THE CLEARING CORPORATION OF INDIA LTD

Risk Management Department

No: RMD/DRV/25/35 **01-Aug-2025**

FOR INFORMATION OF ALL MEMBERS

Rupee Derivatives (Guaranteed Settlement) Segment
Default Handling Process

1. Introduction

1.1. We invite your attention to the Notification No. RMD/DRV/25/09, dated 14th Feb’25, wherein the default handling process for Rupee Derivatives (Guaranteed Settlement) segment was notified to Members in detail.

1.2. The default handling process has been reviewed and updated in the light of the recent enhancements such as extension of Auction based default handling to trades referenced to MMFOR benchmark. The updated default handling process for the Defaulter’s cleared trades is discussed in the following sections. This Notification supersedes CCIL’s Notification No. RMD/DRVT/25/09 dated 14th Feb’25.

1.3. The default handling process discussed in this notification shall be applicable separately for the Interest Rate Swap trades linked to MIBOR/MIOIS benchmarks and Interest Rate Swap trades linked to MMFOR benchmark.

2. Default Handling Process

2.1. Default Management Committee (DMC)

A Default Management Committee (DMC) comprising officials of DMC Members will be set up, in accordance with the provisions of para II(C) of Chapter VII of the Regulations of this segment, to assist the Clearing Corporation in the default handling process.

The Clearing Corporation, in accordance with the provisions of para 1(d) of Chapter XVI of the Regulations of this segment, shall invite seven Clearing Members to form the DMC. The Clearing Corporation shall invite seven highest ranked Members on the basis of their average Initial Margin requirements in the preceding quarter at the time of DMC constitution, subject to at least one representation from the following categories: 1) PSU Bank, 2) Private Bank or

Foreign Bank and 3) Primary Dealer 4) Mutual Funds. Clearing Corporation may allow more than seven Members in the DMC if such inclusion is likely to strengthen the capabilities of the DMC.

2.2. Default handling will involve one or more steps mentioned below (depending upon the Defaulter's Portfolio, all steps may not be necessary):

i. Declaration of Default and initiation of default handling process
ii. Transfer of the constituent trades and margins to the Defaulter member (where one or more constituents of Defaulter member have also defaulted).
iii. Porting of trades and margins of the Constituents of the Defaulter to another Clearing Member (where only the Clearing Member has defaulted and not its constituents)
iv. Risk neutralization of Defaulter's Portfolio
v. Establishment of a Matched Book, by one or more of the following default handling tools, viz. Sale, Auction, Allocation, Tear up
vi. Assessment Calls for replenishment of Default Fund
vii. Appropriation of resources to meet losses on Defaulter's Portfolio
viii. Utilization of resources recovered from the Defaulter

2.3. Declaration of Default and initiation of default handling process

In the event of a default by a Member, the Clearing Corporation shall initiate the following actions:

i. Declare the Member as a Defaulter in accordance with the provisions of para II(A) of Chapter VII of the Regulations of this segment.
ii. Stop accepting trades from the Defaulter and its Constituents for clearing and settlement or may accept only such trades from the Defaulter and/or its Constituents that reduce the risk of the Defaulter's/Constituent's portfolio.
iii. Convene meeting of the Default Management Committee (DMC) to assist the Clearing Corporation in default handling.
iv. Initiate default handling procedures as detailed further in this notification.

2.4. Transfer of Constituent trades and margins in the name of the Defaulter and/or Porting of trades and margins of the Constituents of the Defaulter to another Clearing Member

i. Where one or more constituents of Defaulter member have also defaulted

The Clearing Corporation will transfer the portfolio and margins of the Constituents in the name of the Defaulter in accordance with para II(F)(b) upon intimation by the Clearing Member under provisions of para II(F)(a) of Chapter VII of the Regulations of this segment.

ii. Where constituents have not defaulted:

- The constituents may, in such a case, within 30 days of the Clearing Member being declared as a defaulter, either arrange to avail clearing services of some other Clearing Member/s or completely close-out (via reversal or cancellation) all their outstanding trades.
- If the constituent is able to avail the clearing service of another Clearing Member and if such replacement Clearing Member undertakes to meet all the obligations of such constituent, then the Clearing Corporation shall port all outstanding positions and margins of the constituent to such replacement Clearing Member.
- A constituent who is neither able to close out its outstanding trades nor is able to avail the clearing services of another Clearing Member within the 30 days period mentioned above shall be deemed to be a defaulting entity and the Clearing Corporation shall invoke the default handling procedures for close-out of all its outstanding positions
- In the afore-mentioned 30 days period, the rights and obligations of these constituents shall be as per the terms of the provisions of para II(E)(4)(g) of Chapter VII of the Regulations of this segment.

2.5. Risk neutralization of Defaulter's Portfolio in terms of para II(E)(2) of Chapter VII of the Regulations of this segment

The Clearing Corporation, in consultation with the DMC, may decide to reduce the market risk of the Defaulter's Portfolio by executing Hedge Trades. The Clearing Corporation, in consultation with the DMC, may determine a "*Reserve Price*" for conducting the hedge. Such hedge transactions will be added to the Defaulter's Portfolio[1].

2.6. Establishing a Matched Book

The Clearing Corporation will exclude all the trades constituting Defaulter's Portfolio from its book of cleared trades. As stated in para II(E)(4)(a) of Chapter VII of the Regulations of this segment, such removal of the Defaulter's trades will be deemed to have resulted in an unmatched book for the Clearing Corporation. The Clearing Corporation will then resort to one or more of the following methods for reestablishment of the Matched Book.

An indicative flowchart summarizing the processes in this section is presented in Annexure 1.

2.6.1. Sale of Defaulter's Portfolio

In terms of the provisions of para II(E)(4)(b) of Chapter VII of the Regulations of this segment, the Clearing Corporation in consultation with the DMC may seek to sell the Defaulter's Portfolio to one or more non-defaulting Members at a price acceptable to the Clearing Corporation (agreed to in consultation with DMC). Such sale may be considered, if in the opinion of the Clearing Corporation, the portfolio of the Defaulter is too small to warrant an Auction or for such other reason, which in its opinion will help to expedite the restoration of the Matched Book as elaborated in para II(E)(4) of Chapter VII of the Regulations of this segment. However, if the probable loss on account of such sale exceeds the resources of the Defaulter, comprising its margins and Default Fund contributions, such sale shall not be undertaken and the auction process shall be initiated.

2.6.2. Auction

The Clearing Corporation, in consultation with the DMC, may decide to auction the Defaulter's Portfolio to the non-defaulting Members, who are willing to buy a part/ full of the Defaulter's Portfolio at prices established in such Auction.

[1] In rest of this notification, "Defaulter's Portfolio" will mean Defaulter's trades along with the trades of the Constituents that are transferred in the name of the Defaulter and the Hedge Trades.

2.6.2.1. Participation in Auction

i. All Members of the segment, except for the Defaulter, shall be eligible to participate in the Auction.

ii. In terms of the provisions of para II(E)(4)(d) of Chapter VII of the Regulations of this segment, a constituent who is permitted by the Clearing Corporation to participate in the Auction shall submit its Bids to its Clearing Member who shall then bid in the Auction on behalf of such constituent.

2.6.2.2. Auction Intimation

i. The Clearing Corporation shall intimate about the initiation of the Auction process and other operational details to all the eligible Members through email. For this purpose, the Clearing Corporation shall refer to the email ids of concerned officials such as Communication Officer, Treasury Front Office Head and Chief Dealer Derivatives, which have been updated by the Member in CCIL's C Notice database [2].

ii. Also, it should be noted that in accordance with the provisions of para 5 of Chapter XVI of this segment, the DMC Member representatives, who are assisting the Clearing Corporation for default management, shall not be allowed to place bids in the Auctions, either directly or otherwise.

2.6.2.3. Auction Pools and Portfolio Units

i. In terms of the provisions of para II(E)(3) of Chapter VII of the Regulations of this segment, for the purpose of auction, the trades constituting Defaulter's Portfolio may be split between two or more buckets, referred as Auction Pools. In case the trades in the portfolio are not split, then such a portfolio will constitute a single Auction Pool.

ii. Each Auction Pool may be further divided into a number of identical auction-able units referred as Portfolio Units. The Clearing Corporation will determine the number of units in which the Auction Pool shall be sub-divided. The Notional Principal of each trade in the Auction Pool shall be then divided by this total number of units to derive a Portfolio Unit.

iii. Minimum bid size (in terms of number of units) may be specified for the auction.

[2] Members are required to periodically review the email addresses submitted by them with CCIL and ensure that these are UpToDate.

iv. Price per unit can be negative (representing payment from Clearing Corporation to auction winner) or positive (representing payment from auction winner to Clearing Corporation).

v. To ensure a fair and equitable auction, the Clearing Corporation may mask the defaulter's portfolio by either scaling it or by inviting bids for both the actual portfolio and it mirror opposite portfolio or such other means that it may feel necessary.

An illustration showing Defaulter's Portfolio, Auction Pools and Portfolio Units is presented in Annexure 2.

2.6.2.4. Auction design and Reserve Price

i. A *Single-unit Auction* or a *Multi-unit Discriminatory Price Auction* will be conducted for each Auction Pool in accordance with the provisions of para II(E)(4)(d) of the Regulations of this segment. In these auctions, considerations paid/received by the winning bidders are at prices at which the bidders have won their respective units fully/partially.

ii. The Clearing Corporation, in consultation with the DMC, will determine the Reserve Price per Portfolio Unit for each Auction Pool, which would be the worst acceptable price to the Clearing Corporation for the auction. CCIL may not disclose the Reserve Price to the Members.

iii. The Members of the segment shall be notified about the schedule and other pertinent details of the auction before the commencement of the bidding process.

2.6.2.5. Bidding process

i. Non defaulting Members shall bid in one or more Auction Pools in a prescribed format by specifying *number of Portfolio Units* (cannot be fractional units) and *price per Portfolio Unit (either payable by the Member to the Clearing Corporation or otherwise).* Members shall be permitted to submit multiple bids.

ii. Minimum bid size (in terms of number of units) may be specified for the auction.

A brief guidance on *how to price a Portfolio Unit* is also provided in Annexure 2.

2.6.2.6. Juniorisation Scheme

i. The utilisation of non-defaulting Members' Default Fund contributions (in terms with para I(i)(d) of Chapter IX of Regulations of this segment) will be as per the Juniorisation Scheme, as provided for in para II(E)(6) of Chapter VII of the Regulations of this segment.

ii. The Clearing Corporation shall compute its Member-wise *Expectations*, i.e., the number of units a Member is expected to win for each Auction Pool, and communicate the same to the Members before the commencement of auction. These Expectations will be computed for a Multi-unit Auction based on each Member's (including its Constituent's) average daily gross outstanding positions in the preceding three months to the date of default.

iii. The Juniorisation Scheme is designed to rank the Members as per their performance in Auction. Juniorisation shall be based on the following two factors – (1) Member's performance in relation to the Expectation from the Member and (2) volume weighted average price of the Portfolio Units won by the Member in relation to the worst Reserve Price of such Auction Pool across the auctions held. At the end of one or two rounds of Auction, as the case may be, the Clearing Corporation will rank the performance of Members in each Auction Pool as per a Juniorisation Factor computed on the basis of the above two factors.

iv. The non-defaulting Members' Default Fund contributions allocated to each Auction Pool will be appropriated sequentially on the basis of the above stated rankings – starting from the contributions of the junior-most ranked Member to that of the senior-most ranked Member, to the extent required. In an event, one or more Members are ranked equally, then the contributions of such Members shall be appropriated on a pro-rata basis, to the extent required.

v. In case of a Single-unit Auction, expectations will not be applicable and the winning bidder would be ranked senior to all other Members who would all be ranked equally.

An illustration of Juniorisation Scheme is placed in Annexure 3.

2.6.3. Allocation of positions from Defaulter's Portfolio as per para II(E)(4)(e) of Chapter VII of the Regulations of this segment

Allocation of units (with negative mark to market value) from the Defaulter's Portfolio to non-defaulting Members may be required in the following cases:

i. Sufficient valid bids are not received for complete liquidation of one or more Auction Pools after one or two rounds of auction, and/or
ii. There is a shortfall in resources required for auction settlement on account of one or more participants failing to meet their Assessment Calls.

Allocation may be carried out on two categories of Members, viz.

- Members who did not meet their respective Expectations after one or two rounds of Auction (*category 1*), and/or,
- Members, who did not meet their Assessment Calls (*category 2*).

Allocation of units of Defaulter's Portfolio will be made to *category 2* Members, commensurate to their shortfall in meeting the Assessment Calls.

The remaining unsold units of Defaulter's Portfolio will be allocated to *category 1* Members, pro-rata, based on their shortfall in meeting *Expectations*. Allocation made to *category 1* Members will be capped at their Expectations. The units shall be allocated to these Members at a price determined by the Clearing Corporation in consultation with DMC.

2.6.4. Tear up as per para II(E)(4)(e) of Chapter VII of the Regulations of the segment

Tear up entails simultaneously terminating positions in the Defaulter's Portfolio and equivalent opposite positions of non-defaulting Members/Constituents on a pro-rata basis. Such pro-rata termination of trades could also result into amendment of trades of non-defaulting Members and Constituents such that the Notional Principal of impacted trades are reduced. Tear up may be used to establish Matched Book in the following cases:

i. If there are unsold units of Defaulter's Portfolio after one or two rounds of auction and the Clearing Corporation decides not to allocate units in accordance with the Allocation process discussed above[3] and/or,
ii. If there is a margin shortfall on account of a member who has been allocated units in accordance with the Allocation process discussed above.

[3] The Clearing Corporation may decide against Allocation of the unsold Portfolio Units, if – (a) the Portfolio Units have a positive MTM value (gain), or (b) if the Portfolio Units are not fully hedged and in the opinion of the Clearing Corporation, such Allocation could have a relatively greater destabilising effect on the Allocatee Members than the effect that a Tear-up of trades could have on impacted Members/Constituents.

In the first case, trades on the opposite side of the unsold portion of the Defaulter's Portfolio will be torn up from the portfolios of the non-defaulting Members and Constituents on a pro-rata basis.

In the second case, in addition to the allocated trades, other trades of the Member (and equivalent opposite trades on non-defaulting Members/Constituents) may also be torn up, either partly or completely, and margins supporting such positions may be utilized to compensate (to the extent resources are available) the non-defaulting Members/Constituents. In case resources are inadequate, payments will be made on a pro-rata to such Members to the extent of available resources.

The positions being terminated will be at prices deemed fair by the Clearing Corporation in consultation with the DMC.

2.6.5. Booking of trades in the name of non-defaulting Members and Constituents

The trades assigned to the non-defaulting Members and Constituents on account of Auction allotment or Allocation and the trades undergoing amendment or termination on account of Tear-up shall be booked in the name of the respective non-defaulting Members and Constituents after the closure of market on the day of such Auction, Allocation and/or Tear-up of trades. Further, the margin requirements shall be determined based on such revised portfolios and shall be blocked from the MCC accounts of respective Members and Constituents at EOD.

2.7. Assessment Calls for replenishment of Default Fund made in terms of the provisions of para II(E)(5) of Chapter VII of the Regulations of this segment

Assessment Calls for Default Fund replenishment shall be made to all the Members of the segment to the extent resource requirement, as determined by the Clearing Corporation, exceeds available resources and for refurbishment of Default Fund. Such Assessment Calls will be required to be met in *cash* only. Default Fund replenishment calls shall be made to the non-defaulting Members in proportion to their respective Default Fund contributions as per Clause J of Chapter IX of the Regulations of this segment. In the event of a member failing to meet the requirement, the Clearing Corporation may initiate appropriate actions against such Member, which could include Allocation of Portfolio Units, or tearing up its portfolio, partly or completely, and appropriating the margin resources.

2.8. <u>Appropriation of resources to meet losses on Defaulter's Portfolio as per para II(E)(6) of Chapter VII of the Regulations of the segment</u>

After determination of the final allotment details (Auction allotment/ Allocation/ Tear-up) of Defaulter's Portfolio and settlement of interim cashflows, if any, the Clearing Corporation shall determine the total losses on Defaulter's Portfolio since the last successful MTM margin appropriation from the Defaulter's MCC account. In an event, the Defaulter's Portfolio is split into multiple Auction Pools, then the losses should be computed separately for each Auction Pool. In case of a gain in a particular Auction Pool, then such gain shall be treated as margin made available by the Defaulter.

Each layer of resources as mentioned in Para I(i) of Chapter IX of the Regulations of this segment, other than those collected towards MTM margins, shall be allocated to each Auction Pool in proportion to the losses in the Auction Pools. MTM margins shall be allocated as per the MTM losses on respective positions in each Auction Pool at the time of last successful MTM margin appropriation from the Defaulter's MCC account.

The losses corresponding to each Auction Pool shall be met using the resources in the order mentioned in Para I(i) of Chapter IX of the Regulations of this segment. Where losses are required to be met from the Default Fund contributions of non-defaulting Members in terms of Para I(i)(d) of chapter IX of the Regulations of this segment, then such appropriation will be in accordance with the Juniorisation Scheme as discussed earlier in this notification.

Provided, however, if losses are required to be met from the Default Fund contribution of non-defaulting Members in terms of Para I(i)(f) of Chapter IX of the Regulations of this segment, then such utilisation of resources will be done in proportion of their required contributions to the Default Fund at the time of handling such default. Annexure 4 provides an illustration of how the resources are appropriated to meet losses on Defaulter's Portfolio.

2.9. <u>Settlement of Auctions/ Allocation/ Tear up as per para II(E)(7) of Chapter VII of the Regulations of the segment</u>

The Members and Constituents bidding for the positions in gain (i.e., when the bids are placed with the price *payable to* the Clearing Corporation) shall be required to make funds available as per their bids before placing the bids. Such funds will remain blocked till completion of auction proceedings. In case of Constituents, however, such prefunding should be done through their Clearing Members.

On account of Auction, Allocation or Tear-up, the Members could have funds payable or receivable and, margins payable or releasable. After determination of the final allotment details (Auction allotment/ Allocation/ Tear-up) of Defaulter's Portfolio, the Clearing Corporation shall determine the final funds and margin obligations of the Members and Constituents. Margins shall be blocked or released, as the case may be, from the Member's/Constituent's MCC account. Funds obligations shall be settled on the next business day as per the schedule notified by the Clearing Corporation at the time of the default management.

Funds receivable by the Members: Where a Member has funds receivable, then such amount shall be given as a credit to the Member's/Constituent's MCC account. Such credit shall be withdrawn before releasing the funds to the Member. However, in an event of a margin shortfall, then the funds payable amount to the extent of shortfall shall be withheld by the Clearing Corporation and continue to remain credited to the MCC account.

Funds payable by the Members: Where a Member/Constituent has funds payable obligation, then an equivalent margin shall be blocked from the Member's/Constituent's MCC account. Such margin shall be released on receipt of funds pay-in from the Member.

2.10. Settlement of interim cashflows

Any funds obligation payable by the Clearing Corporation on account of the cashflows becoming due during the default handling process will be handled by the Clearing Corporation by appropriating the defaulting Member's margins and other default handling resources. Any funds received on account of interim cashflows will be treated as margin made available by the Defaulter towards the default handling process.

2.11. Utilisation of resources recovered from the Defaulter in terms of the provisions of para K of Chapter IX (Default Fund) of the Regulations of this segment.

Resources recovered from the Defaulter shall be used to make good the losses incurred by the Members and the Clearing Corporation on account of the default of such Member. Such resources will be utilized as per the provisions of para K of Chapter IX (Default Fund) of the Regulations of this segment.

3. This notification comes into effect from **1st Sep, 2025**.

Yours faithfully,

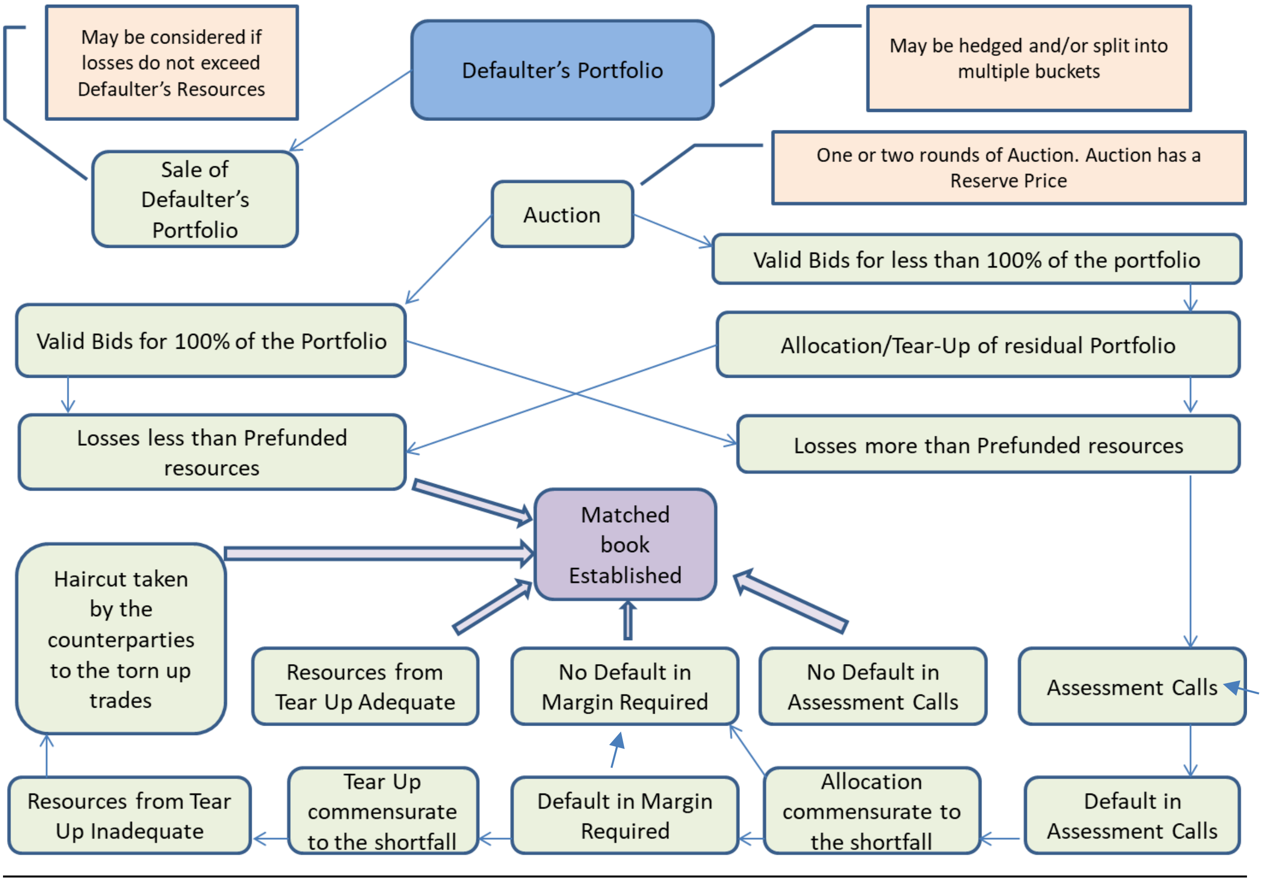
For The Clearing Corporation of India Ltd.

Sd/-

Managing Director

Annexure 1

Indicative Flowchart of Default Handling Methodology



Annexure 2

An illustration showing Defaulter's Portfolio, Auction Pools and Portfolio Units and a guidance on how to price a Portfolio Unit (of IRS trades linked to MIBOR)

1. The Defaulter's Portfolio being auctioned includes several trades with different trade attributes (trade date, Notional Principal, trade rate, trade type (buy/sell), termination date, cashflow frequency, etc.). For example, consider the following five trades constituting the Defaulter's Portfolio (only some relevant trade attributes for shown here).

Trade ID	Notional Principal (in Rs. Crs.)	Rate for Fixed leg	Ref. rate for Floating leg	Type	Reset frequency	Residual Maturity
T1	100	5%	6M MIBOR	Buy	6M	1Y
T2	200	5.5%	6M MIBOR	Sell	6M	2Y
T3	300	6%	6M MIBOR	Buy	6M	3Y
T4	200	6.5%	6M MIBOR	Sell	6M	4Y
T5	300	7%	6M MIBOR	Sell	6M	5Y

Table 1 – Defaulter's Portfolio

2. For the purpose of the auction, these trades may be segregated into various residual maturity-based Auction Pools (e.g., trades with residual maturity between 0 to 3 years in 'Auction Pool 1', trades with residual maturity between 3 years to 5 years in 'Auction Pool 2', and so on).

Trade ID	Notional Principal (in Rs. Crs.)	Rate for Fixed leg	Ref. rate for Floating leg	Type	Reset frequency	Residual Maturity	Auction Pool
T1	100	5%	6M MIBOR	Buy	6M	**1Y**	**1**
T2	200	5.5%	6M MIBOR	Sell	6M	**2Y**	**1**
T3	300	6%	6M MIBOR	Buy	6M	**3Y**	**1**
T4	200	6.5%	6M MIBOR	Sell	6M	**4Y**	**2**
T5	300	7%	6M MIBOR	Sell	6M	**5Y**	**2**

Table 2 – Auction Pools made from the Defaulter's Portfolio

3. Each Auction Pool can be then auctioned either as a single unit or by conducting a multi-unit discriminatory price auction. In case of a multi-unit discriminatory price auction, the

Auction Pools are further divided into identical small sized Portfolio Units. For example, if the 'Auction Pool 1' is to be divided into 100 units, then the Notional Principal of each trade in that Auction Pool will be divided by 100. Similarly, if the 'Auction Pool 2' is to be divided into 200 units, then the Notional Principal of each trade in that Auction Pool will be divided by 200. The resultant portfolios referred as 'Portfolio Units'.

Trade ID	Notional Principal (in Rs. Crs.)	Rate for Fixed leg	Ref. rate for Floating leg	Type	Reset frequency	Residual Maturity	Auction Pool
T1	**1**	5%	6M MIBOR	Buy	6M	1Y	1
T2	**2**	5.5%	6M MIBOR	Sell	6M	2Y	1
T3	**3**	6%	6M MIBOR	Buy	6M	3Y	1

Table 3(a) – Portfolio Units of Auction Pool 1 (total 100 units to be auctioned)

Trade ID	Notional Principal (in Rs. Crs.)	Rate for Fixed leg	Ref. rate for Floating leg	Type	Reset frequency	Residual Maturity	Auction Pool
T4	**1**	6.5%	6M MIBOR	Sell	6M	4Y	2
T5	**1.5**	7%	6M MIBOR	Sell	6M	5Y	2

Table 3(b) – Portfolio Units of Auction Pool 2 (total 200 units to be auctioned)

4. Members are required to place bids by stating the number of Portfolio Units from the particular Auction Pool they are willing to acquire. For example, a bid for 5 units from 'Auction Pool 2' would mean that the Member is willing to acquire the following trades.

Trade ID[4]	Notional Principal (in Rs. Crs.)	Rate for Fixed leg	Ref. rate for Floating leg	Type	Reset frequency	Residual Maturity	Auction Pool
T4	**1 x 5 = 5**	6.5%	6M MIBOR	Sell	6M	4Y	2
T5	**1.5 x 5 = 7.5**	7%	6M MIBOR	Sell	6M	5Y	2

Table 4 – Five Portfolio Units from Auction Pool 2

[4] Please note that the trade IDs stated in tables are for merely indicating the linkage with the original trade in Defaulter's Portfolio. The allotment of trades (as in table 4) shall be done by assigning a unique trade reference number to each trade in the Portfolio Unit (with Notional Principal multiplied by allocated units)

5. The bid should also contain the price at which the Member is willing to acquire the portfolio units along with the price direction, i.e., whether 'to pay to CCIL' or 'to receive from CCIL'. This brings to the question – What should be the **bid price and price direction**?

Auction Pool	Bid Quantity	Bid Price	Price Direction
2	5	?	?

6. Determination of Bid Price

Trades from the Auction Pools will become part of the outstanding portfolio of the winning bidders after the auction. Cashflows corresponding to the allotted trades will be settled by the respective winning bidders on respective cashflow dates. The rates corresponding to the fixed leg of the trades will be the rate at which these trades were originally executed by the Defaulter. However, the market rates at the time of auction could be different from the rates at which each of the trades in the portfolio were executed by the Defaulter. If the market rates at the time of auction have moved adversely with reference to Defaulter's traded rates, then the participants bidding in the auction will want to be compensated in such a manner that – the value of allotted trades is equivalent to the value of similar trades entered into at the prevailing market rates.

$$\boxed{Value\ of\ Defaulter's\ Trades + Compensation\ \sim\ Value\ of\ Market\ Trades}$$

The above equivalence can be achieved by marking the trades in Defaulter's Portfolio to the market. **<u>The net mark to market loss (per Portfolio Unit) may form the basis for the compensation being sought from the Clearing Corporation, i.e., the bid price per Portfolio Unit.</u>**

It may however be noted that in an event, market rates have moved favourably with reference to Defaulter's traded rates, i.e., the portfolio has MTM Gain on a net basis, then in such scenario, the Clearing Corporation will expect the auction bidders to **<u>pay</u>** for the portfolio.

In summary, to determine the bid price for a Portfolio Unit:

i. Determine mark to market (MTM) loss/gain for each trade in Portfolio Unit and thereby, determine the net MTM loss/gain for the Portfolio Unit.
ii. If the Portfolio Unit has MTM loss, then using this loss figure as a reference, decide a desirable price to be received from the Clearing Corporation for acquiring the Portfolio Units.

or

iii. If the Portfolio Unit has MTM gain, then using this gain figure as a reference, decide a desirable price to be paid to the Clearing Corporation for acquiring the Portfolio Units.

For example, if the Portfolio Unit in 'Auction Pool 2' has a net MTM loss of Rs. 50,000 then the Member could place a bid by quoting the price as Rs. 50,000 or higher[5] and with the price direction as 'receive from CCIL'.

Auction Pool	Bid Quantity	Bid Price	Price Direction
2	5	51,000	Receive from CCIL

Table 5 – Sample bid for five Portfolio Units from Auction Pool 2

If the above bid receives an allotment (as per the process explained below), then the Member will get the following trades in its book along with a cash payment of Rs 51,000 x 5 = Rs. 2,55,000/-

Trade ID	Notional Principal (in Rs. Crs.)	Rate for Fixed leg	Ref. rate for Floating leg	Type	Reset frequency	Residual Maturity
N1	**5**	6.5%	6M MIBOR	Sell	6M	4Y
N2	**7.5**	7%	6M MIBOR	Sell	6M	5Y

Table 6 – Allotment of five Portfolio Units from Auction Pool 2 in the book of the winning bidder

7. <u>Auction Allotment process</u>

The collected bids will go through a validation process. In case of Auction Pool with MTM loss, the bids with prices which are greater than the Reserve Price for the Auction Pool will be considered as bids in violation of Reserve Price. Similarly, in case of Auction Pool with MTM gain, the bids where the Members are offering to pay less than the Reserve Price for the Auction

[5] Quoting a price that is equal to the MTM value of the Portfolio Unit is equivalent to entering into the trades in the Portfolio Unit at the prevailing market rates. But it is expected that a bidder will seek some premium for participating in the Auction and will therefore seek higher compensation for taking over Defaulter's trades. However, it should be noted that if sufficient valid bids are not received for the Default's Portfolio, then the Clearing Corporation could allocate the units to the Members that did not meet the expectations and this allocation will be at a price determined by the Clearing Corporation. Further, the Default Fund contributions of the Members performing poorly in the auction will also be at the risk of being Juniorised. Therefore, it is in the best interest of the auction participants to bid competitively and in the process, the participants could also place bids at the prices which are lower than the MTM value of the Portfolio Unit that has MTM loss and vice-versa.

Pool will be considered to be in violation of Reserve Price. The bids in violation of Reserve Price will be disqualified.

Valid bids will be considered for allotment. In case of Auction Pools with MTM losses, the allotment will be made in ascending order of prices (payable by CCIL), till the units in Auction Pools are exhausted. In case of Auction Pools with MTM gains, the allotment will be made in descending order of prices (receivable by CCIL), till the units in Auction Pools are exhausted.

Annexure 3

An illustration of Juniorisation methodology

1. Assumptions:

i. There are 7 Members P, Q, R, S, T, U and V and there is only one Auction Pool. The number of units each Member is expected to win is as shown in the table below.

ii. The units won by each Member in the two auctions and the corresponding Volume weighted average price for the units won are as shown in the table below.

iii. The Reserve Price per unit for various Auction Pools in first and second auction is as shown in the table below.

2. Juniorisation:

i. Members are first categorized in two categories viz. Category A and Category B.

a) Category A comprises Members who have won equal or a greater number of units than their expected number of units.

b) Category B comprises Members who have won lesser number of units than their expected number of units.

ii. Category A Members will be ranked higher to all Category B Members and the two categories are in turn ranked within themselves as per the following Juniorisation Factor (JF):

a) Category A: JF = ΔP Cumulative*Excess

b) Category B: JF = ΔP Cumulative/|Deficit|

where,

- Excess/Deficit = Total units won across the auctions – Expected Number of units to be won
- $\Delta\, P_{Cumulative} = \dfrac{\sum_{i=1}^{2}[Volume\ Weighted\ Average\ Price_i - Min\ (Reserve\ Price_1, Reserve\ Price_2)] \times Units\ Won_i}{\sum_{i=1}^{2} Units\ Won_i}$

  and ‘i’ is the auction number

Higher the Juniorisation Factor within a category, the more senior the Member would be ranked.

iii. If the Juniorisation Factors for two or more number of Members are equal, then the Members are ranked according to their Excess/Deficit i.e.

a) Category A: Higher the Excess, the more senior the Member would be ranked.

b) Category B: Lower the Deficit, the more senior the Member would be ranked.

iv. If there is still a tie after step (iii) above, then the Members are ranked according to their ΔP Cumulative. Higher the ΔP Cumulative, the more senior the Member would be ranked.

v. If there is still a tie after step (iv) above, then the concerned Members would be ranked equally.

Members	Expected no. of Units	Auction 1			Auction 2			Excess/(Deficit)	□ P Cumulative	Member Category	JF	Rank
		RP_1 ->	-11.25	□ P_1	RP_2 ->	-15.19	□ P_2					
		Units Won	VWAP		Units Won	VWAP						
P	8	10	-6.00	9.19	0	NA	0.00	2	9.1900	A	18.3800	2
Q	16	16	-7.20	7.99	0	NA	0.00	0	7.9900	A	0.0000	5
R	64	20	-7.30	7.89	45	-14.00	1.19	1	3.2515	A	3.2515	4
S	32	10	-6.30	8.89	24	-14.50	0.69	2	3.1018	A	6.2035	3
T	40	20	-7.10	8.09	10	-12.00	3.19	-10	6.4567	B	0.6457	7
U	0	5	-7.10	8.09	0	NA	0.00	5	8.0900	A	40.4500	1
V	0	0	NA	0.00	0	NA	0.00	0	0.0000	A	0.0000	6

RP_1 = Reserve Price in the first Auction

RP_2 = Reserve Price in the Second Auction

VWAP = Volume Weighted Average Price, i.e., Price weighted by the number of units won at each price

JF = Juniorisation Factor

$\Delta P_I = \text{Volume Weighted Average Price}_{\text{i}} - \text{Min}(\text{Reserve Price}_1 , \text{Reserve Price}_2)$

Annexure 4

An illustration showing appropriation of resources to meet losses on Defaulter's Portfolio

1. Assumptions:
   - i. There are four Auction Pools numbered 1, 2, 3 and 4 and seven Members named P, Q, R, S, T, U and V.
   - ii. The total losses in all the four Auction Pools are as shown in Figure 1(a) below.
   - iii. Prefunded Default Handling Resources are shown in Figure 1(b) below.
   - iv. Default Fund contributions of non-defaulting Members is shown in Figure 1(c) below.

2. Order of appropriation of resources in accordance with the default waterfall:
   - i. Appropriation of Defaulter's Resources is shown in Figure 2(a) below.
   - ii. Appropriation of Tranche 1 of the Clearing Corporation's contribution from the Settlement Reserve Fund earmarked for the segment is shown in Figure 2(b) below.
   - iii. Appropriation of Non-Defaulters' Default Fund contributions is shown in Figure 2(c) below.

3. Balance Resources:
   - i. Figure 3(a) shows the remaining prefunded resources.

Figure 1(a): Pool-wise Losses					
Pool →	1	2	3	4	**Total**
Accumulated losses	1200	900	150	50	**2300**
Proportion of 'Default Handling Resources' distribution	52.17%	39.13%	6.52%	2.17%	**100%**

Figure 1(b) Resources available	
Defaulter's Resources (Margins and Default Fund contributions)	200
Tranche 1 of CCIL's SIG	375
Non-Defaulters' Resources (break-up shown in Fig. 1(c) below)	2500
Tranche 2 of CCIL's SIG	250
Total prefunded resources	**3325**

Figure 1(c): Non-Defaulters' DF contributions			
P	100	T	500
Q	200	U	600
R	300	V	400
S	400		
		Total	**2500**

Figure 2(a): Appropriation of Defaulter's Resources					
Pool →	1	2	3	4	**Total**
Losses outstanding	1200.00	900.00	150.00	50.00	**2300**
Resources used	104.35	78.26	13.04	4.35	**200**
Losses carried to next layer	1095.65	821.74	136.96	45.65	**2100**

Figure 2(b): Appropriation of Tranche 1 of CCIL's SIG					
Pool →	1	2	3	4	**Total**
Losses outstanding	1095.65	821.74	136.96	45.65	**2100**
Resources used	195.65	146.74	24.46	8.15	**375**
Losses carried to next layer	900.00	675.00	112.50	37.50	**1725**

Figure 2(c): Appropriation of Non-Defaulters' Default Fund contributions

Auction Rank Matrix (Pool-wise)				
Members	**1**	**2**	**3**	**4**
P	5	2	5	1
Q	6	5	3	7
R	1	4	1	6
S	2	3	2	3
T	4	7	4	2
U	7	1	7	4
V	3	6	6	5

Resources Available (Pool-wise)					
Members	**1**	**2**	**3**	**4**	**Total**
P	52.17	39.13	6.52	2.17	**100**
Q	104.35	78.26	13.04	4.35	**200**
R	156.52	117.39	19.57	6.52	**300**
S	208.70	156.52	26.09	8.70	**400**
T	260.87	195.65	32.61	10.87	**500**
U	313.04	234.78	39.13	13.04	**600**
V	208.70	156.52	26.09	8.70	**400**
	1304.35	**978.26**	**163.04**	**54.35**	**2500**

Resources used Rank-wise					
Ranks	**1**	**2**	**3**	**4**	**Total**
7	313.04	195.65	39.13	4.35	
6	104.35	156.52	26.09	6.52	
5	52.17	78.26	6.52	8.70	
4	260.87	117.39	32.61	13.04	
3	169.57	127.17	8.15	4.89	
2	0.00	0.00	0.00	0.00	
1	0.00	0.00	0.00	0.00	
Resources used	**900.00**	**675.00**	**112.50**	**37.50**	**1,725.00**
Losses carried to next layer	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Resources used Member-wise					
Members	**1**	**2**	**3**	**4**	**Total**
P	52.17	0.00	6.52	0.00	58.70
Q	104.35	78.26	8.15	4.35	195.11
R	0.00	117.39	0.00	6.52	123.91
S	0.00	127.17	0.00	4.89	132.07
T	260.87	195.65	32.61	0.00	489.13
U	313.04	0.00	39.13	13.04	365.22
V	169.57	156.52	26.09	8.70	360.87
Total	**900.00**	**675.00**	**112.50**	**37.50**	**1,725.00**

Members	Contributions not utilised
P	41.30
Q	4.89
R	176.09
S	267.93
T	10.87
U	234.78
V	39.13
Sub-total (a)	**775.00**
Tranche 1 of CCIL's SIG (b)	250.00
Total (a+b)	**1,025.00**

In the above illustration, the losses were met by sequentially appropriating Defaulter's resources, Tranche 1 of CCIL's SIG and a portion of non-defaulting Members' Default Fund contributions. In case the losses were to exceed these layers, then the further layers of resources available for appropriation would include Tranche 2 of CCIL's SIG and then Assessment Calls made for replenishment of Default Fund contributions on a pro-rata basis.

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