

**Risk Management Department**

**This has been Superseded by Notification No. RMD/  
DRV/21/30 dated 01-Sep-2021 on Default Fund & Stress  
test Methodology (revised and updated)**

**No. RMD/DRV/20/65****01<sup>st</sup> Oct'2020****FOR INFORMATION OF ALL MEMBERS**

**Rupee Derivatives Segment  
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 shall maintain 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 guaranteed settlement services in this segment shall be required to deposit their contribution to the appropriate Default Fund(s) upfront at the time of joining the guaranteed settlement segment.

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/20/53 dated 28<sup>th</sup> Aug 2020, which details the processes in place with regard to Default Funds for Rupee Derivatives Segment. Members are advised to take note of the change in stress testing methodology on account of the introduction of Clearing Member structure in this segment. 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.

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## **2. Default Fund Corpus**

2.1. Default Fund corpus, refers to the contribution required to be made by all members of the segment towards each fund viz. the MIBOR & MIOIS-Default Fund and the MIFOR-Default Fund. The corpus for both the funds is determined at the end of each month, and is applicable for the following month.

2.2. Corpus of each Default Fund, which is revised at the end of each month, is determined by the Clearing Corporation on the basis of daily Credit Stress Test results as follows:

- 1) 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.
- 2) The size of Default Fund is based on the highest such sum in the preceding six months, along with the stress losses on account of five weak entities on the same day and the same scenario that had the highest such sum of stress losses.
- 3) In case such revision results in a reduction in the corpus of the Default Fund to an amount which is less than 85% of the corpus prevailing at the time of the revision, then the revised corpus shall be restricted to 85% of the prevailing default fund corpus.

2.3. Furthermore, the member contributed default fund shall be revised on an intra-month basis, in the event, the stress test result for a day indicates that the sum of – the highest stress loss on account of a member and its affiliates and the second highest stress loss on account of a member and its affiliates on any stress test scenario, exceeds the prevailing member contributed default fund. The revised default fund corpus shall be equal to the sum arrived at as above plus the stress loss on account of five weak entities on the same day and the same scenario. Consequently, additional contributions towards default fund will be called from the members to the extent of the difference between the revised default fund corpus and the prevailing default fund corpus.

### 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<sup>1</sup> 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 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.

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<sup>1</sup> MPOR or 'Margin period of risk' is the holding period assumed in margin model. MPOR is 3 days for MIBOR & MIOIS and 5 days for MIFOR trades. On implementation of auction based approach for default handling, the MPOR for MIBOR & MIOIS trades shall also be increased from 3 days to 5 days.

#### 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<sup>2</sup> 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  $\geq$  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  $\geq$  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  $\geq$  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.

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.

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<sup>2</sup> Refer notification no. RMD/SS/18/75 dated 21<sup>st</sup> Aug 2018.

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:

<b>Penalty for shortfall in default fund (based on number of days in a calendar quarter)*</b>	<b>Penal charges applicable (exclusive of applicable taxes)</b>
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. CCIL's contribution towards prefunded default handling resources**

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

5.2. CCIL's contributions will be higher of 25% of the respective default fund or highest amount contributed by any Member towards the respective Default Fund.

5.3. CCIL's contributions as per para 5.2 above is subject to availability of resources in Settlement Reserve Fund. In the event, aggregate SIG requirement across all segments exceeds the available balance in Settlement Reserve Fund, then CCIL's SIG contribution for all segments will be reduced on pro-rata basis to the level of resources available in Settlement Reserve Fund.

5.4. Once defaulter's margin and default fund contributions have been used to meet losses, 60% of CCIL's contribution determined as per para 5.2 and 5.3 above will be made available as first tranche of CCIL's contribution, which will be utilised before non-defaulters' contribution towards Default Fund are utilised.

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

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

**7.** This notification shall be effective from **2<sup>nd</sup> November 2020**.

Yours faithfully,

**For The Clearing Corporation of India Ltd.**

**Sd/-**

**Managing Director**