



MASTER CIRCULAR FOR STOCK EXCHANGES

CHAPTER 5 - EXCHANGE TRADED DERIVATIVES

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1 INDEX FUTURES

1.1 Product Design

1.1.1 Underlying

The benchmark indices and the various sectoral indices are permitted as per eligibility criteria.

1.1.2 Eligibility Criteria

The Exchange may consider introducing derivative contracts on an index, if weightage of constituent stocks of the index, which are individually eligible for derivatives trading, is atleast 80%. However, no single ineligible stock in the index shall have a weightage of more than 5% in the index. The index on which futures and options contracts are permitted shall be required to comply with the eligibility criteria on a continuous basis. The Exchange shall check whether the index continues to meet the aforesaid eligibility criteria on a monthly basis. If the index fails to meet the eligibility criteria for three consecutive months, then no fresh contract shall be issued on that index. However, the existing unexpired contracts shall be permitted to trade till expiry and new strikes may also be introduced in the existing contracts.

1.1.3 Trading Hours

The trading hours for index futures would be decided from time to time by the exchange subject to the condition that the trading hours are between 9 AM and 5 PM, and the exchange has in place risk management system and infrastructure commensurate to the trading hours.

1.1.4 Size of the Contract

A derivative contract shall have a value of not less than Rs. 2 Lakhs at the time of its introduction in the market.

1.1.5 Quotation

The index futures contract shall be quoted in rupee terms.

1.1.6 Tenor of the contract

The index futures contract shall have a maximum maturity of 12 months.

1.1.7 Available Contracts

Monthly maturities from 1 to 12 months would be available.

1.1.8 Settlement Mechanism

The index futures contract shall be settled in Indian Rupees.



1.1.9 Settlement Price

The settlement price shall be the closing price of the underlying index on the day of expiry. The closing price of the underlying index shall be based on last half an hour VWAP (Volume Weighted Average Price) of the constituents of the underlying index.

1.1.10 Final Settlement Day

The Stock Exchanges have the flexibility to set the expiry date/day for index futures. While doing so, the Stock Exchanges shall have to ensure that there is no change in the contract specifications or the risk management framework and the integrity of the market is not affected in any manner.

1.1.11 Application

The Derivative Exchange/Segment shall submit their proposal for approval of the index futures contract to SEBI which shall include:

- a. the details of proposed derivative contract to be traded on the exchange
- b. the economic purpose it is intended to serve,
- c. likely contribution to market development,
- d. the safeguards and the risk protection mechanism adopted by the exchange to ensure market integrity, protection of investors and smooth and orderly trading,
- e. the infrastructure of the exchange and the surveillance system to effectively monitor trading in such contracts, and
- f. details of settlement procedures & systems with regard to Index Futures.

1.2 Risk Management

Liquid Net Worth and Exposure Limits of a Clearing Member

The Liquid Net Worth is defined as under:

total liquid assets deposited with the exchange / clearing corporation / house towards initial margin and capital adequacy, LESS

initial margin applicable to the total gross open positions at any given point of time on all trades to be cleared through the clearing member.

The clearing member's liquid net worth must satisfy both the conditions given below on a real time basis:

Condition 1: Liquid Net Worth shall not be less than Rs 50 lacs at any point of time.



Condition 2: The mark to market value of gross open positions at any point of time of all trades cleared through the clearing member shall not exceed $33 \frac{1}{3}$ (thirty three one by three) times his liquid networth.

The notional value of gross open positions at any point in time in the case of Index Futures shall not exceed $33 \frac{1}{3}$ (thirty three one by three) times the liquid net worth of a member. Exposure limits are in addition to the initial margin requirements.

A numerical example of computation of capital adequacy, exposure limits and initial margin requirements is given below;

1. *Beginning of day one*

Suppose that the position at the beginning of day one is as follows:

Member's Liquid Assets	Cash equivalent deposits 35,00,000 Securities deposits (net of haircuts) 40,00,000
Member's Open Position	200 contracts long in the 3 month contract
Futures Prices	3 month contracts is Rs. 1,00,000 1 month contract is Rs. 98,000
Initial Margin	5%
Days to expiry	Fifth day before expiry of one month contract

The margin and capital adequacy calculations will be as follows:

$$\text{Initial margin} = 5\% * 200 * 1,00,000 = 10,00,000$$

$$\text{Total open position} = 2,00,00,000$$

Total liquid assets will be treated as 70,00,000 only since at least 50% of total liquid assets must be in cash equivalents (see Para 4(v)).

$$\text{Liquid net worth} = 70,00,000 - 10,00,000 = 60,00,000$$

Both conditions of networth and exposure limit are satisfied as shown below:

$$\text{Condition 1. } 60,00,000 > 50,00,000$$

$$\text{Condition 2. } 60,00,000 * 33 \frac{1}{3} = (20,00,00,000) > 2,00,00,000.$$

2. *Initiation of spread trade on day one*

Suppose that the member does a calendar spread trade by buying 300 contracts of 3 months futures and selling 300 contracts of 1 month futures.

Since the near month contract of the spread is five days to expiry, the member will have the full benefit of spread margining:

$$\text{Margin on spread} = 1\% * 300 * 1,00,000 = 3,00,000$$

$$\text{Spread open position} = 300 * 1,00,000 * \frac{1}{3} = 1,00,00,000$$



Adding the figures for the earlier long position we get:

Total open position = 2,00,00,000 + 1,00,00,000 = 3,00,00,000

Liquid net worth = 70,00,000 - 10,00,000 - 3,00,000 = 57,00,000

Both conditions in para 4(ii) of the circular are satisfied as shown below:

Condition 1. 57,00,000 > 50,00,000

Condition 2. 57,00,000 * 331/3 = 19,00,00,000 > 300,00,000

1.2.1 Liquid Assets

At least 50% of the total liquid assets shall be in the form of cash equivalents viz. cash, bank guarantee, fixed deposits, T-bills and dated government securities. Liquid Assets for the purposes of initial margins as well as liquid net worth would include cash, fixed deposits, bank guarantees, Treasury bills, government securities or dematerialized securities (with prescribed haircuts) pledged in favour of the exchange / clearing corporation or bank guarantees as defined hereunder. Units of money market mutual funds and units of gilt funds may be accepted towards cash equivalent component of the liquid assets of a clearing member. The unit shall be valued on the basis of its Net Asset Value after applying a hair cut of 10% on the NAV and any exit load charged by the mutual fund. The valuation or the marking to market of such units shall be carried out on a daily basis.

1.2.2 Bank Guarantees

The clearing corporation / house would set an exposure limit for each bank, taking into account all relevant factors including the following:

- a. The Governing Council or other equivalent body of the clearing corporation / house shall lay down exposure limits either in rupee terms or as percentage of the trade guarantee fund that can be exposed to a single bank directly or indirectly. The total exposure would include guarantees provided by the bank for itself or for others as well as debt or equity securities of the bank which have been deposited by members as liquid assets for margins or net worth requirement.
- b. Not more than 5% of the trade guarantee fund or 1% of the total liquid assets deposited with the clearing house, whichever is lower, shall be exposed to any single bank which is not rated P1 (or P1+) or equivalent, by a RBI recognised credit rating agency or by a reputed foreign credit rating agency, and not more than 50% of the trade guarantee fund or 10% of the total liquid assets deposited with the clearing house, whichever is lower, shall be exposed to all such banks put together.
- c. The exposure limits and any changes thereto shall be promptly communicated to SEBI. The clearing corporation shall also periodically disclose to SEBI its actual exposure to various banks.



1.2.3 Securities

Equity securities classified under Group I in the underlying cash market may be accepted towards liquid assets in the derivative markets. Securities classified under Group I shall be those as defined by SEBI from time to time. The equity securities shall be valued/marked to market on a daily basis after applying a haircut equivalent to the respective VaR of the equity security. The list of acceptable equity securities shall be updated on the basis of trading and mean impact cost on the 15th of each month. When a security is dropped from the list of acceptable equity securities, the existing deposits of that security shall continue to be counted towards liquid assets till the end of the month. Equity securities shall be in dematerialized form.

Units of all mutual funds may also be accepted as the securities component of liquid assets. The unit shall be valued on the basis of its Net Asset Value (NAV) after applying a hair cut equivalent to the VaR of the units NAV and any exit load charged by the mutual fund. The valuation or the marking to market of such units shall be carried out on a daily basis. The valuation / marking to market of all securities, including debt securities, dated government securities and T-bills, shall be carried out daily, with appropriate haircuts.

Debt securities shall be acceptable only if they are investment grade. Haircuts shall be at least 10% with daily mark to market.

The total exposure of the clearing corporation to the debt or equity securities of any company shall not exceed 75% of the trade guarantee fund or 15% of the total liquid assets of the clearing corporation / house whichever is lower. Exposure for this purpose means the mark to market value of the securities less the applicable haircuts. All securities deposited for liquid assets shall be pledged in favour of the clearing corporation.

Reserve Bank of India (RBI) vide A. P. (DIR Series) Circular no. 2 dated July 19, 2007 has permitted clearing corporations and clearing members –

- a. to open and maintain demat accounts with foreign depositories and to acquire, hold, pledge and transfer the foreign sovereign securities, offered as collateral by FIIs;
- b. to remit the proceeds arising from corporate action, if any, on such foreign sovereign securities; and
- c. to liquidate such foreign sovereign securities if the need arises.

Further, Reserve Bank of India vide RBI/2012-13/439 A.P. (DIR Series) Circular No. 90 dated March 14, 2013 has permitted FIIs to use, in addition to already



permitted collaterals, their investments in government securities and corporate bonds as collaterals in the F&O segment.

In light of the above, FIIs are permitted to offer the following collaterals - government securities, corporate bonds, cash and foreign sovereign securities with AAA ratings, for their transactions in F&O segments. In this regard, the stipulations specified by SEBI and RBI with regard to the acceptance of various collaterals shall be adhered to

Clearing members are permitted to accept foreign sovereign securities with 'AAA' rating, (hereinafter referred to as "sovereign securities") as collateral from FII client with the following necessary safeguards:

- i. Before accepting sovereign securities as collateral from FII, the clearing member shall enter into a written agreement with the FII and also with the clearing corporation, containing, *inter alia*, the following terms:
 - a. In the event of any dispute regarding liquidation or return of the sovereign securities tendered as collateral, or any other incidental matter, the courts in India will have jurisdiction to decide such disputes. Alternatively, the agreement may contain an arbitration clause.
 - b. The agreement shall also contain the right of the clearing corporation as well as the clearing member to liquidate the sovereign securities tendered as collateral, in the event of default by clearing member or FII, as the case may be.
- ii. The clearing member shall take due care to ensure that the sovereign securities tendered as collateral are available for liquidation in the event of insolvency of the FII or any intermediary or any other person located overseas through whom the securities are held.
- iii. The clearing corporation shall also take due care to ensure that sovereign securities tendered as collateral are available for liquidation in the event of insolvency of the clearing member or any intermediary or other person located overseas through whom the securities are held.
- iv. The clearing corporation shall take adequate care to ensure that the sovereign securities accepted by it as margin are tendered under a mechanism which does not unduly hinder timely liquidation in the event of default by the clearing member.

The clearing corporation shall value the collateral tendered by applying due haircuts. The haircut may either be a fixed percentage or VaR based. A higher haircut may be considered to cover the expected time frame for



liquidation. A market determined price as obtained from an internationally recognized data vendor shall be considered for valuation. The prices shall be converted into rupee terms on a daily basis. The rupee value so used for conversion shall be the "RBI Reference rate". The RBI reference rate shall be disclosed by the clearing corporation to the clearing members, so as to enable them to report the value of the margins collected from FIIs.

The sovereign securities tendered as collateral shall be treated as part of the cash component of the liquid assets of the clearing member, and shall be subject to the condition that the value of the sovereign securities shall not be more than 10% of the total value of the cash component of the liquid assets of the clearing member.

The existing procedure for acceptance and release of collateral tendered by domestic investors in the case of domestic securities shall be adopted *mutatis mutandis* for the sovereign securities tendered by FII, except to the extent specifically provided otherwise.

Further, Clearing Corporations while enabling the framework for acceptance of corporate bonds as collateral for transactions of any entity, shall ensure that:

- i. The bonds shall have a rating of AA or above (or with similar rating nomenclature) by recognised credit rating agencies.
- ii. The bonds shall be in dematerialized form.
- iii. The bonds shall be treated as part of the non-cash component of the liquid assets of the clearing member and shall not exceed 10% of the total liquid assets of the clearing member.
- iv. The bonds shall have a fixed percentage based or VaR based haircut. A higher haircut may be considered to cover the expected time frame for liquidation. To begin with the haircut shall be a minimum of 10%.

1.2.4 Initial Margin Computation

The Initial Margin requirements are based on worst scenario loss of a portfolio of an individual client to cover 99% VaR over one day horizon across various scenarios of price changes and volatility shifts. For Index products, the price scan range is specified at three standard deviation (3 sigma) and the volatility scan range is specified at 4%.



The Exponential Weighted Moving Average method (EWMA) shall be used to obtain the volatility estimate every day. For Index products the price scan range is specified at three standard deviation (3 sigma) and the volatility scan range is specified at 4%. The estimate at the end of day t (σ_t) is estimated using the previous volatility estimate, i.e., as at the end of t-1 day (t-1), and the return (r_t) observed in the futures market during day t.

The formula shall be as under:

$$\sigma_t^2 = \lambda(\sigma_{t-1})^2 + (1-\lambda)(r_t)^2$$

where

λ is a parameter which determines how rapidly volatility estimates changes. The value of λ is fixed at 0.94.

σ (sigma) means the standard deviation of daily returns in the index futures market.

The margins for 99% VaR should be based on three sigma limits (three times the standard deviation). The "return" is defined as the logarithmic return: $r_t = \ln(I_t/I_{t-1})$ where I_t is the index futures price at time t. The plus/minus three sigma limits for a 99% VaR based on logarithmic returns would have to be converted into percentage price changes by reversing the logarithmic transformation. The percentage margin on short positions would be equal to $100(\exp(3\sigma_t)-1)$ and the percentage margin on long positions would be equal to $100(1-\exp(-3\sigma_t))$. This implies slightly larger margins on short positions than on long positions. The derivatives exchange / clearing corporation may apply the higher margin on both the buy and sell side.

On the first day of index futures trading the formula given above would require a value of σ_{t-1} , i.e. the estimated volatility at the end of the day preceding the first day of index futures trading. This would be obtained as follows:

- Calculate the standard deviation of returns in the cash index during the last one year.
- Set the volatility estimate at the beginning of that year equal to this average value.
- Move forward through the year, one day at a time, using the formula above to get the estimated volatility at the end of that day using cash index prices.
- The estimated volatility by this method at the end of the day preceding the first day of index futures trading would be the value of σ_{t-1} to be used in the formula given above at the end of the first day of futures trading. Thereafter each day's estimate σ_t becomes the σ_{t-1} for the next day.



For the first six months of index futures trading, a parallel estimation of volatility would be done using the cash index prices and the index futures prices and the higher of the two volatility measures would be used to set margins, however, during the first six months, in no case shall the initial margin be less than 5%.

The volatility estimated at the end of the day's trading would be used in calculating the initial margin calls at the end of the same day. The volatility estimation and margin fixation methodology should be clearly made known to all market participants so that they can compute what the margin would be for any given closing level of the index. Further, the trading software itself should provide this information on a real time basis on the trading workstation screen.

There is also a minimum margin requirement. For index futures contracts it is specified that in no case the initial margin shall be less than 5% of the value of the contract.

1.2.5 Margins for Calendar Spreads

A calendar spread is a situation in which a position at one maturity is hedged by an offsetting position at a different maturity on the same underlying, e.g., a short position in six months contract hedged by a long position in nine month contract. The margin on calendar spreads shall be at a flat rate of 0.5% per month of spread on the far month contract subject to a minimum margin of 1% and a maximum margin of 3% on the far side of the spread.

1.2.6 Exposure Limits

It has been prescribed that the notional value of gross open positions at any point in time in the case of Index Futures shall not exceed $33 \frac{1}{3}$ (thirty three one by three) times the liquid net worth of a member. Therefore, the exchanges would be required to ensure that 3% of the notional value of gross open position in index futures is collected/adjusted from the liquid networth of a member on a real time basis. Exposure limits are in addition to the initial margin requirements.

1.2.7 Real Time Computation

The computation of Worst Scenario Loss has two components. The first is the valuation of the portfolio under sixteen scenarios. At the second stage, these Scenario Contract Values are applied to the actual portfolio positions to compute the portfolio values and the initial margin (Worst Scenario Loss). For computational ease, exchanges are permitted to update the Scenario Contract Values only at discrete time points each day and the latest



available Scenario Contract Values would be applied to member/client portfolios on a real time basis.

However, in order to ensure that the most recent scenario are applied for computation of the portfolio values and the initial margin, the scenario contract values shall be updated at least 5 times in the day, which may be carried out by taking the closing price of the previous day at the start of trading and the prices at 11:00 a.m., 12:30 p.m., 2:00 p.m., and at the end of the trading session.

1.2.8 Cross Margining

The positions of clients in both the cash and derivatives segments to the extent they offset each other shall be considered for the purpose of cross margining as per the following priority:

- a. Index futures position and constituent stock futures position in derivatives segment,
- b. Index futures position in derivatives segment and constituent stock position in cash segment, and
- c. Stock futures position in derivatives segment and the position in the corresponding underlying in cash segment

A basket of positions in index constituent stock/stock futures, which is a complete replica of the index in the ratio specified by the Exchange/Clearing Corporation, shall be eligible for cross margining benefit. The positions in the derivatives segment for the stock futures and index futures shall be in the same expiry month to be eligible for cross margining benefit.

A spread margin of 25% of the total applicable margin on the eligible off-setting positions, as mentioned above, shall be levied in the respective cash and derivative segments. Cross margining benefit shall be computed at client level on an online real time basis and provided to the trading member/clearing member/custodian, as the case may be, who, in turn, shall pass on the benefit to the client. For institutional investors, however, the cross margining benefit shall be provided after confirmation of trades.

To avail the facility of cross margining, a client may maintain two accounts with the trading member/clearing member, namely arbitrage account and a non-arbitrage account, to allow converting partially replicated portfolio into a fully replicated portfolio by taking opposite positions in two accounts. However, for the purpose of compliance and reporting requirements, the



positions across both accounts shall be taken together and client shall continue to have unique client code.

A client may settle through a trading member/clearing member/custodian, as the case may be, who is clearing in both the segments or through two trading members/clearing members/custodians, one of whom is a trading member/custodian in the cash segment and the other is a clearing member in the derivatives segment. However, in course of time, a client will settle through only one clearing member who is a member in both the segments.

In the event of default by a trading member/clearing member/custodian, as the case may be, whose clients have availed cross margining benefit, the Stock Exchange/Clearing Corporation shall have the option to:

- a. Hold the positions in the cross margin account till expiry in its own name.
- b. Liquidate the positions/collateral in either segment and use the proceeds to meet the default obligation in the other segment.

The Exchange/Clearing Corporation shall enter into agreement with client/clearing member/trading member/custodian, as the case may be, clearly laying down the inter-se distribution of liability / responsibility in the event of default. The exchange shall also specify the legal agreements between the clearing entities for the purpose of margin utilization in case of liquidation/default etc.

1.2.9 Margin Collection and Enforcement

The Exchange may offer a choice to the members to opt for payment of Mark to Market Margin (MTM) -

- a. either before the start of trading the next day, i.e., T+0, or
- b. on the next day, i.e., T+1.

If the member opts for payment of MTM by T+1, then correspondingly higher initial margin shall be collected by the clearing corporation/house before the start of the trading on the next day to cover the potential losses over the time elapsed in the collection of margins. The clearing corporation/clearing house should lay down operational guidelines for collection of margin and standard guidelines for back office accounting at the level of clearing member and trading member to facilitate the detection of non-compliance at each level. The accounting guidelines shall be in conformity with the guidelines, if any, issued by SEBI from time to time. The initial margin (or the worst scenario loss) plus the calendar spread



charge shall be adjusted against the available Liquid Net worth of the member who, in turn, shall collect the initial margin from their clients.

1.2.10 Reporting and Disclosure

The derivatives exchange and clearing corporation shall submit quarterly reports to SEBI regarding the functioning of the risk estimation methodology highlighting the specific instances where price moves have been beyond the estimated 99% VaR limits. The clearing corporation / clearing house shall disclose the details of incidences of failures in collection of margin and/or the settlement dues on a quarterly basis. Failure for this purpose means a shortfall for three consecutive trading days of 50% or more of the liquid net worth of the member.

Any proposal for changes in the methodology to compute the initial margin should be filed with SEBI and released to the public for comments along with detailed comparative back testing results of the proposed methodology and the current methodology. The proposal shall specify the date from which the new methodology will become effective and this effective date shall not be less than three months after the date of filing with SEBI. At any time, up to two weeks before the effective date, SEBI may instruct the derivatives exchange and clearing corporation/house not to implement the change, or the derivatives exchange and clearing corporation/ house may on its own decide not to implement the change.

The derivatives exchange/segment of the exchange/clearing corporation/clearing house of the exchange may choose to impose more stringent requirements, other than those prescribed above.

1.3 Surveillance and Disclosures

1.3.1 Unique client code

The Exchange shall ensure that each client is assigned a client code which is unique across all members. The unique client code shall be assigned with the use of PAN number.

1.3.2 Position Limits

1.3.2.1 Market Level

There are no market wide position limits specified for index futures contracts.



1.3.2.2 Client Level/ NRI/Sub Accounts

A self-disclosure requirement similar to that in the take-over regulations is prescribed as under:

Any person or persons acting in concert who together own 15% or more of the open interest shall be required to report this fact to the exchange and failure to do so shall attract a penalty as laid down by the exchange / clearing corporation / SEBI.

1.3.2.3 Trading Member/FII/Mutual Fund

The trading member/FII/mutual fund position limits in equity index futures contracts shall be higher of:

- Rs.500 Crore

or

- 15% of the total open interest in the market in equity index futures contracts.

This limit would be applicable on open positions in all futures contracts on a particular underlying index.

In addition to the position limits above, Mutual Funds/FIIs may take exposure in equity index derivatives subject to the following limits:

- a. Short positions in index derivatives (short futures, short calls and long puts) shall not exceed (in notional value) the Mutual Fund's/FIIs holding of stocks.
- b. Long positions in index derivatives (long futures, long calls and short puts) shall not exceed (in notional value) the Mutual Fund's/FIIs holding of cash, government securities, T-Bills and similar instruments.

1.3.3 Monitoring of Position Limits

1.3.3.1 NRI/Clients

The Exchange shall monitor the NRI position limits. The NRI would be required to notify the names of the Clearing Member/s through whom it would clear its derivative trades to the Exchange. The Exchange would then assign a unique client code to the NRI. The Exchange shall monitor the NRI position limits in the manner similar to that specified for FIIs and sub-accounts.

1.3.3.2 FII/Sub Accounts

The FII shall report to the Clearing Member (Custodian) the extent of FII's holding of stocks, cash, government securities, T-Bills and similar instruments before the



end of the day. The Clearing Member (Custodian) in turn shall report the same to the Exchange.

The Exchange shall then monitor the FII and sub accounts position limits in equity index derivative contracts in the manner specified below:

- a. The FII would be required to notify the names of the Clearing Member/s and Custodian through whom it would clear its derivative trades to exchanges and their Clearing House / Clearing Corporation.
- b. A unique code would be assigned by the exchanges and / or the Clearing House/Clearing Corporation to each registered FII intending to trade in derivative contracts.
- c. The FII would be required to confirm all its positions and the positions of all its sub-accounts to the designated Clearing Members online but before the end of each trading day.
- d. The designated Clearing Member/s would at the end of each trading day submit the details of all the confirmed FII trades to the derivative Segment of the exchange and their Clearing House / Clearing Corporation.
- e. The exchanges and their Clearing House / Clearing Corporation would then compute the total FII trading exposure and would monitor the position limits at the end of each trading day. The cumulative FII position may be disclosed to the market on a T + 1 basis, before the commencement of trading on the next day.
- f. In the event of an FII breaching the position limits on any derivative contract on an underlying, the FII would not be permitted by the exchanges and their Clearing House / Clearing Corporation / Clearing Member/s to take any fresh positions in any derivative contracts in that underlying. However, they would be permitted to execute off-setting transactions so as to reduce their open position.
- g. The FIIs while trading for each sub-account would also assign a unique client code with a prefix or suffix of the code assigned by the exchange and their Clearing House / Clearing Corporation to the FII. The FII would be required to enter the unique sub-account code before executing a trade on behalf of the sub-account.

The sub-account position limits would be monitored by the FII itself, on the same lines as the trading member monitors the position limits of its client / customer. The FIIs would report any breach on position limits by the sub-account, to the derivative segment of the exchange and their Clearing House / Clearing Corporation and the FII / Custodian / Clearing Member/s would ensure that the sub-account does not take any fresh positions in any derivative contracts in that underlying. However the sub-account would be permitted to execute off-setting transactions so as to reduce its open position.



The exchanges may assign unique sub-account codes on the lines of unique client codes to each sub-account of a FII, which would enable the derivative segment of the exchange and their Clearing House/Clearing Corporation to monitor the position limits specified for sub-accounts.

The position limits would be computed on a gross basis at the level of a FII and on a net basis at the level of sub-accounts and proprietary positions.

The open position for all derivative contracts would be valued as the open interest multiplied with the closing price of the respective underlying in the cash market.

1.3.3.3 Mutual Funds

The Mutual Fund shall notify the names of the Clearing Member/s for each scheme through whom it would clear its derivative contracts to the Stock Exchange. The Stock Exchange would then assign a unique client code to each scheme of the Mutual Fund. The Stock Exchange shall monitor the scheme-wise position limits in the manner similar to that prescribed for FIIs and their sub-accounts as mentioned above. The Mutual Funds will be considered as trading members like registered FIIs and the schemes of Mutual Funds will be treated as clients like sub-accounts of FIIs.

1.3.4 Surveillance System

The surveillance systems of the exchanges should be designed keeping in view all the relevant aspects including the following -

- a. The alerts in the online surveillance system should be so designed that indications of material aberrations from normal activity are automatically generated and thrown up by the system.
- b. The parameters which need to be monitored either through the online system or otherwise should inter-alia include the following parameters as suggested by the Advisory Committee on Derivatives:
 - I. Monitoring of open interest, cost of carry/impact cost and volatility.
 - II. Monitoring of closing prices.
 - III. The open positions in the derivative market should be seen in conjunction with the open positions in the cash market. i.e the position deltas should be monitored.
 - IV. The timing of disclosure by corporates should be monitored as this could influence the prices of the contract at the time of introduction and expiry.



- V. Strike prices with large open positions should be monitored as this could influence the prices of the contract at the time of introduction and expiry.
 - VI. Strike prices with large open positions should be monitored, as such strike prices could be a target price to be achieved in the cash market to derive maximum benefit from the derivative position.
- c. The surveillance systems and processes should be able to
- I. capture and process client level details.
 - II. develop databases of trading activity by brokers as well as clients.
 - III. generate trading pattern in individual products or group of products by a broker over a period of time or by a client / group of clients over a period of time.
 - IV. generate the pattern of trading in a product over a period of time giving such details as the purchases/sales/positions/open interest held by different brokers or clients/group of clients.
 - V. Monitor proportion of trading in derivatives market vis-à-vis trading in the underlying in the cash market and aberrations as compared to historical data and as compared to market average
 - VI. Monitor large trades, call put ratio's and exercise patterns
- d. For integration of surveillance in cash and derivatives markets, the persons who carry out monitoring/analysis in the derivatives market should have access to data of the underlying security in cash market and vice versa. The co-ordination between surveillance and derivatives segment should ensure monitoring of positions at broker/client level across cash and derivatives market with a view to identifying possible fraudulent or manipulative activity.
- e. Examination of derivatives trading details should be taken up on the basis of cash market surveillance also, and vice versa.
- f. While the surveillance system may be able to generate a large amount of information, it is only the first step towards analysing market behaviour to identify potential problems. The exchange surveillance staff should be able to carry out quick and effective analysis of information generated by the surveillance system, and should document this analysis properly. The documentation should be properly authenticated and verified by a designated authority of the stock exchange.
- g. The information and feedback received from broker inspections is vital input for effective surveillance. For this it is necessary that



broker inspections are taken up in a rational manner keeping in view the level of trading activity, client profile, number and nature of complaints received against the broker, history of risk management related defaults and regulatory violations etc. Information obtained through broker inspections should also be made available to the monitoring/surveillance departments of stock exchanges.

- h. The information gathered by the risk management departments/clearing corporations while enforcing the risk management measures and settlement processes are critical inputs. Such information could include pattern of defaults related to specific scrips/contracts and special risk management measures taken keeping in view the market conditions.
- i. The exchanges should call for information from brokers in a standard form, and preferably in electronic form, to facilitate faster analysis as well as building up of databases. It may also be ensured that duly authenticated information is submitted by the broker or his designated agent.
- j. While implementing a stock watch type of system for derivatives, the system should be designed to provide online access to relevant historical data on derivatives trading for at least a year.
- k. The underlying securities in the derivatives market may be listed on more than one exchange and brokers dealing in such securities/derivatives may have membership in more than one exchange. In the interest of better surveillance, it is therefore necessary that relevant information obtained through surveillance at one exchange should be shared with other exchanges. Exchanges are, therefore, advised to share information on positions in underlying stocks and their derivatives and any extraordinary movement in price/volume or concentration periodically or upon specific request by any stock exchange.
- l. Exchanges should study surveillance practices in various Global Equity Derivative Markets. Surveillance practices in commodities and bullion markets could also be studied where appropriate. Case studies on some market manipulations in various derivatives markets could be looked at in order to see what lessons could be drawn.

Compliance with the above requirements may be indicated in the monthly reports on surveillance and investigations submitted by exchanges to SEBI.



1.4 Eligibility Criteria for Derivative Exchange / Derivative Segment of the Exchange, Trading Members, Clearing Corporation/House for Equity Derivatives

The exchanges fulfilling the eligibility criteria as prescribed in the Dr. L.C. Gupta Committee Report (Chapter 3 of the suggestive Byelaws) may apply to SEBI for grant of recognition under Section 4 of the Securities Contract Regulation Act, 1956. The derivatives exchange/segment should have a separate governing council and representation of trading/clearing members shall be limited to maximum of 40% of the total members of the Governing Council. The exchange shall regulate the sales practices of its members and will obtain prior approval of SEBI before start of trading in any derivatives contract.

The Clearing and settlement of derivatives trades shall be through a SEBI approved Clearing Corporation/House. Clearing Corporations / Houses complying with the eligibility conditions as laid down by the Dr. L.C. Gupta Committee (Chapter 5 of the Suggestive Bye- laws) may apply to SEBI for approval.

Derivative Brokers/Dealers and clearing members are required to seek registration from SEBI. This shall be in addition to their registration as brokers of existing stock exchanges. Derivative brokers/dealers shall be granted registration under SEBI (Stock Brokers and Sub Brokers) Rules and Regulations, 1992 read with SEBI (Intermediaries) Regulations, 2008. The minimum net worth for clearing members of the derivatives clearing corporation / house shall be Rs. 300 lacs. The net worth of a member shall be computed as follows:

- Capital + free Reserves
- Less non-allowable assets viz.
 - a) Fixed assets
 - b) Pledged securities
 - c) Member's card
 - d) Non-allowable securities (unlisted securities)
 - e) Bad deliveries
 - f) Doubtful debts and advances*
 - g) Prepaid expenses, losses
 - h) Intangible assets
 - i) 30% of marketable securities

* Explanation - Includes debts/ advances overdue for more than three months or given to associates.



The trading members shall be required to have qualified approved user and sales person who have passed a Certification Programme approved by SEBI.

The Dr. L.C Gupta Committee on Derivatives had permitted existing stock exchanges having cash trading to trade in derivative contracts through a separate segment with separate membership.

The derivative segment of an exchange and its Clearing House/Corporation shall be separate from the cash segment in the following areas -

- a. The legal framework governing trading, clearing and settlement of the derivative segment should be separate from the cash market segment. In other words, the Regulations and / or Bye-laws of derivative segment, as the case may be for specific exchanges, shall be separate from the cash market.
- b. Trade Guarantee Fund (TGF)/Settlement Guarantee Fund (SGF) of the derivative segment shall be separate from the TGF/SGF of cash market segment.
- c. Membership of the derivative segment shall be separate from the cash market segment.
- d. The Governing Council/Clearing Council/Executive Committees of the derivative segments shall be separate from the cash market segment.

The separation, if any, as regard the functional, operational and administrative modalities shall be at the discretion of the Exchange. The cash and derivative segment of an Exchange may have common personnel, trading terminal and infrastructure.

The quantum of members to be inspected may be linked to the cost and benefit of inspections and the level of activity of members. The Derivative Exchange/Segment shall work out an appropriate policy and plan for selecting members to be inspected. The inspection strategy should lay down:

- a. The criteria for identifying the top members (in terms of level of activity) to be taken up for compulsory inspection.
- b. The percentage of remaining members to be inspected selected on a sampling basis.
- c. Mechanisms should ensure that active members do not go un-inspected for several years in succession.



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The inspection policy and plan for the year shall be submitted to SEBI for approval.



2 INDEX OPTIONS

2.1 Product Design

2.1.1 Underlying

The benchmark indices and the various sectoral indices are permitted as per the eligibility criteria.

2.1.2 Eligibility Criteria

The eligibility criteria for an index to qualify for introduction of options, as specified in Section 1.1.2.

2.1.3 Trading Hours

Same as that for index future contracts as specified in Section 1.1.3.

2.1.4 Size of the Contract

Same as that for index future contracts as specified in Section 1.1.4.

2.1.5 Quotation

Same as that for index future contracts as specified in Section 1.1.5.

2.1.6 Tenor of the contract

Same as that for index futures contracts as specified in Section 1.1.6. The index option contracts on Nifty and SENSEX shall have a maximum maturity up to 5 years.

2.1.7 Available Contracts

The exchange should ensure that for index options contracts on Nifty and Sensex there are 8 semi annual contracts of the cycle June/December in sequence to 3 serial monthly contracts and 3 quarterly contracts of the cycle March/June/September/December. Each maturity shall have a minimum of three strikes (in the money, at the money and out of the money).

2.1.8 Settlement Mechanism

Same as that for index future contracts as specified in Section 1.1.8. Initially, the Exchanges shall introduce premium style index options.

2.1.9 Settlement Price

Same as that for index future contracts as specified in Section 1.1.9.

2.1.10 Final Settlement Day

Same as that for index future contracts as specified in Section 1.1.10.



2.1.11 Application

The Derivative Exchange/Segment shall submit their proposal for approval of the index option contract to SEBI which shall include:

- a. the details of proposed derivative contract to be traded on the exchange which would include:
 - i. Symbol
 - ii. Underlying
 - iii. Multiplier
 - iv. Strike Price Intervals
 - v. Premium Quotation
 - vi. Last Trading Day
 - vii. Expiration day/month
 - viii. Exercise Style
 - ix. Settlement of Option Exercise
 - x. Position and Exercise Limits
 - xi. Margin
 - xii. Trading Hours
- b. the economic purpose it is intended to serve,
- c. likely contribution to market development,
- d. the safeguards and the risk protection mechanism adopted by the exchange to ensure market integrity, protection of investors and smooth and orderly trading,
- e. the infrastructure of the exchange and the surveillance system to effectively monitor trading in such contracts, and
- f. details of settlement procedures & systems with regard to Index Options.



2.2 Risk Management

2.2.1 Initial Margin Computation

The Initial Margin requirements shall be based on worst case loss of a portfolio of an individual client to cover a 99% VaR over a one day horizon. For Index products, the price scan range is specified at three standard deviation (3 sigma) and the volatility scan range is specified at 4%. There is also a minimum margin requirement. For index options a short option minimum charge (as explained below) of 3% of the notional value of all short index option has been prescribed.

The Initial Margin requirement shall be netted at level of individual client and it shall be on gross basis at the level of Trading/Clearing Member. The Initial margin requirement for the proprietary position of Trading/Clearing member shall also be on net basis.

2.2.2 Portfolio Based Margining

A portfolio based margining approach shall be adopted which will takes an integrated view of the risk involved in the portfolio of each individual client comprising of his positions in index futures and index options contracts. The parameters for such a model should include-

1. *Worst Scenario Loss*

The worst case loss of a portfolio would be calculated by valuing the portfolio under several scenarios of changes in the index and changes in the volatility of the index. The scenarios to be used for this purpose would be:

Risk Scenario Number	Price Move in Multiples of Price Range	Volatility Move in Multiples of Volatility Range	Fraction of Loss to be Considered
1.	0	+1	100%
2.	0	-1	100%
3.	+1/3	+1	100%
4.	+1/3	-1	100%
5.	-1/3	+1	100%
6.	-1/3	-1	100%
7.	+2/3	+1	100%
8.	+2/3	-1	100%
9.	-2/3	+1	100%
10.	-2/3	-1	100%
11.	+1	+1	100%



12.	+1	-1	100%
13.	-1	+1	100%
14.	-1	-1	100%
15.	+2	0	35%
16.	-2	0	35%

The price range is defined to be three standard deviations as calculated for VaR purposes in the index futures market for the near month contract. The volatility range would be taken at 4%.

While computing the worst scenario loss, it shall be assumed that the prices of futures of all maturities on the same underlying index move up or down by the same amount.

For the purpose of the calculation of option values, the exchanges may use any of the following standard Option Pricing Models - Black-Scholes, Binomial, Merton, Adesi-Whaley.

The maximum loss under any of the scenario (considering only 35% of the loss in case of scenarios 15 and 16) is referred to in this circular as the Worst Scenario Loss. Subject to the additions and adjustments mentioned below, the Worst Scenario Loss is the margin requirement for the portfolio.

2. Real Time Computation

The computation of Worst Scenario Loss has two components. The first is the valuation of each option contract under sixteen scenarios using an appropriate option pricing model. The second is the application of these Scenario Contract Values to the actual positions in a portfolio to compute the portfolio values and the Worst Scenario Loss. For computational ease, exchanges are permitted to update the Scenario Contract Values only at discrete time points each day. However, the latest available Scenario Contract Values would be applied to member/client portfolios on a real time basis.

3. Calendar Spread

The margin for calendar spread would be the same as specified for the index futures contracts. However, the margin shall be calculated on the basis of delta of the portfolio in each month. Thus, a portfolio consisting of a near month option with a delta of 100 and a far month option with a delta of -100 would bear a spread charge equal to the spread charge for a portfolio which is long 100 near month futures and short 100 far month futures. The Calendar Spread Margin would be charged in addition to the Worst Scenario Loss of the portfolio.

4. Short Option Minimum Margin



The Short Option Minimum Margin equal to 3% of the Notional Value of all short index options shall be charged, if sum of the Worst Scenario Loss and the Calendar Spread Margin is lower than the Short Option Minimum Margin. In this circular, Notional Value of option positions is calculated by applying the last closing price of the index futures contract.

5. Net Option Value

The Net Option Value shall be calculated as the current market value of the option times the number of options (positive for long options and negative for short options) in the portfolio. This Net Option Value shall be added to the Liquid Net Worth of the clearing member. This means that the current market value of short options will be deducted from the Liquid Net Worth and the market value of long options will be added thereto. Thus, market to market gains and losses on option positions will get adjusted against the available Liquid Net Worth. Since the options are premium style, mark to market gains and losses will not be settled in cash for option positions.

6. Cash Settlement of Premium

For option positions, the premium shall be paid in by the buyers in cash and paid out to the sellers in cash on T+1 day.

7. Unpaid Premium

Until the buyer pays in the premium, the premium due shall be deducted from the available Liquid Net Worth on a real time basis.

2.2.3 Exposure Limits

The notional value of gross open positions at any point in time in the case of all Short Index Option Contracts shall not exceed 33 1/3 (thirty three one by three) times the liquid net worth of a member.

2.2.4 Real Time Computation

Same as that for index future contracts as specified in Section 1.2.3.

2.2.5 Margin Collection and Enforcement

Same as that for index future contracts as specified in Section 1.2.4.

2.2.6 Liquid Net Worth and Exposure Limits of a Clearing Member:

Same as that for index future contracts as specified in Section 1.2.5.

2.2.7 Liquid Assets:

Same as that for index future contracts as specified in Section 1.2.6.

2.2.8 Bank Guarantees:

Same as that for index future contracts as specified in Section 1.2.7.



2.2.9 Securities

Same as that for index future contracts as specified in Section 1.2.8.

2.2.10 Reporting and Disclosure:

Same as that for index future contracts as specified in Section 1.2.9.

2.3 Surveillance and Disclosures

2.3.1 Unique client code

Same as that for index future contracts as specified in Section 1.3.1.

2.3.2 Position Limits

2.3.2.1 Market Level

There are no market wide position limits specified for index option contracts.

2.3.2.2 Customer Level/NRI/Sub Accounts

Same as that for index future contracts as specified in Section 1.3.2.2.

2.3.2.3 Trading Member/FII/Mutual Fund

Same as that for index future contracts as specified in Section 1.3.2.2. This limit would be applicable on open positions in all option contracts on a particular underlying index.

2.3.3 Monitoring of Position Limits

2.3.3.1 NRI

Same as that for index future contracts as specified in section 1.3.3.1.

2.3.3.2 FII/Sub Accounts

Same as that for index future contracts as specified in section 1.3.3.2.

2.3.3.3 Mutual Funds

Same as that for index future contracts as specified in section 1.3.3.3.

2.3.4 Surveillance System

Same as that of index future contracts as specified in section 1.3.4.



3 STOCK FUTURES

3.1 Product Design

3.1.1 Underlying

The stocks listed on exchanges which conform to the eligibility criteria are permitted.

3.1.2 Eligibility Criteria

A stock on which stock option and single stock future contracts are proposed to be introduced shall conform to the following broad eligibility criteria:-

- a. The stock shall be chosen from amongst the top 500 stock in terms of average daily market capitalization and average daily traded value in the previous six months on a rolling basis.
- b. The stock's median quarter-sigma order size over the last six months shall be not less than Rupees10 Lakh. For this purpose, a stock's quarter-sigma order size shall mean the order size (in value terms) required to cause a change in the stock price equal to one-quarter of a standard deviation.
- c. The market wide position limit (explained later in the circular) in the stock shall not be less than Rupees300 crores. Since market wide position limit for a stock is computed at the end of every month, the Exchange shall ensure that stocks comply with this criterion before introduction of new contracts. Further, the market wide position limit (which is in number of shares) shall be valued taking the closing prices of stocks in the underlying cash market on the date of expiry of contract in the month.

In case circuit filter on a stock is reduced even once during the past six months, on account of surveillance action, then that stock should undergo a cooling off period of six months before the exchange decides to introduce derivatives on it.

The Exchange shall be guided by the following for the purpose of calculating quarter sigma order size in a stock:-

- a. Quarter sigma order size shall be calculated by taking four snapshots in a day from the order book of the stock in the past six months. These four snapshots shall be randomly chosen from within four fixed ten-minutes windows spread through the day.
- b. The sigma (standard deviation) or volatility estimate shall be the daily closing volatility estimate which is also used for day end initial



margin calculation in derivative contracts on a stock. For stocks on which derivative contracts are not traded, the daily closing volatility estimate shall be computed in the manner specified by Prof. J.R Varma Committee on risk containment measures for Index Futures. The daily closing volatility estimate value shall be applied to the day's order book snapshots to compute quarter sigma order size.

- c. The quarter sigma percentage shall be applied to the average of the best bid and offer price in the order book snapshot to compute the order size to move price of the stock by quarter sigma.
- d. The median order size to cause quarter sigma price movement shall be determined separately for the buy side and the sell side. The average of the median order size for the buy and the sell side shall be taken as the median quarter sigma order size.

The details of calculation methodology and relevant data shall be made available to the public at large on the website of the exchange.

The quarter sigma order size in a stock shall be calculated on the 15th of each month, on a rolling basis, considering the order book snapshots in the previous six months. Similarly, the average daily market capitalization and the average daily traded value shall also be computed on the 15th of each month, on a rolling basis, to arrive at the list of top 500 stocks.

The number of eligible stocks may vary from month to month depending upon the changes in quarter sigma order sizes, average daily market capitalization & average daily traded value calculated every month on a rolling basis for the past six months. Options and futures may be introduced on new stocks when they meet the eligibility criteria subject to SEBI approval.

Exit criteria for stocks in equity derivatives

The criteria for retention of stock in equity derivatives segment are as under:

- a. The stock's median quarter-sigma order size over last six months shall not be less than Rupees 5 lakh.
- b. MWPL of the stock shall not be less than Rupees 200 crore.
- c. The stock's average monthly turnover in derivatives segment over last three months shall not be less than Rupees 100 crores.

If a stock fails to meet these retention criteria for three months consecutively, then no fresh month contract shall be issued on that stock. However, the existing unexpired contracts may be permitted to trade till



expiry and new strikes may also be introduced in the existing contract months.

Further, once the stock is excluded from the F&O list, it shall not be considered for re-inclusion for a period of one year.

A stock which is dropped from derivatives trading may become eligible once again. In such instances, the stock is required to fulfill the eligibility criteria for three consecutive months (instead of one month as specified earlier) to be re-introduced for derivatives trading. Derivative contracts on such stocks may be re-introduced by the exchange subject to SEBI approval.

The Exchange may compulsorily close out all derivative contract positions in a particular underlying when that underlying has ceased to satisfy the eligibility criteria or the exchange is of the view that the continuance of derivative contracts on such underlying is detrimental to the interest of the market keeping in view the market integrity and safety. The decision of such forced closure of derivative contracts shall be taken in consultation with other exchanges where such derivative contracts are also traded and shall be applied uniformly across all exchanges.

3.1.3 Trading Hours

Same as that for index future contracts as specified in section 1.1.3.

3.1.4 Size of the Contract

It is specified that a derivative contract shall have a value of not less than Rs. 2 Lakhs at the time of its introduction in the market. The lot sizes for stock derivative contracts have been standardized as given under:

Price Bands (Rs.)	Contract Size	
	Lot Size/ Multiplier	Value (in Rs. lakh)
1,601 and above	125	Greater than 2 lakhs
801 to 1600	250	Between 2 lakhs and 4 lakhs
401 to 800	500	
201 to 400	1,000	
101 to 200	2,000	
51 to 100	4,000	
25 to 50	8,000	
Less than 25	A multiple of 1000	



Explanation: The lot size for an underlying with a price of Rs. 250, i.e., in the price band of Rs. 201-400, shall be 1000 units.

The Stock Exchanges shall review the lot size once in every 6 months based on the average of the closing price of the underlying for last one month and wherever warranted, revise the lot size by giving an advance notice of at least 2 weeks to the market. If the revised lot size is higher than the existing one, it will be effective for only new contracts. In case of corporate action, the revision in lot size of existing contracts shall be carried out as given in the Chapter 8.

The Stock Exchanges shall ensure that the lot size is same for an underlying traded across Exchanges.

3.1.5 Quotation

Same as that for index future contracts as specified in section 1.1.5.

3.1.6 Tenor of the contract

Same as that for index future contracts as specified in section 1.1.6.

3.1.7 Available Contracts

Single Stock Futures contract shall have maturity of three months and three contracts of maturity of one-month, two-month and three-month would be introduced simultaneously. Therefore, at any point in time at least three Single Stock Futures contracts on a particular underlying would be available for trading.

3.1.8 Settlement Mechanism

The Stock Exchanges have the flexibility to offer:

- a. Cash settlement (settlement by payment of differences) for both stock options and stock futures; or
- b. Physical settlement (settlement by delivery of underlying stock) for both stock options and stock futures; or
- c. Cash settlement for stock options and physical settlement for stock futures; or
- d. Physical settlement for stock options and cash settlement for stock futures.

A Stock Exchange may introduce physical settlement in a phased manner. On introduction, however, physical settlement for all stock options and/or all stock futures, as the case may be, must be completed within six months.



The settlement mechanism shall be decided by the Stock Exchanges in consultation with the Depositories.

On expiry / exercise of physically settled stock derivatives, the risk management framework (i.e., margins and default) of the cash segment shall be applicable. Settlements of cash and equity derivative segments shall continue to remain separate.

The Stock Exchanges interested to introduce physical settlement should:

- a. put in place proper systems and procedures for smooth implementation of physical settlement.
- b. make necessary amendments to the relevant bye-laws, rules and regulations for implementation of physical settlement.
- c. bring the provisions of this circular to the notice of all categories of market participants, including the general public, and also to disseminate the
- d. same on their websites.

The Stock Exchanges interested to offer physical settlement should submit to SEBI for approval, a detailed framework for implementation of physical settlement of stock derivatives. After opting for a particular mode of settlement for stock derivatives, a Stock Exchange may change to another mode of settlement after seeking prior approval of SEBI.

3.1.9 Settlement Price

Same as that for index future contracts as specified in section 1.1.9.

3.1.10 Final Settlement Day

Same as that for index future contracts as specified in section 1.1.10.

3.1.11 Application

The Derivative Exchange/Segment shall submit their proposal for approval of the Single Stock Futures Contracts to SEBI which shall include:

- a. the details of proposed derivative contract to be traded on the exchange which would include:
 1. Symbol
 2. Underlying
 3. Multiplier
 4. Last Trading Day
 5. Margins
 6. Methodology for calculating closing price for mark to market settlement.



7. Methodology for calculating closing price at time of expiry
 8. Trading Hours
- b. the economic purpose it is intended to serve,
 - c. likely contribution to market development,
 - d. the safeguards and the risk protection mechanism adopted by the exchange to ensure market integrity, protection of investors and smooth and orderly trading,
 - e. the infrastructure of the exchange and the surveillance system to effectively monitor trading in Single Stock Futures contracts,
 - f. details of settlement procedures & systems with regard to Single Stock Futures.



3.2 Risk Management

3.2.1 Initial margin or worst scenario loss

The Initial Margin requirements are based on worst scenario loss of a portfolio of an individual client to cover 99% VaR over one day horizon across various scenarios of price changes and volatility shifts.

In the case of Single Stock Futures, the initial margin would be computed as the worst scenario loss of a portfolio comprising of all the positions of a client in all the futures and options contracts. For Single Stock Futures, the price scan range would be 3.5 Standard Deviation (3.5 sigma) and in no case the initial margin for Single Stock Futures contract shall be less than 7.5% of the value of the Single Stock Futures contract. The SPAN margining system, which has been adopted by both BSE & NSE, does not have the provision to provide for charging a minimum margin of 7.5% for futures contracts. However, in order to achieve the requirement of minimum margin for the Single Stock Futures contract, the price scan range would be adjusted so as to ensure that the initial margin for Single Stock Futures contracts does not fall below 7.5% in any scenario. The standard deviation would be calculated as per the methodology specified in the index futures.

The Initial Margin requirement shall continue to be netted at level of individual client and shall be calculated on a gross basis at the level of Trading/Clearing Member. The Initial margin requirement for the proprietary position of Trading/Clearing member shall be calculated on a net basis.

3.2.2 Calendar spread

The margin on calendar spread is calculated on the basis of delta of the portfolio consisting of futures and option contract in each month. Thus, a portfolio consisting of a near month option with a delta of 100 and a far month option with a delta of -100 would bear a spread charge equal to the spread charge for a portfolio which is long 100 near month futures and short 100 far month futures. The Calendar Spread Margin is charged in addition to the Worst Scenario Loss of the portfolio.

The margin on calendar spreads shall be at a flat rate of 0.5% per month of spread on the far month contract subject to a minimum margin of 1% and a maximum margin of 3% on the far side of the spread.



3.2.3 Exposure Limits

The value of gross open positions at any point in time in all the Single Stock Futures contracts shall not exceed 20 (twenty) times the available liquid net worth of a member. Therefore, the exchanges would be required to ensure that higher of 5% or 1.5 (standard deviation) of the notional value of gross open position in Single Stock Futures contracts is collected /adjusted from the liquid net worth of a member on a real time basis. Exposure limits are in addition to the initial margin requirements. For the purpose of computing 1.5 standard deviations, the standard deviation of daily logarithmic returns of prices in the underlying stock in the cash market in the last six months shall be computed. This value shall be applicable for a month and shall be re-calculated at the end of the month by once again taking the price data on a rolling basis for the past six months.

3.2.4 Real Time Computation

The computation of Worst Scenario Loss has two components. The first is the valuation of the portfolio under sixteen scenarios. At the second stage, these Scenario Contract Values are applied to the actual portfolio positions to compute the portfolio values and the initial margin (Worst Scenario Loss). For computational ease, exchanges are permitted to update the Scenario Contract Values only at discrete time points each day and the latest available Scenario Contract Values would be applied to member/client portfolios on a real time basis.

However, in order to ensure that the most recent scenario are applied for computation of the portfolio values and the initial margin, the scenario contract values shall be updated at least 5 times in the day, which may be carried out by taking the closing price of the previous day at the start of trading and the prices at 11:00 a.m., 12:30 p.m., 2:00 p.m., and at the end of the trading session. For the purpose of computing worst scenario loss on a portfolio, the price scan range for stock option and single stock future contracts shall be linked to liquidity, measured in terms of impact cost for an order size of Rs.5 Lakh, calculated on the basis of order book snapshots in the previous six months. Accordingly, if the mean value of impact cost exceeds 1%, the price scanning range would be scaled up by square root of three. This would be in addition to the requirement of scaling up for the look-ahead period i.e. the time in which mark to market margin is collected. The guidance for computation of impact cost for an order size of Rs.5 Lakhs is as under:-

Impact cost shall be calculated by taking four snapshots in a day from the order book in the past six months. These four snapshots shall be randomly



chosen from within four fixed ten-minutes windows spread through the day.

The impact cost shall be the percentage price movement caused by an order size of Rs.5 Lakh from the average of the best bid and offer price in the order book snapshot. The impact cost shall be calculated for both, the buy and the sell side in each order book snapshot.

The mean of the impact cost for both the buy and the sell side in each order book snapshot in the past six months shall be computed to determine the applicable price scan range in the stock. The details of calculation methodology and relevant data shall be made available to the public at large through the website of the Exchanges.

The mean impact cost shall be calculated at 15th of each month on a rolling basis considering the order book snapshots of the previous six months. If the mean impact cost or a stock moves from less than or equal to 1% to more than 1%, the price scan range in such stock should be scaled up by square root of three and the scaling should be dropped when the impact cost drops to 1% or less. Such changes will be applicable on all existing open position within three days from the 15th of each month.

3.2.5 Cross Margining

Same as that for index future contracts as specified in section 1.2.9.

3.2.6 Margin Collection and Enforcement

Same as that for index future contracts as specified in section 1.2.10.

It is clarified that for stocks which have a mean value of impact cost greater than 1%, in addition to the price scanning range, the minimum initial margin for single stock futures contracts shall also be scaled up by square root of three. In the absence of trading in the last half an hour the theoretical price would be taken for the collection of MTM margin. The Derivative Exchanges/Segment shall define the methodology of calculating the 'theoretical price' at the time of making an application for approval of the stock futures contract to SEBI and methodology for calculating the 'theoretical price' would also be disclosed to the market. In addition, the exchange shall also specify the methodology for arriving at the closing price at the time of expiry.

3.2.7 Liquid Net Worth and Exposure Limits of a Clearing Member

Same as that for index future contracts as specified in section 1.2.1.

3.2.8 Liquid Assets:

Same as that for index future contracts as specified in section 1.2.2.



3.2.9 Bank Guarantees:

Same as that for index future contracts as specified in section 1.2.3.

3.2.10 Securities

Same as that for index future contracts as specified in section 1.2.4.

3.2.11 Reporting and Disclosure:

Same as that for index future contracts as specified in section 1.2.11.



3.3 Surveillance and Disclosures

3.3.1 Unique client code

Same as that for index future contracts as specified in Section 1.3.1.

3.3.2 Position Limits

3.3.2.1 *Market Level*

The market wide position limit for single stock futures and stock option contracts shall be linked to the free float market capitalization and shall be equal to 20% of the number of shares held by non-promoters in the relevant underlying security (i.e., free-float holding). This limit would be applicable on aggregate open positions in all futures and all option contracts on a particular underlying stock.

The Exchange is advised to enforce the market wide limits through administrative measures, in the manner detailed below:

- a. At the end of each day the Exchange shall test whether the market wide open interest for any scrip exceeds 95% of the market wide position limit for that scrip. If so, the Exchange shall take note of open position of all client/TMs as at the end of that day in that scrip, and from next day onwards the members/client shall trade only to decrease their positions through offsetting positions. While the Exchange will take this action only at end of day, they shall disclose real time information about the market wide open interest as a percentage of the market wide position limits.
- b. At the end of each day during which the ban on fresh positions is in force for any scrip, the Exchange shall test whether any member or client has increased his existing positions or has created a new position in that scrip. If so, that client shall be subject to a penalty equal to a specified percentage (or basis points) of the increase in the position (in terms of notional value). The penalty shall be recovered before trading begins next day. The Exchange shall specify the percentage or basis points, which shall be set high enough to deter violations of the ban on increasing positions.
- c. The normal trading in the scrip shall be resumed after the open outstanding position comes down to 80% or below of the market wide position limit.

With a view to operationalise implementation of monitoring of Market Wide Position Limits across Exchanges, the following procedure shall be followed:



At the latest on the Trading Day	Activity
	3.3.3
6.30 PM	Each Exchange to disseminate on web the following for every security: a. ISIN of the security, b. Name and symbol of the security, c. MWPL (in terms of no. of shares) of the security, and d. Open Interest (in terms of no. of shares) of the security.
7.00 PM	Each Exchange to disseminate on web the following for every security, after aggregating across Exchanges: a. ISIN of the security, b. Name and symbol of the security, c. MWPL (in terms of no. of shares) of the security, d. Open Interest (in terms of no. of shares) of the security, and e. Permissible limits for next day in terms of SEBI Circular SEBI/DNPD/Cir-26/2004/07/16 dated July 16, 2004.
7.15 PM	Each Exchange to report any discrepancy in the above data to other Exchanges and after correction, disseminate the final data on the web.

The above data shall be in a machine readable, open format (preferably XML format).

Further, the Exchange shall check on a monthly basis, whether a stock has remained subject to the ban on new position for a significant part of the month consistently for three months. If so, then the Exchange shall phase out derivative contracts on that underlying.

3.3.3.1 Customer Level/NRI/Sub Accounts

The gross open position across all derivative contracts on a particular underlying stock should not exceed the higher of:

1% of the free float market capitalization (in terms of number of shares).

or

5% of the open interest in the derivative contracts on a particular underlying stock (in terms of number of contracts).



- a. These position limits would be applicable on the combined position in all derivative contracts on an underlying stock at an exchange.
- b. This requirement may not be monitored by the exchange on a real time basis, but if during any investigation or otherwise, any violation is proved, penalties can be levied.

3.3.3.2 Trading Member/FII/Mutual Fund

For stocks having applicable market-wise position limit (MWPL) of Rs. 500 crores or more, the combined futures and options position limit shall be 20% of applicable MWPL or Rs.300 crores, whichever is lower and within which stock futures position cannot exceed 10% of applicable MWPL or Rs.150 crores, whichever is lower.

For stocks having applicable market-wise position limit (MWPL) less than Rs.500 crores, the combined futures and options position limit would be 20% of applicable MWPL and futures position cannot exceed 20% of applicable MWPL or Rs.50 crore which ever is lower.

3.3.4 Monitoring of Position Limits

3.3.4.1 NRI

Same as that for index future contracts as specified in section 1.3.3.1.

3.3.4.2 FII/Sub Accounts

Same as that for index future contracts as specified in section 1. 3.3.2.

3.3.4.3 Mutual Funds

Same as that for index future contracts as specified in section 1.3.3.3.

3.3.5 Surveillance System

Same as that of index future contracts as specified in section 1.3.4.



4 STOCK OPTION

4.1 Product Design

4.1.1 Underlying

The stocks listed on exchanges which conform to the eligibility criteria are permitted.

4.1.2 Eligibility Criteria

Same as that for stock future contracts as specified in 3.1.2.

4.1.3 Trading Hours

Same as that for index future contracts as specified in 1.1.3.

4.1.4 Size of the Contract

Same as that for stock future contracts as specified in 3.1.4.

4.1.5 Quotation

Same as that for index future contracts as specified in 1.1.5.

4.1.6 Tenor of the contract

Same as that for stock future contracts as specified in 3.1.6.

4.1.7 Available Contracts

Same as that for stock future contracts as specified in 3.1.7. Each maturity shall have minimum of three strikes (in the money, at the money and out of the money)

4.1.8 Settlement Mechanism

Same as that for index future contracts as specified in 1.1.8. The Exchanges shall introduce Premium Settled American / European Style Stock Options.

4.1.9 Settlement Price

Same as that for index future contracts as specified in 1.1.9.

4.1.10 Final Settlement Day

Same as that for index future contracts as specified in 1.1.10.

4.1.11 Application

The Derivative Exchange/Segment shall submit their proposal for approval of the stock option contract to SEBI which shall include:



- a. the details of proposed derivative contract to be traded on the exchange which would include:
 1. Symbol
 2. Underlying - giving details of the calculations mentioned above and ensuring that the stock fulfills the eligibility criterion specified.
 3. Lot Size / Multiplier
 4. Strike Price Intervals
 5. Premium Quotation
 6. Last Trading Day
 7. Expiration day/month
 8. Exercise Style
 9. Mode of Assignment
 10. Time period of settlement of Option Exercise
 11. Position and Exercise Limits
 12. Margin
 13. Trading Hours
- b. the economic purpose it is intended to serve,
- c. likely contribution to market development,
- d. the safeguards and the risk protection mechanism adopted by the exchange to ensure market integrity, protection of investors and smooth and orderly trading,
- e. the infrastructure of the exchange and the surveillance system to effectively monitor trading in such contracts, and
- f. details of settlement procedures & systems with regard to Stock Options.
- g. details of back testing of the margin calculation for a period of one year considering a call and a put option on the underlying with a delta of +25 & -25 and actual price of the underlying security.



4.2 Risk Management

4.2.1 Initial Margin Computation:

The Initial Margin requirements are based on worst scenario loss of a portfolio of an individual client to cover 99% VaR over one day horizon across various scenarios of price changes and volatility shifts. For stock option contracts the price scan range is specified at three and a half standard deviation (3.5 sigma) and the volatility scan range is specified at 10%. There is also a minimum margin requirement. A short option minimum charge of 7.5% of the notional value of all short stock option contracts has been prescribed.

4.2.2 Portfolio Based Margining

Same as that for index option contracts as given in section 2.2.2.

4.2.3 Exposure Limits

It has been prescribed that the notional value of gross open positions at any point in time in the case of Stock Option Contracts, the notional value of gross short open position at any point in time shall not exceed 20 (twenty) times the liquid net worth of a member. Exposure limits are in addition to the initial margin requirements. Therefore, the exchanges are required to ensure that 5% of the notional value of gross open position in the case of stock option contracts is collected /adjusted from the liquid net worth of a member on a real time basis. It is further clarified that the notional value of the options contract would be calculated on the basis of the previous day's closing value of the underlying.

4.2.4 Real Time Computation

Same as that for stock future contracts as specified in 3.2.3.

4.2.5 Margin Collection and Enforcement

Same as that for index future contracts as specified in section 1.2.10. It is clarified that for stocks which have a mean value of impact cost greater than 1%, in addition to the price scanning range, the short option minimum charge for stock option contracts shall also be scaled up by square root of three.

4.2.6 Liquid Net Worth and Exposure Limits of a Clearing Member

Same as that for index future contracts as specified in section 1.2.1.



- 4.2.7 Liquid Assets:
Same as that for index future contracts as specified in section 1.2.2.
- 4.2.8 Bank Guarantees:
Same as that for index future contracts as specified in section 1.2.3.
- 4.2.9 Securities
Same as that for index future contracts as specified in section 1.2.4.
- 4.2.10 Reporting and Disclosure:
Same as that for index future contracts as specified in section 1.2.11.



4.3 Surveillance and Disclosures

4.3.1 Unique client code

Same as that for index future contracts as specified in Section 1.3.1.

4.3.2 Position Limits

4.3.2.1 Market Level

Same as that for stock future contracts as specified in 3.3.2.1.

4.3.2.2 Customer Level/NRI/Sub Accounts

Same as that for stock future contracts as specified in 3.3.2.2.

4.3.2.3 Trading Member/FII/Mutual Fund

Same as that for stock future contracts as specified in 3.3.2.2.

4.3.3 Monitoring of Position Limits

4.3.3.1 NRI

Same as that for index future contracts as specified in section 1.3.3.1.

4.3.3.2 FII/Sub Accounts

Same as that for index future contracts as specified in section 1.3.3.2.

4.3.3.3 Mutual Funds

Same as that for index future contracts as specified in section 1.3.3.3.

4.3.4 Surveillance System

Same as that for index future contracts as specified in section 1.3.4.



5 CURRENCY FUTURES

5.1 Product Design

5.1.1 Underlying

US Dollar - Indian Rupee (US\$-INR), Euro-Indian Rupee (EUR-INR), Pound Sterling - Indian Rupee (GBP-INR) and Japanese Yen - Indian Rupee (JPY-INR).

5.1.2 Trading Hours

The trading on currency futures would be available from 9 a.m. to 5 p.m.

5.1.3 Size of the contract

The minimum contract size of the currency futures contract at the time of introduction would be US\$ 1000, EUR 1000, Pound Sterling 1000 and Japanese Yen 1,00,000 for the US Dollar - Indian Rupee (US\$-INR), Euro-Indian Rupee (EUR-INR), Pound Sterling - Indian Rupee (GBP-INR) and Japanese Yen - Indian Rupee (JPY-INR) respectively. The contract size would be periodically aligned to ensure that the size of the contract remains close to the minimum size.

5.1.4 Quotation

The currency futures contract would be quoted in rupee terms. However, the outstanding positions would be in Dollar, Euro, Pound Sterling and Japanese Yen terms for the US Dollar - Indian Rupee (US\$-INR), Euro-Indian Rupee (EUR-INR), Pound Sterling - Indian Rupee (GBP-INR) and Japanese Yen - Indian Rupee (JPY-INR) contracts respectively.

5.1.5 Tenor of the contract

The currency futures contract shall have a maximum maturity of 12 months.

5.1.6 Available contracts

All monthly maturities from 1 to 12 months would be made available.

5.1.7 Settlement mechanism

The currency futures contract shall be settled in cash in Indian Rupee.

5.1.8 Settlement price

The settlement price would be the Reserve Bank Reference Rate on the date of expiry for US\$ and Euro and Exchange rate published by the Reserve Bank in its Press Release captioned - RBI Reference Rate for US\$ and Euro



for Pound Sterling and Japanese Yen. The methodology of computation and dissemination of the Reference Rate may be publicly disclosed by RBI.

5.1.9 Final settlement day

The last day for trading of the contract shall be two working days prior to the final settlement day. The currency futures contract would expire on the last working day (excluding Saturdays) of the month. The last working day would be taken to be the same as that for Interbank Settlements in Mumbai. The rules for Interbank Settlements, including those for 'known holidays' and 'subsequently declared holiday' would be those as laid down by FEDAI.

5.1.10 Participants

To begin with, FIIs and NRIs would not be permitted to participate in currency futures market. To enable Banks to become Clearing Member and/or Trading Member of the Currency Derivatives Segment of an Exchange, an Exchange shall amend its bye-laws, as under:

"Any bank, -included in the Second Schedule to the Reserve Bank of India Act, 1934, and specifically authorized by RBI for this purpose,

- a. is eligible to become Clearing Member and/or Trading Member of the Currency Derivatives Segment of an Exchange, on the recommendation of the governing body of the Exchange.
- b. such bank can act as member for their proprietary dealings, to act on their own account, in the Currency Derivatives Segment of the Exchange.
- c. such bank can also act as member or an agent for any other person, client or customer in the Currency Derivatives Segment of an Exchange.
- d. such bank shall abide by circulars and directions issued by RBI and SEBI in respect of dealing of such banks in the Exchange."

5.2 Risk Management Measures

In exchange traded derivative contracts, the Clearing Corporation acts as a central counterparty to all trades and performs full novation. The risk to the clearing corporation can only be taken care of through a stringent margining framework. Also, since derivatives are leveraged instruments, margins also act as a cost and discourage excessive speculation. A robust risk management system should therefore, not only impose margins on the members of the clearing corporation but also enforce collection of margins from the clients.



5.2.1 Initial Margin¹

The Initial Margin requirement shall be based on a worst case loss of a portfolio of an individual client across various scenarios of price changes. The various scenarios of price changes would be so computed so as to cover a 99% VaR over a one day horizon. In order to achieve this, the price scan range may initially be fixed at 7 standard deviation. The initial margin so computed would be subject to a minimum of 3.5% on the first day of currency futures trading and 2 % thereafter for US Dollar - Indian Rupee (US\$-INR) contract, minimum of 2.80% on the first day of currency futures trading and 2 % thereafter for Euro-Indian Rupee (EUR-INR) contract, minimum of 3.20% on the first day of trading and 2% thereafter for Pound Sterling - Indian Rupee (GBP-INR) contract, minimum of 4.50% on the first day of trading and 2.30% thereafter for Japanese Yen - Indian Rupee (JPY-INR) contract. The initial margin shall be deducted from the liquid net worth of the clearing member on an online, real time basis.

5.2.2 Formula for determining standard deviation

The empirical tests of different risk management models in the Value at Risk (VaR) framework in the Re/\$ exchange rate were examined. Data for the period January 2, 1998 to April 7, 2008 was analyzed. GARCH-GED (Generalized Auto-Regressive Conditional Heteroscedasticity with Generalized Error Distribution residuals), GARCH-normal and GARCH-t at 3 and 3.5 sigma levels were found to perform well even at 1% risk level, while the EWMA(Exponentially Weighted Moving Average) model used in J.P. Morgan's Risk Metrics® methodology was found to work well at 1 % risk level only at 3.5 sigma levels.

Given the computational ease of the EWMA model and given the familiarity of the Exchanges with this particular model (it is currently being used in the equity derivatives market), the Committee, after considering the various aspects of the different models, recommends the following:-

The exponential moving average method would be used to obtain the volatility estimate every day. The estimate at the end of time period t (σ_t) is estimated using the volatility estimate at the end of the previous time period. i.e. as at the end of t-1 time period (σ_{t-1}), and the return (r_t) observed in the futures market during the time period t. The formula would be as under:

$$(\sigma_t)^2 = \lambda (\sigma_{t-1})^2 + (1 - \lambda) (r_t)^2$$

¹Revised vide Circular CIR/MRD/DP/22/2013 dated July 08, 2013



where

λ is a parameter which determines how rapidly volatility estimates changes. The value of λ is fixed at 0.94.

- i. σ (sigma) means the standard deviation of daily returns in the currency futures market.
- ii. The "return" is defined as the logarithmic return: $r_t = \ln(C_t/C_{t-1})$ where C_t is the Currency futures price at time t . The plus/minus 3.5 sigma limits for a 99% VAR based on logarithmic returns would have to be converted into percentage price changes by reversing the logarithmic transformation. The percentage margin on short positions would be equal to $100(\exp(3.5\sigma_t)-1)$ and the percentage margin on long positions would be equal to $100(1-\exp(-3.5\sigma_t))$. This implies slightly larger margins on short positions than on long positions. The derivatives exchange/clearing corporation may apply the higher margin on both the buy and sell side.
- iii. During the first time period on the first day of Currency futures trading, the sigma would be equal to 0.5%.
- iv. The volatility estimation and margin fixation methodology should be clearly made known to all market participants so that they can compute what the margin would be for any given closing level of the currency futures price. Further, the trading software itself should provide this information on a real time basis on the trading workstation screen.

5.2.3 Portfolio based margining

A portfolio based margining approach shall be adopted to take an integrated view of the risk involved in the portfolio of each individual client comprising his positions in futures contracts across different maturities. The client-wise margins would be grossed across various clients at the Trading/Clearing Member level. The proprietary positions of the Trading/Clearing Member would be treated as that of a client.

5.2.4 Real time computation

The computation of worst scenario loss would have two components. The first is the valuation of the portfolio under the various scenarios of price changes. At the second stage, these scenario contract values would be applied to the actual portfolio positions to compute the portfolio values and the initial margin. The exchanges shall update the scenario contract values at least 5 times in the day, which may be carried out by taking the closing price of the previous day at the start of trading and the prices at 11:00 a.m., 12:30 p.m., 2:00 p.m. and at the end of the trading session. The latest



available scenario contract values would be applied to member/client portfolios on a real time basis.

5.2.5 Calendar spread margins²

A currency futures position at one maturity which is hedged by an offsetting position at a different maturity would be treated as a calendar spread. The calendar spread margin shall be at a value of Rs. 800 for a spread of 1 month; Rs 1000 for a spread of 2 months, Rs 1600 for a spread of 3 months and Rs 2000 for a spread or 4 months or more for the US Dollar – Indian Rupee (US\$-INR) contract; the calendar spread margin shall be at a value of Rs. 700 for a spread of 1 month; Rs 1000 for a spread of 2 months and Rs 1500 for a spread of 3 months or more for the Euro-Indian Rupee (EUR-INR) contract; the calendar spread margin shall be at a value of Rs. 1500 for a spread of 1 month; Rs 1800 for a spread of 2 months and Rs 2000 for a spread of 3 months or more for the Pound Sterling – Indian Rupee (GBP-INR) contract; the calendar spread margin shall be at a value of Rs. 600 for a spread of 1 month; Rs 1000 for a spread of 2 months and Rs 1500 for a spread of 3 months or more for the Japanese Yen – Indian Rupee (JPY-INR) contract. The benefit for a calendar spread would continue till expiry of the near month contract. For a calendar spread position, the extreme loss margin shall be charged on one third of the mark to market value of the far month contract.

5.2.6 Extreme Loss margin³

Extreme loss margin of 2% for the US Dollar – Indian Rupee (US\$-INR) contract, 0.3% for the Euro-Indian Rupee (EUR-INR) contract, 0.5% for the Pound Sterling – Indian Rupee (GBP-INR) contract and 0.7% for the Japanese Yen – Indian Rupee (JPY-INR) contract on the mark to market value of the gross open positions shall be deducted from the liquid assets of the clearing member on an on line, real time basis.

5.2.7 Liquid network

The initial margin and the extreme loss margin shall be deducted from the liquid assets of the clearing member. The clearing member's liquid net worth after adjusting for the initial margin and extreme loss margin requirements must be at least Rs. 50 Lakhs at all points in time. The minimum liquid network shall be treated as a capital cushion for days of unforeseen market volatility.

² Revised vide Circular CIR/MRD/DP/22/2013 dated July 08, 2013

³ Revised vide Circular CIR/MRD/DP/22/2013 dated July 08, 2013



5.2.8 Liquid assets

The liquid assets for trading in currency futures would be maintained separately in the currency futures segment of the clearing corporation. However, the permissible liquid assets, the applicable haircuts and minimum cash equivalent norms would be mutatis mutandis applicable from the equity derivatives segment.

5.2.9 Mark to market settlement

The mark to market gains and losses shall be settled in cash before the start of trading on T+1 day. If mark to market obligations are not collected before start of the next day's trading, the clearing corporation shall collect correspondingly higher initial margin to cover the potential for losses over the time elapsed in the collection of margins.

The daily closing price of currency futures contract for mark to market settlement would be calculated on the basis of the last half an hour weighted average price of the futures contract. In the absence of trading in the last half an hour the theoretical price would be taken. The eligible exchanges shall define the methodology for calculating the 'theoretical price' at the time of making an application for approval of the currency futures contract to SEBI. The methodology for calculating the 'theoretical price' would also be disclosed to the market.

5.2.10 Margin collection and enforcement

The client margins (initial margin, extreme loss margin, calendar spread margin and mark to market settlements) have to be compulsorily collected and reported to the Exchange by the members. The Exchange shall impose stringent penalty on members who do not collect margins from their clients. The Exchange shall also conduct regular inspections to ensure margin collection from clients.

5.2.11 Safeguarding client's money

The Clearing Corporation should segregate the margins deposited by the Clearing Members for trades on their own account from the margins deposited with it on client account. The margins deposited on client account shall not be utilized for fulfilling the dues which a Clearing Member may owe the Clearing Corporation in respect of trades on the member's own account. The client's money is to be held in trust for client purpose only. The following process is to be adopted for segregating the client's money vis-à-vis the clearing member's money:



- i At the time of opening a position, the member should indicate whether it is a client or proprietary position.
- ii Margins across the various clients of a member should be collected on a gross basis and should not be netted off.
- iii When a position is closed, the member should indicate whether it was a client or his own position which is being closed.
- iv In the case of default, the margins paid on the proprietary position would only be used by the Clearing Corporation for realising its dues from the member.

5.2.12 Periodic risk evaluation report

The Clearing Corporation of the Exchange shall on an ongoing basis and at least once in every six months, conduct back testing of the margins collected vis-à-vis the actual price changes. A copy of the study shall be submitted to SEBI along with suggestions on changes to the risk containment measures, if any.



5.3 Surveillance and Disclosures

The exchanges as first level regulators should have an online surveillance capability which monitors positions, prices and volumes in real time so as to deter market manipulation.

5.3.1 Unique client code

The Exchange shall ensure that each client is assigned a client code which is unique across all members. The unique client code shall be assigned with the use of PAN number.

5.3.2 Position limits

Position limits act as an important surveillance measure designed to prevent large concentrated positions which may affect market integrity. However, the regulation of position limits needs to be viewed differently in the currency futures market as compared to the equity derivatives market. In the equity derivatives market, the maximum underlying shares available for trading is restricted to the extent of the free float market capitalization, whereas, there is no such constraint in the foreign exchange market.

The two markets also differ in terms of participation and the extent of positions held by each participant. Large transactions are executed by banks and corporates who wish to hedge their underlying exposure. Therefore, the monitoring of limits has to be with respect to the overall open interest in the market. Open interest is a dynamic measure which changes with every executed trade. Further, the objective of the position limits in the currency futures market would be more to detect market manipulation in the futures market rather than to address the threat of short squeeze in the underlying. Therefore, the following is being proposed with respect to monitoring and enforcement of position limits in the currency futures market:

- a. Ideally, position limits have to be monitored on an online, real-time basis. However, the exchanges have represented that open interest of both the participant and the market are dynamic and therefore, monitoring on a real-time basis would be difficult. Therefore, to begin with, positions during the day shall be monitored based on the total open interest at the end of the previous day's trade.
- b. The above monitoring should be for both client level positions (based on the unique client code) and for trading member level positions.



- c. The exchange shall treat violation of position limits as an input for further surveillance action. Upon detecting large open positions, the exchange shall conduct detailed analysis based on the overall nature of positions, the trading strategy, positions in the underlying market, the positions of related entities (concept of persons acting in concert would be applied), etc.
- d. The violators of position limits shall be accountable for their large positions and should submit detailed information pertaining to their trading activities whenever the information is sought by the exchange. The clearing member would be accountable for positions of all trading members and clients of trading members clearing through him. Similarly, the trading member would be accountable for the positions of his clients. The exchange may also call for information directly from the client itself.

The following position limits would be applicable in the currency futures market:

US Dollar - Indian Rupee (US\$-INR) Contract⁴

Client Level: The gross open positions of the client across all contracts should not exceed 6% of the total open interest or 10 million USD whichever is lower. The Exchange will disseminate alerts whenever the gross open position of the client exceeds 3% of the total open interest at the end of the previous day's trade.

Trading Member level: The gross open positions of the trading member across all contracts should not exceed 15% of the total open interest or 50 million USD whichever is lower. However, the gross open position of a Trading Member, which is a bank, across all contracts, shall not exceed 15% of the total open interest or 100 million USD, whichever is lower.

Clearing Member Level: No separate position limit is prescribed at the level of clearing member. However, the clearing member shall ensure that his own trading position and the positions of each trading member clearing through him is within the limits specified above.

Euro-Indian Rupee (EUR-INR) Contract

⁴ Revised vide Circular CIR/MRD/DP/22/2013 dated July 08, 2013



Client Level: The gross open positions of the client across all contracts shall not exceed 6% of the total open interest or EUR 5 million whichever is higher. The Exchange will disseminate alerts whenever the gross open position of the client exceeds 3% of the total open interest at the end of the previous day's trade.

Trading Member Level: The gross open positions of the trading member across all contracts shall not exceed 15% of the total open interest or EUR 25 million whichever is higher. However, the gross open position of a Trading Member, which is a bank, across all contracts, shall not exceed 15% of the total open interest or EUR 50 million, whichever is higher.

Clearing Member Level: No separate position limit is prescribed at the level of clearing member. However, the clearing member shall ensure that his own trading position and the positions of each trading member clearing through him is within the limits specified above.

Pound Sterling - Indian Rupee (GBP-INR) Contract

Client Level: The gross open positions of the client across all contracts shall not exceed 6% of the total open interest or GBP 5 million whichever is higher. The Exchange will disseminate alerts whenever the gross open position of the client exceeds 3% of the total open interest at the end of the previous day's trade.

Trading Member Level: The gross open positions of the trading member across all contracts shall not exceed 15% of the total open interest or GBP 25 million whichever is higher. However, the gross open position of a Trading Member, which is a bank, across all contracts, shall not exceed 15% of the total open interest or GBP 50 million, whichever is higher.

Clearing Member Level: No separate position limit is prescribed at the level of clearing member. However, the clearing member shall ensure that his own trading position and the positions of each trading member clearing through him is within the limits specified above.

Japanese Yen - Indian Rupee (JPY-INR) Contract

Client Level: The gross open positions of the client across all contracts shall not exceed 6% of the total open interest or JPY 200 million whichever is higher. The Exchange will disseminate alerts whenever the gross open position of the client exceeds 3% of the total open interest at the end of the previous day's trade.



Trading Member Level: The gross open positions of the trading member across all contracts shall not exceed 15% of the total open interest or JPY 1000 million whichever is higher. However, the gross open position of a Trading Member, which is a bank, across all contracts, shall not exceed 15% of the total open interest or JPY 2000 million, whichever is higher.

Clearing Member Level: No separate position limit is prescribed at the level of clearing member. However, the clearing member shall ensure that his own trading position and the positions of each trading member clearing through him is within the limits specified above.

5.3.3 Surveillance system

The surveillance systems of the exchanges should be designed keeping in view all the relevant aspects including the following -

- a. The alerts in the online surveillance system should automatically generate material aberrations from normal activity.
- b. The surveillance systems and processes should be able to
 1. monitor open interest, cost of carry and volatility
 2. monitor closing prices
 3. capture and process client level details
 4. develop databases of trading activity by brokers as well as clients.
 5. generate trading pattern by a broker over a period of time or by a client/ group of clients over a period of time
- c. The information and feedback received from member inspections is vital input for effective surveillance. For this, it is necessary that member inspections are taken up in a rational manner keeping in view the level of trading activity, client profile, number and nature of complaints received against the member, history of risk management related defaults and regulatory violations etc. Information obtained through member inspections should also be made available to the monitoring/surveillance departments of stock exchanges.
- d. The information gathered by the risk management departments/clearing corporations while enforcing the risk management measures and settlement processes are critical inputs. Such information could include pattern of defaults related to



specified contracts and special risk management measures taken keeping in view the market conditions.

- e. The exchanges should call for information from members in a standard form, and preferably in electronic form, to facilitate faster analysis as well as building up of databases. It may also be ensured that duly authenticated information is submitted by the member or his designated agent.
- f. While implementing a stock watch type of system for currency futures, the system should be designed to provide online access to relevant historical data on derivatives trading for at least a year.
- g. In the interest of better surveillance, it is necessary that relevant information obtained through surveillance at one exchange should be shared with other exchanges. Exchanges are, therefore, advised to share information on positions in currency futures and any extraordinary movement in price / volume or concentration periodically or upon specific request by any stock exchange. The Clearing Corporations of the various eligible exchanges must meet periodically, say once a week, to discuss market integrity and other surveillance issues.
- h. Exchanges should study surveillance practices in various Global Forex Derivative Markets. Surveillance practices in commodities and bullion markets could also be studied where appropriate. Case studies on some market manipulations in various derivatives markets could be looked at to see what lessons could be drawn. Periodical benchmarking, at least once in every six months, against international practices, systems performance etc., must be performed and documented.

The reporting of currency derivative transactions to the media and the newspapers should be in a uniform format. Accordingly, the Currency Derivative Exchanges/ Segments and their Clearing Corporations may be asked to report the following details for the transactions in derivative contracts, to the media/newspapers, on a daily basis:

- a. Contracts Description
- b. Number of contracts traded
- c. Notional Value
- d. Open
- e. High



- f. Low
- g. Close
- h. Open Interest (in number of contracts)

5.4 Eligibility Criteria of the Segment, Exchanges and Trading Members

5.4.1 Eligibility criteria of currency futures segment

Recognized stock exchanges and their respective Clearing Corporations/Clearing Houses shall not deal in or otherwise undertake the business relating to currency futures unless they hold an authorization issued by the Reserve Bank under section 10 (1) of the Foreign Exchange Management Act, 1999.

A recognized stock exchange having nationwide terminals or a new exchange recognized by SEBI may set up currency futures segment after obtaining SEBI's approval. The currency futures segment should fulfill the following eligibility conditions for approval:

- a. The trading should take place through an online screen-based trading system, which also has a disaster recovery site.
- b. The clearing of the currency derivatives market should be done by an independent Clearing Corporation, which satisfies the conditions listed under 5.4.2.
- c. The exchange must have an online surveillance capability which monitors positions, prices and volumes in real time so as to deter market manipulation.
- d. The exchange shall have a balance sheet net worth of at least Rs. 100 crores.
- e. Information about trades, quantities, and quotes should be disseminated by the exchange in real time to at least two information vending networks which are accessible to investors in the country.
- f. The per-half-hour capacity of the computers and the network should be at least 4 to 5 times of the anticipated peak load in any half hour, or of the actual peak load seen in any half-hour during the preceding six months, whichever is higher. This shall be reviewed from time to time on the basis of experience.



- g. The segment should have at least 50 members to start currency derivatives trading.
- h. The exchange should have arbitration and investor grievances redressal mechanism operative from all the four areas/regions of the country.
- i. The exchange should have adequate inspection capability.
- j. If already existing, the exchange should have a satisfactory record of monitoring its members, handling investor complaints and preventing irregularities in trading.

A recognized stock exchange where other securities are also being traded may set up a separate currency futures segment in the following manner:

- a. The trading and the order driven platform of currency futures should be separate from the trading platforms of the other segments.
- b. The membership of the currency futures segment should be separate from the membership of the other segments.
- c. The currency futures segment should have a separate Governing Council on which the representation of Trading/Clearing Members of the currency futures segment should not exceed 25%. Further, 50% of the public representatives on the Governing Council of the currency futures segment can be common with the Governing Council of the cash/equity derivatives segments of the Exchange.
- d. The Chairman of the Governing Council of the currency futures segment shall be a member of the Governing Council. If the Chairman is a Trading Member/Clearing Member, then he shall not carry on any trading/clearing business on any Exchange during his tenure as Chairman.
- e. No trading/clearing member should be allowed simultaneously to be on the Governing Council of the currency futures segment and the cash/equity derivatives segment.



5.4.2 Eligibility criteria for the Clearing Corporation of the currency futures segment

A Clearing Corporation in the currency futures segment can function only after obtaining SEBI approval. To be eligible for such approval, it should satisfy the following conditions:

- a. The Clearing Corporation should be a company incorporated under the Companies Act, 1956 and should be distinct from the exchange. However, in case of an exchange operating through a Clearing House, a maximum time period of 6 months may be granted from the date of approval by SEBI, to the exchange, for fulfilling this condition.
- b. The Clearing Corporation must perform full novation, i.e. the clearing corporation should interpose itself between both legs of every trade, becoming the legal counterparty to both or alternatively should provide an unconditional guarantee for settlement of all trades.
- c. The clearing corporation should enforce the margin requirements and the mark to market settlement as outlined above.
- d. In the event of unusual positions of a member, the clearing corporation should charge special margin over and above the normal margins.
- e. The clearing corporation must establish facilities for electronic funds transfer (EFT) for swift movement of margin payments. In situations where EFT is unavailable, the clearing corporation should collect correspondingly larger initial margin to cover the potential for losses over the time elapsed in collection of mark to market margin. For example, if two days lapse in moving funds, then the value at risk should be calculated based on the prospective two-day loss.
- f. In the event of a member's default in meeting his liabilities, the Clearing Corporation should have processing capability to require either the prompt transfer of client positions and assets to another member or to close-out all open positions.

The currency futures segment of the Clearing Corporation should be governed by a separate Clearing Council which should not have any member representation. A separate settlement guarantee fund should be



created and maintained for meeting the obligations arising out of the currency futures segment. A separate investor protection fund should also be created and maintained for the currency futures market.

5.4.3 Eligibility criteria for members in the currency futures segment

The membership of the currency futures segment shall be separate from the membership of the equity derivative segment or the cash segment of a recognized stock exchange.

The trading member will be subject to a balance sheet net worth requirement of Rs. 1 crore while the clearing member would be subject to a balance sheet net worth requirement of Rs 10 crores. Self clearing member shall have a minimum net worth of Rs. 5 crore. The definition of balance sheet net worth would be the same as that in the equity derivatives market. The clearing member would also be subject to a liquid net worth requirement of Rs. 50 lakhs as detailed above.

The trading members and sales persons in the currency futures market must have passed a certification programme which is considered adequate by SEBI. The approved users and sales personnel of the trading member should have passed the certification programme. This requirement shall not be applicable in respect of a trading member in the currency derivatives segment, which is a bank, for a period of one year from August 06, 2008.

5.4.4 Regulatory and legal aspects⁵

Before the start of the currency futures segment, the exchange shall obtain prior approval of SEBI. In the case of existing exchanges, where equity derivatives are permitted for trading, the rules, regulations and bye-laws of the derivatives segment of the exchange/clearing corporation may be made applicable for the currency futures segment also. The exchange/clearing corporation shall make suitable changes to that effect. Any requirement which is specific to the currency futures segment shall be provided for after seeking SEBI's approval. Further, any amendments to the rules, regulations and byelaws shall be made after seeking SEBI approval.

Before the start of trading, the currency futures segment shall submit the proposal for approval of the contract to SEBI giving:

- a. The details of the proposed currency futures contract to be traded in the exchange;
- b. The economic purposes it is intended to serve;

⁵ Revised vide MIRSD/ON/114/2013 dated April 05, 2013



- c. Its likely contribution to market development;
- d. The safeguards and the risk protection mechanisms adopted by the exchange to ensure market integrity, protection of investors and smooth and orderly trading;
- e. The infrastructure of the exchange and surveillance system to effectively monitor trading in such contracts.

The trading members and clearing members of the currency futures segment should be registered as such with SEBI. This would be in addition to their registration as members of a segment of a stock exchange.

A SEBI-RBI constituted committee would meet periodically to sort out issues, if any, arising out of overlapping jurisdiction of the currency futures market.

6 CURRENCY OPTIONS

6.1 Product Design

6.1.1 Underlying

US Dollar – Indian Rupee (US\$-INR) spot rate.

6.1.2 Trading Hours

Same as that for currency future contracts as specified in Section 5.1.2.

6.1.3 Size of the contract

US\$ 1000

6.1.4 Quotation

The premium would be quoted in rupee terms. However, the outstanding positions would be in USD terms.

6.1.5 Tenor of the contract

Same as that for currency future contracts as specified in Section 5.1.5.

6.1.6 Available contracts

Three serial monthly contracts followed by three quarterly contracts of the cycle March/June/September/December. Minimum of three in-the-money, three out-of the-money and one near-the-money strikes would be provided for all available contracts.

6.1.7 Settlement mechanism

Same as that for currency future contracts as specified in Section 5.1.7.



6.1.8 Settlement price

Same as that for currency future contracts as specified in Section 5.1.8.

6.1.9 Final settlement day

Same as that for currency future contracts as specified in Section 5.1.9.

6.1.10 Participants

Same as that for currency future contracts as specified in Section 5.1.10.

6.1.11 Exercise at Expiry

On expiry date, all open long in-the-money contracts, on a particular strike of a series, at the close of trading hours would be automatically exercised at the final settlement price and assigned on a random basis to the open short positions of the same strike and series.

6.2 Risk Management Measures

In exchange traded derivative contracts, the Clearing Corporation acts as a central counterparty to all trades and performs full novation. The risk to the clearing corporation can only be taken care of through a stringent margining framework. Also, since derivatives are leveraged instruments, margins also act as a cost and discourage excessive speculation. A robust risk management system should therefore, not only impose margins on the members of the clearing corporation but also enforce collection of margins from the clients.

6.2.1 Initial Margin

The Initial Margin requirement would be based on a worst scenario loss of a portfolio of an individual client comprising his positions in options and futures contracts on the same underlying across different maturities and across various scenarios of price and volatility changes as given in table (below).

Risk Scenario Number:	Price Move in Multiples of Price Range	Volatility Move in Multiples of Volatility Range	Fraction of Loss to be Considered
1	0	1	100%
2	0	-1	100%
3	+1/3	1	100%



4	+1/3	-1	100%
5	-1/3	1	100%
6	-1/3	-1	100%
7	+2/3	1	100%
8	+2/3	-1	100%
9	-2/3	1	100%
10	-2/3	-1	100%
11	1	1	100%
12	1	-1	100%
13	-1	1	100%
14	-1	-1	100%
15	2	0	35%
16	-2	0	35%

The price range for generating the scenarios would be 7 standard deviation and volatility range for generating the scenarios would be 3%. While computing the worst scenario loss, it shall be assumed that the prices of futures of all maturities on the underlying move up or down by the same amount.⁶

The maximum loss under any of the scenario (considering only 35% of the loss in case of scenarios 15 and 16) is referred to in this circular as the Worst Scenario Loss.

The sigma would be calculated using the methodology specified for currency futures in Para 5.2.2 and would be the standard deviation of daily logarithmic returns of USD-INR futures price.

For the purpose of calculation of option values, the following standard option pricing models - Black-Scholes, Binomial, Merton - would be used.

The initial margin would be deducted from the liquid networth of the clearing member on an online, real time basis.

6.2.2 Portfolio based margining

A portfolio based margining approach shall be adopted to take an integrated view of the risk involved in the portfolio of each individual client comprising his positions in options and futures contracts across different maturities. The client-wise margins would be grossed across various clients

⁶ Revised vide Circular CIR/MRD/DP/22/2013 dated July 08, 2013



at the Trading/Clearing Member level. The proprietary positions of the Trading/Clearing Member would be treated as that of a client.

6.2.3 Real time computation

Same as that for currency future contracts as specified in Section 5.2.4.

6.2.4 Calendar spread margins

A long currency option position at one maturity and a short option position at a different maturity in the same series, both having the same strike price would be treated as a calendar spread. The margin for options calendar spread would be the same as specified for USD-INR currency futures calendar spread.

The margin would be calculated on the basis of delta of the portfolio in each month. A portfolio consisting of a near month option with a delta of 100 and a far month option with a delta of -100 would bear a spread charge equal to the spread charge for a portfolio which is long 100 near month currency futures and short 100 far month currency futures. Portfolio would mean portfolio consisting of futures and /or options contract on a particular underlying. Option positions of different expiry, irrespective of their strike prices, shall also attract calendar spread margin.

6.2.5 Settlement of Premium

Premium would be paid in by the buyer in cash and paid out to the seller in cash on T+1 day.

Until the buyer pays in the premium, the premium due shall be deducted from the available Liquid Net Worth on a real time basis.

6.2.6 Extreme Loss margin

Extreme loss margin equal to 3%⁷ of the Notional Value of the open short option position would be deducted from the liquid assets of the clearing member on an on line, real time basis. Notional Value would be calculated on the basis of the latest available Reserve Bank Reference Rate for USD-INR.

6.2.7 Net Option Value

The Net Option Value is the current market value of the option times the number of options (positive for long options and negative for short options) in the portfolio. The Net Option Value would be added to the Liquid Net

⁷ Revised vide Circular CIR/MRD/DP/22/2013 dated July 08, 2013



Worth of the clearing member. Thus, mark to market gains and losses would not be settled in cash for options positions.

6.2.8 Liquid net worth

Same as that for currency future contracts as specified in Section 5.2.7.

6.2.9 Liquid assets

Same as that for currency future contracts as specified in Section 5.2.8.

6.2.10 Margin collection and enforcement

Same as that for currency future contracts as specified in Section 5.2.10.

6.2.11 Safeguarding client's money

Same as that for currency future contracts as specified in Section 5.2.11.

6.2.12 Periodic risk evaluation report

Same as that for currency future contracts as specified in Section 5.2.12.

6.3 Surveillance and Disclosures

Same as that for currency future contracts as specified in Section 5.3

6.3.1 Unique client code

Same as that for currency future contracts as specified in Section 5.3.1

6.3.2 Position limits⁸

Same as that for currency future contracts as specified in Section 5.3.2

The following position limits would be applicable in the currency options market:

Client Level: The gross open positions of the client across all contracts (both futures and options contracts) shall not exceed 6% of the total open interest or USD 10 million whichever is lower. The Exchange will disseminate alerts whenever the gross open position of the client exceeds 3% of the total open interest at the end of the previous day's trade.

Trading Member Level: The gross open positions of the trading member across all contracts (both futures and options contracts) shall not exceed 15% of the total open interest or USD 50 million whichever is lower.

⁸ Revised vide Circular CIR/MRD/DP/22/2013 dated July 08, 2013



Bank: The gross open positions of the bank across all contracts (both futures and options contracts) shall not exceed 15% of the total open interest or USD 100 million whichever is lower.

Clearing Member Level: No separate position limit is prescribed at the level of clearing member. However, the clearing member shall ensure that his own trading position and the positions of each trading member clearing through him is within the limits specified above.

6.3.3 Surveillance system

Same as that for currency future contracts as specified in Section 5.3.3 and 5.3.4.

6.4 Eligibility Criteria of the Segment, Exchanges and Trading Members

6.4.1 Eligibility criteria of currency options segment

Same as that for currency future contracts as specified in Section 5.4.1.

6.4.2 Eligibility criteria for the Clearing Corporation of the currency options segment

Same as that for currency future contracts as specified in Section 5.4.2.

6.4.3 Eligibility criteria for members in the currency futures segment

Same as that for currency future contracts as specified in Section 5.4.3.

6.4.4 Regulatory and legal aspects

Same as that for currency future contracts as specified in Section 5.4.4.

A SEBI-RBI constituted committee would meet periodically to sort out issues, if any, arising out of overlapping jurisdiction of the currency options market.



7 INTEREST RATE FUTURES ON 10-YEAR GOI SECURITY

7.1 Product Design, Margins and Position Limits

7.1.1 Underlying

10-Year Notional Coupon-bearing Government of India (GoI) security

7.1.2 Coupon

The notional coupon would be 7% with semi-annual compounding.

7.1.3 Trading Hours

The Trading Hours would be from 9 a.m. to 5.00 p.m on all working days from Monday to Friday.

7.1.4 Size of the Contract

The Contract Size would be Rs. 2 lakh.

7.1.5 Quotation

The Quotation would be similar to the quoted price of the GoI security. The day count convention for interest payments would be on the basis of a 360-day year, consisting of 12 months of 30 days each and half yearly coupon payment.

7.1.6 Tenor of the Contract

The maximum maturity of the contract would be 12 months.

7.1.7 Available Contracts

The Contract Cycle would consist of four fixed quarterly contracts for entire year, expiring in March, June, September and December.

7.1.8 Delivery Month and Delivery Period

The delivery month shall be the last month of the expiring contract, i.e., March, June, September and December Exchanges to set any period of time during the delivery month as the delivery period for the deliverable grade securities.

7.1.9 Daily Settlement Price

The Daily Settlement Price would be the closing price of the 10-year Notional Coupon-bearing GoI security futures contract on the trading day. (Closing price = Weighted Average price of the futures for last half an hour). In the absence of last half an hour trading the theoretical price, to be determined by the exchanges, would be considered as Daily Settlement



Price. The daily settlement price (DSP) shall be determined in the following manner:

Step 1: The DSP is the volume weighted average price (VWAP) of the trades in the last 30 minute of trading, provided there are at least 5 trades for a minimum aggregate notional value of Rs. 10 crore. Failing which, trades during the last 60 minutes shall be used for the calculation of VWAP, subject to at least 5 trades for Rs.10 crore. Failing which trades during the last 120 minutes shall be used for the calculation of VWAP, subject to at least 5 trades for Rs.10 crore.

Step 2: If the DSP cannot be calculated as above, a theoretical price shall be used. This theoretical price shall be the minimum of the theoretical futures prices of all the securities in the delivery basket chosen by the Exchange. The theoretical futures price of each security is the weighted average cash price of outright trades of that security during the day on the NDS Order Matching platform, adjusted for cost of carry, subject to at least 5 trades for Rs.10 crore. If there are not enough trades as required above or there is a material market event during the trading hours, the theoretical futures price of each security shall be the FIMMDA / PDAI / Bloomberg revaluation price(s) (published on the FIMMDA website on a daily basis: URL <http://www.fimmda.org/default.asp?access=na>), adjusted for cost of carry. The cost of carry shall be computed for the period upto the last business day of the delivery month.

If, however, the near quarter contract is liquid (5 trades for Rs. 10 crore during the last 30 minutes, 60 minutes or 120 minutes, as the case may be), the VWAP of the near quarter contract shall be adjusted for cost of carry to arrive at the theoretical price for subsequent quarter contracts. Further, if near quarter contract is illiquid while the next quarter contract is liquid, then the VWAP of the nearest liquid quarter contract shall be used to derive the prices of the illiquid previous as well as the subsequent quarter contracts.

The cost of carry for the above purpose shall include the financing cost @ 91-day treasury bill rate and the coupon of the particular security. The exchanges will be required to disclose the model/methodology used for arriving at the theoretical price.

7.1.10 Settlement Mechanism

The contract would be settled by physical delivery of deliverable grade securities using the electronic book entry system of the existing Depositories



(NSDL and CDSL) and Public Debt Office (PDO) of the RBI. The delivery of the deliverable grade securities shall take place from the first business day of the delivery month till the last business day of the delivery month. The owner of a short position in an expiring futures contract shall hold the right to decide when to initiate delivery. However, the short position holder shall have to give intimation, to the Clearing Corporation, of his intention to deliver two business days prior to the actual delivery date.

7.1.11 Deliverable Grade Securities

Exchanges shall select their own basket of securities from the eligible Deliverable Grade Securities, viz., GoI securities maturing at least 7.5 years but not more than 15 years from the first day of the delivery month with a minimum total outstanding stock of Rs 10,000 crore. Exchanges shall disclose upfront to the market participants the composition of the basket of deliverable grade securities and the associated conversion factors for each of the quarterly contracts. To the basket of deliverable grade securities disclosed upfront by the Exchange for each of the quarterly contracts, additions, if any, shall be made not later than 10 business days before the first business day of the delivery month.

7.1.12 Conversion Factor

The Conversion Factor for deliverable grade security would be equal to the price of the deliverable security (per rupee of the principal), on the first day (calendar day) of the delivery month, to yield 7% with semiannual compounding.

For deliveries into 10-Year Notional Coupon-bearing GoI security futures, the deliverable security's remaining term to maturity shall be calculated in complete three-month quarters, always rounded down to the nearest quarter. If, after rounding, the deliverable security lasts for an exact number of 6-month periods, the first coupon shall be assumed to be paid after 6 months. If, after rounding, the deliverable security does not last for an exact number of 6-month periods (i.e. there are an extra 3 months), the first coupon would be assumed to be paid after 3 months and accrued interest would be subtracted.

7.1.13 Invoice Price

Invoice Price of the respective deliverable grade security would be the futures settlement price times a conversion factor plus accrued interest.



7.1.14 Delivery Schedule and Delivery Process/Mechanism

Buyer and seller in Interest rate Futures on 10-year Notional Coupon bearing GoI security shall take and give securities respectively in the demat or PDO mode. The delivery schedule shall be as follows:

T +0 day

Delivery notice: It is the day when the selling Clearing Member (CM) sends a notice to the Clearing Corporation (CC) expressing his intention to deliver along with details of the security to be delivered. CM shall send the notice before 6:00 pm IST on the second business day prior to the day he wishes to deliver. For example, if he wishes to deliver on 4th September 2009 and 2nd and 3rd are business days, he shall give notice before 6 PM on 2nd September 2009. Along with the notice, he shall provide the notional face value (equal to its short position in the expiring contract), security ISIN, coupon, maturity date, issuance date, coupon convention, and other details as may be sought by the CC. Based on these details, the CC shall calculate the invoice price.

Allocation: The CC shall identify the eligible long positions for allocation and assign the deliveries to long position holders at client level starting with the highest vintage till the allocation is over. Vintage data shall be computed and maintained at client level for every contract and shall be tracked by the CC on end of day basis. For a given vintage, if the contracts to be allocated (Short) are less than the total long positions, the allocation to such long position holders shall be done on a 'random' basis.

Based on the client level allocations as above, CC shall compute CM level deliverable/receivable obligations using multilateral netting and intimate the identified long position holders, by 8 pm IST on the date of receipt of notice, the details of the securities that they would be receiving and the invoice price.

The seller CM shall not be permitted to fulfill an individual futures contract by delivering a mixed portfolio of deliverable security (for example, Rs.1,20,000 face value of one issue and Rs. 80,000 face value of another issue is not permissible). However, a selling CM making delivery for more than one futures contract, say two contracts, may deliver two deliverable securities for two different contracts (Rs.2,00,000 face value of one issue for one contract and Rs.2,00,000 face value of another issue for the other contract).



T + 2 day

On the second business day following the receipt of the delivery notice, the CMs shall discharge their obligations and the CC shall complete the settlement accordingly.

7.1.15 Last Trading Day

Exchange to set any day of the delivery month as last trading day.

7.1.16 Last Delivery Day

Last business day of the delivery month.

7.1.17 Initial Margin

Initial Margin requirement shall be based on a worst case loss of a portfolio of an individual client across various scenarios of price changes. The various scenarios of price changes would be so computed so as to cover a more than 99% VaR over a one day horizon. In order to achieve this, the price scan range may initially be fixed at 3.5 standard deviation⁹. Methodology A, as specified in 7.1.21, shall be adopted for computation of initial margin. For this purpose, the yield for 10-Year benchmark GoI security, as published by FIMMDA, shall be used.

For the purpose of intra-day updation of VaR, the Exchanges shall use the yield of the benchmark 10-Year bond, from the NDS Order Matching platform. The initial margin so computed would be subject to a minimum of 2.33% of the value of the futures contract on the first day of trading in 10-year Notional Coupon-bearing GoI security futures and 1.6% of the value of the futures contract thereafter. The initial margin shall be deducted from the liquid net worth of the clearing member on an online, real time basis.

7.1.18 Extreme Loss Margin

Extreme loss margin of 0.3% of the value of the gross open positions of the futures contract shall be deducted from the liquid assets of the clearing member on an on line, real time basis.

7.1.19 Calendar Spread Margin

Interest rate futures position at one maturity hedged by an offsetting position at a different maturity would be treated as a calendar spread. The

⁹ One tailed standard normal variate corresponding to 99 % confidence interval is 2.33. However, simulation on the historical data showed that 99 % of data could be covered only with 3.5 times standard deviation.



calendar spread margin shall be at a value of Rs.2000/- per month of spread. The benefit for a calendar spread would continue till expiry of the near month contract.

7.1.20 Model for Determining Standard Deviation

The Committee examined the results of empirical tests carried out using different risk management models in the Value at Risk (VaR) framework in the 10-year GoI security yields. Data for the period January 3, 2000 to September 16, 2008 was analyzed. GARCH (1,1)-normal and GARCH (1,1)-GED (Generalized Auto-Regressive Conditional Heteroskedasticity) at 3 and 3.5 sigma levels were not found to perform well at 1% risk level, as the actual number of violations were found to be statistically much higher than the expected number of violations. The EWMA (Exponentially weighted moving average) model used by J.P.Morgan's Risk Metrics methodology was found to work well at 3 and 3.5 sigma levels at 5% risk level and not at 1% risk level.

Given the computational ease of the EWMA model and given the familiarity of the Exchanges with this particular model (it is currently being used in the equity derivatives market), the Committee, after considering the various aspects of the different models, decided that EWMA method would be used to obtain the volatility estimate every day fixing the price scan range at 3.5 standard deviation. During the first time-period on the first day of trading in 10-year Notional Coupon-bearing GoI security futures, the sigma would be equal to 0.8 %.

7.1.21 Formula for Determining Standard Deviation

The EWMA method would be used to obtain the volatility estimate every day. The estimate at the end of time period t (σ_{yt}) is arrived at using the volatility estimate at the end of the previous time period i.e. as at the end of t-1 time period (σ_{yt-1}), and the return (r_{yt}) observed in the futures market during the time period t. The formula would be as under:

$$(\sigma_{yt})^2 = \lambda (\sigma_{yt-1})^2 + (1 - \lambda) (r_{yt})^2$$

Where

λ (lambda) is a parameter which determines how rapidly volatility estimates changes. The value of λ is fixed at 0.94.



- i. σ_{yt} (sigma) is the standard deviation of daily logarithmic returns of yield of 10-year Notional Coupon-bearing GoI security futures at time t.
- ii. The "return" is defined as the logarithmic return: $r_t = \ln(Y_t/Y_{t-1})$ where Y_t is the yield of 10-year Notional Coupon-bearing GoI security futures at time t.

For computing the margin, two methodologies can be considered.

Methodology A. The plus/minus 3.5 sigma limits¹⁰ for a 99% VAR based on logarithmic returns on yield of 10-year Notional Coupon-bearing GoI security futures would have to be converted into price volatility through the following formula :

$$\sigma_{pt} = D^* \sigma_{yt} * Y_t$$

where

σ_{pt} is the standard deviation of percentage change in price at time t;

D is Modified Duration¹¹;

Y_t is the yield of 10-year Notional Coupon-bearing GoI security futures at time t; and

σ_{yt} (sigma) is the standard deviation of daily logarithmic returns of yield of 10-year Notional Coupon-bearing GoI security futures at time t.

¹⁰ The one-tailed standard normal variate corresponding to 99% confidence interval is 2.33. However, since 3.5 standard deviations cover 99 % of the historical data, σ has been taken as 3.5 in all computations. .

¹¹ Modified Duration = $\frac{D^*}{1 + y/m}$, where D^* (Macaulay's duration) = $\frac{\sum_{i=1}^n t_i c_i / (1 + y/m)^i}{B}$

C_i is coupon at time t_i , y is the annually compounded yield, m is the frequency of coupon payments, B is the price of the bond. Modified duration essentially measures percentage change in price due to change in yield by 100 bps.

¹² Yield of security is its YTM (Yield to maturity) calculated as $B = \left(\sum_{t=1}^n \frac{C_t}{(1 + Y/m)^t} \right) + \frac{P}{(1 + Y/m)^n}$

where Y is the YTM of the security, B is the price of the security, P is the par value of the bond, n is the number of periods for coupon payment, m is the frequency of coupon payments and C is the coupon payment per period.



The percentage margin on long position would be equal to $100 (D \cdot 3.5 \sigma_{yt} \cdot Y_t)$ and the percentage margin on short position would be equal to $100 (D \cdot (-3.5 \sigma_{yt}) \cdot Y_t)$. The Modified Duration for 10-Year Notional Coupon-bearing GoI security futures shall be 10.

Methodology B. The potential price change corresponding to 99% VAR can be computed by multiplying the appropriate yield change by the modified duration. That is,

$$\delta P = D \cdot \delta Y ,$$

$$\delta Y = Y_t - Y_0 , \text{ and}$$

$$Y_t = Y_0 e^{\pm \sigma_y \cdot \sqrt{t/252} \cdot z}$$

Where,

δP = Percentage change in price

δY = Change in yield

Y_t = Yield of 10-year Notional Coupon-bearing GoI security futures at time t ; and

σ_y = Annualized yield volatility¹³ of 10-year Notional Coupon-bearing GoI security futures

z = One-tailed standard normal variate (value 3.5 as mentioned in footnote 5)

Thus, the percentage margin on long positions would be equal to

$$\delta P_{Long} = D \cdot Y_0 \cdot (e^{\sigma_y \cdot \sqrt{t/252} \cdot 3.5} - 1)$$

and the percentage margin on short positions would be equal to

¹³ Annualized yield volatility is obtained by multiplying the standard deviation of daily logarithmic return by square root of the number of trading days, usually taken as 252.



$$\delta P_{Short} = D * Y_0 * (e^{-\sigma_y * \sqrt{t/252} * 3.5} - 1)$$

Alternatively, the exchanges can adopt uniform margins for both short and long positions, equivalent to the higher of the two values derived above.

An illustration of the two methodologies discussed above is enclosed at Annex A.

- iii. The volatility estimation and margin fixation methodology should be clearly made known to all market participants so that they can compute the margin for any given closing level of the interest rate futures price. Further, the trading software itself should provide this information on a real time basis on the trading workstation screen.

7.1.22 Position Limits

- i. **Client level:** The gross open positions of the client across all contracts should not exceed 6% of the total open interest or Rs 300 crores whichever is higher. The Exchange will disseminate alerts whenever the gross open position of the client exceeds 3% of the total open interest at the end of the previous day's trade.
- ii. **Trading Member level:** The gross open positions of the trading member across all contracts should not exceed 15% of the total open interest or Rs. 1000 crores whichever is higher.
- iii. **Clearing Member level:** No separate position limit is prescribed at the level of clearing member. However, the clearing member shall ensure that his own trading position and the positions of each trading member clearing through him is within the limits specified above.
- iv. **FIIs:** In case of Foreign Institutional Investors registered with Securities and Exchange Board of India the total gross long (bought) position in cash and Interest Rate Futures markets taken together should not exceed their individual permissible limit for investment in government securities and the total gross short (sold) position, for the purpose of hedging only, should not exceed their long position in the government securities and in Interest Rate Futures, at any point in time.



7.2 Risk Management Measures

7.2.1 Introduction

In exchange traded derivative contracts, the Clearing Corporation acts as a central counterparty to all trades and performs full novation. The risk to the Clearing Corporation can only be taken care of through a stringent margining framework. Also, since derivatives are leveraged instruments, margins also act as a cost and discourage excessive speculation. A robust risk management system should therefore, not only impose margins on the members of the Clearing Corporation but also enforce collection of margins from the clients.

7.2.2 Portfolio Based Margining

The Standard Portfolio Analysis of Risk (SPAN) methodology shall be adopted to take an integrated view of the risk involved in the portfolio of each individual client comprising his positions in futures contracts across different maturities. The client-wise margins would be grossed across various clients at the Trading / Clearing Member level. The proprietary positions of the Trading / Clearing Member would be treated as that of a client.

7.2.3 Real-Time Computation

The computation of worst scenario loss would have two components. The first is the valuation of the portfolio under the various scenarios of price changes. At the second stage, these scenario contract values would be applied to the actual portfolio positions to compute the portfolio values and the initial margin. The exchanges shall update the scenario contract values at least 6 times in the day, which may be carried out by taking the closing price of the previous day at the start of trading and the prices at 11:00 a.m., 12:30 p.m., 2:00 p.m., 3.30 p.m. and at the end of the trading session. The latest available scenario contract values would be applied to member/client portfolios on a real time basis.

7.2.4 Liquid Networth

The initial margin and the extreme loss margin shall be deducted from the liquid assets of the clearing member. The clearing member's liquid net worth after adjusting for the initial margin and extreme loss margin requirements must be at least Rs. 50 Lakhs at all points in time. The minimum liquid networth shall be treated as a capital cushion for days of unforeseen market volatility.



7.2.5 Liquid Assets

The liquid assets for trading in Interest Rate Futures would have to be provided separately and maintained with the Clearing Corporation. However, the permissible liquid assets, the applicable haircuts and minimum cash equivalent norms would be mutatis mutandis applicable from the equity/currency derivatives segment.

7.2.6 Mark-to-Market (MTM) Settlement

The MTM gains and losses shall be settled in cash before the start of trading on T+1 day. If MTM obligations are not collected before start of the next day's trading, the Clearing Corporation shall collect correspondingly higher initial margin to cover the potential for losses over the time elapsed in the collection of margins.

The daily closing price of interest rate futures contract for mark to market settlement would be calculated on the basis of the last half an hour weighted average price of the futures contract. In the absence of trading in the last half an hour the theoretical price would be taken. The eligible exchanges shall define the methodology for calculating the 'theoretical price' at the time of making an application for approval of the interest rate futures contract to SEBI. The methodology for calculating the 'theoretical price' would also be disclosed to the market.

7.2.7 Margin Collection and Enforcement

The client margins (initial margin, extreme loss margin, calendar spread margin and mark to market settlements) have to be compulsorily collected and reported to the Exchange by the members. The Exchange shall impose stringent penalty on members who do not collect margins from their clients. The Exchange shall also conduct regular inspections to ensure margin collection from clients.

7.2.8 Safeguarding Client's Money

The Clearing Corporation should segregate the margins deposited by the Clearing Members for trades on their own account from the margins deposited with it on client account. The margins deposited on client account shall not be utilized for fulfilling the dues which a Clearing Member may owe the Clearing Corporation in respect of trades on the member's own account. The client's money is to be held in trust for client purpose only. The following process is to be adopted for segregating the client's money vis-à-vis the clearing member's money:



- i At the time of opening a position, the member should indicate whether it is a client or proprietary position.
- ii Margins across the various clients of a member should be collected on a gross basis and should not be netted off.
- iii When a position is closed, the member should indicate whether it was a client or his own position which is being closed.
- iv In the case of default, the margins paid on the proprietary position would only be used by the Clearing Corporation for realizing its dues from the member.

7.2.9 Periodic Risk Evaluation Report

The Clearing Corporation of the Exchange shall on an ongoing basis and at least once in every six months, conduct back testing of the margins collected vis-à-vis the actual price changes. A copy of the study shall be submitted to SEBI along with suggestions on changes to the risk containment measures, if any.



7.3 Regulatory and Legal aspects

7.3.1 Exchange:

The Interest Rate Derivative contracts shall be traded on the Currency Derivative Segment of a recognized Stock Exchange. The members registered by SEBI for trading in Currency/Equity Derivative Segment shall be eligible to trade in Interest Rate Derivatives also, subject to meeting the Balance Sheet networth requirement of Rs 1 crore for a trading member and Rs 10 crores for a clearing member. Before the start of trading, the Exchange shall submit the proposal for approval of the contract to SEBI giving:

- i. The details of the proposed interest rate futures contract to be traded in the exchange;
- ii. The economic purposes it is intended to serve;
- iii. Its likely contribution to market development;
- iv. The safeguards and the risk protection mechanisms adopted by the exchange to ensure market integrity, protection of investors and smooth and orderly trading;
- v. The infrastructure of the exchange and surveillance system to effectively monitor trading in such contracts.
- vi. the proposed amendments to the Bye-laws of the Exchange/ Clearing Corporation / Clearing House.
- vii. Product design, margins and position limits as laid down in 7.1 are complied with.
- viii. Risk management measures as mentioned in 7.1 and 7.2 are complied with.

7.3.2 Clearing Corporation / Clearing House

The Clearing Corporation / Clearing House of Interest Rate Futures shall be the same as for currency derivatives segment.

7.3.3 Clearing Member and Trading Member

The members registered by SEBI for trading in Currency/Equity Derivative Segment shall be eligible to trade in Interest Rate Derivatives also, subject to fulfilling the requirements mentioned in 6.4.1.

7.3.4 SEBI-RBI Coordination Mechanism

A SEBI-RBI constituted committee would meet periodically to sort out issues, if any, arising out of overlapping jurisdiction of the interest rate futures market.



7.4 Miscellaneous Issues

7.4.1 Banks Participation in Interest Rate Futures

It is stated in the RBI Report on Interest Rate Futures that "...the current approval for banks' participation in IRF for hedging risk in their underlying investment portfolio of government securities classified under the Available for Sale (AFS) and Held for Trading (HFT) categories should be extended to the interest rate risk inherent in their entire balance sheet - including both on, and off, balance sheet items - synchronously with the re-introduction of the IRF."

7.4.2 Extending the Tenor of Short Sales

In the RBI Report on Interest Rate Futures, it has been recommended that the time limit on short selling be extended so that term / tenor / maturity of the short sale is co-terminus with that of the futures contract and a system of transparent and rule-based pecuniary penalty for SGL bouncing be put in place, in lieu of the regulatory penalty currently in force.

7.4.3 Penalties

In case there is a failure to honour the settlement obligation by the CM, the following action shall be followed:

7.4.3.1 Selling CM fails to deliver the securities

T +0 day: Selling CM gives intention to deliver the securities

T+2 day: Buying CM pays-in funds and the selling CM fails to deliver the securities

T+2 or T+3 day: CC shall conduct buy-in auction of the securities.

In case of successful auction, the defaulting CM shall be debited by:

the actual auction price,

difference in invoice price and auction price, if the auction price is less than the invoice price, and

a penalty of 2% of the face value of security short delivered.

In case of unsuccessful auction, transaction shall be closed out wherein the defaulting CM shall be debited by:

invoice price, and

a penalty of 5% of the face value of security short delivered.



In respect of the seller in an auction failing to honour the auction obligations, he shall be debited by:

invoice price, and

a penalty of 3% of the face value of security short delivered

These penalties shall be passed on to the buying CM, who shall pass it on to the buying client.

7.4.3.2 Buying CM fails to pay-in funds

T +0 day: Selling CM gives intention to deliver the securities

T+2 day: Selling CM delivers securities and the buying CM fails to pay-in funds.

The CC shall pay-out funds to the selling CM on T+2 day

Further,

- In case of a settlement shortage of Rs. 5 lakh or more, the trading facility of all trading members clearing through the buying CM shall be withdrawn in the Currency Derivatives Segment and the securities pay-out to the buying CM shall be withheld.
- If the buying CM is short for an amount of Rs. 2 lakh or more on six or more occasions in the preceding three months, the trading facility of all the trading members clearing through the buying CM shall be withdrawn in the Currency Derivatives Segment and the securities pay-out to the buying CM shall be withheld.
- A penalty of 0.07% per day shall be levied on the amount of the shortage.

The trading facility shall be restored and securities withheld shall be released on the buying CM making good the shortage amount in all the above cases.

Regulatory Penalty: In case a selling CM defaults in delivering securities 5 times during a period of preceding 6 months, the trading facility of all the trading members clearing through the CM shall be withdrawn for 7 days.

7.4.3.3 Margins and action on deliverable positions

- i **Margins on physical delivery positions:** For positions marked for delivery, a margin equal to VaR of the futures on the invoice price plus 5% of face value along with mark to market adjustments shall be charged both to the buying client and selling client. The margins shall be



levied from the intention day and shall be released on the completion of the settlement.

- ii **Margins from last trading day to last intention day:** For positions from last trading date till date of intention in cases where no intention is provided, a margin amount equal to VaR of the futures on the invoice price of the costliest security from the deliverable basket plus 5% of face value along with mark to market adjustments based on the underlying closing prices of the costliest security from the deliverable basket shall be charged on both buying client and selling client. The margins shall be levied from the last trading day till the day of receipt of intention to deliver.

Action in case no intent to deliver is provided: In case no intent is provided by the selling CM till two business days prior to the last delivery date, it shall be presumed that selling CM has failed to deliver the security and the auction mechanism, as specified for security shortages, shall be activated. The auction shall take place one business day prior to the last delivery date.



8 INTEREST RATE FUTURES ON 91-DAY GOVERNMENT OF INDIA (GOI) TREASURY-BILL (T-BILL)

8.1 Product Design, Margins and Position Limits

8.1.1 Underlying

91 - day GoI T-bill.

8.1.2 Trading hours

9 a.m. to 5 p.m.

8.1.3 Size of the contract

Rs. 2 lakh.

8.1.4 Quotation

100 minus futures discount yield (i.e. for a yield of 5% the quote would be $100-5=95$). The value of 1 basis point change in the futures discount yield would be Rs. 5.

8.1.5 Tenor of the contract

The maximum maturity of the contract would be 12 months.

8.1.6 Contract months

Three serial monthly contracts followed by three quarterly contracts of the cycle March/June/September/December.

8.1.7 Settlement mechanism

The 91-day T-Bill future would be settled in cash in Indian Rupees.

8.1.8 Contract value

Rs. $2000 * (100 - 0.25 * y)$

where y is the futures discount yield.

For example, for a futures discount yield of 5%, the contract value would be

-

$2000 * (100 - 0.25*5) = \text{Rs. } 197,500$

8.1.9 Daily Contract Settlement value

Rs. $2000 * (100 - 0.25 * yw)$

(Here yw is weighted average futures yield of last half an hour).

In the absence of last half an hour trading, theoretical futures yield would be considered for computation of Daily Contract Settlement Value.



8.1.10 Expiry/Last trading day/Final settlement day

The expiry / last trading day / final settlement day for the contract would be the last Wednesday of the expiry month. If any expiry day is a trading holiday, then the expiry/ last trading day/ final settlement day would be the previous trading day.

8.1.11 Final Contract Settlement value

Rs. 2000 * (100 - 0.25 * yf)

(Here yf is weighted average discount yield obtained from weekly auction of 91-day T-Bill on the day of expiry).

The methodology of computation and dissemination of the weighted average discount yield would be publicly disclosed by RBI.

8.1.12 Initial margin

The Initial Margin requirement shall be based on a worst case loss of a portfolio of an individual client across various scenarios of price changes. The various scenarios of price changes would be so computed so as to cover a 99% VaR over a one day horizon. In order to achieve this, the price scan range may initially be fixed at 3.5 standard deviation. The initial margin so computed would be subject to a minimum of 0.1 % of the notional value of the contract on the first day of trading in 91-day T-bill futures and 0.05 % of the notional value of the contract thereafter (the notional value of the contract shall be Rs. 2,00,000). The initial margin shall be deducted from the liquid net worth of the clearing member on an online, real time basis.

8.1.13 Extreme Loss margin

Extreme loss margin of 0.03 % of the notional value of the contract for all gross open positions shall be deducted from the liquid assets of the clearing member on an on line, real time basis.

8.1.14 Calendar spread margin

Interest rate futures position at one maturity hedged by an offsetting position at a different maturity would be treated as a calendar spread. The calendar spread margin shall be at a value of ` 100/- for spread of one month, ` 150 for spread of two month, ` 200/- for spread of three month and ` 250/- for spread of four month and beyond. The benefit for a calendar spread would continue till expiry of the near month contract. For a calendar spread position, the extreme loss margin shall be 0.01% of the notional value of the far month contract.



8.1.15 Formula for determining standard deviation

The exponential moving average method would be used to obtain the volatility estimate every day. The estimate at the end of time period t (σ_{ydt}) is estimated using the volatility estimate at the end of the previous time period. i.e. as at the end of $t-1$ time period (σ_{ydt-1}), and the return (r_{ydt}) observed in the futures market during the time period t . The formula would be as under:

$$(\sigma_{ydt})^2 = \lambda (\sigma_{ydt-1})^2 + (1 - \lambda) (r_{ydt})^2$$

where

λ is a parameter which determines how rapidly volatility estimates change.

The value of λ is fixed at 0.94.

- v. σ_{ydt} (sigma) means the standard deviation of daily logarithmic returns of discount yield of 91-day T-Bill futures at time t .
- vi. The "return" is defined as the logarithmic return: $r_{ydt} = \ln(Y_{dt}/Y_{dt-1})$ where Y_{dt} is the discount yield of 91-day T-Bill futures at time t . The plus/minus 3.5 sigma limits for a 99% VAR based on logarithmic returns on discount yield of 91-day T-Bill futures would have to be converted into price changes through the following formula :

$$\sigma_{pt} = D * \sigma_{ydt} * Y_{dt}$$

where

σ_{pt} means the standard deviation of percentage change in price at time t

D means Modified Duration

Y_{dt} = Discount Yield for 91-day T-Bill futures at time t

σ_{ydt} (sigma) means the standard deviation of daily logarithmic returns of discount yield at time t

The margin on long position would be equal to $100 * (D * 3.5 \sigma_{ydt} * Y_{dt})$ percentage of the notional value of the futures contract and the margin on short position would be equal to $100 (D * -3.5 \sigma_{ydt} * Y_{dt})$ percentage of the notional value of the futures contract. The Modified Duration for 91 day T-Bill Futures shall be -0.25.

- vii. The volatility estimation and margin fixation methodology should be clearly made known to all market participants so that they can compute the margin for any given closing level of the interest rate futures price. Further, the trading software itself should provide this information on a real time basis on the trading workstation screen.



viii. During the first time-period on the first day of trading in 91-day T-bill futures, the sigma would be equal to 2.7 %.

8.1.16 Position limits

8.1.16.1 **Client Level:** The gross open positions of the client across all contracts should not exceed 6% of the total open interest or Rs. 300 crores whichever is higher. The Exchange will disseminate alerts whenever the gross open position of the client exceeds 3% of the total open interest at the end of the previous day's trade.

8.1.16.2 **Trading Member Level:** The gross open positions of the trading member across all contracts should not exceed 15% of the total open interest or Rs. 1000 crores whichever is higher.

8.1.16.3 **Clearing Member Level:** No separate position limit is prescribed at the level of clearing member. However, the clearing member shall ensure that his own trading position and the positions of each trading member clearing through him is within the limits specified above.

8.1.16.4 **FIIs:** In case of Foreign Institutional Investors, registered with Securities and Exchange Board of India, the total gross long (bought) position in cash and Interest Rate Futures markets taken together should not exceed their individual permissible limit for investment in government securities and the total gross short (sold) position, for the purpose of hedging only, should not exceed their long position in the government securities and in Interest Rate Futures, at any point in time.

8.2 Regulatory and Legal aspects

8.2.1 Exchange

The Interest Rate Futures on 91-day T-Bill shall be traded on the Currency Derivative Segment of a recognized Stock Exchange. Eligible Stock Exchanges may introduce these contracts after obtaining prior approval from SEBI.



9 INTEREST RATE FUTURES ON 2 YEAR NOTIONAL COUPON BEARING GOVERNMENT OF INDIA (GOI) SECURITY

9.1 Product Design, Margins and Position Limits

9.1.1 Underlying

Notional coupon bearing 2-year GoI security with a notional coupon of 7% paid semi-annually and face value of Rs. 100.

9.1.2 Trading hours

The trading hours would be from 9 a.m. to 5.00 p.m.

9.1.3 Size of the contract

Rs. 2 lakh.

9.1.4 Quotation

The quotation would be similar to the quoted price of the GoI security.

9.1.5 Tenor of the contract

The maximum maturity of the contract would be 12 months.

9.1.6 Contract months

To begin with, three serial monthly contracts can be introduced.

9.1.7 Settlement mechanism

The futures on notional GoI security would be settled in cash in Indian Rupees. The settlement price of the notional bond would be determined on the basis of the yields of a basket of eligible bond(s) selected by the exchange with the yields of the bonds in the basket to be determined through a polling process carried out by Fixed Income, Money Market and Derivatives Association (FIMMDA) as detailed in Para 9.1.17.

Exchanges shall disclose upfront to the market participants the composition of the basket of securities for each of the contracts. Eligible bonds would comprise of GoI securities maturing at least 1.5 years but not more than 2.5 years from the expiry day.

9.1.8 Contract Value

The contract value would be: = Quoted price * 2000

9.1.9 Daily Contract Settlement Value

The Daily Contract Settlement Value would be: = 2000 * P_w



(Here P_w is weighted average futures quote of last half an hour).

In the absence of last half an hour trading, theoretical futures price would be considered for computation of Daily Contract Settlement Value. Exchanges would be required to disclose the model/methodology used for arriving at the theoretical price.

9.1.10 Expiry/Last trading day

The expiry / last trading day for the contract would be the last Thursday of the expiry month. If any expiry day is a trading holiday, then the expiry/last trading day would be the previous trading day.

9.1.11 Final Contract Settlement Value

The Final Contract Settlement Value would be = $2000 * P_f$

where P_f is the settlement price of the notional bond.

9.1.12 Initial Margin

The Initial Margin requirement shall be based on a worst case loss of a portfolio of an individual client across various scenarios of price changes. The various scenarios of price changes would be so computed so as to cover a 99% VaR over a one day horizon. In order to achieve this, the price scan range may initially be fixed at 3.5 standard deviation. The initial margin so computed would be subject to a minimum of 0.35 % of the notional value of the contract on the first day of trading in Futures on 2 Year Notional Coupon Bearing Government of India (GoI) Security and 0.3 % of the notional value of the contract thereafter. The initial margin shall be deducted from the liquid net worth of the clearing member on an online, real time basis.

9.1.13 Extreme Loss margin

Extreme loss margin of 0.1 % of the notional value of the contract for all gross open positions shall be deducted from the liquid assets of the clearing member on an on line, real time basis.

9.1.14 Calendar spread margin

2 Year Notional Coupon Bearing Government of India (GoI) Security futures position at one maturity hedged by an offsetting 2 Year Notional Coupon Bearing Government of India (GoI) Security futures position at a different maturity would be treated as a calendar spread. The calendar spread margin shall be at a value of Rs. 300 for spread of one month and Rs. 450 for spread of two months. The benefit for a calendar spread would continue till expiry of the near month contract.



9.1.15 Formula for determining standard deviation

The exponential moving average method would be used to obtain the volatility estimate every day. The estimate of volatility (σ_t) for the time period t is estimated using the volatility estimate (σ_{t-1}) for the previous time period and the return (r_{t-1}) observed in the futures market during the previous time period. The formula would be as under:

$$(\sigma_t)^2 = \lambda (\sigma_{t-1})^2 + (1 - \lambda) (r_{t-1})^2$$

where

λ is a parameter which determines how rapidly volatility estimates change. The value of λ is fixed at 0.94.

- ix. σ_t (sigma) means the standard deviation of daily logarithmic returns of futures price of 2 Year Notional Coupon Bearing Government of India (GoI) Security at time t .
- x. The "return" is defined as the logarithmic return: $r_t = \ln(P_t/P_{t-1})$ where P_t is the futures price of 2 Year Notional Coupon Bearing Government of India (GoI) Security at time t . The plus/minus 3.5 sigma limits for a 99% VaR based on logarithmic returns would have to be converted into percentage price change by reversing the logarithmic transformation. The percentage margin on short positions would be equal to $100(\exp(3.5\sigma)-1)$ and the percentage margin on long positions would be equal to $100(1-\exp(-3.5\sigma))$. This implies slightly larger margins on short positions than on long positions. The derivatives exchange/clearing corporation may apply the higher margin on both the buy and sell side.
- xi. The volatility estimation and margin fixation methodology should be clearly made known to all market participants so that they can compute the margin for any given closing level of the interest rate futures price. Further, the trading software itself should provide this information on a real time basis on the trading workstation screen.
- xii. During the first time-period on the first day of trading in 2 Year Notional Coupon Bearing Government of India (GoI) Security futures, the sigma would be equal to 0.10 %.



9.1.16 Position Limits

9.1.16.1 Client Level

The gross open positions of the client across all contracts should not exceed 6% of the total open interest or Rs 300 crores whichever is higher. The Exchange will disseminate alerts whenever the gross open position of the client exceeds 3% of the total open interest at the end of the previous day's trade.

9.1.16.2 Trading Member Level

The gross open positions of the trading member across all contracts should not exceed 15% of the total open interest or Rs. 1000 crores whichever is higher.

9.1.16.3 Clearing Member Level

No separate position limit is prescribed at the level of clearing member. However, the clearing member shall ensure that his own trading position and the positions of each trading member clearing through him is within the limits specified above.

9.1.16.4 FIIs

In case of Foreign Institutional Investors registered with Securities and Exchange Board of India the total gross long (bought) position in cash and Interest Rate Futures markets taken together should not exceed their individual permissible limit for investment in government securities and the total gross short (sold) position, for the purpose of hedging only, should not exceed their long position in the government securities and in Interest Rate Futures, at any point in time.



9.1.17 Settlement Mechanism

- Polling shall be carried out by the Fixed Income, Money Market and Derivatives Association, i.e., FIMMDA;
- The yields (Bid and Ask) of the GoI securities shall be polled from Primary Dealers (PDs) registered with the Reserve Bank of India;
- Each poll shall involve ten PDs who would be selected at random from the universe of PDs;
- Polling would be conducted at three instances, i.e., 11.00 am, 11.30 am and 12.00 pm daily;
- At each instance of polling, for each bond, out of the ten buy yields, two highest and two lowest yields would be treated as outliers and would be ignored. Similarly outliers from ten sell yields would be identified and ignored.
- After rejecting the outliers in above step, there will be [6 * 2 * 3 * Number of Bonds in Basket] number of remaining yields.
- Average settlement yield (Ys) is the simple average of the remaining yields. Ys will be rounded off to 4 decimal digits.
- Ys determined in above step would be used to calculate present value of notional underlying bond on the basis of formula given below. This will be the final settlement price of the contract.

Final settlement price =

$$\left[\frac{100}{\left(1 + \frac{Ys}{2}\right)^4} \right] + \left[\sum_{k=1}^4 \frac{100 * \frac{C}{2}}{\left(1 + \frac{Ys}{2}\right)^k} \right]$$

where,

Ys: Settlement yield

C: The notional coupon of underlying bond = 7%

Worked out example of settlement price calculation described above has been given in Para 9.1.18



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9.1.18 Worked out Example of Settlement price calculation:

Yield Figures Obtained by Polling of Dealers						
11:00 AM	Bond 1		Bond 2		Bond 3	
Dealer	Buy Yields	Sell Yields	Buy Yields	Sell Yields	Buy Yields	Sell Yields
Dealer 1	5.9600	5.9500	(6.0100)	(6.0000)	(6.0250)	(6.0425)
Dealer 2	5.9625	5.9500	6.0025	5.9925	6.0450	6.0300
Dealer 3	5.9650	(5.9550)	6.0050	5.9950	6.0450	6.0350
Dealer 4	(5.9600)	(5.9550)	(6.0025)	5.9975	(6.0425)	6.0375
Dealer 5	5.9625	5.9500	(6.0025)	5.9900	(6.0550)	(6.0275)
Dealer 6	(5.9725)	5.9525	(6.0175)	5.9975	(6.0575)	6.0375
Dealer 7	(5.9700)	5.9500	6.0100	(5.9900)	6.0475	(6.0275)
Dealer 8	(5.9600)	5.9500	6.0100	(6.0000)	6.0500	(6.0400)
Dealer 9	5.9625	(5.9475)	6.0050	5.9950	6.0450	6.0350
Dealer 10	5.9700	(5.9500)	6.0100	(5.9900)	6.0450	6.0350
11:30 AM	Bond 1		Bond 2		Bond 3	
Dealer	Buy Yields	Sell Yields	Buy Yields	Sell Yields	Buy Yields	Sell Yields
Dealer 1	5.9700	5.9600	6.0150	6.0050	(6.0600)	(6.0500)
Dealer 2	(5.9750)	5.9600	6.0150	6.0000	6.0550	6.0375
Dealer 3	5.9750	(5.9650)	6.0175	(6.0075)	6.0575	(6.0475)
Dealer 4	5.9700	(5.9650)	6.0125	(6.0075)	6.0525	6.0475
Dealer 5	(5.9700)	(5.9500)	(6.0100)	(5.9900)	(6.0450)	(6.0250)
Dealer 6	5.9725	5.9600	6.0125	6.0000	6.0550	6.0400
Dealer 7	(5.9775)	5.9575	(6.0200)	6.0000	(6.0600)	6.0400
Dealer 8	5.9750	5.9550	(6.0200)	6.0000	6.0550	(6.0350)
Dealer 9	5.9750	(5.9550)	6.0150	6.0050	6.0600	6.0400
Dealer 10	(5.9700)	5.9600	(6.0050)	(5.9950)	(6.0500)	6.0400
12:00 PM	Bond 1		Bond 2		Bond 3	
Dealer	Buy Yields	Sell Yields	Buy Yields	Sell Yields	Buy Yields	Sell Yields
Dealer 1	5.9750	(5.9650)	6.0200	(6.0100)	(6.0650)	(6.0550)
Dealer 2	5.9750	5.9600	6.0175	6.0025	6.0575	6.0450
Dealer 3	5.9750	(5.9650)	6.0175	(6.0075)	6.0575	(6.0475)
Dealer 4	(5.9700)	(5.9500)	6.0150	(5.9950)	6.0600	6.0400
Dealer 5	(5.9800)	5.9600	(6.0225)	6.0025	(6.0625)	6.0425
Dealer 6	5.9750	(5.9550)	6.0200	6.0000	6.0600	(6.0400)



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Dealer 7	(5.9800)	5.9600	6.0200	(6.0000)	6.0600	(6.0400)
Dealer 8	5.9800	5.9600	(6.0250)	6.0050	6.0625	6.0425
Dealer 9	5.9750	5.9650	(6.0150)	6.0050	(6.0550)	6.0450
Dealer 10	(5.9750)	5.9650	(6.0150)	6.0050	(6.0575)	6.0475

- () : Outlier yields, which are two highest and two lowest values on sell and buy side for individual bond at a particular instant of polling
- Average of all the yields except those in parentheses () = 6.005787
- Settlement Yield = Average yield rounded off to 4 decimal digits = 6.0058



Futures Settlement Price =

$$\left[\frac{100}{\left(1 + \frac{.060058}{2}\right)^4} \right] + \left[\sum_{k=1}^4 \frac{100 * \frac{.07}{2}}{\left(1 + \frac{.060058}{2}\right)^k} \right]$$

= Rs. 101.8476

9.2 Regulatory and Legal aspects

9.2.1 Exchange

The Interest Rate Futures on 2-year GoI Securities shall be traded on the Currency Derivative Segment of a recognized Stock Exchange. Eligible Stock Exchanges may introduce these contracts after obtaining prior approval from SEBI.



10 INTEREST RATE FUTURES ON 5 YEAR NOTIONAL COUPON BEARING GOVERNMENT OF INDIA (GOI) SECURITY

10.1 Product Design, Margins and Position Limits

10.1.1 Underlying

Notional coupon bearing 5-year GoI security with a notional coupon of 7% paid semi-annually and face value of Rs. 100.

10.1.2 Trading hours

The trading hours would be from 9 a.m. to 5.00 p.m.

10.1.3 Size of the contract

Rs. 2 lakh.

10.1.4 Quotation

The quotation would be similar to the quoted price of the GoI security.

10.1.5 Tenor of the contract

The maximum maturity of the contract would be 12 months.

10.1.6 Contract months

To begin with, three serial monthly contracts can be introduced.

10.1.7 Settlement mechanism

The futures on notional GoI security would be settled in cash in Indian Rupees. The settlement price of the notional bond would be determined on the basis of the yields of a basket of eligible bond(s) selected by the exchange with the yields of the bonds in the basket to be determined through a polling process carried out by Fixed Income, Money Market and Derivatives Association (FIMMDA) as detailed in Para 10.1.17.

Exchanges shall disclose upfront to the market participants the composition of the basket of securities for each of the contracts. Eligible bonds would comprise of GoI securities maturing at least 4.5 years but not more than 5.5 years from the expiry day.

10.1.8 Contract Value

The contract value would be: = Quoted price * 2000

10.1.9 Daily Contract Settlement Value

The Daily Contract Settlement Value would be: = 2000 * P_w



(Here P_w is weighted average futures quote of last half an hour).
In the absence of last half an hour trading, theoretical futures price would be considered for computation of Daily Contract Settlement Value. Exchanges would be required to disclose the model/methodology used for arriving at the theoretical price.

10.1.10 Expiry/Last trading day

The expiry / last trading day for the contract would be the last Thursday of the expiry month. If any expiry day is a trading holiday, then the expiry/last trading day would be the previous trading day.

10.1.11 Final Contract Settlement Value

The Final Contract Settlement Value would be = $2000 * P_f$

where P_f is the settlement price of the notional bond.

10.1.12 Initial Margin

The Initial Margin requirement shall be based on a worst case loss of a portfolio of an individual client across various scenarios of price changes. The various scenarios of price changes would be so computed so as to cover a 99% VaR over a one day horizon. In order to achieve this, the price scan range may initially be fixed at 3.5 standard deviation. The initial margin so computed would be subject to a minimum of 0.7 % of the notional value of the contract on the first day of trading in Futures on 5 Year Notional Coupon Bearing GoI Security and 0.6 % of the notional value of the contract thereafter. The initial margin shall be deducted from the liquid net worth of the clearing member on an online, real time basis.

10.1.13 Extreme Loss margin

Extreme loss margin of 0.15 % of the notional value of the contract for all gross open positions shall be deducted from the liquid assets of the clearing member on an on line, real time basis.

10.1.14 Calendar spread margin

5 Year Notional Coupon GoI Security futures position at one maturity hedged by an offsetting 5 Year Notional Coupon Bearing GoI Security futures position at a different maturity would be treated as a calendar spread. The calendar spread margin shall be at a value of Rs. 400 for spread of one month and Rs. 600 for spread of two months. The benefit for a calendar spread would continue till expiry of the near month contract.



10.1.15 Formula for determining standard deviation

The exponential moving average method would be used to obtain the volatility estimate every day. The estimate of volatility (σ_t) for the time period t is estimated using the volatility estimate (σ_{t-1}) for the previous time period and the return (r_{t-1}) observed in the futures market during the previous time period. The formula would be as under:

$$(\sigma_t)^2 = \lambda (\sigma_{t-1})^2 + (1 - \lambda) (r_{t-1})^2$$

where

λ is a parameter which determines how rapidly volatility estimates change. The value of λ is fixed at 0.94.

- i. σ_t (sigma) means the standard deviation of daily logarithmic returns of futures price of 5 Year Notional Coupon Bearing Government of India (GoI) Security at time t .
- ii. The "return" is defined as the logarithmic return: $r_t = \ln(P_t/P_{t-1})$ where P_t is the futures price of 5 Year Notional Coupon Bearing GoI Security at time t . The plus/minus 3.5 sigma limits for a 99% VaR based on logarithmic returns would have to be converted into percentage price change by reversing the logarithmic transformation. The percentage margin on short positions would be equal to $100(\exp(3.5\sigma)-1)$ and the percentage margin on long positions would be equal to $100(1-\exp(-3.5\sigma))$. This implies slightly larger margins on short positions than on long positions. The derivatives exchange/clearing corporation may apply the higher margin on both the buy and sell side.
- iii. The volatility estimation and margin fixation methodology should be clearly made known to all market participants so that they can compute the margin for any given closing level of the interest rate futures price. Further, the trading software itself should provide this information on a real time basis on the trading workstation screen.
- iv. During the first time-period on the first day of trading in 5 Year Notional Coupon Bearing GoI Security futures, the sigma would be equal to 0.2 %.



10.1.16 Position Limits

10.1.16.1 *Client Level*

The gross open positions of the client across all contracts should not exceed 6% of the total open interest or Rs 300 crores whichever is higher. The Exchange will disseminate alerts whenever the gross open position of the client exceeds 3% of the total open interest at the end of the previous day's trade.

10.1.16.2 *Trading Member Level*

The gross open positions of the trading member across all contracts should not exceed 15% of the total open interest or Rs. 1000 crores whichever is higher.

10.1.16.3 *Clearing Member Level*

No separate position limit is prescribed at the level of clearing member. However, the clearing member shall ensure that his own trading position and the positions of each trading member clearing through him is within the limits specified above.

10.1.16.4 *FII's*

In case of Foreign Institutional Investors registered with Securities and Exchange Board of India the total gross long (bought) position in cash and Interest Rate Futures markets taken together should not exceed their individual permissible limit for investment in government securities and the total gross short (sold) position, for the purpose of hedging only, should not exceed their long position in the government securities and in Interest Rate Futures, at any point in time.



10.1.17 Settlement Mechanism

- Polling shall be carried out by the Fixed Income, Money Market and Derivatives Association, i.e., FIMMDA;
- The yields (Bid and Ask) of the GoI securities shall be polled from Primary Dealers (PDs) registered with the Reserve Bank of India;
- Each poll shall involve ten PDs who would be selected at random from the universe of PDs;
- Polling would be conducted at three instances, i.e., 11.00 am, 11.30 am and 12.00 pm daily;
- At each instance of polling, for each bond, out of the ten buy yields, two highest and two lowest yields would be treated as outliers and would be ignored. Similarly outliers from ten sell yields would be identified and ignored.
- After rejecting the outliers in above step, there will be $[6 * 2 * 3 * \text{Number of Bonds in Basket}]$ number of remaining yields.
- Average settlement yield (Y_s) is the simple average of the remaining yields. Y_s will be rounded off to 4 decimal digits.
- Y_s determined in above step would be used to calculate present value of notional underlying bond on the basis of formula given below. This will be the final settlement price of the contract.

Final settlement price =

$$\left[\frac{100}{\left(1 + \frac{Y_s}{2}\right)^{10}} \right] + \left[\sum_{k=1}^{10} \frac{100 * \frac{C}{2}}{\left(1 + \frac{Y_s}{2}\right)^k} \right]$$

where,

Y_s: Settlement yield

C: The notional coupon of underlying bond = 7%

Worked out example of settlement price calculation described above has been given in Para 10.1.18.



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10.1.18 Worked out Example of Settlement price calculation

Yield Figures Obtained by Polling of Dealers						
11:00 AM	Bond 1		Bond 2		Bond 3	
Dealer	Buy Yields	Sell Yields	Buy Yields	Sell Yields	Buy Yields	Sell Yields
Dealer 1	5.9600	5.9500	(6.0100)	(6.0000)	(6.0250)	(6.0425)
Dealer 2	5.9625	5.9500	6.0025	5.9925	6.0450	6.0300
Dealer 3	5.9650	(5.9550)	6.0050	5.9950	6.0450	6.0350
Dealer 4	(5.9600)	(5.9550)	(6.0025)	5.9975	(6.0425)	6.0375
Dealer 5	5.9625	5.9500	(6.0025)	5.9900	(6.0550)	(6.0275)
Dealer 6	(5.9725)	5.9525	(6.0175)	5.9975	(6.0575)	6.0375
Dealer 7	(5.9700)	5.9500	6.0100	(5.9900)	6.0475	(6.0275)
Dealer 8	(5.9600)	5.9500	6.0100	(6.0000)	6.0500	(6.0400)
Dealer 9	5.9625	(5.9475)	6.0050	5.9950	6.0450	6.0350
Dealer 10	5.9700	(5.9500)	6.0100	(5.9900)	6.0450	6.0350
11:30 AM	Bond 1		Bond 2		Bond 3	
Dealer	Buy Yields	Sell Yields	Buy Yields	Sell Yields	Buy Yields	Sell Yields
Dealer 1	5.9700	5.9600	6.0150	6.0050	(6.0600)	(6.0500)
Dealer 2	(5.9750)	5.9600	6.0150	6.0000	6.0550	6.0375
Dealer 3	5.9750	(5.9650)	6.0175	(6.0075)	6.0575	(6.0475)
Dealer 4	5.9700	(5.9650)	6.0125	(6.0075)	6.0525	6.0475
Dealer 5	(5.9700)	(5.9500)	(6.0100)	(5.9900)	(6.0450)	(6.0250)
Dealer 6	5.9725	5.9600	6.0125	6.0000	6.0550	6.0400
Dealer 7	(5.9775)	5.9575	(6.0200)	6.0000	(6.0600)	6.0400
Dealer 8	5.9750	5.9550	(6.0200)	6.0000	6.0550	(6.0350)
Dealer 9	5.9750	(5.9550)	6.0150	6.0050	6.0600	6.0400
Dealer 10	(5.9700)	5.9600	(6.0050)	(5.9950)	(6.0500)	6.0400
12:00 PM	Bond 1		Bond 2		Bond 3	
Dealer	Buy Yields	Sell Yields	Buy Yields	Sell Yields	Buy Yields	Sell Yields
Dealer 1	5.9750	(5.9650)	6.0200	(6.0100)	(6.0650)	(6.0550)
Dealer 2	5.9750	5.9600	6.0175	6.0025	6.0575	6.0450
Dealer 3	5.9750	(5.9650)	6.0175	(6.0075)	6.0575	(6.0475)
Dealer 4	(5.9700)	(5.9500)	6.0150	(5.9950)	6.0600	6.0400
Dealer 5	(5.9800)	5.9600	(6.0225)	6.0025	(6.0625)	6.0425
Dealer 6	5.9750	(5.9550)	6.0200	6.0000	6.0600	(6.0400)
Dealer 7	(5.9800)	5.9600	6.0200	(6.0000)	6.0600	(6.0400)



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Dealer 8	5.9800	5.9600	(6.0250)	6.0050	6.0625	6.0425
Dealer 9	5.9750	5.9650	(6.0150)	6.0050	(6.0550)	6.0450
Dealer 10	(5.9750)	5.9650	(6.0150)	6.0050	(6.0575)	6.0475
<ul style="list-style-type: none">▪ () : Outlier yields, which are two highest and two lowest values on sell and buy side for individual bond at a particular instant of polling▪ Average of all the yields except those in parentheses () = 6.005787▪ Settlement Yield = Average yield rounded off to 4 decimal digits = 6.0058						



Futures Settlement Price =

$$\left[\frac{100}{\left(1 + \frac{.060058}{2}\right)^{10}} \right] + \left[\sum_{k=1}^{10} \frac{100 * \frac{.07}{2}}{\left(1 + \frac{.060058}{2}\right)^k} \right]$$

= Rs. 104.2397

10.2 Regulatory and Legal aspects

10.2.1 Exchange

The Interest Rate Futures on 5-year GoI Securities shall be traded on the Currency Derivative Segment of a recognized Stock Exchange. Eligible Stock Exchanges may introduce these contracts after obtaining prior approval from SEBI.



11 EXCHANGE TRADED CASH SETTLED INTEREST RATE FUTURES (IRF) ON 10-YEAR GOVERNMENT OF INDIA SECURITY¹⁴

The product specifications, position limits and risk management framework for cash settled futures on 10-year GoI security is given in subsequent paragraphs. Two different designs (Option-A: Coupon bearing Government of India security as underlying and Option-B: Coupon bearing notional 10-year Government of India security with settlement price based on basket of Securities as underlying) are permitted for cash settled futures on 10-year GoI Security. Exchanges are permitted to launch contracts on either one or both of these options.

Before the launch of the product, the Stock Exchange/Clearing Corporation shall submit the proposal to SEBI for approval giving the details of contract specifications, risk management framework, the safeguards and the risk protection mechanisms, the surveillance systems etc

11.1 Underlying

Option-A: GoI security of face value Rs 100 with semi-annual coupon and residual maturity between 9 and 10 years on the day of expiry of IRF contract, as decided by stock exchanges in consultation with FIMMDA.

Option-B: Notional coupon bearing 10-year GoI security with a notional coupon paid semi-annually and face value of Rs 100. For each contract, there shall be basket of Government of India Securities, with residual maturity between 9 and 11 years on the day of expiry of IRF contract, with appropriate weight assigned to each security in the basket. Exchanges shall determine criteria for including securities in the basket and determining their weights such as trading volumes in cash market, minimum outstanding etc.

Exchanges shall disclose the criteria for selection of the underlying bond/s in both options of cash settled Interest Rate Futures on 10 -Year Government of India security.

11.2 Coupon

Option-A: Coupon shall be same as that of the underlying bond.

¹⁴ Revised vide Circular CIR/MRD/DRMNP/35/2013 dated December 05, 2013



Option-B: To be decided by the exchange to reflect the interest rate environment during the launch of the contract.

11.3 Trading Hours

9 a.m. to 5.00 p.m. on all working days from Monday to Friday. Exchanges shall align the trading hours of IRF with that of underlying market in case of change of trading hours of underlying NDS-OM platform.

11.4 Size of the Contract

Each futures contract shall represent 2000 underlying bonds of total face value of INR 2,00,000/-.

11.5 Quotation

The Quotation shall be similar to the quoted price of the Government of India security.

11.6 Tenure of the Contracts

To begin with, serial monthly contracts with maximum maturity of 3 months shall be available.

11.7 Contract Value

The contract value shall be: = Quoted price * 2000

11.8 Daily Contract Settlement Value

The Daily Contract Settlement Value shall be: = P_w *2000

(Here P_w is volume weighted average futures price of last half an hour).

In the absence of last half an hour trading, theoretical futures price shall be considered for computation of Daily Contract Settlement Value. For computing theoretical futures price, following shall be considered:-

- i Weighted average price of underlying bond in last two hours of trading on NDS-OM
- ii If no trades are executed in the underlying bond then, a theoretical price with reference to FIMMDA rates shall be used.



Exchanges shall be required to disclose the model/methodology used for arriving at the theoretical price.

11.9 Expiry/Last trading day

The expiry / last trading day for the contract shall be the last Thursday of the expiry month. If any expiry day is a trading holiday, then the expiry/ last trading day shall be the previous trading day.

11.10 Settlement Day

Settlement day shall be the next working day of the Expiry day.

11.11 Settlement Mechanism

Settlement shall happen in cash in INR.

11.12 Final Contract Settlement Value

The Final Contract Settlement Value shall be = $2000 * P_f$

where P_f is the final settlement price of the Underlying/Notional bond, which shall be determined as given below.

Option-A:

P_f will be arrived at by calculating the weighted average price of the underlying bond based on the prices during the last two hours of the trading on NDS-OM. If less than 5 trades are executed in the underlying bond during the last two hours of trading, then FIMMDA price shall be used for final settlement.

Option-B:

The final settlement price shall be based on average settlement yield (Y_s) which shall be the weighted average of the yields of bonds in the underlying basket, where weights will be the assigned weight of the bonds in the underlying basket. Y_s will be rounded off to 4 decimal digits. For each bond in the basket, yield shall be calculated by determining weighted average yield of the bond based on last two hours of the trading in NDS-OM. If less than 5 trades are executed in the bond during the last two hours



of trading, then FIMMDA price shall be used for determining the yields of individual bonds in the basket.

$P_f =$

$$\left[\frac{100}{\left(1 + \frac{Y_s}{2}\right)^{20}} \right] + \left[\sum_{k=1}^{20} \frac{100 * \frac{C}{2}}{\left(1 + \frac{Y_s}{2}\right)^k} \right]$$

where,

Ys: Settlement yield

C: The notional coupon of underlying bond

11.13 Position Limits

Following position limits shall be applicable for IRF contracts:

i Client Level

The gross open positions of the client across all contracts shall not exceed 3% of the total open interest or INR 200 crores, whichever is higher.

ii Trading Member Level

The gross open positions of the trading member across all contracts shall not exceed 10% of the total open interest or INR 600 crores, whichever is higher.

iii Clearing Member Level

No separate position limit is prescribed at the level of clearing member. However, the clearing member shall ensure that his own trading position and the positions of each trading member clearing through him is within the limits specified above.



iv FIIs

The gross open positions of the FII across all contracts shall not exceed 10% of the total open interest or INR 600 crores, whichever is higher.

Additional restriction: The total gross short (sold) position of each FII in IRF shall not exceed its long position in the government securities and in Interest Rate Futures, at any point in time. The total gross long (bought) position in cash and IRF markets taken together for all FIIs shall not exceed the aggregate permissible limit for investment in government securities for FIIs.

FIIs shall ensure compliance with the above limits. Stringent action shall be taken against FII in case of violation of the limits.

Monitoring Mechanism:-¹⁵

SEBI vide circulars dated April 1, 2013 and July 18, 2012 has put in place mechanism for monitoring and enforcing limits of FIIs in Government Securities and corporate bonds by directing depositories to disseminate information regarding the total FII investment values in Government and corporate bonds. It has been decided in consultation with RBI that this monitoring mechanism shall also incorporate monitoring of gross long positions of FIIs in IRF as mentioned in Paragraph 'iv' above. The mechanism shall be as follows:

- a. Stock exchanges shall provide information regarding aggregate gross long position in IRF of all FIIs taken together at end of the day to the depositories NSDL and CDSL and shall also publish the same on their website.
- b. NSDL and CDSL shall aggregate the gross long position of FIIs in IRF in each exchange and add it with investment of FIIs in Government Debt for monitoring adherence to the regulatory limit prescribed in paragraph 13 (d) of the SEBI Circular on IRF dated Dec 5, 2013 / paragraph 4.2 of the RBI

¹⁵ Modified vide Circular CIR/MRD/DRMNP/02/2014 dated January 20, 2014



directions on IRF dated Dec 5, 2013 and shall jointly publish/disseminate the same on their website, on daily basis.

- c. As and when the total of cash and IRF of all FIIs as determined in sub-paragraph b above reaches 85% of the permissible limit, NSDL and CDSL shall inform RBI (CGM-in-Charge, Foreign Exchange Department), SEBI and Stock Exchanges.
- d. Once 90% of limit is utilized, NSDL and CDSL shall inform RBI, SEBI and Stock Exchanges about the same. Stock Exchanges shall notify the same to the market and thereafter FIIs shall not further increase their long position in IRF till the time the overall long position of FIIs in cash and IRF comes below 85% of existing permissible limit.

v Exchange Level Overall Position Limit:

Following limits shall be applicable on overall open interest on derivatives contracts on each underlying per exchange:

Option-A: INR 25,000 crore or 25% of the outstanding of underlying bond whichever is higher.

Option-B: INR 30,000 crore or 20% of the outstanding of all underlying bonds whichever is higher.

11.14 Price Bands

For every IRF contract, Stock Exchanges shall set an initial price band at 3% of the previous closing price thus preventing acceptance of orders for execution that are placed beyond the set band. Whenever a trade in any contract is executed at the highest/lowest price of the band, stock exchanges may expand the price band for that contract by 0.5% in that direction after 30 minutes after taking into account market trend. However, no more than 2 expansions in the price band shall be allowed within a day. Further, SEBI in consultation with RBI may halt the trading in case of extreme volatility in the IRF market.



11.15 Risk Management Framework

Clearing Corporations shall determine appropriate risk management framework for the product and submit the same to SEBI for approval. The Initial Margin requirement shall be based on a worst case loss of a portfolio of an individual client across various scenarios of price changes. The various scenarios of price changes would be so computed so as to cover a 99% VaR over a one day horizon. Further Extreme Loss margins and calendar spread margins shall also be prescribed by clearing corporations. Margins shall be deducted from the liquid assets of the clearing member on an on line, real time basis.



12 DERIVATIVE CONTRACTS ON FOREIGN INDICES

12.1 Underlying

Derivative contracts on foreign stock indices are permitted as per the eligibility criteria.

12.2 Eligibility Criteria

A stock exchange may introduce derivatives on a foreign stock index if:

- i. Derivatives on that Index is available on any of the stock exchanges listed in table given below :

S No.	Exchange
Americas	
1.	BM&FBOVESPA
2.	Chicago Board Options Exchange (CBOE)
3.	CME Group
4.	ICE Futures U.S.
5.	International Securities Exchange (ISE)
6.	MexDer
7.	Montréal Exchange
8.	NASDAQ OMX PHLX
Asia Pacific	
1.	Australian Securities Exchange
2.	Bursa Malaysia
3.	Hong Kong Exchanges
4.	Korea Exchange
5.	Osaka Securities Exchange
6.	Singapore Exchange
7.	TAIFEX
8.	Tokyo Stock Exchange Group
Europe, Africa, Middle East	
1.	Borsa Italiana
2.	Eurex
3.	Johannesburg SE
4.	MEFF
5.	NASDAQ OMX Nordic Exchange
6.	NYSE Liffe (European markets)
7.	Oslo Børs
8.	Tel Aviv SE



- ii. In terms of trading volumes (number of contracts), derivatives on that Index figure among the top 15 Index derivatives globally.
OR
That Index has a market capitalization of at least USD 100 billion.
- iii. That index is “broad based”. An Index is broad based if :
 - a. The Index consists of a minimum of 10 constituent stocks and
 - b. No single constituent stock has more than 25% of the weight, computed in terms of free float market capitalization, in the Index.

12.3 Failure to meet Eligibility Criteria

After introduction of derivatives on a particular stock index, if that stock index fails to meet any of the eligibility criteria for three months consecutively, no fresh contract shall be introduced on that Index. However, the existing unexpired contracts would be traded till expiry and new strikes may be introduced on those contracts.

12.4 Currency Denomination

The absolute numerical value of the underlying foreign stock index shall be denominated in Indian Rupees (INR). The derivatives contracts on that foreign stock index would be denominated traded and settled in Indian rupees.

12.5 Risk Management Framework

The stock exchange shall submit the risk management framework along with its application for introduction of derivatives on foreign stock indices.

12.6 Position Limits

The Trading Member/Mutual Funds position limits (higher of Rs. 500 crore or 15% of the total open interest in Index derivatives) as well as the disclosure requirement for clients whose position exceed 15% of the open interest of the market, as applicable to domestic stock index derivatives, shall be applicable to derivatives on foreign stock indices.

12.7 Information Sharing

The stock exchange shall ensure that material price sensitive information and information relating to regulatory actions and corporate actions relating to constituent stocks of the foreign stock index, as available in public domain, are available to Indian investors.



12.8 Legal Compliance

The stock exchange shall ensure compliance with any other legal provisions relating to introduction of derivatives on foreign stock indices and obtain requisite approvals from the concerned regulatory bodies.

12.9 Enforcement

Any kind of market demeanor in the market for the derivatives on foreign stock indices shall be subject to the appropriate enforcement actions, as applicable to the market for any securities.

12.10 Trading

Trading in derivatives on Foreign Stock Indices shall be restricted to residents in India.



13 MISCELLANEOUS

13.1 Corporate Action Adjustments:

Options on common stock trade on both NSE & BSE the corporate adjustment for the Option on the same underlying should be uniform across markets. While a uniform adjustment methodology could be adopted for certain corporate action, it would be difficult to specify any uniform policy for all corporate actions at this stage. For this purpose, it has been decided to constitute a group comprising NSE, BSE and other knowledgeable persons, which would decide a uniform course of action for adjusting stock option contracts on corporate actions, taking into account best practices followed internationally, where a uniform criterion cannot be laid down at present. However, certain adjustments for Corporate Actions for Stock Options would be as follows:

- a. The basis for any adjustment for corporate action shall be such that the value of the position of the market participants on cum and ex-date for corporate action shall continue to remain the same as far as possible. This will facilitate in retaining the relative status of positions viz. in-the-money, at-the-money and out-of-money. This will also address issues related to exercise and assignments.
- b. Any adjustment for corporate actions shall be carried out on the last day on which a security is traded on a cum basis in the underlying cash market.
- c. Adjustments shall mean modifications to positions and/or contract specifications as listed below such that the basic premise of adjustment laid down in para a. above is satisfied :
 1. Strike Price
 2. Position
 3. Market Lot/Multiplier

The adjustments shall be carried out on any or all of the above based on the nature of the corporate action. The adjustments for corporate actions shall be carried out on all open, exercised as well as assigned positions.

The corporate actions may be broadly classified under stock benefits and cash benefits. The various stock benefits declared by the issuer of capital are:

- Bonus
- Rights
- Merger/De-merger
- Amalgamation
- Splits
- Consolidations
- Hive-off
- Warrants, and



- Secured Premium Notes (SPNs) among others.
- Extraordinary dividends

The methodology proposed to be followed for adjustment of various corporate actions to be carried out are as follows :

Bonus, Stock Splits and Consolidations

Strike Price: The new strike price shall be arrived at by dividing the old strike price by the adjustment factor as under.

Market Lot / Multiplier: The new market lot/multiplier shall be arrived at by multiplying the old market lot by the adjustment factor as under.

Position: The new position shall be arrived at by multiplying the old position by the adjustment factor as under.

The adjustment factor for Bonus, Stock Splits and Consolidations is arrived at as follows:

Bonus

Ratio – A: B Adjustment factor: $(A+B)/B$

Stock Splits and Consolidations

Ratio – A: B Adjustment factor: A/B

Right

Ratio – A: B and Issue price of rights is S.

Adjustment factor: $(P-E)/P$

Where P = Spot price on last cum date

$$E = (P-S) \times A / (A+B)$$

Strike Price: The new strike price shall be arrived at by multiplying the old strike price by the adjustment factor as under.

Market Lot / Multiplier: The new market lot/multiplier shall be arrived at by dividing the old market lot by the adjustment factor as under.

The above methodology may result in fractions due to the corporate action e.g. a bonus ratio of 3:7. With a view to minimizing fraction settlements, the following methodology is proposed to be adopted:

- a. Compute value of the position before adjustment
- b. Compute value of the position taking into account the exact adjustment factor



- c. Carry out rounding off for the Strike Price and Market Lot
- d. Compute value of the position based on the revised strike price and market lot

The difference between a and d above, if any, shall be decided in the manner laid down by the group by adjusting Strike Price or Market Lot, so that no forced closure of open position is mandated.

Dividends which are below 10% of the market value of the underlying stock would be deemed to be ordinary dividends and no adjustment in the Strike Price would be made for ordinary dividends. For extra-ordinary dividends, above 10% of the market value of the underlying stock, the Strike Price would be adjusted.

The Exchange may on a case to case basis carry out adjustments for other corporate actions as decided by the group in conformity with the above guidelines.

Stock Exchanges to give notice of four weeks to the market for any change in the contract specifications and also in case of change in a constituent of an Index on which derivatives are available.

Clause 16 of the Equity Listing Agreement includes that the company on whose stocks, derivatives are available or whose stocks form part of an index on which derivatives are available, shall give a notice period of 30 days to stock exchanges for corporate actions like mergers, de-mergers, splits and bonus shares.

All the following conditions shall be met in the case of shares of a company undergoing restructuring through any means for eligibility to re-introduce derivative contracts on that company from the first day of listing of the post restructured company/(s) 's (as the case may be) stock (herein referred to as post restructured company) in the underlying market,

- a. the futures and options contracts on the stock of the original (pre restructure) company were traded on any exchange prior to its restructuring;
- b. the pre restructured company had a market capitalisation of at least Rs.1000 crores prior to its restructuring;
- c. the post restructured company would be treated like a new stock and if it is, in the opinion of the exchange, likely to be at least one-third the size of the pre restructuring company in terms of revenues, or assets, or (where appropriate) analyst valuations; and
- d. in the opinion of the exchange, the scheme of restructuring does not suggest that the post restructured company would have any characteristic (for example extremely low free float) that would render the company ineligible for derivatives trading,



If the above conditions are satisfied, then the exchange shall take the following course of action in dealing with the existing derivative contracts on the pre-restructured company and introduction of fresh contracts on the post restructured company:

- a. In the contract month in which the post restructured company begins to trade, the Exchange shall introduce near month, middle month and far month derivative contracts on the stock of the restructured company.
- b. In subsequent contract months, the normal rules for entry and exit of stocks in terms of eligibility requirements would apply. If these tests are not met, the exchange shall not permit further derivative contracts on this stock and future month series shall not be introduced.

The Exchanges shall determine the manner of adjustment in derivative contracts at the time of corporate actions in conformity with the following principles:-

- a. The basis for any adjustment for corporate action shall be such that the value of the position of the market participants on cum and ex-date for corporate action shall continue to remain the same as far as possible.
- b. The exchanges shall take into account best practices followed internationally.
- c. The Exchanges shall consider the circumstances of a particular case and the general interest of investors in the market.
- d. The Exchanges shall ensure that the adjustment methodology for a corporate action is uniform across all exchanges.

13.2 Reporting and Disclosure

13.2.1 Monthly Activity Report

The exchange is requested to submit information to SEBI on a monthly basis in the format as prescribed by SEBI from time to time.

13.2.2 Reporting of derivative transactions to the media and the newspapers

The Derivative Exchanges/Segments and their Clearing House/Corporation are required to report the following details for the transactions in derivative contracts, to the media/newspapers, on a daily basis:

- a. Contracts Description
- b. Number of contracts traded



- c. Notional Value (for option contracts, notional value would be calculated as [strike + Premium] * lot size * number of contracts traded).
- d. Open
- e. High
- f. Low
- g. Value of premium traded (for option contracts)
- h. Open Interest (in number of contracts)

13.3 Straight through Processing

Straight Through Processing (STP) is generally understood to be a mechanism that automates the end to end processing of transactions of financial instruments. It involves use of a system to process or control all elements of the work flow of a financial transaction, what are commonly known as the Front, Middle, Back office and General Ledger. In other words, STP allows electronic capturing and processing of transactions in one pass from the point of order origination to final settlement. STP thus streamlines the process of trade execution and settlement and avoids manual entry and re-entry of the details of the same trade by different market intermediaries and participants. Usage of STP enables orders to be processed, confirmed, settled in a shorter time period and in a more cost effective manner with fewer errors. Apart from compressing the clearing and settlement time, STP also provides a flexible, cost effective infrastructure, which enables e-business expansion through online processing and access to enterprise data.

To resolve the issue of inter-operability between the STP Service Providers, a STP Centralised Hub would be setup in consultation with the stock exchanges and the STP Service Providers. Currently this STP Centralised Hub has been setup and made operational by NSE. NSE has obtained the necessary approvals from Department of Telecommunications (DoT) as an Internet Service Provider (ISP). Subsequently this STP Centralised Hub would be further developed jointly with BSE.

In view of the aforesaid developments, it has been decided that all the institutional trades executed on the stock exchanges would be mandatorily processed through the STP System. An institutional trade for the purpose of STP shall mean a trade which is settled through a custodian. Institutional trades where electronic contract note in the prescribed format is issued, no physical contract note (for such a trade) shall be issued by the brokers. The system flow of the STP framework would be as follows:



- a. A STP user intending to send an instruction would send the message to his STP service provider after digitally signing the same.
- b. The STP service provider would verify the signature of the STP user and forward it to the
 - i) Recipient STP user, if the recipient STP user is availing services of the same STP service provider; or the
 - ii) STP centralized hub if the recipient STP user is not with the same STP service provider. In such a case the STP service provider would be required to prepare a message as per the STP centralized hub prescribed message format, enclose the user's message, digitally sign the message and then send it to the STP centralized hub
- c. On receipt of the message by the STP centralized hub, the STP centralized hub would
 - i) verify the signature of the sending STP service provider only.
 - ii) send an acknowledgment to the sending STP service provider.
- d. The STP centralized hub would forward the message to the recipient STP service provider after digitally signing on the message.
- e. The recipient STP service provider on receipt of the message from the STP centralized hub shall verify the signature of the STP centralized hub, verify if the recipient STP user is associated with itself and send an appropriate acknowledgment with digital signature to the STP centralized hub. The STP centralized hub would in turn forward the acknowledgment (received from the recipient STP service provider) duly signed to the sending STP service provider.
- f. The recipient STP service provider shall forward the message to the recipient STP user. The recipient STP user would receive the message and verify the signature of the recipient STP service provider and sending STP user.

To enable inter-operation, the STP centralized hub would provide a utility / client software to the STP service provider. The STP service provider's point of interface with the STP centralized hub would be through this utility / client software. The PKI (Public key infrastructure) system for the interface shall be implemented at a later stage. The block diagram of the entire STP System is enclosed in [Annexure I](#).

SEBI in order to regulate the STP service has issued the SEBI (STP centralised hub and STP service providers) Guidelines, 2004 (herein referred to as "STP Guidelines") which also prescribes the model agreement between the STP centralised hub and the STP service providers.



The STP guidelines prescribes the eligibility criteria and conditions of approval for the STP centralised hub and the STP service providers, obligations and responsibilities of the STP centralized hub and the STP service providers and code of conduct for the STP service providers. The STP centralised hub and the STP service providers shall abide by these Guidelines. The guidelines are given as [Annexure II](#).

To prescribe contractual obligations between the STP centralised hub and the STP service providers and to facilitate standardisation of service, a model agreement between the STP centralised hub and the STP service providers has also been prescribed by SEBI and is prescribed as Schedule II of the STP Guidelines. The agreement between the STP centralised hub and the STP service provider shall include the provisions included in the model agreement.

STP users shall be required to use IFN 515 messaging standard for issue of contract note, IFN 548 / 598 for confirmation of the contract note by the custodian / fund manager to the broker and messaging formats IFN 540 to 547 for settlement instructions and their confirmations between the fund manager and the custodians for settlement of such trades.

The messaging formats prescribed for STP in India is based on the internationally accepted ISO 15022 messaging standards. However the descriptors for each messaging format had been formulated in a manner to describe the practices followed in the Indian securities' market (from the perspective of settlement obligation of a stock broker). However it has been observed that that there has been some confusion in certain sections of the market with respect to the intended use of the messaging format on account of the messaging descriptors.

Accordingly it is clarified that the descriptors shall mean the following:

- a. IFN 540: settlement instruction for a buy trade free of payment
- b. IFN 541: settlement instruction for a buy trade against payment
- c. IFN 542: settlement instruction for a sell trade free of payment
- d. IFN 543: settlement instruction for a sell trade against payment
- e. IFN 544: confirmation of a settlement instruction for a buy trade free of payment (response to IFN 540)
- f. IFN 545: confirmation of a settlement instruction for a buy trade against payment (response to IFN 541)
- g. IFN 546: confirmation of a settlement instruction for a sell trade free of payment (response to IFN 542).



- h. IFN 547: confirmation of a settlement instruction for a sell trade against payment (response to IFN 543)

It is also clarified that in the IFN 515 message, if the trade is intended to be settled by the custodian with the Clearing Corporation (by accepting the settlement obligation), then it shall be termed as "FREE" and if the trade is intended to be settled by the broker with the Clearing Corporation then it shall be termed as "APMT" (meaning against payment) in the tag 22H of the IFN 515 message.

In order to integrate the Securities Transaction Tax (STT) in the STP system, it would be necessary to provide for necessary fields in the appropriate messaging standards. After deliberation with the STP centralised hub and the STP service providers, it has been decided to make the following modifications in the prescribed messaging formats:

- a. Message Types that shall be modified are **IFN515, IFN540, IFN541, IFN542 and IFN543**
- b. A Qualifier shall be used to identify Securities Transaction Tax Amount: "COUN", Country, National Federal Tax.
- c. The change in the ISO Structure for the impacted message types shall be as follows:

M	16R	13.3.1	AMT	Start block	of 13.3.2
M	19A	Amount	:4!c//3!a11	To identify the Securities Transaction Tax Amount	Format: (Qualifier) // (Currency Code) (Amount) For: Securities Transaction tax Amount Qualifier: "COUN" (4 Upper case Characters) Narrative: "INR" (3 Upper Letters) Amount: Up to 10 digits (only Integer value allowed) followed by a comma (used as decimal sign) . Comma is mandatory. Amount can be zero or greater than zero.
M	16S	13.3.3	AMT	End block	of 13.3.4



- d. Securities Transaction Tax Block shall be placed before the Settlement Amount Block in the stated Message Types. (IFN515, IFN540, IFN541, IFN542 and IFN543)
- e. Securities Transaction Tax block will be **mandatory amount block** in IFN515 and **optional amount block** in IFN540, IFN541, IFN542 and IFN543.
- f. If the Contract Note (issued by means of IFN 515) is rejected on the basis of Securities Transaction Tax amount then the reason for the rejection shall be specified in the "Tag70D Narrative" field and "Tag 24B Reason" specified should be "NARR".

SEBI has extended the facility of issuance of ECNs as a legal document using Straight Through Processing (STP) to the equity derivatives segment also. Accordingly a model contract note in electronic form (IFN 515 messaging format) and confirmation of electronic contract note (IFN 598 messaging format) are enclosed as [Annexure III](#). The Exchanges are advised to modify/amend their bye-laws, rules and regulations to;¹⁶

- a. Permit issuance of electronic contract note including all the standard pre-printed terms and conditions as given in the physical contract note.
- b. Permit signing of the electronic contract note with a digital signature so as to make the modified format of the electronic contract note a valid legal document like the physical contract note.
- c. Prescribe a standard format for the issuance of the electronic contract note.

13.4 Certification

The guidelines for conduct of certification examination for broker/dealers and salespersons in the derivative market are given as [Annexure IV](#).

13.5 Introduction of Volatility and Bond Index

13.5.1 Volatility Index

Exchanges shall construct a Volatility Index and disseminate the same. The Exchanges are free to decide whether they want to adopt any of the Volatility Index computation models available globally or may like to

¹⁶ Revised vide MIRSD/ON/114/2013 dated April 05, 2013



develop their own model for computation of Volatility Index. The detailed methodology for computing the Volatility Index shall be disseminated by the Exchange for the benefit of the market participants and investors.

13.5.2 Derivatives on Volatility Index

Stock Exchanges are permitted to introduce derivative contracts on Volatility Index, subject to the conditions that:

- The underlying Volatility Index has a track record of at least one year.
- The Exchange has in place the appropriate risk management framework for such derivative contracts.

Before introduction of such contracts, the Stock Exchanges shall submit the following to SEBI:

- I. Contract specifications
- II. Position and Exercise Limits
- III. Margins
- IV. The economic purpose it is intended to serve
- V. Likely contribution to market development
- VI. The safeguards and the risk protection mechanism adopted by the exchange to ensure market integrity, protection of investors and smooth and orderly trading
- VII. The infrastructure of the exchange and the surveillance system to effectively monitor trading in such contracts, and
- VIII. Details of settlement procedures & systems
- IX. Details of back testing of the margin calculation for a period of one year considering a call and a put option on the underlying with a delta of 0.25 & -0.25 respectively and actual value of the underlying

13.5.3 Bond Index

It has been decided that, to begin with, Exchanges shall construct a Bond Index (both corporate & GOI) and disseminate the same. The Exchanges are free to decide whether they want to adopt any of the Bond Index computation models available globally or may like to develop their own model for computation of Bond Index. The detailed methodology for computing the Bond Index shall be disseminated by the Exchange for the benefit of the market participants and investors. Based on experience gained and awareness generated, derivatives on Bond Index shall be considered for introduction in due course of time.



13.6 Modification of Client Codes of Non-institutional Trades Executed on Stock Exchanges (All Segments)

13.6.1 Modification of Client Codes

Stock Exchanges may allow modifications of client codes of non-institutional trades only to rectify a genuine error in entry of client code at the time of placing / modifying the related order in all segments (derivatives as well as cash).

The following shall be classified as genuine errors for the purpose of client code modification:

- a. Error due to communication and/or punching or typing such that the original client code/name and the modified client code/name are similar to each other.
- b. Modification within relatives ('Relative' for this purpose would mean as defined under Companies Act, 1956).

If a Stock Exchange wishes to allow trading members to modify client codes of non-institutional trades, it shall:

- a. Set up a mechanism to monitor that the trading members modify client codes only to rectify a genuine error.
- b. Ensure that modification of client codes is covered in the internal audit of trading members prescribed by SEBI through its circular No. MRD/DMSCir-29/2008 dated October 21, 2008.

13.6.2 Penalty Structure

- i. The Stock Exchanges shall levy a penalty from trading members and credit the same to its Investor Protection Fund as under:

'a' as % of 'b'	Penalty as % of 'a'
≤ 5	1
> 5	2

Where,

a = Value (turnover) of non-institutional trades where client codes have been modified by a trading member in a segment during a month.

b = Value (turnover) of non-institutional trades of the trading member in the segment during the month.



- ii. The Stock Exchange shall conduct a special inspection of the trading member to ascertain whether the modifications of client codes are being carried out only to rectify genuine errors as mentioned above, if 'a' as a % of 'b', as defined above, exceeds 1% during a month and take appropriate disciplinary action, if any deficiency is observed.
- iii. Exemption from penalty: Shifting of trades to the error account of broker would not be treated as modification of client code, provided the trades in error account are subsequently liquidated in the market and not shifted to some other code.

Further, brokers shall disclose the codes of accounts which are classified as 'error accounts' to the Exchanges. Each broker should have a well documented error policy approved by the management of the broker. Exchanges shall periodically review the trades flowing to the error accounts of the brokers.

SEBI shall examine implementation of the provisions mentioned above under Section 12.8 during inspection of the Stock Exchanges.

13.7 Short-collection/Non-collection of client margins

- a. Stock Exchanges shall levy following penalty on trading members for short-collection/non-collection of margins from clients in Equity and Currency Derivatives segments:

For each member	
'a'	s %age of 'a'
(< Rs 1 lakh) And (< 10% of applicable margin)	0.5
(≥ Rs 1 lakh) Or (≥ 10% of applicable margin)	1.0

Where a = Short-collection/non-collection of margins per client per segment per day

- b. If short/non-collection of margins for a client continues for more than 3 consecutive days, then penalty of 5% of the shortfall amount shall be levied for each day of continued shortfall beyond the 3rd day of shortfall.
- c. If short/non-collection of margins for a client takes place for more than 5 days in a month, then penalty of 5% of the shortfall amount



shall be levied for each day, during the month, beyond the 5th day of shortfall.

- d. Notwithstanding the above, if short collection of margin from clients in equity derivatives segment is caused due to movement of 3% or more in the index (close to close value of Nifty/Sensex for all equity derivatives) on a given day, (day T), then, the penalty for short collection shall be imposed only if the shortfall continues to T+2 day.

Further, in currency derivatives segment, if short collection/non-collection of margin from clients is caused due to movement of 1% or more in the USD-INR currency pair (close to close settlement price of the near month currency futures) on a given day then the penalty for short collection shall be imposed only if shortfall continues to T+2 day. The currency pair being considered for this movement would be only the USD-INR and the condition of two days of continued shortfall shall be applicable for all currencies.

- e. All instances of non-reporting shall amount to 100% short collection and the penalty as applicable shall be charged on these instances in respect of short collection.
- f. If during inspection it is found that a member has reported falsely the margin collected from clients, the member shall be penalized 100% of the falsely reported amount along with suspension of trading for 1 day in that segment.
- g. The penalty shall be collected by the Stock Exchange within five days of the last working day of the trading month and credited to its Investor Protection Fund.
- h. The margin statement which is forwarded on a daily basis by the broker to the clients shall include a column stating the margin charged by the Exchange/Clearing Corporation.
- i. When penalty is being collected by a broker for short collection / non-collection from a client, then the broker shall provide the relevant supporting documents to the client.

SEBI shall examine implementation of the provisions mentioned above under Section 12.9 during inspection of the Stock Exchanges.



13.8 Liquidity Enhancement Schemes for Illiquid Securities in Equity Derivatives Segment

Stock Exchanges are permitted to introduce one or more liquidity enhancement schemes (LES) to enhance liquidity of illiquid securities in their equity derivatives segments subject to following conditions:

1. The Stock Exchange shall ensure that the LES, including any modification therein or its discontinuation,
 - a. has the prior approval of its Board and its implementation and outcome is monitored by the Board at quarterly intervals;
 - b. prescribes and monitors the obligations of liquidity enhancers (liquidity provider, market maker, maker-taker or by whatever name called);
 - c. disburses the incentives linked to performance;
 - d. is objective, transparent, non-discretionary and non-discriminatory;
 - e. does not compromise market integrity or risk management;
 - f. complies with all the relevant laws; and
 - g. is disclosed to market at least 15 days in advance and its outcome (incentives granted and volume achieved – liquidity enhancer wise and security wise) is disseminated monthly within a week of the close of the month.
2. The LES can be introduced in any of the following securities:
 - a. New securities permitted on the Stock Exchange after the date of this circular,
 - b. Securities in case of a new Stock Exchange / new Segment, and
 - c. Securities where the average trading volume for the last 60 trading days on the Stock Exchange is less than 0.1% of market capitalization of the underlying.
3. The LES can be discontinued at any time with an advance notice of 15 days. It shall, however, be discontinued as soon as the average trading volume on the Stock Exchange, during the last 60 trading days, reaches 1% of market capitalization of the underlying, or six months from introduction of the scheme, whichever is earlier.
4. If a Stock Exchange introduces LES on securities eligible under Para 2 above, other Stock Exchanges may introduce LES in the same / competing securities even if those are not eligible under Para 2 above. Such LES of the



other Stock Exchanges cannot be continued beyond the period of LES of the former stock Exchange.

5. The incentives under LES shall be transparent and measurable. These may take either of the two forms:
 - a. Discount in fees, adjustment in fees in other segments, cash payment;
 - b. Shares, including options and warrants, of the Stock Exchange.

6. If a Stock Exchange chooses the form specified in Para '5a' above, the incentives under all LES, during a financial year, shall not exceed 25% of the net profits or 25% of the free reserves of the Stock Exchange, whichever is higher, as per the audited financial statements of the preceding financial year. If, however, a Stock Exchange chooses the form specified in Para '5b' above, the shares, including the shares that may accrue on exercise of warrants or options, given as incentives under all LES, during a financial year, shall not exceed 25% of the issued and outstanding shares of the Stock Exchange as on the last day of the preceding financial year.

7. The Stock Exchange shall submit half-yearly reports on the working of its LES for review of SEBI. Implementation of LES shall be covered in the inspection of the Stock Exchange conducted by SEBI.

13.9 Requirement of Base Minimum Capital for Trading Member

1. Base Minimum Capital (BMC) is the deposit given by the member of the exchange against which no exposure for trades is allowed. The BMC deposit requirement was prescribed to be commensurate with the risks, other than market risk, that the broker may bring to the system. It has been decided to realign the BMC requirements with the risk profiles of the stock brokers / trading members in cash / derivative segment of the stock exchange.
2. Accordingly, the requirement of BMC would be implemented in the following manner -
 - a. Stock brokers / trading members shall maintain the prescribed BMC based on their profiles -

Categories	BMC Deposit (in INR)
Only Proprietary trading without Algorithmic trading (Algo)	10 Lacs
Trading only on behalf of Client (without proprietary trading) and without Algo	15 Lacs



Proprietary trading and trading on behalf of Client without Algo	25 Lacs
All Trading Members/Brokers with Algo	50 Lacs

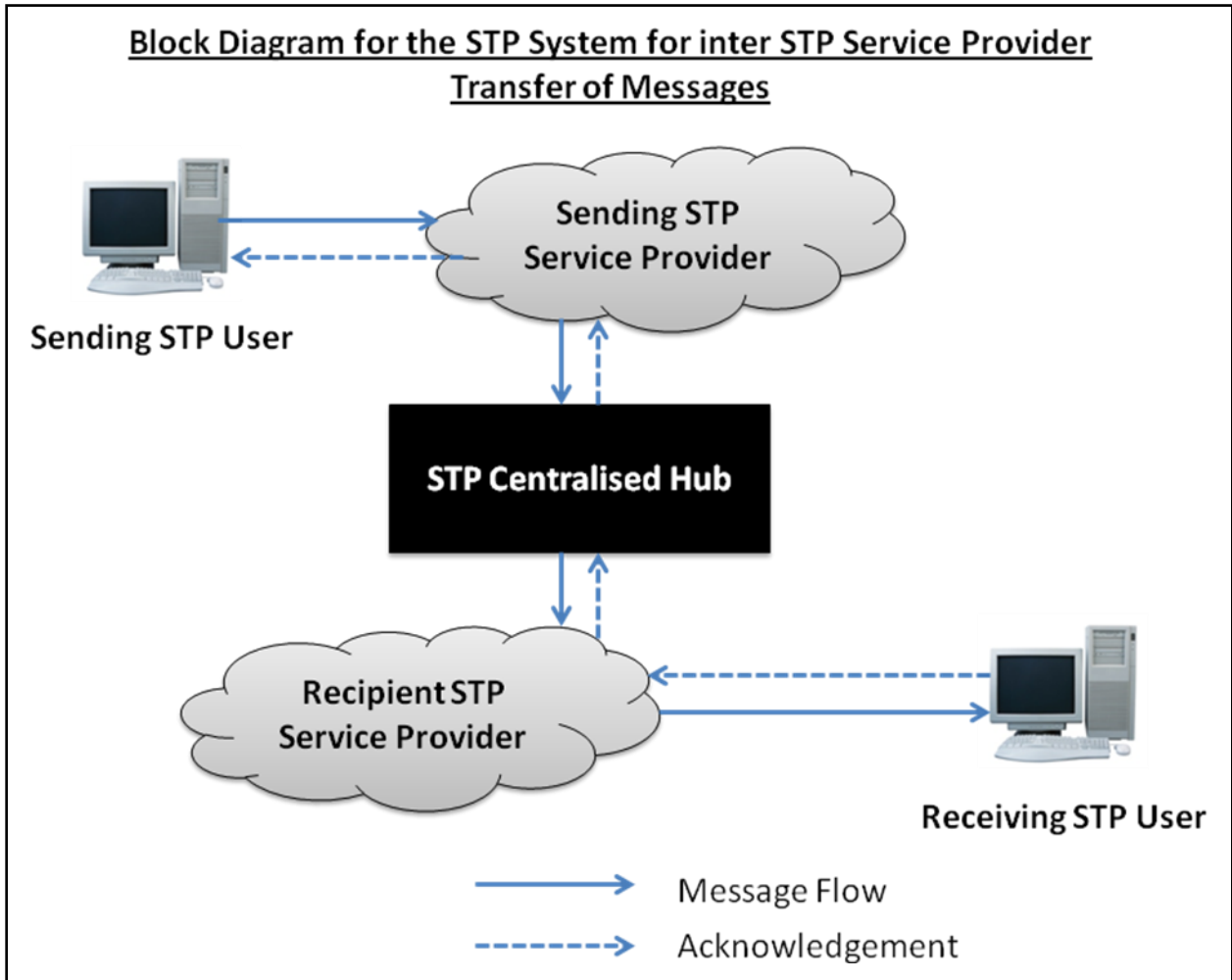
Explanation: The profiling of members may be explained with the following example - A scenario may arise, wherein, a member has registration as a “stock broker” as well as a “trading member” and is engaged as a principal doing proprietary trading on cash segment and is also engaged as an agent and transacting only on behalf of the clients in the derivatives segment. Further, the member may not have availed facility for algorithmic trading. In such a case, the profile of such a member shall be assessed as “Proprietary trading and trading on behalf of client without Algo”. The applicable BMC deposit for such a member shall be INR 25 Lacs.

- b. This BMC deposit requirement stipulated in the table above, is applicable to all stock brokers / trading members of exchanges having nation-wide trading terminals.
- c. For stock brokers / trading members of exchanges not having nation-wide trading terminals, the deposit requirement shall be 40% of the above said BMC deposit requirements.
- d. The BMC deposit shall be maintained for meeting contingencies in any segment of the exchange. For members having registration for more than one segment of the same exchange, the BMC deposit requirement shall not be additive for such number of segments and shall be the highest applicable BMC deposit, across various segment.
- e. No exposure shall be granted against such BMC deposit. The Stock Exchanges shall be permitted to prescribe suitable deposit requirements, over and above the SEBI prescribed norms, based on their perception and evaluation of risks involved.
- f. Minimum 50% of the deposit shall be in the form of cash and cash equivalents. The existing guidelines on collateral composition shall continue to remain applicable.



14 ANNEXURES

14.1 ANNEXURE I





14.2 ANNEXURE II

SECURITIES AND EXCHANGE BOARD OF INDIA (STP CENTRALISED HUB AND STP SERVICE PROVIDERS) GUIDELINES, 2004

1) PRELIMINARY

- (1) These Guidelines shall be called the Securities and Exchange Board of India (STP Centralised Hub and STP Service Providers) Guidelines, 2004.
- (2) These Guidelines are being issued under section 11 of the Securities and Exchange Board of India Act, 1992 to promote the development of the securities market.
- (3) They shall come into force on 26th day of May, 2004

2) DEFINITIONS

- (1) In these Guidelines, unless the context otherwise requires:-

- (a) "Act" means the Securities and Exchange Board of India Act, 1992;
- (b) "Certifying Authority" means a certifying authority who has been granted a license under section 24 of the Information Technology Act, 2000;
- (c) "SEBI" means the Securities and Exchange Board of India established under Section 3 of the Act;
- (d) "STP" means straight through processing;
- (e) "STP centralised hub" means an infrastructure set-up by a person or entity for the purpose of rendering STP service by providing a platform for communication between different STP service providers;
- (f) "STP message" means and includes all the messages for electronic trade processing with a common messaging standard as may be defined by SEBI from time to time;
- (g) "STP service" means the setting up and maintaining of infrastructure to create an electronic communication network to facilitate information exchange with respect to securities market transactions between various market participants from the stage of trade initiation to final settlement through a STP system flow as may be determined by SEBI from time to time;
- (h) "STP service provider" means a person or entity providing STP service to STP users to the extent of conveying messages between a STP user and the STP centralised hub and/or between two STP users;
- (i) "STP user" means all the users of the STP service and includes such users as are stipulated by SEBI; and,
- (j) "TRAI" means the Telecom Regulatory Authority of India established under the Telecom Regulatory Authority of India Act, 1997.



(2) Words and expressions used and not defined in these Guidelines, but defined in the Act or in the Securities Contracts (Regulation) Act, 1956 or in any rules or regulations made thereunder, shall have the meanings respectively assigned to them in such Acts, rules or regulations.

3) ELIGIBILITY CRITERIA FOR STP CENTRALISED HUB AND STP SERVICE PROVIDERS

(1) No person shall act as an STP centralised hub or a STP Service provider unless it obtains approval from SEBI to provide such service.

(2) For the grant of a certificate of approval SEBI shall take into account the following:

- i. whether the applicant is a person or entity with a minimum network as may be prescribed from time to time.
- ii. whether the applicant has adequate infrastructure facilities setup in India like office space, equipment and manpower with adequate experience in dealing in securities market and adequate expertise in providing necessary services and software solutions.

4) OBLIGATIONS AND RESPONSIBILITIES OF STP CENTRALISED HUB

(1) The STP centralised hub shall comply with the following:-

- i. The STP centralised hub shall at all times comply with the requirement of eligibility criteria, specified by SEBI.
- ii. The STP centralised hub shall abide by all the provisions of the Act, Rules, Regulations, Guidelines, Resolutions, Notifications, Directions, Circular, etc. as may be issued by the Government of India / TRAI / Department of Telecommunications and SEBI from time to time as may be applicable to the STP centralised hub.
- iii. The STP centralised hub shall obtain such approval/s from such authorities as may be necessary to function as a centralised hub.
- iv. The STP centralised hub shall obtain a digital signature certificate from a Certifying Authority and shall ensure that such digital signature certificate is valid and in force at all times. A copy of the certificate shall be submitted to all the recognized STP service providers.
- v. The STP centralised hub shall deliver a consistent and secure communication platform and shall establish continuous connectivity with all the recognized STP service providers to the best of its ability.
- vi. The STP centralised hub shall verify the digital signature certificate furnished by the STP Service Provider before connecting it to the STP centralized hub.



- vii. The STP centralised hub shall confirm authenticity, integrity and non-reputability of all messages submitted by the STP Service Provider.
- viii. The STP centralised hub shall ensure that the message received from the STP service provider is in the specified messaging standard.
- ix. The STP centralised hub shall promptly deliver the messages to the recipient STP service provider and shall ensure that only the intended STP Service Provider receives the message.
- x. The STP centralised hub shall digitally sign all messages sent to the STP service provider.
- xi. The STP centralised hub shall maintain a directory of all STP service providers and STP users.
- xii. The STP centralised hub shall maintain a complete record of the flow of messages processed. The records of the STP centralised hub shall be open for inspection by SEBI or any other person duly authorised by SEBI for this purpose.
- xiii. The STP centralised hub shall not modify / amend the communication protocol without consulting all the approved STP service providers.
- xiv. The STP centralised hub shall ensure that the message is not misused or tampered with while in its possession.
- xv. The STP centralised hub shall maintain confidentiality of information about its users and shall not divulge the same to other clients, the press or any other person except in accordance with law or as per the directions of any court of law or of SEBI.
- xvi. The STP centralised hub may charge reasonable fees from the STP service providers.

5) OBLIGATIONS AND RESPONSIBILITIES OF STP SERVICE PROVIDER

(1) The STP Service provider shall comply with the following :

- i. The STP service provider shall at all times comply with the requirement of eligibility criteria, specified by SEBI.
- ii. The STP service provider shall establish connectivity with the STP centralised hub before providing STP service to its users.
- iii. The STP service provider shall provide the necessary details of the STP users connected with it and all its details to the STP centralised hub for the purpose of creating and maintaining a directory of STP service providers and STP users.
- iv. The STP service provider shall comply with the minimum specifications specified by the STP centralised hub and as may be mutually agreed upon.



- v. The STP service provider shall abide by the service standards as may be specified by SEBI and / or the STP centralised hub in consultation with the STP service providers.
- vi. The STP Service Provider shall obtain a digital signature certificate from a Certifying Authority and submit a copy of the Certificate to the STP centralised hub.
- vii. The STP Service Provider shall ensure that the digital signature certificate is valid and in force.
- viii. The STP service providers shall deliver a consistent and secure communication platform and shall establish continuous connectivity with the STP centralised hub to the best of its ability.
- ix. The STP service provider shall ensure that the message sent to the STP centralised hub is in the prescribed messaging standard.
- x. The STP service provider shall verify the digital signature certificate furnished by the STP centralised hub before connecting itself to the STP centralised hub.
- xi. The STP service provider shall confirm authenticity, integrity and nonrepudiability of all messages submitted to the STP centralised hub. The STP service provider shall keep complete track of the flow of messages for record and audit.
- xii. The STP service providers may charge reasonable fees from the STP users.
- xiii. The STP service provider shall exchange messages between other STP service providers only through the STP centralised hub. Provided that in force majeure measures or any other circumstances due to which the connectivity of the STP centralised hub is not available, the STP service providers after mutual discussion may exchange messages directly among themselves for such period.
- xiv. The STP service providers shall digitally sign all messages sent from it to the STP centralised hub.
- xv. The STP service provider shall enter into an agreement with all its STP users which shall also specify the fees payable by the STP user for the services.
- xvi. The STP service provider shall maintain a directory of the STP users connected to it.
- xvii. The STP service provider shall maintain a complete record of the flow of messages handled. The records of the STP service provider shall be open for inspection by SEBI or any other person duly authorised by SEBI for this purpose.
- xviii. The STP Service Provider shall verify the Digital signature on the message of the STP user connected to the STP Service Provider



xix. The STP service provider shall ensure that the message from the STP user is in the specified messaging format.

xx. The STP service provider shall promptly deliver messages to and from the STP user.

xxi. In respect of inter STP service provider messages, the STP service provider shall perform all actions to the best of its ability in the same manner, diligence, speed and with all checks and balances as if the message is to be delivered / received by the same service provider.

(2) Nothing in these guidelines shall exempt the STP service provider from discharging any obligations placed on it by any law, regulations and guidelines.

6) CONDITIONS OF APPROVAL FOR STP CENTRALISED HUB AND STP SERVICE PROVIDERS

(1) Terms of approval:

i. The approval by SEBI shall be for an initial period of five years for STP centralised hub and for a period of three years for STP service providers and must be renewed periodically.

ii. The STP centralised hub and STP service provider must ensure continuous validity of approval by SEBI in order to function as a STP service provider.

iii. The Board shall have the right to suspend / cancel the approval of the STP centralised hub and/or STP service provider in case of violation of the terms of the guidelines.

7) CODE OF CONDUCT FOR STP SERVICE PROVIDERS

Every STP service provider shall abide by the Code of Conduct as specified in Schedule I.

8) MODEL AGREEMENT

The STP centralised hub shall enter into an agreement with every STP service provider on the lines of the Model Agreement given in Schedule II.

SCHEDULE I

CODE OF CONDUCT FOR STP SERVICE PROVIDERS (Clause 7 of the Guidelines)

a. The STP service provider shall render at all times high standards of service, exercise due diligence, ensure proper care and exercise independent professional judgment.



- b. The STP service provider shall disclose to the clients its possible sources or potential areas of conflict of duties and interest and provide unbiased services.
- c. The STP service provider herein agrees and undertakes to perform its duties as a STP service provider with the highest standards of integrity and fairness in all its dealings.
- d. The STP service provider shall abide by the obligation as specified under these Guidelines and the terms of the agreement entered into by the STP service provider with the STP users / STP centralised hub.
- e. The STP service provider shall maintain true and correct record of the messages processed by it under the scheme and in particular the records in respect of:-

- i. the STP users
- ii. the messages exchanged within the same STP service provider
- iii. the messages exchanged with other STP service providers through the STP centralised hub

- f. The STP service provider shall ensure that the message is not misused or tampered with while in its possession.
- g. The STP service provider shall maintain confidentiality of information about its users and shall not divulge the same to other clients, the press or any other interested party except in accordance with law or as per the directions of any court of law.
- h. The STP service provider shall abide by all the provisions of the Act, Rules, Regulations, Guidelines, Resolutions, Notifications, Directions, Circular, etc. as may be issued by the Government of India / Telecom Regulatory Authority of India / Department of Telecommunications and Securities and Exchange Board of India from time to time as may be applicable to the STP service provider.

SCHEDULE II

MODEL AGREEMENT BETWEEN STP CENTRALISED HUB AND STP SERVICE PROVIDER

(Clause 8 of the Guidelines)

THIS AGREEMENT is made at _____ on this the ___ day of _____ between _____ having its Registered office at _____ (hereinafter referred to as the 'STP Centralised Hub' which expression shall, unless it be repugnant to the context or the meaning thereof, be deemed to include its successors, legal representatives and assigns) of the First Part;

And _____ a Company incorporated under the Companies Act, 1956 and having its registered office



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at _____ (hereinafter referred to as the 'STP Service Provider' which expression shall unless it be repugnant to the context or the meaning thereof, be deemed to include its successors, legal heirs, legal representatives and assigns as the case may be) of the Second Part.

WHEREAS

1. The Securities and Exchange Board of India has mandated Straight Through Processing (hereinafter referred to as 'STP') for facilitating settlement of institutional trades.
2. In terms of the Securities and Exchange Board of India (STP Centralised Hub and STP Service Providers) Guidelines, 2004 an agreement has to be entered into between the STP Centralised Hub and the STP Service Provider.
3. The STP centralised hub has obtained such approval/s as may be necessary to function as a centralised hub.

NOW THIS AGREEMENT WITNESSETH AND IT IS HEREBY AGREED BY AND BETWEEN _____ AND _____ AS UNDER:

A. DEFINITIONS

1. DoT means Department of Telecommunications, India, Government of India and /or its successors.
2. EFFECTIVE DATE: The date on which this Agreement is entered into.
3. EMERGENCY means an emergency of any kind, including any circumstances whatever resulting from major accidents and natural disasters.
4. INTERNET: Internet is a global information system that:
 - is logically linked together by a globally unique address, based on Internet Protocol (IP) or its subsequent enhancements / upgradations;
 - is able to support communications using the Transmission Control Protocol / Internet Protocol (TCP/IP) suite or its subsequent enhancements / upgradations, and all other IP compatible protocols; and
5. "TELECOM AUTHORITY" shall mean The Director General, DoT, Government of India and includes any officer empowered by him to perform all or any of the functions of the Telegraph Authority under the Indian Telegraph Act, 1885 or such other authority as may be established by law.
6. "TRAI" - shall mean the Telecom Regulatory Authority of India established under the TRAI Act, 1997.

B. FEES PAYABLE BY STP SERVICE PROVIDER -

The STP Service Provider agrees to pay Fees as listed in the Annexure III(A) in consideration for the services provided by STP centralised hub hereof. The said



fees may be revised by STP centralised hub as may be mutually agreed upon with the STP Service Providers. The STP service provider shall also be liable to pay interest @ ___% p.a. in case of delay in payments on the amount due till the actual date of payment.

C. STP SERVICE PROVIDER OBLIGATION

1. The STP Service Provider shall obtain a digital signature certificate from a Certifying Authority, which has been issued a license by the Controller of Certifying Authorities appointed under the Information Technology Act, 2000. A copy of the Certificate shall be submitted to STP centralised hub.
2. The STP Service Provider shall verify the Digital signature on the message of the STP User connected to the STP Service Provider before sending the message to the STP Centralized hub.
3. The STP Service Provider agrees to comply with the minimum specifications prescribed by STP centralised hub and as may be mutually agreed upon.
4. The STP Service Provider shall adhere to the guidelines prescribed by SEBI from time to time.
5. The STP Service Provider acknowledges that the software for STP Centralized Hub including the STP Centralized hub client software is the legal property of STP centralized hub. The permission given by STP centralised hub to access and use STP Centralized Hub through the STP Centralized hub client software will not convey any proprietary or ownership rights in the above software. The access of the STP Service Provider is limited to the STP Centralized hub Client software.
6. The STP Service Provider shall not attempt to modify, translate, disassemble, decompile or reverse engineer Centralized the STP Centralized hub client software or create any derivative product based on that software.
7. The STP Service Provider shall have a non-exclusive right to access STP Centralized Hub through the STP Centralized hub client software. This right is not transferable under any circumstances and shall be used by the STP Service Provider itself or by its authorized agent as may be mutually agreed.
8. The STP Service Provider shall not use the infrastructure or the facilities provided by STP centralised hub for any other purpose other than those mentioned in this Agreement.
9. The STP Service Provider shall indemnify STP centralised hub against any damage, loss, expenses, costs etc incurred by it due to negligence (intentional or unintentional) of the STP Service Provider.
10. The STP Service Provider shall ensure that by using the Hub client software provided by STP centralised hub
 - a. No damage will be caused to the STP Centralized hub, and that it does not propagate virus infected information
 - b. It will pass on only relevant information to be exchanged with the other STP service provider.



c. It will not try to probe any other information available on the STP Centralized Hub

D. STP CENTRALISED HUB OBLIGATIONS

1. STP centralised hub shall obtain a digital signature certificate from a Certifying Authority, which has been issued a license by the Controller of Certifying Authorities appointed under the Information Technology Act, 2000. A copy of the Certificate shall be submitted to STP service provider.
2. STP centralised hub acknowledges that STP infrastructure of the STP service provider is the legal property of STP service provider. The permission given by STP service provider to STP centralised hub's STP hub client software to co-locate on STP infrastructure will not convey any proprietary or ownership rights in the STP infrastructure.
3. STP centralised hub may subcontract and employ agents to carry out any of its obligations under such terms and conditions as may be mutually agreed.
4. STP centralised hub shall be solely responsible for installation, networking and operation of applicable systems. STP centralised hub shall clearly display and publicise specifications of STP Service Providers terminal equipment at Service Provider premises which are necessary for interfacing to network.
5. STP centralised hub shall abide by the guidelines issued by SEBI from time to time on the STP framework.
6. STP centralised hub shall confirm authenticity, integrity and non-repudiability of all messages submitted by the STP Service Provider.
7. The STP Centralized Hub would keep complete track of the flow of messages for record and audit.
8. STP centralised hub shall ensure that only the intended STP Service Provider receives the message.
9. STP centralised hub shall not misuse/ alter / reverse engineer / decompile the content of the messages submitted by the STP Service Providers.
10. STP centralised hub will digitally sign all messages sent from the STP Centralized Hub to the STP Service Provider.
11. STP centralised hub agrees to PKI enable the STP Hub client software within --- months after the agreement would come into force. STP centralised hub shall digitally sign all messages at STP Centralized Hub prior to sending it to STP Service Providers. hub client software will maintain unsigned logs of such events.
12. STP centralised hub shall indemnify the STP service provider against any damage, loss, expenses, costs etc incurred by it due to its negligence (intentional or unintentional). STP centralised hub shall not use the infrastructure or the facilities provided by STP service provider for any other purpose other than those mentioned in this Agreement.
13. Hub client software provided by STP centralised hub will ensure that :
 - a. No damage will be caused to the service providers system.
 - b. It will not propagate virus infected information



- c. It will pass on only relevant information to be exchanged with the other STP service provider.
- d. It will not try to probe any other information available on the STP Service Providers setup
- e. It will not try to modify, translate, disassemble, de-compile or reverse engineer the software to gain access to restricted information or create any derivative product based on STP service provider's system.

E. COMPLIANCE WITH LAWS

1. Both the parties represent that they have taken all necessary corporate action to authorise the execution and consummation of this agreement and shall furnish satisfactory evidence of the same upon request to other party.
2. Both the parties hereto agree that they shall comply with all applicable Central, state and local laws, ordinances, regulations and codes in performing their obligations hereunder, including the procurement of licenses, permits and certificates and payment of taxes where required.
3. The parties shall fully inform themselves of all necessary obligations and statutes under Indian Law (including the security measures prevalent in India) and shall not hold the other party responsible for any lapse in this regard. This shall include, but not be limited to, the knowledge and understanding of the physical, environmental and technical standards required for the provision and operation of the Equipment, software and services within India. The monetary obligations, if any, devolving on either of the parties due to statutory changes subsequent to the conclusion of the Agreement, shall be borne by the respective party, if applicable.

F. SERVICE CHANGES AND DISCONTINUATION

STP centralised hub shall if directed by regulatory authorities, suspend the STP Service Provider's access to the STP Centralized Hub at any time without notice. The STP Service Provider agrees that STP centralised hub will not be liable to any third party for any modification or discontinuance of the STP Centralized Hub. If STP centralised hub receives prior notice of such direction it shall be communicated to the service provider immediately.

In order to maintain the security and integrity of the service STP centralised hub may also suspend the STP Service Provider's access to the STP Centralized Hub. The STP Service Provider agrees that STP centralised hub will not be liable to or any third party for any modification or discontinuance of the STP Centralized Hub. The Parties shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the arrangement. In the case of any issues arising out of the security and integrity of the messages being exchanged through the hub, the same shall be resolved by mutual discussion. In the event the parties are not able to settle the same within the time frame agreed between the parties either party may, by written notice of 30 days sent to the other party, temporarily suspend the



arrangements, in whole or in part, till the parties find a technical solution to the security and technical issues. The notice of termination shall specify the termination is at whose instance, the extent to which performance of the agreement is suspended, and the date upon which such suspension becomes effective.

F. FORCE MAJEURE

If the performance of any obligations by any party as specified in this agreement is prevented, restricted, delayed or interfered by reason of force majeure then notwithstanding anything hereinbefore contained, the party affected shall be excused from its performance to the extent such performance relates to such prevention, restriction, delay or interference and provided the party so affected uses its best efforts to remove such cause of non-performance and when removed the party shall continue performance with utmost urgency. For the purpose of this clause "Force Majeure" means & includes fire, explosion, cyclone, floods, war, revolution, blockage or embargo, any law, order, demands or requirements of any Government or statutory authority, strikes, which are not instigated for the purpose of avoiding obligations herein or any other circumstances beyond the control of the party affected.

G. AMENDMENT TO THE AGREEMENT

The rights and obligations of the parties are governed only by this agreement. This agreement may be amended, altered, modified, varied or added to from time to time only by a written instrument duly signed by both the parties to this agreement. All previous communications, both oral and written between the parties and related to this agreement, but inconsistent with the terms and conditions of this agreement, are hereby declared null and void.

I. VALIDITY

This Agreement is valid so long as STP service provider holds valid approval from SEBI and STP centralised hub holds valid approval as STP Centralised Hub from SEBI. This Agreement shall be valid for an initial period of ____ years (hereinafter referred to as the 'Term'). After the term, the arrangement may be extended on mutually acceptable terms.

H. TERMINATION

Without prejudice to the rights, liabilities, interests and obligations that have accrued to the parties prior to the date of terminations

1. Either party may terminate this agreement upon material breach by the other of any provision of this agreement, and (if such breach is remediable) that other fails to remedy such breach within a mutually agreed time frame in writing.
2. This agreement may, at any time during its Term, be terminated by either party by a written 90 days notice to the other party without prejudice to the rights, liabilities, interests and obligations that have accrued to the parties



prior to the date of such termination. The grounds upon which this agreement may be terminated pursuant to this clause are as under:

- i) In case a Receiver has been appointed with respect to all or substantially all the assets of the parties. Provided that this clause shall not be applicable when winding up proceedings have been initiated to facilitate an amalgamation with another company proposing to carry on the same business
- ii) if one of the parties enters into an arrangement of composition with its creditors.

3. This agreement may, at any time during its Term, be terminated by STP centralised hub by a written notice in case the ISP license of STP centralised hub is revoked or the services are taken over by DoT / Telecom Authority in the event of an emergency or otherwise. If STP centralised hub receives prior notice of the same it shall be provided to the service provider immediately.

4. This agreement may, for convenience, at any time during its term, be terminated by either party, by a written notice of 90 days to the other party.

5. The provisions contained hereinabove shall not preclude the other party from recourse to any other remedies available to itself by statute or otherwise, at law or in equity.

6. In order to maintain the security and integrity of its infrastructure STP service provider may also suspend the STP hub client software access to its system at any time without notice.

I. NOTICE

Any notice to be given by one party to the other pursuant to this agreement shall be sent by registered post A.D., speed post or facsimile transmission to the address mentioned below:

1. _____ (NAME OF THE STP CENTRALISED HUB)
_____ (ADDRESS)

2. _____ (NAME OF STP SERVICE PROVIDER)
_____ (ADDRESS)

J. WAIVER OF RIGHTS

No forbearance, delay or indulgence by any party in enforcing any of the provisions of this agreement shall prejudice or restrict the rights of that party nor shall any waiver of its rights operate as a waiver of any subsequent breach and no rights, powers, remedies herein conferred upon or reserved for the parties is exclusive of any other right, power or remedy available to that party and each right, power or remedy shall be cumulative.

K. ARBITRATION AND JURISDICTION



In the case of any dispute or any difference between the parties arising out of or in relation to this agreement including dispute or difference as to the validity of this agreement or interpretation of any of the provisions of this agreement or losses or damages arising under clause C-8 and the relevant clause under STP Centralized hub of this agreement, the same shall be resolved by mutual discussion. If the parties fail to settle the dispute or difference mutually, then the same shall be resolved in accordance with and subject to the provisions of the Arbitration and Conciliation Act, 1996 or any modifications or amendments thereto, or any enactment for the time being in force subject to the stipulation that only courts at Mumbai shall have exclusive jurisdiction in all such matters. The provisions of this clause shall survive the termination of this agreement.

L. GOVERNING LAW

1. This agreement shall be governed by and construed and interpreted in accordance with the laws of India, SEBI Act, Regulations, Rules and SEBI (STP centralised hub and STP service providers) Guidelines, 2004.
2. If any term or provision of this agreement should be declared invalid by a court of competent jurisdiction, the remaining terms and provisions of this agreement shall remain unimpaired and in full force and effect.

M. DISCLAIMER

STP centralised hub shall use its best endeavor only to ensure that the services provided shall be in conformity with the terms of this agreement. STP centralised hub shall not be liable for bad/slow connection or any technical glitches on account of reasons beyond its control.

N. CONFIDENTIALITY

The Parties hereto shall at all times maintain and keep secret and confidential any knowhow, information and data which it has or may acquire from time to time relating to the business, activities or operations of the other Party and shall not disclose or divulge the same or any part thereof to any third party. The terms of this clause shall survive termination of the Agreement.

The obligations shall not apply with respect to Information which:

- 1) is or becomes publicly available other than through a breach of this Agreement or is unlawfully appropriated;
- 2) is already in the possession of the other party without any breach of this Agreement ;
- 3) is obtained by the other party from a third party without any breach of this Agreement .
- 4) is required to be produced before a judicial authority and only where the other party is compelled to do so by such an authority, provided that the said authority (or individual representing such authority) has the authority, under the laws in force, to compel such disclosure.



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Notwithstanding the foregoing, before making any use or disclosure on any of the foregoing exceptions, the Party disclosing such information shall intimate the Other Party as soon as practicable the applicable exceptions (s) and circumstances giving rise thereto.



14.2.1 ANNEXURE II(A)

STP centralised hub shall charge a fee of Rs. -----. The fees shall be charged to the sending service provider. The billing shall be on a ----- basis.

One message shall mean and include the following -

- One ISO message sent by a service provider to the STP centralised hub
- Acknowledgement message sent by the STP centralised hub to the Sending service provider
- The message forwarded to the receiving service provider
- Acknowledgement received from the receiving service provider for the message
- Forwarding the acknowledgement received from the receiving service provider to the sending service provider

In consideration of the fees STP centralised hub shall endeavour to provide the following service standards -

- Infrastructure availability
 - 99% Uptime for business hours from 0930 hrs till 1930 hrs computed on a quarterly basis. Planned Outage excluded
 - Uptime on best effort basis between 1930 hrs to 0930 hrs
 - Resolution time: 4 hours for called logged between 0930 to 1800 hrs
- Trouble Ticketing
 - Business Hrs - Telephonic reporting of Fault on STP centralised hub Helpdesk
 - Non-Business Hrs - Telephonic reporting of Fault on STP centralised hub Operations
 - Call closure confirmation - STP service Provider to give respective telephone numbers



14.3 ANNEXURE- III

Message IFN 515:

Mandatory Block A (General Information)					14.3.1
14.3.2	14.3.3	14.3.4	14.3.5	14.3.6	14.3.7
Status	Field	Field Name	Content and Options	Remarks	Rules
M	16R	14.3.8	GENL	Start of block	14.3.9
M	20C	Reference	:4!c//16x	Type of CN, Exchange number and CN No.	Format: (Qualifier)/ /(References) Qualifier: "SEME" (4 Uppercase Characters) References: (Contract Type/ Exchange No. / Contract Number) Contract Type: A or B (1 Character Set) Exchange number (2 digits - e.g. Calcutta Stock Exchange will be 03) Contract Number: xxxxxxxxxxx (13Characters) The reference should not start or end with slash '/' and must not contain two consecutive slashes '//'. Format: (Qualifier)/ Function: "NEWM"
M	23G	14.3.10	4!c	To indicate new message or cancellation of a previous message	Format: (Qualifier)/ Function: "NEWM"
O	98A	Date	:4!c//8!n	Preparation Date	Format: (Qualifier)//(Date) Qualifier: "PREP" (4 Uppercase Characters) Date: YYYYMMDD (8 Digits)
M	22F	Indicator	:4!c//4!c	<i>Dummy (taken since mandatory)</i>	Format: (Qualifier)//(Indicator) Qualifier: "TRTR" (4 Uppercase Characters) Indicator: "TRAD" (4



					Uppercase Characters)
14.3.11	14.3.12	14.3.13	14.3.14	14.3.15	14.3.16
Mandatory Subsequence A1 Linkages			14.3.17	14.3.18	14.3.19
14.3.20	14.3.21	14.3.22	14.3.23	14.3.24	14.3.25
M	16R	14.3.26	LINK	Start of block	14.3.27
M	20C	14.3.28	:4!c//16x	To indicate the cancelled contract note (CANC). In case of NEWM, the field should contain "DUMMY"	Format: (Qualifier) //(Reference) Qualifier: " PREV" (4 Uppercase Characters) Reference: The reference no. as given in field SEME of the earlier contract note that is being cancelled. (16 Characters) [In case of NEWM, the field should contain "DUMMY"]
M	16S	14.3.29	LINK	End of Block	14.3.30
14.3.31	14.3.32	14.3.33	14.3.34	14.3.35	14.3.36
End of Mandatory Subsequence A1 Linkages			14.3.37	14.3.38	14.3.39
14.3.40	14.3.41	14.3.42	14.3.43	14.3.44	14.3.45
M	16S	14.3.46	GENL	End of block	14.3.47
14.3.48	14.3.49	14.3.50	14.3.51	14.3.52	14.3.53
Mandatory Block C (Confirmation details)			14.3.54	14.3.55	14.3.56
14.3.57	14.3.58	14.3.59	14.3.60	14.3.61	14.3.62
M	16R	14.3.63	CONFDET	Start of block	14.3.64
M	98A	Trade Date	:4!c//8!n	To give details of the trade date.	Format: (Qualifier)//(Date) Qualifier: "TRAD" (4 Uppercase Characters) Date: "YYYYMMDD" (8 Digits)
M	98A	Settlement Date	:4!c//8!n	To give details of the settlement date.	Format: (Qualifier) / (Date) Qualifier: "SETT" (4 Uppercase Characters) Date: "YYYYMMDD" (8 Digits)



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M	90B	Price	:4!c//4!c/3 !a15d	To indicate the trade rate	Format: (Qualifier)/ /(Amount Type Code)/ (Currency Code) (Price) Qualifier: "DEAL" (4 Uppercase Characters) Amount Type Code: "ACTU" (4 Uppercase Characters) Currency Code: "INR" (3 Uppercase Alphabets) Price: Upto 15 digits (including decimal places and decimal sign) comma has to be used as decimal sign and is mandatory. Integer part of amount must contain atleast one digit.
O	92A	Price	:4!c//[N]1 5d	To indicate brokerage rate per share	Format: (Qualifier)/ /(Amount Type Code)/ (Currency Code) (Price) Qualifier: "CORA" (4 Uppercase Characters) Sign (-/+) Price: Upto 15 digits (including decimal places and decimal sign) comma has to be used as decimal sign and is mandatory. Integer part of amount must contain atleast one digit.
M	94B	Place	:4!c//4!c/3 0x	To identify the exchange	Format:(Qualifier)/ / (Place Code)/(MAPIN code / Narrative) Qualifier: "TRAD" (4 Uppercase Characters) Place Code: "EXCH" (4 Uppercase Characters)
M	22H	Indicat or	:4!c//4!c	To indicate whether the trade is Buy [BUYI] / Sell [SELL]	Format: (Qualifier)//(Indicator) Qualifier: "BUSE" (4 Uppercase Characters) Indicator: "BUYI" or "SELL" (4 Uppercase Characters)



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M	22H	Indicator	:4!c//4!c	To indicate where the trades is against payment [APMT] or free of payment [FREE]	Format: (Qualifier) //(Indicator) Qualifier: "PAYM" (4 Uppercase Characters) Indicator: "FREE" for clearing house trades or "APMT" for DVP trades(4 Uppercase Characters)
14.3.65	14.3.66	14.3.67	14.3.68	14.3.69	14.3.70
Mandatory Sub Block C1 (Confirmation Parties)			14.3.71	14.3.72	14.3.73
14.3.74	14.3.75	14.3.76	14.3.77	14.3.78	14.3.79
M	16R	14.3.80	CONFPTY	Start of block	14.3.81
M	95Q	Party	:4!c//4*35x	To give details of the client as mentioned on the contract note.	Format: (Qualifier) //(SEBI Regn No.) Subsequent to SEBI's mandating, Map In will be used for the same.
14.3.82	14.3.83	14.3.84	14.3.85	14.3.86	Qualifier: "INVE" (4 Uppercase Characters)
14.3.87	14.3.88	14.3.89	14.3.90	14.3.91	14.3.92
14.3.93	14.3.94	14.3.95	14.3.96	14.3.97	14.3.98
14.3.99	14.3.100	14.3.101	14.3.102	14.3.103	14.3.104
14.3.105	14.3.106	14.3.107	14.3.108	14.3.109	14.3.110
O	97A	Account	:4!c//35x	To identify the safekeeping account. All clients need to obtain a code as specified in the circular	Format: (Qualifier) //(Code as specified in the circular)
14.3.111	14.3.112	14.3.113	14.3.114	14.3.115	Qualifier: "SAFE" (4 Upper Characters) Code as specified in the circular (35 characters)
M	16S	14.3.116	CONFPTY	End of block	14.3.117
14.3.118	14.3.119	14.3.120	14.3.121	14.3.122	14.3.123
End of Mandatory Subsequence C1 (Confirmation Parties)				14.3.124	14.3.125



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14.3.126	14.3.127	14.3.128	14.3.129	14.3.130	14.3.131
M	36B	Quantity of Financial Instrument	:4!c//4!c/15d	To define the trade quantity	Format: (Qualifier)//(Quantity Type Code) /(Quantity)Qualifier: "CONF" (4 Uppercase Characters)Quantity Type Code: "UNIT" (4 Uppercase Characters)Quantity: upto 15 digits (including decimal places and decimal sign) comma has to be used as decimal sign and is mandatory. Integer part of amount must contain atleast one digit.
M	35B	Identification of Security	[ISIN]1!e12!c] [4*35x]	To identify the ISIN of the Scrip and company name.	Format: (Identification of Security)(Description of Security)Identification of Security: "ISIN" which will always be present. (ISIN of the security). Additionally, the first line (35 characters) of the description may be used if required and may contain the scrip code (4 lines of 35 Characters) . The contract descriptor shall be provided in the first line of 35 characters
M	70E	Narrative	:4!c//10*35x	To identify Segment Type i.e. Rolling (DR) or Inter FII (DI) or Auction Rolling (AR) or Trade to Trade (TT) or Others (OT) /Settlement Number	Format: (Qualifier) //(Narrative) Qualifier: "TPRO" (4 Upper Characters) Narrative: Line 1: "DR" or "DI" or "AR" or "TT" or "OT"/ Settlement Number as mentioned on Stock Exchange system (35 Character Sets)



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O	98C	Date/Time	:4!c//8!n6!n	To Identify order time	Format: (Qualifier) /(Date)/(Time) Qualifier: "PROC" (4 Upper Characters) Date: YYYYMMDD Time : HHMMSS
M	16S	14.3.132	CONFDE T	End of block	14.3.133
14.3.134	14.3.135	14.3.136	14.3.137	14.3.138	14.3.139
End of Sequence C (Confirmation Details)				14.3.140	14.3.141
14.3.142	14.3.143	14.3.144	14.3.145	14.3.146	14.3.147
Mandatory Sequence D (Settlement Details)					14.3.148
14.3.149	14.3.150	14.3.151	14.3.152	14.3.153	14.3.154
M	16R	14.3.155	SETDET	Start of block	14.3.156
M	22F	Indicator	:4!c//4!c	Dummy (since mandatory)	Format: (Qualifier) //(Indicator) Qualifier: "SETR" (4 Upper Characters) Indicator: "TRAD" (4 Upper Characters)
14.3.157	14.3.158	14.3.159	14.3.160	14.3.161	14.3.162
Mandatory Subsequence D1 (Settlement Parties)					14.3.163
14.3.164	14.3.165	14.3.166	14.3.167	14.3.168	14.3.169
M	16R	14.3.170	SETPRTY	Start of block	14.3.171
M	95P	Party	:4!c//4!a2!a2!c[3!c]	Indicates the contracting broker Broker BIC code is used	shall not be used



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14.3.172 In case the BIC code doesn't exist					
14.3.173	95Q	Party	:4!c//4*35x	Indicates the Broker	Format: (Qualifier)//(SEBI regn no. of broker) MAPIN will used on SEBI mandating the same Qualifier: "BUYR" in case of a Sale "SELL" in case of a Purchase Name:of the contracting broker
O	70C	Narrative	:4!c//4*35x	To provide additional broker contact details	Format: (Qualifier) //(Narrative) Qualifier: "PACO" (4 Uppercase Upper Characters) Narrative: Broker Exchange Broker code (140 Characters)
O	70E	Narrative	:4!c//10*35x	To provide for Declaration	Format: (Qualifier) //(Narrative) Qualifier: "DECL" (4 Uppercase Upper Characters) Narrative: Arbitration Clause(10 lines of 35 char each) Line 1:This contract is subject to Rules, Line 2:Byelaws and Regulations and Line 3:usages of (name of the exchange). In event Line4: of any claim (whether admitted or Line 5:not), difference or dispute arising Line 6:between you and me/us out of these Line 7:transactions, the matter shall be Line 8:referred to arbitration as provided Line 9:in the Rules, Byelaws and Line 10:Regulations of (name



					of the exchange). Line 11: Consolidated Stamp Duty paid
14.3.174	14.3.175	14.3.176	14.3.177	14.3.178	14.3.179
M	16S	14.3.180	SETPRTY	End of block	14.3.181
14.3.182	14.3.183	14.3.184	14.3.185	14.3.186	14.3.187
M	16R	14.3.188	SETPRTY	Start of block	14.3.189
14.3.190	14.3.191	14.3.192	14.3.193	14.3.194	14.3.195
14.3.196	14.3.197				
M	95Q	Party	:4!c//4*35x	Indicates the Delivery Type. The name of the clearing corporation is to be used in case of a clearing house trade. In case of a hand delivery trade, the brokers name is to be used.	Format: (Qualifier)//(Name of Clearing House) Qualifier: "REAG" in case of a Sale "DEAG" in case of a Purchase - "BOISL" for BSE trades, or - "NSCCL" for NSE trades (For Clearing House Trades) and SEBI reg number of the broker (For Hand Delivery Trades)
14.3.198	14.3.199	14.3.200	14.3.201	14.3.202	14.3.203
M	16S	14.3.204	SETPRTY	End of block	14.3.205
14.3.206	14.3.207	14.3.208	14.3.209	14.3.210	14.3.211
End of Subsequence D1 (Settlement Parties)				14.3.212	14.3.213
14.3.214	14.3.215	14.3.216	14.3.217	14.3.218	14.3.219
Mandatory Subsequence D3 (Amounts)				14.3.220	14.3.221
14.3.222	14.3.223	14.3.224	14.3.225	14.3.226	14.3.227
M	16R	14.3.228	AMT	Start of block	14.3.229



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M	19A	Amount	:4!c//3!a15 d	To identify the Deal Amount	Format: (Qualifier) // (Currency Code) (Amount) For: Deal Amount Qualifier: "DEAL" (4 Upper case Characters) Narrative: "INR" (3 Upper Letters) Amount: upto 15 digits (including decimal places and decimal sign) comma has to be used as decimal sign and is mandatory. Integer part of amount must contain atleast one digit. Deal amount = trade quantity * trade rate
14.3.230	14.3.231	14.3.232	14.3.233	14.3.234	14.3.235
M	16S	14.3.236	AMT	End of block	14.3.237
14.3.238	14.3.239	14.3.240	14.3.241	14.3.242	14.3.243
M	16R	14.3.244	AMT	Start of block	14.3.245
14.3.246	14.3.247	14.3.248	14.3.249	14.3.250	14.3.251
M	19A	Amount	:4!c//3!a15 d	To identify the brokerage	For Brokerage: Qualifier: "EXEC" (4 Upper case Characters) Narrative: "INR" (3 Upper Letters) Amount: upto 15 digits (including decimal places and decimal sign) comma has to be used as decimal sign and is mandatory. Integer part of amount must contain atleast one digit.
14.3.252	14.3.253	14.3.254	14.3.255	14.3.256	14.3.257
M	16S	14.3.258	AMT	End of block	14.3.259
14.3.260	14.3.261	14.3.262	14.3.263	14.3.264	14.3.265
M	16R	14.3.266	AMT	Start of block	14.3.267



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14.3.268	14.3.269	14.3.270	14.3.271	14.3.272	14.3.273
M	19A	Amount	:4!c//3!a15 d	To identify the service tax	For Service Tax: Qualifier: "TRAX" (4 Upper case Characters) Narrative: "INR" (3 Upper Letters) Amount: upto 15 digits (including decimal places and decimal sign) comma has to be used as decimal sign and is mandatory. Integer part of amount must contain atleast one digit.
14.3.274	14.3.275	14.3.276	14.3.277	14.3.278	14.3.279
M	16S	14.3.280	AMT	End of block	14.3.281
14.3.282	14.3.283	14.3.284	14.3.285	14.3.286	14.3.287
M	16R	14.3.288	AMT	Start of block	14.3.289
14.3.290	14.3.291	14.3.292	14.3.293	14.3.294	14.3.295
M	19A	Amount	:4!c//3!a11 d	To identify the Securities Transaction Tax amount	For Securities Transaction Tax Amount Qualifier: "COUN" (4 Upper case Characters) Narrative: "INR" (3 Upper Letters) Amount: upto 10 digits (excluding decimal sign) comma has to be used as decimal sign and is mandatory. Integer part of amount must contain atleast one digit.
14.3.296	14.3.297	14.3.298	14.3.299	14.3.300	14.3.301
M	16S	14.3.302	AMT	End of block	14.3.303
14.3.304	14.3.305	14.3.306	14.3.307	14.3.308	14.3.309
M	16R	14.3.310	AMT	Start of block	14.3.311
14.3.312	14.3.313	14.3.314	14.3.315	14.3.316	14.3.317
M	19A	Amount	:4!c//3!a15 d	To identify the settlement amount	For Settlement Amount Qualifier: "SETT" (4 Upper case Characters) Narrative: "INR" (3 Upper Letters)



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					Amount: upto 15 digits (including decimal places and decimal sign) comma has to be used as decimal sign and is mandatory. Integer part of amount must contain atleast one digit.
14.3.318	14.3.319	14.3.320	14.3.321	14.3.322	14.3.323
M	16S	14.3.324	AMT	End of block	14.3.325
14.3.326	14.3.327	14.3.328	14.3.329	14.3.330	14.3.331
End of Mandatory Subsequence D3 (Amounts)				14.3.332	14.3.333
14.3.334	14.3.335	14.3.336	14.3.337	14.3.338	14.3.339
M	16S	14.3.340	SETDET	End of block	14.3.341
14.3.342	14.3.343	14.3.344	14.3.345	14.3.346	14.3.347
End of Sequence D Settlement Details				14.3.348	14.3.349
14.3.350	14.3.351	14.3.352	14.3.353	14.3.354	14.3.355
Optional Sequence E (Other Parties)				14.3.356	14.3.357
14.3.358	14.3.359	14.3.360	14.3.361	14.3.362	14.3.363
M	16R	14.3.364	OTHRPRT Y	Start of block	14.3.365
M	95Q	Party	:4!c//4*35x	Dummy (since mandatory)	Format: (Qualifier) //(Narrative) Qualifier: "EXCH" (4 Upper case Characters) Narrative: "ORDER DETAILS"
O	70D	Party	:4!c//6*35x	To identify the trade Ref. Number. The same field can be repeated multiple times to identify different order numbers	Format: (Qualifier) //(Narrative) Qualifier: "PART" (4 Upper case Characters) Narrative: Trade Ref. No (15Digits) Trade Ref. Qty (15 Digits) Trade Ref. Rate (15 Digits comma at appropriate place) Date: YYYYMMDD HHMMSS (15 Character Sets)
O	20C	Reference	:4!c//16x	To identify the Order number	Format: (Qualifier) //(Reference) Qualifier: "PROC" (4



					Character) Reference : Order number (16 Character Sets)
M	16S	14.3.366	OTHRPRT Y	End of block	14.3.367
14.3.368	14.3.369	14.3.370	14.3.371	14.3.372	14.3.373
End of Sequence E Other Parties				14.3.374	14.3.375
14.3.376	14.3.377	14.3.378	14.3.379	14.3.380	14.3.381
14.3.382	14.3.383	14.3.384	14.3.385	14.3.386	14.3.387

Message IFN 598 :

<i>Format Sequence</i>					
14.3.38	14.3	14.3.390	14.3.391	14.3.392	14.3.393
Statu s	Ta g	Generic Field Name	Conte nt/Opt ions	Purpose	Rules
Mandatory Sequence A General Information					
M	16 R	14.3.394	GENL	Start of Block	14.3.395
M	20 C	Reference	:4!c//1 6x	Sender's Reference	Format: (Qualifier)//(Reference number)Qualifier: "SEME" Reference Number: 16 Characters (Alphanumeric) The reference should not start or end with slash '/' and must not contain two consecutive slashes '//'. Value = 548
M	12	Sub- message type	3!n	To identify sub-message type	Value = 548
M	23 G	14.3.396	4!c	To convey that this message is	Format: (Qualifier)Qualifier: "INST"



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				meant to indicate a transaction status [INST]	
O	98 A	Date/Time	:4!c//8 !n	Preparation Date	Format: (Qualifier) //(Date) Qualifier: "PREP" (4 Characters) Date: YYYYMMDD (8 number)
Man dator y Subs eque nce A1 Link ages	14.3.	14.3.398	14.3.399	14.3.400	14.3.401
M	16 R	14.3.402	LINK	Start of Block	14.3.403
O	13 A	Link Message Indicator	:4c//3 d	To indicate the corresponding message type received from client. Though this tag is optional, the tag should be made mandatory requirement for Indian Market. Value = 515	Will contain the corresponding message type of client received from client. Should be 515
M	20 C	Reference	:4!c//1 6x	To indicate the reference number of the related contract note.	Format: (Qualifier)//(Reference) Qualifier: "RELA" (4 Uppercase Characters) Reference: The reference no. as given in field SEME of the contract note that is being updated. (16 Characters)
M	16	14.3.404	LINK	End of Block	14.3.405



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	S				
End of Subsequence A1 Linkages					14.3.406
14.3.40	14.3	14.3.409	14.3.410	14.3.411	14.3.412
Mandatory Subsequence A2 Status					14.3.413
M	16 R	14.3.414	STAT	Start of Block	14.3.415
M	25 D	Status	:4!c//4 !c	To display the status of the contract note (vis a vis Trade Instruction received from client)	Format:(Qualifier)//(Status Code)
				Within the scope of this module, the status updates of matched / unmatched contract notes are being defined.	The possible options are MTCH//MACH: The contract note matches with the trade instruction received from client MTCH//NMAT: The contract note has not been matched
14.3.41	14.3	14.3.418	14.3.419	14.3.420	14.3.421
Optional Subsequence A2a Reason					14.3.422
M	16 R	14.3.423	REAS	Start of Block	14.3.424
M	24 B	Reason.	:4!c//4 !c	To display the reason for the	Format:(Qualifier)//(Reason Code)



		<p>This block is optional and can be omitted in case the status codes is match.</p>			<p>CADE - Disagreement Repurchase Call Delay The instruction has not been matched because the repurchase call delay does not match.</p> <p>CLAT - Counterparty too late for Matching The instruction has not been matched. Counterparty's instruction was too late for matching.</p> <p>CMIS- Matching Instruction Not Found The instruction has not been matched; the matching instruction from your counterparty could not be found.</p> <p>CPCA- Counterparty Cancelled Instruction Your instruction is unmatched. Your counterparty has cancelled their instruction.</p> <p>DDAT- Disagreement Settlement Date The instruction has not been matched; the counterparty disagrees with the settlement date/time.</p> <p>DDEA- Disagreement Deal Price The deal price does not match.</p> <p>DELN- Disagreement Direction of Trade The instruction has not been matched; the counterparty expects a delivery from you, not a receipt, or vice versa.</p> <p>DEPT- Disagreement Place of Settlement The instruction has not been</p>
--	--	---	--	--	--



					<p>matched; the counterparty disagrees with the place of settlement.</p> <p>DMON- Disagreement Settlement Amount The instruction has not been matched; the counterparty disagrees with the settlement amount.</p> <p>DQUA- Disagreement Quantity The instruction has not been matched; the counterparty disagrees with the quantity of securities.</p> <p>DSEC- Disagreement Security The instruction has not been matched; the counterparty disagrees with the security/issue (i.e. ISIN differs, Financial Instrument Attributes differs...).</p> <p>DTRA- Not Recognised The instruction has not been matched; the counterparty has been contacted or has contacted us. Counterparty does not recognise the transaction.</p> <p>DTRD- Disagreement Trade Date The instruction has not been matched; the counterparty disagrees with the trade date.</p> <p>FORF- Disagreement Forfeit Repurchase Amount The forfeit repurchase amount does not match.</p> <p>FRAP- Disagreement Payment Code The instruction is unmatched because the wrong instruction was sent; your instruction is</p>
--	--	--	--	--	--



					<p>free, counterparty is against payment or vice versa.</p> <p>ICAG- Incorrect Agent The instruction has not been matched; incorrect delivering or receiving agent. (counterparty is incorrect).</p> <p>ICUS- Disagreement receiving or delivering custodian The instruction has not been matched; incorrect delivering or receiving custodian.</p> <p>IEXE- Incorrect Buyer or Seller The instruction has not been matched; incorrect buyer (receiver) or seller (deliverer).</p> <p>IIND- Disagreement common reference The instruction has not been matched; the counterparty disagrees with the common reference (for markets where a common reference is used as a matching criterion).</p> <p>LATE- Your Instruction Too Late for Matching The instruction has not been matched. Your instruction was too late for matching.</p> <p>NARR- Narrative Other (see narrative reason).</p> <p>NCRR- Disagreement Currency Settlement Amount The instruction has not been matched; the counterparty disagrees with the currency of the settlement amount.</p> <p>NMAS- No Matching Started The instruction has not been matched; the matching process did not yet start.</p> <p>PHYS- Disagreement Physical</p>
--	--	--	--	--	---



					<p>settlement The instruction has not been matched. The counterparty is for physical settlement, your instruction is not, or vice versa. PLCE- Disagreement Place of Trade Place of trade does not match. PODU- Possible Duplicate Instruction The instruction has not been matched. It is a possible duplicate instruction. REGD- Disagreement Registration Details The instruction has not been matched; there are discrepancies in the registrations details linked to the transaction. REPA- Disagreement Repurchase Amount Repurchase amount does not match. REPO- Disagreement Repurchase Rate Repurchase rate does not match. REPP- Disagreement Repurchase Premium Amount Repurchase premium amount does not match. RERT- Disagreement Repurchase Rate Type Repurchase rate type does not match. RSPR- Disagreement Repurchase Spread Rate Repurchase spread rate does not match. RTGS- Disagreement RTGS System</p>
--	--	--	--	--	--



					<p>The instruction has not been matched. The counterparty is for RTGS settlement system, you are for non-RTGS, or vice versa.</p> <p>SAFE- Disagreement Safekeeping Account The safekeeping account used as matching criteria on the market concerned (buyer/seller's account, direct client's account at the receiving/delivering agent, receiving or delivering agent's account at the CSD) does not match.</p> <p>SETR - Disagreement Settlement Transaction Settlement transaction type does not match (relates to the settlement transaction type codes available for sequence E field 22F, qualifier SETR).</p> <p>TERM - Disagreement Closing date/time Closing date/time does not match.</p> <p>VASU - Disagreement Variable Rate Support Variable rate support does not match (repo).</p> <p>DMKT - Disagreement in market type</p> <p>SLMT - Security under RBI Limits</p>
O	70 D	Narrative	:4!c//6 *35x	Reason Narrative (for un-matched transactions)	Format:(Qualifier)(Narrative)Q ualifier: "REAS" Narrative: 6 lines of 35 characters each



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				[This is mandatory in case the reason code in 24B is NARR]	14.3.425
				14.3.426	14.3.427
				14.3.428	14.3.429
M	16 S	14.3.430	REAS	End of Block	14.3.431
End of Subsequence A2a Reason					14.3.432
14.3.43	14.3	14.3.435	14.3.436	14.3.437	14.3.438
M	16 S	14.3.439	STAT	End of Block	14.3.440
End of Subsequence A2 Status					14.3.441
14.3.44	14.3	14.3.444	14.3.445	14.3.446	14.3.447
M	16 S	14.3.448	GENL	End of Block	14.3.449
End of Sequence A General Information					14.3.450
14.3.45	14.3	14.3.453	14.3.454	14.3.455	14.3.456
Optional Sequence B Settlement Transaction Details					14.3.457
M	16 R	14.3.458	SETTR AN	Start of Block	<i>Note: This sequence is to be used only in case of the contract being against payment.</i>
M	35 B	Security	[ISIN! e12!c] [4*35x]	Identification of the Financial Instrument	Format: (Identification of Security)(Description of Security)Identification of Security: "ISIN" which will always be present. (ISIN of the security). Additionally, the first line (35 characters) of the description may be used if required and may contain the scrip code (4 lines of 35 Characters). The contract descriptor shall be provided in the first line of 35 characters.



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M	36 B	Quantity of Financial Instrument	:4!c//4 !c/15d	Quantity of Financial Instrument to be Settled	Format: (Qualifier)//(Quantity Type Code) //(Quantity) Qualifier: "SETT" (4 Uppercase Characters) Quantity Type Code: "UNIT" or "FAMT" (4 Uppercase Characters) Quantity: 15 digits (including decimal comma) FAMT indicates Quantity into Face Value.
14.3.45	14.3	14.3.461	14.3.462	14.3.463	14.3.464
O	19 A	Amount	:4!c//3 !a15d	To indicate the settlement amount as was displayed in the contract note	Format: (Qualifier) //(Currency Code) (Amount) Qualifier: "SETT" (4 Uppercase Characters) Narrative: "INR" (3 Uppercase Letters) Amount: 15 digits (including decimal comma)
14.3.46	14.3	14.3.467	14.3.468	14.3.469	14.3.470
M	97 A	Account	:4!c//3 5x	To indicate the custodian participant code that will be displayed in the contract note	Format: (Qualifier) //(Custodian Participant Code) Qualifier: "SAFE" (4 Uppercase Characters) Custodian Participant Code: (35 Characters)
14.3.47	14.3	14.3.473	14.3.474	14.3.475	14.3.476
M	22 F	Dummy Indicator	:4!c//4 !c	Dummy (since mandatory according to ISO)	Format: (Qualifier) //(Indicator) Qualifier: "SETR" (4 Uppercase Characters) Indicator: "TRAD" (4 Uppercase Characters)
M	22 H	Receive/Deliver Indicator	:4!c//4 !c	To indicate is the trade was a buy or a sell	Format: (Qualifier) //(Indicator) Qualifier: "REDE" (4 Uppercase Characters) Indicator: "DELI" for a sale (4 Uppercase Characters) Or "RECE" for a purchase (4 Uppercase Characters)



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M	22 H	Payment Indicator	:4!c//4 !c	To indicate if the trade was free of payment or against payment	Format: (Qualifier) // (Indicator) Qualifier: "PAYM" (4 Upper Characters) Indicator: "APMT" for DVP Trades for against payment (4 Upper Characters) Or "FREE" for Clearing House trades (4 Upper Characters)
14.3.47	14.3	14.3.479	14.3.480	14.3.481	14.3.482
M	98 A	Settlement Date	:4!c//8 !n	To give details of the settlement date. (as is given in the incoming MT515 - Contract Note)	Format: (Qualifier) // (Date) Qualifier: "SETT" (4 Uppercase Characters) Date: "YYYYMMDD" (8 Digits)
14.3.48	14.3	14.3.485	14.3.486	14.3.487	14.3.488
Mandatory Subsequence B1 (Settlement Parties)*					14.3.489
M	16 R		SETPR TY	Start of block	14.3.490
14.3.49	14.3	14.3.493	14.3.494	14.3.495	14.3.496
M	95 Q	Party	:4!c//4 *35x	Indicates the SEBI Reg. No. / MAP-IN id of contracting broker. This tag should contain the same information as was uploaded in the corresponding contract note message.	Format: (Qualifier) // SEBI Reg. No. / MAP-IN id of contracting broker) Qualifier: "BUYR" in case of a Sale "SELL" in case of a Purchase
M	16 S		SETPR TY	End of block	14.3.497
14.3.49	14.3	14.3.500	14.3.501	14.3.502	14.3.503
Mandatory Subsequence B1 (Settlement Parties)*					14.3.504
M	16		SETPR	Start of block	14.3.505



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	R		TY		
14.3.50	14.3	14.3.508	14.3.509	14.3.510	14.3.511
M	95 Q	Party	:4!c//4 *35x	Indicates the party with whom trade has to be settled. SEBI reg. Number / MAP-IN id of broker / custodian / seller / clearing house This tag should contain the same information as was uploaded in the corresponding contract note message	Format: (Qualifier)//(SEBI reg. No. / MAP-IN of settling party) Qualifier: "REAG" in case of a Sale "DEAG" in case of a Purchase
M	16 S		SETPR TY	End of block	14.3.512
M	16 S	14.3.513	SETTR AN	End of Block	14.3.514
14.3.51	14.3	14.3.517	14.3.518	14.3.519	14.3.520



14.4 ANNEXURE-IV

GUIDELINES FOR CONDUCT OF CERTIFICATION EXAMINATION

1. Objective:

The examination should attempt to test the practical knowledge and skills required to operate in the derivatives market ensuring that the caliber of persons entering the market is kept high so that investors' interests are best served.

2. Curriculum:

Any certification programme to be approved by SEBI should ensure that candidates have a basic knowledge of financial derivatives and an understanding of various Acts and Rules, Regulations and Byelaws of the Exchange. The certification programme should at least cover the following:

- Characteristics of financial derivatives including futures and options.
- Principals of trading, hedging and investment strategies.
- Principles of clearing, margining, delivery and settlement and exercise.
- Risk management systems and procedures.
- Basics of Stock Index composition and calculation, including contract specifications.
- Existing regulatory and legal structure in the securities and futures market (including SCRA, SEBI Act, SEBI (Stock Broker and Sub-Broker) Regulations, 1992, Dr. L.C. Gupta Committee Report, Suggestive Byelaws and any other special regulatory requirements of the Derivatives market).
- Rules, Regulations and Byelaws of the Exchange (cash segment and derivatives segment).
- Broker-Client relationship (Rights and obligations).
- Accounting standards for derivatives.

3. Fully automated testing environment:



The administration of the test and its subsequent evaluation should be computerised. The test should be online computer based where the candidate is required to answer multiple choice questions and forward them electronically. In such an environment the candidate's performance is also known instantaneously. Procedure for dispatch of Computerised test also avoid certain malpractices which may arise.

4. Nationwide access:

The test should be conducted in all regions of the country including all metros. The test should progressively be conducted in other cities to provide wider access to the participants.

5. Flexibility of test dates:

Test dates should be announced in advance and should be held atleast once every quarter. Candidates should be allowed to state their preference of date and test centre.

6. Random generation of questions and Degree of difficulty:

The certifying institute should have a rich database of questions which are randomly picked for each candidate taking the test. The questions may be graded on different levels of difficulty though uniformity should be maintained in selection of questions from each level for each candidate. Thus the level of difficulty of a particular test for a particular candidate should be the same as that for any other candidate.

7. Administrative monitoring:

The certifying institute should have adequate administrative capability to efficiently run the certification programme. Procedures for enquiries and registration for the certification test should be clearly laid down. The certificate to be issued to successful candidates should carry the photograph of the candidate. The examination should be undertaken on a "no profit" basis. The institution applying for recognition to SEBI shall mention the procedure it expects to follow for sending the candidate's scores to prospective employers. At present the examination should be kept at a 'Basic Entry Level' and later with the development of the market more advanced courses/modules may be added.



14.5 ANNEXURE V

List of Circulars issued on Exchange Traded Derivatives

1. January 20, 2014 - FII Position Limits in Exchange Traded Interest Rate Futures (IRF)
2. December 05, 2013 - Exchange Traded Cash Settled Interest Rate Futures (IRF) on 10-Year Government of India Security.
3. July 08, 2013 - Revised Position Limits for Exchange Traded Currency Derivatives.
4. March 20, 2013 - Acceptance of Corporate bonds and Government securities as collateral from FIIs
5. Dec 19, 2012 - Requirement of Base Minimum Capital for Stock Broker and Trading Member
6. Nov 20, 2012 - Mini derivative (Futures & Options) contract on Index (Sensex & Nifty)
7. Jul 23, 2012 - Revision of Eligibility Criteria for Stocks in Derivatives Segment
8. May 23, 2012- Revised Position Limits for Trading Member (Banks) in Exchange Traded USD:INR derivative contracts



9. December 30, 2011-Interest Rate Futures on 2-year and 5-year Government of India Security
10. Aug 10, 2011-Short-collection/Non-collection of client margins (Derivatives Segments)
11. Jul 05, 2011-Modification of Client Codes of Non-institutional Trades Executed on Stock Exchanges (All Segments)
12. Jun 02, 2011-Liquidity enhancement schemes for illiquid securities in equity derivatives segment
13. May 13, 2011-Self Clearing Member in the Currency Derivatives Segment

14. March 7, 2011-Futures on 91-day Government of India Treasury-Bill (T- Bill)
15. Jan 11, 2011-Introduction of Derivative Contracts on Foreign Stock Indices
16. Oct 27, 2010- European Style Stock Options
17. Jul 30, 2010- Options on USD-INR Spot Rate
18. Jul 15, 2010- Physical Settlement of Stock Derivatives
19. Jul 07, 2010- Revised Exposure Margin for Exchange Traded Equity Derivatives
20. May 04, 2010- Introduction of Index options with tenure up to 5 years
21. Apr 27, 2010- Introduction of derivative contracts on Volatility Index
22. Jan 19, 2010- Currency Futures on Additional Currency pairs
23. Jan 11, 2010- Market Wide Position Limits across Stock Exchanges
24. Jan 08, 2010- Standardized lot size for derivative contracts on individual securities
25. Dec 22, 2009- Delivery Period for Interest Rate Futures
26. Nov 13, 2009- Expiry Date for Equity Derivative Contracts
27. Oct 23, 2009- Trading Hours on Stock Exchanges
28. Aug 28, 2009- Exchange traded Interest Rate Futures



29. Mar 24, 2009- Revised Position Limits for Exchange Traded Currency Derivatives
30. Dec 02, 2008- Cross Margining across Exchange traded Equity (Cash) and Exchange traded Equity Derivatives (Derivatives) segments
31. Nov 06, 2008- Issuance of Electronic Contract Notes in Equity Derivatives Segment
32. Oct 20, 2008- Revised Exposure Margin for Exchange Traded Equity Derivatives
33. Oct 15, 2008- Revised Exposure Margin for Exchange Traded Equity Derivatives
34. Oct 06, 2008 -Eligibility criteria for introduction of derivatives on shares
35. Aug 08, 2008- Extending calendar spread treatment till expiry of the near month contract
36. Aug 06, 2008- Exchange Traded Currency Derivatives
37. Jan 15, 2008- Introduction of Volatility Index
38. Jan 11, 2008- Introduction of Index options with longer tenure
39. Dec 27, 2007- Introduction of mini derivative (Futures and Options) contract on Index -Sensex and Nifty
40. Sep 11, 2007- Circular on acceptance of Foreign Sovereign Securities as collateral from Foreign Institutional Investors (FIIs) for Exchange Traded Derivative Transactions
41. Feb 15, 2006- Clarification to Circular No. DNPD/Cir-31/2006 dated January 20, 2006
42. Jan 20, 2006- Modification of the Trading Member/FII/Mutual Fund position limits for stock based exchange traded derivative contracts
43. Jan 20, 2006- Review of the eligibility criteria of stocks for derivatives trading especially on account of corporate restructuring



44. Sep 14, 2005- Trading by Mutual Funds in Exchange Traded Derivative Contracts
45. Nov 22, 2004- Clarification on the definition of institutional trades and use of physical contract note
46. Sep 28, 2004- Modifications in the STP messaging formats on account of implementation of the Securities Transaction Tax STT
47. Jul 16, 2004- Risk containment measures, position limits and the broad eligibility criteria of Stocks and Index on which futures and options could be introduced
48. Jul 08, 2004- Clarification for circular no. DNPD/Cir-25/04 dated June 10, 2004
49. Jun 10, 2004- Transaction work flow for the system of Straight Through Processing in the Indian Securities Market and standardisation of the messaging formats
50. May 26, 2004- Straight Through Processing Service in the Indian Securities Market
51. Apr 01, 2004- Mandatory use of STP system for all institutional trades executed on the stock exchanges
52. Mar 09, 2004- Trading by FIIs and NRIs in Exchange Traded Interest Rate Derivative Contracts
53. Feb 25, 2004- Issuance of Electronic Contract Notes - Debt Market
54. Feb 23, 2004- Minimum contract size for Exchange traded derivative contracts
55. Feb 06, 2004- Recognition of credit ratings given by reputed foreign credit rating agencies
56. Feb 03, 2004- Issuance of Electronic Contract Notes
57. Jan 05, 2004- Scheme for introduction of Exchange Traded Interest Rate Derivative Contracts on a basket of Government Securities



58. Oct 29, 2003- Trading by FIIs and NRIs in Exchange Traded Derivative Contracts
59. Apr 29, 2003- Issuance of Contract Notes in electronic form
60. Apr 19, 2003 -Circular-Scheme for introduction of Exchange Traded Interest Rate Derivative Contracts
61. Mar 13, 2003- Monthly Reporting Format-Circular
62. Dec 18, 2002- Adjustment in stock option contracts and single stock future contracts at the time of corporate actions
63. Dec 18, 2002- Review of recommendations of Dr.L.C.Gupta Committee on Derivatives.
64. Dec 18, 2002- Risk containment measures and broad eligibility criteria of stocks on which stock options and single stock futures could be introduced
65. Oct 03, 2002- Introduction of Straight Through Processing
66. May 13, 2002- Format of the Monthly Reporting Format
67. Feb 12, 2002- Scheme of FII Trading in all Exchange Traded Derivative Contracts
68. Nov 02, 2001-1 Scheme for introduction of Single Stock Futures and the Risk Containment Measures
69. Aug 24, 2001- Reporting of derivative transactions to the media and the newspapers
70. Jun 21, 2001- Adjustment of Corporate Actions for Stock Option
71. Jun 20, 2001 -Reporting of option contracts to SEBI
72. Jun 20, 2001 -Risk containment measures for Stock Option
73. Feb 13, 2001 -SMDRP/Policy/Cir-10/2001
74. Dec 15, 2000 -Use of Digital Signature on Contract Notes
75. Dec 11, 2000- Risk containment measures for Option on Indices
76. Jun 20, 2000- Daily reports for trading and settlement of derivative trades
77. May 31, 2000- Circular No.8726



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78. Jul 28, 1999 -Risk Containment Measures for the Index Futures Market
79. Dec 03, 1998- Client Registration Form, Client Agreement, Clearing Member - Trading Member Agreement and Risk Disclosure Document for Derivatives Segment
80. Jun 29, 1998- Circular No.1847- Guidelines on Conduct of Certification Examination
81. Jun 16, 1998- Derivatives trading in India