



The Clearing Corporation of India Ltd.

CCIL Disclosures on Compliance with Principles for Financial Market Infrastructure

**Committee on Payments and Market Infrastructures
Board of the International Organization of Securities Commission**

**Public Quantitative Disclosures Key Risk Areas
for the month ending
Mar 2024**

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Principle 4: Credit Risk

4.1.1	Total value of default resources (excluding initial and retained variation margin), split by clearing service if default funds are segregated by clearing service	Prefunded - Own Capital Before; <i>Reported as at month end`</i>	<p>CCIL's Skin in the game (SIG) for each segment is set at 25 % of the default contribution but not less than the highest individual member contribution for the respective segment. The total skin in the game across all segments is capped at the balance in the SRF. The balance in SRF as on 30th Mar'24 was Rs.2600 Crores.</p> <p>The Skin in the game is split into two tranches:</p> <ul style="list-style-type: none"> • <i>Tranche 1</i> constitutes 60% of the SIG for the respective clearing service. <u>This is to be utilized immediately after the defaulting member's contribution to the Default Fund.</u> <p><i>CCIL skin in the game as on 30th Mar'24</i></p> <table border="1" data-bbox="1015 569 1479 968"> <thead> <tr> <th>INR Million</th> <th>Tranche 1</th> </tr> </thead> <tbody> <tr> <td>Securities (Outright & Repo)</td> <td>1,363.60</td> </tr> <tr> <td>Securities (Tri-party Repo)</td> <td>357.30</td> </tr> <tr> <td>Forex Settlement</td> <td>1,209.10</td> </tr> <tr> <td>Forex Forward</td> <td>4,035.20</td> </tr> <tr> <td>Rupee Derivatives (MIBOR)</td> <td>882.50</td> </tr> <tr> <td>Rupee Derivatives (MIFOR)</td> <td>200.50</td> </tr> </tbody> </table> <p>In order to meet losses that could arise out of non-default events such as failure of banks where investments are made, settlement bank failure, and operational risk events etc., a Contingency Reserve Fund (CRF) is being maintained. The balance available as on 30th Mar 2024 is INR 10,680 Million.</p>	INR Million	Tranche 1	Securities (Outright & Repo)	1,363.60	Securities (Tri-party Repo)	357.30	Forex Settlement	1,209.10	Forex Forward	4,035.20	Rupee Derivatives (MIBOR)	882.50	Rupee Derivatives (MIFOR)	200.50
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4.1.3	Total value of default resources (excluding IM and retained VM), split by clearing service if default funds are segregated by clearing service	Prefunded - Own Capital After; <i>Reported as at month end</i>	<ul style="list-style-type: none"> • <i>Tranche 2</i> constitutes 40% of the SIG for the respective clearing service. <u>This is to be utilized after the non-defaulting members contribution to the default fund is used up.</u> <table border="1" data-bbox="1015 1556 1507 1810"> <thead> <tr> <th>INR Million</th> <th>Tranche 2</th> </tr> </thead> <tbody> <tr> <td>Securities (Outright & Repo)</td> <td>909.10</td> </tr> <tr> <td>Securities (Tri-party Repo)</td> <td>238.20</td> </tr> <tr> <td>Forex Settlement</td> <td>806.10</td> </tr> <tr> <td>Forex Forward</td> <td>2,690.10</td> </tr> <tr> <td>Rupee Derivatives (MIBOR)</td> <td>588.30</td> </tr> <tr> <td>Rupee Derivatives (MIFOR)</td> <td>133.60</td> </tr> </tbody> </table>	INR Million	Tranche 2	Securities (Outright & Repo)	909.10	Securities (Tri-party Repo)	238.20	Forex Settlement	806.10	Forex Forward	2,690.10	Rupee Derivatives (MIBOR)	588.30	Rupee Derivatives (MIFOR)	133.60
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4.1.4	Total value of default resources (excluding initial and retained variation margin), split by clearing service if default funds are segregated by clearing service	Prefunded - Aggregate Participant Contributions - <u>Required</u> ; <i>Reported as at month end</i>	<p><i>As on 30th Mar 2024 (INR Million)</i></p> <table border="1"> <tr> <td><i>Securities (Outright & Repo)</i></td> <td>9,090.80</td> </tr> <tr> <td><i>Securities (Tri-party Repo)</i></td> <td>2,381.80</td> </tr> <tr> <td><i>Forex Settlement</i></td> <td>8,060.60</td> </tr> <tr> <td><i>Forex Forward</i></td> <td>26,901.10</td> </tr> <tr> <td><i>Rupee Derivatives (MIBOR)</i></td> <td>5,883.20</td> </tr> <tr> <td><i>Rupee Derivatives (MIFOR)</i></td> <td>1,336.40</td> </tr> </table>	<i>Securities (Outright & Repo)</i>	9,090.80	<i>Securities (Tri-party Repo)</i>	2,381.80	<i>Forex Settlement</i>	8,060.60	<i>Forex Forward</i>	26,901.10	<i>Rupee Derivatives (MIBOR)</i>	5,883.20	<i>Rupee Derivatives (MIFOR)</i>	1,336.40																											
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Principle 6: Margin

6.1.1	For each clearing service, total initial margin required, split by house and client (or combined total if not segregated)	Total initial margin required split by house, client gross, client net and total(if not segregated);	<p>As on 30th Mar'24</p> <table border="1"> <thead> <tr> <th colspan="2">Total House- Initial Margin (in Million)</th> </tr> </thead> <tbody> <tr> <td>Securities (Outright & Repo)</td> <td>INR 1,31,593.60</td> </tr> <tr> <td>Securities (Tri-party Repo)*</td> <td>INR 72.75</td> </tr> <tr> <td>Forex Settlement</td> <td>USD 749.54</td> </tr> <tr> <td>Forex Forward</td> <td>INR 1,95,187.18</td> </tr> <tr> <td>Rupee Derivatives-MIBOR</td> <td>INR 1,17,431.83</td> </tr> <tr> <td>Rupee Derivatives-MMIFOR</td> <td>INR 23,230.00</td> </tr> </tbody> </table> <table border="1"> <tbody> <tr> <td>Securities (Outright & Repo) Client Net</td> <td>INR 10,938.04</td> </tr> </tbody> </table> <p>(Aggregated at segment level) *In Tri Party Repo, the initial margin blocked for borrower and lender during the trading day is released after completion of settlement of the first leg for all those trades whose settlement is on trade date (T+0) basis. Thus if there is no trade whose first leg settlement is after the trade date, the initial margin at EOD of trading date would be "NIL".</p>	Total House- Initial Margin (in Million)		Securities (Outright & Repo)	INR 1,31,593.60	Securities (Tri-party Repo)*	INR 72.75	Forex Settlement	USD 749.54	Forex Forward	INR 1,95,187.18	Rupee Derivatives-MIBOR	INR 1,17,431.83	Rupee Derivatives-MMIFOR	INR 23,230.00	Securities (Outright & Repo) Client Net	INR 10,938.04
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6.2.15	For each clearing service, total <u>initial margin held</u> , split by house and client	For each clearing service, total initial margin held, split by house and client (if segregated).	<p>As on 30th Mar 2024 USD 42.52 Million</p> <p>USD Securities(T-Bills): USD 711.11 Mn Invested in US T-Bills for availing collateralized Line of Credit. USD Balance maintained at settlement Banks 42.52 million.</p> <p>Direct Members- House</p> <table border="1"> <thead> <tr> <th>INR Million</th> <th>Pre Haircut</th> <th>Post Haircut</th> </tr> </thead> <tbody> <tr> <td>Securities Segment*</td> <td>12,71,470.27</td> <td>12,32,246.16</td> </tr> <tr> <td>Tri-party Repo**</td> <td>0</td> <td>0</td> </tr> </tbody> </table> <p>Constituents- Clients</p> <table border="1"> <thead> <tr> <th>INR Million</th> <th>Pre Haircut</th> <th>Post Haircut</th> </tr> </thead> <tbody> <tr> <td>Securities Segment</td> <td>18,919.97</td> <td>18,047.35</td> </tr> </tbody> </table> <p>As on 30th Mar '24</p>	INR Million	Pre Haircut	Post Haircut	Securities Segment*	12,71,470.27	12,32,246.16	Tri-party Repo**	0	0	INR Million	Pre Haircut	Post Haircut	Securities Segment	18,919.97	18,047.35	
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			<p>INR 42,135.10 Mn is invested in T-Bills. Cash deposited at a central bank of issue of the currency concerned is INR 317.79 Mn (This is the cash from initial margin out of total cash deposited INR 501.54 million)</p> <p>INR 52,391.50 million invested in deposits with domestic commercial banks.</p> <p>* Securities and cash are held in a fungible pool, which is used to meet various margin requirements (Initial Margin (including Volatility Margin), Mark to Market Margin etc.) across segments. Hence Securities and cash held for Initial Margin (only) cannot be segregated. However, the margin made available as above (in the form of securities and cash) is blocked segment-wise with a right to utilize the same in terms of CCIL's Bye-Laws, Rules and Regulations.</p> <p><i>In the event of T+1 Trades, when a part of the IM is blocked from the collateral held towards the borrowing limit, the same will be shown as the IM held.</i></p>														
6.5.1.1	Results of back-testing of initial margin. At a minimum, this should include, for each clearing service and each initial margin model applied to that clearing service	Number of times over the <u>past twelve months</u> that margin coverage held against any account fell below the actual marked-to-market exposure of that member account	<table border="1"> <thead> <tr> <th colspan="2">No of times - Back testing Exceptions</th> </tr> </thead> <tbody> <tr> <td>Securities (Outright & Repo)</td> <td>0</td> </tr> <tr> <td>Securities (Tri-party Repo)</td> <td>0</td> </tr> <tr> <td>Forex Settlement</td> <td>0</td> </tr> <tr> <td>Forex Forward</td> <td>0</td> </tr> <tr> <td>Rupee Derivatives *</td> <td>15</td> </tr> </tbody> </table>	No of times - Back testing Exceptions		Securities (Outright & Repo)	0	Securities (Tri-party Repo)	0	Forex Settlement	0	Forex Forward	0	Rupee Derivatives *	15		
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Securities (Tri-party Repo)	0.00																
Forex Settlement	0.00																
Forex Forward	0.00																
Rupee Derivatives	0.34																
6.6.1	<u>Average Total Variation Margin</u> Paid to the CCP by participants in each business segment over the period	<i>For the month</i>	<table border="1"> <thead> <tr> <th colspan="2">Average VM (INR million)</th> </tr> </thead> <tbody> <tr> <td>Securities (Outright & Repo)</td> <td>2082.41</td> </tr> <tr> <td>Securities (Tri-party Repo)</td> <td>0.018</td> </tr> <tr> <td>Forex Settlement</td> <td>1,599.0</td> </tr> <tr> <td>Forex Forward</td> <td>19,736.27</td> </tr> <tr> <td>Rupee Derivatives- MIBOR</td> <td>22,047.19</td> </tr> <tr> <td>Rupee Derivatives- MMIFOR</td> <td>3,560.24</td> </tr> </tbody> </table>	Average VM (INR million)		Securities (Outright & Repo)	2082.41	Securities (Tri-party Repo)	0.018	Forex Settlement	1,599.0	Forex Forward	19,736.27	Rupee Derivatives- MIBOR	22,047.19	Rupee Derivatives- MMIFOR	3,560.24
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Forex Forward	19,736.27																
Rupee Derivatives- MIBOR	22,047.19																
Rupee Derivatives- MMIFOR	3,560.24																

6.7.1	Maximum total variation <u>margin</u> paid to the CCP on any given business day over the period	For the month	Max VM (INR Million)	
			Securities(Outright & Repo)	3717.39
			Securities (Tri-party Repo)	0.037
			Forex Settlement	6,414.01
			Forex Forward	23,249.63
			Rupee Derivatives- MIBOR	24,712.67
			Rupee Derivatives- MIFOR	3,852.76
6.8.1	Maximum aggregate initial <u>margin call</u> on any given business day over the period	For the month	Max IM Required (INR Mn/ USD Mn*)	
			Securities (Outright & Repo)	201,931.37
			Securities (Tri-party Repo)	72.75
			Forex Settlement *	753.04
			Forex Forward	2,20,617.10
			Rupee Derivatives- MIBOR	1,17,431.83
			Rupee Derivatives- MMIFOR	23,389.23

Principle 7: Liquidity Risk

7.1.1	Liquidity Risk	State whether the clearing service maintains sufficient liquid resources to 'Cover 1' or 'Cover2'	Sufficient liquid resources are maintained for 'Cover 1'
7.1.2	Liquidity Risk	Size and composition of qualifying liquid resources for each clearing service; (a) Cash deposited at a central bank of issue of the currency concerned	Cash balance at RBI as on 30 th Mar 2024 INR 501.54 Million
7.1.3	Liquidity Risk	Size and composition of qualifying liquid resources for each clearing service; (b) Cash deposited at other central banks	N.A.
7.1.4	Liquidity Risk	Size and composition of qualifying liquid resources for clearing service; (c) Secured cash deposited at commercial banks (including reverse repo)	N.A.
7.1.5	Liquidity Risk	Size and composition of qualifying liquid resources for each clearing service; (d) Unsecured cash deposited at commercial banks	INR 23,360 million over draft facility on term deposits with commercial banks (as on 30 th Mar 2024)
7.1.6	Liquidity Risk	Size and composition of qualifying liquid resources for each clearing service; (e) secured committed lines of credit(i.e. those for which collateral/security will be provided by the CCP if drawn) including committed foreign exchange swaps and committed repos	USD 500 Million (collateralized LoC) available at USD Settlement Banks
7.1.7	Liquidity Risk	Size and composition of qualifying liquid resources for each clearing service; (f) unsecured committed lines of credit (ie which the CCP may draw without providing collateral/security)	USD 500 Million collateralised and committed available at Settlement Bank in US. <u>Segment-wise LoC available at central bank(RBI)</u> Forex Segment - INR 19,000.00 Mn Securities Segment - INR 27,000.00Mn Rupee Derivatives – INR 1,000.00 Mn <u>LoC available at Settlement Banks</u> Securities Segment- INR 56,000.00 Mn
7.1.8	Liquidity Risk	Size and composition of qualifying liquid resources for each clearing service; (g) highly marketable collateral held in custody and investments that are readily available and convertible into cash with prearranged and highly reliable funding arrangements even in extreme but plausible market conditions.	Settlement Guarantee Fund (held in the form of highly marketable government securities) as on 30 th Mar 2024 is INR 12,50,293.51 Mn (House and Client market value post haircut)
7.1.9	Liquidity Risk	Size and composition of qualifying liquid resources for each clearing service; (h) other	N.A.

7.3.1	Liquidity Risk	Estimated largest same-day and intraday and multiday payment obligation in <u>total</u> that would be caused by the default of any single participant and its affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions; Forward looking measure <u>reported quarterly</u>	INR 1,193,294.93 million
7.3.2	Liquidity Risk	Report the number of business days, if any, on which the above amount exceeded its qualifying liquid resources (identified as in 7.1, and available at the point the breach occurred), and by how much.; No. of days in quarter	0 days
7.3.3	Liquidity Risk	No of business days, if any, on which the above amount exceeded its qualifying liquid resources (identified as in 7.1, and available at the point the breach occurred), and by how much; Amount of excess on each day	N.A.
7.3.4	Liquidity Risk	Actual largest intraday and multiday payment obligation of a single participant and its affiliates (including transactions cleared for indirect participants) over the past twelve months; Peak day amount in previous12months	INR 1,193,294.93 Million

Principle 18: Access and Participation Requirements:

18.1.1.1	Number of clearing members by clearing service	Number of general clearing members	<i>Securities (Outright & Repo)*</i>	58	
			<i>Securities (Tri-party Repo)*</i>	11	
			<i>Forex Settlement</i>	78	
			<i>Forex Forward</i>	77	
			<i>Rupee Derivatives</i>	56	
			*The number of CCPs direct participants who clear their own trades through CCP and also offer access to CCP to their clients (General clearing members)		
18.1.1.2	Number of clearing members by clearing service	Number of direct clearing members*	<i>Securities (Outright & Repo) *</i>	146	
			<i>Securities (Tri-party Repo)*</i>	212	
			<i>Forex Settlement</i>	78	
			<i>Forex Forward</i>	76	
			<i>Rupee Derivatives</i>	56	
			*The number of CCPs direct participants who clear only their own trades through CCP (Direct clearing members)		
18.1.1.3	Number of clearing members by clearing service	Number of others category (Describe in comments)*	<i>Securities (Outright & Repo) *</i>	58	
			<i>Securities (Tri-party Repo)*</i>	11	
			<i>Forex Settlement</i>	0	
			<i>Forex Forward</i>	0	
			<i>Rupee Derivatives</i>	0	
			* The number of CCPs direct participants that are clearing members for other categories not captured above (Trading entities)		
18.3.1	Initial Margin Concentration	For each clearing service with 10 or more members, but fewer than 25 members; % of IM posted by top 5 clearing members, house plus client, in aggregate; Average, Peak for quarter	Largest 5 Members- IM Concentration %		
				Max	Average
			Rupee Derivatives (MMIFOR)	59.46	58.81
18.3.2	Initial Margin Concentration	For each clearing service with 25 or more members; Percentage of initial margin posted by the largest five clearing members, including both house and client, in aggregate; Average and Peak over the quarter	Largest 5 Members- IM Concentration %		
				Max	Average
			<i>Securities (Outright & Repo)</i>	39.64	36.05
			<i>Securities (Tri-party Repo)*</i>	100.0	98.97
			<i>Forex Settlement</i>	18.78	18.75
			<i>Forex Forward</i>	37.32	34.85
			<i>Rupee Derivatives- MIBOR</i>	40.57	40.22
*For Tri party Repo, in order to calculate the average, the total no of days has been considered as the days on which there is a non-zero IM obligation rather than the total number of working days.					

18.3.3	Initial Margin Concentration	For each clearing service with 25 or more members; Percentage of initial margin posted by the largest ten clearing members, including both house and client, in aggregate; Average and Peak over the quarter	Largest 10 Members- IM Concentration %		
				Max	Average
			Securities (Outright & Repo)	56.50	52.55
			Securities (Tri-party Repo)*	100.0	100.00
			Forex Settlement	35.30	35.25
			Forex Forward	58.88	56.49
			Rupee Derivatives- MIBOR	68.80	68.60
			*For Tri party Repo, in order to calculate the average, the total no of days has been considered as the days on which there is a non-zero IM obligation rather than the total number of working days.		
18.4.1	Segregated Default Fund Concentration	For each segregated default fund with 10 or more, but fewer than 25 members; % of participant contribution to the default fund contributed by <u>largest 5 clearing members</u> in aggregate	Largest 5 members- % DF Contribution		
			Rupee Derivatives (MMIFOR))	57.87	
18.4.2	<u>Segregated Default Fund Concentration</u>	For each segregated default fund with 25 or more members; Percentage of participant contributions to the default fund contributed by <u>largest 5 clearing members</u> in aggregate	Largest 5 members- % DF Contribution		
			Securities (Outright & Repo)	30.38	
			Securities (Tri-party Repo)	26.03	
			Forex Settlement	27.93	
			Forex Forward	28.93	
			Rupee Derivatives (MIBOR)	34.63	
18.4.3	<u>Segregated Default Fund Concentration</u>	For each segregated default fund with 25 or more members; Percentage of participant contributions to the default fund contributed by <u>largest ten clearing members</u> in aggregate	Largest 10 Members- % DF Contribution		
			Securities (Outright & Repo)	46.31	
			Securities (Tri-party Repo)	39.34	
			Forex Settlement	48.63	
			Forex Forward	50.91	
			Rupee Derivatives (MIBOR)	58.69	

