15th May 2019

THE CLEARING CORPORATION OF INDIA LIMITED

Risk Management Department

Consultation Paper

Enhancement in Methodology for Levying Concentration Margin in Forex Forwards and Rupee Derivatives segments

1. Introduction

1.1. In January 2019, CCIL introduced the practice of levying concentration margin in its Forex Forwards and Rupee Derivatives segments. This new margin head helps to account for the possible adverse price impact arising from liquidation of concentrated portfolios in a default scenario. The approach for computation and imposition of Concentration Margin was finalized after consultation with its members in April'18.

1.2. Presently, Concentration Margin is levied on a member in the event of its Initial Margin exceeding a pre-determined threshold. This threshold is set at 10% of the average daily total initial margin requirement of all members in the segment in the previous month.

1.3. Concentration margin is collected at 15% of initial margin as soon as a member's Initial margin obligation exceeds the above threshold level and continues to be in force till the initial margin requirement for the member falls below the second threshold level of 8% of the average daily total initial margin requirement of all members in the segment in the preceding month.

2. Need for an Enhancement in Concentration Margin methodology

2.1. The above stated methodology relies solely on Initial Margin of a member (vis-à-vis market) to measure portfolio concentration. It does not take into account impact of size of the (defaulter's) portfolio for liquidation.

2.2. The recent incident of a participant default at an international clearing house has once again drawn attention towards the approaches followed by different CCPs to address the risks arising out of concentrated portfolios. Our analysis of the incident has revealed that the concerned CCP imposed Concentration margin on a clearing member only when its Initial margin has exceeded a specified threshold. The actual size of the position is not considered for levying Concentration margin. Reports on this incident that are available in the public domain have indicated that the defaulting member, who had significant positions in derivatives market, was not levied Concentration Margin because of its lower Initial Margin requirement (lower than the threshold set by the Clearing House for Concentration margin imposition).

2.3. CCIL has reviewed its model for levy of concentration margin in the light of these global developments. It is felt that it would be prudent to include member's gross positions (vis-à-vis market) as an additional metric to levy concentration margin.

2.4. Further, it has been observed that portfolio compression exercises could result in a significant decrease in Initial Margin at an individual member level and aggregate Initial Margin at a clearing segment level. Therefore, the absolute value threshold level which is based on previous month's Initial Margin levels might not be a relevant threshold for imposition of concentration margin immediately after compression.

2.5. Presently, in Rupee, Derivatives segment, there are IRS trades referenced to two separate benchmarks, MIBOR and MIFOR. The default waterfalls for these two benchmark referenced transactions are also separate. However, for the levy of Concentration Margin, aggregate Initial margin levels across both benchmark referenced transactions are considered.

3. Proposed Revised methodology

3.1. Concentration Margin shall be applicable for portfolios of members in Forex Forwards segment and separately for portfolio of IRS trades referenced to MIBOR benchmark and portfolio of IRS trades referenced to MIFOR benchmark in Rupee Derivatives segment.

3.2. Concentration Margin shall be levied on a member in the event of:

a. Initial Margin of the member exceeding the Initial margin threshold; **and/or**

b. Gross position of the member exceeding the gross positions threshold.

3.3. The Initial margin threshold (for imposition and withdrawal) shall be based on the average daily Initial Margin of all Members in the previous month (as is the current approach). We are proposing that the threshold for imposition and withdrawal of concentration margin be revised to 8% and 6% of the average daily total initial margin requirement respectively (instead of the extant thresholds for imposition and withdrawal at 10% and 8% of average daily total initial margin requirement respectively).

3.4. Gross Position threshold shall be based on average daily gross positions[1] of all members in the previous month. This threshold shall be set at 8% of average daily gross positions of all Members in the previous month. Gross position threshold for withdrawal of Concentration margin shall be 6% of average daily gross position of all members in the previous month.

3.5. Concentration Margin shall be levied as 15% of extant Initial Margin, in the event of breach in either or both the thresholds of concentration margin imposition.

3.6. Concentration Margin shall be withdrawn when Initial Margin or gross position of the member, as the case may be, falls below the respective thresholds for withdrawal of Concentration Margin. For a member where both thresholds are breached, Concentration Margin will be completely withdrawn only when both Initial Margin and Gross position of such member fall below the respective thresholds for withdrawal of Concentration Margin.

[1] In case of Forex Forwards segment, gross position shall mean aggregate/gross of settlement date-wise net positions of the member. In case of Rupee Derivatives segment, gross position shall mean aggregate of notional value (principal of swap) of all transactions of the member referenced to a particular benchmark.

3.7. At the end of each month, the threshold values in absolute terms applicable for the subsequent month shall be determined. Threshold values in force will be communicated to the members through EOD margin report of respective segment.

3.8. CCIL conducts periodic Portfolio Compression exercises in both the Rupee Derivatives and the Forex Forwards segments. Such trade compression, results in a significant market-wide reduction in the gross outstanding positions. The concentration margin thresholds in place before the compression exercise may therefore not be correct metrics for assessing concentration after a compression exercise. To address this anomaly, in the event, Portfolio Compression exercise is carried out for a given segment, the threshold levels for remaining days in the month (after Portfolio Compression day) shall be revised based on Initial Margin and gross position levels at the EOD of Portfolio Compression exercise. Similarly, month end (month end following the Portfolio Compression day) computations of thresholds for imposition and withdrawal of concentration margin will be based on the average IM/position values arrived based on daily EOD positions of all members post the Portfolio Compression date. Such threshold value would be applicable for all members irrespective of whether the members represented in compression exercise or not.

4. All Members and other interested entities are requested to send their comments and feedback on the suggested approach for enhancement in methodology for levying Concentration Margin in Forex Forwards and Rupee Derivatives segments. The feedback may be sent to us latest by **15th July 2019** at rmd@ccilindia.co.in for attention of Chief Risk Officer, CCIL with subject as "*Consultation Paper: Enhancement in Methodology for Levying Concentration Margin in Forex Forwards and Rupee Derivatives segments*".

5. If any clarification is required on any aspect of this paper, please feel free to contact Mr. Kausick Saha, Chief Risk Officer at 022 – 6154 6441, Mr. Nandan Pradhan, AVP, Risk Management Dept. at 022 – 6154 6422 or Mr. S. T. P. Venugopal, AVP, Risk Management Dept. at 022 – 6154 6413.

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