



**Risk Management Department**

**This has been Superseded by Notification No. RMD-FX-FF-20-71  
dated 30-Dec-2020 on Risk Management Process and Margin  
Methodology**

**No. RMD/FX-FF/13/13**

**08/May/2013**

**FOR INFORMATION OF ALL MEMBERS**

**Forex Forward Segment**

**Methodology for Tracking the applicability and Imposition of Volatility Margin**

In terms of Chapter V (B) (3) of CCIL's regulations for the Forex Forward segment, Clearing Corporation is entitled to impose volatility margin in case of significant volatility in Rupee/US Dollar Forward exchange rate.

2. The process for Imposition of Volatility Margin in Forex Forward Segment is already in place w.e.f. 01 December'09 in terms of para E of our Notification No. RMD/FX-FF/09/21 dated 9<sup>th</sup> Nov'09. The process is being improved by including 1(one) month as a standard tenor for tracking the applicability of volatility Margin with effect from 10<sup>th</sup> June'2013.

3. The detailed methodology followed for tracking the applicability, imposition and withdrawal of volatility margin is given hereunder for the information of Members.

**A) *Applicability of Volatility Margin:***

- (i) One day's change in the forward rates for standard tenor's viz. 1 Month, 3 Month, 6 Month, 9 Month and 12 Month is assessed.
- (ii) One day's change in the forward rates (i.e. 1 day return) is arrived at by calculating the logarithmic returns of forward rate at 12:00 noon available from Reuters page INR=1F to the EOD MTM rate of the previous business day.
- (iii) One day's return as arrived above is then compared with the trigger level set for the respective tenor (i.e. 99th percentile highest return based on past 500 days returns, fixed at the beginning of every month). In case the current day's return is greater than respective trigger level for at least 2(two) out of the 5(five) tenors, volatility margin will be treated as applicable.
- (iv) In case the volatility margin is not applicable on a day, but one day's change in return for any of the tenors has breached the trigger level by 50% or more, then applicability of volatility margin will be tracked again at 2.00 PM and at 4.00 PM. Moreover, when VM is imposed, tracking is done again at the above mentioned timings to keep track of further change in volatility. In case further increase in Volatility is noticed, levels of volatility margin will be increased.



- (v) If Volatility margin imposed on previous day(s) continues, tracking is carried at 12.00 noon, 2.00 PM and 4.00 PM till its withdrawal.

**B) Imposition of Volatility Margin:**

If imposition of VM is triggered as per the process mentioned in para 3(A) (iii) above, the highest of such ratio out of the ratios for five above mentioned tenors will then be identified and rounded up to the next higher multiple of 5%. The quantum of Volatility Margin (%) for the members will be set as under:

$$\text{Volatility Margin \%} = 50\% \text{ of (Highest percentage minus 100\%).}$$

**Illustration:** Let us say that the highest percentage out of 5 tenors is **132.26 %** and is rounded up to next higher multiple at 5% i.e. **135.00%**. Then, the volatility margin applicable will be at 50% of **35.00%** (135% - 100%) i.e. **17.50 %** of Initial margin.

**C) Withdrawal of volatility margin**

- (i) 95<sup>th</sup> percentile highest returns (from the 500 returns) are identified for each of the tenors mentioned above as trigger levels at the beginning of the month.
- (ii) Volatility margin is withdrawn if returns for all tenors on a day are below their respective trigger level till the end of the business day (i.e during the tracking at 12:00 Noon, 2:00 PM and 4: 00 PM). Volatility margin in force is withdrawn at the end of the day.

**4.** Volatility margin is charged as percentage of Initial Margin collected from the member and is blocked from members securities segment SGF. If applicable, it is imposed immediately, after notifying the members. Imposition of Volatility Margin may result in margin shortfall in the accounts of the members if available SGF balance is inadequate to cover the margin requirements. Member shall be required to meet the shortfall within one hour from the time of imposition; else penal charges will be levied as applicable.

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