

Government of India  
Ministry of Finance  
Department of Economic Affairs  
Commodity Derivatives Markets Division

## Press Release

### Report of Working Group on road map and structure for a Common Clearing system for all commodity exchanges - Report for Public Comments

Government of India is in the process of strengthening the clearing and settlement system for commodity future trading in the country. As a part of this process, Department of Economic Affairs vide its order dated 10<sup>th</sup> June 2014 had set up a Working Group to prepare a road map and structure for a common clearing system for all commodity exchanges in the country in order to reduce transaction cost of market participants as well as to strengthen the risk management systems. The Working Group has submitted its Report to the Department.

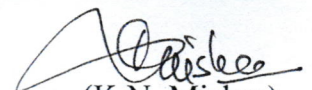
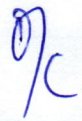
2. As a part of the transparency enhancing mechanism and therefore, to obtain public comments, the Report of the Working Group has been hosted on the website of the Ministry of Finance at <http://finmin.nic.in> as well as MyGov Platform.

3. Feedback/ comments on the said Report may be sent to Shri Lekhan Thakkar, Director(CD), Commodity Derivatives Markets Division, Department of Economic Affairs, Ministry of Finance at [lekhan.t@nic.in](mailto:lekhan.t@nic.in) within 30 days from the date of uploading of this Press Release on the website of this Ministry.

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**File No. 8/20/2014-CD Dated: 24<sup>th</sup> December, 2014**

Press Information Bureau is requested to give wide publicity to this Press Release.

  
(K.N. Mishra)

Under Secretary to the GoI  
011-23095070  
24.12.2014

✓  
Press Information Officer,  
Press Information Bureau,  
New Delhi

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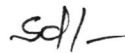


(K.N. Mishra)

Under Secretary to the GoI

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(K.N. Mishra)

Under Secretary to the GoI



**REPORT  
OF  
THE WORKING GROUP  
ON  
COMMON CLEARING  
FOR  
COMMODITY EXCHANGES**

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*Department of Economic Affairs  
Ministry of Finance  
Govt of India  
New Delhi  
October, 2014*

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**Working Group on Common Clearing for Commodity Exchanges**

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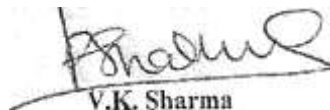
**31<sup>st</sup> October, 2014  
New Delhi**

**To,**

**Secretary,  
Department of Economic Affairs,  
Government of India  
New Delhi-110001**

**Dear Sir,**

**We have great pleasure in submitting herewith the Report of the Working Group on Common Clearing for Commodity exchanges, constituted vide Memorandum dated 10<sup>th</sup> June, 2014.**



**V.K. Sharma  
( Chairman)**



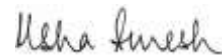
**Prof. Ajay Shah  
(Member)**



**Ranvir Singh  
(Member)**



**Lekhan Thakkar  
(Member)**



**Usha Suresh  
Member-Secretary**

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## **Acknowledgements**

The Group places on record its appreciation of the contribution by the members and invitees of the commodity exchanges and clearing corporations whose rich experience and insight made the deliberations in the meetings very enriching and interesting. The Group is grateful to the Forward Markets Commission for making the arrangements for the meetings, and its IT team in assisting the group with the data entry and analyses of the survey.

Mr. V.K. Sharma,  
Chairman  
31<sup>st</sup> October, 2014

## ABBREVIATIONS

ACE	Ace Derivatives and Commodity Exchange
BSE	Bombay Stock Exchange (erstwhile)
CBOT	Chicago Board of Trade
CC	Clearing Corporation
CCIL	Clearing Corporation of India Ltd
CCP	Central Counterparty
CDSL	Central Depository Services Ltd
CFTC	Commodity Futures Trading Commission
CME	Chicago Mercantile Exchange
CP	Commodity Participant
CPSS	Committee on Payment and Settlement Systems
CWC	Central Warehousing Corporation
DEA	Department of Economic Affairs
E-Registry	Electronic Registry
ETF	Exchange Traded Fund
EWRS	Electronic Warehouse Receipts
FCRA	Forward Contracts Regulation Act, 1952
FMC	Forward Markets Commission
JCCH	Japan Commodity Clearing House
ICCL	Indian Clearing Corporation Ltd
INR	Indian Rupees
IT	Information Technology
ITCM	Institutional Trading cum Clearing Member
IOSCO	International Organisation of Securities Commissions
KMP	Key Managerial Personnel
MCX	Multi Commodity Exchange of India
MTM	Mark to Market
NCCL	National Commodities Clearing Ltd
NCDEX	National Commodity and Derivatives Exchange
NSDL	National Securities Depository Limited
NIPFP	National Institute of Public Finance and Policy
NMCE	National Multi Commodity Exchange of India
NSCCL	National Securities Clearing Corporation of India Ltd
NSE	National Stock Exchange
NWRs	Negotiable Warehouse Receipts
OCC	Options Clearing Corporation
OTC	Over the Counter
PCM	Professional Clearing Member
PFMI	Principles of Financial Market Infrastructures
RBI	Reserve Bank of India
RMG	Risk Management Group
SCM	Self Clearing Member
SEBI	Securities and Exchange Board of India
SGF	Settlement Guarantee Fund
TGF	Trade Guarantee Fund
TCM	Trading cum Clearing Member
TM	Trading Member
TOR	Terms of Reference
VaR	Value at Risk
WDRA	Warehousing Development and Regulatory Authority
WR	Warehouse Receipts
WSP	Warehouse Service Provider

## Executive Summary

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The last decade ushered in several reforms for the commodity derivatives market in India. Six national commodity derivative exchanges were set up with modern mechanisms of trading, clearing and settlement. Automated trading, online margining and clearing coupled with real time monitoring and surveillance brought in significant efficiency gains for the commodity market participants in terms of greater liquidity, flow of funds, use of different collaterals and efficient settlement of transactions executed on the exchanges. The turnover of the commodity derivative exchanges increased from INR 0.66 lakh crore in 2003-2004 to INR 170.46 lakh crore in 2012-2013.

In the past two years, the commodity markets have been in the spotlight for various reasons. Certain events relating to the settlement default at one of the electronic commodity spot exchanges, though not under the regulatory purview of the commodity derivatives regulator, dented the confidence of the market participants and brought into focus the need for stronger oversight mechanisms on the warehousing industry, strengthening the risk management systems in clearing and settlement and improving the transparency and oversight of the commodity derivatives market. Post the global financial crises of 2007, there is also a growing concern for strengthening the risk management practices for the Financial Market Infrastructures. The G 20 has mandated regulation of standardized OTC derivative products and central clearing, in view of their potential risks to financial stability.

The imposition of commodity transaction tax by the Central Government in July, 2013 on the trading in commodity derivatives raised the costs of arbitrage. This had a detrimental impact on hedgers' participation, already burdened by high costs of warehousing and assaying and inadequate availability of warehouses at delivery locations. The turnover of the commodity derivative exchanges fell sharply to INR 101.44 lakh crores in 2013-2014.

The Working Group constituted for examining the feasibility of common clearing considered the merits and demerits of the vertically integrated model of trading, clearing and settlement which is prevalent in the Indian commodity futures exchanges, a single independent common clearing corporation, multiple common clearing corporations and inter operability between clearing corporations. The Group is of the considered opinion that an Independent Common Clearing Corporation for the national commodity exchanges, will deliver significant benefits of robust risk management standards, better corporate governance, greater oversight, reduced transaction and clearing costs and efficiency gains to the participants.

The Group deliberated at length on the organization and governance structure of the Common Clearing Corporation (CC) and recommends that the Clearing Corporation be promoted by the commodity exchanges. This will ensure orderly clearing and settlement of trades executed on the futures platforms of the commodity exchanges. The CC is a critical market infrastructure institution and needs to be well capitalized. The Group is of the view that it may have a minimum net worth of INR 100 crores to begin with, which should be reassessed after a period of one year, based on evaluations of the risk profile of the CC. The clearing and settlement of trades within the CC should be across commodity exchanges, for benefits of reduced collateral, cross margining, multilateral netting etc to flow to the participants.

The commodity exchanges have expressed apprehensions of the impact on their profitability, if the clearing functions are performed by another entity. The Group suggests that the CC may allow the exchanges to retain their contribution to the Settlement Guarantee Fund with them, for



a pre-defined period, after creating a suitable exposure mitigation vehicle. This will provide cushion to the exchanges' in their transition to the new model.

One of the pre-requisites for the setting up of the clearing corporation would be the harmonisation of the risk management practices of the commodity exchanges. The Group suggests that the CC's risk management framework should be consistent with the updated CPSS-IOSCO principles for Financial Market Infrastructures, released in April 2012. The Forward Markets Commission and the Risk Management Group constituted by it may frame the modalities for the implementation of the principles.

Warehousing is an integral part of the settlement process of commodity futures contracts. In order to facilitate the physical delivery of commodities, it is imperative to have a wide and reliable network of warehouses at the delivery centres. An efficient warehousing facility should ensure the integrity of the delivery mechanism by assuring the market participants of delivery of right quantity with quality of the commodities. The CC should coordinate with the Warehousing Development Regulatory Authority (WDRA) / State Governments / warehouse service providers and put in place a document stipulating the standard operating procedures, including the delivery mechanism for the contract specifications designed by the exchanges.

The WDRA has a critical role to play in facilitating the settlement process. It should notify all commodities traded on the commodity futures exchanges, to facilitate the usage of the negotiable warehouse receipts (NWRs). To mitigate the challenges associated with physical warehouse receipts, the Group recommends that the WDRA should immediately establish or facilitate the establishment of an independent Electronic Registry for NWRs. The creation of an electronic registry which will maintain electronic record of ownership of goods against immobilised warehouse receipts and transfer of ownership of such goods by electronic process will facilitate the financing of commodities trade at a national level. The Group also recommends that a portion of government procurements and distribution should be done through electronic warehouse receipts (WRs)/ NWRs to promote early adoption of E-Registry in the country. The banks/ financial institutions/ non bank financial companies could also use the E-Registry for collateral lending/ commodity related financing.

The common clearing corporation needs to have an efficient, speedy dispute resolution mechanism. The Working Group recommends that necessary legal amendments may be made to provide a clear legal basis for setting up and regulation of a common clearing corporation, including netting, novation etc. and for redressing complaints against the CC.

## Introduction

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In March 2014, in a meeting held at the Department of Economic Affairs (DEA), the issue of convergence and synergy in common clearing and settlement mechanisms, in order to effect reduction in transaction costs was discussed. It was felt that setting up of common institutional infrastructures such as a clearing corporation and sharing of warehousing infrastructure across all commodity exchanges could potentially reduce the costs. The streamlining of the risk management processes, would also benefit participants. Accordingly, a Working Group was constituted in June 2014, to examine the feasibility of setting up of a common clearing corporation for all commodity exchanges. The Memorandum constituting the Working Group and its Terms of Reference are at Appendix B. The minutes of the meeting held at DEA is at Appendix C.

## Methodology

The Working Group met three times and interacted with experts/ invitees from the Clearing Corporations, Securities and Exchange Board of India (SEBI), Depository services, and commodity exchanges. The Group in its first meeting decided to set up two sub-groups comprising the members /experts to deliberate on the different aspects of the Terms of Reference (TORs). The sub-groups had two meetings. Views of a few prominent members of the commodity exchanges were also obtained. A survey was also conducted for obtaining the views and suggestions from the clearing and trading members of the commodity derivatives market. Around 100 trading cum clearing members, all of whom are members of multiple exchanges, responded to the survey.

## Organisation of the Report

The first chapter examines the issues related to the feasibility of a common clearing corporation for the commodity derivatives market. The second chapter discusses the broad structure of the domestic clearing institutions, a few international clearing houses and the proposed organisational structure and governance of the common clearing corporation. The third chapter suggests the structure of the clearing membership of the common clearing corporation. The fourth chapter underscores the methodology for harmonisation of risk management practices and its adoption by the clearing corporation. The role of warehouse receipts in effecting settlement of physical delivery contracts, and the need for sharing of warehousing infrastructure is examined in the fifth chapter. The sixth chapter highlights the challenges in the setting up of an E Registry, which will be an electronic record keeping mechanism for warehouse receipts, and chapter seven suggests ways and means of financing of warehouse receipts. Chapter Eight analyses the role of the clearing corporation in providing an effective dispute resolution mechanism. The views of Prof. Ajay Shah, who has disagreed with the recommendation on common Clearing Corporation is enclosed at Appendix A. The pre-requisites for the setting up of a common clearing corporation is indicated at Appendix D. The results of the survey are summarised in Appendix E. Appendix F lists the names of the invitees from commodity exchanges and clearing corporations.

1.1 A clearing house is an entity /department of an exchange through which transactions on the exchange are cleared and settled. While an exchange lists products, matches trades and provides price information, a clearing house clears and settles trades, manages risk, collects and manages margins/ collaterals and provides guarantees for settlement of trades. The clearing corporation acts as a central counter party and undertakes novation for the settlement of trades executed on the platform of the exchange.

### **Existing mechanism of clearing and settlement**

1.2 There are six recognized regional commodity specific exchanges. The trading in the regional commodity specific exchanges continues to be through open outcry mode. The clearing and settlement functions are processed electronically and the members of the exchanges settle trades amongst themselves. All contracts are cash settled. The Trade Guarantee Fund in these exchanges is contributed wholly by the members.

1.3 The National commodity exchanges provide integrated online facilities for trading, clearing and settlement of the futures contracts. Only one exchange, the National Commodity and Derivatives Exchange (NCDEX) has set up a Clearing Corporation which is a 100% subsidiary of the exchange, for clearing and settlement of trades executed on the exchange. All the other National exchanges perform clearing and settlement functions as a division of the exchanges'. The contracts are cash settled or settled by physical delivery at expiration. Deliveries are usually effected for agricultural contracts.

### **Main features of clearing and settlement**

1.4 The three main aspects of the clearing and settlement value chain in the National Exchanges involves:

- Clearing
- Settlement
- Custody

### **Clearing**

After the execution of buy and sell orders on the exchange platform, all open positions at the expiry of the contract are processed for settlement by way of cash settlement or by transfer of ownership of the goods v/s payment of funds between members. This process may involve the netting of obligations to ensure fewer processes and cash flows, and in particular the evaluation and management of all relevant sources of risk to reduce the probability of failure in meeting the obligations by any member. Accordingly, a member would have either pay-in or pay-out obligations for funds and commodities separately. Normally, members' pay-in and pay-out obligations for funds and commodities are determined latest by T+1 day to facilitate the settlement on a pre-determined settlement day.

### **Settlement**

Currently, most of the commodity exchanges have structured the settlement as direct sale between the seller and the buyer with the financial guarantee by the exchange. On the due date, when the obligation is settled, the ownership of the commodity is transferred. This process involves matching the outstanding buy and sell instructions, by transferring the commodities ownership, against funds between buyer and seller. Transactions involving transfer of ownership of commodities are settled on delivery-versus-payment (DVP) basis by netting at a client level and grossed up at the member level, whereas fund obligations are netted at member level to reduce the number of settlement transactions as part of the clearing process.

## **Custody**

The National Securities Depository Ltd (NSDL) and Central Depository Services Ltd., (CDSL), the depositories of the securities market, had been facilitating the electronic holding and transfer of commodity balances for the clients of the commodity derivatives market. Under the arrangement, each of the clearing members would open a member pool account with the depositories through depository participants to facilitate the settlement of commodities. The depositories had a direct connectivity with the clearing house and effected the transfer of electronic balance to the member pool account of clearing members as per instructions from the clearing house. The facilities provided by the depositories was withdrawn by SEBI, due to lack of legal provisions for maintaining commodity balances. Since then, two national commodity exchanges have facilitated the electronic record holding of commodity balances for the clients of the respective exchanges.

## **Role of clearing banks**

1.5 Clearing banks provide banking services to clearing members connected on-line with the clearing house. Each of the clearing members are required to maintain and operate a settlement account with any one of the empanelled clearing banks at the branch designated by the respective bank. All the fund movements to and from the clearing house are made through the designated settlement account, which is used exclusively for clearing and settlement operations. The clearing banks communicate the status of fund flow in respect of each trading and clearing member to the clearing house to facilitate monitoring.

### **The need for a review of the existing system:**

- The vertical integration of trading, clearing and settlement within the exchanges restricts expansion of trading in the commodities across exchanges and prevents an integrated assessment of risk at client / member level. There is no mechanism for verification and monitoring of combined positions of a single member and single client across exchanges in a vertical model.
- Each exchange incurs costs to approve, review and monitor the warehouse service providers (WSPs) who provide warehousing facilities to the exchanges at delivery centres. This translates into higher transaction costs for delivery based trades, than for cash settled trades and in particular, for agricultural contracts which are settled by compulsory delivery. The high cost of warehousing, assaying and other logistics costs deters participation of hedgers. Sharing of infrastructure among exchanges under the vertically integrated model is cumbersome and not practicable.
- Lack of transparency due to cross-subsidies between different parts of a vertically integrated model distorts competition.
- The network externalities of clearing and settlement in terms of scale and scope economies is not realised for efficient resource allocation. The need of maintaining and managing different accounts for clearing and settlement and lack of cross margining facilities for clients/members of different exchanges increases opportunity costs for members and clients.

## **Feasible Alternatives**

1.6 The Working Group deliberated on the pros and cons of the alternatives which are as under:

- An independent single common clearing corporation for all commodity exchanges.
- Independent, multiple common clearing corporations.
- Inter-operability among the clearing corporations.

## **Global Models**

1.7 Internationally, the inhouse clearing model as well as the independent clearing corporation model are widely prevalent.

### **In-house Clearing Model**

- i. CME Clearing, USA- The clearing department of the Chicago Mercantile Exchange (CME) accepts clearing of trades of CME, Chicago Board of Trade (CBOT), One Chicago LLC, etc.
- ii. NYMEX Clearing Port, USA- The clearing department of the New York Mercantile Exchange (NYMEX). In addition to the clearing of trades of NYMEX, it also clears a portion of the trading on the Dubai Mercantile Exchange (DME).
- iii. ICE Clear, USA-Clearing department of the Inter Continental Futures Exchange(ICE), USA

### **Clearing Corporation Models**

- i. LCH Clearnet, UK- It is organized in a holding company format with LCH Clearnet Ltd. (former London Clearing House Ltd) and LCH Clearnet SA (former Clearnet SA) as affiliates. It accepts clearing of trades of London International Financial Futures and Options Exchange (LIFFE), London Metal Exchange (LME), ICE Futures Europe etc. Recently, LME has set up its own clearing arrangements.
- ii. JCCH, Japan-JCCH is the common Clearing Corporation for Commodity Exchanges in Japan. It is a 100 % subsidiary of the Tokyo Commodity Exchange.
- iii. The Dubai Commodities Clearing Corporation is a wholly owned subsidiary of the Dubai Gold and Commodities exchange.

## **Clearing Structure in Indian Securities market**

1.8 In the Indian securities markets, the clearing and settlement of the derivative transactions executed on the stock exchanges are being carried out by the clearing corporations, promoted by the respective stock exchanges. The trades (derivative contracts on equity and currency) executed on the three National level exchanges viz., National Stock Exchange (NSE), BSE Ltd( BSE) and MCX Stock Exchange Ltd(MCX SX) are cleared and settled by their respective clearing corporations viz., National Securities Clearing Corporation Ltd(NSCCL), Indian Clearing Corporation Ltd(ICCL) and MCX SX Clearing Corporation(MCX-SX SSL).In addition, ICCL also clears the currency derivatives transactions executed on the United Stock Exchange of India Ltd.(USE)

1.9 In respect of OTC trades in foreign exchange and bond markets in India, the Clearing Corporation of India Ltd (CCIL) is the single common clearing house for all participants as mandated by Reserve Bank of India (RBI). The participants in these markets are almost entirely banks.

## **Independent Common Clearing Corporation**

### **1.10 Advantages**

- i. Robust risk management: An independent common clearing corporation (CC) will ensure robust and centralised risk management measures, and transparent processes improving the confidence of the participants. It would facilitate a complete risk profile of a client/ member trading across (multiple) exchanges.
- ii. Regulation: An independent common clearing corporation will facilitate the detection of market risks through access to market wide information, and taking appropriate and timely action for securing market and financial integrity. Efficient clearing and settlement systems make for well functioning financial markets, which is a public policy objective in its own right.

- iii. Governance: An independent clearing corporation owned by exchanges/users and institutions will promote robust governance standards. The management will not be under competitive pressure to compromise on critical aspects concerning the safety of the clearing house.
- iv. Standardization: A common clearing corporation will ensure that the processes in the exchanges are harmonised, follow a certain minimum standard thereby increase operational convenience.
- v. Consolidation due to economies of scale<sup>1</sup>: The operational efficiency of commodity exchanges could improve with consolidation of clearing functions into a single entity. A number of commodity exchanges that are not viable and cannot invest resources adequately to fund their growth, could benefit from having their transactions cleared through another entity. Standardization achieved over time, in a common clearing corporation, would facilitate the process of consolidation.
- vi. Skill-set shortage: An independent single clearing corporation can address the problems of skill shortage and draw the best available resources and invest adequate capital to have desired operational set up in a relatively short period of time.
- vii. Cost advantage in developing efficient IT system: A huge cost is incurred by exchanges in developing multiple IT systems for clearing, settlement and risk management. It may, therefore, be cost effective to have a single IT system at a common clearing corporation and the benefits from cost saving would be significant.
- viii. Easy to effect changes and coordinate its implementation: A common clearing corporation will allow quick fixing of issues and in effecting changes in processes including those related to risk management processes without any undue delay. Implementing the changes will also be orderly, effective and across the market.
- ix. Facilitate fungibility: A common clearing corporation will facilitate fungibility, by way of sharing of common warehouses, assayers, etc.
- x. Reduction in cost to participants: A single common clearing mechanism is likely to deliver significant benefits to the clearing members from reduced paperwork, rationalisation of processes, netting efficiency, collateral efficiency and default fund efficiency apart from benefits from cross margining for offsetting positions across exchanges.

### 1.11 Disadvantages

- i. Lack of competition may incentivise monopolistic practices that may lead to higher costs.
- ii. A single common clearing house faces the risk of “Too big to fail”. The management of systemic risk, in the event of its failure may be practically difficult to handle.
- iii. It is also apprehended that the process of standardisation across exchanges may stifle the uniqueness of a product developed by an exchange.

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<sup>1</sup>A Consultancy Report (Consultancy Report) by G. Ramachandran and Suzanne Jeffery of the World Bank for FMC in July, 2000 recommended the establishment of a common clearing corporation for the commodity derivative markets. The report states “A single central clearing corporation would enable clearing members to avoid duplication of deployment of financial and human resources and to meet the composite needs of customers most effectively and efficiently. The sustenance of open positions is a capital-intensive operation. Clearing and settling open interests created on several exchanges through one clearing corporation conserves capital resources, operational resources, managerial resources aimed at risk mitigation and, above all, regulatory resources”.

## **Inter-operability**

1.12 Interoperability is a property referring to the ability of diverse systems and organizations to work together (inter-operate). Interoperability provides trading members with the facility to select a clearing house/ clearing member of their choice from a number of valid alternatives. To interoperate, clearing houses /corporations must establish arrangements with one another so that a user of one clearing house / corporation can execute a trade with a counterparty that has chosen another. A pre-requisite would be the establishment of independent clearing houses/corporations and harmonised operative systems and clearing rules.

1.13 Interoperability requires full reciprocal membership of the two or more service providers. Legal and operational complexities in effecting interoperability poses additional challenges. The credibility of the interoperability model relies upon the credibility of the each linked service provider. When multiple central counter parties (CCP) interoperate, each CCP becomes counterparty to the other interoperating CCPs and would require additional financial resources to cover its exposure from the possible failure of any of the other linked CCPs<sup>1</sup>. In such a scenario, the management of systemic risk through interoperable links can be complex. The advantages from interoperability in terms of an integrated market, single risk management methodology, can be achieved through a single common clearing corporation. Hence, after due deliberations, the Working Group concluded that at this juncture with few viable exchanges, multiple clearing corporations, or interoperability may not be suitable alternatives.

### **Box 1: Inter operability**

#### **Indian scenario**

Currently there are no interoperability arrangements between any of the CCPs operating in India.

#### **International Scenario**

In Europe, the interoperable links among CCPs is established only in equities markets. The volumes in European derivatives is many times more than that of cash markets and interoperability of derivative CCPs is not yet sought. Work on interoperability in derivatives markets has been postponed pending further review, which European regulators have commissioned to take place by the end of 2014.

A small number of interoperability links were set up in Europe around 2003. The most prominent of these was the link between LCH. Clearnet Ltd and SIX x-clear, which currently serves two major European equities markets. It was established in 2003 to allow both CCPs to clear equities traded on the SIX Swiss Exchange. SIX x-clear initially operated as a participant CCP, although in 2008, the CCPs negotiated a peer-to-peer arrangement, and later that year the link expanded to also cover equities traded on the London Stock Exchange. The growth of newer electronic trading platforms has seen an expansion in interoperability arrangements. In particular, the entry of Chi-X Europe and BATS Europe, in 2007 and 2008, respectively, has led to the establishment of what are now a four-way link, involving European Multilateral Clearing Facility, LCH.Clearnet Ltd, SIX x-clear and Euro CCP.

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<sup>1</sup> Pirrong Craig, The economics of central clearing: Theory and practice –ISDA discussion paper series, May 2011.

Pirrong, Craig (Jan 2007) The industrial organization of execution, clearing and settlement in financial markets.

### **Stakeholder views**

1.14 82% of the trading cum clearing members (TCMs) who responded to the survey are members of more than one exchange. 50% of the TCMs follow additional risk management measures over and above those determined/specified by the exchange. These measures involve collection of additional funds/ margins from the clients and restricted position limits. 57% of the members incur upto 5% of their revenue as compliance/clearing costs. This indicates that prudent margining and management of collaterals through robust risk management standards and harmonisation of processes can bring in efficiency gains to the members and participants of this market.

1.15 90% of the members hold the view that a clearing house should be independent of the exchange. The members believe that it may promote transparency, result in simplification of processes, impart confidence to participants and improve risk management standards and market integrity. 48% of the members believe that it will improve the operating efficiency of the exchanges.

### **Recommendation**

1.16 Trading, clearing and settlement activities operate as natural monopolies. The vertically integrated model has its own advantages in pooling technical infrastructure and in providing a single interface for the participants. However, the advantages of consolidation are prone to abuse by an integrated monopoly. The Working Group felt that regulatory oversight and market wide monitoring of risks is a paramount consideration apart from ensuring that participants benefit from common processes, reduction in transaction costs, economies of scale and scope and improved risk management standards. Therefore, the Working Group suggests that:

a. An independent single common clearing corporation (CC) may be set up for the National commodity exchanges. Going forward, depending on the growth and complexity of the commodity futures market, multiple common clearing corporations may be considered after due evaluation, depending on market needs.

b. As there are few trading members in the regional commodity specific exchanges, they may choose to continue with their existing clearing and settlement mechanisms or clear their trades through the CC, if the commodity specific exchange opts to become a clearing member of the CC.



## Chapter II      Ownership and Governance of Clearing Corporation

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2.1 Clearing Corporations /Clearing houses today play a vital role in all market types across the world. The credit risk of the counter party in any transaction is substituted by the credit risk of the Clearing Corporation/ Clearing house. The ability of the Clearing Corporation to withstand the default of market participants individually or collectively depends crucially on its risk management procedures and its access to resources to absorb financial losses.

### **Legal Risks**

2.2 The Forward Contracts (Regulation) Act, (FCRA) enacted in 1952, considers clearing and settlement as an integral part of trading. The members of the associations/ exchanges act as trading-cum-clearing members. Section 11 of the FCRA, provides that a recognized association may make byelaws for the regulation and control of forward contracts, including inter-alia for a clearing house for the periodical settlement of contracts and differences there-under, the delivery of, and payment for, goods, the passing on of delivery orders and for the regulation and maintenance of such clearing house<sup>1</sup>.

2.3 The CPSS-IOSCO in its Principles for Financial Market Infrastructures (PFMI)<sup>2</sup> states that there must be a well-founded, clear, transparent and enforceable legal basis to address the legal risks for bankruptcy remoteness of CCPs, legality of netting and finality of settlement.

2.4 An amendment to the FCRA, which is under the consideration of the Central Government provides that an exchange may, with the approval of FMC, transfer the duties and functions of a clearing house to a recognized clearing corporation for the purpose of the periodical settlement of contracts and differences there under, and the delivery of, and payment for, commodities. The Working Group recommends that necessary legal amendments may be made to provide a clear legal basis for the setting up and regulation of a common clearing corporation, including other provisions for netting, novation etc.,

### **Net Worth of the Clearing Corporation**

2.5 SEBI has specified a minimum net worth of INR.100 crores for a new clearing corporation at the time of its application and every recognised clearing corporation needs to achieve a minimum net worth of INR 300 crores within a period of three years from the date of its recognition<sup>3</sup>. The Working Group suggests that a clearing corporation for commodity exchanges too, may have a minimum net worth of INR 100 crores, at the time of its application. In order to ensure that the common clearing corporation is adequately capitalised, the net worth criterion should be reviewed, after a period of one year after its recognition, based on evaluation of the risk profile of the Clearing Corporation.

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<sup>1</sup> The Consultancy Report states that “Section 11 of the Forward Contracts (Regulation) Act, 1952 empowers a commodity exchange to choose its method, subject to the previous approval of the Government of India, for making, comparing, settling and closing of bargains. Bargains here refer to transactions in commodity contracts. All forms of multilateral netting and novation are possible. **Futures contracts require novation and commodity exchanges require clearing institutions.**”

<sup>2</sup> CPSS-IOSCO, Principles for Financial Market Infrastructures, April, 2012

<sup>3</sup> SECURITIES CONTRACTS (REGULATION) (STOCK EXCHANGES AND CLEARING CORPORATIONS) REGULATIONS, 2012. “Every applicant seeking recognition as a clearing corporation under regulation 4 shall have a minimum net worth of one hundred crore rupees, provided that (this) shall not apply to an applicant which clears and settles trades of a recognised stock exchange on the date of commencement of these regulations.... Every recognised clearing corporation shall achieve a minimum net worth of three hundred crore rupees within a period of three years from the date of recognition granted under these regulations”.

## **Ownership structure**

2.6 The Working Group recommends that the Clearing Corporation should be a “for profit” entity. However, it would be detrimental to place only the commercial objectives of the shareholders of the clearing corporation in the forefront. The CC can be a potential source of systemic risk and in the event of its bankruptcy, the cost (financial and non-financial) would be significant. The Group is of the view that CC being at the core of the settlement system must be promoted by commodity exchanges, whose interest would also be to ensure orderly clearing and settlement of orders executed on their platforms.

2.7 While it is desirable, that a commodity exchange be the anchor investor, it may not inspire confidence among the other commodity exchanges, with one exchange in an anchor investor role. Hence, no commodity exchange may be permitted to hold more than 15% of the paid up equity share capital of the clearing corporation. Collectively, the National commodity exchanges may hold at least 51% of the paid-up equity capital of the clearing corporation, ideally in equal proportion. The remaining equity may be held by financial institutions, clearing banks, clearing institutions etc., The CC should be regulated by the FMC. The ownership and governance structures of the major clearing corporations in India and a few global clearing houses is indicated in Annexure 2.1 and 2.2

## **Governance**

2.8 The governance and control of the CC should be separated from the exchanges. In order to ensure better corporate governance, the Working Group recommends that shareholder representation on the board of a clearing corporation should be restricted to 40% of the total board strength and the balance 60% should comprise public interest directors. The Chairperson should be from the public interest category and appointed with the approval of FMC. Further, all board appointments in the clearing corporation should be with prior approval of FMC.

2.9 The CC should have robust governance arrangements, including a clear organisational structure with well-defined, transparent, and consistent lines of responsibility, effective processes to identify, manage, monitor and report the risks to which it is or might be exposed and adequate internal control mechanisms including sound administrative and accounting procedures. Separation of business functions from regulatory functions should be practiced. The roles and responsibilities of the Key Managerial Personnel (KMPs) should be clearly defined and communicated to the KMPs and shared with the FMC. There should be a predefined Code of Conduct which would be applicable to the Board of Directors, KMPs and the employees of the CC.

## **Board Committees**

2.10 The CC may constitute various committees to manage the regulatory, technology and operational aspects of the clearing corporation, including the Risk Committee (may include external experts), Regulatory Committee, Disciplinary Action Committee, Defaulters Committee, Membership Committee, Technology Committee (may include external experts), other committees as per FMC/ Companies Act and an Advisory Committee of clearing members.

2.11 The advisory committee of the clearing members can be constituted by the board of the clearing corporation, comprising mainly clearing members. The advisory committee to the board may deal with non-regulatory, operational matters such as procedures related to clearing and settlement. The recommendations of the advisory committee should be placed before the board of the clearing corporation and should be disclosed on clearing corporation’s website.

## **Operating framework**

2.12 The Working Group considered two competing models for determination of settlement and margin obligations of clearing members.

**Model 1:** Segregation of settlement and margin obligations exchange-wise, within the CC.

a. **Margin Obligations**

The positions of trading members and clients under a clearing member shall be identified separately for each of the exchange. In other words, the positions will be tagged to an exchange. Margin obligations for gross open positions shall be arrived at separately for each exchange. The clearing members shall earmark collateral separately for separate exchanges, and the margin requirement pertaining to each exchange shall be assessed against the collateral allocated to that exchange

b. **Settlement Obligations**

Settlement obligations of each clearing member shall be arrived at separately for each exchange. There shall be no setoffs between exchanges.

Clearing Corporation shall collect settlement monies from clearing members for each exchange separately and subsequently pay the settlement monies receivable by clearing members for each exchange separately.

**Advantages**

- There shall be a more prudent ring-fencing of exchanges.
- A member trading on only one exchange will be relatively unaffected by default of another member trading only on another exchange.

**Disadvantages**

- Segregation of settlement leads to more stress on liquidity management for clearing members.
- Segregation of margin obligation leads to more capital requirement for clearing members.
- There would be no direct financial benefits pertaining to transaction costs arising out of the setting up of single CC, since the model is essentially different CCPs under a common administrator.

**Model 2:** Determining margin and settlement obligations at clearing corporation level-across exchanges

a. **Margin Obligations**

Positions shall be maintained by clearing corporation regardless of the originating exchange. Netting of position shall be done where possible.

Margin obligations shall be arrived at by considering overall portfolio, providing margin offsets where justified.

Total margin obligation of clearing member is validated against total collateral deposits placed by the clearing member with the clearing corporation.

b. **Settlement Obligations**

Net financial settlement obligation shall be arrived at for each clearing member. Thus the clearing member would have a single funds obligation: either pay-in or pay-out

Clearing Corporation shall collect net funds settlement monies from clearing members and subsequently pay-out net funds settlement monies receivable by other clearing members, though the commodity settlement would be effected at the client level (actual recipient).

#### Advantages

- Combined portfolio for a clearing member leads to effective utilization of deposits as margin set off are given on offsetting positions between exchanges.
- Combined settlement obligation leads to less stress on liquidity management for clearing member.
- Combined settlement obligation may reduce net obligations of the Clearing Corporation and reduce the risk.

#### Disadvantages

- In the event of margin shortfall by clearing member, the trading terminals of trading members linked with the clearing member would need to be deactivated on all exchanges.
- The default of a clearing member would affect all clearing members across exchanges and it would not be localized to one exchange like in case of the first model.

2.13 The Working Group recommends that clearing and settlement should be across exchanges (Model 2) within the CC for achieving the maximum benefits of common clearing. In this model, market participants would benefit from lower costs and the liquidity and depth of the commodities market would improve. However, implementing either of the models will involve real-time capture of trade data from all exchanges, real-time margin calculation and monitoring. The technical challenges in real-time monitoring will be more pronounced in model 2, since it would involve capturing of trade data on low-latency from all exchanges, calculating the overall portfolio and identifying offsets, and sending the messages for deactivation of terminals to all exchanges in case of non-fulfillment of margin requirements. It is advised that the technical and operational challenges in implementing model 2 may be evaluated by an expert group / Risk Management Group (RMG).

#### **Box 2: Options Clearing Corporation (OCC)**

OCC is the common clearing corporation for options trading in the United States. Founded in 1973, it is the world's largest equity derivatives clearing organization. Although OCC began as a clearinghouse for listed equity options, it has grown into a globally recognized entity that clears a multitude of diverse and sophisticated products. OCC's participant exchanges include: BATS Exchange, Inc., BOX Options Exchange LLC, C2 Options Exchange Inc, Chicago Board Options Exchange Inc, International Securities Exchange, LLC, Miami International Securities Exchange, LLC, NASDAQ OMX BX, Inc., NASDAQ OMX PHLX, LLC, the NASDAQ Stock Market, LLC, NYSE MKT, LLC, NYSE Arca, Inc., and Topaz Exchange, LLC.

##### **Cross Margining**

OCC introduced cross margining in 1989 to reduce systemic market risk by recognizing the offsetting value of hedged positions maintained by firms at multiple venues. By allowing for inter-market hedges, OCC is able to enhance firms' liquidity and financing capabilities through reduced initial margin requirements, fewer margin variations and smaller net settlements. Since inception of cross margining, the number of products eligible for offset has increased significantly. OCC currently participates in cross margin programs with the Chicago Mercantile Exchange and ICE Clear US as well as offering an internal cross margin program for products where OCC clears both the SEC and CFTC regulated contracts.

##### **Japan Commodity Clearing House (JCCH)**

JCCH is the common Clearing House for Commodity Exchanges in Japan, which allows JCCH to adopt SPAN Margining system, permitting to offset risks between Commodity Exchanges and aggregate mark-to-market profit or loss that is generated from all Commodity Exchanges. Prior to the establishment of JCCH, FCMs had to provide clearing funds sufficient to satisfy different exchanges, for both the house account and the customer account. This required managing some different accounts for clearing and settlement. Under the JCCH model, each clearing participant maintains one account at JCCH which is netted based on the daily marking - to - market requirements for all positions held at all exchanges.

### **Revenue model of CC**

2.14 The CC's revenue model may be based on clearing fees from the clearing members, interest income on margins, membership fee and any other income generated from activities that it may undertake in future. The National commodity exchanges have expressed their apprehension that separation of clearing functions from the exchanges may negatively impact their profitability. The Working Group recommends that the CC may consider if feasible, to allow the exchanges to retain their contribution to the SGF with them, for a pre-defined period, after creating a suitable exposure mitigation vehicle. The CC's contribution to the SGF and the clearing members' contribution to the SGF will remain with the CC. Further, new products and new businesses needs to be enabled and allowed for both the CC and exchanges to remain commercially viable.

### **Recommendations**

2.15 The Working Group recommends that the CC should be regulated by the FMC. In view of the insufficient legal basis for the constitution of the CC within the existing provisions of the Forward Contracts (Regulation) Act, 1952, it is recommended that necessary legal amendments may be made to provide for an independent and common clearing corporation.

2.16 The Working Group suggests that the CC should be "for profit" entity. Further, it may have at the time of its application, a minimum net worth of INR 100 crores. In order to be adequately capitalised, the net worth criterion of the common CC should be reassessed, after a period of one year after its recognition, based on evaluations of the risk profile of the CC.

2.17 The Working Group is of the view that the CC being at the core of the settlement system, must be promoted by commodity exchanges, whose interest would also be to ensure orderly clearing and settlement of orders executed on their platforms.

2.18 The National commodity exchanges should hold at least 51% of the paid-up equity capital of the CC, ideally in equal proportion. Further, no single commodity exchange should be permitted to hold more than 15% of the paid up equity share capital of the clearing corporation. The shareholder representation on the board of the CC should be 40% of the total board strength and the balance 60% should comprise public interest directors. The Chairperson should be from the public interest category and appointed with the approval of FMC. Further, all board appointments in the clearing corporation should be with the prior approval of FMC.

2.19 Clearing and settlement should be across exchanges within the CC for achieving the maximum benefits of common clearing. The technical and operational challenges in implementing the same may be evaluated by an expert group / RMG.

2.20 The CC may consider if feasible, to allow the exchanges to retain their contribution to the SGF with them, for a pre-defined period, after creating a suitable exposure mitigation vehicle. The CC's contribution to the SGF and the clearing members' contribution to the SGF will remain with the CC.

## Annexure 2.1

### Ownership and Governance structures of major Clearing Corporations in India

	Type of service and Products	Ownership	Governance
CCIL	<p>The Clearing Corporation of India Ltd., (CCIL) was set up in 2001 to provide an institutional infrastructure for the Clearing and Settlement of transactions in Government Securities, Money Market instruments, Foreign Exchange and other related products.</p> <p>CCIL has introduced many innovative products/tools like CCP clearing of Foreign Exchange, Forward Foreign Exchange and Interest Rate Swaps, Portfolio Compression, development of indices, trade repository in Forex and Interest Rate derivatives.</p>	<p>The Core Committee, appointed at the behest of Reserve Bank of India for setting up CCIL, identified six 'core promoters' for CCIL- State Bank of India, IDBI Bank Ltd.(formerly Industrial Development Bank of India), ICICI Bank Ltd, Life Insurance Corporation of India (LIC), Bank of Baroda and HDFC Bank Ltd. The Company was incorporated with the authorized Equity Share Capital of Rs. 50 Crores. It is owned by users (Clearing Participants).Currently, 62.5% is held by banks, 21.5% by financial institutions and 16% by primary dealers.</p>	<p>The Management team is headed by the Managing Director of the Company, with policy guidance from the Chairperson and the Board of Directors. The Chairperson and Managing Director are nominated by SBI and the Board of Directors. As on 1 Oct 2013, it had 17 members, of whom 9 are shareholder's representatives &amp; 8 are independent directors. The Board has constituted different committees for successful implementation of various policies of the Company.</p> <p>The company has adopted the core principles set by the Committee of Payment and Settlement Systems (CPSS) of Bank for International Settlements (BIS) and International Organization of Securities Commissions (IOSCO) that prescribe the design and operation of central counter-parties world over. CCIL has authorization from RBI to operate as a payment system provider under the Payment &amp; Settlement Systems Act, 2007 and is a Qualified central Counter-party (QCCP).</p>
NSCCL	<p>National Securities Clearing Corporation Limited (NSCCL) carries out the clearing and settlement of the trades executed on the Capital Market (CM), Futures &amp; Options (F&amp;O), Currency Derivatives (CD), Securities Lending and Borrowing (SLBS), Mutual Funds (MFSS) segment, Debt segment and OTC trades in Corporate Bonds.</p>	<p>National Securities Clearing Corporation Limited (NSCCL) is a wholly-owned subsidiary of National Stock Exchange of India Limited (NSEIL). The total paid-up capital of the company is Rs 45 crores.</p>	<p>As on March 31, 2014, the Board consisted of Nine Directors, out of which six are Public Interest Directors and three are shareholder Directors.</p> <p>NSCCL is recognised as the Qualified Central Counterparty (QCCP) in the Indian Securities Market jurisdiction.</p>
ICCL	<p>The Company has been providing Clearing &amp; Settlement services for all the segments of BSE viz. Equity Cash, Equity Derivatives, Securities Lending &amp; Borrowing, Mutual Fund, SME, Offer for Sale, Currency Derivatives, Interest Rate Futures and Debt Segment. ICCL also provides Clearing &amp; Settlement services for Currency Derivatives Segment of United Stock Exchange of India Ltd.</p>	<p>ICCL was incorporated in 2007 as a wholly owned subsidiary of BSE Ltd ("BSE"). The total paid-up capital of the company is Rs 354 crores.</p>	<p>As on March 31, 2014, the Board comprised Six Directors, out of which Four are Public Interest Directors and two are shareholder Directors.</p> <p>ICCL has been accorded Qualified Central Counterparty ("QCCP") status by the SEBI. A Qualified CCP, is additionally required to comply with the rules and regulations that are consistent with the Principles for Financial Market Infrastructures ("PFMI") issued by the CPSS-IOSCO.</p>

## Annexure 2.2

### Ownership and Governance Structures of a few Global Commodity Clearing Houses

	Type of service and Products	Ownership	Governance
Options Clearing Corporation, USA	OCC is a securities clearing agency registered under the Securities Exchange Act of 1934, USA that provides clearing and settlement services for securities options traded on securities exchanges. As a registered Derivatives Clearing Organisation, OCC provides clearing and settlement services for transactions in commodity futures contracts and options on commodity futures contracts for 16 OCC Participant Exchanges & Futures Markets.	At time of set up in 1973, it was as the Chicago Board Options Exchange and its wholly-owned subsidiary CBOE Clearing Corp. Presently, the stockholder exchanges (05 (i) Chicago Board Options Exchange; (ii) International Securities Exchange; (iii) NYSE Amex (formerly the American Stock Exchange); (iv) NYSE Arca (formerly the Pacific Stock Exchange); and (v) NASDAQ OMX PHLX (formerly the Philadelphia Stock Exchange) share equal ownership of OCC.	As a systemically important financial market utility (SIFMU), OCC and the Board are expected by OCC's regulators to have robust policies and procedures that help promote sound governance, operations and risk management practices, including those identified in the Principles for Financial Market Infrastructures ("PFMI") published by the CPSS-IOSCO. OCC's By-Laws currently provide that the size of the Board shall be twenty-one members: <ul style="list-style-type: none"> <li>• Nine directors who represent clearing members ("Member Directors");</li> <li>• Five directors designated by OCC's Equity Exchanges ("Exchange Directors");</li> <li>• Five directors who are not affiliated with any national securities exchange or national securities association or with any broker or dealer in securities ("Public Directors"); and</li> <li>• The Executive Chairman and the President and Chief Executive Officer ("Management Directors").</li> </ul>
UAE Dubai Commodities Clearing Corporation (DCCC)	The Dubai Commodities Clearing Corporation clears trades in a wide range of derivatives contracts, including the DGCX Gold Futures, steel bar futures contract, Copper Futures contract, WTI and Brent Oil futures contracts, and currency futures.	The Dubai Commodities Clearing Corporation (DCCC) is a wholly owned subsidiary of the Dubai Gold and Commodities exchange (DGCX).	The powers of the DCCC under these Rules are exercised by its Board. The Board can delegate any of its powers under these Rules to the Chief Executive, the Business Conduct Committee, a Corporation Officer and/or any other person or committee as the Board may think fit.
Japan Commodity Clearing House Co.,Ltd. (JCCH).	The JCCH provides clearing and settlement services for the transactions of all commodity exchanges in Japan.	JCCH is 100% subsidiary of Tokyo Commodity Exchange, Inc which is a non-profit organization.	As per Commodities Derivatives Act, CCPs are required to be a joint stock corporation (kabushiki kaisha) having a board of directors and a corporate auditor (or a board of directors and a committee).
LCH Clearnet Limited, Europe	LCH Clearnet Limited is the leading independent CCP in Europe, serving major international exchanges and platforms, as well as a range of OTC markets. It clears a broad range of asset classes including: securities, exchange traded derivatives, energy, freight, interbank interest rate swaps and euro and sterling denominated bonds and repos.	LCH. Clearnet Limited is a wholly owned subsidiary of LCH. Clearnet Group Limited. LCH. Clearnet Group Limited is a private company, limited by shares and registered in the United Kingdom. It is a holding company created as part of a merger in December 2003 to oversee the two wholly-owned operating subsidiaries of the Group; LCH. Clearnet Limited (formerly The London Clearing House Limited), and Banque Centrale de Compensation SA (which trades under the name of LCH.CLEARNET SA and became an independent legal entity at the time of the merger, having previously been part of the Euronext group of companies).	Being a wholly owned subsidiary of LCH. Clearnet Group Limited (Group), issues of group-wide governance rest with the Group Board. LCH. Clearnet Limited's Board and management are accountable to its shareholders. The Board includes four independent board members (including the Chairman). Non-executive directors of the Board are drawn from the membership of the Group Board.

<p>Singapore Exchange Derivatives Clearing (SGX-DC)</p>	<p>As a clearing house, SGX-DC provides clearing and settlement services for a wide range of derivatives products including swaps, futures and options on equity indices, dividend indices, interest rates, commodities and foreign exchange (FX)</p>	<p>Singapore Exchange Derivatives Clearing (SGX-DC) is a subsidiary of Singapore Exchange Limited (SGX).</p> <p>SGX is a public company incorporated under the Companies Act and has been listed on its own exchange since 23 November 2000</p>	<p>SGX-DC adopts corporate governance practices through its holding company, SGX. The SGX Board and its various Board committees oversee all of SGX's affairs including those of SGX Derivatives Clearing and SGX shareholders hold them responsible for the management of SGX Group's business and performance.</p> <p>SGX has 12 directors, of which nine directors are independent non-executive directors, two are non-independent non-executive directors, and one is an executive director (i.e., the Chief Executive Officer). At least one-third of the SGX Board are required to be independent directors;</p>
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### **Existing structure of Membership**

3.1 The National commodity exchanges have pre-defined membership categories and applicable criteria for membership. The membership categories are more or less similar across the exchanges, ignoring the nomenclature variance, but vary considerably on criteria of the membership in terms of deposit/ net-worth requirements, admission fees and other membership requirements.

3.2 The members of the commodity exchanges for execution, clearing and settlement of futures contracts are classified as:

- a. Trading Member (TM)-This category of membership entitles a member to execute trades on his own account as well as for clients registered with him. The clearing and settlement of the trades is done through a clearing member(s).
- b. Trading cum Clearing Member (TCM)-This category of membership entitles a member to execute trades on his own account as well as for his clients and to clear and settle trades executed by themselves as well as of his clients.
- c. Professional Clearing Member (PCM)-A professional clearing member is entitled to clear and settle trades executed by other members of the exchanges (TMs/ TCMs) but does not have the right to execute trades. Typically, a PCM may be a corporation, institution or a bank.
- d. Institutional/Strategic Trading cum Clearing Member (ITCM/STCM)-This category of membership entitles the member to trade, clear and settle trades on his own behalf, for his clients and other trading members and trading cum clearing members.

3.3 The membership categories of the national commodity exchanges with applicable deposit, charges and net worth requirement, is indicated in Annexure-3.1 Most members of the commodity exchanges operate as Trading cum Clearing Members(TCMs) of more than one exchange. The clearing rights are embedded in the exchange membership rights, except in case of the Trading Members who have to opt for the services of the designated clearing members for the purpose of clearing their trades. There are no additional requirements towards the clearing rights vested with the members and the compliance of the membership requirements is a composite requirement.

### **Members of Common Clearing Corporation**

3.4 The Working Group examined the structure and requirements of membership of the clearing corporation, and suggests that the clearing corporation may have three categories of clearing members:

#### **a) Self Clearing Member**

Self-Clearing Member means an entity admitted as a clearing member, conferring a right to clear through the clearing corporation as a clearing member and who may be allowed to clear and settle trades on proprietary account as well as for his clients.

#### **b) Trading-cum Clearing member**

Trading-cum clearing member means a member of the clearing corporation who would be entitled to trade and clear and settle his own trades and also trades of other trading members.

### **c) Professional Clearing Member**

Professional Clearing Member means an entity admitted as a clearing member of the clearing corporation and who shall be allowed to only clear and settle trades of trading members and/ or constituent members.

### **Members to be institutionalised**

3.5 The clearing members of the clearing corporation should be corporate entities (i.e Companies as defined in the Companies Act, 1956; Companies as defined in the Companies Act, 2013)

### **Membership criteria**

3.6 In order to manage counterparty credit risk and liquidity risks, the CC should deal with only creditworthy counterparties. The CC should establish a set of requirements for membership of the CC. Existing membership criteria should be carefully scrutinized and a minimum benchmark for net worth and base minimum capital should be established. A clearing member of the CC should comply with:

- a) Net worth and security deposit norms as may be prescribed by the CC from time to time. The Working Group suggests that the net worth criterion for a self clearing member may be at least INR 100 lakhs, for trading cum clearing member, at least INR 300 lakhs and for professional clearing member, at least INR 500 lakhs.
- b) The registration and other provisions as may be prescribed by FMC and the CC from time to time.
- c) Payment of such fee, charges and other monies, as may be specified by the CC.

3.7 To safeguard against default, clearing members should hold at all times robust financial resources, expertise and administration and have in place governance arrangements and segregation of customer assets.

### **Transition to the new membership**

3.8 The Working Group recommends that the CC may admit all such existing clearing members of the commodity exchanges as its clearing members provided they meet the membership criteria stipulated by the CC on the inception date and classify them into the membership categories as defined by the CC under its Bye-Laws and Rules. The CC may provide a pre-defined and reasonable time frame to the existing clearing members to comply with the incremental compliance requirements of the CC.

3.9 The members who fail to meet the membership admission criteria for becoming members of CC may be considered deemed TM without any further action from the Exchange/ FMC.

### **Stakeholder views**

3.10 Most trading members prefer to clear their trades with clearing members who offer better services, clear diversified product groups, have robust risk management practices and have national presence.

### **Recommendation:**

3.11 The Working Group suggests that the clearing corporation may have three categories of clearing members. The clearing members should be corporatised and well capitalised. The members who fail to meet the membership admission criteria for becoming members of CC may be considered deemed TM without any further action from the Exchange/ FMC.

### Annexure 3.1

#### Membership structure and eligibility criteria

MCX (in Rs)						
No.	Particulars	Trading-cum-Clearing Member (TCM) – Non- Deposit Based	Trading-Cum-Clearing Member (TCM) – Deposit Based	Membership-Institutional Trading-cum – Clearing Member (ITCM)	Membership Professional Clearing Member (PCM)	Trading Member (TM)
1.	Admission Fee * (Non refundable)	25,00,000	10,00,000	25,00,000	10,00,000	7,50,000
2	Interest Free Security Deposit	30,00,000	65,00,000	1,00,00,000	1,00,00,000	PCM/ITCM shall suitably collect deposits from the Trading Member
	Security Deposit shall be in the ratio of 50% cash and 50% cash/fixed deposit/bank guarantee.					
3	Processing Fee*	10,000	10,000	10,000	10,000	10,000
4	Annual Subscription* (Non refundable)	75,000	75,000	1,00,000	1,00,000	10,000
5	Annual Insurance Premium*	2,500	2,500	2,500	2,500	2,500
6	Minimum Usage Fees (Per quarter)*	25,000	25,000	25,000	25,000	
7	VSAT connectivity charges for three years	1,65,000	1,65,000	1,65,000	1,65,000	1,65,000
	Alternatively a member can apply for Leased Line Connectively.					
8	Base Minimum Capital :					
	1. A Member with Algo Trading	50,00,000	50,00,000	50,00,000	50,00,000	50,00,000
	2. A Member without Algo Trading	10,00,000	10,00,000	10,00,000	10,00,000	10,00,000
9	Net Worth	75,00,000	75,00,000	100,00,000	500,00,000	10-50 Lakh*

\*-INR 10 lakhs for non corporate and INR 50 lakhs for corporates

ACE					
No	Particulars	Trading Member	Trading-cum-Clearing Member	Institutional Trading-cum-Clearing Member	Professional Clearing Member
1	Admission Fee	Rs. 1,00,000	Rs. 2,00,000	Rs. 12,00,000	Rs. 10,00,000
2	Eligibility Networkth	Rs. 5,00,000	Rs. 40,00,000	Rs. 1,00,00,000	Rs. 2,00,00,000
3	Security Deposit(Interest Free)	Rs. 5,00,000 (Rs. 1,25,000 Cash + Rs.3,75,000 Cash Equivalent)	Rs. 8,00,000 (Rs. 2,00,000 Cash + Rs.6,00,000 Cash Equivalent)	Rs. 50,00,000 upfront (Rs.12,50,000 Cash + Rs. 37,50,000 Cash Equivalent) and additional Rs.50,000/- per TM as and when affiliated	Rs. 50,00,000 upfront (Rs.12,50,000 Cash + Rs. 37,50,000 Cash Equivalent) and additional Rs.50,000/- per TMas and when affiliated
4	Processing Fee	Rs. 2,000	Rs. 2,000	Rs. 2,000	Rs. 2,000
5	Annual Insurance Premium	Rs. 2,550	Rs. 2,550	Rs. 2,550	Rs. 2,550
6	Annual Subscription charges	Rs. 5,000	Rs. 10,000	Rs. 50,000	Rs. 50,000

Note: Member opting for Algo trading will have to place a minimum deposit of Rs. 25 lakhs.

NCDEX						
Sr. No	Particulars	Trading cum Clearing Member (TCM) (In Rs.)	Strategic Trading cum Clearing Member (STCM) (In Rs)	Professional Clearing Member (PCM) (In Rs.)	Trading Member (TM) (In Rs.)	
					(Without CTCL Facility)	(With CTCL Facility)
1	<b>Minimum Net worth Requirement</b>	50.00 Lacs*	1000.00 Lacs	1000.00 Lacs	5.00 Lacs	Rs 10 lacs for Individuals/Partnership Firm Rs.25 lacs for Corporates
2	<b>Base Capital</b>	15.00 Lacs	20.00 Lacs upfront and Additional 0.50 Lacs per TWTCM affiliated with it	25.00 Lacs upfront and Additional 0.50 Lacs per TWTCM affiliated with it	STCM/PCM to collect applicable margins	STCM/PCM to collect applicable margins
	i) Interest Free Cash Security Deposit					
2	ii) Collateral Security Deposit	15.00 Lacs	50.00 Lacs	25.00 Lacs	STCM/PCM to collect applicable margins	STCM/PCM to collect applicable margins
3	<b>Admission Fee (one time, non-refundable)</b>	5.00 Lacs	5.00 Lacs**	5.00 Lacs	5.00 Lacs	5.00 Lacs
	(With 12.36% Service Tax)					
4	<b>Annual Membership Fees</b>	0.75 Lacs	1.00 Lacs	1.00 Lacs	0.10 Lacs	0.25 Lacs
	(With 12.36% Service Tax)					
5	<b>Advance Minimum Transaction Charges</b>	0.50 Lacs	0.50 Lacs	-	-	-
	(With 12.36% Service Tax)					

\*NCDEX membership only

Particulars	NMCE			All figs in Rs. Lakhs
	Trading Member	Trading cum Clearing Member	Institutional Trading cum Clearing Member	Institutional Clearing Member
Admission Fees(Non Refundable)	0.75	1.50	5.00	7.00
Trade Guarantee Fund(Refundable only after the minimum lock in period)*	0.00	0.50	0.00	0.00
Interest Free Security Deposit ** (Security Deposit shall be in the ratio of 50% cash and 50% cash/fixed deposit/bank guarantee)	to be collected by ITCM/ICM	5.00	10.00	20.00
Annual Subscription charges( non refundable)	0.10	0.25	0.25	0.50
Minimum Net worth requirement	10.00	50.00	100.00	250.00

\*\* Member is eligible to get exposure on interest free security deposit.

## **Chapter IV      Risk Management practices: Framework for harmonisation**

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4.1 The National commodity exchanges, except NCDEX, have developed their in-house risk management systems. There are differences in terms of membership criteria for clearing members and risk management practices. The FMC has laid down certain minimum standards on base capital, Settlement Guarantee Fund (SGF), and contribution to the Settlement Guarantee Fund. However, scope exists for further harmonization in areas such as types of collateral, haircuts on collaterals, margining etc.

4.2 The Committee on Payments and Market Infrastructures (CPMI), earlier known as Committee on Payment and Settlement systems (CPSS) is a global standard setter for promoting the safety and efficiency of payment, clearing, settlement and related arrangements. The CPSS-IOSCO released updated and harmonized 24 key principles known as the Principles for Financial Market Infrastructures (PFMIs) in April, 2012. The principles are applicable for financial market infrastructures, including systemically important payment systems, central securities depositories, securities settlement systems, central counterparties and trade repositories. The Working Group recommends that the CC should adopt and implement the risk management standards consistent with the PFMI principles.

### **Framework**

4.3 The CC should take an integrated and comprehensive view of, and ensure that its risk management systems can manage and report on all relevant risks including risks from and to its clearing members, and risks from and to other entities including settlement and payment systems, settlement and clearing banks, liquidity providers, registries and trading venues served by the CC and other critical service providers.

4.4 The CC's risk management policies, procedures, systems and controls should be a part of a coherent and consistent governance framework which is reviewed and updated regularly. The CC should have provisions in its bye-laws to, in its sole discretion, approve admission of deals or defer, or reject admission of deals for clearing and settlement on its platform, subject to such terms as it deems fit.

4.5 The CC's capital, including retained earnings and reserves, should be proportionate to the risk stemming from its activities as well as the risk mitigation measures adopted by the CC. The requirement of capital should be there only to cover the residual risks, as envisaged by CPSS-IOSCO and not to cover all risks. It is important to note that unlike in case of banks where capital is required to cushion all risks, CCs have various layers of protection, including risk management waterfall and SGF. It would at all times be sufficient to ensure an orderly winding down or restructuring of the activities over an appropriate time span and an adequate protection of the CC against various risks.

4.6 The establishment and disclosure of a dedicated SGF, finality of settlement, well defined default process go a long way in establishing investor confidence. Operational processes, regulatory and legal framework are the other important areas for a CC. Annexure 4.1 provides the details of the functions of the exchange vis-a-vis common Clearing Corporation.

### **Capital requirements**

4.7 CC is an aggregator of risk and hence it needs to be well capitalized. As recommended in the previous chapter, a Minimum Net worth criterion of INR.100 crores is recommended for a clearing corporation's initial capital. However, the net worth and financial resources should be reviewed periodically based upon the assessment of risk linked to its exposure determined on the basis of exhaustive stress tests so as to judge the adequacy of the capital and the financial resources of the CC. Well defined threshold norms would need to be stipulated by the FMC.

### **Product Eligibility Criteria**

4.8 All transactions would meet the product eligibility criteria as specified by the CC from time to time. All products would be subject to a risk management process including margining framework based on volatility models and back testing of data. An objective way of estimation of risks including the use of an underlying price history for a certain number of years should ideally, form the basis for mitigation of risks including the margining framework.

### **Administering the reference data / prices used for clearing**

4.9 The clearing corporation should establish and disclose the price sources and methodology used to determine the reference price in a transparent manner. Some of the elements of the price sources could be as under:

- Real time data feed from the commodity exchanges.
- Real time data feed of the underlying from spot exchanges or any other source.
- Daily and final settlement price data to be provided by the exchange.

### **Guarantee of settlement: Novation**

4.10 One of the essential requirements for a CC is to act as a central counterparty. This would essentially entail novation. A CC splits the original contract between the initiating counterparties into two new contracts; one each between CC and the initiating counterparties. The initiating parties are only exposed to the CC and no longer face the other initiating party's credit risk. Elimination of counterparty risk is achieved through the process of novation and the interposition of the CC as the common counterparty.

### **Assessment & Management of Risks, Netting**

4.11 The application of a netting methodology consolidates the obligations of registered transactions between counterparties. Every gross obligation between counterparties is a source of risk and a component of cost. The lowering of risk and cost related to the management of outstanding futures obligations is a function of the process of consolidation.

4.12 The objective of netting is to enable counterparties to meet obligations through one single payment and one single delivery of the underlying commodity defined in the contract. The original obligations are extinguished by subsequent transactions that create new, consolidated obligations. For margining, netting of positions is at client level, grossed at member level but for settlement obligation, netting is across clients.

4.13 Multilateral netting reduces credit exposure between participants to the extent that it reduces the number and size of each party's transactions. It is an arrangement among multiple parties that transactions be summed rather than settled individually. Multilateral netting not only streamlines the settlement process, it also reduces risk by specifying that, in the event of a default or some other termination event, all outstanding contracts are likewise terminated.

4.14 The Working Group recommends that the principles of netting and novation should be legally enshrined, as stipulated by the PFMI.

### **Margining**

4.15 FMC should set minimum risk margin thresholds and ensure that the margining process is transparent. The Working Group recommends that the RMG/FMC may review the existing margining system and frame norms for the CC.

4.16 In addition to the Mark to Market, which is a mechanism to prevent the possibility of potential loss accumulating to a level where the participants might willingly or unwillingly commit default in their payments, there are several types of margins such as initial margin, delivery margins, pre-expiry, and tender margins which are applicable in the commodity derivatives market. The Working Group recommends that such margins by whatever name as applicable to commodities forward/ derivatives market may be reviewed by RMG.

### **Collateral**

4.17 There is need for rationalization and harmonization of collaterals and haircuts across exchanges. A comparison of acceptable collateral across major Indian Exchanges is indicated in Annexure 4.2. There is variation in respect of concentration limits as well as shown at Annexure 4.3. The Working Group recommends that the existing collateral mechanism including commodities to be accepted as collaterals and harmonization of concentration limits may be reviewed by the RMG/FMC. For the non-physical collaterals, the RMG/ FMC may consider issuing guidelines on the lines issued by SEBI.<sup>1</sup>

### **Custody and risks**

4.18 The risks that a CC faces increases due to the physical nature of the underlying and the complexities of commodity markets, including the quality issues and the settlement of the same. In this context, the role of warehouse service provider(s) and regulations thereof need to be reviewed with respect to ownership criteria, empanelment of assayers, inspection of warehouses, linkage to registry etc. The CC shall define the role of warehouse service provider and duties and obligations shall be defined in the form of an agreement. The obligation to settle trade in time shall remain with CC and warehouse service provider shall act as service provider to the CC. The CC shall be responsible for good delivery of physical commodities through the warehouse service providers.

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<sup>1</sup> [http://www.sebi.gov.in/cms/sebi\\_data/commondocs/mcann4\\_p.pdf](http://www.sebi.gov.in/cms/sebi_data/commondocs/mcann4_p.pdf)

## **Portability and segregation principles**

4.19 A segregation model needs to be employed which segregates the collateral of the clients without any intervention of the trading members. Portability, especially in case of a default, can only be ensured with a sound segregation model in place. The CC would keep separate records and accounts that enable it to identify and segregate the assets and positions of one clearing member from the assets and positions of any other clearing member and from its own assets. In addition, the CC should keep separate records and accounts enabling each clearing member to either:

- (i) distinguish the assets and positions of that clearing member from those held for the accounts of its clients (“omnibus client segregation”) or
- (ii) distinguish the assets and positions held for the account of a client from those held for the accounts of other clients (“individual client segregation”).

4.20 A clearing member would keep separate records and accounts that enable it to distinguish both in accounts held with the CC and in its own accounts, its assets and positions from the assets and positions held for the account of its Clients.

4.21 For client level segregation of collateral, in addition to the existing arrangements, a custodian model may be looked into, in which a custodian allows the client to post the collateral with the custodian and the custodian intimates the member about the collateral for the client available with the custodian for trading purpose. Even in case of the member default, the client’s collateral is safe and his position can be easily ported to another member.

4.22 The Working Group recommends that as stipulated by the IOSCO-CPSS, the principles of segregation and portability should also be legally enshrined.

## **Settlement Guarantee Fund (SGF) & waterfall mechanism**

### **Default waterfall**

4.23 The SGF for the product segments should be designed on the basis of instruments in line with the global best practices. Different instruments have widely different risk characteristics and therefore require delinking to avoid spillover from one to another. At present, in addition to exchange traded futures, the NCDEX has also launched forwards on a pilot basis for maize and sugar.

4.24 A proper framework for the contribution to the SGF fund needs to be developed on similar lines as has been specified by SEBI for capital market participants. The CC would take minimum initial deposits from the clearing members, which would be part of the SGF. Additional deposit / contribution to the SGF could be linked to the value of the transactions cleared through the clearing corporation by the Clearing member or when shortfall arises after stress tests are done to determine the adequacy of SGF at CC. There will be a core SGF within the SGF against which no exposure should be given and which should be readily and unconditionally available to meet settlement obligations of clearing corporation in case of clearing member(s) failing to honour their settlement obligations. In the event of a clearing member(s) failing to honour settlement commitments, the Core SGF shall be used to fulfill the obligations of that member(s) and complete the settlement without affecting the normal settlement process.



4.25 The sufficiency of the corpus of the Fund would be tested by way of periodic stress tests, in the manner specified by the FMC. The Fund would be used to ring fence each segment of CC from risks of other segments.

4.26 SEBI has recently prescribed norms for Core Settlement Guarantee Fund (Core SGF), Default Waterfall and Stress Testing. It is recommended that the guidelines stipulated by SEBI be broadly adopted for the common CC as well.<sup>2</sup>

### **Calculation of MRC**

4.27 Minimum Required Corpus (MRC) of Core SGF for each segment of an exchange may be decided by the RMG.

4.28 A monthly review should be conducted and the results communicated to the Risk Committee and the Board of Directors of the CC. The exception reporting shall be made to the FMC detailing the outcome of the review, including steps taken to enhance the Core SGF. The CC and its Clearing Members would publicly disclose the levels of protection offered, including the costs and main legal implications (including information relating to treatment on insolvency) of each level of protection and would offer those services on reasonable commercial terms.

### **Liquidity Risk**

4.29 The CC should measure and monitor the liquidity risk of Settlement Guarantee Fund to ensure that there are sufficient funds available to meet settlement exposures. This should be done by preparing scenario analysis over an appropriate timeframe of likely inflows and outflows of funds. Stress tests should be conducted for assessment of liquidity risks and the corresponding liquidity risk mitigation plans. The Working Group recommends that lines of credit from the Reserve Bank should be available to the CC, given that it shall be common across all exchanges, including any other lines of funding from banks/ institutions.

### **Adequacy for SGF corpus/ Contribution to Core SGF/ Further contribution to / Recoupment of Core SGF**

4.30 The corpus of the fund should be adequate to meet all the contingencies arising on account of failure of any member(s). The risk or liability to the fund depends on various factors such as trade volume, delivery percentage, the maximum settlement liability of the members, the history of defaults, capital adequacy and financial resources of the members, the degree of safety measures employed by the CC etc. The details may be decided by the RMG.

### **Investment guidelines**

4.31 The CCs shall follow prudential norms of Investment policy for Core SGF corpus and establish and implement policies and procedures to ensure that Core SGF corpus is invested in highly liquid financial instruments with minimal market and credit risk and is capable of being liquidated rapidly with minimal adverse price effect. The CCs shall further ensure that the financial instruments in which the Core SGF corpus is invested remain sufficiently liquid and diversified at all times.

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<sup>2</sup> SEBI has issued a circular **CIR/MRD/DRMNP/25/2014** dated August 27, 2014 prescribing norms for Core Settlement Guarantee Fund (Core SGF), Default Waterfall and Stress Testing. These guidelines are aimed at enhancing the robustness of the present risk management system of the clearing corporations (CCs) to enable them to deal with defaults of the clearing members much more effectively.

**Access to Core SGF**

4.32 The CC may utilise the Core SGF in the event of a failure of clearing member(s) to honour settlement commitment.

**Review of Core SGF**

4.33 The monthly review results shall be communicated to the Risk Management Committee and the Governing Board of the Clearing Corporation.

**Shortage & Default handling**

4.34 The CC should ideally be able to handle shortages faced during settlement with minimum impact on the market and other clearing participants. CC should have adequate preparedness for such eventuality. Moreover, the shortage may lead to the member in shortage turning out to be a defaulter. Defaults could also arise from un-met margin calls. Efficient default handling needs pre-decided approach with necessary flexibility. The participants availing the services of the CC should also have an ex-ante understanding of the likely impact on it and on the market from a default. These details may also be looked into by the RMG.

**Business Continuity Plan/ Disaster Recovery**

4.35 The CC should maintain an organisational structure that ensures continuity and orderly functioning in the performance of its services and activities. It should implement and maintain a business continuity policy and disaster recovery plan to ensure the preservation of its functions, the recovery of operations and the fulfilment of its obligations. The disaster recovery plan, at the very least would allow the recovery of all transactions at the time of disruption, to allow the CC to continue to operate with certainty and to complete settlement on the scheduled date.

**Strategy and Policy**

4.36 The business continuity policy and disaster recovery plan should be approved by the Board and subject to independent reviews that are reported to the Board and the FMC. The business continuity policy would focus on identifying all critical business functions and related systems, and takes into account external links and interdependencies within the financial infrastructure, including trading venues cleared, settlement and payment systems and credit institutions used. It would also take into account critical functions or services which have been outsourced. The business continuity plan, inter alia, should identify the maximum acceptable down time for critical functions and systems. End of day procedures and payments should be completed on the required day in all circumstances.

**Business impact analysis**

4.37 The CC should conduct a business impact analysis to identify its critical functions and have in place arrangements to ensure the continuity of its critical functions based on various disaster scenarios.

**Disaster Recovery Centre**

4.38 The CC must maintain a secondary processing site capable of ensuring continuity of all of its critical functions that has a geographical risk profile which is different from that of the primary site. The Disaster Recovery Centre should ideally be located in a different seismic zone to the primary site.

**Testing and Monitoring**

4.39 The CC should test and monitor its business continuity policy and disaster recovery plan at regular intervals taking into account scenarios of large scale disasters and switchovers between primary and secondary sites.

## **Maintenance**

4.40 The CC should regularly review and update its business continuity policy and disaster recovery plan to include the most suitable recovery strategy, taking into consideration the outcome of stress tests and the recommendations of independent reviews and of the Forward Markets Commission.

## **Crisis management**

4.41 The CC should have a crisis management function to act in case of emergency, including key management personnel responsible for managing the crisis. The function should be monitored and reviewed by the Board of the CC.

## **Communications**

4.42 The CC should have clear communications procedures to manage internal and external crisis and a communication plan documenting information flow between management and relevant external stakeholders during a crisis.

## **Surveillance**

4.43 A part of the current surveillance function of exchanges pertaining to risk management would have to be taken over by CC. The price behavior and patterns in trading, however, would continue to be with the commodity exchanges.

## **Registration/ accreditation**

4.44 The CC will undertake accreditation of assayers and their facilities and make assayers responsible / accountable for their assaying reports in addition to the mechanism that may be available with the WDRA. The CC should also register the WSPs in addition to the mechanism available with the WDRA.

4.45 Given the physical nature of commodities, there is a high probability of disputes in the settlement mechanisms. These may relate to quality, quantity and tax related issues. The CC should have a Dispute Resolution Mechanism in place to handle disputes on settlement and quality and quantity of commodity settled on the platform.

4.46 The dispute resolution mechanism should ensure timely resolution so that settlements are not held up. The CC would need to put in place standardization of the Risk Covers (insurance) and the quantum to be taken by the WSPs to ensure uniformity in settlement of claims in case of calamity, in addition to the mechanism available with WDRA.

4.47 The CC would need to have a separate a Physical Settlement Guarantee Fund to cover risks from physical delivery default with contributions from WSPs and depositors.

## **Tax Settlement**

4.48 The exchanges have been ensuring that in respect of contracts which are settled by physical delivery, at every handover of the title to commodities, the buyer and seller exchange tax compliant invoices. The CC would have to ensure the same through appropriate mechanisms.

4.49 The CC would need to carry out the due diligence of all the entities with whom it would be directly dealing with viz., clearing members, clearing banks and warehouse service providers.

## **Recommendation**

4.50 The Working Group recommends that the CC should adopt and implement the standards set by the CPSS-IOSCO principles. The RMG constituted by FMC may decide on issues pertaining to the details of the Settlement Guarantee fund, contribution to the core SGF, default waterfall, calculation of MRC, margining methodology, existing collateral mechanism including

commodities to be accepted as collaterals and harmonization of concentration limits, non-physical collaterals, etc. The guidelines prescribed by SEBI in this regard may be considered.

4.51 The CC shall be responsible for good delivery of physical commodity through the warehouse service providers. The CC needs to undertake accreditation of assayers and their facilities and make assayers responsible / accountable for their assaying reports, in addition to the mechanism that may be available with the WDRA. The CC should also register the WSPs in addition to the mechanism available with the WDRA.

4.52 The CC would need to carry out the due diligence of all the entities with whom it would be directly dealing with viz., clearing members, clearing banks and warehouse service providers. CC would need to have a Dispute Resolution Mechanism in place to handle disputes on settlement and quality and quantity of commodity settled on the platform. It may consider setting up a Physical Settlement Guarantee Fund to cover risks from physical delivery default with contributions from WSPs and depositors.

#### Annexure 4.1

##### Functions of the Commodity Exchange, Clearing Corporation and E Registry

Exchange	Clearing Corporation			E Registry
Trading Operation	Clearing Operation	Settlement (electronic transfer) Operation	Delivery of commodities	
• Order Receiving	• Margining	• Mark to Market	• Warehouse accreditation	• Record maintenance of commodity balances
• Execution	• Matching of final open positions for delivery	• Receipts and payments	• ICIN generation	• Procedure for endorsement of EWR & ENWR
• Matching	• Price limits	• Delivery upon expiration of contracts	• Due diligence of WSPs (sufficiency of collaterals, insurance)	• Procedure for creating /releasing pledge against EWR & ENWR
• Reporting	• Position limits	• Reporting		
• Surveillance	• Novation	• Clearing Bank Registration	• Reconciliation of electronic balances with physical stock register	• Procedure for clearing facility for settlement of obligation on the exchange
	• Reporting	• Collateral management	• Periodic audits of warehouses	• Commodity participants registration*
	• Client margin reporting	• Final settlement pay ins	• Dispute resolution of quality and quantity	
	• DSP declaration			
	• FSP declaration		• Co-ordination with WDRA/ State Govts**	
	• Handling of settlement shortages		• Warehouse Billing	
• Spot price polling (till it is taken over by independent entity)	• Default handling		• Reporting	
• Trading Member registration *	• Clearing member Registration*		• WSP registration **	
• Client registration *				

\*This function will be discharged by the common registry for KYC, when it is formed.

\*\*The functions of the CC vis-a vis the WDRA may be reviewed, after WDRA is sufficiently strengthened.

## Annexure 4.2

### Comparison of Haircuts on Collaterals

Collateral	NCDEX	MCX	ACE	NSE (Equity Derivatives)	BSE(Equity Derivatives)
Cash	No haircut	No haircut	No haircut	No haircut	No haircut
Bank Guarantee	No haircut	No haircut	No haircut	No haircut	No haircut
Fixed Deposits Receipts	No haircut	No haircut	No haircut	No haircut	No haircut
Approved Securities	20% for NIFTY50 stocks and 40% for others	VaR or 40% subject to VaR depending on scrip	40% OR 50%	VaR Or (root 4 times VaR rate) or 40% whichever is higher Or (root 2 times VaR rate) or 20% whichever is higher	VaR
Agricultural Commodities	50%	50%	50%	Not accepted as collateral	Not accepted as collateral
Bullion	15%	15% to 35% depending on value of deposits	Not accepted as collateral	Not accepted as collateral	Not accepted as collateral
Steel	60%	Not accepted as collateral	Not accepted as collateral	Not accepted as collateral	Not accepted as collateral
Mutual Funds ( Liquid)	Not accepted as collateral	20%	Not accepted as collateral	(root 4 times VaR rate) or 40% whichever is higher Or VaR Rate + Exit Load Or 10% (for liquid funds)	Liquid Mutual Fund (or) Govt. Sec. Mutual Fund: 10% Others: VaR
Government Securities and T-Bills	25%	Not accepted as collateral	Not accepted as collateral	10%	10%
Gold ETF	20%	Not accepted as collateral	Not accepted as collateral	(root 4 times VaR rate) or 40% whichever is higher	VaR
Foreign Sovereign Securities	Not accepted as collateral	Not accepted as collateral	Not accepted as collateral	20%	10%
Corporate Bonds	Not accepted as collateral	Not accepted as collateral	Not accepted as collateral	10%	10%

Conditions applicable for deposit of BG/ FDR at MCX not mentioned above (cap at 1:3/ minimum 50 lakhs deposit with undertaking). Securities and commodities pledged (non cash collaterals) cannot exceed the eligible value of cash collaterals cash, BG and FDR)

Ace follows cash to cash equivalent ratio of 1:3. This ratio of cash to cash equivalent is not applicable if member deposits Rs. 15 lakh cash with the exchange. Cash +cash equivalent( FDR/BG) to non cash ratio as 1:2 which is restricted to 1:1 if only commodities is given as non cash collateral.

**Annexure 4.3**
**Concentration Limits**

<b>Collateral</b>	<b>NCDEX</b>	<b>MCX</b>	<b>ACE</b>	<b>NSE(Equity Derivatives)</b>	<b>BSE(Equity Derivatives)</b>
<b>Cash</b>	No limit	No limit	No limit	No limit	No limit
<b>Bank Guarantee</b>	No limit (Internal limits monitored)	No limit	No limit	Limit on exchange's exposure to single bank as stipulated by SEBI. Additionally, limit as specified by Board for a single bank & bank-wise member-wise limit.	Limit on exchange's exposure to single bank as stipulated by SEBI.
<b>Fixed Deposits Receipts</b>	No limit (Internal limits monitored)	No limit	No limit	No limit	No limit
<b>Approved Securities</b>	Total equity and commodity as collateral (including bullion) deposited towards ABC shall not exceed 10% of the total effective deposits present in the Exchange.	Rs 5 Cr or Rs 2 Cr depending on scrip  Ceiling limit of Rs 25 Cr across all securities, including mutual funds.	Rs 5 Cr, Rs 4 cr or Rs 2 Cr(after haircut), depending on script.  Total of all shares (after haircut): Rs 25 Cr.	Market wide limit and member wise limit specified for each scrip. Additionally % of cash component limit specified for each scrip.*	Limits specified for each scrip.**
<b>Agricultural Commodities</b>	Approved Select Agricultural Commodities and Steel Long as Collateral permitted to a maximum of Rs. 5 Crores (after haircut) as part of ABC for a member and Rs. 50 Crores across all members.  Total equity and commodity as collateral (including bullion) deposited towards ABC shall not exceed 10% of the total effective deposits present in the Exchange.	Agri: commodity wise limits ranging from 0.15 Cr to 2 Cr.  Bullion: Commodity wise limits ranging from 25 Cr to 100 Cr.  Ceiling limit of Rs.50/100 Crores for TCM/PCM-ITCM resp. across all commodities.	Rs 1 Cr per commodity and Rs 5 Cr overall(after haircut)	Not accepted as collateral	Not accepted as collateral
<b>Bullion</b>			Not accepted as collateral	Not accepted as collateral	Not accepted as collateral
<b>Steel</b>		Not accepted as collateral	Not accepted as collateral	Not accepted as collateral	Not accepted as collateral
<b>Mutual Funds (liquid)</b>	Not accepted as collateral	Rs 1 Cr per scheme  Ceiling limit of Rs 25 Cr across all securities and mutual funds	Not accepted as collateral	In case of ETF & Liquid funds - Market wide Limits specified, Member-wise limit & % of cash component limit specified for each ETF. In case of	Liquid Mutual Fund (or) Govt. Sec. Mutual Fund: No limits.  Others**: Member wise and overall limits specified

				open ended mutual fund, Market wide limit and member-wise limit specified as % of total liquid asset across all mutual funds deposited by clearing member.*	for each scheme
<b>Government Securities and T-Bills</b>	No limit	Not accepted as collateral	Not accepted as collateral	No limit	No limit
<b>Gold ETF</b>	Total equity and commodity as collateral (including bullion) deposited towards ABC shall not exceed 10% of the total effective deposits present in the Exchange.	Not accepted as collateral	Not accepted as collateral	Market wide limit, member-wise limit specified for each scheme. Additionally % of cash component limit specified for each scheme.*	No limit**
<b>Foreign Sovereign Securities</b>	Not accepted as collateral	Not accepted as collateral	Not accepted as collateral	10% of cash component of liquid assets	10% of cash component of liquid assets
<b>Corporate Bonds</b>	Not accepted as collateral	Not accepted as collateral	Not accepted as collateral	Market wide Limit specified for each issue. Additionally member-wise limit specified as % of total liquid asset across corporate bonds deposited by clearing member.*	Limits specified for each issue and total not to exceed 10% of the total liquid assets of the member. **

\* Denotes non cash component. In case of NSE, Cash and non-cash % to be 50:50, as stipulated by SEBI.

\*\* In case of BSE/ICCL, Non-cash component cannot exceed 50% of total liquid assets of the member.

Conditions applicable for deposit of BG/ FDR at MCX not mentioned above (cap at 1:3/ minimum 50 lakhs deposit with undertaking). Securities and commodities pledged (non cash collaterals) cannot exceed the eligible value of cash collaterals cash, BG and FDR)

Ace follows cash to cash equivalent ratio of 1:3. This ratio of cash to cash equivalent is not applicable if member deposits Rs 15 lakh cash with exchange. Cash + cash equivalent (FDR/BG) to non cash ratio is 1:2 which is restricted to 1:1, if only commodities is given as non cash collateral.

The Clearing Corporation of India Ltd. (CCIL) only accepts INR and USD Cash and selected Govt of India Securities & T-bills as collaterals. For Cash, there is no haircut. For Govt Securities, haircut is based on 3 day Value at Risk (higher haircut is imposed for illiquid securities).



## Chapter V      Common Warehousing Infrastructure and Intermediaries

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5.1 The settlement of the futures contracts traded on the exchanges, by physical delivery of the commodity plays an important role in ensuring the convergence of the futures price with the spot price of the commodity at the time of expiry of the futures contract. The FCRA 1952, stipulates that all outstanding positions at the expiry of the forward contract must be settled through the physical delivery of commodities<sup>1</sup>. As a corollary, a robust and healthy delivery network of well-resourced warehouses is the sine-qua-non of a mature and well functioning commodities forward market. In order to facilitate the physical delivery of commodities, it is imperative to have a wide and reliable network of warehouses at the delivery centres. This is especially important in case of agricultural commodities given that they are of a perishable nature and proper handling is required to ensure preservation of value of the commodity.

### **Role of WDRA**

5.2 The Government of India has put in place an enabling legal & regulatory framework by enacting the Warehousing (Development & Regulation) Act, 2007 and Rules and Regulations under this Act. The Warehousing Development and Regulatory Authority (WDRA), which is the regulatory and supervisory agency licenses and supervises the warehouses registered with it. The warehouses registered with the WDRA may issue negotiable warehouse receipts (NWRs) as well as non negotiable warehouse receipts (WRs). A NWR can be traded or endorsed by the holder of the receipt. However, any warehouse which intends to issue NWRs should mandatorily be registered with the WDRA.

5.3 The registered warehouses are expected to have adequate insurance and financial performance guarantees. These warehouses have to meet the norms stipulated by the WDRA which inter-alia relate to construction standards, quality standards, storage, insurance, financial and managerial standards. Thus, the WDRA registered warehouses have required standards and storage of commodities in these warehouses is scientific. Therefore, it is expected that the commodities stored in the WDRA registered warehouses will have guarantees of availability of quantities and quality of the commodities as mentioned in the NWRs.

5.4 The main objectives of the WDR Act is as follows:

- To provide administrative and legal mechanism for regulation of warehouses in the country
- To establish Negotiable Warehouse Receipt System (NWRs)
- To make warehouse receipts a prime tool of trade
- To enhance fiduciary trust of depositors and banks against fraud & mismanagement
- To facilitate finance against NWRs

### **Role of FMC**

5.5 Warehouses have a critical role in settlement of trade in the commodities futures market. An efficient warehousing facility needs to ensure the integrity of the delivery mechanism by assuring the market participants of delivery of right quantity with quality of the commodities. The FMC has stipulated that the settlement of the outstanding forward contracts by way of delivery is the primary responsibility of the respective exchanges on whose platform the participants have traded in forward/futures contracts.

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<sup>1</sup> Section 2( c ) of FCRA, 1952 defines forward contracts as contracts for delivery of goods....

5.6 Further, the warehouse service providers which are independent business entities have been directed for the purposes of commodity derivatives market, to function as agents of the exchanges to whom they are providing their warehousing services. Thus, in the present scheme of things, there is a principal-agent relationship between the exchange and the warehouse service providers and the exchanges bear the primary responsibility of effecting good deliveries to the participants, whenever the trades result into delivery<sup>1</sup>. FMC proposes to lay down norms for warehouse service providers issuing non negotiable warehouse receipts and which are accredited by commodity exchanges to give physical delivery of goods upon settlement.

5.7 In order to ensure that all the warehouses conform to certain minimum standard specifications, and that the warehouse service providers are adequately capitalized to carry on the activity in compliance with all the conditions which may be prescribed, the FMC had directed the National commodity exchanges that the warehouses approved by them should be mandatorily registered and accredited by the WDRA by 31<sup>st</sup> March, 2014<sup>2</sup>. However, inadequate number of warehouses at certain delivery centres had adversely affected the efficacy of price discovery process and trading in certain commodities. The FMC, therefore, extended, the time frame for registration with WDRA till 30<sup>th</sup> September, 2014<sup>3</sup> and further till June, 2015<sup>4</sup> for the existing accredited warehouses of the commodity exchanges.

#### **Role of the commodity exchanges**

5.8 The National commodity exchanges do not own or hire any warehouse for the purposes of settlement of the contracts that require to be settled by the physical delivery of commodities. The National Multi Commodity Exchange (NMCE) uses the Government / Central Warehousing Corporation (CWC) owned warehouses, while other National exchanges use the services of privately owned warehouses. The exchanges have laid down the criteria for the warehouses and empanel Warehouse Service Providers (WSPs) who arrange warehousing facilities on the basis of the criteria laid down by the exchanges.

#### **Agreements with the WSPs.**

5.9 The commodity exchanges have entered into bilateral agreements with the WSPs which cover inter-alia the liabilities for the goods stored in the warehouses owned or leased by the WSPs, standard operating procedures, warehouse infrastructure, operation and legal control on warehouses, demarcation of exchange deliverable goods, etc. The goods stored in such warehouses are required to meet the quality specifications prescribed by the exchange, are given a definite validity date (shelf life) for trading on the exchange's platform and are assayed before storage. The WSPs act as custodians of the goods stored in the approved warehouses and accept deposits as per the contract specifications of the exchange, carry out regular preservation practices for proper upkeep and hygiene and deliver the commodities as per grade and quantity for which these are traded on the exchange platform.

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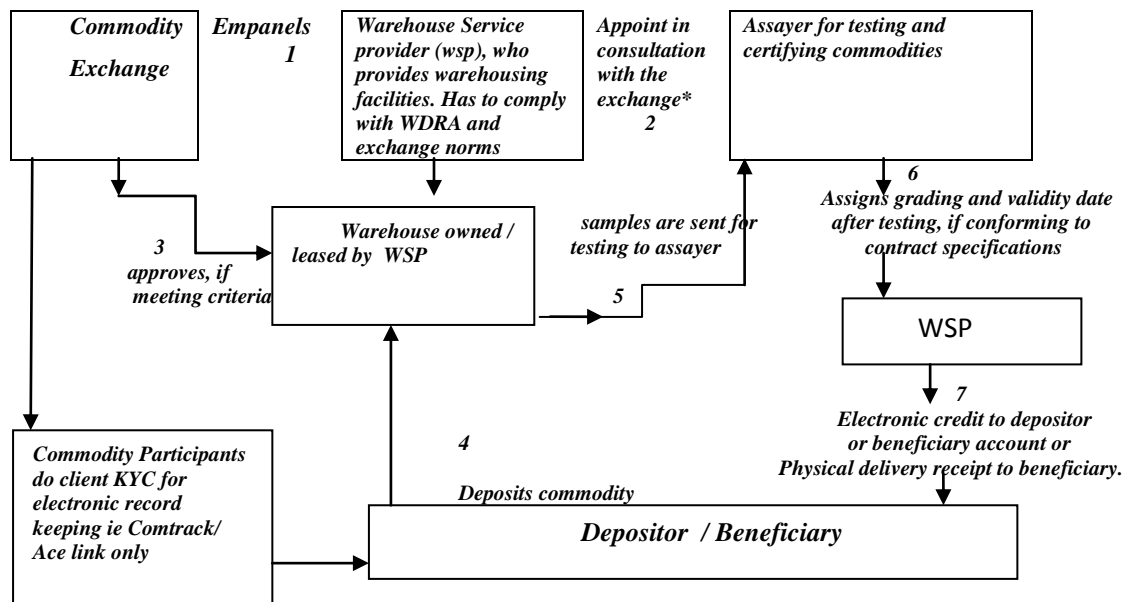
<sup>1</sup> FMC No.Div. III/WH/FMC/ Dated 30th August 2013

<sup>2</sup> FMC. No. Div. III/WH/FMC Dated 5th December, 2013

<sup>3</sup> FMC No. Div. III/WH/FMC Dated 11th March, 2014

<sup>4</sup> FMC No. Div. III/WH/FMC Dated 28th August, 2014

### Schematic Process for settlement by physical delivery at warehouses



\*CWC warehouses have their own panel of assayers

### Role of Warehouse Service Providers (WSPs)

5.10 The activities of WSPs in the prevailing model is as follows:

- Diligently comply with requirements of WDRA/exchanges in respect of warehouse space or facilities.
- Maintain at all times, legal and operational control of all approved warehouse storage space.
- Implement policies and processes as prescribed by the Exchange and adhere to the stipulated operational turnaround time.
- Exercise at all times, such care in regard to commodities in custody as a reasonably careful person would exercise under the same circumstances and conditions; not differentiate among depositors or lawful owners regarding use of and access to services.
- The exchanges may hold WSPs liable, if the goods are found to be not meeting the quality prescribed under the contract specifications and/or in the event of shortage in the quantity of goods held by them.

### Commodity Participants for electronic record keeping

5.11 Two of the national exchanges (NCDEX and ACE) which have developed an electronic record keeping system of warehouse receipts empanel Commodity Participants (CPs) who are akin to existing Depository Participants in Securities Market. The role of commodity participants is:

- Carry out Know Your Client (KYC) validation and open beneficiary accounts of clients.
- Facilitate maintenance and transfer of commodity balances in electronic form.
- Responsible for client servicing
- Collect charges (warehousing, demat, remat) from the clients

### **What needs to be addressed?**

5.12 The exchanges have adopted exclusivity arrangements with the approved WSPs, as the onus of good delivery is on the exchange. Each exchange follows its own system of approving warehouses and different processes relating to deposit, sampling and testing, storage, preservation and withdrawal. The warehouse service provider is not permitted by the exchange to share the warehouse space with any other exchange, which results in each exchange to have its own arrangements for warehousing. Delays in licensing and compliance to various requirements of WDRA compound the problems of availability of warehouse space at delivery locations. As there is no assurance of continued utilization of the storage space, the costs are high when the warehouse is not fully utilized. The exchanges also collect bank guarantees/deposits from the WSPs, which leads to much higher warehouse rates being charged by the WSPs from the participants, as compared to standard non-exchange rates. The assayers are appointed by the WSPs. A client or a depositor is required to submit documentation each time to individual WSPs across different exchanges. This not only results in sub-optimal use of scarce warehouse facilities at the delivery centres, but also translates into increased costs to participants, who wish to settle their contracts through physical delivery. In the case of CWC warehouses, utilized by NMCE, the CWC has its own arrangements for testing and assaying of goods. The CWC warehouses are registered with the WDRA and issue NWRs.

### **Inspection and Audit**

5.13 The WDRA accredited warehouses are required to follow the norms stipulated by the WDRA and are subject to audit and inspection by WDRA. The WSPs also have their own internal/ independent audit team for conducting inspection/ audits of stocks stored in their warehouses. In addition, exchanges also have their own in-house audits of deliverable stocks at exchange approved warehouses at regular intervals. The periodicity of the audit varies from exchange to exchange and also based on the quantum of stocks deposited in a particular warehouse/ location.

### **Common Warehousing facilities / Common assayers**

5.14 The common CC as an independent body would provide a layer of comfort and confidence to the market participants in respect of delivery related issues. The centralization of the clearing and settlement functions with the clearing corporation would ensure that the warehouse infrastructure and its associated supply chain intermediaries(WSPs, assayers etc) are optimally utilised across exchanges, as the CC would accredit the assayers, warehouses and the WSPs. The varying charges levied by the WSPs for the warehouses located in the same delivery location, but different delivery centres may be avoided. The CC would also ensure standardization in the quality certification process for each commodity. Annexure 5.1 provides an illustrative list of locations at delivery centres that may be shared across commodity exchanges.

5.15 The CC shall assume the responsibility of delivery of the quality and quantity of goods as per contract specifications. Common warehousing facility would make the goods stored therein available for settlement of contracts, traded across various exchanges. Fungibility requires standardisation of commodity specifications. Commodities which are traded on more than one national exchange with uniform quality specifications and with compulsory delivery logic viz., Gold 1 kg and Silver 30 kg contracts traded on MCX, NCDEX and ACE can be tried on a pilot basis for moving towards fungibility. Common software linking the warehouses /vaults to the CC would ensure real-time (or set intervals) information dissemination on stocks of the commodities. Audit and inspection of the warehouses should also be centralised.

5.16 The CC may enter into various legal agreements for warehousing, assaying, common standards of quality, terms and conditions including storage rent, insurance etc. for the goods deposited by individual depositors and those received by the buyers.

5.17 For enabling common warehousing infrastructure, the CC should:

1. Establish the operating framework defining the conceptual, operational and legal framework for registration/ licensing of the Warehouse Service Providers.
2. Specify the norms for the warehouses for various commodities traded on the exchange platforms, including the net worth criterion.
3. Enable provision of enough warehousing capacities in the delivery locations of the exchanges.
4. Frame norms for assaying agencies.
5. Standardise the quality specifications, sampling and testing procedures, shelf life and related issues for the goods stored in the warehouses.
6. Provide a clear and transparent legal framework for dispute resolution mechanism.
7. Enable creation of an electronic platform for accounting, clearing and settlement of NWRs and WRs.
8. Define, implement and cover the risks due to natural calamities, fraud, fidelity issues, security and safety of the goods stored in the warehouses.

### **Stakeholder Views**

5.18 According to the members, a common pool of warehouses and assayers will reduce the settlement related costs. Better availability of warehousing infrastructure and services of supply chain intermediaries and encouraging more participant categories in the commodities market, in their view, will strengthen the clearing capabilities in the market.

### **Recommendations**

The Working Group recommends the following:

5.19 The CC should assume the responsibility of delivery of the quality and quantity of goods as per contract specifications.

5.20 The FMC and CC may stipulate minimum standards / norms for approval of WSPs in addition to those prescribed by WDRA.

5.21 The CC should coordinate with WDRA / State governments / WSPs and put in place a document stipulating the standard operating procedures, review and approve the delivery mechanism for the contract specifications designed by the exchanges.

5.22 The CC should register the WSPs and have oversight over the WSPs and the warehouses.

5.23 The CC should empanel assayers.

5.24 The CC should on an ongoing basis, conduct audit and inspection of the warehouses.

5.25 The CC should accredit WDRA registered warehouses and promote the use of NWRs.

5.26 The CC should have a clearly defined dispute resolution mechanism.

**Annexure 5.1**

Delivery Centres – Across Commodity Exchanges for key agricultural contracts

Sr. No	Commodity	Delivery Centre - (Additional Delivery Centre)				Common Centres
		NCDEX	NMCE	MCX	ACE	
1	Castor seed	Deesa- Bhabar, Kadi, Palanpur, Patan	Ahmedabad - Palanpur, Disa, Dhanera, Patan, Sidhpur, Unjha & Mehasana, Kadi, Bhabhar, Harij, Talod, Kapadwanj, Himatnagar, Bhuj, Rajkot, Halvad, Jamnagar, Dhoraji		Patan - Kadi, Deesa, Palanpur, Bhabhar	Patan, Kadi, Deesa
2	Chana	Delhi - Indore, Bikaner	Delhi			Delhi
3	Cotton 29 mm	Rajkot - Kadi, Yawatmal, Aurangabad, Akola		Rajkot - Jalgaon/ Aurangabad (Maharashtra), Kadi (Gujarat), Abohar/Bhatinda (Punjab), Sirsa (Haryana), Burhanpur (Madhya Pradesh), Adilabad/Guntur (Andhra Pradesh)	Rajkot - Kadi, Amreli, Surendranagar, Anjar and Bodeli	Rajkot, Kadi, Aurangabad
4	Crude Palm Oil			Kandla	Kandla	Kandla

### **E-Registry for NWRs**

6.1 A Warehouse Receipt is a document issued by a warehouse service provider to a person depositing goods in the warehouse. It evidences a contract for storage of goods. The warehouse receipt is accepted by the commercial banks as collateral security for grant of loan against the goods stored in the warehouses. A warehouse receipt may be negotiated by endorsement and delivery. The goods covered by a negotiable warehouse receipt can be transferred by an endorsement on the Warehouse Receipt and its delivery to the endorsee. A person to whom warehouse receipt is negotiated acquires a title to the goods in respect of which such warehouse receipt has been issued. The endorsee gets a right to have the possession of goods covered by such warehouse receipt as per the terms and conditions contained in such receipt. The endorsee also gets a right to have such goods delivered to him or his authorized agent by the warehouseman/service provider. Warehouse receipts which are not negotiable, need to be electronically registered, to facilitate settlement through the CC.

6.2 As per the Warehousing (Development and Regulation) Act, 2007, negotiable warehouse receipts (NWRs) can be in both paper and electronic form. Further, as per the provisions of the WDR Act, the WDRA can regulate and develop an electronic system of holding and transfer of credit balances of fungible goods deposited in the warehouses. The advantages of electronic warehouse receipts over the paper warehouse receipts include: reduction in manual handling, elimination of transportation of paper warehouse receipts, reduction in chances of forgery and quick access to information. The WDRA is in the process of declaring NWRs as security and when it is done, the NWRs may be de-matted through the depository services.

6.3 The electronic warehouse registry system of the WDRA will enable multiple transfers without physical movement of goods; (ii) provide alternate channels of marketing to farmers and reduce the cost of intermediation for consumers; (iii) facilitate standardisation of farm produce, grading, scientific warehousing, packaging and logistics; (iv) enable consumers (industries, processors, wholesalers, retailers etc.) to procure graded produce at competitive prices at locations of their choice, (v) promote an efficient clearing, settlement and delivery system; and (vi) bring transparency in trading of agricultural produce.

### **E-Registry for WRs**

6.4 In the context of a common clearing system for commodity exchanges, all participants need to have access to common systems to carry out timely settlements of funds and commodities. The settlement of fund obligations by the exchanges is well established through the banking system, however, the settlement of commodity obligations, is fraught with several challenges.

6.5 FMC has stipulated that all exchange accredited warehouses must be registered with WDRA. However, due to non availability of adequate warehousing space in some of the delivery centres and the time involved in the process of registration, FMC has extended the time period for registration of these warehouses with WDRA upto June, 2015. As of 30<sup>th</sup> September, 2014, out of the 481 accredited warehouses, 56 exchange accredited warehouses are registered with the WDRA and 284 warehouses have been inspected by the WDRA, as part of the process for registration. Further, some of the commodities traded on the futures exchanges, such as gold, silver, steel, cottonseed oil cake etc are not in the list of WDRA notified commodities. Thus, warehouse receipts, which are not negotiable, may also be in use for settlement of futures transactions.

6.6 To effect settlement, ownership needs to be transferred, either by physical delivery of the commodity or by issuance of warehouse receipt in the name of the buyer. The process of settlement through the exchange of physical warehouse receipts can be cumbersome and is vulnerable to the risk of fraud, duplication, quantity and quality issues leading to the delay in settlements. The commodity can be delivered in any of the delivery centres specified in the contract specification. Issues relating to disputes on quality and quantity, therefore, need to be resolved by the exchanges. In some states, there are no state warehousing authorities. The resolution of these disputes without clarity on the legal jurisdiction causes settlement delays.

6.7 An electronic registry (E-Registry) which maintains electronic records of all warehouse receipts (negotiable and non negotiable) can mitigate settlement risks. The advantages of the E-Registry mechanism are:

- The lot identification process of the commodities deposited and stored would be credible and simpler.
- It improves the visibility of the transfer of the title to goods mentioned in the warehouse receipt to the next buyer, thereby enhancing its traceability.
- The common registry can bring uniformity in the process of issue of warehouse receipts and warehousing infrastructure across all commodity exchanges.
- The identity of the original depositor can be maintained to have recourse for addressing any problems that may come up with regard to the quality issues of the commodities deposited in the warehouse.
- Information on the quantity and quality of commodities stored in the warehouses can be easily obtained.

### **The Depository System**

6.8 For electronic record keeping of commodity balances, a few of the national commodity exchanges entered into bilateral agreements with the security depositories (NSDL/CDSL) for facilitating the electronic holding and transfer of commodities from the seller to the buyer. In effect, the functionality of “Demat” was adopted to represent the deposit of commodities in the warehouse for storage on account of the depositor. Similarly, the functionality of “Remat” was adopted to represent withdrawal of commodity from the warehouse by the beneficial holder. While the commodities were stored in the warehouse, the same could be transferred electronically from one account to another on account of sale using the transfer functionalities available in the depository system. Under the agreement, each of the clearing members were required to open a member pool account through the depository participants with the depositories to facilitate the settlement of the contracts. The depositories had a direct connectivity with the clearing house of each exchange and effected the transfer of electronic balance to the member pool account of clearing members as per instructions from the clearing house of the exchanges. While this arrangement of electronic record keeping/accounting proved useful in managing settlement of delivery obligation on the exchange platform, the lack of legal provisions with regard to depository services for maintaining commodity balances led to the termination of the agreements. A few commodity exchanges have since improvised their own systems of electronic record keeping and accounting.



## **The Depository system-some challenges**

6.9 The depository system with respect to securities is very different from that for commodities, as securities are fully fungible even over time. Commodities on the other hand, undergo quality and quantity variations over a period of time. Further, remat (withdrawal) of the commodities from the warehouses is a normal feature of the commodity markets, whereas remat in case of securities is relatively unknown. Under the depository system, there was no visibility for commodities which had been deposited in the warehouse and were in the process of assaying, thus giving a misleading picture on the available warehouse space. The depository system did not support end-to-end tracking of the deposited lots of the commodities, warehousing operations of the exchange or the customization requirements of the exchange on an on-going basis.

## **E-Registry of National commodity exchanges**

6.10 A report of the RBI (RBI Report) on Warehouse Receipts and Commodity Futures<sup>1</sup> in 2005 suggested that *“there is a need to create an umbrella structure which could act as a Closed User Group for everyone engaged in the commodities business. The membership of the CUG could extend to commodity exchanges, APMCs, exporters, importers, etc”* It envisaged an electronic platform that would offer straight through processing for everyone connected with commodities.

6.11 In order to address the challenges in proper record keeping of the commodity balances and of the withdrawal of depository services, two National commodity exchanges have set up their own mechanisms for electronic record keeping. The National Commodity and Derivatives Exchange (NCDEX) has improvised a commodity tracking system called the COMTRACK, which performs the functions of an electronic registry for the users/ clients of the commodity exchange. ACE Derivatives and Commodity Exchange (ACE) has, similarly, also developed a similar mechanism called Ace-link for its users. Box 3 provides some of the details with regard to the E-Registry of these two exchanges. The other exchanges (NMCE and MCX) continue to use physical warehouse receipts (NWRs and WRs) for settlement of contracts.

6.12 The Working Group recommends that in view of the challenges associated with the physical warehouse receipts, the CC may establish its own electronic registry or utilize the electronic record keeping mechanism (E-Registry) developed by the two exchanges as a repository/ E Registry of warehouse receipts, for the commodities traded on the commodity futures exchanges.

6.13 As an enabler to the settlement functions performed by the CC, the E-Registry may be an independent entity or a division of the Clearing Corporation. The usage of the E-Registry system should be made mandatory for all transactions on the commodity exchanges.

## **Functions of the E Registry**

6.14 The functions of the E- Registry should be the following:

- Maintaining the identity of the original depositor.
- Flexibility for acceptance of non-standard( small lots)quantities
- On-line viewing of warehouse charges/ stocks.
- Consolidation and splitting of the goods in deliverable lots as per contract specification.
- Stacking and weight tracking information
- Ability to capture quality related information and receipt expiry dates
- Facilitate consolidation of data relating to availability of commodity in the market at any point of time.

6.15 The operating framework for the E-Registry is indicated in the Annexure 6.1.

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<sup>1</sup> Report of the Working Group on Warehouse Receipts and Commodity Futures, Deptt of Banking Operations and Development, RBI, April 2005(The RBI Report)

**Box 3: E-Registry for commodities (COMTRACK of NCDEX and ACE-LINK of Ace D.Ex)**

The Exchanges, NCDEX and ACE have implemented an electronic accounting system COMTRACK, and ACE LINK respectively, which facilitates electronic accounting of commodities deposited in the approved warehouses of the Exchange.

***Commodity Deposit Procedure:***

- The client is required to open an account with any of the Comtrack/ Ace link Participant after completing the KYC requirement.
- The client brings the goods for deposit at the approved warehouse of the Exchanges.
- Samples are drawn and testing is done by the Assayers approved by the respective exchanges for the deposited lots as per contract specifications.
- Lots approved by assayers are given electronic credit of the lot (ICIN) by the WSP in client's account.

***Clearing and Settlement Procedure:***

- The seller client having delivery obligation transfers the commodity to the clearing member's pool account.
- The same is picked up for clearing system during payin process on the settlement date.
- The payout is received by the buyer clearing member's pool account. The Clearing member in turn gives payout to respective buyer client.

***Commodity Withdrawal Procedure:***

- The client submits the withdrawal request (**WRR**) form to the Comtrack/ Ace link Participant
- After verification of all the details, the Comtrack/ Ace link Participant generates transfer request number, after exchange's approval, gives acknowledgement copy of WRR to the client and delivery instruction to the warehouse.
- The client submits the acknowledgement of WRR along with identity proofs to the warehouse and takes delivery of the commodity.
- Warehouse confirms withdrawal quantity in Comtrack/ Acelink.

**Recommendation**

6.16 The WDRA has notified only 123 agricultural commodities and 26 horticultural commodities for which Negotiable Warehouse Receipts (NWRs) can be issued. The Working Group recommends that WDRA should notify all commodities traded on the commodity exchanges for the purpose of NWRs as this will facilitate the usage of NWRs for all the commodities traded on the commodity futures exchanges.

6.17 An electronic commodity registry maintaining electronic records of holding and transfers of WRs/NWRs is essential for settlement of trades on commodity exchanges. The Working Group recommends that WDRA may immediately establish or facilitate establishment of an independent Electronic Registry for NWRs.

6.18 For the non negotiable warehouse receipts, the CC may establish its own electronic record keeping mechanism (E-Registry) or adopt if feasible, the record keeping mechanism of the two national exchanges for the commodities traded on the commodity futures exchanges. The E-Registry may be an independent entity or a division of the Clearing Corporation. The usage of the E-Registry system should be made mandatory for all transactions on the exchanges.

6.19 The delivery of warehouse receipts through the Electronic Registry (EWRs) conforming to the contract specifications should be treated as good delivery by the CC for the purpose of settlement/ delivery of the futures / forward contracts.

6.20 For trades happening outside the commodity exchanges (OTC transactions), the EWRs may be considered to be as good as valid transferable receipts.

6.21 The Working Group recommends that a portion of government procurements and distribution should be done through electronic WRs/ NWRs to promote early adoption of E-Registry in the country.

## **Annexure 6.1**

### **Operating framework For E-Registry**

1. E Registry should set up appropriate ICIN norms based on each exchange and contract requirements. For example, where contracts are identical across exchanges, it may use common numbering norms while where they differ, exchange specific design may be applied.
2. E Registry will maintain electronic records of ownership of goods against NWRs and WRs (immobilized or electronic) and effect transfer of ownership of such goods by electronic process.
3. E Registry will ensure adherence to Standard Operating Procedures by admitting only those warehouses that fulfill its laid down criteria with regard to the following:
  - Procedure for endorsement of EWRs and ENWRs;
  - Procedure for creation of pledge/release against EWRs and ENWRs;
  - Procedure for clearing facility by Registry for settlement of obligation on the Exchange;
4. The main purpose and role of the E registry would be that of a record keeper. The E-Registry will have no obligation for ensuring good delivery and in settlement of transactions.

7.1 Traditionally, the warehouses/warehouse service providers in the country have been issuing physical warehouse receipts to the depositors of the goods. These warehouse receipts in most cases did not specify the quality, quantity(WR issued is on 'said to contain basis'), validity period, resolution of the storage shortages, insurance, storage charges etc. except that some of these features appear in the receipts issued by the warehouses of the public/ apex co-operative organizations. In respect of Central Warehousing/ some State Warehousing corporations, some of the receipts, however, contain some of the features indicated above.

7.2 One of the important requirements for the acceptability of warehouse receipts by the trade and by banks for pledge financing is the existence of a performance guarantee for warehouses, assuring that the quantities of goods stored match those specified in the warehouse receipt and that their quality is the same as stated on the receipt. Without this guarantee, farmers and traders will be reluctant to store their crops and banks will be hesitant to accept warehouse receipts as secure collateral for financing against warehouse receipts issued against the deposit of agricultural commodities<sup>1</sup>.

7.3 The Report of a World Bank consultancy assignment for the FMC in 2000 observed that there is scope for massive expansion in the use of warehouse receipts due to several advantages. It recommended the institution of electronic warehouse receipt system with central registry<sup>2</sup>. Subsequently, the RBI Report which examined the prospect of warehouse receipt based lending concluded that commodity brokers could obtain bank guarantees, as also margin funding against the warehouse receipts. It observed from the data in respect of finance extended by banks that warehouse receipt was not a popular method of financing as banks counted lack of negotiability, absence of electronic warehouse receipts, difficulty in disposal of security in case of default and lack of trust in the receipts issued by private warehouses as constraints in further expansion of such financing. The Group noted that a Warehouse Receipt Act would put the negotiability of the warehouse receipt on firm legal footing.

7.4 While WRs are covered under respective State Warehousing Acts, issuances of Negotiable WRs are covered under WDRA Act. The WDR Act allows negotiable WRs to be transferable to new owner through endorsement and delivery allowing the holder of the receipts to claim ownership of the goods against those WRs. The quality and quantity of the goods are guaranteed by warehouse service provider. However, the NWRs can be issued only by the warehouses registered with the WDRA.

7.5 The NWRs printed by the WDRA through Government's security press and having a uniform format approved by the Indian Banks' Association (IBA) are supplied to the registered warehouses. These NWRs have security features such as anti copy, endless text, fine line pattern, micro printing with rainbow colouring etc. The WDRA monitors the issuance of NWRs by the registered warehouses.

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<sup>1</sup> Dr. Mahanta, Devajit IJSTR VOLUME 1, ISSUE 9, OCTOBER 2012

<sup>2</sup> Consultancy on Warehouse Receipt system by Mr. Jonathan Coulter and Mr. G. Ramachandran.  
(<http://www.fmc.gov.in>)

### Existing scenario of WR in futures market

7.6 NWRs should ideally be the most preferred instrument for the purposes of settlement of contracts by the CC. As NWRs gives a good title to its holder and is regulated by the WDRA, they will greatly facilitate pledge financing by banks for the participants of the commodity futures market. However, a large portion of the market is of WRs, which are regulated under respective State Warehousing Acts. Some State Governments, such as Maharashtra also levy stamp duty on pledge/ hypothecation of WRs which further reduces its utility for financing commodity loans. The State Governments should ideally, exempt all warehouse receipts from stamp duty on pledge/ hypothecation.

### Use of physical NWRs by Commodity Exchanges

7.7 The commodity exchanges facilitate settlement across the nation by transferring ownership of goods from the sellers to the buyers which is cumbersome, without an electronic system of holding of goods. The NWRs issued by the warehouses registered with the WDRA is physical in form and not electronic. Obtaining physical NWR from the sellers, verifying the genuineness of such NWRs and delivering such NWRs to the buyers is practically difficult. Besides, there are risks of physical NWRs being lost, mutilated or stolen in transit. Physical NWRs cannot be split. A large deposit against a single NWR can be partially delivered, if in electronic form. The electronic maintenance of records of WRs/ NWRs in a dematerialized form would resolve the problem of inadequate speed of transaction, splitting of Warehouse Receipts, forgery and loss of receipts, data retrieval etc. Due to capacity and resource constraints at the WDRA, it may not be feasible to ensure that all settlements of futures contracts by the CC are made through electronic NWRs. The Working Group, therefore, recommends that the CC may also accept the electronically registered WRs for settlement purposes pending the complete migration to ENWRs. Warehouse receipts that record the transfer of the ownership to the buyer, in the electronic form, may be considered as good as electronic WRs (EWRs) which will further facilitate bank financing against warehouse receipts.

### Use of NWRs for financing

7.8 NMCE, is the only commodity exchange that uses NWRs, issued by the CWC warehouses. The exchange has been facilitating a scheme of financing against CWC Warehouse Receipt accompanied with Forward Sale Contract through Punjab National Bank and Federal Bank enabling farmers to avail loans from the banks. Under the scheme, banks have financed farmers against Warehouse Receipts accompanied with the Forward Sale contract. The Table below indicates the details the number of warehouse receipts financed and value of NWRs since inception of the exchange.

Commodity	Punjab National Bank		Federal Bank		Total No. of NWRs	Total Value of NWRs
	No. of NWRs*	Value of NWRs	No. of NWRs	Value of NWRs		
Cardamom	302	10,600,590	-	-	302	10,600,590
Pepper	2,874	260,322,710	728	102,397,580	3,602	362,720,290
Rubber	11,586	1,222,408,100	1,410	136,742,830	12,996	1,359,150,930
<b>Grand Total</b>	<b>14,762</b>	<b>1,493,331,400</b>	<b>2,138</b>	<b>239,140,410</b>	<b>16,900</b>	<b>1,732,471,810</b>

• Each NWRs represents one quantity unit. In case of Cardamom, it is one quintal and for pepper and rubber, it is one ton.

### **Advantages of NWRs/EWRs**

7.9 Producers can avoid distress sale by storing the goods and using NWRs/EWRs to access credit through formal sources at a competitive rate.

- Expansion of market place takes place as the NWRs/EWRs can be now bought and sold from any location without necessarily the participants or goods moving from their physical location, saving on transportation and handling costs and reducing handling wastage.
- As there is no movement of physical goods from the warehouse till its final consumption there is negligible handling, thus reducing cost and increasing efficiency in the chain.
- Acceptance of NWRs/EWRs in the market place will push towards creating scientific storage facilities by private players. This will help reduce the wastage in the supply chain and reducing too many physical intermediaries.
- Higher trust on NWRs/EWRs will encourage FIs to revisit their credit risk perception and risk management. NWRs help increase the confidence level of FIs on the collateral and will lead to reduced lending rate and lower margin requirement.
- Government procurement and supply through the NWRs/EWRs would reduce the necessity of holding physical goods. This may reduce the burden of maintaining the buffer stocks at huge cost. As and when required, NWRs/EWRs can be encashed for the said purpose. This will also reduce incidence of procurement of sub-standard material in government procurement and improper upkeep.

### **Requirements for making NWRs/EWRs financing successful.**

7.10 EWRs/ NWRs are expected to work best when there is complete fungibility of goods. Hence, silo or bulk storage infrastructure should be created for EWRs/ NWRs to be successful. This will ensure that a uniform quality standard is maintained in each silo and WSP is the only responsible entity for quality and quantity.

7.11 There are other limitations in the WDR Act, which need to be addressed<sup>1</sup>.

7.12 To promote practical use of WRs in the Indian agriculture marketing system, some laws may need to be amended. These are:

- a. **Taxation laws:** Multitude of taxation through Mandi fees, Cess, VAT restrict the negotiability of the WRs as current owner becomes liable for any past taxation issue brought up later.
- b. **Agriculture Produce Marketing Act:** This Act needs amendment for allowing intra district and interstate movement for trade to happen through WRs without attracting penal provision, if centralized taxes are already paid once.
- c. If any WSP is registered under WDR Act, the registration/ licence under state warehouse law or APMC law should be exempted.

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<sup>1</sup> *Gupta, Syamal*, The Business Line, 14th August, 2014 “In case of default, the authority(WDRA) does not have the power to insulate the lender of safe return of the borrowed capital. Moreover, if a warehouse operator goes bankrupt, it may also be difficult for the bank to prevent priority being given to other creditors. To make the system successful, it requires careful analysis of the legal issues and a very rigorous set of guarantees and oversight mechanism”.

7.13 In order to institutionalize the financing arrangement and to give comfort to banks, it is imperative for the CC to play a critical role. An institutional arrangement shall ensure that the sale proceeds in case of pledged goods shall be first given to the designated lender (banks/financial institutions) to whom the lien is marked as compared to the existing situation where the payment goes to the client via the clearing member. As the payment to the counter party (bank/financial institution) shall be guaranteed by the CC, the banks/FI would derive comfort from taking lower credit risk on the CC as compared to the individual client. This will promote warehouse receipt financing. As such, there is a need to institutionalize the above arrangement between the lender, client, clearing member and the CC.

## **Recommendation**

7.14 Warehouse receipts that record the transfer of the ownership to the buyer, in the electronic form, may be considered as good as electronic WRs (EWRs). This will facilitate bank financing against warehouse receipts.

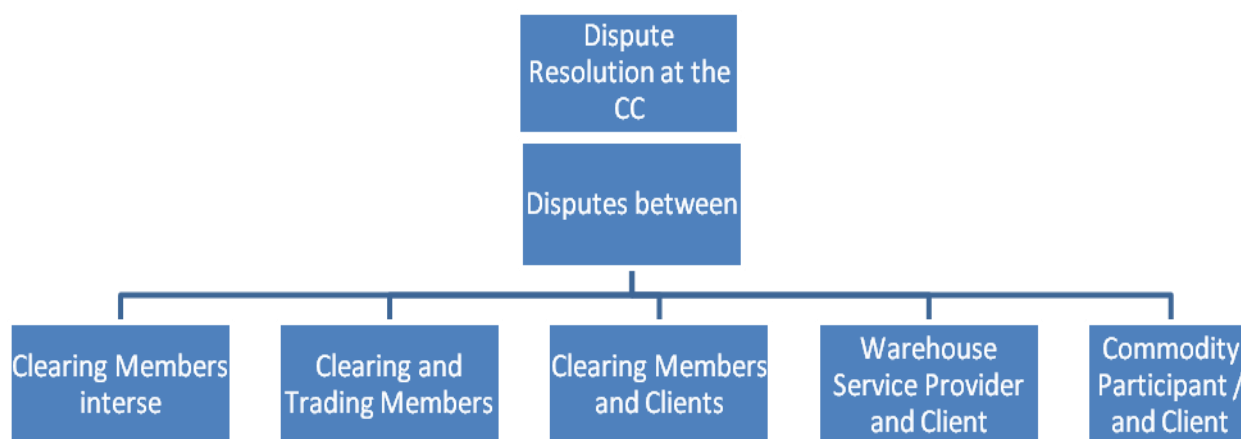
7.15 In order to make warehouse financing successful and widely accepted, the owner/seller of goods should not be compelled to repay the loan and then put up the goods for sale. An institutional arrangement is required. The sale consideration of goods pledged and sold should compulsorily be remitted to / deposited with the clearing corporation. After receipt of instruction from the bank, the CC can approve the release of goods by the WSP, transfer the amounts to the bank and the balance to the owner of goods.

7.16 The Banks/ FIs/ NBFCs may also use the E-Registry for collateral lending/ commodity related financing.

7.17 The Government may consider exempting all pledged/ hypothecated warehouse receipts from stamp duty.



8.1 An efficient and trust worthy clearing system must have a full fledged dispute resolution mechanism built in. Considering that the common clearing corporation will have a number of stakeholders, an efficient, speedy dispute resolution mechanism must be put in place at the clearing corporation. All claims, differences or disputes between the clearing members inter-se, between clearing members and trading members, between clearing members and clients, between warehouse service providers and clients and between commodity participants( of the E Registry) and clients arising out of or in relation to dealings, contracts and transactions admitted for clearing and settlement on the clearing corporation and any disputes in relation to the quality and quantity of the physical delivery for transactions cleared through the clearing corporation need to be addressed.



8.2 Arbitration shall be a quasi-judicial mechanism for dispute resolution. The clearing corporation shall empanel competent personnel with relevant background for acting as arbitrators. Members may lodge their complaints at the established centres in the form and manner prescribed.

8.3 To ensure wide reach and effectiveness of the mechanism, the Working Group recommends that the clearing corporation may leverage the existing infrastructure of the exchanges. If the complaint is not resolved satisfactorily through the complaint resolution process of the clearing corporation, the aggrieved party may file an appeal within the applicable jurisdiction, or may approach the competent court of law.

8.4 The Warehousing (Development & Regulation) Act, 2007 provides for legal protection of the rights and duties of the depositors and the warehouseman. There are provisions for offences and penalties under the Act. Any person aggrieved with an order of the Authority made under the Act, rules or regulations can file appeal with the Appellate Authority, constituted by the Central Government.

8.5 The Clearing Corporation needs to have the following in place:

1. The procedure for appointment of arbitrator.
  - The procedure for selection of persons eligible to act as arbitrators.

- The terms, conditions and qualifications subject to which any arbitrator may be appointed.
  - Determination of the number of arbitrators in the case of a panel of arbitrators.
  - Creation of seats of arbitration for different regions or prescribing geographical locations for conducting arbitrations and prescribing the courts which shall have jurisdiction for the purposes of the Act.
2. The claims, differences or disputes which may be referred to a sole arbitrator and the claims, differences or disputes which may be referred to a panel of arbitrators.
  3. The procedure to be followed by the arbitrator in conducting the arbitral proceedings. Such procedure may provide for:
    - i. Adjournment of hearings.
    - ii. Terms and conditions subject to which the arbitrator may appoint experts to report on specific issues and the procedure to be followed in arbitral proceedings upon such an appointment.
    - iii. Passing interim orders/directions if deemed fit.
  4. Limitation period within which any claim by the aggrieved party may be referred to arbitration process.
  5. The procedure to be adopted by the parties for challenging the appointment of an arbitrator.

### **Recommendation**

8.6 Considering that the common clearing corporation will have a number of stakeholders, an efficient, speedy dispute resolution mechanism should be put in place at the clearing corporation.

8.7 The Working Group recommends that the clearing corporation may leverage the existing infrastructure of the exchanges. If the complaint is not resolved satisfactorily through the complaint resolution process of the clearing corporation, the aggrieved party may file an appeal within the applicable jurisdiction, or may approach the competent court of law.

8.8 For disputes regarding the quality / quantity of commodities delivered by the Clearing Corporation, WDRA provisions for NWR and State Laws for WRs will be applicable.

8.9 There is no provision in the FCRA, 1952 for an appellate mechanism. The existing Section 11 (2) (i) of FCRA, 1952 provides for method of settlement of disputes in the Bye Laws of the commodity exchanges only. Necessary legal provisions need to be made to provide for an adjudication mechanism for addressing complaints against the CC.

## Summary of Recommendations

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### Clearing Corporation

1. An independent single common clearing corporation (CC) may be set up for the National commodity exchanges. Going forward, depending on the growth and complexity of the commodity futures market, independent multiple common clearing corporations may be considered after due evaluation, depending on market needs.
2. As there are few trading members in the regional commodity specific exchanges, they may choose to continue with their existing clearing and settlement mechanisms, or clear their trades through the common clearing corporation, if the respective commodity specific exchange opts to become a member of the CC.
3. The CC should be regulated by the FMC. In view of insufficient legal basis for the constitution of the CC, within the existing provisions of the Forward Contracts (Regulation) Act, 1952, it is recommended that necessary legal amendments may be made to provide for the setting up and regulation of an independent and common clearing corporation.

### Ownership and Governance

4. The CC for the commodity exchanges should be “for profit” entity, though commercial considerations of its shareholders should not be its sole objective. The governance and control of the CC should be separated from the exchanges.
5. The CC may have, at the time of its application, a minimum net worth of INR 100 crores. In order to be adequately capitalised, the net worth criterion of the CC should be reviewed after a period of one year after recognition, which should be based on assessment of risk profile of the CC.
6. The CC being at the core of the settlement system, must be promoted by commodity exchanges, whose interest would also be to ensure orderly clearing and settlement of orders executed on their platforms. The National commodity exchanges should hold at least 51% of the paid-up equity capital of the CC, ideally in equal proportion. Further, no single commodity exchange may be permitted to hold more than 15% of the paid up equity share capital of the CC.
7. The shareholder representation on the board of a CC should be 40% of the total board strength and the balance 60% should comprise public interest directors. The Chairperson should be from the public interest category and appointed with the approval of FMC. Further, all board appointments in the clearing corporation should be with the prior approval of FMC.
8. The clearing and settlement should be across exchanges within the CC, for achieving the maximum benefits of common clearing. The technical and operational challenges in implementing the same may be evaluated by an expert group / RMG.
9. The CC may consider if feasible, to allow the exchanges to retain their contribution to the SGF with them, for a pre-defined period, after creating a suitable exposure mitigation vehicle. This will address the apprehension of the exchanges’ of their profitability being impacted due to the setting up of an independent entity for clearing and settlement of trades.

### Membership criteria

10. The CC may have three categories of clearing members. The clearing members should be corporate entities and well capitalised. The members who fail to meet the membership admission criteria for becoming members of clearing corporation may be considered deemed trading members without any further action from the Exchange/ FMC.

### **Risk Management Framework**

11. The CC should adopt and implement the standards set by the CPSS-IOSCO in its PFMI principles. The RMG set up by the FMC may review issues pertaining to the details of the settlement guarantee fund, contribution to core SGF, default waterfall, calculation of minimum required corpus, (MRC), margining methodology, non-physical collaterals, etc. The guidelines prescribed by SEBI in this regard may also be considered.

12. The CC shall be responsible for good delivery of physical commodity through the warehouse service provider. The CC should undertake accreditation of assayers and their facilities and make assayers responsible / accountable for their assaying reports, in addition to the mechanism that may be available with the WDRA.

13. The CC should carry out the due diligence of all the entities with whom it would be directly dealing with viz., clearing members, clearing banks and warehouse service providers. The CC may consider setting up a Physical Settlement Guarantee Fund to cover risks from physical delivery default with contributions from WSPs and depositors.

### **Common Warehouses**

14. The CC should coordinate with WDRA / State governments / WSPs and put in place a document stipulating the standard operating procedures, review and approve the delivery mechanism for the contract specifications designed by the exchanges.

15. The CC should register the WSPs in addition to the mechanism available with the WDRA. The FMC and CC may stipulate minimum standards / norms for approval of WSPs, for issue of WRs, in addition to those as may be prescribed by WDRA.

16. The CC should conduct audit and inspection of the warehouses on an ongoing basis.

17. The CC should promote accrediting WDRA registered warehouses and use of NWRs.

### **Electronic Registry**

18. WDRA should notify all commodities traded on the commodity derivative exchanges for the purpose of NWRs. This will facilitate the usage of NWRs for all the commodities traded on the exchanges.

19. WDRA may immediately establish or facilitate the establishment of an independent Electronic Registry for NWRs.

20. For non negotiable warehouse receipts, the CC may establish an electronic registry or utilize the electronic record keeping mechanism (E-Registry) developed by two national commodity exchanges for the commodities traded on the commodity futures exchanges. The E-Registry may be an independent entity or a division of the Clearing Corporation. The usage of the E-Registry system should be made mandatory for Exchange transactions.

21. The delivery of warehouse receipts through the Electronic Registry (EWRs) conforming to the contract specifications should be treated as good delivery by the CC for the purpose of settlement/ delivery for all its segments/ instruments.

22. For trades happening outside the commodity exchanges (OTC transactions) too, the electronic warehouse receipts may be considered as valid transferable receipts.

23. A portion of government procurements and distribution should be done through electronic WRs/ NWRs to promote early adoption of E-Registry in the country.

### **Financing against warehouse receipts**

24. An institutional arrangement between the warehouse service provider, the bank and the clearing corporation is needed. The sale consideration of goods pledged and sold should compulsorily be remitted to/ deposited with a clearing corporation. After receipt of instruction from the bank, the CC

can approve the release of goods by the WSP, transfer the amounts to the bank and the balance to the seller of the goods.

25. The creation of a registry which will maintain electronic record of ownership of goods against immobilised WRs and transfer of ownership of such goods by electronic process will facilitate the financing of commodities trade at a national level.

26. The Banks/ FIs/ NBFCs may also use the E-Registry for collateral lending/ commodity related financing.

27. The Government may consider exempting all pledged / hypothecated WRs from stamp duty.

#### **Dispute Resolution**

28. Considering that the common clearing corporation will have a number of stakeholders, an efficient, speedy dispute resolution mechanism must be put in place at the clearing corporation.

29. To ensure wide reach and effectiveness of the mechanism, the CC may leverage the existing infrastructure of the exchanges. If the complaint is not resolved satisfactorily through the complaint resolution process of the CC, the aggrieved party may file an appeal within the applicable jurisdiction, or may approach the competent court of law.

30. For disputes regarding the quality / quantity of commodities delivered by the CC, WDRA provisions for NWR and State Laws for WRs will be applicable.

31. There is no provision in the FCRA, 1952 for an adjudication mechanism. Section 11(2)(i) of FCRA, 1952 provides for method of settlement of disputes in the Bye Laws of the commodity exchanges only. Necessary legal provisions should be made to provide for an adjudication mechanism for addressing complaints against the CC.

### Dissent Note of Prof. Ajay Shah on Common Clearing Corporation

1. Whether a single clearing corporation is advantageous is a tradeoff between some costs and some benefits.
2. The costs lie in two areas: (a) Greater systemic risk and (b) Reduced innovation and development. The benefits lie in reduced capital requirements and reduced transactions costs.
3. Cost 1: Our experiences in India have shown that Financial Market Infrastructure Institutions can experience settlement crises. When such a crisis arises, there is greater safety in having multiple clearing corporations which are fire walled from each other. As an example, in 2000, when Calcutta Stock Exchange had difficulties in settlement, the overall Indian equity market worked smoothly as NSE and BSE worked fine. If there had been a single clearing corporation, and if this experienced a failure, then it would have been a very big problem for the economy. Until we are certain that a collapse of a clearing corporation can be ruled out, it is unwise to put all our eggs in one basket.
4. Cost 2: Commodity futures clearing requires a lot of product development. It requires understanding a commodity and building infrastructure that is specific to it. There is a greater free rider problem in a single clearing corporation which is owned by multiple exchanges: it will not work as hard to develop the capabilities and subtle aspects required for one commodity after another.
5. Benefits: Much of the benefits from unification of clearing can be obtained by standardising data formats, and ensuring greater interoperability.
6. In conclusion, I disagree with the main recommendation of the report. The costs from introducing a single clearing corporation are substantial and the benefits are small.

F. No. 8/20/2014-CD  
Ministry of Finance  
Deptt. of Economic Affairs  
Commodity Derivatives Markets Division  
(CD Section)

**OFFICE MEMORANDUM**

North Block, New Delhi  
Dated the 10th June, 2014

**Subject: Setting up of a Working Group (WG) on Common Clearing for  
Commodity exchanges - reg.**

It has been decided, with the approval of the Competent Authority, to constitute a Working Group (WG) to prepare a road map and structure for a Common Clearing system for all commodity exchanges in the country in order to reduce transaction cost of market participants and to strengthen the risk management system. The composition of the Working Group is as under:

S.No.	Name	Designation
i.	Shri V.K. Sharma (Former ED, RBI)	Chairman
ii.	Prof. Ajay Shah National Institute of Public Finance and Policy (NIPFP)	Member
iii.	Representative of DEA	Member
iv.	Representative of WDRA	Member
v.	Representative of FMC	Member Convener

2. Representatives of SEBI, NSCCL, CCIL, ICCL, NCCL (independent clearing agency of NCDEX) shall be "Invitees" in the said Working Group meetings. The Working Group may co-opt other experts.

3. The Terms of Reference of the Working Group is at Annexure-A.
4. The Working Group will be serviced by the Forward Markets Commission, Mumbai.
5. The Working Group will give a practical, actionable report by 31st August, 2014.

(Lekhan Thakkar)  
Director (CD)  
Tel: 011-23095016

To,

1. Shri V.K. Sharma, Former Executive Director, RBI, C-2203, Lakshachandi Heights, Gokuldhara, Goregaon East, Mumbai-400063
2. Prof. Ajay Shah, National Institute of Public Finance and Policy (NIPFP).
3. Chairman, WDRA with the request to inform the name of their representative.
4. Chairman, FMC with the request to inform the name of their representative.

5. Mr. S. V. Murali Dhar Rao, Executive Director,  
Securities and Exchange Board of India (SEBI)  
Plot No.C4-A,'G' Block, Bandra Kurla Complex,  
Bandra (East), Mumbai
6. Mr. T. Venkat Rao, MD  
National Securities Clearing Corporation Ltd. (NSCCL),  
Exchange Plaza, Bandra Kurla Complex, Bandra (E),  
Mumbai- 400 051
7. Mr. K. Kumar, MD & CEO,  
Indian Clearing Corporation Limited (ICCL),  
Karvy Computershare Private Limited,  
Plot No. 17 to 24, Vithalrao Nagar, Madhapur,  
Hyderabad 500 081
8. Mr. R. Sridharan, MD  
The Clearing Corporation of India Ltd (CCIL)  
CCIL Bhavan, College Lane, off S K Bole Road,  
Dadar (West), Mumbai- 400 028
9. Mr.Samir Shah, Chairman  
National Commodity Clearing Limited (NCCL)  
Gayathri Towers, 954, Appasaheb Marathe Marg,  
Prabhadevi, Mumbai 400025.

### **Terms of Reference (ToR)**

1. Examine the feasibility of setting up of a Common Clearing Corporation for all the commodity exchanges.
2. Review the existing Risk Management System and rationalization of the same with the perspective of adoption by Common Clearing Corporation.
3. Setting up of a common Repository for keeping electronic record of warehouses receipts.
4. Setting up a common infrastructure facilities such as warehouses, assayers, elevators or aggregators to facilitate delivery of right quality and quantity of commodities for settlement of trade through common Clearing Corporation.
5. To examine the feasibility of fungibility of warehouses goods to be delivered against the settlement of trade across Exchanges.
6. To suggest ways and means to make available finances against 'Warehouse receipts' in the futures markets.
7. Review of the membership categories and separation of clearing membership and trading membership with introduction of professional, self-clearing members in commodities market.
8. Any other related issue.

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Ministry of Finance  
Department of Economic Affairs  
Commodity Derivatives Division

Meeting on Common Clearing Corporation for Commodity Derivatives  
SUMMARY RECORD OF DISCUSSION

1. The first meeting for exploring possibilities for setting up a common Clearing Corporation for Commodity Derivatives Market was held on March 19<sup>th</sup>, 2014 at 11.30 a.m. in Room No. 131-A, North Block under the chairmanship of the Additional Secretary (Inv). List of participants is annexed.
2. Adviser (CD & CM) welcomed the participants present at the meeting and informed that for growth and development of commodities market, all existing national level exchanges should work and address commonalities together despite maintaining separate business models. Common Clearing and Settlement is one important issue where, convergence and synergy is expected to reduce transaction cost at the backdrop of a sound infrastructural and regulatory framework.
3. Discussion was initiated by AS [Investment] wherein he sought comments from all participants on two options namely:
  1. Separate Clearing House for each Exchange
  2. A Common Clearing Corporation
4. A surmised version of comments received from all participants is as follows:

Organization	General Comments	Specific Comments
ACE Commodity Exchange	Road map should be chalked out. Common Clearing Corporation cannot be achieved immediately.	Warehousing and delivery issues need to be addressed first
NCDEX	Currently handles clearing operations through NCCL (as a separate entity). Road map for common clearing corporation and pre-conditions should be met.	Measures should be adopted to address important issues like common repository, alignment of risk and innovation in the market
UCX	Common clearing corporation should be set up in a phased	Convergence of guidelines on matters such as warehousing,

	manner. First step is to have clear-cut regulations.	delivery, risk management and clearing and settlement
NMCE	Current system is satisfactory. Must do away with marrying of warehouses with exchanges	Warehousing, assaying and standardized commodity specification issues to be addressed first
MCX	Separate entity created for clearing but has not started functioning. Clearing corporation if separated from Exchange can bring in efficiency but a single corporation for the entire market may not produce desired results	One clearing corporation can be shared among exchanges and there should be scope for more than one corporation
ICCL	A common clearing corporation need to be financially sound and should have clear-cut guidelines about issues like risk management, stakeholder participation, collateral and default fund	Systemic risk a probable threat
UCCL	Common Clearing Corporation provides substantial advantage to market players. Developed markets are moving towards unified clearing corporations.	Counter party risk in department format. Complete understanding and ring-fencing possible in separate clearing corporation.
SEBI	Through a common clearing corporation- a. Settlement fund will get used b. Losses would have negative spillovers	a. Creation of a two-tier structure with separation between trading member and clearing corporation member can prove to be helpful  b. Lessons and inputs from Securities/Equities market can provide possible solutions to address matters like systemic risk (if a leviathan organization is created) and counter-party risk

FMC	Issues to be addressed before forming a common clearing corporation  a. Immediate adverse financial impact on new exchanges  b. Systemic risk.	Common warehouses, common repository, fungibility of stocks/products and common collateral management practices are initiatives to be adopted first which would reduce cost and in turn increase efficiency.
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5. It was felt that principally, a common Clearing Corporation would be advantageous and cost reducing in nature and in today's time of Algorithmic trading technologically enabled methods can be adopted to mitigate systemic risks. AS suggested that regulatory barriers have to be created to prevent any form of contagion and a road map to address common issues in commodities market should be laid down at the earliest.

6. It was acknowledged that to achieve the goal of having a common clearing corporation, certain pre-requisites have to be complied with. Accordingly, those pre-requisites with their proper sequencing were identified as under:

- a. Common Repository
- b. Alignment of Risk Management
- c. Common Warehouses
- d. Common Clearing Corporation
- e. Common Training and Awareness Programmes

7. AS suggested that FMC and Ministry of Finance together can constitute a Working Group (WG) by the first week of April, 2014 to address and arrive at solutions on the above mentioned issues in a time-bound manner with special emphasis on setting up a common clearing corporation. It was further decided that the WG should comprise five-six experts from commodities, securities, warehousing etc. and should prepare a draft report by end May/early June 2014. Terms of Reference (ToR) have to be framed for the WG outlining a workable road map to initiate sustainable efforts in developing commodity derivatives markets.

8. It was decided that the next meeting would be held in North Block to consider the draft report of the WG.

9. The meeting ended with thanks to the Chair.

**PRE REQUISITES FOR COMMON CLEARING CORPORATION**

- a. A clear legal basis for the setting up and regulation of the Clearing Corporation.
- b. E Registry to be set up by WDRA for NWRs, as enabling provisions exist in the WDR Act.
- c. Electronic warehouse receipts (EWRs) for the settlement of transactions on commodity exchanges to be recognized as legally transferable receipts.
- d. EWRs /NWRs pledged/ hypothecated to be exempted from stamp duty.
- e. FMC to frame norms for warehouses issuing WRs for effecting settlement through CC
- f. Harmonisation of risk management standards
- g. Commodity specifications to be aligned for improving fungibility.
- h. Awareness and training programmes for clearing members of the commodity derivatives market.

## Responses from the Survey of Clearing Members

## Appendix E

Sr.No. of question in the survey	Survey Question	Member Responses (in %)	Inferences																							
1.	Are you a TCM /PCM/SCM	TCM – 98 PCM – 0 SCM – 2																								
2.	Are you a member of: i. One exchange ii. Two exchanges iii More than two exchanges	i. One exchange - 18 ii. Two exchanges - 29 iii. More than two exchanges – 53	82% are members of more than one exchange.																							
6.	Is your risk management designed to take account of client-related (retail and institutional) exposures?	Yes – 79 No – 1 Nil - 20	79% of the members have risk management measures designed to take account of client-related exposures																							
7.	What kind of risk control policies do you follow in respect of large positions -- proprietary and or client-related positions( you may tick one or both) a. Rely on exchange determined policies b. Follow additional risk management measures	a. - 84 b.- 32 Both - 18	50% members follow additional risk management measures in addition to exchange determined policies																							
9.	Do you have separate service teams to cater to retail customers, corporates or large traders?	Yes – 34 No – 1 Nil – 65	34% of the members have separate service teams to cater to retail customers, corporates or large traders.																							
10.	What are the key risks you see as a member while operating in commodity futures market? ( in decreasing order of significance)	<table><tr><th>Rank</th><th>Risk Factor</th></tr><tr><td>1</td><td>Client Default</td></tr><tr><td>2</td><td>Price Volatility</td></tr><tr><td>3</td><td>Regulatory Risk (Banning of trade / closure of trade etc)</td></tr><tr><td>4</td><td>Counter Party Risk (Client Level)</td></tr><tr><td>5</td><td>Systematic Risk (Black Swan Event)</td></tr><tr><td>6</td><td>Intraday Changes in Margins</td></tr><tr><td>7</td><td>Member Default</td></tr><tr><td>8</td><td>Quality Risk (Delivery)</td></tr><tr><td>9</td><td>Settlement Risk (Exchange Level)</td></tr><tr><td>10</td><td>Quantity Risk (Delivery)</td></tr></table>	Rank	Risk Factor	1	Client Default	2	Price Volatility	3	Regulatory Risk (Banning of trade / closure of trade etc)	4	Counter Party Risk (Client Level)	5	Systematic Risk (Black Swan Event)	6	Intraday Changes in Margins	7	Member Default	8	Quality Risk (Delivery)	9	Settlement Risk (Exchange Level)	10	Quantity Risk (Delivery)	<table><tr><td>Risks from Client default and Price volatility are considered significant risks.</td></tr></table>	Risks from Client default and Price volatility are considered significant risks.
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1	Client Default																									
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10	Quantity Risk (Delivery)																									
Risks from Client default and Price volatility are considered significant risks.																										

11.	In the current environment, which of the risks, do you think the exchanges are equipped to handle better?	Rank		Risk Factor		The exchanges have been able to handle settlement risks adequately.
		1		Settlement Risk (Exchange Level)		
		2		Counter Party Risk (Client Level)		
		3		Client Default		
		4		Member Default		
		5		Systematic Risk (Black Swan Event)		
		6		Price Volatility		
		7		Intraday Changes in Margins		
		8		Quantity Risk (Delivery)		
		9		Regulatory Risk (Banning of trade / closure of trade etc)		
		10		Quality Risk (Delivery)		
12	Do you believe that clearing should be independent of exchange?	Yes – 90 No – 0 Nil - 10		90% of the members believe that clearing should be handled by an independent entity.		
13.	If ‘Yes’, why do you think so? ( multiple responses)	It will bring transparency		70	Transparency and simplification of processes are perceived to be the outcome of independence of the clearing function from the trading function of the exchange.	
		It will simplify processes		55		
		It will impart confidence in participants		52		
		It will enhance operating efficiency of exchanges		48		
		It will improve risk management and market integrity		51		
		It will bring efficiency in management of funds		45		
		It will lead to better governance		44		
		It will lead to better regulation and supervision		48		
		Will lead to lower collaterals		31		
15.	Which of the following do you think should be part of the clearing corporation operations?	Setting and collection of margins		67	Members understand the functions of the CC adequately	
		Acting as a counter party for futures trades and clearing transactions		56		
		Creation and maintenance of Settlement Guarantee Fund (SGF)		62		
		Delivery matching–receiving delivery notices from sellers and		62		

		assigning delivery to buyers			
		Handling the actual exchange of delivery documents and payment	59		
		Verification of accuracy of stocks with WSP	60		
		Provide data aggregation ( trade repository)	30		
16.	What are the common problems you face while clearing a delivery transaction?	Collection of monies from clients	21	Most members face problems on account of delay in issuance and receipt of bills, VAT compliance related issues and non transparent delivery matching.	
		Delivery matching is not transparent	45		
		VAT compliance related issues	46		
		Issuance and receipt of bills on time	55		
17.	To strengthen the clearing capabilities in the market, what measures can be undertaken	Encourage clearing members to build economies of scale	33	Members suggest better warehousing infrastructure in the country, better supply chain intermediaries and want more participant categories in the commodities market	
		Better warehousing infrastructure in the country	84		
		Better supply chain intermediaries	58		
		Expand the list of clearing products	41		
		Provide backing to institutionalization among clearing firms	24		
		Encourage more participant categories in the commodities market	51		
18.	Would it be desirable to try to achieve a level of standardization in terms of clearing practices among exchange clearinghouses?	Yes – 88 No – 0 Nil – 12		Members feel standardization in clearing practices is essential	

19.	If yes, then which of the following could be the areas where standardization is most immediately required?	<b>Rank</b>	<b>Risk Factor</b>	Rationalisation of communication formats, membership criteria and haircuts on collaterals are significant areas for standardization.
		1	Communication formats	
		2	Standardisation of contract specifications	
		3	List of acceptable collaterals	
		4	Haircuts on collaterals	
		5	Hedge limits, procedures and processes	
		6	Common margin rules for a Commodity	
		7	Membership criteria	
		8	Any other (please specify)	
21.	What percentage of your revenue is incurred as compliance costs/clearing costs?	a. <2% - 15 b. >2-<5% - 42 c. >5 - <10% - 20 d. > 10% - 18 e. Nil - 5		Compliance costs/clearing costs are high
22.	What are the ways do you think the cost of compliance can be reduced?	Simplifying the processes	65	Reducing paperwork, common clearing etc. can reduce cost of compliance.
		Reducing paperwork	66	
		Electronic confirmation	67	
		Common clearing corporation/ house	47	
		Any other (please specify)	8	
23.	Do you think there are advantages from having common warehouses, common assayers etc?	Yes – 81 No – 0		Common warehouses and common assayers can reduce infrastructure cost.



**The Working Group benefited from interactions with:**

Securities and Exchange Board of India (SEBI)

1. Mr. Shashikumar Valsakumar. G.M

The Clearing Corporation of India Ltd (CCIL)

2. Mr. Siddhartha Roy, Chief Risk Officer

National Commodity and Derivatives Exchange (NCDEX)

3. Mr. Raj Benahalkar, Chief Risk Officer

Central Depository Services Limited (CDSL)

4. Mr. Cyrus Khambatta , Exec.Vice President

Indian Clearing Corporation Ltd (ICCL)

5. Mr. Piyush Chourasia, Chief Risk Officer

National Securities Clearing Corporation Ltd (NSCCL)

7. Mr. Aniket Bhanu, Head, Risk Management

Ace Derivatives and Commodity Exchange Ltd (ACE)

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