NCCL
NCDEX Group Company

NCCL Disclosures

on

Compliance with Principles for Financial Market Infrastructures

Committee of Payments and Market Infrastructures

International Organization of Securities Commission

May 2024

Responding institution	National Commodity Clearing Limited
Jurisdiction(s) in which the FMI operates	India
Authority(ies) regulating, supervising or overseeing the FMI	Securities and Exchange Board of India

The date of this disclosure is	May 27, 2024

This disclosure is also made available at www.nccl.co.in

For further information, please contact **National Commodity Clearing Limited, Ackruti Corporate Park, 1st Floor, Near G.E. Garden, L.B.S. Road, Kanjurmarg (West), Mumbai-400078, India.**

Contents

Glossary

CCP	Central Counterparty
CPMI	Committee on Payment & Market Infrastructure
CPSS	Committee on Payment & Settlement Systems
CSD	Central Securities Depository
DNS	Deferred net settlement
DR	Disaster recovery
DvD	Delivery versus delivery
DvP	Delivery versus payment
EWMA	Exponentially Weighted Moving Average
FMI	Financial market infrastructure
IOSCO	International Organisation of Securities Commission
LVPS	Large-value payment system
MII	Market Infrastructure Institutions
NCCL	National Commodity Clearing Limited
NCDEX	National Commodity & Derivatives Exchange Limited
PFMI	Principles for Financial Market Infrastructure
SCRA	Securities Contracts (Regulation) Act
SECC	Securities Contracts (Regulation) (Stock Exchanges and Clearing Corporations) Regulations
SEBI	Securities and Exchange Board of India
SGF	Settlement Guarantee Fund
SSS	Securities settlement system
TR	Trade Repository

I. Executive Summary

This document provides disclosure on the 24 Principles for Financial Market Infrastructure (PFMI) specified by CPMI-IOSCO applicable to Central Counterparties. These principles provide for effective regulation, supervision and oversight of FMIs. This disclosure is based on the guidelines provided by CPMI-IOSCO and the report titled "Principles for financial market infrastructures: Disclosure framework and assessment methodology", published in December, 2012.

National Commodity Clearing Limited (NCCL / the Clearing Corporation) is a recognized Clearing Corporation by SEBI and clears and settles derivate transactions executed on NCDEX.

The legal basis for the activities of NCCL are articulated in the Securities Contracts (Regulations) Act, 1956 ("SCRA, 1956"), Securities and Exchange Board of India Act, 1992, Securities Contracts Regulation Rules, 1957 ("SCRR, 1957), and Securities Contracts (Regulation) (Stock Exchanges and Clearing Corporations) Regulations, 2018 and Rules, Byelaws and Regulation of NCCL.

NCCL has formulated its risk management framework based on the Comprehensive Risk Management Framework as well as other directives and guidelines issued by SEBI.

II. Summary of major changes since the last update of the disclosure

The last version was published on July 06, 2023. The major changes since then are as below:

1. Updates in numbers and limits wherever applicable

III. General background on the FMI

General description of NCCL and markets served

NCCL is a professionally managed clearing corporation for clearing and settlement of commodity derivatives transaction executed on NCDEX. NCCL commenced operations on 27th September 2018.

NCCL is a wholly owned subsidiary of NCDEX (“NCDEX/Exchange”) which is India's leading agri-commodity exchange. NCCL is responsible for clearing and settlement services for the Exchange and aims to provide a robust and transparent risk management platform for the collective benefit of the agri-ecosystem. NCCL has independent Board of Directors (hereinafter referred to as “Board or Governing Board”) and professional management.

General Organisation

The business of NCCL is subject to the oversight of its Governing Board. The Board reviews operations of NCCL on a regular basis through various committees constituted under it and as required by the procedural norms. All directors can be appointed only after the approval of SEBI. SECC regulations have laid down the eligibility requirements for appointment of Directors of the Governing Board.

There are three categories of directors which constitutes the Governing Board/Board of the Clearing Corporation viz. Managing Director, Non-Independent Directors and Public Interest Directors.

The Board has entrusted the responsibility of day-to-day management of business to the Management Team. The Board of Directors and shareholders of NCCL appoint MD & CEO to manage NCCL’s business and operations and implement Governing Board’s decisions and policies, along with the management team.

Management is responsible for the day-to-day operations and management of the Company. Each member of the Management Team is responsible for the performance of their respective business function and report to the MD & CEO. The roles and objectives of the management are set in accordance with the organisational goals and objectives.

Legal and Regulatory Framework

NCCL is a public limited company incorporated under the Companies Act, 1956. NCCL is recognised and regulated by Securities and Exchange Board of India. NCCL is subjected to various laws of the land like the Securities Contracts (Regulation) Act, 1956, Companies Act, Stamp Act, Indian Contract Act and various other legislations.

The legal basis for the activities of NCCL are articulated in the Securities Contracts (Regulations) Act, 1956 (“SCRA, 1956”), Securities and Exchange Board of India Act, 1992, Securities Contracts Regulation Rules, 1957 (“SCRR, 1957), and Securities Contracts (Regulation) (Stock Exchanges and Clearing Corporations) Regulations, 2018 as amended from time to time. The operations and functioning of NCCL are governed by its Rules, Byelaws and Regulations which are approved by SEBI and published in the Gazette of India from time to time.

System Design and Operations

The clearing & settlement services are designed to serve the requirements of geographically diverse and unique markets specific to the Indian context. The delivery of commodities is served by a unique system of warehousing arrangements that cater to the specific requirements and practices of a particular commodity universe/market. Further, NCCL uses the system of electronic repository of commodities which are specifically designed to cater to the market’s need for efficiency and effectiveness in transactions. NCCL has a Risk Management System (RMS) for real time computation of portfolio based margin.

NCCL undertakes to guarantee the financial settlement of all deals arising out of trades in commodity derivatives duly executed on the trading system of the Exchange.

Futures contracts are subject to two types of settlements: the daily mark to market settlement, which occurs on a daily basis till expiry and the final settlement which occurs after the last trading day of the futures contract. In case of Options contract, on exercise, Option contract shall be settled through delivery of goods.

IV. Principle-by-principle summary narrative disclosure

Principle 1: Legal Basis

An FMI should have a well-founded clear, transparent, and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions

Summary Narrative

Key Consideration 1:

The legal basis should provide a high degree of certainty for each material aspect of an FMI's activities in all relevant jurisdictions

NCCL is recognised as a Clearing Corporation by Securities and Exchange Board of India (SEBI) under Securities Contracts (Regulations) Act, 1956 (SCRA, 1956) and operates under the regulatory preview of SEBI. NCCL has operation only in Indian jurisdiction and does not offer services in any foreign jurisdiction. While the Rules and Byelaws of NCCL are in the nature of subordinate legislations duly gazette notified under the provisions of Securities Contracts (Regulation) Act, 1956 ("SCRA"), the Regulations of the NCCL dealing with day to day operations and processes are notified in terms of the provisions of the Byelaws. The rights and obligations of the participants with respect to material aspects such as novation, netting, settlement finality, rights and obligation of clearing house in collateral arrangements, settlement guarantee fund, default procedures etc. have been well laid down in the Rules, Byelaws and Regulations of NCCL.

Novation:

NCCL clears and settles the trades executed on the Exchange platform. NCCL is obligated to extend only a financial guarantee with respect to eligible deals. NCCL therefore novates the contract financially. In this regard Bye Law 8.17 provides for the financial guarantee and obligates NCCL to take such adequate measures as it deems fit to ensure fulfilment of its obligations.

Settlement Finality:

Provisions relating to Settlement Finality and Netting are provided in Bye Law 8.1.2. The relevant extract is provided herein below:

a) Payment and settlement in respect of a deal effected under the Bye laws shall be final, irrevocable and binding on the Members and their constituents

b) When a settlement has become final and irrevocable, the right of the Clearing Corporation to appropriate any collaterals or deposits or margins contributed by the member towards its settlement or other obligations in accordance with the Byelaws shall take priority over any other liability of or claim against the said member

c) For removal of doubts, it is hereby declared that the settlement, whether gross or net, referred to in Clause (a) above is final and irrevocable as soon as the money, goods and securities or other obligations payable as a result of such settlement is determined, whether or not such money, goods and securities or other transactions is actually paid or otherwise.

d) The payment and settlement in respect of a deal shall be determined in accordance with the netting or gross procedure as specified by the relevant authority

Process of deposit of commodities in NCCL approved warehouses and receiving electronic credits in repository accounts are dealt in Regulation 8 of NCCL Regulations

Netting:

Settlement shall be either on netted basis, gross basis, trade for trade basis or any other basis as may be specified.

Client funds obligations are netted and grossed at the clearing member level. There is no netting on the physical delivery of commodities.

Default Procedures:

Provisions relating to default by a Clearing Member are specified in NCCL Bye Laws and Regulation while penalties in case of default are provided for in Regulation 8.13 of NCCL Regulations.

Key Consideration 2:

An FMI should have rules, procedures, and contracts that are clear, understandable, and consistent with relevant laws and regulations

The Rules and Byelaws including any amendments thereto are pre-approved by the regulator and notified in the official Gazette. Any further clarity if required to be brought from time to time are made by way of amendments to these Rules, Byelaws and Regulations either by NCCL on its own (with prior approval of the SEBI) or on directives from the SEBI. Further, the Clearing Corporation issues circulars, FAQ's etc. where ever applicable from time to time which are available on the Clearing Corporation website. All these have relevant references to ensure that the directives, process and procedures are clear, understandable and consistent with the relevant laws and regulations.

Key Consideration 3:

An FMI should be able to articulate the legal basis for its activities to relevant authorities, participants, and, where relevant, participants' customers, in a clear and understandable way.

The legal basis for the activities of NCCL are contained in the Securities Contracts (Regulations) Act, 1956 ("SCRA, 1956"), Securities and Exchange Board of India Act, 1992, Securities Contracts Regulation Rules, 1957 ("SCRR, 1957), and Securities Contracts (Regulation) (Stock Exchanges and Clearing Corporations) Regulations, 2018 including amendments thereto.

NCCL having received recognition as a Clearing Corporation by SEBI is enabled to frame Rules, and Byelaws which are in the nature of subordinate legislation with due approval from SEBI and to frame Regulations thereunder. The Byelaws, Rules and Regulations as well the circulars issued by the Clearing Corporation is available on the website of the Clearing Corporation.

Key Consideration 4:

An FMI should have rules, procedures, and contracts that are enforceable in all relevant jurisdictions. There should be a high degree of certainty that actions taken by the FMI under such rules and procedures will not be voided, reversed, or subject to stays

NCCL operates in Indian jurisdiction and its activities are governed by Indian laws, specifically Securities Contracts (Regulation) Act, 1956 and Securities Contracts Regulation Rules, 1957 ("SCRR, 1957). Since the Rules and Byelaws of the Clearing corporation are in the nature of subordinate legislation which are duly reviewed and approved by the Regulator. Changes, if any, to the provisions are required only in case of a legislative change or a regulatory directive. There have been no such incidents as on date where any action taken by NCCL under the Rules, Byelaws, and Regulations of NCCL have been declared void, or reversed or stayed by any court.

Key Consideration 5:

An FMI conducting business in multiple jurisdictions should identify and mitigate the risks arising from any potential conflict of laws across jurisdictions.

NCCL's activities are primarily conducted in India only, and its Rules, Bye Laws and Regulations are governed by Indian Laws. NCCL is regulated by SEBI, a statutory authority.

However, the potential conflict of laws which may arise is on the point of applicability of statute on the point of jurisdiction. In general in the event of such conflicts, the Central Laws prevail unless specifically provided otherwise.

Principle 2: Governance

An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders.

Summary Narrative

Key Consideration 1:

An FMI should have objectives that place a high priority on the safety and efficiency of the FMI and explicitly support financial stability and other relevant public interest considerations.

NCCL has identified all the main objectives and objectives incidental or ancillary to the attainment of the main objectives and documented the same in its Memorandum of Association.

The main objectives of NCCL are:

- To facilitate, set up and carry on the business of clearing and settlement of trades in commodity and commodity derivatives, currencies, forex instruments and instruments underlying any other asset classes and shares, stock, debentures, bonds, units, deposit certificates, notes, warrants and securities of all kinds including securities defined under Securities Contracts (Regulation) Act, 1956, traded, in electronic and/or in physical form, and to ensure completion and guarantee of settlement and to facilitate, promote, assist, regulate and manage dealings in securities, commodities, currencies and all other types, nature and kinds of instruments in India, subject to receipt of necessary regulatory approvals.
- To initiate, facilitate, promote, assist, undertake and manage all activities in relation to stock exchanges, money markets, financial markets, commodity markets, securities markets, currencies, warehousing, risk management, custodial and depository services including but not limited to taking measures for ensuring greater liquidity, facilitating intra and inter market dealings, and generally to facilitate clearing and settlement of transactions in securities in India.

The Rules, Bye-laws and Regulations framed are to govern the business and operations and provides for the highest priority to safety and efficiency.

Further Governing Board of NCCL has Public Interest Directors appointed with prior approval of SEBI. The Board monitors the business of NCCL, regulatory developments and checks and balances in place for safe and efficient markets.

Financial stability is achieved by ensuring maintenance of adequate financial resources including settlement guarantee fund and adherence to the comprehensive risk management framework as prescribed in the Rules, Bye-laws and Regulations and by the Regulators from time to time.

Key Consideration 2:

An FMI should have documented governance arrangements that provide clear and direct lines of responsibility and accountability. These arrangements should be disclosed to owners, relevant authorities, participants, and, at a more general level, the public.

Procedural Norms by SEBI

SEBI has vide the Securities Contracts (Regulation) (Stock Exchanges and Clearing Corporations) (SECC) Regulations, 2018 prescribed in detail the governance norms to be followed by Stock Exchanges and Clearing Corporations

Ownership

NCCL is a public limited company incorporated under the Companies Act, 1956. NCCL is a wholly owned subsidiary of National Commodity and Derivatives Exchange Ltd. Necessary provisions with respect to ownership norms as applicable to Clearing Corporations are contained in the Securities Contracts (Regulation) (Stock Exchanges and Clearing Corporations) (SECC) Regulations, 2018. The norms inter-alia requires that shareholders of the Clearing Corporation should be fit and proper persons and should not suffer from any disqualifications. As these are continuous requirements, after becoming the shareholder of NCCL, if any shareholder suffers any disqualification, they cannot continue to be a shareholder of NCCL. NCCL is also additionally required to comply governance norms prescribed under the Companies Act. 2013

Governance

The business of NCCL is subject to the oversight of its Board of Directors. The Governing Board reviews operations of NCCL on a regular basis through various Board level committees constituted under it including Committees mandated by the SEBI. All directors can be appointed only after the approval of SEBI. SECC regulations have laid down the eligibility requirements for board of directors. They are required to meet the “fit and proper” criteria and must not be associated with any trading/clearing member.

There are three categories of directors of the Clearing Corporation viz. Managing Director, Non-Independent Directors and Public Interest Directors.

The Board of Directors and shareholders of the NCCL appoint the MD & CEO, subject to prior approval of SEBI, to manage day to day business and operations and implement Governing Board's decisions and policies, along with the management team in accordance with powers delegated. The Rules and Byelaws of NCCL lay down the scope of authority of the Governing Board and the MD & CEO. Besides, the Statutory Committees as specified in the SECC Regulations 2018 are constituted to oversee various aspects of the functioning of clearing corporation.

A compliance officer is appointed as per the requirements of SECC regulations to monitor the compliance by NCCL of SCRA, SEBI Regulations, directives, Rules, Bye laws and Regulations of NCCL.

Disclosure

NCCL provides accountability to its owners, participants and other stakeholders through Rules, Byelaws, Regulations, circulars, norms, financial statements etc. NCCL discloses all the governance arrangements (Rules, Byelaws, Regulations, Financial disclosures, Annual reports, MOA, AOA etc.) on the website.

Key Consideration 3:

The roles and responsibilities of an FMI's Board of directors (or equivalent) should be clearly specified, and there should be documented procedures for its functioning, including procedures to identify, address, and manage member conflicts of interest. The Board should review both its overall performance and the performance of its individual Board members regularly.

The scope of function of the Governing Board is covered in the Memorandum and Articles of Association of NCCL and NCCL Rules. The SECC Regulations also define the role and responsibility of each category of Directors of a Clearing Corporation. The Governing Board of NCCL comprises of Non-Independent Directors, Public Interest Directors and Managing Director & Chief Executive Officer. The Managing Director's performance is assessed by the Board. Pursuant to the provisions of the Companies Act, the evaluation of the individual directors, Board as a whole and its Committees is carried out on the basis of certain pre-defined parameters including those mandated by SEBI. NCCL obtains feedback on those parameters which is placed before the Nomination and Remuneration Committee and Governing Board on an annual basis. SEBI has prescribed the evaluation mechanism for the performance review of Public Interest Directors.

Regulation 26 of SECC Regulations provides for code of conduct for the Governing Board, directors, committee members and key management personnel of clearing corporations. Every director, committee member and key management personnel of NCCL has to abide by the Code of Conduct specified under Part – B of Schedule – II of these regulations. The directors must not be associated with any trading/clearing member and are not allowed to trade in commodity derivatives. SEBI for any failure by the directors to abide by these regulations or the Code of Conduct or in case of any conflict of interest, either upon a reference from NCCL or suo motu, shall take appropriate action including removal of or termination of the appointment of any director.

Key Consideration 4:

The Board should contain suitable members with the appropriate skills and incentives to fulfil its multiple roles. This typically requires the inclusion of non-executive Board member(s).

SECC Regulation provides that the Governing Board should comprise of:

- Public Interest Directors;
- Non-Independent Directors; and
- Managing Director

All the Directors are appointed with prior approval from SEBI. SECC Regulations, 2018 presribes that the Public Interest Director is required to be selected from diverse field of work. While deciding to propose a person as Public Interest Director, NCCL takes into account the qualifications and experience in the area of capital markets, finance and accountancy, legal and regulatory practice, technology, risk management and management or administration or any other area relevant to Clearing Corporation. Every director, key management personnel and shareholder of a recognized clearing corporation is required to be a fit and proper person as per SECC Regulations, 2018. As required by SECC Regulations, 2018, NCCL does not provide any incentives to the Board members other than the sitting fees. The Managing Director and Non-Independent director does not get any sitting fees. The information regarding Non-Independent directors and public interest directors of NCCL Board is publicly available on NCCL website.

Key Consideration 5:

The roles and responsibilities of management should be clearly specified. An FMI's management should have the appropriate experience, a mix of skills, and the integrity necessary to discharge their responsibilities for the operation and risk management of the FMI.

Management is responsible for the day-to-day affairs of the Company. Each member of the Management Team is responsible for the performance of their respective roles and business and report into MD & CEO. The Chief Compliance Officer and Head – Legal, Chief Operating Officer and Chief Financial

Officer report to the MD & CEO. The –Chief Risk Officer reports to the Risk Management Committee and the MD & CEO.

The goals and objectives of the Management Team are set in accordance with the organizational goals and objectives and their respective role/scope as per applicable regulatory requirements. Half yearly and annual review and assessment is performed to evaluate achievement of the objectives.

The selection of the Management Team is done keeping in view the relevant skill and experience required as per the respective function. The Management Team as a whole possesses diverse and relevant experience in operations, clearing and settlement, finance, technology, compliance, legal, risk management etc. Additionally, all employees are bound by the code of conduct.

Key Consideration 6:

The Board should establish a clear, documented risk-management framework that includes the FMI's risk-tolerance policy, assigns responsibilities and accountability for risk decisions, and addresses decision making in crises and emergencies. Governance arrangements should ensure that the risk management and internal control functions have sufficient authority, independence, resources, and access to the Board.

NCCL has adopted and developed upon the risk management framework as prescribed by SEBI. The framework consists of Capital Requirements, Margining Methodology, Position limits, Default handling mechanism, Settlement Guarantee Fund, Business Continuity Plan etc.

The Risk Management Committee (RMC) of the Board is responsible for overall risk management of NCCL and scrutinizes and reviews the risk related policies presented to it by the management. It also directs the management to undertake analysis, frame policies and act where it deems necessary.

An Internal Risk Committee (IRC), comprising of senior management of NCCL, has been formed based on delegation of powers from the RMC to look into risk issues, if any, in its day to day routine.. Besides, as stated above, the Chief Risk Officer has a reporting line to the Risk Management Committee of the Governing Board.

NCCL has appointed an independent auditor for Process (Operational) Audit and Internal (Financial) Audit of NCCL. The auditors report to the Audit Committee of the Governing Board.

Key Consideration 7:

The Board should ensure that the FMI's design, rules, overall strategy, and major decisions reflect appropriately the legitimate interests of its direct and indirect participants and other relevant stakeholders. Major decisions should be clearly disclosed to relevant stakeholders and, where there is a broad market impact, the public.

There is continuous dialogue with all stakeholders to take into account their point of view. There are regular member meets for instance. The Warehouse Service Providers' (WSP) feedback is taken into account after constant engagement with them. Teams interact with participants and end-users as well to bring in their perspectives and their requirements. These requirements are discussed and necessary actions taken as deemed appropriate.

NCCL also has participation of stakeholders in Advisory Panel.

All the major decisions that are expected to impact the markets are disclosed through circulars to the market participants. These circulars are available on the website of NCCL

Principle 3: Framework for the comprehensive management of risks

An FMI should have a sound risk-management framework for comprehensively managing legal, credit, liquidity, operational, and other risks.

Summary Narrative

Key Consideration 1:

An FMI should have risk-management policies, procedures, and systems that enable it to identify, measure, monitor, and manage the range of risks that arise in or are borne by the FMI. Risk management frameworks should be subject to periodic review.

The key risks as faced by NCCL are enumerated below:

1. Market Risk
2. Credit Risk
3. Liquidity Risk
4. Investment Risk
5. Delivery Risk
6. Operational risk
7. Technology Risk
8. Business Continuity risk
9. Cyber Security Risk
10. Regulatory Compliance Risk
11. Legal Risk

NCCL has implemented a robust risk management framework. Details of policies and processes for management of the risks are provided in the respective principles below.

NCCL has formulated its risk management framework based on the Comprehensive Risk Management Framework and other directives and guidelines issued by SEBI.

The Risk Management Committee of the Governing Board oversees and monitors the risk management of NCCL and implementation of the risk related policies. The risk management policies of NCCL are reviewed by the Risk Management Committee and tested regularly for assessing effectiveness. Internal

Risk Committee of NCCL which has delegation from the Risk Management Committee regularly monitors risk management at NCCL.

NCCL has systems and applications for risk monitoring and management. Risk is managed through measures like eligibility criteria and capital requirements of members, margin requirements, position limits for member and clients, real time monitoring and alerts for increase in risk exposures and limit breaches, norms and guidelines for warehouse service providers etc.

Key Consideration 2:

An FMI should provide incentives to participants and, where relevant, their customers to manage and contain the risks they pose to the FMI.

NCCL's rules and regulations clearly explain the requirements and responsibilities of the participants and their customers towards NCCL. NCCL provides the members with a full view of the risk profile with respect to their proprietary as well as client trading including regular information on margins, MTM values, position, collateral etc. for managing their risks.

Member compliance to risk management measures is assessed on a regular basis and NCCL has put in place disincentives like suspension, penalties, position limits, closing-out of positions etc. to discourage non-compliance to requirements resulting in risk to NCCL. The members are required to collect and report the margin collected from their clients to NCCL and penalty is levied on the member for short collection or non-collection of margin.

Further, NCCL provides incentives to the Clearing Members for containing risk to the Clearing Corporation e.g. margin exemption for early pay-in of commodities and spread margin benefit.

Key Consideration 3:

An FMI should regularly review the material risks it bears from and poses to other entities (such as other FMIs, settlement banks, liquidity providers, and service providers) as a result of interdependencies and develop appropriate risk-management tools to address these risks.

NCCL manages material risks from clearing and settlement banks, custodians, issuers of collateral, liquidity providers and warehouse service providers.

Bank exposure policy of NCCL prescribes stringent criteria for empanelment of clearing and settlement banks and exposure limit is allocated based on their financial strength and other criteria as laid in the policy. Limits are daily monitored and corrective action is taken in case limits are violated. The custodians are regulated by SEBI and NCCL has an SLA with them. NCCL has laid down strict norms and guidelines for the empanelment of the warehouse service providers based on the norms issued by SEBI. These norms and guidelines mitigates operational, regulatory and reputation risks arising out of the services of the warehouse service providers.

Key Consideration 4:

An FMI should identify scenarios that may potentially prevent it from being able to provide its critical operations and services as a going concern and assess the effectiveness of a full range of options for recovery or orderly wind-down. An FMI should prepare appropriate plans for its recovery or orderly wind-down based on the results of that assessment. Where applicable, an FMI should also provide relevant authorities with the information needed for purposes of resolution planning.

NCCL has put in place a business continuity plan (BCP) and disaster recovery systems to ensure fast recovery and resumption of operations in line with regulatory guidelines.

SEBI has issued guidelines for regaining a matched book in case of default. The Bye laws also contain requisite provisions in this regard and based on these guidelines, NCCL has put in place a default handling policy.

NCCL has developed a Recovery and Wind-Down Plan in accordance with the Regulatory guidelines. The plan aims to enable NCCL to cease its regulated activities and achieve cancellation of its permission with minimal adverse impact on its market participants, service providers and the wider markets. The plan takes into account operational, time, cost and resource requirements in different wind-down strategies.

Principle 4: Credit Risk

An FMI should effectively measure, monitor, and manage its credit exposure to participants and those arising from its payment, clearing, and settlement processes. An FMI should maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence. In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two largest participants and their affiliates that would potentially cause the largest aggregate credit exposures to the CCP in extreme but plausible market conditions. All other CCPs should maintain, at a minimum, total financial resources sufficient to cover the default of the one participant and its affiliates that would potentially cause the largest aggregate credit exposures to the CCP in extreme but plausible market conditions.

Summary Narrative

Key Consideration 1:

An FMI should establish a robust framework to manage its credit exposures to its participants and the credit risks arising from its payment, clearing, and settlement processes. Credit exposure may arise from current exposures, potential future exposures, or both.

NCCL's framework to manage credit exposures to its participants broadly consists of:

- Rules, Bye laws & Regulations and policies;
- Tools to identify, measure, monitor and reduce the credit risk exposures;
- A governance structure dedicated to handle the daily operations; and
- Escalation tools and default procedures.

Mechanism of credit risk framework to manage credit exposures to participants is as follows:

- KYC and net worth criteria for admission of Clearing members
- Deposit requirement –Base Capital and Additional Base Capital
- Volatility based Margins
- Approved collaterals with haircuts
- Concentration limits on collateral
- Daily MTM settlement
- Position Limits
- Exposure limits based on deposit

- Daily Price Limits
- Alerts and Triggers for monitoring of exposure
- Trade restriction mechanism – square off/ disablement of members
- Margin utilization control through Risk Reduction Mode
- Default procedures and Settlement Guarantee Fund (SGF)
- Retention of certain deposits for a specified time

NCCL conducts back testing of the margin on a daily basis to ensure sufficiency of margin and avoid direct credit risk to its participants.

The potential future exposure are mitigated by collection of initial margin and the current credit exposure are covered by daily Mark to Market settlement.

Key Consideration 2:

An FMI should identify sources of credit risk, routinely measure and monitor credit exposures, and use appropriate risk-management tools to control these risks.

The key sources of credit risk are Clearing Members, Settlement and Clearing Banks, Collaterals and Investments.

1. Clearing members:

   For details on monitoring and measurement of credit risk from clearing members, please refer Key Consideration 1 above.

2. Clearing and settlement Banks

   Exposures to clearing and settlement Banks are monitored on a daily basis.

3. Collateral:

   The credit risk from non-cash collateral is managed by specifying an overall market wide and member specific limit of acceptable value of the collateral.

4. Investments:

The credit risk from investments is managed by diversifying the investments in various schemes with good investment ratings based on criteria specified in Investment policy approved by the Governing Board and regulatory guidelines in place.

Key Consideration 3:

A payment system or SSS should cover its current and, where they exist, potential future exposures to each participant fully with a high degree of confidence using collateral and other equivalent financial resources (see Principle 5 on collateral). In the case of a DNS payment system or DNS SSS in which there is no settlement guarantee but where its participants face credit exposures arising from its payment, clearing, and settlement processes, such an FMI should maintain, at a minimum, sufficient resources to cover the exposures of the two participants and their affiliates that would create the largest aggregate credit exposure in the system.

The key consideration is not applicable to NCCL as it is neither a Payment System nor a SSS.

Key Consideration 4:

A CCP should cover its current and potential future exposures to each participant fully with a high degree of confidence using margin and other prefunded financial resources (see Principle 5 on collateral and Principle 6 on margin). In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would potentially cause the largest aggregate credit exposure for the CCP in extreme but plausible market conditions. All other CCPs should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would potentially cause the largest aggregate credit exposure for the CCP in extreme but plausible market conditions. In all cases, a CCP should document its supporting rationale for, and should have appropriate governance arrangements relating to, the amount of total financial resources it maintains.

NCCL does not operate in multiple jurisdictions.

NCCL follows a practice of regular marking to market of positions and settling the same on a daily basis through payment of funds. NCCL has adopted margining framework prescribed by SEBI. NCCL charges VaR and portfolio based initial margin to cover potential losses with at least 99% confidence over a margin period of risk horizon. NCCL imposes initial margins sufficient to cover its potential future exposure to participants in the interval between the last margin collection and the close out of positions following a participant default. The minimum Margin period of risk (MPOR) is of 2 days, 3 days and 4 days depending upon the volatility cateogry of commodity. Further, NCCL sets the MPOR for commodities based on the liquidity estimation. NCCL charges minimum Extreme loss margin (ELM) of at least 1% to cover risks outside the coverage of VaR. NCCL also charges additional and special margins where necessary. NCCL also undertakes review and back-testing of margins to measure the robustness of its risk management framework.

As prescribed by SEBI, NCCL maintains a Core Settlement Guarantee Fund (SGF) to meet potential default, if any, based on stress testing. The SGF figures for each month are placed on NCCL website for general information of all concerned. In addition to the SGF, NCCL has arrangement for drawing liquidity in the form of undrawn lines of credit from highly reputed bank.

Key Consideration 5:

A CCP should determine the amount and regularly test the sufficiency of its total financial resources available in the event of a default or multiple defaults in extreme but plausible market conditions through rigorous stress testing. A CCP should have clear procedures to report the results of its stress tests to appropriate decision makers at the CCP and to use these results to evaluate the adequacy of and adjust its total financial resources. Stress tests should be performed daily using standard and predetermined parameters and assumptions. On at least a monthly basis, a CCP should perform a comprehensive and thorough analysis of stress testing scenarios, models, and underlying parameters and assumptions used to ensure they are appropriate for determining the CCP's required level of default protection in light of current and evolving market conditions. A CCP should perform this analysis of stress testing more frequently when the products cleared or markets served display high volatility, become less liquid, or when the size or concentration of positions held by a CCP's participant's increases significantly. A full validation of a CCP's risk-management model should be performed at least annually.

NCCL maintains the Core Settlement Guarantee Fund (SGF) as per the guidelines of SEBI. The sufficiency of financial resources are determined through stress-test procedure as prescribed for SGF by SEBI. The results are communicated to decision makers within NCCL and a disclosure of Core SGF corpus and default waterfall is made on the website.

NCCL's risk-management model is based on risk management framework as prescribed by SEBI and the validation of the model is carried out on an ongoing basis. An independent review of risk management model is conducted by an independent expert on a periodic basis.

Key Consideration 6:

In conducting stress testing, a CCP should consider the effect of a wide range of relevant stress scenarios in terms of both defaulters' positions and possible price changes in liquidation periods. Scenarios should include relevant peak historic price volatilities, shifts in other market factors such as price determinants and yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets, and a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions.

NCCL conducts stress tests in accordance with the relevant framework/guidelines issued by SEBI from time to time and as in force. .

Key Consideration 7:

An FMI should establish explicit rules and procedures that address fully any credit losses it may face as a result of any individual or combined default among its participants with respect to any of their obligations to the FMI. These rules and procedures should address how potentially uncovered credit losses would be allocated, including the repayment of any funds an FMI may borrow from liquidity providers. These rules and procedures should also indicate the FMI's process to replenish any financial resources that the FMI may employ during a stress event, so that the FMI can continue to operate in a safe and sound manner.

The rules and procedures that address credit losses as a result of default have been specified in Bye laws of NCCL as per the default waterfall prescribed by SEBI.

Principle 5: Collateral

An FMI that requires collateral to manage its or its participants' credit exposure should accept collateral with low credit, liquidity, and market risks. An FMI should also set and enforce appropriately conservative haircuts and concentration limits.

Summary Narrative

Key Consideration 1:

An FMI should generally limit the assets it (routinely) accepts as collateral to those with low credit, liquidity, and market risks.

NCCL accepts collaterals that are permitted under SEBI guidelines. NCCL accepts cash, fixed deposits receipts (FDR), Bank Guarantees (BG), equity shares, mutual fund units, Government securities and select commodities, as collateral. The basic criteria used for determination/ acceptance of collateral by NCCL are liquidity, low volatility and relative safety of the collateral.

- Cash and cash equivalent assets must be at least 50% of the total collateral.
- BG and FDR issued by approved banks are only accepted and there are bank-level limits in place.
- Total equity, mutual fund and commodity as collaterals at NCCL level have limits specified.
- Member level limits for equity shares, mutual funds and commodities have been specified.
- Limits for equity shares and mutual fund at issuer and AMC level respectively have been specified.
- Conservative haircuts are applied on all types of securities accepted as collateral.

Key Consideration 2:

An FMI should establish prudent valuation practices and develop haircuts that are regularly tested and take into account stressed market conditions.

SEBI has prescribed minimum haircuts that should be applied for valuation of collaterals. NCCL applies haircuts higher of SEBI prescribed guidelines or NCCL's criteria.

SEBI has prescribed haircuts on equity securities based on VaR margins. NCCL currently applies the haircut for equity securities at VaR for Index securities and 20% or VaR whichever is higher in case of other acceptable equity securities. Mutual funds are applied a haircut of 10% or VaR based whichever is higher.

In case of agricultural commodities, presently, the minimum haircut is 40% and in base metals minimum haircut is 30%.

Haircuts have largely been set in line with the considerations of stressed market conditions and are reviewed regularly.

Key Consideration 3:

In order to reduce the need for procyclical adjustments, an FMI should establish stable and conservative haircuts that are calibrated to include periods of stressed market conditions, to the extent practicable and prudent.

The procedures and risk management standards are designed to establish stable collateral haircuts that are typically above the current volatility levels associated with the prices of collateral. Collateral haircuts are set to provide coverage through a broad range of market environments and to remain stable.

NCCL caps the overall exposure to market risks by having necessary limits on non-cash collateral at any given point of time.

Key Consideration 4:

An FMI should avoid concentrated holdings of certain assets where this would significantly impair the ability to liquidate such assets quickly without significant adverse price effects.

NCCL has put in place prudent norms to avoid concentrated holdings of certain assets as collateral:

- Cash and cash equivalent assets must be at least 50% of the total collateral.
- Limit on commodity as Collateral is to a maximum of Rs.15 crores (after haircut) per clearing member.
- A maximum value of Rs.75 Crores (after haircut including select agricultural commodities) is presently permitted to be accepted as Collateral across all clearing members' of NCCL.

- Clearing Member level limit for any security acceptable as collateral shall be limited to Rs 25 Cr, post haircut at any given point of time.

- Clearing Member level limit for mutual fund units currently accepted as collateral, at AMC level, is limited to Rs 50 Cr, post haircut at any given point of time.

- Equity Security of an issuer is restricted to Rs.100 crore at NCCL level.

- The Mutual funds from an AMC is restricted to Rs.100 crore.

- Further the total Security, Commodity and Mutual Fund is restricted to 15% of overall effective deposits at NCCL level.

- Collaterals issued by banks (BG and FDR), are covered by bank exposure policy.

- Banks issuing collaterals have been allocated exposure limit based on their financial strength and other criteria as per the policy.

Key Consideration 5:

An FMI that accepts cross-border collateral should mitigate the risks associated with its use and ensure that the collateral can be used in a timely manner.

NCCL does not accept any cross-border collaterals and therefore this key consideration is not applicable.

Key Consideration 6:

An FMI should use a collateral management system that is well-designed and operationally flexible.

NCCL has robust Collateral Management System. The system is automated & customized to manage the specific nature of business. The System is designed for real time recording and monitoring of collaterals. The system facilitates auto withdrawal of collaterals upon maturity and generates various MIS reports as necessary. The system incorporates various fundamental checks and balances to restrict operational errors, such as those relating to validity of issuer, minimum prescribed duration. The system has the capability to accommodate a wide range of parameters such as issuers, haircuts. The system is customizable and is also capable of accommodating new collateral types.

Principle 6: Margin

A CCP should cover its credit exposures to its participants for all products through an effective margin system that is risk-based and regularly reviewed.

Summary Narrative

Key Consideration 1:

A CCP should have a margin system that establishes margin levels commensurate with the risks and particular attributes of each product, portfolio, and market it serves.

Risk management framework has been prescribed by SEBI with the minimum regulatory requirement. CCPs can implement additional measures for risk management, as may be deemed fit.

NCCL charges VaR and portfolio based initial margin to cover potential losses with at least 99% confidence over a margin period of risk horizon. NCCL imposes initial margins sufficient to cover its potential future exposure to participants in the interval between the last margin collection and the close out of positions following a participant default. The minimum Margin period of risk (MPOR) of 2 days, 3 days and 4 days has been prescribed based on the volatility category of the commodity. Further, NCCL sets the MPOR for commodities based on the liquidity estimation. NCCL charges Extreme loss margin (ELM) at minimum 1% of gross open position value to cover tail risk outside the coverage of VaR. NCCL also charges additional and special margins where necessary.

NCCL's margin methodology and any changes are made available to participants in the form of circulars published on the website.

Key Consideration 2:

A CCP should have a reliable source of timely price data for its margin system. A CCP should also have procedures and sound valuation models for addressing circumstances in which pricing data are not readily available or reliable.

NCCL uses price data based on traded prices in the trading system of the Exchange to the extent these prices are available. Where traded price data is not available, model prices based on related traded prices in the market place or polled prices are applied with some adjustments in line with Regulatory guidelines.

The price data along with the positions data and volatility data are used for determining initial margin.

Key Consideration 3:

A CCP should adopt initial margin models and parameters that are risk-based and generate margin requirements sufficient to cover its potential future exposure to participants in the interval between the last margin collection and the close out of positions following a participant default. Initial margin should meet an established single-tailed confidence level of at least 99 percent with respect to the estimated distribution of future exposure. For a CCP that calculates margin at the portfolio level, this requirement applies to each portfolio's distribution of future exposure. For a CCP that calculates margin at more granular levels, such as at the sub portfolio level or by product, the requirement must be met for the corresponding distributions of future exposure. The model should

- *use a conservative estimate of the time horizons for the effective hedging or close out of the particular types of products cleared by the CCP (including in stressed market conditions),*
- *have an appropriate method for measuring credit exposure that accounts for relevant product risk factors and portfolio effects across products, and*
- *to the extent practicable and prudent, limit the need for destabilising, procyclical changes.*

NCCL follows the risk management framework as specified by SEBI. NCCL has a robust margining system based on rigorous measuring of credit risk to each member over the minimum Margin period of risk (MPOR) horizon flowing from changes in market prices, using initial margin model.

NCCL levies VaR and portfolio based initial margin to cover potential losses with at least 99% confidence over a margin period of risk horizon. NCCL uses EWMA volatility estimate and scales it by sigma of 3.5 to calculate the initial margin. NCCL imposes initial margins sufficient to cover its potential future exposure to participants in the interval between the last margin collection and the close out of positions following a participant default. The minimum MPOR of 2 days, 3 days and 4 days has been prescribed based on the volatility category of the each commodity.

Further, NCCL sets the MPOR for commodities based on the liquidity estimation.

The charging/adjustment of margins takes place on intra-day basis, several times in day, based on margin re-computations taking into account the changing market conditions.

The use of EWMA methodology for margining ensures that a relatively longer look-back period is used, such that the model is not influenced by short-term asset prices changes. This is further bolstered by a programme of back-testing to strengthen the margin coverage and mitigate the procyclicality.

Key Consideration 4:

A CCP should mark participant positions to market and collect variation margin at least daily to limit the build-up of current exposures. A CCP should have the authority and operational capacity to make intraday margin calls and payments, both scheduled and unscheduled, to participants.

The positions of market participants are marked to current prices through a process of valuation at the end of the day. Such positions of the market participants are arrived at on a net basis, giving a single figure for a participant. These valued positions (MTM) are settled on a daily basis. The daily settlement of the MTM positions prevents a build-up of exposure with respect to the counterparty.

SEBI has empowered clearing corporations to implement additional measures for risk management, as and when required. The Bye laws and Regulations of NCCL provides authority and NCCL has operational capacity to make and complete intraday margin calls for initial margin. NCCL currently re-computes the initial margin at discrete time intervals. Intra-day volatility is refreshed every two hours, five times a day. The initial margin changes whenever volatility is refreshed. Also the MTM is recomputed for every last traded price change.

Key Consideration 5:

In calculating margin requirements, a CCP may allow offsets or reductions in required margin across products that it clears or between products that it and another CCP clear, if the risk of one product is significantly and reliably correlated with the risk of the other product. Where two or more CCPs are authorised to offer cross-margining, they must have appropriate safeguards and harmonised overall risk-management systems.

NCCL currently offers clearing and settlement of only future and options contract and hence the underlying spread benefit between two products is not applicable. NCCL gives calendar spread benefits across contracts of same commodity expiring in different months. NCCL also gives spread benefit for commodities in a commodity complex. Further, NCCL currently clears and settles trades of only one exchange.

Key Consideration 6:

A CCP should analyse and monitor its model performance and overall margin coverage by conducting rigorous daily backtesting and at least monthly, and more-frequent where appropriate, sensitivity analysis. A CCP should regularly conduct an assessment of the theoretical and empirical properties of its margin model for all products it clears. In conducting sensitivity analysis of the model's coverage, a

CCP should take into account a wide range of parameters and assumptions that reflect possible market conditions, including the most-volatile periods that have been experienced by the markets it serves and extreme changes in the correlations between prices.

Back-testing is done to analyse the sufficiency of the initial margin. The mark-to-market valuation for the derivative contracts over the margin period of risk (MPOR) is compared with the initial margin. The observations are checked for adequacy of margin sufficiency for at least 99% confidence. The back-testing involves testing the coverage of the margin for individual products or commodities.

Key Consideration 7:

A CCP should regularly review and validate its margin system.

NCCL has adopted margining methodology as prescribed by SEBI. The adequacy of applicable margins is back tested on a daily basis. The back testing results are presented before the Risk Management Committee (RMC) of the Governing Board which consist of independent directors and experts. The RMC reviews the risk management framework and policies for its implementation.

NCCL periodically gets the risk management framework and models reviewed from external experts.

Principle 7: Liquidity Risk

An FMI should effectively measure, monitor, and manage its liquidity risk. An FMI should maintain sufficient liquid resources in all relevant currencies to effect same day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate liquidity obligation for the FMI in extreme but plausible market conditions.

Summary Narrative

Key Consideration 1:

An FMI should have a robust framework to manage its liquidity risks from its participants, settlement banks, nostro agents, custodian banks, liquidity providers, and other entities.

NCCL faces liquidity risks from its daily clearing and settlement operations of settling participants' mark-to-market positions through funds pay-in and pay-outs. This process involves both the Clearing Members and Clearing Banks and a payment delay or default by an entity on pay-ins would pose liquidity pressures on NCCL. NCCL can also face liquidity pressures in case of a commodity delivery settlement related default by buyer, wherein the entire value of the commodity is involved for settlement.

In the event of a seller's or buyer's default, NCCL can liquidate a defaulting member's collateral.

NCCL invests its funds in highly liquid instruments and additionally has lines of credit from various Banks to meet any contingent liquidity shortfall. NCCL also maintains Core SGF as per the SEBI guidelines.

Key Consideration 2:

An FMI should have effective operational and analytical tools to identify, measure, and monitor its settlement and funding flows on an ongoing and timely basis, including its use of intraday liquidity.

Day to day liquidity is looked at by taking into consideration the flow of funds via the settlement and collateral systems. Tracking and monitoring of liquidity is facilitated by generation of various automated reports.

Key Consideration 3:

A payment system or SSS, including one employing a DNS mechanism, should maintain sufficient liquid resources in all relevant currencies to effect same-day settlement, and where appropriate intraday or multiday settlement, of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate payment obligation in extreme but plausible market conditions.

The key consideration is not applicable.

Key Consideration 4:

A CCP should maintain sufficient liquid resources in all relevant currencies to settle securities-related payments, make required variation margin payments, and meet other payment obligations on time with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate payment obligation to the CCP in extreme but plausible market conditions. In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should consider maintaining additional liquidity resources sufficient to cover a wider range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would generate the largest aggregate payment obligation to the CCP in extreme but plausible market conditions.

NCCL carries out all settlements only in Indian Rupees and operates only in Indian jurisdiction.

The size of credit lines with banks is based on estimation of shortfalls. The day to day operational shortfalls are estimated separately and monitored.

The settlement guarantee fund maintained by NCCL is computed as per the methodology prescribed by SEBI which is based on:

i. scenario of default by two of its largest members' under adverse price movements.
ii. 50% of the credit exposure due to default of all clearing members

The Core SGF corpus is invested in liquid resources.

NCCL has in place Liquidity Stress Testing Policy. Cash release to members, investments are stressed under various scenarios in addition to default of members. Further settlement bank failure is also considered.

Key Consideration 5:

For the purpose of meeting its minimum liquid resource requirement, an FMI's qualifying liquid resources in each currency include cash at the central bank of issue and at creditworthy commercial banks, committed lines of credit, committed foreign exchange swaps, and committed repos, as well as 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. If an FMI has access to routine credit at the central bank of issue, the FMI may count such access as part of the minimum requirement to the extent it has collateral that is eligible for pledging to (or for conducting other appropriate forms of transactions with) the relevant central bank. All such resources should be available when needed.

The liquid resources of NCCL consist of cash resources involving cash collaterals from members, own liquid investments and lines of credit from Bank in the form of overdraft limit which can be drawn on demand.

A large proportion of the collaterals are in the form of issuances from commercial banks, licensed and regulated by the central bank. These collaterals are in the form of Bank Guarantees and Fixed Deposits and can be considered to be quite liquid involving low credit risk.

Key Consideration 6:

An FMI may supplement its qualifying liquid resources with other forms of liquid resources. If the FMI does so, then these liquid resources should be in the form of assets that are likely to be saleable or acceptable as collateral for lines of credit, swaps, or repos on an ad hoc basis following a default, even if this cannot be reliably prearranged or guaranteed in extreme market conditions. Even if an FMI does not have access to routine central bank credit, it should still take account of what collateral is typically accepted by the relevant central bank, as such assets may be more likely to be liquid in stressed circumstances. An FMI should not assume the availability of emergency central bank credit as a part of its liquidity plan.

NCCL maintains cash resources to meet the liquidity requirements. In case these resources are not sufficient, NCCL supplements its liquidity through overdraft/line of credit from Banks which can be drawn to meet the shortfall.

Key Consideration 7:

An FMI should obtain a high degree of confidence, through rigorous due diligence, that each provider of its minimum required qualifying liquid resources, whether a participant of the FMI or an external party, has sufficient information to understand and to manage its associated liquidity risks, and that it has the capacity to perform as required under its commitment. Where relevant to assessing a liquidity provider's performance reliability with respect to a particular currency, a liquidity provider's potential access to credit from the central bank of issue may be taken into account. An FMI should regularly test its procedures for accessing its liquid resources at a liquidity provider.

The credit line facilities used are from commercial banks which are financially sound. The commercial banks operate under a banking license from the central bank and are subject to its own stringent liquidity planning, stress testing and regulatory oversight by the central bank and also have access to central bank facilities for funding.

Key Consideration 8:

An FMI with access to central bank accounts, payment services, or securities services should use these services, where practical, to enhance its management of liquidity risk.

The key consideration is not applicable as NCCL does not have access to central bank accounts, payment services, or securities services.

Key Consideration 9:

An FMI should determine the amount and regularly test the sufficiency of its liquid resources through rigorous stress testing. An FMI should have clear procedures to report the results of its stress tests to appropriate decision makers at the FMI and to use these results to evaluate the adequacy of and adjust its liquidity risk-management framework. In conducting stress testing, an FMI should consider a wide range of relevant scenarios. Scenarios should include relevant peak historic price volatilities, shifts in other market factors such as price determinants and yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets, and a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions. Scenarios should also take into account the design and operation of the FMI, include all entities that might pose material liquidity risks to the FMI (such as settlement banks, nostro agents, custodian banks, liquidity providers, and linked FMIs), and where appropriate, cover a multiday period. In all cases, an FMI should document its supporting rationale for, and should have appropriate governance arrangements relating to, the amount and form of total liquid resources it maintains.

The day to day liquidity requirements of NCCL are estimated on a daily basis by taking into consideration settlement flows and release of cash collaterals. Further, NCCL has in place Liquidity Risk Stress testing to determine sufficiency of resources in stress scenarios.

Key Consideration 10:

An FMI should establish explicit rules and procedures that enable the FMI to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations on time following any individual or combined default among its participants. These rules and procedures should address unforeseen and potentially uncovered liquidity shortfalls and should aim to avoid unwinding, revoking, or delaying the same-day settlement of payment obligations. These rules and procedures should also indicate the FMI's process to replenish any liquidity resources it may employ during a stress event, so that it can continue to operate in a safe and sound manner.

NCCL maintains sufficient liquidity arrangements to effect settlements within the regulatory timelines to address unforeseen and potentially uncovered liquidity shortfalls and to avoid unwinding, revoking, or delaying the same-day settlement of payment obligations.

NCCL has lines of credit from various banks to meet any contingent liquidity shortfall. NCCL also maintains Core SGF as per the SEBI guidelines.

Principle 8: Settlement Finality

An FMI should provide clear and certain final settlement, at a minimum by the end of the value date. Where necessary or preferable, an FMI should provide final settlement intraday or in real time.

Summary Narrative

Key Consideration 1:

An FMI's rules and procedures should clearly define the point at which settlement is final.

The Securities Contracts (Regulation) (Stock Exchanges And Clearing Corporations) (Amendment) Regulations, 2018 issued by SEBI provides point of settlement finality in explanation to Regulation 43 as follows: "For removal of doubts, it is hereby declared that the settlement, whether gross or net, referred to in this regulation is final and irrevocable as soon as the money, securities or other transactions payable as a result of such settlement is determined, whether or not such money, securities or other transactions is actually paid."

The provisions for settlement finality are also laid down in the Bye laws of NCCL which are approved by SEBI. Upon expiry of the Contracts, all outstanding positions are settled in accordance of Bye-law 8.1.2 through NCCL.

Daily Settlement:

Settlement finality for daily settlement is as per the Mark-to-Market calendar effected at the end of the day for pay in and pay out of the funds. If there is default in meeting such obligation, the Rules, Byelaws and Regulations of NCCL provide for measures including disciplinary action .

At Expiry of the Contract:

Settlement finality is at the expiry of the contract where allocation of the commodities is made and rights and liabilities of counterparties are crystalized. No unwinding is possible thereafter.

Key Consideration 2:

An FMI should complete final settlement no later than the end of the value date, and preferably intraday or in real time, to reduce settlement risk. An LVPS or SSS should consider adopting RTGS or multiple batch processing during the settlement day.

In terms of the Bye-laws of NCCL, all trades are settled in accordance with the Final Settlement schedule which is notified to the market in advance through Circulars.

Key Consideration 3:

An FMI should clearly define the point after which unsettled payments, transfer instructions, or other obligations may not be revoked by a participant.

NCCL Byelaw 8.27 provides for inviolability of trades. Trades as well as delivery obligations are not permitted to be cancelled / withdrawn/ revoked.

Principle 9: Money settlements

An FMI should conduct its money settlements in central bank money where practical and available. If central bank money is not used, an FMI should minimise and strictly control the credit and liquidity risk arising from the use of commercial bank money.

Summary Narrative

Key Consideration 1:

An FMI should conduct its money settlements in central bank money, where practical and available, to avoid credit and liquidity risks.

Money Settlements at NCCL are effected through its approved list of Clearing Banks, which are commercial bank entities, regulated by the Reserve Bank of India. All money settlements are in Indian Currency and no foreign currency is accepted.

Key Consideration 2:

If central bank money is not used, an FMI should conduct its money settlements using a settlement asset with little or no credit or liquidity risk.

The money settlements are achieved through settlements across the books of commercial banks that act as the NCCL's clearing banks. Commercial banks in India are tightly regulated entities and all rupee settlements are finally achieved through payment systems authorized/operated by the Reserve Bank of India.

NCCL's selection of clearing banks is based on the policy reviewed by the Risk Management Committee of the Governing Board wherein the clearing banks are selected based on parameters like their net worth, credit rating etc.

Key Consideration 3:

If an FMI settles in commercial bank money, it should monitor, manage, and limit its credit and liquidity risks arising from the commercial settlement banks. In particular, an FMI should establish and monitor adherence to strict criteria for its settlement banks that take account of, among other things, their regulation and supervision, creditworthiness, capitalisation, access to liquidity, and operational *reliability. An FMI should also monitor and manage the concentration of credit and liquidity exposures to its commercial settlement banks.*

NCCL periodically assesses parameters relating to the banks, as per the policy and monitoring of exposures are done on a regular basis.

As part of the criteria, a cash deposit is taken from the clearing banks as an added risk mitigation measure. There are legal agreements signed with each of the clearing bank that requires them to maintain net worth and operational capability specified by NCCL.

The banks selected are from the Central Bank's list of Scheduled Commercial Banks. The Central Bank supervises them and subjects these banks to stringent norms of capital adequacy, asset liability management, asset quality and disclosures. NCCL periodically reviews the above criteria.

Liquidity and credit risks are diversified by having about a dozen clearing banks. The exposures typically tend to be concentrated in a few large high quality private and public sector banks. Internal limits are set on individual clearing banks and are monitored on a regular basis, in order to limit credit and liquidity risks. Market developments are watched for adverse news or developments and actions are taken to further limit exposures.

Key Consideration 4:

If an FMI conducts money settlements on its own books, it should minimise and strictly control its credit and liquidity risks.

This key consideration is not applicable as NCCL uses commercial banks for the purpose of settlement.

Key Consideration 5:

An FMI's legal agreements with any settlement banks should state clearly when transfers on the books of individual settlement banks are expected to occur, that transfers are to be final when effected, and that funds received should be transferable as soon as possible, at a minimum by the end of the day and ideally intraday, in order to enable the FMI and its participants to manage credit and liquidity risks.

Legal agreement executed by NCCL with clearing banks explicitly mandates that clearing banks must carry out NCCL's instructions within a prescribed time frame.

Principle 10: Physical deliveries

An FMI should clearly state its obligations with respect to the delivery of physical instruments or commodities and should identify, monitor, and manage the risks associated with such physical deliveries.

Summary Narrative

Key Consideration 1:

An FMI's rules should clearly state its obligations with respect to the delivery of physical instruments or commodities.

The derivative contracts traded on NCDEX's platform are mainly over commodities. Majority of the derivative contracts in commodities results in physical delivery.

NCCL defines the obligations and responsibilities with respect to the delivery of physical commodities in line with its Rules, Byelaws, and Regulations in terms of which the liability of NCCL is limited to financial compensation to non-defaulting party in case of a delivery default.

The Rules, Byelaws, and Regulations are available on the NCCL Website besides the derivative contract specifications/ product note which are available on NCDEX's website.

Key Consideration 2:

An FMI should identify, monitor, and manage the risks and costs associated with the storage and delivery of physical instruments or commodities.

NCCL facilitates the delivery and payment in respect of commodities delivered or received under a derivative contract that is concluded on the Exchange. The risks and cost of storage and delivery are borne by the seller or buyer, under the terms as set out in contract specifications, and the warehouse service providers (WSP). WSPs are entrusted with the responsibility of managing the risk associated with the storage of commodities in the approved warehouses.

However NCCL performs a number of tasks to support and facilitate the delivery function including but not limited to, empaneling WDRA registered warehouses which meet the specified requirements for delivery and storage conditions, minimum governance standards and net worth requirements for warehouse service providers (WSP) as prescribed by SEBI, legal agreement with WSP to bind them to adhere to the policies, procedure and requirements of NCCL, standard operating procedures for preservation of commodities in approved warehouses, electronic accounting of commodities through repository system of National E-Repository Limited (a repository registered under WDRA), periodic audits, assaying by NABL accredited labs at the time of deposit of the commodities and facility of sampling of the commodities at the time of withdrawal besides other operational controls.

SEBI has also issued warehousing norms which are required to be complied with by the Commodity Clearing corporations, WSPs and their warehouses, assayers and the said norms are being complied with.

Principle 11: Central securities depositories

A CSD should have appropriate rules and procedures to help ensure the integrity of securities issues and minimise and manage the risks associated with the safekeeping and transfer of securities. A CSD should maintain securities in an immobilised or dematerialised form for their transfer by book entry.

This principle is not applicable to NCCL.

Principle 12: Exchange-of-value settlement systems

If an FMI settles transactions that involve the settlement of two linked obligations (for example, securities or foreign exchange transactions), it should eliminate principal risk by conditioning the final settlement of one obligation upon the final settlement of the other.

Summary Narrative

Key Consideration 1:

An FMI that is an exchange-of-value settlement system should eliminate principal risk by ensuring that the final settlement of one obligation occurs if and only if the final settlement of the linked obligation also occurs, regardless of whether the FMI settles on a gross or net basis and when finality occurs.

NCCL's Rules, Byelaws and Regulations which are notified to the market, provide for the settlement of funds and commodities.

The final settlement at NCCL eliminates principal risk by:

1. Earmarking commodities due for delivery to ensure that the commodities are locked-in for settlement, and
2. The pay-in of funds and commodities precede the pay-outs of funds and commodities.

Financial obligations are netted at each member level for daily marked-to-market payment and final settlement while delivery/commodity obligation is settled on a gross basis.

Principle 13: Participant-default rules and procedures

An FMI should have effective and clearly defined rules and procedures to manage a participant default. These rules and procedures should be designed to ensure that the FMI can take timely action to contain losses and liquidity pressures and continue to meet its obligations.

Summary Narrative

Key Consideration 1:

An FMI should have default rules and procedures that enable the FMI to continue to meet its obligations in the event of a participant default and that address the replenishment of resources following a default.

The Chapter 12 of NCCL Byelaws prescribes the grounds/circumstances under which the member may be declared a defaulter. Members shall be declared defaulter in the event of default or likelihood of default by direction / circular / notification of the Clearing Corporation if:

a) It is a Member of any exchange and the said exchange declares it as a defaulter; or
b) It is a Member of any clearing corporation and the said clearing corporation declares it to be a defaulter; or
c) It is unable to fulfil its clearing, settlement or obligations; or
d) It admits or discloses its inability to fulfil or discharge its duties, obligations and liabilities; or
e) It fails or is unable to pay within the specified time the damages and the money difference due on a closing-out effected against it under the Rules, Bye Laws, Rules and Regulations; or
f) It fails to pay any sum due to the Clearing Corporation as the Clearing Corporation may from time to time prescribe; or
g) It fails to pay or deliver all monies, Goods, securities and other assets due to a Member who has been declared a defaulter within such time of declaration of default of such Member in such manner and to such person as the Clearing Corporation may direct; or
h) It fails to abide by the arbitration award as laid down under the Rules, Bye Laws, and Regulations; or
i) It has been adjudicated as an insolvent or being a Company incorporated under the Companies Act, has been ordered to be wound-up by a court of law in the petition filed by any of its creditors, it shall ipso facto be declared a defaulter though it may not have at the same time defaulted on any of its obligations on the Clearing Corporation; or

j) It files a petition before a court of law for adjudication of itself as an insolvent or for winding-up, as the case may be, although it may not have at the same time defaulted on any of its obligations on the Clearing Corporation; or

k) Under any other circumstances as may be decided by the Clearing Corporation from time to time;

The actions that NCCL can take in the event of default or likelihood of default by the member

In the event of default or likelihood of default, the Rules, Byelaws and Regulations of NCCL lays down procedures/guidelines for actions to be initiated which includes but does not limit to liquidation, auction, voluntary tear up and partial tear up of positions. Further, SEBI has also issued Standard Operating Procedures in the cases of Trading Member / Clearing Member leading to default. Also, SEBI vide its circular dated July 20, 2021 has prescribed default management process in case of default by clearing member.

In terms of the Bye laws and Regulations of NCCL, the nature of guarantee of the Clearing Corporation is strictly financial, i.e, in case of buyers default or sellers default, the Clearing Corporation shall guarantee financial compensation to make good any monetary loss to the non-defaulting party. Accordingly, in case of seller's default in delivery obligation, the seller has to pay the replacement cost and penalty as per the defined guidelines which will be recovered accordingly. The buyer is given financial compensation which comprises of the replacement cost and part of the penalty as per defined guidelines. In case of a default by a buyer, the NCCL shall review the loss incurred by the seller at its sole discretion and accordingly levy penalty (within overall cap of delivery margins collected by the NCCL) on the defaulting buyer. The collateral of the defaulting clearing member is invoked to realize the funds as per the processes put in place by NCCL. The defaulting clearing member is liable for any residual liability.

Use of financial resources in case of default

Utilization of financial resources in case of default has been specified in the default waterfall mechanism issued by SEBI. The financial resources include defaulting member monies, financial resources of NCCL and settlement guarantee fund. The default waterfall is as below:

I. Monies of defaulting member (including defaulting member's primary contribution to Core SGF(s) and excess monies of defaulter in other segments).
II. Insurance, if any.
III. NCCL resources (equal to 5% of the segment MRC – Minimum Required Corpus).
IV. Core SGF of the segment in the following order:

a. Penalties
b. NCCL contribution to the extent of at least 25% of the segment MRC
c. Remaining Core SGF: NCCL contribution, Exchange contribution and non-defaulting members' primary contribution to Core SGF on pro-rata basis.

V. Proportion of remaining CC resources (excluding NCCL 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.*

VI. NCCL /Exchange contribution to Core SGFs of other segments (after meeting obligations of those segments) and remaining NCCL resources to that extent as approved by SEBI.

VII. Capped additional contribution by non-defaulting members of the segment. **

VIII. Any remaining loss to be covered by way of pro-rata haircut to payouts. ***

*INR 100 Crore or the capital requirement towards orderly winding down of critical operations and services, whichever is higher is to be excluded only when remaining NCCL resources (excluding NCCL contribution to core SGFs of other segments) are more than INR 100 Crore.

** (i) CC shall call for the capped additional contribution only once during a period of 30 calendar days regardless of the number of defaults during the period. The period of 30 calendar days shall commence from the date of notice of default by CC to market participants.

(ii) CCs shall have relevant regulations/provisions for non-defaulting members to resign un-conditionally within the abovementioned period of 30 calendar days, subject to member closing out/settling any outstanding positions, paying the capped additional contribution and any outstanding dues to SEBI. No further contribution shall be called from such resigned members.

(iii) 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 derivatives segment.

(iv) In Case of shortfall in recovery of assessed amounts from non-defaulting members, further loss can be allocated to layer 'VI' 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 NCCL post using this layer shall be as per the terms decided by SEBI in public interest

Replenishment of resources

NCCL is required to make fresh contribution to SGF in case of any shortfall.

Key Consideration 2:

An FMI should be well prepared to implement its default rules and procedures, including any appropriate discretionary procedures provided for in its rules

NCCL's Rules, Bye Laws and Regulations define the flow of events in case of default and likelihood of default.

Key Consideration 3:

An FMI should publicly disclose key aspects of its default rules and procedures.

The provisions related to default are provided in the Rules, Bye Laws and Regulations of NCCL and are available on NCCL's website.

Key Consideration 4:

An FMI should involve its participants and other stakeholders in the testing and review of the FMI's default procedures, including any close-out procedures. Such testing and review should be conducted at least annually or following material changes to the rules and procedures to ensure that they are practical and effective.

The provisions related to default are provided in the Rules, Bye Laws and Regulations of NCCL which are available on NCCL's website and are readily accessible to the participants. NCCL follows the default waterfall mechanism as prescribed by SEBI.

Principle 14: Segregation and portability

A CCP should have rules and procedures that enable the segregation and portability of positions of a participant's customers and the collateral provided to the CCP with respect to those positions.

Summary Narrative

Key Consideration 1:

A CCP should, at a minimum, have segregation and portability arrangements that effectively protect a participant's customers' positions and related collateral from the default or insolvency of that participant. If the CCP additionally offers protection of such customer positions and collateral against the concurrent default of the participant and a fellow customer, the CCP should take steps to ensure that such protection is effective.

NCCL calculates client positions separately and as a result, the positions are fully segregated at client level. Based on client positions, NCCL also calculates margin requirements separately for each client.

Client positions are maintained on an individual basis by the member. In respect of collateral, the Clearing corporation only receives margins from its clearing member's. However, all Clearing members are required and responsible to maintain the margins / collaterals of their respective trading members and / or clients properly segregated from their own.

SEBI, vide circular no. SEBI/HO/MIRSD/DOP/CIR/P/2020/28 dated February 25, 2020, has put in place a framework of Margin obligations to be given by way of Pledge/ Re-pledge in the Depository System.

Further SEBI vide circular no. SEBI/HO/MRD2_DCAP/CIR/2021/0598 dated July 20, 2021 has put in place framework for segregation and monitoring of collateral at client level. In terms of the said circular, clearing members are required to report to NCCL client wise collateral at all levels i.e. TM, CM and CC. Further, while depositing other forms of collateral i.e. Cash, Fixed Deposits (FDs), Bank Guarantees (BGs) or Government Securities, CM shall allocate these collaterals to the account of CM, TM, CP or clients.

The Rules, Bye Laws and Regulations of Clearing Corporation envisage and provide for segregation of the margins / collaterals deposited by the Clearing Member on its own account and on behalf of its affiliated trading member / clients.

The Rules, Bye laws and Regulations of NCCL provide for close-out of open positions of a clearing member (whether on his own account or on account of his Constituent) or Constituent or transfer such open positions to another clearing member under such circumstances as specified therein including insolvency or death. The Rules, Bye laws and Regulations have requisite provisions for close out or transfer of open positions of a Member (whether on his own account or on account of his Constituent) or Constituent in case of defaulter / suspended members.

Key Consideration 2:

A CCP should employ an account structure that enables it readily to identify positions of a participant's customers and to segregate related collateral. A CCP should maintain customer positions and collateral in individual customer accounts or in omnibus customer accounts.

NCCL calculates client positions separately and as a result, the positions are fully segregated at client level. Based on client positions, NCCL also calculates margin requirements separately for the member and each client of the member. The member is also required to report to NCCL, the margin collected by them from the constituents on a daily basis.

In terms of SEBI circular dated July 20, 2021 clearing members are required to report to NCCL client wise collateral at all levels i.e. TM, CM and CC. Further NCCL maintains information regarding individual client wise collateral based on pledge/re-pledge done and allocation made by clearing member at client level.

Key Consideration 3:

A CCP should structure its portability arrangements in a way that makes it highly likely that the positions and collateral of a defaulting participant's customers will be transferred to one or more other participants.

With respect to any event of failure by a Clearing Member to fulfill its obligations, the Bye laws and Regulations of NCCL provide for close-out of open positions of a clearing member or transfer such open positions to another clearing member under such circumstances as specified therein. In accordance with the Regulatory directives, NCCL may provide opportunity to the non-defaulting clients for either porting of their positions and collateral to another CM or immediate return of their collateral.

Key Consideration 4:

A CCP should disclose its rules, policies, and procedures relating to the segregation and portability of a participant's customers' positions and related collateral. In particular, the CCP should disclose whether *customer collateral is protected on an individual or omnibus basis. In addition, a CCP should disclose any constraints, such as legal or operational constraints, that may impair its ability to segregate or port a participant's customers' positions and related collateral.*

NCCL's segregation and portability arrangements are disclosed in its Bye laws and Regulations which are publicly available on NCCL's website. The facility of pledging of securities by clients through a member are also duly notified for the benefit of market participants. With respect to transfer of positions, reference is drawn to answer of Key Consideration 1.

Principle 15: General business risk

An FMI should identify, monitor, and manage its general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that it can continue operations and services as a going concern if those losses materialise. Further, liquid net assets should at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services.

Summary Narrative

Key Consideration 1:

An FMI should have robust management and control systems to identify, monitor, and manage general business risks, including losses from poor execution of business strategy, negative cash flows, or unexpected and excessively large operating expenses.

NCCL has instituted risk governance and reporting structures to manage the range of risks, including general business risks, which it may encounter.

The general business risks are the risks and potential losses arising from NCCL's administration and operation that are not related to participant default nor separately covered under credit or liquidity risk.

The Board and its sub-committees reviews the performance of NCCL and associated risk on a regular basis.

Key Consideration 2:

An FMI should hold liquid net assets funded by equity (such as common stock, disclosed reserves, or other retained earnings) so that it can continue operations and services as a going concern if it incurs general business losses. The amount of liquid net assets funded by equity an FMI should hold should be determined by its general business risk profile and the length of time required to achieve a recovery or orderly wind-down, as appropriate, of its critical operations and services if such action is taken.

NCCL holds sufficient liquid net assets funded by equity or internal accruals which ensures that the operations and services can be continued as a going concern even if it incurs business losses. The investments are made as per the Investment policy approved by the Board and in line with regulatory norms.

Key Consideration 3:

An FMI should maintain a viable recovery or orderly wind-down plan and should hold sufficient liquid net assets funded by equity to implement this plan. At a minimum, an FMI should hold liquid net assets funded by equity equal to at least six months of current operating expenses. These assets are in addition to resources held to cover participant defaults or other risks covered under the financial resources principles. However, equity held under international risk-based capital standards can be included where relevant and appropriate to avoid duplicate capital requirements.

NCCL has developed a Recovery and Wind Down Plan in accordance with the Regulatory guidelines. The plan aims to enable NCCL to cease its regulated activities and achieve cancellation of its permission with minimal adverse impact on its market participants, service providers and the wider markets. The plan takes into account operational, time, cost and resource requirements in different strategies

NCCL holds sufficient liquid net assets funded by equity or internal accruals which ensures that the operations and services can be continued as a going concern even if it incurs business losses. The investments are made as per the Investment policy approved by the Board and in line with regulatory norms.

Further, NCCL has created a Core Settlement Guarantee Fund (SGF) which can be used as per the default waterfall in case of a settlement default.

Key consideration 4:

Assets held to cover general business risk should be of high quality and sufficiently liquid in order to allow the FMI to meet its current and projected operating expenses under a range of scenarios, including in adverse market conditions.

NCCL funds are kept as liquid net asset and generally invested in Fixed Deposits and Liquid/overnight mutual fund schemes. These instruments carry low market risk. The investments are made as per the

Investment policy approved by the Board and in line with regulatory norms and monitored by Investment Supervision Committee.

Key consideration 5:

An FMI should maintain a viable plan for raising additional equity should its equity fall close to or below the amount needed. This plan should be approved by the board of directors and updated regularly.

Clearing Corporations are required to maintain risk based net worth as prescribed by SEBI A certificate to that effect as at the end of each quarter is submitted to SEBI every quarter. At any point if the net worth dips below the required level, NCDEX, the parent company, has committed to infuse additional capital to ensure compliance.

Principle 16: Custody and investment risks

An FMI should safeguard its own and its participants' assets and minimise the risk of loss on and delay in access to these assets. An FMI's investments should be in instruments with minimal credit, market, and liquidity risks.

Summary Narrative

Key Consideration 1:

An FMI should hold its own and its participants' assets at supervised and regulated entities that have robust accounting practices, safekeeping procedures, and internal controls that fully protect these assets.

Assets of NCCL as well as of its clearing members' are held either with NCCL itself, or with supervised and regulated entities.

Liquid fund is maintained at commercial banks regulated by RBI. Bank exposure policy of NCCL prescribes stringent criteria for empanelment of clearing and settlement banks and exposure limit is allocated based on their financial strength and other criteria as laid in the policy. Limits are daily monitored and corrective action is taken in case limits are violated. There are legal agreements signed with each of the clearing bank that requires them to maintain net worth and operational capability specified by NCCL.

The bank guarantees and fixed deposit receipts deposited by the members as collateral are held in its own custody by NCCL.

The shares, mutual funds and commodities in electronic form are held under the control of the custodians as appointed by NCCL or with depositories (NSDL & CDSL). All empaneled custodians/depositories are regulated by SEBI. NCCL appoints custodian based on eligibility criteria consisting of minimum net worth, profitability, capacity to process volumes, adequate risk management systems etc. NCCL also enters into legal agreement with the custodians and depositories. As per the agreement with the custodian, it shall as may be required by NCCL give detailed reports as per Clearing Member, Clearing segment, security, company, issuer of security. On an ongoing basis, custodians are required to provide statements to its member/ client accounts to facilitate reconciliation of asset holding to ensure that all transactions and balances in each account are properly recorded and segregated. Also, Clients intending to pledge securities with CC can do so through its members by way of designated process as prescribed by Regulator. The pledge/re-pledge of member and client securities is done in the depository system, which has a very sound legal basis. The depositories are regulated by the SEBI (Depositories and Participants) Regulations, 2018 .The depositories on an ongoing process provides reports for the pledge of securities with the Clearing corporation, release of pledge securities etc.

Commodities in physical form are stored in the warehouses of empaneled warehouse service providers (WSP). NCCL has laid down strict norms and guidelines for the empanelment of the WSPs based on the norms issued by SEBI and regular monitoring thereof. These norms and guidelines mitigate operational, regulatory and reputational risks arising out of the services of the warehouse service provider. The WSPs are also required to register their warehouse with Warehousing Development and Regulatory Authority (WDRA) under the WDRA Act.

Key Consideration 2:

An FMI should have prompt access to its assets and the assets provided by participants, when required.

Assets of NCCL as well as of its clearing members' are held either with NCCL itself, or with supervised and regulated entities. Investments of NCCL's as well its member's funds are made as per the Investment Policy of NCCL wherein the main objective is safety of funds and liquidity.

NCCL has executed agreement with the empaneled banks, custodians, depositories and warehouse service providers ensuring prompt access to the assets of NCCL as well as its members.

Key Consideration 3:

An FMI should evaluate and understand its exposures to its custodian banks, taking into account the full scope of its relationships with each.

Investment policy of NCCL places counter party and instrument levels limits with respect to its investments. The policy limits exposure to banks, entities and mutual funds based on size, type of funds, net worth, credit rating, maturity of the instrument etc.

NCCL has stipulated a limit on the overall exposures to equity, mutual fund and commodity as collateral to address the issue of concentration risk.

NCCL at present has only two empaneled custodians which are regulated by SEBI. The securities/ collateral that these custodians are allowed to accept are notified by NCCL from time to time. In the present context only equity, mutual funds and commodity as collateral are major components of assets under control of the custodian. NCCL also enters into legal agreement with the custodians. NCCL does not have a limit at each custodian level directly however the exposures are monitored indirectly by placing limits on collateral as explained above.

Key Consideration 4:

An FMI's investment strategy should be consistent with its overall risk-management strategy and fully disclosed to its participants, and investments should be secured by, or be claims on, high-quality obligors. These investments should allow for quick liquidation with little, if any, adverse price effect.

NCCL has an Investment policy in place in line with regulatory guidelines and that has been approved by the Governing Board. The investment policy is integrated with the overall risk management framework of NCCL. Investment policy of NCCL places counter party and instrument levels limits with respect to its investments. The policy limits exposure to banks, entities and mutual funds based on size, type of funds, net worth, credit rating, maturity of the instrument etc. All investments are reviewed by the Investment Supervision Committee and deviations if any, are put up and ratified by the Investment Committee/ Audit Committee.

The broad objectives of the Investment policy are framed keeping in mind easy liquidity, safety of funds and reasonable return on investments. The investment of cash is typically done in liquid /overnight mutual funds, FMPs and fixed deposits of banks.

Principle 17: Operational Risks

An FMI should identify the plausible sources of operational risk, both internal and external, and mitigate their impact through the use of appropriate systems, policies, procedures, and controls. Systems should be designed to ensure a high degree of security and operational reliability and should have adequate, scalable capacity. Business continuity management should aim for timely recovery of operations and fulfilment of the FMI's obligations, including in the event of a wide-scale or major disruption.

Summary Narrative

Key Consideration 1:

An FMI should establish a robust operational risk-management framework with appropriate systems, policies, procedures, and controls to identify, monitor, and manage operational risks.

NCCL has following processes to ensure the operational risks are adequately covered:

1. Checks and controls built in software systems
2. Maker and checker concept,
3. Supervisory controls
4. Process manuals, both for software systems and manual tasks, and
5. Adequate man power / Human Resource

Independent process audits verify whether processes have been followed or not. The deviations, if any, are discussed at the Audit Committee and necessary corrective actions are taken.

Key Consideration 2:

An FMI's board of directors should clearly define the roles and responsibilities for addressing operational risk and should endorse the FMI's operational risk-management framework. Systems, operational policies, procedures, and controls should be reviewed, audited, and tested periodically and after significant changes.

The Risk Management Committee is responsible for operational risk management at NCCL. Further, the NCCL has appointed third party independent agencies specializing in Internal Audit and Process Audit.

The auditors are entrusted with the task of ongoing review and audit of various processes. The auditors report to the Audit Committee of the Board. Statutory Auditors also review the internal controls on a yearly basis and comment on the adequacy of the same.

Besides the above, NCCL is also subjected to Audit and Inspection by the SEBI which is a comprehensive regulatory audit.

Key consideration 3:

An FMI should have clearly defined operational reliability objectives and should have policies in place that are designed to achieve those objectives.

NCCL's operational reliability objective aims at zero error tolerance which is monitored on an ongoing basis. Any deviation is captured and reported for taking corrective action and improvement in the systems.

All the operational processes implemented at NCCL are designed in such a manner so as to achieve the highest level of qualitative standards.

Key consideration 4:

An FMI should ensure that it has scalable capacity adequate to handle increasing stress volumes and to achieve its service-level objectives.

NCCL on a regular basis, conducts stress test for capacity handling using automated tools to generate different scenarios for testing the maximum load. The scenarios are tested by conducting internal mocks with simulated loads on the production environment.

The resource requirement and the system capacity are assessed on a periodic basis. In case it is observed that the systems are redundant or require higher scalability, they are replaced or upgraded.

Similarly, if it is observed that resources are inadequate to handle the volume of operations, additional resources in terms of storage/memory are assigned to the system. If it is observed that current system would not be able to meet the scalability requirements, they are either replaced or upgraded.

Key consideration 5:

An FMI should have comprehensive physical and information security policies that address all potential vulnerabilities and threats.

Information Security Policy and guidelines for Physical Security is communicated to all the employees.

The following are the major processes that are followed for physical security to minimize potential vulnerabilities and threats:

1. Physical security guard monitoring all perimeter entry points 24x7.
2. Employees only authorized to enter the premises with access control. Visitor needs to record his details and after security verification concerned employee escorts the visitor inside office, if necessary. No direct entry to visitor inside office premises.
3. Employee and visitor identity cards are different and easily identifiable. Employee have restricted entries limited to his/her areas of operation.
4. Visitor registers are reviewed periodically.
5. CCTV cameras are installed to monitor entry/exit points and critical office areas and monitored live 24x7 by security guards. Critical areas have biometric access implemented.
6. All security arrangements are monitored by a professional security consultant.

Information Security processes are as below:

1. All alerts for security vulnerability and threats are monitored using automated tools.
2. All security patches go through development, test and production.

Key consideration 6:

An FMI should have a business continuity plan that addresses events posing a significant risk of disrupting operations, including events that could cause a wide-scale or major disruption. The plan should incorporate the use of a secondary site and should be designed to ensure that critical information technology (IT) systems can resume operations within two hours following disruptive events. The plan should be designed to enable the FMI to complete settlement by the end of the day of the disruption, even in case of extreme circumstances. The FMI should regularly test these arrangements.

NCCL has in place a Business Continuity Policy which is in accordance with the directions of the SEBI issued from time to time that reflects objectives, policies and procedures which allow for the rapid recovery and timely resumption of critical business operations.

In case of a fault or a breakdown in the main server, the transactions are routed through the fall back server to ensure smooth operations. Data is replicated to the near site and to the DR every 15 minutes and hence it is ensured to minimize loss of data in case of disruption. In the event of disaster, the technology staff based at the DR site are fully equipped with the necessary technical skillsets. Further the BCP staff based at alternate location is equipped to perform operations at minimal notification. The Recovery Time Objective (RTO) of NCCL is in line with the current applicable guidelines prescribed by SEBI.

Key consideration 7:

An FMI should identify, monitor, and manage the risks that key participants, other FMIs, and service and utility providers might pose to its operations. In addition, an FMI should identify, monitor, and manage the risks its operations might pose to other FMIs.

In order to mitigate various risks such as operational risk, regulatory risk etc, NCCL conducts inspections of the members to assess their internal controls and compliance standards. On the basis of the findings of the inspection, NCCL also takes disciplinary actions on the members.

NCCL uses services of clearing banks for fund settlement. Clearing banks are selected from scheduled commercial banks which are regulated by RBI and selection is based on the policy approved by the Risk Management Committee of the Board.

NCCL uses services of custodians for holding assets of members like shares, mutual funds and commodities. These custodians are regulated by SEBI and appointed by NCCL based on eligibility criteria.

Commodities in physical form are stored in the approved warehouses of empaneled warehouse service providers (WSP). NCCL has laid down strict norms and guidelines for the empanelment of the WSPs based on the norms issued by SEBI. NCCL also conducts periodic inspection of approved warehouses.

NCCL enters into service level agreements with other service and utility providers to take care of any operational risk.

Principle 18: Access and participation requirements

An FMI should have objective, risk-based, and publicly disclosed criteria for participation, which permit fair and open access.

Summary Narrative

Key Consideration 1:

An FMI should allow for fair and open access to its services, including by direct and, where relevant, indirect participants and other FMIs, based on reasonable risk-related participation requirements.

NCCL admits three categories of members for clearing deals executed on the Exchange platform:

- Trading Cum Clearing Members (TCM)
- Strategic Trading Cum Clearing Members (STCM)
- Professional Clearing Members (PCM)

Fees and deposits and net worth requirement vary according to the type of membership. The information on eligibility criteria, process to obtain membership and documents/ formats to be submitted is displayed on the NCCL's website.

The Membership admission process and eligibility criteria are notified in advance and disseminated on NCCL's website. Any person who fulfills the mentioned criteria can seek Membership of NCCL. The membership admission process is fair and the Governing Board constituted Committee assess the eligibility criteria of the applicant before granting Membership. Rules of NCCL lay down the membership eligibility criteria and provide rules for continued membership. Also, the minimum net worth requirements for members are stipulated by the Regulator and being complied with.

The Member participation requirements are risk-based and ensure that sufficient resources are available to cover future obligations and achieve a balance between capital necessity and participant access.

Key consideration 2:

An FMI's participation requirements should be justified in terms of the safety and efficiency of the FMI and the markets it serves, be tailored to and commensurate with the FMI's specific risks, and be publicly disclosed. Subject to maintaining acceptable risk control standards, an FMI should endeavor to set requirements that have the least-restrictive impact on access that circumstances permit.

NCCL ensures that applicants which demonstrate sufficient financial strength and meet participation requirement qualify as a member of NCCL. The participation requirements relating to minimum net worth, base capital and base minimum capital adequacy and various recurring compliance requirements ensure that the risks to NCCL are adequately managed.

NCCL's admission criteria and ongoing requirements are risk-based and commensurate with the risks undertaken by clearing members. NCCL promotes fair and open access by admitting all market participants who satisfy admission requirements as members. The membership admission criteria and ongoing requirements allow for fair and open access.

Key consideration 3:

An FMI should monitor compliance with its participation requirements on an ongoing basis and have clearly defined and publicly disclosed procedures for facilitating the suspension and orderly exit of a participant that breaches, or no longer meets, the participation requirements.

NCCL monitors that membership criteria are met on an ongoing basis. NCCL monitors the ongoing compliance with the criteria through various mechanisms like:

1. Member Inspection audit by NCCL.
2. Obtaining half yearly Net worth statement.
3. Obtaining Annual Returns including Audited Accounts.
4. Members are required to seek prior approval for any change in Shareholding /Dominant Promoter Group (DPG) pattern and changes in Designated Directors/Partners
5. Members are required to intimate NCCL all the changes in members` status i.e. change in address, Compliance officer, changes in non-designated director.

Deterioration in risk profiles are monitored on periodical (net worth compliances) or on-going basis (position limits, capital adequacy, MTM monitoring, etc.) as the case may be. Suitable action like blocking of the capital requirements or placing them on square off / disablement mode is taken in case of members who do not comply with the requirements.

Procedures for facilitating the suspension and orderly exit of a participant that breaches, or no longer meets, the participation requirements are laid out in the Rules, Bye laws and Regulations of NCCL which are publically available on the website.

Principle 19: Tiered participation arrangements

An FMI should identify, monitor, and manage the material risks to the FMI arising from tiered participation arrangements.

Summary Narrative

Key Consideration 1:

An FMI should ensure that its rules, procedures, and agreements allow it to gather basic information about indirect participation in order to identify, monitor, and manage any material risks to the FMI arising from such tiered participation arrangements.

Clearing Members are the direct participants with NCCL. Indirect participants include clearing members' clients and Trading Members (TM).

The members are required to upload the details of their clients as per the Know Your Client (KYC) prescribed by NCDEX (the concerned Exchange) on the Web Portal. Further the members are required to update any changes in the client's information.

NCCL primarily monitors the risks presented by direct participants through real time monitoring of member level positions.

The calculation of position and margin requirement is done for indirect participants on a real-time basis. The risk management limits for indirect participants can be set by direct participants.

NCCL provides information to the members to manage risk of indirect participants. NCCL provides intraday and end of day reports on client level open position to trading members for their respective clients' open position.

Key consideration 2:

An FMI should identify material dependencies between direct and indirect participants that might affect the FMI.

Indirect participants are required to settle the obligation related to the funds and delivery through the direct participants.

Our direct participants are primarily responsible to ensure that the indirect participants to the clearing and settlement system comply with their obligations in terms of management of risk exposures, liquidity and funding.

Key consideration 3:

An FMI should identify indirect participants responsible for a significant proportion of transactions processed by the FMI and indirect participants whose transaction volumes or values are large relative to the capacity of the direct participants through which they access the FMI in order to manage the risks arising from these transactions.

NCCL monitors the risks presented by indirect participants through real time monitoring of member level positions. The calculation of position and margin requirement is done for indirect participants on a real-time basis. However, the risk management for indirect participants is done by direct participants. NCCL provides information to the members to manage risk of indirect participants.

NCCL provides intraday and end of day reports on client level open position to trading members for their respective clients' open position with a view to facilitate effective monitoring by members of open interest positions of the clients. The indirect participants are not allowed to take position above the position limits defined.

Though members are responsible for managing the default risk of their clients, NCCL has in place position limits, margins, collaterals, daily mark-to-market of the positions, square-off/ disablement of trading terminal as some of the measures to mitigate the risks.

Key consideration 4:

An FMI should regularly review risks arising from tiered participation arrangements and should take mitigating action when appropriate.

NCCL has in place a well-established framework for addressing risks from tiered participation on the foundation of detailed information which allows NCCL to undertake the analysis. The rules, controls, measures and procedures address each class of participants.

NCCL has in place position limits, margins, collaterals, daily mark-to-market of the positions, square off/ disablement of trading terminal as some of the measures to mitigate the risks.

Principle 20: FMI links

An FMI that establishes a link with one or more FMIs should identify, monitor, and manage link-related risks.

This principle is not applicable to NCCL as the Clearing Corporation has not established links with any other FMI.

Principle 21: Efficiency and effectiveness

An FMI should be efficient and effective in meeting the requirements of its participants and the markets it serves.

Summary Narrative

Key Consideration 1:

An FMI should be designed to meet the needs of its participants and the markets it serves, in particular, with regard to choice of a clearing and settlement arrangement; operating structure; scope of products cleared, settled, or recorded; and use of technology and procedures.

NCCL is a modern electronic Clearing corporation, and the clearing & settlement services are designed to serve the requirements of the markets that is geographically diverse and to certain extent, unique to India markets. The delivery of commodities is served by a unique system of warehousing arrangements that cater to the specific requirements and practices with respect to a particular commodity. Further, the system of electronic accounting of commodities under repository framework by National E-Repository Limited (a repository registered under WDRA) are specifically designed to cater to the market's need for efficiency and effectiveness and ease of operations. Mock sessions are conducted to make market participants acquainted with the new systems and processes. Costs charged to participants are reviewed from time to time, keeping a balance between market requirement and best practices, without compromising on the efficiency of services and effectiveness of risk management. The design is a product of market interaction, innovations, market knowledge acquired and built over time, international best practices, risk management requirements, and is a continuing process.

NCCL has a wide network of business / customer relations officers and also a dedicated Customer Service Group who regularly get feedback from the participants. NCCL also regularly participates in member meets, etc., where feedback is obtained. NCCL also has Advisory Panel comprising of market participants.

Key consideration 2:

An FMI should have clearly defined goals and objectives that are measurable and achievable, such as in the areas of minimum service levels, risk-management expectations, and business priorities.

NCCL places priority on efficiency and prudent risk management. NCCL aims at ensuring that the trades are processed, margins are charged, and settlements take place in a timely manner and sufficiency of financial resources exists in form of margins and Settlement Guarantee Fund.

NCCL is governed by its Board of Directors and Board subcommittees in matters of setting major objectives. Board level committees function viz. Standing Committee on Technology and Risk Management Committee monitors the achievement of objectives. In addition, the management regularly reviews the major objectives and reports to the Governing Board. NCCL uses periodic process and system audits, stress tests, back tests and market feedback to assess goals and objectives.

Key consideration 3:

An FMI should have established mechanisms for the regular review of its efficiency and effectiveness.

The mechanisms for the regular review of its efficiency and effectiveness are as below:

- NCCL monitors the efficiency and effectiveness of various processes through periodical reporting systems to the management. The Board and Board level Committees also regularly review performance reports of NCCL operations.
- NCCL has an effective process audit mechanism and the report by the independent auditors is presented to the Audit Committee.
- NCCL conducts back testing and stress testing for ensuring sufficiency of margin and SGF.

Principle 22: Communication procedures and standards

An FMI should use, or at a minimum accommodate, relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement, and recording.

Summary Narrative

Key Consideration 1:

An FMI should use, or at a minimum accommodate, internationally accepted communication procedures and standards.

NCCL uses generally accepted principles of communication protocols that include entity authentication, communication encryption and message compression. All interfaces are either file based or TCP/IP with a structured messaging system that is interpreted by the corresponding receiving system. The messaging structures are proprietary in nature. The ‘source entities’ and the ‘target entities’ have certain pre-determined protocols/ interfaces that needs to be adhered to. NCCL uses communications standard that are part of internationally accepted communications standard.

Principle 23: Disclosure of rules, key procedures, and market data

An FMI should have clear and comprehensive rules and procedures and should provide sufficient information to enable participants to have an accurate understanding of the risks, fees, and other material costs they incur by participating in the FMI. All relevant rules and key procedures should be publicly disclosed.

Summary Narrative

Key Consideration 1:

An FMI should adopt clear and comprehensive rules and procedures that are fully disclosed to participants. Relevant rules and key procedures should also be publicly disclosed.

The Rules, Bye Laws and Regulations of NCCL contain the standard procedures governing the various activities of NCCL. In addition, circulars are issued from time to time notifying the various process and procedures. These documents are available on NCCL's Website. Rules, Bye laws and Regulations are periodically updated / amended due to changes in business/regulatory environment. All amendments are finalized considering any feedback received and with approval by the Board of NCCL and by the SEBI.

NCCL disseminates on its website topic-wise detailed FAQs on Membership, member trainings, formats of submissions and calendar for continuing compliances. Further, circulars are issued from time to time w.r.t. ongoing compliances and other matters to update / clarify to the market. NCCL also has customer service group (to address queries) in an efficient manner.

Information pertaining to Warehousing is also available on the website.

Key financial data such as size of Core SGF, financial statements, Annual Report and other disclosures are disseminated on the website for information of public.

Key consideration 2:

An FMI should disclose clear descriptions of the system's design and operations, as well as the FMI's and participants' rights and obligations, so that participants can assess the risks they would incur by participating in the FMI.

NCCL has the system design document, operations manual, policies regarding access rights and controls, guides and user manuals. The market participants are informed about the steps, precautions, procedures to be followed while accessing the system by way of a circular.

NCCL publicly discloses to its participants their rights, obligations and risks through the following:

- Rules, Bye Laws and Regulations of the Clearing corporation
- Product note and Contract specifications
- Master Circulars
- Circulars
- Fees and charges
- Core SGF Corpus
- Mark-to-Market and Margin related information
- Daily settlement prices, volume and open interest in each contract traded on the Clearing corporation
- Physical settlement details
- Membership related compliance and other requirements
-

Key consideration 3:

An FMI should provide all necessary and appropriate documentation and training to facilitate participants' understanding of the FMI's rules and procedures and the risks they face from participating in the FMI.

NCCL disseminates on its website a topic-wise detailed FAQs on Membership, , formats of submissions and calendar for continuing compliances. Further, circulars are issued from time to time notifying the various process and procedures. NCCL also has customer service group which addresses queries received in an efficient manner. NCCL conducts member meetings, trainings, mock drills on frequent basis to communicate about the latest circulars issued.

Key consideration 4:

An FMI should publicly disclose its fees at the level of individual services it offers as well as its policies on any available discounts. The FMI should provide clear descriptions of priced services for comparability purposes.

All charges/ fees are either disclosed on NCCL's website or by way of a circular put up on the website.

Key consideration 5:
An FMI should complete regularly and disclose publicly responses to the CPSS-IOSCO disclosure framework for financial market infrastructures. An FMI also should, at a minimum, disclose basic data on transaction volumes and values.

Certain market data relating to commodities trade and settlement details and risk management including margins, premium/discount and Core SGF details are displayed on NCCL's website.

Commodities /contracts traded, Product Notes, Contract Specifications, list of approved warehouses, list of empanelled clearing banks, etc., are also displayed on NCDEX and NCCL's website. In addition, NCCL discloses annual report, Board of Directors, shareholding pattern etc. on its website.

The response to the CPSS-IOSCO Disclosure framework was published by NCCL on its website in July 2023. NCCL complies with this guidance and shall update the PFMI Disclosure Document on an annual basis. Further PFMI Quantitative disclosures are published on the website on a quarterly basis.

Principle 24: Disclosure of market data by trade repositories

A TR should provide timely and accurate data to relevant authorities and the public in line with their respective needs.

This principle is not applicable to NCCL.

V. List of publicly available resources

NCCL https://nccl.co.in/

NCCL Annual Reports https://nccl.co.in/disclosures/annual-reports/

NCCL Shareholding Pattern https://nccl.co.in/about-us/shareholding-pattern/

NCCL Board of Directors https://nccl.co.in/about-us/board-of-directors/

NCCL Byelaws https://nccl.co.in/disclosures/legal-framework/

NCCL Rules https://nccl.co.in/disclosures/legal-framework/

NCCL Regulations https://nccl.co.in/disclosures/legal-framework/

Core Settlement Guarantee Fund https://nccl.co.in/disclosures/core-sgf/

NCCL Risk Management Framework (Master Circular)
https://www.nccl.co.in/public/api/getData/assets/circulars/master-circular-risk-management.pdf

Securities and Exchange Board of India http://www.sebi.gov.in/

Securities Contracts (Regulation) Act, 1956 (As amended by the Finance Act, 2021 (13 of 2021) w.e.f. April 1, 2021) https://www.sebi.gov.in/legal/acts/apr-2021/securities-contracts-regulation-act-1956-as-amended-by-the-finance-act-2021-13-of-2021-w-e-f-april-1-2021-_49750.html

Securities Contracts (Regulation) (Stock Exchanges and Clearing Corporations) Regulations, 2018 https://www.sebi.gov.in/legal/regulations/aug-2023/securities-contracts-regulation-stock-exchanges-and-clearing-corporations-regulations-2018-last-amended-on-august-23-2023-_76375.html

Procedural norms on Recognitions, Ownership and Governance for Stock Exchanges and Clearing Corporations.
https://www.sebi.gov.in/legal/circulars/dec-2012/procedural-norms-on-recognitions-ownership-and-governance-for-stock-exchanges-and-clearing-corporations_23950.html

The Companies Act, 2013 http://www.mca.gov.in/Ministry/pdf/CompaniesAct2013.pdf

PFMI http://www.bis.org/cpmi/publ/d101a.pdf

PFMI: Disclosure Framework and Assessment Methodology
http://www.bis.org/cpmi/publ/d106.pdf