
NATIONAL COMMODITY CLEARING LIMITED

Circular to all Members of the Clearing Corporation

Circular No. : NCCL/RISK-028/2023

Date : June 19, 2023

Subject : Master Circular - Risk Management

1. NCCL vide its circular no. NCCL/RISK-001/2018 dated September 26, 2018, on Risk Management Framework, consolidated the various provisions relating to Risk Management. In order to consolidate information pertaining to Risk Management contained in all the circulars issued thereafter and make them available at one place, the circulars issued till March 31, 2023 are consolidated in this Master Circular.
2. It is hereby clarified that in case of any inconsistency between the Master Circular and the original applicable circular, the content of the original circular shall prevail.
3. Notwithstanding such rescission
 - a) anything done or any action taken or purported to have been done or taken under such revised/rescinded process including but not limited to any regulatory inspection/investigation or enquiry commenced or any disciplinary proceeding initiated or to be initiated under such rescinded/revised process or rescission, shall be deemed to have been done or taken under the corresponding provisions of this Master Circular;
 - b) the previous operation of the rescinded provision or circular or anything duly done or suffered thereunder, any right, privilege, obligation or liability acquired, accrued or incurred thereunder, any penalty incurred in respect of any violation committed arising out of violation of such rescinded process or circulars, or any investigation, legal proceeding or remedy in respect of any such right, privilege, obligation, liability, penalty as aforesaid, shall remain unaffected as if the rescinded process or circulars have never been rescinded.

This Master Circular is issued in accordance with the provisions of Bye Law no. 6.4 of NCCL Bye laws.

The rescinded Master Circular is available on the NCCL website at https://www.nccl.co.in/public/api/getData/assets/circulars/Risk_Management_Framework_26_092018.pdf under the category "Circulars".

Members and their Clients are requested to take note of the same.

For and on behalf of
National Commodity Clearing Limited

Abhishek Soni
Vice President

For further information / clarifications, please contact

1. Customer Service Group on toll free number: 1800 266 6007
 2. Customer Service Group by e-mail to : contactus@nccl.co.in
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Summary of important circulars issued during the period from January 01, 2020 till March 31, 2023

Sr. No.	Circular Date	Circular No.	Subject	Reference
1	29-Jan-20	NCCL/RISK-003/2020	Review of Margin Framework for Commodity Derivatives Segment	Point No. II 1
2	04-Mar-20	NCCL/RISK-010/2020	Review of Norms Regarding Matched Books for Commodity Derivatives Segment	Point No. III 1
3	23-Sep-20	NCCL/RISK-039/2020	Alternate Risk Management Framework Applicable in case of Near Zero and Negative Prices	Point No. II 19
4	13-Jan-21	NCCL/RISK-001/2021	Review of Volatility Scan Range (VSR) for Option contracts in Commodity Derivatives Segment	Point No. II 1
5	22-Jul-21	NCCL/RISK-024/2021	Segregation and Monitoring of collateral at Client Level	Point No. II 13 & Point No. II 14
6	11-Aug-21	NCCL/RISK-028/2021	Calendar Spread margin benefit in commodity futures contracts	Point No. II 1.D
7	11-Oct-21	NCCL/RISK-040/2021	Spread margin benefit in a commodity complex	Point No. II 1.D
8	24-Mar-22	NCCL/RISK-012/2022	Cross Margin in Commodity Index Futures and its underlying constituent futures or its variants – NCDEX GUAREX	Point No. II 1.E
9	11-May-22	NCCL/RISK-019/2022	Changes to the Framework to Enable Verification of Upfront Collection of Margins from Clients in Cash and Derivatives segments	Point No. II 18
10	06-Jun-22	NCCL/RISK-024/2022	Revision in Pre-Expiry Margins	Point No. II 6
11	14-Jul-22	NCCL/RISK-029/2022	Margins for Options in Goods Contract on Spices Complex – Turmeric, Coriander and Jeera	Point No. II 1 & Point No. II 6
12	09-Dec-22	NCCL/RISK-046/2022	Scheme of deposit for acceptance of Government Securities, Treasury Bills and Sovereign Gold Bonds as Collateral	Point No. I

Sr. No.	Circular Date	Circular No.	Subject	Reference
13	06-Jan-23	NCCL/RISK-002/2023	Lean Period in Agricultural Commodities	Point No. II 5
14	23-Feb-23	NCCL/RISK-011/2023	Revision in client level Concentration Margin in Barley, Castor, Coriander, Guar Gum, Guar Seed, Jeera and Turmeric contracts	Point No. II 8

Risk Management

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I. Liquid Assets

In pursuance of the regulations of SEBI, Rules, Bye- laws and Regulations of NCCL, NCCL has defined norms and procedures for acceptance of liquid assets, haircuts, and limits applicable to Clearing Members (CMs) and their clients.

These liquid assets are classified as Cash, Cash equivalent and Non Cash Collaterals (Other Deposits). Cash equivalent shall mean Bank Guarantees (BGs), Bank Fixed Deposit Receipts (FDRs), Central Government Securities and any form of collateral as may be prescribed from time to time. Non Cash Collaterals (Other Deposits) shall mean all other form of collateral deposits like approved securities (equity shares), approved mutual fund units, Electronic Negotiable Warehouse Receipt(s) (ENWR) of approved commodities issued by designated warehouse/ vault and any other form of collateral as may be prescribed from time to time.

Cash equivalents shall be at least 50% of liquid assets. This would imply that Other Liquid assets in excess of the total Cash Equivalents would not be regarded as part of Member's liquid assets as well as total liquid assets.

CMs are required to maintain at least 50% of the total collateral in the form of cash or cash equivalents. At individual client level, a client may have allocation of cash equivalent, less than the value of non-cash collateral provided by him. In other words, the minimum 50% cash equivalent collateral requirement may not be applied at the client level. For the purpose of monitoring of at least 50% cash-equivalent collateral at the level of CM, the excess cash-equivalent collateral of a client shall not be considered for other client or for proprietary account of TM/CM. However, the excess cash-equivalent collateral of proprietary account of TM/CM can be considered for clients trading/clearing through them, for the purpose of monitoring minimum 50% cash-equivalent requirement.

The types of liquid assets acceptable by NCCL with the applicable haircuts and concentration limits are listed below

Sr No	Item	Minimum Haircut	Limits
Cash equivalents			
1	Cash	0	No Limit
2	Bank fixed deposits	0	Limit on exposure to a single bank as decided by NCCL from time to time.
3	Bank guarantees	0	
4	Securities of the Central Government	2%, 5%, 10%	No Limit
5	Units of liquid mutual funds or government securities mutual funds (by whatever name called which invest in government securities)	10%	Limit on NCCL's exposure to a single Asset management Company shall be Rs. 100 crores.
Other Liquid assets			
Sr No	Item	Minimum Haircut	Limits
6	Liquid (Group-I) Equity shares	VaR for NIFTY50 Index securities, 20% or VaR whichever is higher for non-index securities.	Limit on NCCL's exposure to a single issuer is Rs 100 crores.
7	Mutual fund units	VaR or 10% whichever is higher.	Limit on NCCL's exposure to a single Asset management Company shall be Rs. 100 crores.
8	Base metals and Alloys	30%	The total commodities collateral for any Clearing Member shall not exceed 15% of the total liquid assets of the Clearing Member
9	Agricultural Commodities	40%	

Notes:

- i. The valuation of the liquid assets shall be done on a daily basis after applying applicable haircuts.
- ii. NCCL has laid down exposure limits in rupee terms that can be exposed to a single Bank directly or indirectly. The total exposure towards any Bank would include Fixed Deposits, Bank Guarantees issued by the Bank as well as debt or equity securities of the Bank which have been deposited by Members towards total liquid assets.

- iii. Not more than 1% of the total liquid assets deposited with NCCL, shall be exposed to any single Bank which has a net worth of less than INR 500 crores and is not rated P1 (or P1+) or equivalent, by a recognized credit rating agency or by a reputed foreign credit rating agency, and not more than 10% of the total liquid assets deposited with NCCL shall be exposed to all such Banks put together.
- iv. For the purpose of determination of which equity shares are falling in Group-I and what would be the appropriate VaR margin for these securities, data disseminated by NSE Limited shall be referred.
- v. Commodities to be accepted as collateral shall be of same quality which is deliverable under the contract specification of corresponding commodities derivatives being traded on the concerned Exchange platform.
- vi. NCCL shall accept liquid assets as collateral only as per the list of liquid assets specified in the table above. However, NCCL may decide not to accept certain types of liquid assets specified in the above list based on their risk perception, capability to hold and arrangements for timely liquidation. NCCL may stipulate concentration limits at member level / across all members as may be necessary.
- vii. NCCL shall not accept Fixed Deposit Receipts (FDRs) from Trading/Clearing Members as collateral, which are issued by the trading/Clearing Member themselves or banks who are associate of trading/ Clearing Member.
- viii. The approved commodities as collateral shall be permitted to a maximum of Rs. 15 Crore (after haircut) as part of Additional Base Capital for a member.
- ix. A maximum value of Rs. 75 Crore (after haircut) of select approved commodities shall be permitted to be accepted as collateral across all members of NCCL.
- x. The total commodities collateral for any Clearing Member shall not exceed 15% of the total deposits (Liquid Assets) of the Clearing Member.
- xi. The maximum value of any security (equity shares) acceptable as collateral shall not exceed Rs 100 Crores (post haircut) across all members at any given point of time.
- xii. Clearing Member level limit for any security (equity shares) acceptable as collateral shall be limited to Rs 25 Cr, post haircut at any given point of time.
- xiii. The maximum value of any mutual fund acceptable as collateral at AMC level shall not exceed Rs 100 Crores across all members at any given point of time.
- xiv. Clearing Member level limit for mutual fund units acceptable as collateral, at AMC level, shall be limited to Rs 50 Cr, post haircut at any given point of time.
- xv. The total approved mutual funds, approved securities and approved commodity as collateral deposited towards the Additional Base Capital (ABC) shall not exceed 15% of the total effective deposits present with NCCL at any point of time.

Note: The liquid assets acceptance, applicable haircuts, limits are subject to periodic review from time to time. Clearing Members and participants are required to refer to latest circulars issued in this regard.

II. Margin

Various forms of margins levied by NCCL are listed and detailed below.

1. Initial Margin

Initial margins are imposed to cover potential future exposure to participants in the interval between the last margin collection and the close out of positions following a participant default. This margin is based on the portfolio of individual client comprising of his positions in Futures, Options contracts on each commodity and Index. Margins are charged so as to be adequate to cover 99% VaR (Value at Risk) and applicable Margin Period of Risk (MPOR). Minimum value of Initial Margin (IM), Margin Period of Risk (MPOR), Short Option Minimum Margin (SOMM) and Volatility Scan Range (VSR) would be subject to commodity specific floor value based on volatility category or as may be specified by SEBI /NCCL from time to time.

Minimum IM, SOMM, MPOR and VSR based on volatility is as under:

Volatility Category of Commodity	Realized Annualized Volatility Criteria	Minimum IM/ SOMM		Minimum MPOR		Minimum VSR	
		Agri	Non Agri	Agri	Non Agri	Agri	Non Agri
Low	0 to 15%	8%	6%	3	2	5%	4%
Medium	Above 15% to 20%	10%	8%	3	2	6%	5%
High	Above 20%	12%	10%	4	3	7%	6%

NCCL shall review the categories of all commodities once in every six months' period based upon past three years' data. Commodity may be moved from higher volatility category to lower category only if it satisfies criteria of the revised category of volatility for two consecutive reviews. However, movement from a lower to higher volatility category shall be done based upon a single review.

The categorisation shall be done on 1st March and 1st September of each year on rolling basis and changes if any shall be made applicable from 1st April and 1st October respectively of each year.

In case derivatives are launched on any new underlying commodity for the first time for which no reference future prices are available, it shall be initially categorised based upon prices available in the spot markets subject to a minimum of Medium category of Volatility. Re-

categorisation of such commodity from higher to lower category of volatility can only be done after two consecutive reviews.

A. Net Option Value / Mark to Market

NCCL shall mark to market the options positions by deducting/adding the current market value of options (positive for long options and negative for short options) times the number of long/short options in the portfolio from/to the margin requirement. Thus, mark to market gains and losses would not be settled in cash for options positions.

B. Short Option Minimum Margin (SOMM)

SOMM is charged for sellers/writers of the Options contracts as specified by NCCL from time to time.

C. Premium Margin

Buy premium shall be charged as margins and blocked from the collaterals of the buyer of the option. On computation of settlement obligation at the end of day, the premium blocked shall be released (beginning of the day) and collected as pay-in as per process notified.

D. Spread margin benefit on initial margins

- i. Spread benefit in initial margin shall be permitted in the following cases:
 - a) Different expiry date contracts of the same underlying
 - b) Two contracts variants having the same underlying commodity
 - c) Futures contracts in a commodity complex provided the conditions in “para ii” below are met.
 - d) Cross margin (offsetting position between Index and its constituents / variants)
- ii. NCCL may provide spread benefit in initial margin across futures contracts in a commodity complex provided the following conditions are met:
 - a) Minimum coefficient of correlation (r) between futures prices of the two commodities is 0.90.
 - b) Back testing for adequacy of spread margin to cover MTM has been carried out for a minimum period of one year (back testing for at least 250 days wherein daily settlement price of futures used for back testing have been determined from traded futures prices).

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- c) Initial margin after spread benefit has been able to cover MTM on at least 99% of the days as per back testing.
 - iii. Maximum benefit in initial margin on spread positions indicated in para [i – (a), (b) and (d)] is restricted to 75%. Maximum benefit in initial margin on spread positions indicated in para [i – (c)] is restricted to 50%.
 - iv. In case of spread positions, additional margins shall not be levied. No benefit in Extreme Loss Margin (ELM) would be provided for spread positions i.e. ELM shall be charged on both individual legs. NCCL shall be free to charge margins higher than the minimum specified depending upon its risk perception.
 - v. Margin benefit on spread positions shall be entirely withdrawn latest by the start of tender period or start of expiry day, whichever is earlier.
 - vi. To be eligible for initial margin benefit, each individual contract in the spread shall be from amongst the first six expiring contracts for spread position indicated in para [i – (a) and (b)] and amongst the first three expiring contracts for spread position indicated in para [i – (c) and (d)].
 - vii. While providing spread benefit across futures contracts in a commodity complex, NCCL shall continuously monitor dynamics of the commodities and their correlation and if there are changes such that spread margin benefit is no longer appropriate to be given, shall take appropriate further course of action.

E. Cross margin benefit

Cross margin benefit in initial margin between Index Futures and its underlying constituent futures or its variants shall be provided.

Following provisions shall be applicable in this regard:

- i. Eligibility
 - a. To be eligible for cross margin benefit, contracts belonging to Index futures and its underlying constituents or its variants shall belong to same expiry month or to the nearest expiry month and should be from amongst the first three expiring contracts only.

b. Cross Margin benefit on the eligible positions shall be withdrawn equally in three days prior to the start of expiry date including expiry date of the Index Futures.

ii. Computation of cross margin benefit

a. Cross margin benefit of 75 % on Initial Margin may be allowed for eligible offsetting positions of index futures and futures of its underlying constituents or its variants.

b. The Extreme Loss Margin and Mark to Market Margin shall continue to be levied.

c. Additional margin shall not be levied.

2. Extreme Loss Margin

The ELM Margin is a fixed percentage component to cover situations that lie outside the coverage of VaR based initial margins. ELM of minimum 1% on gross open positions shall be levied and shall be deducted from the liquid assets of the Clearing Member on an online, real time basis. NCCL shall be free to charge margins higher than the minimum specified depending upon its risk perception.

3. Additional Margin

Margins imposed on both long and short sides over and above the other margins, would be called as additional margins. The Regulator/NCCL/Concerned Exchange may impose additional margins on both long and short side at such other percentage, as deemed fit. Removal of such Margins will be at the discretion of the Regulator/NCCL/Concerned Exchange.

4. Special Margin

In case of high volatility, a margin at a percentage as deemed fit by the Regulator/NCCL/Concerned Exchange, is imposed on either the buy or the sell side.

5. Additional Lean Period Margin in Agri Commodities

During lean period (i.e. the period before the arrival of new crop) there is often uncertainty about the arrivals of new crop. This may lead to higher volatility in prices of commodities during this period. Therefore, NCCL shall levy additional lean period margin of 2% on contracts expiring during lean period.

6. Pre – expiry margin

Pre-expiry margins are levied on futures contracts on the last few days as they approach expiry. This margin keeps increasing on each of the days. Pre-expiry margins shall be levied

at 1.50% per trading day incrementally during the last 7 trading days (including expiry day) till the expiry day of the respective futures contracts.

In case of Options, Pre expiry margin will be charged on potential In the money (ITM), Close to money (CTM) and Close to money Extended (CTM- E) long and short option positions. Pre expiry Margin shall be charged at 3% per day incrementally for 7 days prior to the expiry of contract including expiry date on long and short positions. Further, for short option positions, actual short option margin charged shall be reduced from total pre expiry margin to be charged.

7. Delivery margins

Delivery margins are levied on the long and short positions marked for delivery till the pay-in is completed by the member. The Delivery Margin charged seeks to cover the price movement of the underlying commodity from the date of expiry to the date of settlement. The Delivery Margin is computed as higher of 3% + 5 day 99% VaR of spot price volatility or 20%. NCCL may impose higher delivery margins if deemed fit. Once delivery period margin is levied, all other applicable margins may be released.

8. Concentration margin

NCCL shall impose adequate concentration margins (only on concentrated positions) to cover the risk of longer period required for liquidation of concentrated positions in any commodity. The threshold value for imposing concentration margin may be determined taking into account factors including open interest, concentration and estimated time to liquidation based on prevailing liquidity and possible reduction in liquidity in times of market stress etc. The quantum of concentration margins imposed may vary based on the level of concentration. Concentration Margin is chargeable to specific Client and Clearing Member(s) whose positions are relatively large in a given commodity, leading to a concentration of Open Interest (OI) in that commodity for that Client and Member as a percentage of the overall market wide OI. The concentration margin is based on pre-specified levels of OI for client / member (i.e. the Slabs), applicable to all clients and members alike that reach the Slabs, and therefore does not discriminate between clients/members who become eligible for its imposition. Concentration margins would become applicable to commodities only when the overall market wide OI of a commodity exceeds the specified Threshold Level of OI for that commodity.

The Concentration Margin on all the commodity contracts will be levied at clearing member level and client level based on the following criteria –

- A. Clearing Member Level: The level of concentration at each Clearing Member level is a percentage share of a Clearing Member's open interest to the market wide open interest in a given commodity.

The Concentration Margin would be applicable in respect of all contracts in the commodity unless specified otherwise and would be applicable as follows:

Clearing Member Open Interest (OI) as % of Market wide OI in the commodity	Concentration Margin
0% to 10%	NIL
10% - 15%	1.00%
15% - 20%	2.00%
20% - 25%	3.00%
25% - 30%	4.00%
Above 30%	5.00%

- B. Client Level: The level of concentration at each Client level is a percentage share of client's open interest to the market wide open interest in a given commodity.

- C. The Concentration Margin would be applicable in respect of all contracts in the commodity unless specified otherwise and would be applicable as follows:

Client OI as % of Market wide OI in the commodity	Concentration Margin	
	Broad Commodities	Narrow and Sensitive Commodities
0% to 5%	Nil	Nil
5% to 10%	1.00%	2.00%
10% to 15%	1.50%	3.00%
15% to 20%	2.50%	5.00%
20% to 25%	3.50%	7.00%
Above 25%	4.00%	10.00%

(Note: Broad, Narrow and Sensitive Commodities for the above purpose shall have the same meaning as defined in SEBI guidelines.)

- The concentration margin would be applicable at a specific client level and clearing member level for a particular commodity i.e. only those members/clients having OI that is eligible for charging of Concentration Margin as per the tables above. This margin shall be over and above all other margins as may be applicable.
- The Concentration Margin corresponding to a slab would be applied only on the incremental open interest for that slab.
- Concentration margins would become applicable to commodities only when the overall market wide OI of a commodity exceeds the specified Threshold Level of OI for that commodity
- Clients who hedge through a Hedge Code would be exempted from levy of Concentration Margin at the client level to the extent of positions held in the Hedge Code as notified by the Exchange under its Hedge Policy issued vide circular no. NCDEX/TRADING-026/2021 dated August 30, 2021.
- As per SEBI circular no. SEBI/HO/CDMRD/DMP/CIR/P/2018/134 dated October 9, 2018 concentration margin shall be levied on Eligible Foreign Entities (EFEs).
- Higher concentration margins, if necessary, shall be specified by NCCL.
- Members are advised to update themselves on the applicable list of Narrow and sensitive commodities as may be notified from time to time.

9. Real Time Computation

The margins shall be computed on real time basis. The computation of portfolio initial margin would have two components. The first is the computation of Initial Margin for each individual contract. At the second stage, these contract Initial Margins would be applied to the actual portfolio positions to compute the portfolio initial margin. NCCL shall update EWMA volatility estimates for contracts at discrete time points each day (with a gap of not more than 2 hours between any two consecutive updates and at the end of the trading session) and the latest available scaled up EWMA volatility estimates would be applied to member/client portfolios on a real time basis.

The parameters for computation of NCCL Risk Analysis shall be updated as decided by NCCL from time to time. The first Risk Analysis File (RA) shall be updated based on the prices calculated at before start of market hours, intraday RA files shall be updated at 10:05 am., 11:05 am., 1:05 pm., 3:05 pm., 5:02 pm and after end of market hours. Further one Risk Parameters file (RPF) and multiple RA file shall be made available to the members on NCCL common folder.

10. Margin provisions for Intra-day crystallized losses

In order to mitigate the risk arising out of accumulation of crystallized obligations incurred on account of intra-day squaring off of positions, NCCL shall calculate and levy Intraday Crystallized Mark to Market Losses (ICMTM) in the following manner:

- a. ICMTM shall be computed for all trades which are executed and result into closing out of open positions.
- b. ICMTM shall be calculated based on weighted average prices of trades.
- c. ICMTM shall be adjusted against the free collateral of the Clients on a real time basis.
- d. Crystallized losses at a contract level for a client shall be adjusted against crystallized profits at that time, if any, from another contract for the same client to arrive at client level profit or loss.
- e. ICMTM so blocked/ adjusted shall be released on completion of daily mark to market settlement pay-in
- f. Adjustment of intraday crystallized losses shall not be done from Minimum Liquid Net-worth (MLN) of the Clearing Member.
- g. Reports MG16, MG17 containing details of intraday crystallized MTM loss shall also be provided to the members at end of the day.

11. Minimum Liquid Net-worth

Clearing Members of NCCL in commodity derivatives segment shall maintain a minimum Liquid Net-worth of at least INR 50 Lakhs at all points of time. An amount of Rs 50 lakhs shall be blocked from existing deposits towards minimum Liquid Net worth requirement. No exposure will be allowed on the amount blocked towards minimum Liquid Net worth. Clearing Member's liquid assets after adjusting for applicable margins shall be referred to as 'Liquid Net-worth' of the Clearing Member. Initial margins, ELM, additional margins and any other margins as may be specified by SEBI from time to time shall be deducted from the liquid assets of a Clearing Member to arrive at 'Liquid Net-worth' of member.

12. Risk Reduction Mode (RRM)

Clearing & Trading Member shall be compulsorily placed in risk reduction mode when the collateral utilization breaches 90%. When a member moves in to risk reduction mode:

- a. All unexecuted orders shall be cancelled.
- b. Only orders with Immediate or Cancel (IOC) attribute shall be permitted in this mode.
- c. All new orders shall be checked for sufficiency of margins.
- d. Members will be able to trade in normal mode as and when the collateral utilization goes below 85%.

13. Monitoring of Risk Reduction mode (RRM)

For monitoring of the risk reduction mode (90% utilization or such applicable limit), the following procedure shall be adopted:

- a. TM level risk reduction mode:
Client margin in excess of 90% of the client collateral shall be identified for each client under a TM. The total of such client margin in excess of 90% of the client collateral, plus the proprietary TM margin shall be assessed against the TM proprietary collateral for monitoring of TM level risk reduction mode.
- b. CM level Risk Reduction mode:
Sum of client margin in excess of 90% of the client collateral for each client under a TM plus the proprietary TM margin, in excess of 90% of TM proprietary collateral shall be calculated as TM margin in excess of 90% of TM collateral. Sum of such margin for each TM clearing through a CM, plus sum of client margin in excess of 90% of the client collateral for each client clearing through such CM, plus the proprietary CM margin shall be assessed against the proprietary CM collateral for monitoring of CM level risk reduction mode.
- c. Once a CM is in RRM mode, all the TMs clearing through the CM shall be in RRM mode
- d. An illustration for monitoring of risk reduction mode is provided as Annexure - I

14. Blocking of Margins

- a. The procedure for blocking of margins only specifies the order of blocking of margins against the collateral allocated at the Client / Custodial participant (CP), Trading Member (TM) and Clearing Member (CM) Level by CM plus the value of securities collateral provided through margin pledge/re-pledge by the respective client, CP and TM. The TM/CM shall be required to ensure that sufficient collateral is allocated to clients to cover their margin requirements.
- b. On receipt of a trade from a client account, the margin shall first be blocked from the value of the client collateral. If the client collateral is not sufficient, the residual margin shall be blocked from the TM proprietary collateral of the TM of such client. If the TM proprietary collateral is also not sufficient, then the residual margin shall be blocked from the CM proprietary collateral of the CM of such TM.
- c. In case of a trade from the proprietary account of a TM, the margin shall first be blocked from the TM proprietary collateral, and in case such collateral is not sufficient, then the residual margin shall be blocked from the CM proprietary collateral.

- d. Margins based on trades from proprietary account of the CM shall be blocked from the proprietary collateral of the CM only.
- e. An illustration of blocking of margins at Client, TM and CM level and deemed allocation at TM and CM level is provided as Annexure - II

Blocking of Margins for Custodial Participants (CP):**A. Pre-confirmation of trades by CM**

In case of CP trades executed by TMs, the margin shall be blocked in the following order:

- CP collateral through the executing TM, if any,
- residual margin from the proprietary collateral of the executing TM, and
- residual margin from the proprietary collateral of the CM of the executing TM.

B. Post confirmation of trades by CM

Upon confirmation of such trades by CM of the CP, the margin so blocked prior to the confirmation shall be released, and shall be blocked in the following order:

- CP collateral through the confirming CM, and
- residual margin from the proprietary collateral of the confirming CM

15. Measures in case of repeated shortfall in margin / pay-in amount

Non-fulfilment of settlement obligation by scheduled date and time and Non-fulfilment of Margin Obligation is a violation of NCCL Rules, Bye-Laws and Regulations and attracts penal action as may be stipulated by NCCL from time to time. The following measures shall be initiated in case of repeated shortfall in margin / pay-in:

A. Measures in case of repeated shortfall in margin

In cases where margin utilization exceeds 100% of Clearing Member's capital/collateral resulting in margin shortages on three occasions in the previous 30 days, then:

- i. An amount equivalent to cumulative margin shortages of the past 30 days shall be blocked from the deposits of the Clearing Member. The margin shortage at the time of violating the trigger point of 100% on each of occasion shall be considered.
- ii. In case there are more than one instance of margin shortage in a day, the highest amount of margin shortage at the time of violating the trigger point of 100% shall be considered.
- iii. The amount shall be blocked for a period of 30 days and shall be released only if no further margin shortages are reported for the member during the said period.
- iv. The amount blocked shall not be available towards any margin benefit.

B. Measures in case of repeated shortfall in pay-in

In case of a shortfall in meeting pay-in obligations by a Clearing Member (towards MTM including CTT) over Rs.3.00 Lakh is observed on three occasions in past 30 days, then:

- i. An amount equivalent to cumulative MTM (including CTT) funds shortage of the past 30 days shall be blocked from the deposits of the Clearing Member.
- ii. The amount shall be blocked for a period of 30 days and shall be released only if no further funds shortages are reported for the member during the said period.
- iii. The amount blocked shall not be available towards any margin benefit.

16. Levy of Penalty on Algo Members for Margin/ Funds Shortage

NCCL shall levy penalty of Rs. 10,000/- for each instance of Margin / Funds shortage to clearing members who are trading members with the Exchange and have been approved for algorithmic trading by the Exchange.

17. Levy of Charges for Overnight Margin Shortage

In case of non-fulfillment of either the whole or part of the margin obligations by a clearing member on over-night basis, a disablement charge at the rate of 0.09 % per day computed on the amount outstanding from the day on which monies are due to be paid until the day the margin obligations are fulfilled shall be charged (Subject to a Minimum of Rs.500/- per instance).

18. Peak Margin

- A. NCCL shall send minimum 5 snapshots (MARGIN_REP /CM MARGIN_REP) of client wise margin requirement to Trading Members (TM)/Clearing Members (CM) for them to know the intraday margin requirement per client/TM/Custodial Participant. The snapshots would be randomly taken in predefined time windows.
- B. Further, NCCL shall send an additional minimum two snapshots for commodity derivative contracts, which are traded till 9:00 PM
- C. Margin for the purpose of peak margin shall consists of Initial Margin and Extreme loss margin (ELM).
- D. Effective August 01, 2022, the margin requirements to be considered for intraday snapshots, shall be calculated based on fixed beginning of the day (BOD) margin parameters. The BOD margin parameters would include all margin parameters as well as ELM requirements. This change is only for the purpose of verification of upfront collection of margin from clients and levy of penalty. The margin parameters applicable for collection of margin obligation by Clearing Corporation shall continue to be updated on intraday, as per the extant provisions.

- E. The margin file (MG-18 / MG-19) provided by NCCL to CMs/TMs shall contain the EOD margin requirements of the client/TM/Custodial Participant as well as the peak margin requirement of the client/TM/Custodial Participant, across each of the intra-day snapshots.
- F. NCCL shall aggregate the margins on confirmed trades as well as unconfirmed trades for a given CP and include the same in the intraday snapshot file (MARGIN_REP) provided to the clearing member
- G. The peak margin requirement of the CP across each of the intra-day snapshots shall be included in MG-18 file provided at the end of day to the clearing members

19. Alternative Risk Management Framework in case of Near Zero and Negative Prices

- A. Alternate Risk Management Framework (ARMF) shall be applicable in such cases of near zero and negative prices for any underlying commodities/futures.
- B. The commodities having the following characteristics may be in principle treated as susceptible to the possibility of near zero and negative prices: -
 - i. Commodities that need specialized storage space in physical markets, which, if not followed, may cause environmental hazards or have other external implications
AND
 - ii. Commodities that can't be disposed of/destroyed with ease i.e. disposal/ destruction of such commodities may cause an environmental hazard or may incur significant cost.
- C. However, CCs who do not presently provide for the clearing and settlement services of any such susceptible commodity, are not required to update their systems for the prescribed ARMF.

III. Default Management

1. Regaining matched book

In the event of a Clearing Member failing to honour pay-in/margin obligations, NCCL may employ the below given alternative tools to liquidate the positions and regain a matched book based on the conditions of market liquidity, volatility, size of position to be liquidated etc. Any tool lower in the list prescribed hereunder may be resorted to only in extremely rare occasions when NCCL reasonably expects that it may not be able to restore a matched book by choosing the alternatives above it.

- A. Liquidation of positions in the normal market (with relaxed price limits, if required)
- i. Upon the occurrence of a failure by a Clearing Member to honour its obligations, NCCL may, at its discretion, initiate a procedure to liquidate the Open Positions registered in the name of such defaulting Clearing Member.
 - ii. The implementation of liquidation of Open Positions shall be notified by NCCL to the defaulting Clearing Member within a reasonable time frame once the process for such liquidation is completed.
 - iii. NCCL shall not have any liability whatsoever to any Clearing Member or to any other person (including, without limitation, any Client or (Associated) Trading Member) in respect of any damage, loss, cost or expense of whatsoever nature suffered or incurred by a Clearing Member or any other person, as the case may be, as a result of the occurrence and management of an event of default/ failure as referred above.
 - iv. NCCL shall liquidate the following Open Positions:
 - Proprietary open positions registered in the name of the defaulting Clearing Member, and
 - TM and client open positions registered in the name of the defaulting Clearing Member.
- B. Auction of the positions within a specified price band
- i. Upon a default/failure by a Clearing Member, NCCL may, at its discretion, initiate a procedure to auction the open positions registered in the name of the defaulting Clearing Member and its TM/Clients.
 - ii. A separate auction session shall be conducted by NCCL and the auction mechanism shall be notified to the Clearing Members.
 - iii. NCCL shall not have any liability whatsoever to any Clearing Member or to any other person (including, without limitation, any Client or (Associated) Trading

Member) in respect of any damage, loss, cost or expense of whatsoever nature suffered or incurred by a Clearing Member or any other person, as the case may be, as a result of the occurrence and management of an event of default.

- iv. For each position, NCCL would declare a minimum price based on its Daily Settlement Price (DSP).
- v. All the Clearing Members/TM/Clients can bid in the auction market (except the defaulting member /clients).

C. Voluntary tear-up of positions

- i. Tear up (or 'termination ') refers to the cash settlement and cancellation of contracts. Tear up may be voluntary or partial, where the smallest subset of contracts that will return NCCL to a matched book is selected for termination.
- ii. The tear up of contracts shall be done for those positions that are opposite to the positions of the defaulting Clearing Member and its TM/clients.
- iii. NCCL shall invite non-defaulting Clearing Members to nominate their contracts for tear up to assist restoration of a matched book. The CMs/TM/Clients may voluntarily give their consent for tear up of their contracts.
- iv. NCCL shall select the nominated contracts for termination. NCCL may terminate some or all open consents received in order to return to a matched book and reduce further losses.
- v. The termination could be for only those contracts needed to offset the defaulted contracts.
- vi. The compensation will be paid to the non-defaulting Members/clients whose contracts have been selected for tear up. Voluntary tear-up shall be done at last mark-to-market price along with compensation equal to 10% of last mark-to-market price
- vii. In case of breakup of netting arrangement of the contacts selected for tear up, NCCL shall not be responsible.
- viii. Over and above the compensation, a penalty equal to 1% of last mark to market price shall be levied on the defaulting Clearing Member/TM/clients and credited to SGF.
- ix. In case of voluntary tear up, if NCCL receives more nominations from the non-defaulting members for tear up than the allocation shall be done on pro rata basis or as decided by NCCL.

D. Partial Tear up of positions

- i. Upon the occurrence of an event of default by a Clearing Member, NCCL may, at its discretion, initiate a procedure to partially tear up the open positions registered in the name of the defaulting Clearing Member and its TM/Clients.
- ii. The partial tear up of defaulting member's/TMs/clients positions will be done on pro-rata basis against Members / Clients having opposite positions at last mark-to-market price.
- iii. NCCL will on its own select the contracts which are having opposite position of non-defaulting member to that of defaulting member and on a pro-rata basis allocate the positions for tear up.
- iv. The compensation will be paid to the non-defaulting members/TMc/clients whose contracts have been selected for tear up. Partial tear-up shall be done at last mark-to-market price along with compensation equal to 8% of last mark-to-market price.
- v. In case of breakup of netting arrangement because of partial tear up, NCCL shall not be responsible or liable in any manner.
- vi. Over and above the compensation, a penalty equal to 1% of last mark-to-market price shall be levied on the defaulting Clearing Member/clients and credited to SGF.

The process adopted by NCCL for liquidating the positions shall be final and binding on all the Clearing Members/TM/clients. All the charges/fees/losses incidental to the regaining matched book will be recovered from the defaulting Member/clients. If the funds of the defaulting Member available with NCCL after liquidation of his positions are insufficient, the defaulting Clearing Member would be liable to pay the balance. NCCL in addition to the foregoing provisions, take such other risk containment measures as it deems fit and may further take such disciplinary action as it may deem fit and appropriate, in this regard.

2. Default Management Process

The default management process by the CCs in case of default by a CM shall take place in four stages

- A. Stage 1: Completion of settlement to non-defaulting CMs
- B. Stage 2: Portability or immediate return of collateral
- C. Stage 3: Close-out of positions and provisional appropriation of collateral
- D. Stage 4: Identification of defaulting clients and final appropriation of collateral

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- A. Stage 1: Completion of settlement to non-defaulting CMs
NCCL shall utilize available financial resources to complete settlement in a timely manner and complete the pay-outs to the non-defaulting members
- B. Stage 2: Portability or immediate return of collateral
- i. NCCL shall put in place a mechanism/ process for TMs/clients/CPs of defaulting CM to establish that they are not in default to the defaulting CM and have deposited collateral to the extent of allocation (including deemed allocation). This process shall be completed within a pre-specified time period. On identification of such non-defaulting TMs/clients/CPs, CC shall provide them opportunity for either porting of their positions and collateral to another CM or immediate return of their collateral.
 - ii. Portability of Positions and Collateral:
 - a. Entities desirous of availing the facility of portability shall be required to have established alternative trading/clearing arrangements with other TMs/CMs other than the defaulting CM.
 - b. If any pay-out is due to such entities, such pay-out shall be made to the entities. As a result, the amount of such pay-out shall be added to the pay-in shortfall of the defaulting CM.
 - iii. Immediate return of collateral:

Collateral of such entities shall only be utilized to the extent of losses due to liquidation of their respective positions, and the remaining collateral shall be returned, along with the pay-out due to such entities, if any. As a result, the amount of such pay-out shall be added to the pay-in shortfall of the defaulting CM.
 - iv. In some circumstances, it may be desirable to liquidate the positions and even the collateral, since both are subject to risks. Under such circumstances, not closing out positions/collateral to allow for portability may lead to accumulation of losses. Considering the nature of positions, market conditions and such other risk assessment, NCCL may at any stage decide to not provide the facility of portability. If NCCL decides to not provide the opportunity for portability, NCCL shall crystalize the profits/losses on close-out of positions and the value of collateral arrived at after liquidation of the same.

- C. Stage 3: Close-out of positions and provisional appropriation of collateral
- i. For the remaining entities after Stage 2, i.e., entities other than the ones who could avail the opportunity of either porting or immediate return of collateral in Stage 2, following process shall be followed:
 - a. NCCL shall close out all open positions of the defaulting CM, including the positions of TMs/clients/CPs clearing through such CM.
 - b. NCCL shall first utilize the CM/TM/Client/CP collateral for meeting any losses in close-out of respective positions. It is clarified that TM/Client/CP collateral shall include both allocated collateral (including deemed allocated collateral) and the value of securities collateral provided through margin pledge/re-pledge to the level of NCCL.
 - c. In case of any shortfall in collateral of any entity under the CM, any excess proprietary collateral of the TM / CM of such entity shall be used. This shall follow the same order of utilization as in case of blocking of margins. Any shortage in the proprietary collateral of the TM / CM shall be met by applying the default waterfall of the NCCL.
 - d. With regard to the defaulted settlement obligations, following process shall be followed:
 - i. Any pay-out made to the non-defaulting clients in Stage 2 shall be added to the defaulted obligations.
 - ii. The defaulted obligations (including pay-out in Para (i) above) shall be first adjusted with the proprietary obligation of the defaulting CM to the extent of funds payable for the proprietary trades.
 - Any shortage in the proprietary collateral of the defaulting CM shall be met by applying the default waterfall of the NCCL.
 - Any excess proprietary collateral of the CM shall also be used for meeting the defaulted obligations.
 - iii. Remaining defaulted obligations shall be attributed pro-rata: funds pay-in shortfall shall be attributed pro-rata among TM/clients/CP having funds payable. Such losses shall be recovered from the collateral of the TM/clients/CP available, if any.
 - Any shortage in the collateral of such TM/clients/CP shall be met by applying the default waterfall of the NCCL.
 - iv. In case of any defaulted obligations attributed to a TM in Para (iii) above (and in turn to its clients), the process enunciated above at Para (ii) and (iii) above for a defaulting CM and its constituents shall apply, mutatis mutandis, to the TM.

- e. The aforesaid pro-rata attribution of shortages shall be provisional. The actual attribution of shortages to clients shall be done in Stage-4.
- f. In case there is any profit to a TM/client/CP during the close-out process, such close-out profit shall be considered as pay-out due to the TM/client/CP.

An Illustration on the procedures to be followed in the Stage-2 and the Stage-3 are given at Annexure - III.

D. Stage 4: Identification of defaulting clients and final appropriation of collateral

The procedure for verification and settlement of claims of constituents of defaulting CM shall be as follows:

- i. The process for identification of defaulting TM/CP/clients and the return of collateral of non-defaulting TM/CP/clients shall be administered by Member and Core Settlement Guarantee Fund Committee (MCSGFC) of the CC.
- ii. The amount that can be claimed by the non-defaulting TM/CP/clients from the CC shall be limited to the allocated collateral (including deemed allocated) and the value of securities collateral provided through margin pledge/re-pledge to the level of CC, plus the pay-out (including profit if any during close-out) due to the constituent, less the losses in close-out of positions of the constituent.
- iii. The MCSGFC of the CC shall implement the relevant procedures for verification and settlement of claims of the non-defaulting TM/CP/clients of the defaulting CM.
- iv. The constituents actually in default shall be identified and the pro-rata attribution of shortages performed in Stage-3 shall be replaced by the actual attribution of shortages. If there has been any excess collateral appropriated at Stage-3 due to pro-rata attribution, such excess appropriation shall be corrected, and the constituents shall be returned the collateral in full along with the pay-out due to such entities. This amount shall be recovered from the constituents who have higher shortage (pursuant to actual attribution) than the one attributed on pro-rata basis. If such clients do not have sufficient collateral, then the default waterfall of the NCCL (including its Core Settlement Guarantee Fund (Core SGF), as per the specified order of waterfall) shall be applied.
- v. For any collateral of a client retained by TM/CM, and not allocated to that client's account, the Exchange or the CC shall initiate suitable actions before appropriate court of law for liquidating the assets (movable and immovable) of the defaulter member as per the existing provisions.

Illustration on procedures to be followed in Stage-4 are provided at Annexure - IV

3. Default of TMs to CMs

The following procedure shall be adopted in case of default of TM to CM:

- A. The CM shall continue to meet its obligations towards its other constituents, as well as the CC.
- B. The CM shall close-out all open positions of the defaulting TM (including clients under the TM).
- C. Under the supervision of the CC, the CM shall appropriate the collateral towards losses. The losses in closing-out open positions and the settlement obligations due from clients of the TM shall be appropriated first from the allocated collateral (as per allocation provided by TM to CM, including deemed allocated) and securities collateral provided through margin pledge/ re-pledge to the level of CM/CC of respective clients. Any residual losses as well as the losses in closing-out open positions and the settlement obligations of the TM proprietary account shall be appropriated from the TM proprietary collateral. In case of TM proprietary collateral being insufficient, the losses shall not be appropriated from any other constituent of the CM or any constituent of the defaulting TM.
- D. After the above utilization towards losses in closing-out open positions of the defaulting TM (and clients under the TM) and net settlement shortfall, all remaining collateral/funds received from the defaulting TM (lying with CM/CC) shall be provided by the CM to the Stock Exchanges.
- E. Since the TM will be leading to default, the Stock Exchanges shall institute relevant applicable procedures against the TM as per existing regulatory provisions, byelaws, rules and regulations of the Stock Exchanges.

IV. Settlement Guarantee Fund (SGF) & Default Waterfall

The contribution to Core SGF, maintenance thereof and utilization of the SGF corpus shall be as prescribed by SEBI from time to time.

The provisions of the SEBI norms for Settlement Guarantee Fund and default waterfall are given below.

Core Settlement Guarantee Fund (Core SGF)

1. Objective of Core SGF

NCCL shall have a fund called Core SGF for each segment of each Recognized Stock Exchange to guarantee the settlement of trades executed in respective segment of the Stock Exchange. In the event of a Clearing Member (member) failing to honour settlement commitments, the Core SGF shall be used to fulfil the obligations of that Member and complete the settlement without affecting the normal settlement process.

2. Corpus of Core SGF

The corpus of the fund should be adequate to meet out all the contingencies arising on account of failure of any Member(s). The risk or liability to the fund depends on various factors such as trade volume, delivery percentage, maximum settlement liability of the Members, the history of defaults, capital adequacy of the members, and the degree of safety measures employed by the NCCL/SE etc. A fixed formula, therefore, cannot be prescribed to estimate the risk or liability of the fund. However, in order to assess the fair quantum of the corpus of Core SGF, NCCL shall consider the following factors:

- Risk management system in force
- Current and projected volume/turnover to be cleared and settled by NCCL on guaranteed basis
- Track record of defaults of members (number of defaults, amount in default).

However, Minimum Required Corpus of Core SGF (MRC) for each segment of each stock exchange shall be subject to the following:

- A. The MRC shall be fixed for a month.
- B. By 15th of every month, NCCL shall review and determine the MRC for next month based on the results of daily stress tests of the preceding month. (For example, by 15th February, NCCL shall determine MRC for March based on results of various stress tests conducted in January). NCCL shall also review and determine by 15th of every month,

the adequacy of contributions made by various contributors and any further contributions to the Core SGF required to be made by various contributors for the next month.

- C. For every day of the preceding month (i.e., January as per example in (b) above), uncovered loss numbers shall be estimated by the various stress tests for credit risk conducted by the NCCL for the segment and highest of such numbers shall be taken as worst case loss number for the day.
- D. Average of all the daily worst case loss numbers determined in (c) above shall be calculated.
- E. The MRC for next month (i.e., March as per example in (b) above) shall be higher of the average arrived in at step (d) above and the segment MRC as per previous review (i.e., review done on 15th January for the month of February).
- F. Minimum threshold value of MRC for commodity derivatives segment of any stock exchange shall be INR 10 Crores.

3. Contribution to Core SGF

At any point of time, the contributions of various contributors to Core SGF of any segment shall be as follows:

- A. Clearing Corporation contribution: NCCL contribution to Core SGF shall be at least 50% of the MRC. NCCL shall make this contribution from its own funds. NCCL contribution to core SGFs shall be considered as part of its net worth.
- B. Stock Exchange contribution: Stock Exchange contribution to Core SGF shall be at least 25% of the MRC.
- C. Clearing Member primary contribution: If the CC wishes, it can seek risk based contribution from Clearing Members (CMs) of the segment (including custodial Clearing Members) to the Core SGF subject to the following conditions:
 - i. that total contribution from CMs shall not be more than 25% of the MRC,
 - ii. that no exposure shall be available on Core SGF contribution of any CM (exposure free collateral of CM available with NCCL can be considered towards Core SGF contribution of CM), and
 - iii. that required contributions of individual CMs shall be pro-rata based on the risk they bring to the system.

NCCL shall have the flexibility to collect CM primary contribution either upfront or staggered over a period of time. In case of staggered contribution, the remaining balance shall be met by NCCL to ensure adequacy of total Core SGF corpus at all times. Such NCCL contribution shall be available to NCCL for withdrawal as and when further contributions from CMs are received.

The above-prescribed limits of contribution by NCCL, SE and CMs may be reviewed from time to time considering the prevailing market conditions.

Any penalties levied by NCCL (as per Regulation 32 of SECC Regulations, 2018) shall be credited to Core SGF corpus.

Interest on cash contribution to Core SGF shall also accrue to the Core SGF and pro-rata attributed to the contributors in proportion to their cash contribution.

NCCL shall ordinarily accept cash collateral for Core SGF contribution. However, NCCL may accept CM contribution in the form of bank FDs too. NCCL shall adhere to specific guidance which may be issued by SEBI from time to time in this regard.

4. Default Waterfall

The default waterfall of NCCL for any segment shall generally follow the following order –

- A. Monies of defaulting member (including defaulting member's primary contribution to Core SGF(s) and excess monies of defaulter in other segments).
- B. Insurance, if any.
- C. CC resources (equal to 5% of the segment MRC).
- D. Core SGF of the segment in the following order:
 - i. Penalties
 - ii. CC contribution to the extent of at least 25% of the segment MRC
 - iii. Remaining Core SGF: CC contribution, Stock Exchange contribution and non-defaulting members' primary contribution to Core SGF on pro-rata basis.
- E. Proportion of remaining CC resources (excluding CC contribution to core SGFs of other segments and higher of INR 100 Crore or the capital requirement towards orderly winding down of critical operations and services) equal to ratio of segment MRC to sum of MRCs of all segments *
- F. CC/SE contribution to Core SGFs of other segments (after meeting obligations of those segments) and remaining CC resources to that extent as approved by SEBI.
- G. Capped additional contribution by non-defaulting members of the segment. **
- H. Any remaining loss to be covered by way of pro-rata haircut to payouts. ***

*INR 100 Crore to be excluded only when remaining CC resources (excluding CC contribution to core SGFs of other segments) are more than INR 100 Crore.

** The maximum capped additional contribution by non-defaulting members shall be lower of 2 times of their primary contribution to Core SGF or 20% of the Core SGF of the segment on the date of default. In case of shortfall in recovery of assessed amounts from non-defaulting members, further loss can be allocated to layer 'F' with approval of SEBI.

***In case loss allocation is effected through haircut to payouts, any subsequent usage of funds shall be with prior SEBI approval. Further, any exit by CC post using this layer shall be as per the terms decided by SEBI in public interest.

Annexure – I

Monitoring of Risk Reduction Mode

Suppose the total collateral (allocated collateral plus securities collateral placed through margin pledge/ re-pledge to CC) and margin obligation of CM Proprietary, TM Proprietary and Client level is as given below:

CM	TM	Client	Collateral (Rs)	Margin (Rs)	Client Margin > 90% (Rs)
CM-1	-	Prop	1,200	800	-
CM-1	TM-1	Prop	500	400	-
CM-1	TM-1	Client-1	800	780	60
CM-1	TM-1	Client-2	500	450	0
CM-1	TM-1	Client-3	400	380	20
CM-1	TM-2	Prop	500	200	-
CM-1	TM-2	Client-4	1,000	920	20
CM-1	TM-2	Client-5	1,000	880	0

TM level monitoring

In the above table, “Client Margin>90%”, has been calculated as margin for the client less 90% of the client collateral. Risk reduction mode monitoring for TM shall be based on assessment of [TM Prop Margin + Client Margin>90%] against the [TM Prop collateral]. Accordingly, margin utilization percentage of TM1 and TM2 would be as under:

Margin utilization percentage of TM1 = $[400 + (60 + 0 + 20)] / 500 = 96\%$

Margin utilization percentage of TM2 = $[200 + (20 + 0)] / 500 = 44\%$

In other words, for TM1, margin of Rs 30 is in excess of 90% of its prop collateral, while there is no excess margin for TM2 against its prop collateral. The same has been tabulated below:

TM	Client Margin > 90% (Rs)	TM Prop Margin	90% of TM Prop Collateral	TM Margin > 90% (Rs)
TM-1	80	400	450	30
TM-2	20	200	450	0

CM level monitoring

In the above table, “TM Margin>90%”, or TM Margin in excess of 90%, has been calculated as [Client Margin>90% + TM Prop margin] in excess of 90% of TM prop collateral. Risk reduction mode monitoring for CM shall be based on assessment of [CM Prop Margin + TM Margin>90%] against the [CM Prop Collateral]. Accordingly, margin utilization percentage of CM1 would be as under:

Margin utilization percentage of CM1 = $[800 + (30 + 0)] / 1200 = 69.1\%$

Annexure - II

Blocking of Margins

Suppose the total collateral (allocated collateral plus securities collateral placed through margin pledge/ re-pledge to CC) available against various entities are as given below:

Entity	Collateral (Rs.)
CMTM Prop	1,000
TM-1 Prop	500
TM-1 Cli-1	300
TM-1 Cli-2	300

- **Trade-1:** TM-1 Cli-2 trades with margin requirement of Rs 100. Blocking of margin shall be as follows:

Entity	Collateral (Rs.)	Margin Utilized (Rs)	Blocking under (Rs)	Deemed Allocation (Rs)
CMTM Prop	1,000	0	0	0
TM-1 Prop	500	0	0	0
TM-1 Cli-1	300	0	0	-
TM-1 Cli-2	300	100	100	-

- **Trade-2:** TM-1 Cli-1 trades with margin requirement of Rs 600. Blocking of margin shall be as follows:

Entity	Collateral (Rs.)	Margin Utilized (Rs)	Blocking under (Rs)	Deemed Allocation (Rs)
CMTM Prop	1,000	0	0	0
TM-1 Prop	500	0	300	300
TM-1 Cli-1	300	600	300	-
TM-1 Cli-2	300	100	100	-

- **Trade-3:** TM-1 Cli-2 trades with revised margin requirement for Cli-2 of Rs 600. Blocking of margin shall be as follows:

Entity	Collateral (Rs.)	Margin Utilized (Rs)	Blocking under (Rs)	Deemed Allocation (Rs)
CMTM Prop	1,000	0	100	100
TM-1 Prop	500	0	500	600
TM-1 Cli-1	300	600	300	-
TM-1 Cli-2	300	600	300	-

- **Trade-4:** TM-1 Cli-2 trades with revised margin requirement for Cli-2 of Rs 900. Blocking of margin shall be as follows:

Entity	Collateral (Rs.)	Margin Utilized (Rs)	Blocking under (Rs)	Deemed Allocation (Rs)
CMTM Prop	1,000	0	400	400
TM-1 Prop	500	0	500	900
TM-1 Cli-1	300	600	300	-
TM-1 Cli-2	300	900	300	-

Annexure - III

Procedures to be followed in Stage-2 and Stage-3

Consider an example of a SCM defaulting in the derivatives segment. An illustration of the cash settlement obligations of prop/clients and attribution of shortage is provided below (the available collateral shown against different entities comprises of both allocated collateral (including deemed allocated) and value of demat securities collateral provided through margin pledge/re-pledge to the level of CC):

Entity	(Pay-in)/ Pay-out (Rs)	Collateral (Rs)	Position closeout loss (Rs)	Remaining Collateral (Rs)
Prop	(3 crore)	10 crore	4 crore	6 crore
Client-1	(3 crore)	10 crore	3 crore	7 crore
Client-2	(3 crore)	15 crore	4 crore	11 crore
Client-3	2 crore	15 crore	2 crore	13 crore
Client-4	2 crore	3 crore	1 crore	2 crore
Net Pay-in	5 crore			
Shortfall	5 crore			

Scenario 1: All pay-out clients establish not being in default

1. Suppose Client-3 and Client-4 establish within the pre-specified time period that they are not in default, do not have debit balance/dues towards the member and have not received the pay-out due.
2. The remaining collateral of Client-3 and Client-4 (Rs 13 crore and Rs 2 crore respectively), along with the pay-out for the clients (Rs 2 crore each), shall be provided to the clients.
3. The settlement shortfall would now be Rs 9 crore (Rs 5 crore shortfall in net pay-in, plus Rs 4 crore of pay-out made to Client-3 and Client-4).
4. The settlement shortfall of Rs 9 crore shall be first adjusted with the SCM proprietary pay-in obligation of Rs 3 crore. Excess remaining proprietary collateral of SCM (Rs 3 crore) shall also be used towards the settlement shortfall.
5. Remaining settlement shortfall of Rs 3 crore shall be attributed pro-rata to clients having pay-in, i.e., settlement shortfall of Rs 1.5 crore each shall be attributed to Client-1 and Client-2 and appropriated from their collateral.

Scenario 2: One pay-out client establishes not being in default

1. Suppose Client-3 establishes within the pre-specified time period of not being in default, not having debit balance/dues towards the member and not having received the pay-out due.
2. The remaining collateral of Client-3 (Rs 13 crore), along with the pay-out (Rs 2 crore), shall be provided to the Client-3.
3. The settlement shortfall would now be Rs 7 crore (Rs 5 crore shortfall in net pay-in, plus Rs 2 crore of pay-out made to Client-3).

4. The settlement shortfall of Rs 7 crore shall be first adjusted with the SCM proprietary pay-in obligation of Rs 3 crore. Excess remaining proprietary collateral of SCM (Rs 3 crore) shall also be used towards the settlement shortfall.
5. Remaining settlement shortfall of Rs 1 crore shall be attributed pro-rata to clients having pay-in, i.e., settlement shortfall of Rs 0.5 crore each shall be attributed to Client-1 and Client-2 and appropriated from their collateral.

Scenario 3: One pay-out client and one pay-in client establish not being in default

1. Suppose Client-1 and Client-3 establish within the pre-specified time period of not being in default, not having debit balance/dues towards the member and not having received the pay-out due, where applicable.
2. The remaining collateral of Client-1 and Client-3 (Rs 7 crore and Rs 13 crore respectively) shall be provided to them. The pay-out due to Client-3 (Rs 2 crore) shall also be provided to Client-3.
3. The settlement shortfall would now be Rs 7 crore (Rs 5 crore shortfall in net pay-in, plus Rs 2 crore of pay-out made to Client-3).
4. The settlement shortfall of Rs 7 crore shall be first adjusted with the SCM proprietary pay-in obligation of Rs 3 crore. Excess remaining proprietary collateral of SCM (Rs 3 crore) shall also be used towards the settlement shortfall.
5. Remaining settlement shortfall of Rs 1 crore shall be attributed to Client-2 (since it is established that Client-1 is not in default, no shortage shall be attributed to Client-1).

Annexure – IV

Procedures to be followed in Stage-4

Illustration 1:

Suppose an SCM had no proprietary positions, and the net pay-in obligations were based on five clients. There was a pay-in shortfall of Rs 300, against the net pay-in of Rs 600. Suppose none of the clients could establish within the pre-specified time period of not being in default, not having debit balance/dues towards the member and not having received the pay-out due. Assume there is no position close-out loss. The pay-in shortfall of Rs 300 would be attributed during the Stage 3 on a pro-rata basis from the clients having pay-in obligations. This would be utilized from their available collateral (the available collateral shown against different entities comprises of both allocated collateral (including deemed allocated) and value of securities collateral provided through margin pledge/re-pledge to the level of CC).

Entity	(PI) / PO (Rs)	Collateral (Rs)	Utilized Collateral (Rs)	Remaining Collateral (Rs)
Client-1	150	200	0	200
Client-2	150	100	0	100
Client-3	-300	300	100	200
Client-4	-300	300	100	200
Client-5	-300	300	100	200

Suppose the actual client defaults and position of payables/receivables are identified as follows:

Entity	Findings	Claim
Client-1	Did not receive 150 payout	Pay-out of 150 Return of collateral of 200
Client-2	Did not receive 150 payout	Pay-out of 150 Return of collateral of 100
Client-3	Did not make any pay-in	-
Client-4	Did not make any pay-in	-
Client-5	Had made a pay-in of 300	Return of collateral of 300

Accordingly, the remaining collateral of defaulting clients shall be utilized to fulfil the claims of non-defaulting clients. The additional realization and claim settlement is tabulated below:

Entity	Additional utilization of collateral	Claim Settled
Client-1	-	Pay-out of 150 Return of collateral of 200
Client-2	-	Pay-out of 150 Return of collateral of 100
Client-3	Additional collateral of 200 utilized	-
Client-4	Additional collateral of 200 utilized	-
Client-5	-	Return of collateral of 100 (from realized) Return of collateral of 200 (from remaining)

In the event of the remaining collateral of Client-3 and Client-4 not being sufficient (say, due to excess losses in liquidation of positions), the default waterfall of the CC shall be applied for such losses.

Illustration 2:

The following illustration demonstrates the limit on maximum admissible claim against the collateral at the CC by the TM/clients/CP of the defaulting CM. The CC shall recognize the claim of the clients up to the collateral allocated by the CM, plus the value of securities re-pledged till the level of the CC, plus the collateral deemed to be allocated based on the margin requirement of the client. Some examples are tabulated below:

Entity	Collateral provided to member	Margin	Collateral allocated by member at CC	Value of Securities Re-pledged to CC	Collateral deemed allocated (due to margins)	Maximum Admissible claim against collateral at CC
Client-1	1000	800	700	300	0	1000
Client-2	1000	0	400	600	0	1000
Client-3	1000	0	400	400	0	800
Client-4	1000	800	0	0	800	800
Client-5	1000	0	0	0	0	0
Client-6	0	200	100	0	100	0

In the last example (Client-6), the CM shall not be permitted to allocate collateral or permit client to trade beyond the available collateral. In case of such violations, the claim shall not be admissible, and the collateral (allocated and/or deemed so) shall be treated as proprietary collateral of the CM.