THE CLEARING CORPORATION OF INDIA LTD

Risk Management Department

This has been Superseded by Notification No. RMD FX USDINR-20-01 dated 22-Jan-2020 on Extension of Online Exposure Check Session

No. RMD/FX/VM/13/87

25th Oct'2013

FOR INFORMATION OF ALL MEMBERS

Forex Settlement Segment

Volatility Margin - Partial Withdrawal

In terms of Chapter V (D) (ii) (b) of CCIL's regulation for Forex Settlement Segment, Clearing Corporation is entitled to impose volatility margin in case of sudden increase in volatility in USD-INR exchange rate. In this connection, attention is invited to our notification no. RMD/FX/VM/4/1 dated 11th May'04.

- 2. The processes as listed in the annexure were implemented in consultation with the members and are followed for identifying volatility in the Forex market for imposition of volatility margin and for identifying absence of volatility in the market for withdrawal of volatility margin. There is however no process for reduction in volatility margin.
- 3. In this context, it has now been decided that partial withdrawal of volatility margin would also be considered based on the process listed as under:
 - a) Required Volatility Margin levels will be re-assessed for the current date and immediately previous business date as per the process detailed in annexure to this notification. Higher of the two values will be taken as reference level.
 - b) If the Volatility Margin already imposed is higher than the reference level as per (a) above, the Volatility Margin will be reduced to the reference level subject to a minimum of 0.25% per settlement date.
 - c) Complete withdrawal of volatility margin will be effected following the process described in annexure to this notification.
- 4. Few illustrations have been added hereunder for more clarity:

Illustration 1:

Day 1 - VM imposed @ 2.50%

Day 2 - Notional VM applicable @ 0.75%

Day 3- Notional VM applicable @ 0.50%

At the end of Day 3, the higher of the values on day 2 and day 3, was 0.75%, Hence, Volatility Margin will be reduced to 0.75% per settlement date.

Illustration 2:

Day 1 - VM imposed @ 2.50%

Day 2 - Notional VM applicable @ 0.75%

Day 3- Notional VM applicable @ 2.50%

At the end of Day 3, the higher of the values on day 2 & day 3 was 2.50%; it is same as the Volatility Margin in place. Hence, there will be no reduction in Volatility Margin.

Illustration 3:

Day 1 - VM imposed @ 1.25%

Day 2 - Notional VM applicable @ 0.75%

Day 3- Notional VM applicable @ 1.50%

At the end of Day 3, the higher of the values on day 2 & day 3 was 1.50%; it is higher than Volatility Margin in place. Hence, Volatility Margin will be increased to 1.50% per settlement date.

5. Volatility Margin, if applicable, will be imposed immediately after notifying to the members. Imposition of volatility margin would effectively amount to a corresponding increase in the Margin Factor and would result in reduction of Exposure Limit. If it is observed that the reduced exposure limit of the member is inadequate to cover the trades already accepted for settlement in the spot window or there is a margin shortfall to meet any other form of margin requirement for the segment due to such imposition, it would be the responsibility of the member to replenish the shortfall at the earliest. Penal charges will be levied if shortfall is not replenished within one hour from the time of imposition.



Annexure to Notification no. RMD/FX/VM/13/87 Dated 25th Oct²2013

Forex USD-INR Segment: Process for Imposition of Volatility Margin

The process followed for identification of Volatility in the Forex USD-INR Segment for imposition of Volatility Margin and for identification of absence of volatility for withdrawal of volatility margin is as under:

A. Volatility margin will be imposed under the following conditions:

- (i) If the intra-day fluctuation in the USD/INR exchange rate is observed to be equal to or in excess of the market risk component of the margin factor; **OR**
- (ii) If the fluctuation in the USD/INR exchange rates over a 3 day period is observed to be equal to or in excess of the margin factor for 3 days in the spot window.

B. The estimator values for assessing intra-day fluctuation are arrived at as under:

(i) For one day intraday-day fluctuation as mentioned in para A (i) above

- a) Estimator I is taken as Intra-day difference between high and low rates as a percentage of the closing Spot rate of the previous business day.
- b) Estimator II is taken as the exchange rate fluctuation based on the higher of:
 - i) The absolute of the difference between the closing Spot rate of the previous business day and the intraday high rate as a percentage of the closing Spot rate of the previous business day, and
 - ii) The absolute of the difference between the closing Spot rate of the previous business day and the intraday low rate as a percentage of the closing Spot rate of the previous business day.

Higher of Estimator I and Estimator II is taken as Intra-day fluctuation for one day impact.



(ii) For 3 day intraday-day fluctuation as mentioned in para A (ii) above.

Maximum possible loss for spot positions of USD 1 million each created on the day of assessment and on two immediately previous working day's (i.e., on all possible days within the spot window) is computed by taking the higher of the difference between:

- Highest exchange rate on the respective date and the lowest Exchange Rate of the current day (maximum possible loss for buy positions)
- Lowest exchange rate on the respective date and highest Exchange Rate of the current day (maximum possible loss for sale positions)

Thus, Sum of the maximum possible loss for each day, as a percentage of previous day closing USD/INR Spot rate (termed as Estimator III) will be taken as Intra-day fluctuation for 3 day impact.

FEDAI published spot rate is considered for Closing Spot rate except in circumstance mentioned in para 5 of our notification no. RMD/FX-FF/13/14 dated 08th May'13. Intra-day high and low rates are based on rates on Reuters page INR=IN or from other reliable sources, as available.

C. Percentage of Volatility Margin to be imposed is arrived at as under:

- a) If VM is triggered on account of intra-day fluctuations in terms of para A (i) above, the applicable VM for each day will be 1 day Exchange rate fluctuation (i.e. higher of Estimator I and II) minus corresponding market risk component, rounded upward to next higher multiple of 0.25%.
- b) If VM is triggered on account of exchange rate fluctuations over a 3 day period in terms of para A (ii) above, the applicable VM for each day will be equal to (value of Estimator III minus the corresponding 3 day market risk component)/3 and rounded upward to next higher multiple of 0.25%.

If both conditions are satisfied then higher of 'a' and 'b' above would be the applicable VM for the day

D. Volatility Margin would be withdrawn if 3 day impact in the spot window is 0.75% below the Market Risk component for 3 settlement dates **and** 1 day impact is also 0.25% lower than the Market Risk component per settlement date.
