C THE CLEARING CORPORATION OF INDIA LTD

Principles for Financial Market Infrastructures

Disclosure for OTC Derivatives Trade Repository of CCIL

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

Responding Institution:	The Clearing Corporation of India Ltd.
Jurisdiction(s) in which the FMI Operates:	India
Authority overseeing the PFMI	Reserve Bank of India
The date of this disclosure is:	31 st March, 2019
Website in which the disclosure is made	www.ccilindia.com

For further information, please contact Derivatives department at irs@ccilindia.co.in

List of abbreviations used in this disclosure.

BCP: Business Continuity Plan.

CCIL: The Clearing Corporation of India Ltd.

CCIL-TR: Clearing Corporation Trade Repository.

CORE: CCIL's Online Reporting Engine.

CPMI-IOSCO: Committee on Payments and Market Infrastructures and the Technical Committee of the International Organization of Securities Commissions.

FEDAI: Foreign Exchange Dealers' Association of India Ltd.

FIMMDA: Fixed Income Money Market and Derivatives Association of India.

FMI: Financial Market Infrastructure.

INFINET: Indian Financial Network.

ISMS: Information Security Management System (ISMS).

OTC: Over the Counter

PDAI: Primary Dealers Association of India Ltd.

PSS Act: The Payment and Settlement Systems Act, 2007 and its subsequent Amendments.

Rakshitra: Clearing Corporation's Monthly Magazine.

RBI: Reserve Bank of India.

TR: Trade Repository.

UAT: User Acceptance Testing.

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EXECUTIVE SUMMARY

Trade Repositories(TR) are entities that maintain a centralised electronic database of OTC derivatives transaction data. The centralised database provides both a granular view of positions and exposures product-wise and counterparty-wise, as well as a ringside view of market concentration, and supports risk reduction, operational efficiency and cost savings for the market as a whole. Centralised collection of data on all OTC derivatives has enhanced transparency on trade positions, prices and transaction volumes and assists the regulator in effective monitoring of systemic risk. By centralising the collection, storage and dissemination of information in a consistent fashion, the TR can fulfill an important function as a credible source of data on OTC derivatives transactions for authorities, market participants and the public.

Keeping in view the need for adequate information regarding transactions concluded in the markets to ensure safety and to mitigate risks, RBI had mandated transaction level reporting for all Interbank INR IRS trades in August 2007, much before the advent of the financial crisis. RBI put in place a reporting mechanism for trades concluded in Credit Default Swaps when it introduced the instrument first for trading in Indian markets in Dec 2011. With the G20 mandate in Sept 2009, the concept of the Trade Repository was mooted. Thus, when RBI wanted to expand the scope of derivative transaction reporting to all other OTC Derivative Products, it did so by announcing the formation of a Trade Repository. The Clearing Corporation of India Ltd. (CCIL) was tasked with the responsibility of setting up a Trade Repository for all OTC Derivatives. The reporting was implemented in phases. CCIL has been designated as Trade Repository under Section 34A (2) of the Payments & Settlement Systems (PSS) Act 2007, as amended in 2015. RBI is alive to the needs of uniformity of standards across the globe and to the fact that the CCIL-TR framework should have sufficient flexibility to conform to international standards and best practices as they evolve depending upon their relevance in the Indian context. As a Trade Repository for various OTC derivative instruments, CCIL has enhanced the level of transparency in the markets through dissemination and publication of data.

SUMMARY OF MAJOR CHANGES SINCE THE LAST UPDATE OF DISCLOSURE

This is the first distinct disclosure of TR.

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GENERAL BACKGROUND ON THE FMI

General Description:

CCIL, set up in April 2001, is a payment system authorized under the Payment and Settlement Systems Act, 2007 and Regulations thereunder by Reserve Bank of India (RBI). It provides clearing & settlement in OTC financial market products, mainly to the wholesale market players which are also regulated entities.

Established with the objective of providing central counter party services to the OTC market trades in government securities and forex, CCIL has moved beyond its initial mandate and has bolstered and reinforced the regulator's efforts to introduce new instruments, systems and regulations in the Indian financial market. It has pioneered systems like TR for the OTC derivatives market and has developed electronic trading platforms for various segments of the G-Sec, money, forex and OTC derivatives market. In view of its critical importance to the Indian financial system, CCIL has been designated as a critical Financial Market Infrastructure (FMI) by RBI and it has given CCIL the status of a Qualified Central Counterparty (QCCP) on January 1, 2014. CCIL has also been accorded recognition as a "third country CCP" with effect from March 29, 2017 under the European Market Infrastructure Regulation ("EMIR"), following recognition of India as an equivalent regime by European Commission's decision dated December 15, 2016.

General Organization of the FMI:

CCIL is a public limited company registered under the Indian Companies Act, 1956. The oversight of the governance of CCIL is vested in the Board of Directors. The roles and responsibilities of the Directors are clearly set out in the Companies Act, 2013, CCP Directions issued by RBI and also in a separate Corporate Governance policy put in place by the Company. The overall functions of the Company are supervised and managed by the Board whereas specific interest areas have been delegated to the Committees of the Board. The Managing Director looks into the day to day functioning of the Company assisted by a very strong group of senior officials who are professionals and market experts and function as Line Officials. Line Officials are supported by middle management and supervisory grade officials.

CCIL has a sound structure of corporate governance. CCIL has put in place a policy on Director's appointment, remuneration including the criteria for determining qualifications, independence, evaluation of Directors performance etc. in terms of the requirements under the

Companies Act, 2013. The Board of Directors presently comprises of thirteen (13) Directors, consisting of nominees of Shareholders, Independent Directors and a Managing.

Legal and Regulatory Framework:

CCIL has been designated as a TR under Section 34 A (2) of the PSS Act for the OTC interest rate, credit and foreign exchange derivatives as mandated by the RBI from time to time. The relationship between CCIL and its members is governed by the TR Rules and the Directives issued by RBI from time to time.

System Design and Operations:

CCIL launched the trade reporting platform for Rupee IRS and FRA on August 30, 2007. The instruments covered for trade reporting on this platform are IRS, Fixed Float and Basis Swaps (Upto maximum maturity of 10 years) and FRA with maximum maturity of 10 years. Since December 2013, all client level rupee IRS transactions are being mandatorily reported to CCIL's Trade Repository (CCIL-TR). Besides providing an automated central trade processing infrastructure, CCIL also extends post-trade processing services like interest rate reset, holiday handling, tracking payment obligation of members on their outstanding contracts etc.

CCIL has also developed a TR, for the purpose of reporting of CDS trades in the market in December 2011. CCIL launched its TR services for OTC Foreign Exchange Derivatives on July 9, 2012. The first phase of the OTC foreign exchange (FX) derivative TR service began with the capture of all inter-bank forex forwards and swaps in the USD-INR currency pair, and currency options in FCY-INR. The second phase covering all inter-bank FCY-INR, FCY-FCY Forwards, Swaps and FCY-FCY Options was operationalised with effect from November 5, 2012. From April 2013, banks report forex derivative trades (forwards and options) concluded by them with clients. The final phase in December 2013 involved the mandatory reporting of all inter-bank and client level Cross Currency swaps, FCY IRS/FRA and also client level Rupee IRS transactions. From August 2016, banks are using CCIL's Online Reporting Engine (CORE) platform for the weekly regulatory report submitted to RBI for FCY/INR OTC FX Options. Effective March, 2019, CCIL-TR facilitates capture of both Interbank and Client Interest Rate Options and Swaptions.

Various options are provided to members for reporting the trade data to CCIL-TR. Where both parties to the trade are members of CCIL-TR, the reporting is bilateral i.e both parties to the

trade are obligated to report the trade data to CCIL-TR. However, client trades are reported unilaterally by the market maker. All subsequent life cycle events are also reported to CCIL-TR. Trade status is made available to both members and the regulator through pre-structured reports and through the CORE Platform.

PRINCIPLES APPLICABLE TO TRADE REPOSITORIES

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.

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.

Principle 3: Framework for the comprehensive management of risks.

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

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 providing 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.

Principle 17: Operational Risk.

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.

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.

Principle 19: Tiered participation arrangements.

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

Principle 20: FMI links.

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

Principle 21: Efficiency and effectiveness.

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

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.

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.

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.

PRINCIPLE-BY-PRINCIPLE SUMMARY NARRATIVE DISCLOSURE

CCIL TR does not provide settlement, collateral, margin, physical deliveries, central securities depositories and custodian services. Consequently credit, liquidity, custodian and investment risks are not relevant for the trade repository.

Assessment Category	Principle
Observed	1,2,3,15,17,18,19,20,21,22,23 &24.
Not applicable	4,5,6,7,8,9,10,11,12,13,14 &16.

DETAILED ASSESSMENT REPORT -CCIL TR

Principle 1: Legal	Principle 1: Legal basis	
An FMI should have	e a well-founded, clear, transparent, and enforceable legal basis for each	
material aspect of it	material aspect of its activities in all relevant jurisdictions.	
Key	The legal basis should provide a high degree of certainty for each material	
consideration 1	aspect of an FMI's activities in all relevant jurisdictions.	
Description	Material aspects and relevant jurisdictions	
	Material aspects of the TR's activity requiring legal certainty are:	
	• Functioning as a TR and its operating rules and procedures	
	• Protection of records it maintains; and	
	• Protection of rights of the participants and other stakeholders on access,	
confidentiality of data and disclosure of data.	confidentiality of data and disclosure of data.	
	The relevant jurisdictions are:	
	• India (for all reporting segments);	
	Legal basis for each material aspect	
	The 2015 amendment to Payment and Settlement Systems Act (PSS),	
	introduced a definition for TR under section 2(r). The amendment also inserted	
	section 34 A(1), which inter-alia brought TR within the ambit of the PSS Act.	

	 CCIL has been licensed as a TR and is also a designated payment system, making the provisions of the PSS Act applicable to TRs as are applicable to Payment Systems, under the regulatory supervision of the RBI. Section 22 of the PSS Act provides for the confidentiality of the information to be maintained by the system provider. Section 24 of the PSS Act provides for a dispute resolution mechanism. The provisions enunciated above provide for a legal basis (including the protection of confidentiality).
	CCIL-TR Rules governing the relationship between CCIL-TR and members are approved by RBI and are available on the website for members. Requirement to report all OTC derivative transactions to CCIL –TR was issued by RBI vide its notifications in 4 phases, starting from April 2012 to December 2013. As per the notifications, CCIL-TR issued detailed operational guidelines which are required to be adhered to by the members. Notifications issued by RBI from time to time, regarding introduction of any new products/asset classes as and when permitted in India, contains the requirement to report the trades by market makers to CCIL-TR.
Key consideration 2	An FMI should have rules, procedures, and contracts that are clear, understandable, and consistent with relevant laws and regulations.
Description	CCIL-TR Rules governing the relationship between CCIL-TR and members are approved by RBI and are made available on the CCIL website. The TR services have been implemented in phases. RBI has, at every phase, issued guidelines defining the scope of reporting which have been supplemented with detailed operational guidelines by CCIL-TR. In addition, members are provided with detailed Operational manuals to facilitate reporting on the CORE Platform.
	The Company has put in place an internal committee comprising of senior officials to formulate, review and update the rules . Upon such review, the rules

	its approval. The Board deliberates and accords its approval subject to changes
	if any.
	Any change to CCIL-TR Rules is subject to internal and external legal review
	as appropriate. It also requires approval of the authority i.e., the Board of
	Directors of CCIL. Further, any change to the CCIL-TR Rules is also required
	to be approved by Reserve Bank of India (RBI) as Regulator.
	In regard to its contracts, either legal department validates these or external
	legal opinion is obtained.
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.
Description	The PSS Act amended in 2015 has extended the applicability of the PSS Act to
	the designated Trade Repository. In India, the regulator has designated CCIL
	as the designated Trade repository for OTC derivatives. The legal basis for
	activities of the CCIL-TR is amply and clearly articulated in CCIL-TR Rules
	which govern the legal relationship between CCIL and its members and have
	got the status of subordinate legislation under the Payment and Settlement
	Systems Regulations, 2008 enacted under the Payment and Settlement Systems
	Act 2007, a Central Act passed by the Parliament. These govern the processes
	under the statute and are uploaded on the Company's website for easy
	accessibility to the stakeholders. Presently, only members of CCIL-TR are
	required to report the trades to CCIL-TR, clients are not required to report the
	trades to CCIL-TR.
Key	An FMI should have rules, procedures, and contracts that are enforceable
consideration 4	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.
Description	Applicable jurisdiction for CCIL-TR is India
	Enforceability of rules, procedures and contracts:

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	The enactment of the PSS Act, 2007, and its subsequent amendment in 2015
	by the Government of India has imparted a very high degree of legal basis to
	CCIL's Rules and Procedures and consequently the legal enforceability of its
	operations is fully assured.
	The CCIL-TR Rules govern the relationship between members and the TR.
	Also the various notifications issued by the Regulator at the time of
	implementation of each phase of TR are mandatory in nature based on which
	operational guidelines were issued by CCIL- TR. Sufficient notice is provided
	to members for implementation of any change. A comprehensive mock run is
	conducted before implementation of each phase.
	Degree of certainty for rules and procedures
	Very clear legal basis provided under the PSS Act to the functioning of
	CCIL-TR in terms of its Rules and procedures which are authorized and
	monitored by RBI as regulator under the Act, provides high degree of
	certainty for its rules and procedures.
	Contracts entered with members are vetted either by Legal Department, or
	External legal opinion is obtained.
Key	An FMI conducting business in multiple jurisdictions should identify and
consideration 5	
consideration 5	mitigate the risks arising from any potential conflict of laws across jurisdictions.
Description	TR operations of CCIL only covers the Indian jurisdiction.
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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.

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
Description	CCIL-TR maintains a centralised electronic record (database) of OTC
	derivative transaction data. The data is accessible to the Regulators on an
	online basis across members and products which helps them in assessing
	systemic risk. Data is also disseminated on CCIL's website and is freely
	available to the public which improves transparency in the market.

	As one of the objectives in the Mission statement, safety gets top-most priority. Safety is achieved through well laid IT infrastructure with adequate redundancy.CCIL-TR is covered under the CCIL's enterprise ISO 27001:2013 certification for information security. Processes are automated wherever feasible to bring efficiency. Every effort is made to avoid duplication of reporting and use existing processes without compromising safety, to the maximum possible extent.
	Independent experts in CCIL Board of directors help to keep adequate focus on relevant public interest considerations.CCIL is a user owned organisation where owners are users of the TR reporting structure and they also have representation in the Board. Before introduction of a new product, member's feedback is obtained and regular interactions with market bodies like FIMMDA, FEDAI etc. are also held to discuss necessary aspects of the product. CCIL-TR also works in close coordination with the regulator in the identification of data requirements for both the Regulator and the public at large.
	All these help CCIL in ensuring relevant public interest considerations into its objectives.
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.
Description	Commence annualter
	Governance arrangements:
	CCIL is formed as a public limited company under the Indian Companies Act, 1956. The oversight of the overall governance of CCIL is vested with the Board of Directors. CCIL has a very healthy and sound structure of corporate governance. It has a number of Committees of the Board and external committees which oversee various functions of CCIL under the
	overall supervision of the Board.

Under the overall supervision and control of the Board of Directors of CCIL, a Managing Director has been appointed who is entrusted with the day to day functions of CCIL. The Managing Director is assisted by a very strong group of senior officials who are professionals and market experts and function as Line Officials. Line Officials are supported by middle management and supervisory officials.

CCIL conducts periodical general body meetings and annual general meetings and reports to owners the developments in respect of CCIL's functioning which includes TR operations and take their approvals wherever required under the Companies Act, 2013 or under any other requirements.

The Management and Administration of the Company is within the overall legal framework under the Companies Act, 2013 and PSS Act and the Directions for Central Counterparties (CCP Directions) issued thereunder by RBI. The same is also documented under Company's charter and policies governing its management.

CCIL conducts User Group meetings periodically on critical issues touching upon the functioning of CCIL-TR and take their feedback. For major changes, a Consultation Paper is also issued for feedback from all relevant stakeholders. Further, under its CCIL-TR Rules read with PSS Act and its Regulations, the accountability of CCIL to its members and regulator are clearly provided. Further, adequate and timely disclosure of the information is made to the shareholders from time to time in terms of the requirements under the Companies Act, 2013.

Disclosure of governance arrangements:

The relevant governance arrangements, related changes and reviews are communicated to the owners, relevant authorities, users either through the Annual Report or statutory returns which are mandatory under the Companies Act or PSS Act or CCP Directions and through necessary

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.
	has made the Annual Report to be prepared by the Companies to be more detailed and extensive in terms of information and disclosures. The same is also filed with the Regulators. The audited Financial Statements are displayed on the website as required under the PSS Act, 2007. In addition a separate Code of Conduct for Directors has also been put in place by the Company. CCIL also makes qualitative disclosures covering this area, which are available on the Company's website.
	disclosures on the website of the Company. The recent Companies Act, 2013

Description	Roles and responsibilities of the board:
	The overall functioning of CCIL is overseen by the Board of Directors of the Company. The roles and responsibilities of the Directors are very clearly set out in the Companies Act, 2013, CCP Directions and a separate Corporate Governance policy has been put in place by the FMI.
	 The provisions of the Companies Act, 2013 contain detailed disclosure requirements especially those relating to disclosures by Directors of their general and specific interests which the Directors have to furnish from time to time which are broadly as follows :- a) The Directors are required to furnish disclosure of interest / concern at the time of their appointment at the first meeting of the Board in which he/she participates as a Director.
	b) Further, the Directors are required to furnish yearly disclosure at the first meeting of the Board in every financial year.

c) The Directors are also required to disclose to the Company of any change
in their status / interest on an ongoing basis, mainly at the first Board
Meeting after such change / becoming interested.
The Disclosures, Registers of contracts in which Directors are interested are
also audited by the Internal Auditors and Secretarial Auditors
The composite and overall Policy level decisions of CCIL are undertaken by
the Board whereas specific interest areas have been delegated to the
Committees of the Board.
The Committees undertake specific areas of activity entrusted to them and
take all decisions connected with it and oversee implementation of the same
by close monitoring through periodic meetings and wherever required make
suitable recommendations to the Board. The Committees consist of Directors
who are professionally qualified with rich experience to discharge the
responsibilities entrusted to them. The various Committees of the Board
along with their scope are under:
LIST OF COMMITTEES
1. Audit Committee
Scope
• To recommend the appointment, remuneration and terms of
appointment of auditors of the Company;
• To review and monitor the auditor's independence and
performance, and effectiveness of audit process;
• Examination of the financial statement and the auditors report
thereon,
• Approval or any subsequent modification of transactions of
the Company with related parties as required under the
Companies Act, 2013 and Rules thereunder;
• Scrutiny of inter-corporate loans and investments;
• Valuation of undertakings or assets of the Company, wherever
it is necessary;

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	• Evaluation of internal financial controls and risk management
	systems;
	• Oversee the vigil mechanism i.e. Whistle blower policy of the
	Company.
	• To review periodic unaudited financial statements and internal
	and operational audit reports;
	• Review of report of compliances of applicable Laws as
	reported by the Internal and Operations Auditors.
	• Such other matters as may be referred to by the Board or as
	required under the Companies Act, 2013 or The Payment and
	Settlement Systems Act, 2007 or Rules and Regulations
	thereunder as amended from time to time.
2.	Committee of Directors for Bye-Laws, Rules and Regulations (BRR)
	Scope
	To recommend to the Board such changes /modifications in the
	Bye-laws, Rules, Regulations, undertakings, other documents etc.
	of the Company as required.
3.	Technical Approval Committee (TAC)
	Scope
	• To formulate a detailed Information Technology policy for the
	Company which shall be approved by the Board.
	• To advise / recommend / approve /decide in matters related to
	IT systems/ infrastructure/ policies/ procedures/ guidelines/
	approach, Business Continuity/Disaster Recovery etc.
	• To oversee IT related systems and infrastructure of the
	Company.
	• Consider and accept all audit reports related to systems / IT.
	• Consider and approve the capital and revenue budget for IT.
	• Consider and approve/ sanction IT related capital and revenue
	expenditure that exceed the financial powers delegated by the
	Board to the Managing Director

	• To recommend appointment of Auditors such as Information
	Security (ISO), Systems Audit, etc. to the Audit Committee
	for approval by the Board.
	• Any other technical proposal/item that the Company may
	consider relevant or incidental thereto.
4.	Human Resources Committee
	Scope
	• To review the current organizational structure of the Company
	and compensation package for the staff excluding senior
	management staff i.e one level below the Board.
	• To recommend and review recruitment, succession,
	retirement plan
	• To approve any amendments in Staff Rules as may be required
	from time to time other than amendments pertaining to
	compensation package
	• To approve such other changes in any HR related policies of
	operational nature other than those which are of monetary
	nature.
	• Such other matters as may be referred to by the Board from
	time to time.
•	Committee of Directors on Risk Management
	Scope
	Review and approve the Risk Management Framework for
	the Company
	Address and decide on all issues relating to the Risk
	Management of the Company and report the same to the
	Board at their subsequent meetings.

 processes covering various risks associated with clearing and settlement for various segments Review and approve the risk management processes for new products and services. Consider recommendations of RBI Inspection and its compliance by CCIL. Review of Investment Portfolio. To consider views/ recommendations of Risk Advisory Group (RAG) and approve any changes to the composition of RAG. To select External experts for validation of risk model and assessment reports from the experts. To appoint External rating agency for providing risk ratings of members. To lay down criteria/policy for membership relating to admission, continuation and suspension etc., in various business segments from time to time. Approve the first time membership of the company to a new entrant, membership screening and approval process, to call for such additional information and/or clarifications as it deems necessary to consider requests for grant of membership. Such other matter or issue relating to risk as may be relevant. 	•	Review and approve risk management policies and
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		membership.
relevant.	•	- · ·
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Scope	
1	To identify persons who are qualified to become director
·	and who may be appointed in senior management in
	accordance with the criteria laid down.
•	To recommend to the Board their appointment and removal.
•	To carry out evaluation of every Director's performance
	and /or to specify the manner for effective evaluation of
	performance of the Board, its committees and individua
	Directors to be carried out either by the Board, by th
	Committee (NRC) or by an independent external agenc
	and review its implementation and compliance.
•	To formulate the criteria for determining qualifications
	positive attributes and independence of a director.
•	To recommend to the Board a policy relating to the
	remuneration for the directors, key managerial personne
	and other employees in terms of the provisions of sectio
	178(4) of the Companies Act, 2013 and to carry out annua
	review of the Policy.
•	To scrutinize the candidature of Directors to -fit an
	proper test in terms of RBI CCP Directions and the
	recommend to the Board.
•	To determine/recommend the terms and conditions of th
·	appointment/reappointment, compensation of th
	Managing Director and Chairperson of the Company.
•	To look into Governance issues of the Company.
•	Such other activities as may be delegated by the Board of a required under the Companies Act. 2012 as amondo
	as required under the Companies Act, 2013 as amende
	from time to time.

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•	To formulate and recommend to the Board, a Corporate
	Social Responsibility Policy which shall indicate the
	activities to be undertaken by the Company in areas or
	subject specified in Schedule VII of the Companies Act,
	2013, specifying modalities of execution of such project
	or programs and implementation schedule for the same
	and monitoring the process of such projects or programs.
•	To recommend the amount of expenditure to be incurred
	on the activities referred to in clause (i) in terms of the
	provisions of Section 135 of the Companies Act, 2013;
•	To monitor the Corporate Social Responsibility Policy of
	the Company from time to time by instituting a transparent
	monitoring mechanism for implementation of the CSR
	projects or programs or activities undertaken by the
	Company.
•	Such other activities as may be delegated by the Board
	from time to time or as required under the Companies Act,
	2013 as amended from time to time.
8. Inve	stment Committee of Directors
Sco	pe
To	invest the funds of the Company, in terms of Section $1/9(3)$ of
	invest the funds of the Company, in terms of Section 179(3) c Companies Act, 2013 and in accordance with the Investmer
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• To advise the Company on its requirements of	
commercial / residential premises, acquiring of	
commercial/ residential premises on ownership / lease	
basis;	
 floating a request for proposal (RFP), inviting proposals 	
from architects for the construction of the proposed buildings;	
• selection and appointment of Project Managers,	
consultants, contractors etc. for designing and execution	
of engineering services and Building Management	
Systems, Fire, Safety and Security related works.,	
• to liaise with relevant agencies and other authorities for	
obtaining necessary permissions / approvals on behalf of	
the Company;	
• Carrying out techno-commercial discussions, negotiations	
with Architects, Project Managers, Consultants and	
Contractors;	
• Reviewing tenders, Specifications, Bill of Quantities,	
Designs made by architects, Project Managers,	
Consultants, Suggest modification, alteration if any;	
0. Committee of Directors for the Transfer of Shares Scope	
• To approve and register transfer/transmission of shares	
• To sub-divide/split, consolidate and issue new share certificates.	
• To authorize affixation of common seal of the company.	
• To issue share certificates in place of those which are damaged or in v	whic
the pages are completely exhausted provided the original certificat	es a
surrendered to the company	
• To do all such incidental or ancillary acts, things and deeds in connection	ectic
with transfer shares.	

	11 Degulatory Compliance Committee
	11.Regulatory Compliance Committee Scope
	Review the compliance to the requirements under Payment
	and Settlement Systems Act, 2007 and Regulations made
	thereunder.
	• Review the compliance to directions issued by RBI from time
	to time.
	• Monitor the compliance of recommendations arising out of
	inspection carried out by RBI.
	• Any other matter as may be specified by the Board / RBI from
	time to time.
	The scope of various committees is periodically reviewed by the Board and requisite changes are made as per the requirements.
	Review of performance:
	Board has delegated many of its core responsibilities to its Committees and
	decisions taken by the Committees are reviewed by the Board on a
	continuous basis. Moreover, RBI as Regulator reviews the performance of
	the Board at the time of its periodic inspections.
	The Board members are also members of various Board Committees. Thus,
	their performance as members of such committees is reviewed by the Board.
	Further, the Company has also put in place an evaluation mechanism for the
	Board members, Board Committees and Board as a whole in terms of the
	requirements under the Companies Act, 2013.
Key consideration 4	The board should contain suitable members with the appropriate skills
	and incentives to fulfill its multiple roles. This typically requires the
	inclusion of non-executive board member(s).
Description	The Company has put in place policy on directors appointment and
	remuneration including the criteria for determining qualifications, positive
	attributes and independence of a Director, etc. of the Company.

Skill sets necessary are in the areas of –
a) Treasury
b) Risk Management
c) Information Technology
d) Legal
e) Management
f) Accounts and Audit.
Independent Directors with these skill sets have been inducted in CCIL
Board. Further, the core promoters of the Company and other shareholders
who are also the market participants and hold at least 5% of the equity share
capital have a right to nominate their serving officials as Nominee Directors
of CCIL.
CCIL have been providing sitting fees to the Board members except to the
Managing Director for attending the Board and committee meetings under
the Companies Act 2013 where in the ceilings of sitting fees has been revised
upwards.
The Managing Director is remunerated subject to the provisions of the
Companies Act.
The Board of Directors presently comprises of thirteen (13) Directors,
consisting of nominees of Shareholders, Independent Directors and a
Managing Director.
The FMI adopts the definition of independent Director as set out under the
Companies Act 2013, which is applicable to it and as mentioned below. The
FMI also categorises the Directors into independent and non-independent
Directors as per the requirement of the Companies Act as also stipulated by
its regulator i.e. RBI and discloses the same accordingly.
Criteria for an Independent Director as laid down under Section 149(6) of
the Companies Act, 2013 and rules made thereunder:
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(a) who, in the opinion of the Board, is a person of integrity and
possesses relevant expertise and experience;
(b) who is or was not a promoter of the company or its holding,
subsidiary or associate company; who is not related to promoters
or directors in the company, its holding, subsidiary or associate
company;
(c)who has or had no pecuniary relationship, other than remuneration
as such director or having transaction not exceeding ten per cent.
of his total income or such amount as may be prescribed, with the
company, its holding, subsidiary or associate company, or their
promoters, or directors, during the two immediately preceding
financial years or during the current financial year;
(d) none of whose relatives—
(i)is holding any security of or interest in the company, its holding,
subsidiary or associate company during the two immediately
preceding financial years or during the current financial year:
Provided that the relative may hold security or interest in the company
of face value not exceeding fifty lakh rupees or two per cent. of
the paid-up capital of the company, its holding, subsidiary or
associate company or such higher sum as may be prescribed;
(ii) is indebted to the company, its holding, subsidiary or associate
company or their promoters, or directors, in excess of such
amount as may be prescribed during the two immediately
preceding financial years or during the current financial year;
(iii) has given a guarantee or provided any security in connection with
the indebtedness of any third person to the company, its holding,
subsidiary or associate company or their promoters, or directors
of such holding company, for such amount as may be prescribed
during the two immediately preceding financial years or during the
current financial year; or

(iv) has any other pecuniary transaction or relationship with the
company, or its subsidiary, or its holding or associate company
amounting to two per cent. or more of its gross turnover or total
income singly or in combination with the transactions referred to
in sub-clause (i), (ii) or (iii);
(e) who, neither himself nor any of his relatives—
(1) holds or has held the position of a key managerial
personnel or is or has been employee of the company or its
holding, subsidiary or associate company in any of the
three financial years immediately preceding the financial
year in which he is proposed to be appointed;
Provided that in case of a relative who is an employee, the
restriction under this clause shall not apply for his
employment during preceding three financial years
(2) is or has been an employee or proprietor or a partner, in
any of the three financial years immediately preceding the
financial year in which he is proposed to be appointed,
of—
(i)a firm of auditors or company secretaries in practice
or cost auditors of the company or its holding,
subsidiary or associate company; or
(ii)any legal or a consulting firm that has or had any
transaction with the company, its holding, subsidiary
or associate company amounting to ten per cent or
more of the gross turnover of such firm;
(iii) holds together with his relatives two per cent or
more of the total voting power of the company; or
(iv) is a Chief Executive or director, by whatever
name called, of any non-profit organisation that
receives twenty-five per cent. or more of its receipts
from the company, any of its promoters, directors or
its holding, subsidiary or associate company or that

	holds two per cent. or more of the total voting power
	of the company; or
	(v) who possesses appropriate skills, experience and
	knowledge in one or more of the fields of finance, law,
	management, sales, marketing, administration,
	research, Corporate Governance, technical operations
	or other related to company's business and such other
	qualifications as may be prescribed.
Key consideration 5	The roles and responsibilities of management should be clearly
Key consideration 5	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.
Description	Roles and responsibilities of management:
Description	Koles and responsionities of management.
	The roles and responsibilities of the Senior management have been laid down
	by the Company duly approved by the Nomination and Remuneration
	Committee and the Board of Directors of the Company. The responsibilities
	of the management are to oversee the overall functioning of the Company
	and to conduct the affairs of the Company under the control and supervision
	of the Board. Senior Management is vested with the responsibility of the day
	to day functions of the Company. They act as line management. In line with
	the provisions of the CCP Directions, following are the broad responsibilities
	of Senior Management as contained in the Corporate Governance Policy of
	the Company:
	a) and the second s
	a) ensuring consistency of activities with the objectives and
	strategies determined by the Board;
	b) designing and establishing compliance and internal control
	procedures promoting the objectives of the Company;
	c) regularly reviewing and testing internal control procedures;
	d) ensuring that sufficient resources are devoted to risk
	management and compliance;
	e) the risk control process; and

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	f) ensuring that risks posed to the Company by its clearing and
	related activities are addressed.
	Board, through periodic review of the functioning of CCIL in various areas,
	sets objectives and goals. Based on these, objectives and goals for senior
	management are fixed and monitored. A suitable framework for review of
	the performance of the senior management vis-à-vis these objectives and
	goals also exists.
	Experience, skills and integrity:
	In terms of Company's policy, senior management persons are to be
	identified based on their professional/ technical qualifications, wherever
	required, market / industry experience as also the knowledge, expertise in the
	relevant areas of operations. Internally laid down appropriate screening
	process is also in place.
	Senior level management performance is suitably assessed by top
	management.
	There are necessary checks and balances built in the contract of employment
	including the process for removal of Senior Management, if necessary
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.
Description	Risk Management Framework:

A comprehensive Risk Management Framework document, detailing the various risks faced by CCIL and the measures in place to handle such risks, has been created and the same has been approved by the Board. As per the authority specified in the framework document, the Committee of Directors on Risk Management identifies various risks of the Company. The Committee formulates, monitors and reviews the Company's Risk Management Framework. The risks related to Information Technology are monitored and reviewed by the Technical Approval Committee of the Board. The Audit Committee is responsible for evaluating the risk management systems of the Company in terms of Companies Act, 2013. Various aspects of operational risk are monitored by the Audit Committee. Further, Regulatory and Compliance Risks are monitored by the Regulatory Compliance Committee and the Audit Committee.

Board level Committee on Risk Management is authorized to examine and approve risk tolerance policies.

Review of risk policies by the Committee of Directors on Risk Management is being done on annual basis. The Committee periodically reviews the effectiveness of various critical control measures.

Authority and independence of risk management and audit functions:

Risk Management Department headed by Chief Risk Officer is entrusted with the responsibility of designing and carrying out risk management processes for the FMI. Reporting lines of risk function is to MD who is an Executive Director with an additional line of reporting to the Chairman of the Committee of Directors on Risk Management, who is an independent Director. Audit of risk function is carried out by internal auditors as well as external professionals.Overall audit function is carried out by an Independent external audit firm appointed as Internal cum Operations Auditors. The

	Internal cum Operations Auditors present their reports to the Audit
	Committee at its quarterly meetings.
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.
Description	
	Identification and consideration of stakeholder interests:
	User Groups are consulted on all important matters and any suggestion is
	considered carefully and transparently. For new products and services, such
	consultation starts at the design stage. Moreover, any change in an existing
	process is notified to the members (Clearing Participants) 30 days in
	advance. Market bodies such as FIMMDA and PDAI are consulted for fixed
	income products & Rupee Derivatives and FEDAI for Forex products.
	Participants meet at regular intervals to discuss and provide feedback
	regarding their difficulties, if any and suggestions for improvements. Apart
	from this, for specific areas taken up for development, users are consulted
	through specific user group meetings. Consultation Papers are issued to
	members and usually to general public as well when a major structural
	change is proposed and feedbacks are duly considered.
	Inputs received from members and other stakeholders are made available to
	the Board. Introduction/modification of new procedures/fees is also
	discussed with members before implementation.
	Interest of all the relevant stakeholders are taken care in view of
	introduction/review of both new and existing products. As CCIL is a user
	owned organization, representatives of users are present in the Board of
	CCIL as nominee Directors. Approval of the Board is sought for the Rules,

introduction of new products, fees etc and the interest of the users is taken
care.
Disclosure:
Any change to processes, except otherwise indicated by RBI, is notified to
members at least 30 days in advance as required under PSS Act. All major
decisions are disclosed to the relevant stakeholders where appropriate.
CCIL's audited financial statementsare published on website. Major
announcements and changes are also put on the website.

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.

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.
Description	Types of risks faced are: Operational Risk, Legal Risk and Reputational
	Risk
	Risk Management Process for Trade Repository
	Risk Management processes for TR form a part of the Risk Management
	Framework of CCIL. TR Risk management process helps to identify,
	measure, monitor and manage the associated risks.
	It covers :
	1. Operational Risk
	Detailed Operational Risk Management framework is explained in Key
	Consideration 1, Principle 17: Operational Risk.
	2. Legal risk:

Legal risk includes, but is not limited to, exposure to fines, penalties or punitive damages resulting from supervisory actions, as well as ordinary damages in civil litigation, related legal costs and private settlements.

The activities of TR are covered under the extante provisions of the PSS Act. Each bank reporting trades to CCIL-TR is admitted as a member through a separate application form and is governed by CCIL-TR Rules. Members are also bound by the Directives issued by the regulator in respect of reporting to CCIL-TR. The Rules and Procedures also provide certainty on service levels, rights to access, protection of confidential information and intellectual property rights and operational reliability etc.

The TR Rules also specifies the dispute resolution mechanism to be adopted in case of a dispute.

3. Reputational Risk:

Reputational risk normally arises from the future loss of business, revenue etc. on account of operational risks, and is therefore addressed through stringent measures to minimise operational risks. The TR is currently functioning as a segment within CCIL. It has been assessed that the net liquid assets available with CCIL will allow it to continue to offer its services for atleast 6 months period in the event that it suffers business losses.

Review of risk management policies, procedures and systems: Risk Management framework is subjected to annual review

<u>New processes/ policies developed internally:</u> are put up to the Board's Committee on Risk Management for approval. Members are consulted, if required. Any change in process requires RBI approval and at least 30 days' advance notice to the participants before implementation.

	Board's Committee on Risk Management reviews critical control aspects
	and all major risk related issues during their periodic meetings (average
	about six in a year).
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.
Description	Members admitted in the TR have a regulatory requirement of reporting all
	the OTC derivative trades to CCIL TR within a definite time. TR members
	have full access to their own trade data by way of online CORE platform
	and reports. As the interbank trades are required to be reported by both the
	counterparties and are matched in the TR, various tools have been provided
	to the members for reconciliation and status check. "Under the extant
	directions of the Regulator, the Members are also required to reconcile their
	outstanding trades with CCIL- TR . An exception report on compliance
	with their report submission within specified time is also provided which
	helps them in their compliance function. There is an implicit incentive for
	the members to manage the risks they pose to CCIL-TR, as any risk that
	may impact the functioning of the TR would also impact their reporting
	obligations.
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.
Description	CCIL-TR does not have any link to other FMIs except its own Company's
	CCP operations where trades received for INR IRS segment are sent to the
	CCP for settlement. FX trades received for clearing services, are in turn
	internally copied from the CCP to TR. There are adequate redundancies
	built and BCP is in place to ensure that recovery is within the approved
	recovery time. Alternate reporting channel is provided to the members to
	access TR services. In case of any channel going down, other channel can
	be used for reporting which will ensure connectivity with clearing services

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.
Description	Scenarios to provide critical operations and services as a going concern and assessment of the effectiveness of a full range of options for recovery and orderly wind down is being undertaken. Approved Recovery Tools are in the process of implementation.

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 materialize. Further, liquid net assets should at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services.

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.
Description	The business performance of CCIL is closely monitored by the senior
	management of CCIL on a regular basis. Annual cost and income
	estimates are prepared and the business performance of the Company is
	also reviewed every quarter by the Board of Directors, at which times
	risks posed by changes in market conditions, etc. that could come in the
	way of the continued profitability of the Company are examined

	CCIL has put in place Management and Internal control systems to monitor and manage general business risks through a review of each
	type of operation on quarterly basis and annual structured budgeting
	process. Performance reviews happen at Managing Director's level
	and Board monitors these risks.
	and board monitors these fisks.
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.
Description	Net assets funded by equity & reserves are more than adequate to take
	care of this risk.
	CCIL periodically looks at liquid net assets funded by equity as multiple
	of average monthly operating expenses it requires to continue its
	operations and services as a going concern. CCIL's net assets funded
	by equity as on 31 st March 2019 was equivalent to 127 months of
	operating expenses including the contingency reserve fund (as against
	131 months as on 31 st March 2018) as against the PFMI requirement of
	minimum six months of operating expenses necessary to continue its
	operations and services as a going concern. CCIL's net assets funded
	by equity excluding contingency reserve fund was equal to 79 months
	and 86 months of operating expenses for the year ending March 2019
	and 2018 respectively.
	and 2010 respectively.
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

	equity should its equity fall close to or below the amount needed.
Key consideration 5	An FMI should maintain a viable plan for raising additional
	which have high liquidity.
Description	Liquid net assets funded by equity are invested in Deposits with strong Banks and in government treasury bills or held as bank balance,
	and projected operating expenses under a range of scenarios, including in adverse market conditions.
	and sufficiently liquid in order to allow the FMI to meet its current
Key consideration 4	Assets held to cover general business risk should be of high quality
	Resources designated to cover business risks and losses are separated from resources designated to cover the default of a member.
	expenses.
	participant defaults) is far higher than six months' current operating
	Liquid net asset cover (excluding liquid funds set apart to cover
	Resources:
	Approved Recovery Tools are in the process of implementation.
	Recovery or orderly wind-down plan:
Description	CCIL TR operations does not face any credit risk.
	relevant and appropriate to avoid duplicate capital requirements.
	international risk-based capital standards can be included where
	financial resources principles. However, equity held under
	to cover participant defaults or other risks covered under the

The Board has accorded its approval for raising of resources in the event the equity capital falls below the amount needed in terms of Principle 15 of the PFMI guidelines, which provides for transfer of funds from the General Reserves and Surplus to the Settlement Reserve Fund, subject to approval of shareholders of the Company, in case of any depletion due to its use for the purpose of meeting any event of loss as approved. If the balance in Capital, General Reserves and Surplus falls below the minimum required amount equivalent to at least six months' operating expenses as required under the Principles, the Company would initiate the process to raise additional capital through a Rights Issue.

Principle 17: Operational risk

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 fulfillment of the FMI's obligations, including in the event of a wide-scale or major disruption.

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.
Description	Operational risk management framework provides guidance on
	identification, assessment, control and mitigation plan for operational risk.
	The framework assists in streamlining/ mapping various processes/
	policies/controls to deal with Operational Risk.
	Objectives of Operational Risk Framework
	i. Identify and classify critical processes and assets
	ii. Implement appropriate and effective controls to protect
	processes, people and systems to prevent, limit and contain
	the impact of a potential operational risk event.

iii. Develop capabilities to monitor/ detect/record occurrence of
operational risk events.
iv. Have a reporting structure in place for governance and
supervision.
Components of Operational Risk Framework
a) Governance
Board of Directors and Committee of Directors on Risk Management
(CODRM) define key objectives for the organization with respect to the
risk management and oversee progress towards achieving those objectives.
The Board defines the overall operational risk culture and sets the tone for
implementation and execution of operational risk management strategy.
For effective governance, roles and responsibilities of the board and senior
management have been clearly defined. Board, through CODRM, approves
and oversees the Operational Risk management framework and Senior
management ensures its effective implementation.
Risk Assessment
Risk is assessed both on the inherent basis and residual basis.
Risk Assessment is done at two levels:
A. Process Level
Process level risk is identified through Risk Register which
involves:
a. Identifying processes, process owner and process
inherent risk assessment of the probability and impact of the
risk occurring
b. Identifying measures and controls to mitigate risk
c. Assessing the effectiveness of control and managing
residual risk

	Devices of Disl. Devictor is any deviced on a size would be basis
	Review of Risk Register is conducted on a six monthly basis.
B	Asset Level
D.	
	Risk assessment at asset level involves evaluation of threats,
	vulnerabilities and potential impact on assets/ processes. Risk
	Assessment and Risk Treatment plan (RARTP) has been put in
	place for asset level risk assessment.
	It involves identification and classification of assets as Information
	Asset, Physical Asset, Software Asset and People Asset for :
	a. Identification of security objectives and risks for each
	asset
	b. Identification of threats, vulnerabilities to asset
	c. Evaluation of exposure, impact and probability of
	occurrence of the identified risk
b)	Risk Treatment
	Risk treatment involves making decisions to accept, avoid, transfer
	or mitigate risks for each asset.
The R	ARTP is reviewed every six months
Key R	isk Indicators (KRIs) in Risk Register/ RARTP
KRIsz	assist in objective reassessment of RARTP and risk register by setting
	levels for various key risk indicators of risk assessment, viz.
0	·
	ood of occurrence, impact and exposure, design and effectiveness of
contro	Is etc.
KDI	are used to assess whether any risk assessment parameters have been
breach	ned. The same is to be revisited to put additional mitigation measures.
Diale N	Aeasurement
KISK N	vicasurement

Risk measurement is done through
a) Internal Loss Data
b) Audit findings
An Operational loss database is maintained to record all incidents along
with details like root-cause analysis, temporary resolutions, permanent
resolutions etc. in a systematic manner at one place to facilitate the Risk
Measurement
Policies and Procedures
Various policies and procedures are maintained as under:
various ponetes and procedures are maintained as under.
: In side of Management Deliver and Desce down a
i. Incident Management Policy and Procedure :
Through incident management reporting process, a centralised data base of
all such incidents is maintained. The incident management process tracks
incidents and disruptions caused to business processes and assets. Post-
incident analysis determines the cause for occurrence of the incidents
despite controls. This information is used for further modulation of the
precautionary measures and its implementation.
Based on the criticality and impact, incidents are classified as 'High',
'Medium' and 'Low'. An incident also needs to be classified into IT
Incident, Non-IT Incident and Business Incident.
ii Dusinose Continuite Planning (DCP)
ii. Business Continuity Planning (BCP)
The BCP provides guidance on overall business continuity plan life-cycle.
The BCP manual explains the procedures to be followed to ensure timely
and orderly resumption of business operations through its ability to execute

reasonable certainty.The BCP Manual is followed during major incident which requires BCP invocation. BCP Team plan is activated during BCP invocation.iii.Information Security Policy/Procedures/ GuidelinesInformation security Policy/procedures provides guidelines on protecting information and information systems from unauthorized access, use, disclosure, disruption, modification, or destruction. The policy also helps in promoting culture of security awareness among all employees, onsite consultant and vendors.iv.Cyber Security policyCyber Security policyCyber Security policyCyber Security policyCyber Security policyCyber Security policy provides for management of risks originating due to cyber attack events. It includes organization's ability to restore normal operations after such events.CCIL has implemented suitable measures/methods to protect information and infrastructure to prevent cyber threats/risks.v.Operations Manual The Operations manual provides guidance for performing operation functions correctly and efficiently. It documents the approved standard operations.The operations manual is reviewed periodically and updated whenever changes are made to existing processes.Key consideration 2An FMI's board of directors should clearly define the roles and	[plans with minimal interruption to critical business operations and with
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		changes are made to existing processes.
responsibilities for addressing operational risk and should endorse	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.
Description	Roles, responsibilities and framework :
	Responsibilities are linked to organizational positions. A policy approved by Committee of Directors on Risk Management is in place.
	The operational risk management framework has been approved by Board's Risk Management Committee which has been taken note of by the Board. All operational risk events are reviewed by the Committee on half yearly basis.
	Review, audit and testing:
	Operational processes and deficiencies are regularly reviewed through operations audit carried out by independent auditors and their reports are reviewed by Audit Committee of the Board. Any new change in policies, processes or system forms a part of the scope of the auditors and is verified independently by them.
	Business Continuity related activities are subject to operations audit carried out by external auditors. These technical arrangements and executions are also subject to review by System Auditors.
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.
Description	BCP document covers this aspect. Through tracking of disruption events and their causes, these objectives of operational reliability is ensured.

	BCP document is reviewed atleast once in a year at the Board level and
	also submitted to the Regulator.
	Reliability objectives are integrated into its operational risk-
	management framework .Audit process covers BCP (Business
	Continuity Planning) areas and there are periodic drills to assess
	effectiveness of the BCP processes.
	Fire Drills and other crisis management exercises, where call tree
	exercises are activated and conducted once in a year.
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.
Description	Scalable capacity: IT capabilities and capacity utilisations are
-	periodically reviewed and necessary steps are taken to ensure scalability.
	Instance of operational capacity neared or exceeded has never been
	observed in TR operations.
.	
Key consideration 5	An FMI should have comprehensive physical and information
	security policies that address all potential vulnerabilities and
	threats.
Description	Physical security:
	Vulnerabilities are reviewed as part of BCP process and any
	shortcoming observed is plugged.
	Physical security related aspects are well controlled and subject to
	Information Security Management System (ISMS) audit process. ISMS
	controls are in place. Access Control Matrix is reviewed and approved
	periodically.

	Information security:
	FMI's policies and processes, including change management and project
	management policies and processes, for addressing the plausible sources
	of information security vulnerabilities and threats are kept in special
	focus while carrying out any change involving IT system.
	CCIL's policies, processes, controls, and testing take into consideration
	relevant international, national, and industry-level standards for
	information security-CCIL is a ISO 27001 Company.
	FMI's change-management and project-management policies and
	processes ensure that changes and major projects do not affect the
	information security of the system:
	This critical aspect is given due importance before making any change.
	External assistance is also taken to asses any vulnerability.
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
	settlement by the end of the day of the disruption, even in case of extreme circumstances. The FMI should regularly test these
	extreme circumstances. The FMI should regularly test these
Description	extreme circumstances. The FMI should regularly test these
Description	extreme circumstances. The FMI should regularly test these arrangements.
Description	extreme circumstances. The FMI should regularly test these arrangements. Objectives of business continuity plan:

objective and processe	s are clearly laid down in the Business Continuity
Plan of CCIL.	

Design of business continuity plan:

Recovery within 2 hours will be possible under most circumstances.

BCP processes are clearly laid out in the BCP plan and the plan also ensures that the extent of data loss is minimal.

The Contingency plan as designed will ensure that the status of all transactions can be identified in a timely manner.

Steering Committee comprising Heads of Department is in place. Approach regarding communication to all stakeholders has been listed out in the Plan.

Secondary site:

Considering the robustness of the recovery process, manual, paperbased procedures or other alternative arrangements to allow the processing of time-critical transactions have not been considered.

CCIL presently has a secondary operations site in Mumbai and also a Disaster Recovery (DR) outside Mumbai, about 200 km from Mumbai. IT support staff is available at all locations. Officials with ability to run business processes have been placed at both the in-city locations and at the DR site location as well.

Review and testing:

BCP Plan is reviewed once in a year. The same is tested through quarterly drills.

Participants, service providers etc. are involved / participating in almost all drills. There is no linkeage to any other FMI.

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.
Description	Risks to the FMI's own operations : All processes are monitored on a regular basis. For Service and utility providers, fall back arrangements are in place.
	IT Services are considered critical for CCIL operations. Software development is through team deployed by software vendors which are based in CCIL locations. They have been located in CCIL offices to ensure better control and to identify and address any potential risks upfront. Moreover, the database and server management etc. is done by in-house personnel.
	<u>Risks posed to other FMIs</u> : There are no links to external FMIs. CCIL has adequate back-ups to guard against any disruption in its services.
	CCIL is part of RBI group on Crisis Management, monitoring system wide vulnerabilities.
	Business Continuity related exercises are conducted by involving othe stakeholders.

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.

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.
Description	Participation criteria and requirements:
	Access to TR services is as per the reporting requirements
	of RBI and the CCIL TR Rules which are made available
	on the CCIL website. RBI directives clearly state the
	eligibility criteria for each participant/instrument.
	Access to trade repositories:
	Entities including banks, primary dealers and others that are
	required to report transactions concluded by them in OTC
	derivative instruments to the TR do so on the basis of a
	mandate by the RBI. Access to TR is provided to all entities
	that are mandated to report. The onboarding documentation
	is uniform across all members. All the members are direct
	members and report their Interbank and Client trades to
	CCIL-TR and since they report directly, currently there is no
	demand for third party to report trades on behalf of
	members. The access to TR reporting shall be provided to
	third party entities (including Electronic Trading Platforms
	(ETP), in case such a requirement arises under any law/
	regulation.
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.
Participation requirements are adequately tailored to ensure
participation of all the eligible entities.
For trade repository services, the eligibility criterion to
undertake transactions in each product is clearly specified
by RBI. Since the reporting is mandated by RBI, any
transactions undertaken by these entities have to be reported
to the Trade Reporting platform. All eligible members have
been given access to TR services.
Least restrictive access:
Membership criteria is reviewed periodically as and when
situation in market requires revision in access criteria
Disclosure of criteria:
Participation criteria and restrictions are available publicly
through CCIL website.
unough CCIL website.
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
participant that breaches, or no longer meets, the participation requirements.
participation requirements.
participation requirements. Monitoring compliance:

Specific processes are described in the Rules for exit of a member from TR services.
 Participants are required to report any major change in their status to CCIL. A member shall cease to be a member by: a. expulsion in accordance with provisions contained in CCIL-TR Rules after a reasonable notice in writing to the member and under advice to the Regulator. b. voluntary or compulsory winding up of the member. c. failing to adhere to any of the membership conditions /criteria to which it has been admitted as a member after a reasonable notice in writing to the member and under advice to the Regulator.

Principle 19. Tiered Participation Arrangements

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

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.
Description	At present, there is no tiered participation in TR. Counterparties who are required to report their trades as per regulatory guidelines are only members of the TR and are submitting their report directly
Key consideration 2	An FMI should identify material dependencies between direct and indirect participants that might affect the FMI.
Description	As specified by RBI, all OTC derivative transactions undertaken in the market are required to be reported mandatorily to CCIL-TR. Currently there is no tiered participation.

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.
Description	Currently there is no tiered participation.
Key consideration 4	An FMI should regularly review risks arising from tiered participation arrangements and should take mitigating action when appropriate.
Description	Currently there is no tiered participation.

Principle 20: FMI links

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

Key consideration 1	Before entering into a link arrangement and on an ongoing basis once the link is established, an FMI should identify, monitor, and manage all potential sources of risk arising from the link arrangement. Link arrangements should be designed such that each FMI is able to observe the other principles in this report.
Description	There are no linkages with external FMIs and hence the principle above is not applicable
Key consideration 2	A link should have a well-founded legal basis, in all relevant
	jurisdictions, that supports its design and provides adequate
	protection to the FMIs involved in the link.
Description	There are no such linkages with other FMIs and hence the principle above is not applicable
Key consideration 3	Linked CSDs should measure, monitor, and manage the credit and liquidity risks arising from each other. Any credit extensions

	between CSDs should be covered fully with high-quality collateral
	and be subject to limits.
Description	Not applicable
Key consideration 4	Provisional transfers of securities between linked CSDs should be
	prohibited or, at a minimum, the retransfer of provisionally
	transferred securities should be prohibited prior to the transfer
	becoming final.
Description	Not applicable
Key consideration 5	An investor CSD should only establish a link with an issuer CSD if
	the arrangement provides a high level of protection for the rights of
	the investor CSD's participants.
Description	Not applicable
Key consideration 6	An investor CSD that uses an intermediary to operate a link with an
	issuer CSD should measure, monitor, and manage the additional
	risks (including custody, credit, legal, and operational risks) arising
	from the use of the intermediary.
Description	Not applicable
Key consideration 7	Before entering into a link with another CCP, a CCP should identify
	and manage the potential spill-over effects from the default of the
	linked CCP. If a link has three or more CCPs, each CCP should
	identify, assess, and manage the risks of the collective link
	arrangement.
Description	Not applicable
Key consideration 8	Each CCP in a CCP link arrangement should be able to cover, at
	least on a daily basis, its current and potential future exposures to
	the linked CCP and its participants, if any, fully with a high degree
	of confidence without reducing the CCP's ability to fulfil its
	obligations to its own participants at any time.
Description	Not applicable

Key consideration 9	A TR should carefully assess the additional operational risks related to its links to ensure the scalability and reliability of IT and related resources.
Description	There are no such linkages with other FMIs and hence the principle above is not applicable. Monthly review of scalability is carried out.

Principle 21: Efficiency and effectiveness

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

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.
Description	CCIL TR offers reporting services for all the OTC derivative
	transactions allowed by the regulator. Its TR services are made
	available to participants, regulators, market data providers and
	public at large using the existing online data access systems.
	Structure of TR services is designed to bring efficiency and suit
	the requirements of trade reporting in Indian market. Reporting of
	trades to CCIL started much earlier than the formal introduction
	of TR requirement globally. To avoid double reporting, trades
	reported for clearing and settlement are ported to TR without any
	manual intervention. Members have been given various reporting
	tools for trade reporting. Technology is used extensively to
	facilitate easy reporting.
	Frequent interaction with User Groups and Market Bodies ensure
	that the products developed/enhanced meet the needs of the
	users.

	Periodic interactions with the users through User Group meetings and at individual level ensure that the requirements of the participants are met. Implementation of each of the reporting phase is done after consultation with the Regulator and the members.
	CCIL provides data to the RBI through CORE Platform and also using structured reports. The participants have access to their data and aggregated information through the reporting engine and other structured reports. The aggregate data is also available for the public on CCIL website and through its newsletter.
	CCIL also provides information on the number of trades, volumes, high, low and weighted average rates along with the last trade prices on specific market segments in real-time for inter-bank transactions and with a lag for client transactions.
Key consideration 2	An FMI should have clearly defined goals and objectives that
Rey consideration 2	are measurable and achievable, such as in the areas of
	minimum service levels, risk-management expectations, and
	business priorities.
Description	CCIL TR goals and objectives are to provide efficient Trade Repository related services to enable participants to fulfil their regulatory requirement of mandatory reporting of all the OTC derivative trades.
	CCIL TR also strives to support regulatory initiative by introducing efficient reporting structure for all new products allowed by the regulator.
	Feedback from participants during individual interactions and

Key consideration 3	An FMI should have established mechanisms for the regular review of its efficiency and effectiveness.
Description	CCIL reviews its efficiency and effectiveness through tracking of quality of services through User group meetings.
	User Group meetings are held in such a manner that a participant gets an opportunity to meet CCIL officials at least once in a year where feedback is obtained.
	The users of CCIL-TR services include the entities who are required to mandatorily report their OTC derivative trades and in addition includes the RBI as regulator which uses the data from CCIL for its regulatory functions and market data providers. While designing new reporting structure, efficiency of its operations is always considered and feedback of the users are obtained and suitably addressed.

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.

Key consideration 1	An FMI should use, or at a minimum accommodate, internationally accepted communication procedures and standards.
Description	Communication procedures: CCIL uses message based communication procedures to interact with participants and other connected parties. These messages structures are modelled on SWIFT MT Series messages.

Secure channel- Secure Socket Layer (SSL) is used for data file	
exchange with reporting members.	

CCIL-TR services are made available to participants and regulators using the existing online data access systems.

CCIL uses the Interbank Financial Network (INFINET) as the underlying communications network. Entities are also able to participate in the system using Internet based interfaces-CORE.

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.

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.
Description	Rules and procedures:
	CCIL-TR Rules as approved by RBI have been made available on the
	CCIL website. Besides, all notifications issued by RBI in respect of
	each of the phases are also made available on the CCIL website.
	Feedback from participants and other stake-holders provide basis for
	assessing the level of clarity of the Rules and key procedures. Periodic
	internal review is also carried out.
	Detailed Operational Manual is also available in the CORE platform
	which guides the participants to clearly follow procedures for reporting.

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	Any change in rules and procedures require prior approval of the
	regulator, RBI and these are required to be notified to all participants at
	least 30 days' in advance before implementation.
	Soft copies are available publicly through CCIL website.
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.
Description	Description of participants' rights and obligations are detailed in
	Membership documents, CCIL-TR Rules and notifications.
	The CCIL website provides a description of CCIL-TR services,
	including description of participant's responsibilities and rights. Further
	details are made available in the CCIL-TR rules and notifications which
	are published on the CCIL website. These are also available to the
	public at large.
	A detailed operational manual is also made available to members on the
	CORE Platform.
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.
Description	The detailed information on TR services and Rules are available in the
1	CCIL web site.
	Trade Reporting was introduced in India in phases. Detailed operational
	guidelines were made available to the participants at each stage. A
	comprehensive operational manual is made available on the CORE
	Platform.

	Training programs are organized for participants so that they are fully
	aware of the processes followed by CCIL and are in a position to
	reassess the risk they take by availing the services of CCIL.
	As a process, training is provided before launch of any new services
	and also on an ongoing basis. A mock run with the participants is also
	done before going live on new products.
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.
Description	Fee structure for TR services are available on CCIL website
	Any change in the structure is required to be notified at least 30 days in
	advance. For effecting any major change, before obtaining appropriate
	internal authorization, User Group inputs are taken and regulator's
	approvals are obtained wherever necessary.
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.
Description	Self-assessment on CPMI-IOSCO Disclosure Framework is part of this
-	principle and is updated once in a year or after any material change
	Qualitative disclosures are updated on yearly basis while quantitative
	disclosures are published on quarterly basis. Trade volume, CCIL
	financials etc. are publicly available through CCIL website.
	Any change to the process or any proposal to carry out any change to
	any existing process is disclosed to the public.
	These are made available through CCIL website (<u>www.ccilindia.com</u>).
	Disclosures are in English.

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.

Key consideration 1	A TR should provide data in line with regulatory and industry
	expectations to relevant authorities and the public, respectively, that
	is comprehensive and at a level of detail sufficient to enhance market
	transparency and support other public policy objectives.
Description	Data relating to trades in market, with details on number of trades,
	volumes, high, low and weighted average rates etc. are made available
	publicly through CCIL website for products in which such data
	dissemination has been approved by RBI. Additional details are shared
	with the Regulator at periodical intervals and on an ad hoc basis.
	Interbank data is also published in CCIL'S monthly publication
	"Rakshitra". Feedback is taken from the market participants regarding
	their expectations on data dissemination and the demands made by
	various stake-holders are kept in mind while deciding on data
	disseminated.
Key consideration 2	A TR should have effective processes and procedures to provide
	data to relevant authorities in a timely and appropriate manner to
	enable them to meet their respective regulatory mandates and legal
	responsibilities.
Description	Structured information requirement received from the Regulator are met
	through periodical submission of data. Adhoc information is also
	provided as and when required.Online Information about the data
	submitted by members is provided to the regulator through the CORE
	Platform.
	TR strictly follows the processes approved by the Regulator.
Key consideration 3	A TR should have robust information systems that provide
	accurate current and historical data. Data should be provided in a
	timely manner and in a format that permits it to be easily analyzed.
Description	Reporting to CCIL-TR entails reporting of the original transactions as
	well as subsequent lifecycle events. Online status of the data so reported

is made available to members through the CORE Platform. Prestructured reports are also made available to the members at EOD each day
Life cycle processing, including settlement services is in place for certain products like INR Interest Rate Swaps, USD-INR Forwards and Credit Default Swaps ensures that the data is up to date and accurate. For other products, accuracy of information is ensured through i) built in validations for all fields; ii) requirement of matching all economic data reported by both counterparties; iii) daily reports to members for reconciliation
Strict quality control ensures that the data remains accurate. Historical disseminated data and historical data published in Rakshitra is made available in the respective archival sections on the CCIL website.