Annexure ‘A’

MINUTES OF THE USER GROUP MEETING FOR CCIL’S SECURITIES SEGMENT MEMBERS HELD ON 14TH OCTOBER AT 4-00 PM AT 7TH FLOOR, TRADE WORLD C-WING, KAMALA CITY, SENAPATI BAPAT MARG, LOWER PAREL (WEST), MUMBAI – 400013

The meeting was convened to discuss the issues related to Valuation of Securities, Margin factors and imposition of volatility margin in Securities segment.

The invitees comprised of officials from Treasury Operations of the different banks, financial institutions, Mutual funds and primary dealers who are members of CCIL’s Securities Segment. List of officials representing various members who attended the meeting is enclosed.

CCIL was represented by Mr. Siddhartha Roy (Chief Risk Officer, CCIL), Heads of various departments in CCIL as well as officials from the Risk Management Department.

1. At the outset, the Members were briefed about the existing Risk Management practices and the need to address the issues related to Valuation, Margin Factors and intra-day volatility etc. The impact of absence of having good quality MTM prices on MTM margins and on the extent of risk coverage was discussed in detail. Members agreed that given the current state of market, correct valuations of illiquid securities is impossible, but an effort needs to be made and the best way to move forward could be:

a) Use of improved yield curve.
b) Use of yield spread to price semi-liquid and illiquid securities.

The issue of inadequate coverage of existing margin factors, especially in the light of significant intra-day movements was also discussed in detail.

2. A Summary of the discussions and decisions taken are as under:

i) Using NSS Yield Curve:

CCIL representatives mentioned that quality of model price will improve with the use of NSS yield curve. Members inquired about the data on change in VaR numbers when NSS curve is used. It was explained that VaR numbers based on NSS curve as compared the VaR based on NS will be more or less same.

Members agreed to the proposal to use NSS based Yield Curve for valuation by CCIL instead of NS based Yield Curve as being used now.

Members however requested to provide data on model prices based on NSS curve, MTM prices and VaR / Margin Factors. It was agreed to provide the data to the members for a month so that they can compare the results with NS curve based values and give the necessary feedback.

ii) Valuation of SDLs :

CCIL had suggested using a Yield Spread model for Valuation of SDLs. The Spread is to be uniform across tenors and various states. Such spreads are to be reviewed on monthly basis.

It was informed to the members that the model was also discussed in detail in February, 2006 during another member meeting. In regard to applying uniform yield spread over sovereign ZCYC for valuation of SDLs, one of the members suggested that SDLs may be grouped tenor-wise and state-wise for arriving at better quality valuation. When it was pointed out that there are very few trades in SDLs and as such the available data is inadequate to arrive at separate tenor-wise spread or separate spread for various State Governments, members agreed to the suggestion of uniform spread. It was also agreed that the trades on newly issued SDLs may not be considered for arriving at the Yield Spread.

Member thereafter agreed to the suggested changes.

It was however agreed that before implementation of this process, CCIL would make available model prices of SDLs computed based on this model to the members for a month.

iii) Valuation of GOI Securities:

CCIL had suggested using Yield Spread based model for valuation of semi-liquid and illiquid Government of India Securities as well. This was however subject to the modification that :

a) For Securities maturing within a year and for T bills, no yield spread will be applied

b) For Securities having at least 5 trades during previous month, security-wise illiquidity discounts *in rupee terms* based on average of daily difference between the Model Price and the weighted average price of the security during the previous month may be adjusted from the yield curve based theoretical prices for arriving at Model Prices.

c) For other securities tenor-wise yield spread may be arrived at using the tenors 1 to 3 yrs, 3 to 5 yrs, 5 to 10 yrs, 10 to 20 yrs and above 20 yrs.

d) In case of valuation of Floating Rate Bonds, Yield spreads (YTM based) being arrived at by FIMMDA through polling may be used.

e) For Non-SLR Securities like Oil Bonds, UTI Special Bonds etc, the prices may be arrived at by using spreads equal to or more than the spread applied for valuation of SDLs.

For arriving at Yield spreads and security-wise illiquidity discounts, data for the previous month is to be taken as a basis.

In regard to the valuation of Securities mentioned in Sub para (b) above, members suggested that illiquidity discounts may be adjusted in terms of yield spread instead of in rupee terms as proposed. It was however explained from CCIL side that arriving at reasonable yield spread for each such security would be difficult. It was however suggested that the process will be changed to consider yield spread instead of rupee spread in future, if required.

Members thereafter agreed to the suggested changes.

It was however agreed that before implementation of this process, CCIL would make available model prices computed based on these model to the members for a month.

iv) Intra-day MTM Computation :-

Mr. Roy explained that currently MTM margin is computed at EoD. As per CPSS-IOSCO requirement, the system should be able to compute and collect intra-day margins in case of excessive volatility in the market. He however added that invoking this process will be required only when loss in margin cover due to such volatility is substantial. It was suggested by him that intra-day ZCYC using current day's trades available at that point of time may be computed and using this curve intra-day MTM prices may be derived following the normal process for arriving at day-end MTM prices except that repetition of old traded price will not be allowed. Such intra-day MTM prices will be the basis for collecting intra-day MTM margins.

Members found this process as acceptable and agreed for its implementation.

v) Computation of Margin Factors :

CCIL suggested that the margin factors for semi liquid and illiquid securities be scaled up. For Semi-liquid and illiquid securities, margin factors to be at *1.5 times and 2 times* of their respective 3-day VaR numbers respectively. Similarly for special securities like Oil Bonds, margin factors to be normally set at 1.5 times of their 3-day VaR numbers. In case those bonds are not liquid, margin factors can be set at 2 times of their 3-day VaR numbers.

Apart from this, to take care of intra-day volatility which is not caputured in VaR numbers, CCIL proposed a step up factor of 0.5 times of the margin factors arrived at following the process mentioned in previous paragraph. It was suggested that the factor of 0.5 times will be applied uniformly across all securities. This factor will be kept under review and modulated as per back test results.

In addition to the values arrived at as above, 0.25% will continue to get added as above to cover accrued interest for the period between the day of trade and the day of final settlement after a possible default.

It was explained from CCIL side that the intra-day volatility in liquid securities is presently at very high level but using a step of factor of 0.5 as above should be in a position to provide adequate cover on most of the days. When intra-day volatility increases beyond this level, volatility margin, however, will have to be imposed..

To a query as to whether holding period should be changed for semi-liquid and illiquid securities, it was explained the multiplicants proposed for semi-liquid and illiquid securities are indirectly achieving same objective. It was also stressed that MTM prices for semi-liquid and illiquid securities will always contain more error as compared to those of liquid securities. Moreover, spread demanded by market for buying semi-illiquid or illiquid securities would normally be higher that of liquid security. Hence these risks are also required to factored in while arriving at Margin Factors for such securities.

Members were informed that similar methodology is proposed to be followed for computing margin factors for SDLs.

Members found the process as reasonable. It was agreed that the intra-day volatility component would be introduced as early as possible. Other changes would be implemented after CCIL provides data on the revised margin factors based on the proposed methodology for a period of one month to the members and such margin factors do not reveal any unusual variation.

vi) Imposition of Volatility Margin :

The process for imposition of volatility margin based on tracking of volatility in prices of 3 highest traded securities of the previous month, as detailed in the paper circulated by CCIL, was discussed. It was indicated that an almost identical process was discussed earlier with the members but the implementation was deferred due to lack of feedback. Only changes proposed in the current version were inclusion of at least one security with a residual maturity of more than 20 years in the basket and exclusion of securities in When Issued market during the period of When Issued trading. These changes were introduced based on data analysis during 2007-08. The process was again explained to the members. It was also explained that the trigger value will get increased if the intra-day volatility component is added to the margin factor; thus intra-day volatility component will bring down the possibility of imposition of volatility margin.

Members found the process as acceptable and agreed to the implementation of the suggested process.

3. Finally, it was agreed to provide the members with Model prices and MTM prices based on NSS yield curve, SDL and GOI bond prices after illiquidity adjustments and data on impact of chage in margin factors for a period of one month for their review. If no serious adverse observations are received, CCIL can go ahead with implementation of the decisions contained in Para 2. Intra-day volatility component however will be introduced as early as possible but the same may be modulated after few months based on back-testing data.

4. A committee was also formed to examine the results closely and provide CCIL with feedback on the proposed processes. The members of the Committee would be as under:

S No	Name of the Official	Organization
1.	Mr. Vinayak V Tembhurne	Union Bank of India
2.	Mr. P Umashankar	SBI DFHI
3.	Mr. Paresh C Gokhale	HSBC
4.	Mr. Manish N Mehrothra	Bank of Baroda
5.	Mr. Rahul Narayan	Export Import Bank of India
6.	Mr. Harshal Satghare (Nominated in place of Mr.Satish Chandra who attended the meeting)	HDFC Bank

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