Risk Management Department

No. RMD/FX/USD-INR/26/46 **09th Nov'26**

FOR INFORMATION OF ALL MEMBERS

Forex Settlement Segment

Risk Management Processes and Margining Methodology for USD / INR Trades

In terms of the provisions of chapter V of the regulations of the Forex Settlement Segment, the Clearing Corporation prescribes requirements of Limits and margins for the segment.

CCIL's Notification No. RMD/FX/USD-INR/23/35 dated 30/Oct/2023 details the risk management process and margining methodology in this segment. We invite your attention to CCIL's Notification No. CCIL/Legal/26/43 dated 09th Nov'26 As stated therein, the Regulations of the Forex Settlement segment have been amended with effect from dd/mm/yyyy (to be notified). As part of this amendment, in addition to USD/INR trades, CCIL will also provide clearing and settlement of Foreign Currency (FCY) / INR trades under its Forex Settlement segment. Consequent to this, Members are advised that Notification No. RMD/FX/USD-INR/23/35 dated 30/Oct/2023 stands revised as below with the enhancements / modifications underlined and deletions presented in 'strike through' font. *The risk management processes and margining methodology elaborated in this notification applies to member's **USD/INR** trades*. Further references to the relevant clauses of the Forex Settlement segment regulations have been updated in lieu of revision of the relevant clause numbers.

A. Composition of Collateral
[Reference Chapter III of the Regulations]

i. In terms of clause A of Chapter III, there is a separate collateral (*hereinafter referred to as FX Collateral)* for the Forex Segment. The dedicated FX Collateral is formed with contributions from members in the form of US Dollar cash. In terms of sub-clause B (iv) of Chapter V, the FX Collateral contribution is made by the member to avail Exposure Limits in USD and in INR and is considered as Initial Margin towards the member's USD/INR trades.

ii. In case the US Dollar funds deposited by the member in its FX Collateral account are higher than the Initial Margin requirement of the USD/ INR trades, such additional amount is treated as additional margin made available by the member to meet other margin requirements of the USD/INR trades.

iii. In terms of Chapter III of the Regulations, of this segment Clearing Corporation shall consider the available balances in a member's MCC account for meeting its margin obligations other than towards Initial Margin referred in para (i) above towards the member's USD/INR trades.

iv. Where the available balance in the member's MCC is used to meet the Additional Initial Margin (which is denominated in USD), the latest EOD MTM Spot Rate mentioned in para E(1) below is the basis for computing the USD equivalent value of the balance in the member's MCC account (after application of appropriate haircut).

B. Net Debit Cap and Exposure Limits

[Reference Chapter V, Clauses A&B of the Regulations]

i. Net Debit Caps (NDC) are set in US Dollar and in INR terms. NDC is applicable for each settlement date.

ii. Operating limits are expressed as Exposure Limits (EL) and EL is also set in both currencies. EL in USD is based on the balance of the member in its dedicated FX Collateral and the Initial Margin Factor applicable for the member as described in para C below. The EL in INR is similarly arrived at but after notionally converting the US Dollar balance in FX Collateral into its Rupee equivalent at the applicable exchange rate. This exchange rate is revised by Clearing Corporation at six monthly intervals at the time of review of NDC of the members. Members are allowed to select lower EL than those set by CCIL for both US Dollar and for INR.

iii. A member with higher counterparty risk assessment (CPRA) grade may choose to avail higher limits up to specified ceilings for days other than the cash date in the Spot Window.

The permissible higher limits are derived as under:

Category of Members as per CPRA	**On S- 2 Day**	**On S- 1 Day**	**On S Day**
For Members with CCIL 1 & 2	3 times EL	2 times EL	EL
For Members with CCIL 3 & 4	2 times EL	2 times EL	EL
For Members with CCIL 5 & 6	2 times EL	EL	EL
For Members with CCIL 7 & 8	EL	EL	EL

A member desirous of availing such higher limit is required to request Clearing Corporation to permit utilisation of such higher limit. Clearing Corporation may approve such request subject to the member agreeing to adhere to the requirements stipulated in the Regulations.

C. Initial Margin Factor

[Reference Chapter V Clause (~~C~~ D) of the Regulations]

i. Initial Margin Factor is set based on 3 day VaR of the USD-INR spot rate at 99% confidence interval with a 1000 day look back period, subject to a floor and is collected for 3 settlement dates in the spot window.

ii. The floor is set based on the highest of the 3 day VaR of the USD/INR spot rate (at 99% confidence interval with a look-back period of 2,500 days) from across rolling windows of 2500 days since Oct'2002. The floor is reviewed at the end of every financial year and will also be reviewed in periods of high volatility and any change therein will be implemented after giving a notice of 7 business days.

iii. Initial Margin will be set at higher levels for entities having CPRA grade below CCIL4.

iv. Initial Margin factor as defined in para C i above is reviewed by Clearing Corporation at the end of every month.

D. Additional Initial Margin

[Reference Chapter V (~~D~~ E)(ii)(a) of the Regulations]

i. Members who seek higher Exposure Limits as per para B above shall be able to avail such higher limits on providing additional initial margin over and above the initial margin made available by them to avail Exposure Limits as mentioned in para A (i) above.

ii. Members having positions in excess of the Exposure Limits in any currency on account of trades done in FX-Clear and/or FX-SWAP Dealing Systems shall also be required to deposit Additional Initial Margin.

iii. Initial margin obligation for members who have limit utilisations in excess of the EL will be computed by multiplying the applicable net exposure of the member in the spot window by 1/3rd of the margin factor applicable for the member for the spot date as per the process described in Clause E of Chapter VII. The applicable net exposure for this purpose will be the higher of:

a) the net USD exposure for all the days in the Spot Window and

b) the net USD exposure in the Spot Window after excluding such exposure on Cash Date.

iv. The margin obligation as above in excess of the Initial Margin for the exposure limits availed by the member in terms of Para A (i) above will be treated as Additional Initial Margin.

E. Mark to Market Margin

[Reference Chapter V(~~D~~ E)(ii)(b) of the Regulations]

i. The Spot USDINR Exchange rate used for the end of the day MTM margining in Forex Segment will be the rate of the last Inter-bank trade (of value USD One Million or more) concluded till 5-00 PM on the Fx Clear Dealing Platform operated by Clearcorp Dealing Systems (India) Limited. In case the afore-mentioned spot rate is identified as an outlier or is

not available on the aforesaid source latest by 5.10 PM, the rate available on Reuter's page "INR1F" at such time will be taken as applicable end of the day (EOD) MTM spot rate under intimation to the members of this segment. MTM rate for Cash and Tom position is arrived at by subtracting Premia for the respective tenors as available on Reuters page "INR 1F" to the Spot rate derived as above.

ii. If rates from above sources are unavailable or there is a valid reason to believe that any such rate as available does not represent the rate prevailing in the market, Clearing Corporation may use any or all rate (/s) from any other source. Use of any such rate (/s) will however be informed by Clearing Corporation to its members in this segment with the reason for such deviation.

iii. MTM margin computation is on net settlement date-wise positions for all accepted trades of the members. Full offsets are permitted between MTM gains and losses on different settlement dates.

iv. Intra-day trading loss is also collected as Mark to Market margin.

v. If the date of acceptance of the trade is not the same as the trade date then such acceptance would be subject to the member meeting its MTM margin obligation on such trade at the point of acceptance.

vi. MTM Margin is collected in the form of US Dollar cash (excess FX Collateral), INR cash & Central Government Securities deposits as margin in MCC. MTM margin so collected is released on successful completion of settlement.

vii. In terms of sub clause 7.8 of para C (I) of Chapter VII of the Regulations, MTM margin on forward positions accepted for guaranteed settlement in the Forex Forwards segment is transferred to the Forex Settlement segment when such position enters spot window.

F. MTM Credits

[Reference Chapter VII(C) (I) (8) of the Regulations]

i. If the aggregate MTM value of all settlement date-wise positions shows MTM gain, then the member's margin account will be credited with the MTM gain amount reduced by a haircut and the same will be allowed to be treated as Margin Made Available by the member. Such margin made available can be used against margin requirements in any other segment which draws margins from MCC. The hair-cut on MTM gains will be 5% and the same may be revised in the future after due notification.

ii. Such margin credit mentioned will be withdrawn on the day of settlement of the particular position having MTM gain. If there is a margin shortfall as a result of such withdrawal of margin credit on account of settlement, CCIL would hold back settlement proceeds to the extent of such shortfall in margin. Such withheld settlement proceeds will be released on replenishment of the margin shortfall.

iii. If the member fails to replenish the shortfall by the end of the day of such withholding, such withheld settlement proceeds may be credited by CCIL to the MCC of concerned member without any further notice to the member.

iv. If the withheld proceeds are in the form of US Dollars and the shortfall remains un-replenished, by the end of the day of such withholding, CCIL may dispose of such amount of withheld US dollars as per the process outlined in Clause D (2) (f) of Chapter VI relating to defaults in the Regulations of the Forex Settlement segment. The proceeds of such sale, if any will then be credited to the MCC of the concerned member.

v. In case any positions are cash settled after entering in spot window in terms of para C (I) (5) of Chapter VII of the Regulations, Mark to Market loss if any in respect of such positions will be computed with reference to the rate used for cash settlement and will be collected as margin from the member whose positions are cash settled

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G. **Replenishment Level and Rejection Level**
[Reference Chapter V(~~D~~ E)(i) of the Regulations]

If Additional Initial Margin (AIM) is payable in terms of para ~~D~~ E above and the AIM requirement has reached 90% of the available margin net of the obligation towards MTM margin, then Clearing Corporation shall make a margin call to the member. Moreover, Clearing Corporation will stop acceptance of further trades if such trades will cause the total margin utilisation to exceed 95% of the margin made available for this segment. (i.e. if the available margin is lower than the amount of Total Margin x 100 / 95), For example,

Particulars		**Rupees in Crores**
Margin Made available	A	110
Margin obligation on account of Additional Initial Margin	B	90
MTM margin obligation	C	9.5
Margin blocked towards MTM obligation	D = Cx10/9.5	10
Available margin net of margin blocked towards MTM	E = A - D	100
AIM as a percentage of Margin Made available	(B / E)%	90%

This will result in the margin obligation on account of AIM (Rs. 90 Crores) being 90% of the net margin made available resulting in a margin call to the member requiring him to bring in additional margin.

In the above example, if the AIM reaches Rs. 95 Crores and MTM remains at 9.5, then the total margin obligation will be 104.5 which as a percentage of margin made available would be 104.5/110 i.e. 95%.

H. **Frequency of exposure check**
[Reference Chapter VII(C) (II) (5) of the Regulations].

Exposure check in this segment is carried out on an online basis for trades reported by the members up to a cut-off time as may be advised by CCIL from time to time. Any trade remaining un-accepted during on-line exposure check will be taken up for re-evaluation for exposure check on the next working day.

I. **Incremental MTM Margin**
[Reference Chapter V(D)(ii)(b) of the Regulations]

Increase in MTM margin obligation over the MTM margin obligation for the previous day is treated as incremental MTM margin. The amount of Incremental MTM margin will become payable at 9-00 A.M. of the next business day (including Saturdays). Thus while the margin will be debited / reduction in MTM gain will be effected immediately on assessment of the same at the end of the day, in case of a resultant shortfall in margin, Members are required to fund their margin account by 9-00 AM on the next business day. Failure to replenish the margin shortfall by 9-00 AM on the next business day will attract penalty in terms of para F(ii) of Chapter V of the Regulations of the Forex segment.

J. Volatility Margin

a) Volatility margin is imposed under the following conditions:

(i) If the intra-day fluctuation in the USD/INR spot rate is observed to be equal to or in excess of the margin factor for one day; **OR/AND**

(ii) If the fluctuation in the USD/INR spot rates over the three (3) day assessment window (i.e. current day & two immediately preceding working days) is observed to be equal to or in excess of the margin factor for 3 days.

b) The estimator values for assessing intra-day fluctuation are arrived as under:

❖ **Intraday-day fluctuation for one day impact as mentioned in para a (i) above:**

i. **Estimator I** is taken as Intra-day difference between high and low rates as a percentage of the low rate.

ii. **Estimator II** is taken as the exchange rate fluctuation based on the higher of:

- The absolute of the difference between the EOD MTM Spot rate of the previous business day and the intraday high rate as a percentage of the EOD MTM Spot rate of the previous business day, **and**

- The absolute of the difference between the EOD MTM Spot rate of the previous business day and the intraday low rate as a percentage of the EOD MTM Spot rate of the previous business day

Higher of **Estimator I** and **Estimator II** is taken **as *Intra-day fluctuation to arrive at one day impact.***

❖ **For three day intraday-day fluctuation as mentioned in para a (ii) above.**

iii. **Estimator III** would be the maximum possible loss over the three (3) day assessment window (i.e. current day and two immediately preceding working days) and the same is arrived at as described below:

The higher of the following two ratios is determined for each day of the three day assessment window

- Difference of the highest spot rate of each day and the lowest spot rate of the current day, divided by lower of the two rates under consideration
- Difference of the lowest spot rate of each date and the highest spot rate of the current day, divided by the lower of the two rates under consideration

iv. The sum of the three (3) ratios [as determined in 'a' above] is computed and is termed as **Estimator III**

c) ***Percentage of Volatility Margin to be imposed is arrived at as under:***

i. 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 one (1) day Exchange rate fluctuation (i.e. higher of Estimator I and II) minus corresponding margin factor for one day, rounded upward to next higher multiple of 0.25%.

ii. If VM is triggered on account of exchange rate fluctuations over a three (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 margin factor for three (3) days)/3 and rounded upward to next higher multiple of 0.25%.

If both conditions are satisfied then higher of C (i) and C (ii) above would be the applicable VM for the day

d) Volatility Margin would be **completely withdrawn** if three (3) day impact in the spot window is 0.75% below the margin factor for three (3) days **AND** one (1) day impact is also 0.25% lower than the margin factor for one (1) day.

e) Partial withdrawal of volatility margin would also be considered based on the process listed as under:

I. Required Volatility Margin levels are 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 is taken as reference level.

II. If the Volatility Margin already imposed is higher than the reference level as per (I) above, the Volatility Margin will be reduced to the reference level subject to a minimum of 0.25% per settlement date.

f) Volatility Margin, if applicable, is imposed immediately after notifying 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 are levied if shortfall is not replenished within one hour from the time of imposition.

K. Intra-day MTM margin

[Reference Chapter V (~~D~~ E) (ii) (b) of the Regulations]

i. Irrespective of whether Volatility Margin is imposed or not, on any day of high volatility, if loss in portfolio value of a member is higher than 30% of Initial Margin (including additional initial margin and volatility margin) already collected, such loss may also be collected by Clearing Corporation as MTM margin on intraday basis

ii. Applicability of intra-day MTM margin will be assessed at 12.00 noon and 3.00 PM. MTM rates used for Intraday MTM Margin computation shall be arrived in same manner as described in point no. E (i) above.

iii. Moreover, Clearing Corporation may, on volatile days collect intra day MTM margin at such other time of the day as required

iv. If applicable, the Intra-day MTM margin/Gain reduction shall be collected immediately. Upon imposition, if there is margin inadequacy/shortfall in MCC of concerned member, it shall be the responsibility of such member/s to replenish the shortfall within one hour from the time of imposition; else penal charges shall be levied as applicable.

v. In case the intra-day MTM margin payable by a member at 3.00 PM is lower than the intra-day MTM margin already collected from the members based on rates at 12.00 noon, such excess intra-day MTM margin will be released by CCIL

The revised approach, as above shall be effective from dd-mm-yyyy (date to be notified shortly)

For The Clearing Corporation of India Ltd

Sd/-

Managing Director

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