THE CLEARING CORPORATION OF INDIA LTD

Risk Management Department

No. RMD/DRVT/21/30 **1st Sep, 2021**

FOR INFORMATION OF ALL MEMBERS

Rupee Derivatives Segment

Default Fund (revised and updated)

This has been superseded by Notification No. RMD/DRVT/23/07 dated 14-Feb-2023 on Default Fund (revised and updated)

Introduction

In terms of the provisions of Chapter IX, "Default Fund" of the Regulations of the Rupee Derivatives Segment, the Clearing Corporation maintains two separate Default Funds, viz. MIBOR & MIOIS-Default Fund and MIFOR-Default Fund, referenced to transactions in respective benchmarks, with a view to meet losses arising out of default by Member(s) of this segment. Members seeking to avail CCP clearing services in this segment shall be required to deposit their contribution to the appropriate Default Fund(s).

Members of the Rupee Derivatives Guaranteed Settlement Segment shall be required to contribute to the Default Fund(s) of the respective benchmarks in which they have opted to avail guaranteed settlement.

In this regard, we invite your attention to our Notification No. RMD/DRV/20/79 dated 31st Dec 2020, which details the processes in place with regard to Default Funds for Rupee Derivatives Segment. CCIL has since modified the methodology for sizing of Default Fund and CCIL's contribution towards prefunded default handling resources. Accordingly, the afore-mentioned notification stands revised as below. The changes being implemented are underlined. All provisions shall apply to both, MIBOR & MIOIS-Default Fund and MIFOR-Default Fund.

2. Prefunded Default Handling Resources

2.1. Member contributed Default Fund and CCIL's contributions from its Settlement Reserve Fund (SRF) (referred to as 'Skin in the Game (SIG)'), together constitute prefunded default handling resources.

2.2. The total prefunded default handling resources shall be at least 1.25 times of the sum of the Cover 2 stress loss (explained in para 2.4 below) and the losses on account of five weak entities observed on the same day and under same scenario as the Cover 2 stress loss.

2.3. The prefunded resources shall be revised at the end of each month, or on an intra-month basis in an event the Cover 2 stress loss exceeds 80% of the total requirement as per 2.2 above.

2.4. The Cover 2 stress loss is computed on the basis of daily Credit Stress Test results as follows:

a. For each stress scenario, CCIL determines the sum of –
   - highest stress loss on account of a member and its affiliates and,
   - second highest stress loss on account of a member and its affiliates.

b. The highest such sum in the preceding six months is termed as the Cover 2 stress loss.

2.5. The balance in the SRF is likely to be revised once a year when the Board of Directors approves the appropriation of profits as part of the annual finalization of accounts. The updated balance in the SRF shall be allocated pro rata to each segment in the proportion of the minimum Default Fund quantum (explained in para 2.6 below) at the time. The allocation to each segment shall be subject to a cap of 25% of minimum Default Fund quantum or highest minimum contribution required from a single member, whichever is higher. This allocation of SRF to various segments shall be carried out as part of the monthly re-computation of pre-funded resources scheduled to be run at the end of the month in which the Board approves the appropriation of profits. Any unallocated amount shall be deemed to be free available SRF balance.

2.6. During each re-assessment of prefunded resources, the following steps shall be followed:

a. First, the minimum Default Fund quantum shall be computed as the sum of the Cover 2 stress loss and the losses on account of five weak entities observed on the same day and under the same scenario as the Cover 2 stress loss. However, such revision shall be subject to a floor of 85% of the prevailing minimum Default Fund quantum at the time of the revision. Member-wise minimum Default Fund requirement shall also be computed as per the approach discussed in para 4.4 below.

b. Next, CCIL's SIG requirement shall be computed as higher of 25% of minimum Default Fund quantum or the highest of the minimum contribution required from a single member, but capped at the SIG available for the segment plus any available free SRF balance.

c. The final Default Fund quantum shall be computed as the total prefunded resource requirement (as per 2.2 above) less CCIL's SIG contribution (as per (b) above), but subject to a floor equal to the minimum Default Fund quantum. Member-wise requirement shall be computed as per the approach discussed in para 4.4 below.

2.7. In an event of a downward revision in resources requirement, the resultant excess contributions from SIG shall be treated as free SRF balance and shall be utilized proportionately to make good of the deficit in SIG contribution in any other segment, if any.

2.8. As per the prevailing practice, in the event of a default, once the defaulter's margin and default fund contributions have been used to meet losses, 60% of CCIL's contribution, determined as per para 2.6 (b) above, will be made available as first tranche of CCIL's contribution, which will be utilised before the non-defaulters' contribution towards Default Fund are utilised.

2.9. The remaining 40% of CCIL's contribution, i.e. the second tranche, will be utilized after non-defaulters' contribution towards Default Fund are utilized.

3. Stress Test methodology

3.1. Outstanding rupee derivatives trade portfolios of the members and their constituents, and the value of securities deposited by the members towards the margin requirements on account of their proprietary trades as well as constituent trades shall be assessed over a range of historical and hypothetical stress scenarios.

3.2. Historical stress scenarios are based on historically observed extreme movements in risk factors over a short duration which is equal to the MPOR[1] applicable for the swap instrument. Risk factors include standard tenor swap rates, interest rates and USD/INR spot and forward exchange rates.

3.3. Hypothetical scenarios are based on extreme value distributions, such as Generalised Pareto distribution, which are used to determine extreme movements in risk factors at a very high confidence level. Presently, confidence level of 99.9% is being considered.

3.4. For each scenario, losses shall be computed separately for a member's proprietary portfolio and for each of its constituent's portfolio. Such losses shall be set-off against the stressed value of the respective member/constituent's securities deposited by the member towards margin requirement. The resulting residual losses (ignoring gains) of all constituents of the member shall be aggregated and then added to the residual loss on the member's proprietary account. In case of a gain on the member's proprietary account for the given scenario, then such gain shall be used to set-off

[1] MPOR or 'Margin period of risk' is the holding period assumed in margin model. MPOR is 5 days for trades referenced to MIBOR/MIOIS and MIFOR benchmarks.

aggregate losses on its constituents' account(s). The resultant loss at the member level, if any, shall be considered as the stress loss on account of the member for the given scenario.

3.5. Stress losses (ignoring profits) on account of members and their affiliates are then aggregated for each group of members and for each stress scenario.

4. Member contribution to Default Fund

4.1. Members shall be responsible for making contributions towards Default Funds. There shall be no Default Fund requirement from the constituents.

4.2. The contribution required to be made by a Member towards Default Fund is notified by the means of a report published on the report browser that can be downloaded by the Member. The information can also be availed by logging in to Integrated Risk Information System (IRIS).

4.3. Members are required to deposit the requisite amount of collateral towards their respective Default Fund requirements latest by 11 AM on subsequent working day (including working Saturday) post receipt of such notice for revision in Default Fund requirement.

4.4. Members' Default Fund requirements shall be based on the following three components:

a. Average outstanding gross trade volume in the previous six months with a weightage of 50%.

b. Average Initial Margin requirement in the previous six months with a weightage of 25%.

c. Highest Stress Loss on account of the member in the previous six months with a weightage of 25%.

4.5. The minimum contribution required to be made by a Member towards –

- MIBOR & MIOIS-Default Fund is Rs. 1 Crore and,
- MIFOR-Default Fund is Rs. 10 lacs.

4.6. Members shall be required to maintain a minimum of 5% of their default fund requirements in the form of cash. The remaining contribution may be in the form of eligible Government Securities.

4.7. All Central Government Securities *(except Special Securities*) including STRIPS created out of these securities and Treasury Bills (including Cash Management Bills) are eligible for deposit towards Default Fund. Any new security becoming eligible for deposit towards Default Fund will be notified to the members.

4.8. The securities contributed by members towards Default Fund shall be valued at end of the day using the latest MTM prices and will be subjected to haircut. The hair cut rate shall be at 5 day VaR at 99% confidence level adjusted by a volatility component of 50%. The values so adjusted shall be further subjected to a minimum/ maximum value for securities[2] falling in a particular tenor bucket and then stepped up using illiquidity multiplicands as indicated below (and rounded up to the next higher integer):

a. For Liquid-Securities having average of more than ten trades (face value>= Rs.5 Cr) per day during previous calendar month – no adjustment to the VaR as above.

b. For Semi-liquid securities having average of 1-10 trades(of face value >=Rs.5 crores) per day during previous calendar month - 1.5 times the adjusted VaR as above.

c. For illiquid securities having average of less than 1 trade (of face value>=Rs.5 crores) per day during previous calendar month - 2 times the adjusted VaR as above.

Further, in the event of imposition of Volatility Margin in Securities segment, the securities deposited towards the Default Fund will be re-valued using the latest traded prices or MTM prices, as the case may be, and the hair cut rates will be scaled up by the applicable Volatility Margin percentage. In case such revaluation of securities results in increase in value of collateral even after applying the increased haircut rate, such increase in value will be ignored.

[2] Refer notification no. RMD/SS/18/75 dated 21st Aug 2018.

4.9. If the value of the securities deposited towards default fund, net of haircuts, falls below a threshold level of 95% of required Default Fund contribution, then such members shall be required to contribute additional collateral towards Default Fund as may be necessary to meet their respective Default Fund requirements.

4.10. Additional contributions towards Default Fund may also be required in the event of default by a Member and the resultant usage of non-defaulters' Default Fund contribution.

4.11. In case at end of the day, a shortfall is recorded in the requisite Default Fund contribution by a Member, the same shall be automatically adjusted by the Clearing Corporation in the following order:

1) First from the surplus balance in any of the Default Funds contributed by the Member in this or in any other segment(s).
2) In case the surplus as in (1) above is not adequate to cover the shortfall in the default fund then, the shortfall will be sought to be covered by drawing from the unutilized margin (excluding MTM credits, if any) made available in the Securities Segment SGF.

4.12. Excess collateral and/or margins blocked in terms of para 4.10 above will be released as soon as the shortfall in the Default Fund account is replenished by the Member by depositing additional collateral.

4.13. Failure to replenish the residual shortfall in default fund (after making adjustments as per para 4.10 above) by 11-00 AM on the next business day will attract penalty as per the following structure:

Penalty for shortfall in default fund (based on number of days in a calendar quarter)*	**Penal charges applicable (exclusive of applicable taxes)**
For first three days	5 basis points per day on the amount of Shortfall*
From 4th to 13th days (or till the day of replenishment whichever is earlier)	10 basis points per day on the amount of shortfall*
From 14th day onwards till the day of replenishment	20 basis points per day on the amount of shortfall*

*Subject to minimum applicable of Rs. 100/- + taxes

5. This Notification supersedes all earlier Notifications issued in this regard for the segment.

6. This notification shall be effective from **1st October 2021**.

Yours faithfully,

For The Clearing Corporation of India Ltd.

Sd/-

Managing Director

Annexure I

Illustration of approach for quantifying prefunded default handling resources

A	Prefunded resources requirement:		
	a1: Cover 2 stress loss	95	
	a2: Stress losses on account of five weak entities	5	
	Prefunded resources required (1.25 x [a1+a2])		**125**
B	Minimum Default Fund quantum (80% of B)		**100**
	b1: highest of the minimum contribution required amongst all members (assume)	10	
C	CCIL's SIG requirement:		
	c1: 25% of B	25	
	c2: highest of the minimum contribution required amongst all members (=b1)	10	
	c3: higher of c1 and c2	25	
	c4: SIG allocated to the segment plus free SRF balance (assume)	22	
	CCIL's SIG requirement (lower of c3 and c4)		**22**
D	Final Default Fund quantum (higher of [A - C] and B)		**103**