finance Limited. These issuers are not representative issuers through selected as such by the submitters. It was decided to replace the yields with polled yields. With this changes matrix was approved. b) Methodology for calculating spread Matrix: FIMMDA follows the below mentioned steps for construction of fortnightly matrix for corporate bond from the end of month i.e. September-2016. Members were informed that methodology for calculating spread matrix has been documented and published on FIMMDA website. Summery is given below; a. Trades that took place during the past 15 days (fortnight) and 30 days (for month end) are made available to all market participants in the FIMMDA website. b. Two days prior to every polling date, these lists are sent to all identified submitters for identifying segment /rating / tenor wise representative issuers. c. The responses are collected and sent to all identified submitters one day before the polls are given by the submitters. d. Based on the above, data polls are given by the submitters. The poll data are collected and sent to the calculating agent, CRISIL. e. The traded yields of the bonds issued by the identified issuer/s will be used as Level 1 input by CRISIL while calculating spread matrix. f. For the remaining rating/tenor in each segment, CRISIL will use the polled data for constructing the matrix. g. CRISIL does identification of outlier polls based on 2 standard deviations. h. After exclusion of outlier polls, median of remaining polls is used for construction of matrix. i. Final matrix is sent to FIMMDA which after vetting, disseminates to the market. c) Bond Yield Calculator – Discounting factor to be used: Price of a Bond is the sum of present value of future cash flows. To find the present values, the future cash flows are to be discounted using a discount factor. Discount factor is the yield for a particular tenor. The yield may be base/par yield or ZCYC. One can use a single yield for discounting all the future cash flows or use different yields according to the period of cash flow. After discussion, valuation committee members decided that future cash flows be discounted using a constant discount yield which shall be the annualized par yield for the residual tenor of the bond. FIMMDA will be changing the bond yield calculator accordingly. d) Members suggested some changes in the wording of priority sector PTC valuation. The suggested methodology is as under; These Bonds are invested by banks to meet regulatory requirements and the investment decisions are not necessarily for commercial reasons. PSL PTCs are generally held till maturity. So, this results in almost a total lack of secondary market trades to arrive at proper valuation. There is no mechanism to report primary market deals on to a reporting platform. These Bonds will have to be differentiated from normal NON SLR investments as the economic value is different. Investments in RIDF which are similar in nature were classified as HTM (now classified as other assets). In the view of the above and based on discussions in valuation committee meetings in August and September 2016 as well as in the Board meeting dated 29th August 2016, PSL PTC Bonds may be valued at book value. 8. Corporate Bond Trade Repository – Primary Issuance: Recently, NSE has started publishing Trade repository - Primary Issuances on their website. After the discussion member felt that these trades also need to be published by FIMMDA. So now we will be publishing primary issuance trades along with the secondary market trades with the separate heading. 9. Valuation of AT-1 Bonds: Traded spreads during the month of December, 2016 were presented to the members along with the previous month spreads. After discussion, it has been decided to value the AT-1 bonds with the following spreads over corresponding G-sec. Ratings / Tenors 3 to 5 Years 7 to 10 Years AA & Above 150 (180) 238 (232) AA-& Below 351 (376) 347 (343)
For the month of January - meeting held on 1st Feb,	7. Corporate Bond Matrix: The monthly spread matrix as on 31st January 2017 was discussed and approved by members. 8. Discussion on fixed spread for Corporate Bonds rated below AA-: For bonds rated below AA-, a fixed spread is added to the AA- spread in each segment and that fixed spread is reviewed by the Valuation Committee once in three months. FIMMDA have analyzed the traded spread over the corresponding G-sec (rating wise & segment wise) for the period from 1st November 2016 to 25th January 2017. The ratings of the bonds were cross checked from NSDL & CRISIL website. The methodology apprised to the Valuation Committee was as under; • Calculate yields wherever it's blank on the traded data of the exchanges.• Remove duplicates, Tax free bonds & AT1 bonds.• Calculate residual maturity • Calculate Spread over G-sec of corresponding maturity.• Arrange segment wise• Sort as per spreads• Ignore the trades with negative spreads • Calculate weighted average spreads• Calculate standard deviation of spreads• Remove outliers which are away from weighted average by 2 standard deviations • Calculate weighted average spreads for the remaining spreads It was decided by the committee to fix the fixed spreads as per the traded spreads (after rounding of). Wherever, there was no traded data, or traded spreads were found to be far away from the trend, the gaps were filled in by simple interpolation. (Analysis of Traded Spreads (Over G-Sec) of bonds rated below AA- (01-November to 25-January 17) Segment / Ratings PSU FIs & Banks Diff. over AA- Corporates Diff. over AA- NBFCs Diff. over AA- AA- 197 (109) 123 (206) 339 (247) A+ 94 (198) -103 (89) 429 (391) 306 (185) 272 (302) -67 (55) A 230 (259) 33 (150) 375 (321) 252 (115) 533 (172) 194 (-75) A- 694 (650) 571 (444) 635 (NA) 296 (NA) BBB+ 1015 (757) 892 (551) 574 (438) 235 (191) BBB NA (1090) NA (884) NA (505) NA (258) BBB- 925 (300) 802 (94) Note: Figures in brackets are spreads of last quarter (1st July 2016 to 25th October 2016). Based on the above analysis, the fixed spreads were decided as under:

2017	SPREADS OVER AA- FOR BONDS RATED BELOW AA- RATING FIMMDA Spreads as existing on 31/01/2017 SPREADS DECIDED IN THE MEETING PSU FIs & Banks Corporates NBFCs PSU FIs & Banks Corporates NBFCs AA- As arrived at the end of each fortnight -------- Add following spreads to AA- Spreads -------- A+ 75 100 50 50 150 150 A 100 125 125 75 200 200 A- 100 175 175 100 250 275 BBB+ 100 175 175 125 300 300 BBB 100 200 200 150 325 325 BBB- 125 225 250 175 350 350 The above spreads approved by Valuation Committee members will be valid for next 3 months' fortnightly matrix (end February-2017, March-2017 and end April-2017). 9. Valuation of AT-1 Bonds: Traded spreads during the month of January were presented to the members along with the previous month spreads. The AT-1 bonds will be divided into two categories depending upon (A) Rating up to AA & (B) Rating AA- & Below with Residual tenors 3 to 5 years & 7 to 10 years in each category. There are ISINs with residual maturity less than 3 years and 7 years. So, it has been decided in the meeting to revise the categorization as up to 5 years (instead of 3 to 5 years) and above 5 years (instead of 7 to 10 years). After discussion, it has been decided to value the AT-1 bonds with the following spreads over corresponding G-sec. Ratings / Tenors Upto 5 Years Above 5 Years AA & Above 247 (150) 244 (238) AA-& Below 364 (351) 361 (347)

For the month of February - meeting held on 1st March, 2017	**<u>3. Daily Filter criteria for considering Level 1 inputs for yield curve generation:</u>** We are presently experiencing problems in getting sufficient no. of Level 1 – Traded prices in tenors 2032-2055 i.e. say 15 years and beyond segment. The selected nodal points based on nodal point criterion of the month for 15 years and beyond segment do not qualify the daily filter criteria. The nodal points qualifying daily filter are used for curve construction. So, to get more Level 1 inputs for generation of yield curve it was found necessary to rationalize the threshold for these segments. Previous threshold for these segments was 3 trades and 25 crores as discussed in August valuation meeting. The data of no. of trades/volume of nodal points in the segment 2032-2055 for the period Aug 2016 to Jan 2017 which failed to pass the daily filter criteria was studied and shown to the members. The data showed that the average of trades and volume for securities which failed to pass the daily filter criteria was 2 trades and 10 Crores during this period. So, it has been decided to adopt the following procedure:Daily Filter criteria will be calculated as per the present rule described in the methodology. For the segments 15 years and beyond, the no. of trades and volume calculated as per the filter criteria or 2 trades and Rs.10 crores whichever is less will be the daily filter criteria for considering the securities traded yields to be input into the Matlab yield curve generation. Wherever filter is applicable (other than important input tenors), the minimum number of trades for the security should be 0.24% (previous month 0.20%) of the most traded bond on a particular day and the minimum volume should be 0.19% (previous month 0.15%) of the most liquid bond on a particular day, subject to a ceiling of 2 trades and Rs.10 Cr volume for the nodal points in 15-40 year tenor. The ratios are calculated based on "3 Month Moving Average" as discussed and decided in the valuation committee meeting dated 1st October, 2014.The model prices/yields will be replaced by LTP/LTY in case of all securities. **<u>5. Discussion on Yield Change (YC) rule in Cubic Spline methodology.</u>** Citing the example of 8.24% GS 2027 which showed a difference of 40 bps between model yield and yield as per YC rule, some members argued that the YC rule be done away with. Some members wanted to study in detail before any change. So it was decided to form a core committee with 4-5 regular attendees of valuation committee member to review the yield change rule and recommend to the valuation committee well before the next meeting. 6. Corporate Bond Matrix: The monthly spread matrix as on 28th February 2017 was discussed and approved by members. 7. Valuation of AT-1 Bonds: Traded spreads during the month of February were presented to the members along with the previous month spreads. The AT-1 bonds will be divided into two categories depending upon (A) Rating up to AA & (B) Rating AA- & below. Each rating category type will have two tenors viz. Up to 5 years and above 5 years After discussion, it has been decided to value the AT-1 bonds with the following spreads over corresponding G-sec. Ratings / Tenors Upto 5 Years Above 5 Years AA & Above 242 (247) 253(244) AA-& Below 403 (364) 262(361)