भारतीय प्रतिभूति और विनिमय बोर्ड
Securities and Exchange Board of India

CHAPTER 4 - COMPREHENSIVE RISK MANAGEMENT FOR CASH MARKET AND DEBT SEGMENT

SECTION 1 - RISK MANAGEMENT FRAMEWORK 3
1.1 Comprehensive Risk Management Framework for the cash market 3
1.1.1 Overview 3
1.1.2 Liquid Assets 3
1.1.3 Liquidity Categorization of Securities 6
1.1.4 Monthly Review 6
1.1.5 Categorisation of newly listed securities 6
1.1.6 Calculation of mean impact cost 7
1.1.7 Mark to Market Losses 7
1.1.8 Computation of VaR Margin 8
1.1.9 Collection of VaR Margin 9
1.1.10 VaR Margin rate 9
1.1.11 Extreme Loss Margin 10
1.1.12 Margining Of Institutional Trades in Cash Market 10
1.1.13 Shortfall of Margins / Pay-in of funds 11
1.1.15 Base Minimum Capital 12
1.1.16 Additional Margins 14
1.1.17 Margins from the Client 15
1.1.18 Provision of early pay-in. 15

1.2 Risk Management Framework for Dedicated Debt Segment on StockExchanges 15

1.3 Deposit Requirements for Clearing Member (CM)/ Self Clearing Member (SCM) in Debt Segment 18

1.4 Risk management framework for Foreign Portfolio Investors (FPI) under the SEBI (Foreign Portfolio Investors) Regulations, 2014 18

1.5 Methodology for computation of MTM Margin 19

1.6 Margins not to exceed the purchase value of a buy transaction 20

1.7 Collateral deposited by Clients with brokers 21

1.8 Securities as collateral for foreign institutional trades in cash market 22

1.9 Pre-trade Risk Controls 23

REFERENCE - List of Circulars 26

SECTION 1 - RISK MANAGEMENT FRAMEWORK[1]

1.1 Comprehensive Risk Management Framework for the cash market

1.1.1 Overview

The core of the risk management system is the liquid assets deposited by members with the exchange/clearing corporation. These liquid assets shall cover the following four requirements:

a. ***MTM (Mark To Market) Losses:*** Mark to market losses on outstanding settlement obligations of the member.

b. ***VaR Margins:*** Value at risk margins to cover potential losses for 99% of the days.

c. ***Extreme Loss Margins:*** Margins to cover the expected loss in situations that lie outside the coverage of the VaR margins.

d. ***Base Minimum Capital:*** Capital required for all risks other than market risk (for example, operational risk and client claims).

At all points of time, the liquid assets of the member shall be adequate to cover all the above four requirements. There are no other margins in the risk management system.

1.1.2 Liquid Assets

The acceptable liquid assets and the applicable haircuts are listed below:

Item	Haircut (see Note A)	Limits
	Cash Equivalents	
Cash	0	No limit
Bank fixed deposits	0	No limit
Bank guarantees	0	Limit on exchange's exposure to a single bank (see Note B)
Securities of the Central Government	10%	No limit
Units of liquid mutual funds or government securities mutual funds (by whatever name called which invest in government	10%	No limit

[1] Circular No. MRD/DoP/SE/Cir-07/2005 dated February 23, 2005

<table>
<tr><td>securities)</td><td></td><td></td></tr>
<tr><td colspan="3">Other Liquid Assets
1. Cannot be used for mark to market losses (see Note C)
2. Total of Other Liquid Assets cannot exceed total of Cash Equivalents (see Note D)</td></tr>
<tr><td>Liquid (Group I) Equity Shares (see section 3 for classification of equity shares on the basis of liquidity)</td><td>Same as the VaR margin for the respective shares (see section 5.1 below)</td><td>Limit on exchange's exposure to a single issuer (see Note E)</td></tr>
<tr><td>Mutual fund units other than those listed under cash equivalents</td><td>Same as the VaR margin for the units computed using the traded price on stock exchange, if available, or else, using the NAV of the unit treating it as a liquid security (see section 5.1 below).</td><td></td></tr>
<tr><td>Card value of eligible exchanges (see Note F)</td><td>50% if the last sale or auction of card in the exchange took place during the last six months.
75% if the last sale or auction of card in the exchange took place during the last twelve months but not within the last six months.
100% if no sale or auction of card in the exchange has taken place during the last twelve months.</td><td>Eligible only for Extreme Loss Margin</td></tr>
</table>

Corporate Bonds[2]	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%	Not to exceed 10% of the total liquid assets of the clearing member.

Notes:

A. The valuation of the liquid assets shall be done on a daily basis except for the card value which shall be taken on the basis of the last sale or auction.

B. The exchanges shall lay down exposure limits either in rupee terms or as percentage of the Trade Guarantee Fund (TGF) / Settlement Guarantee Fund (SGF) 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 towards total liquid assets.

   Not more than 5% of the TGF/SGF or 1% of the total liquid assets deposited with the exchange, whichever is lower, shall be exposed to any single bank which has a net worth of less than Rs 500 Crores and is not rated P1 (or P1+) or equivalent, by a RBI recognized credit rating agency or by a reputed foreign credit rating agency, and not more than 50% of the TGF/SGF or 10% of the total liquid assets deposited with the exchanges, whichever is lower, shall be exposed to all such banks put together.

C. Mark to market losses shall be paid by the member in the form of cash or cash equivalents.

D. Cash equivalents shall be at least 50% of liquid assets. This would imply that Other Liquid Assets in excess of the total Cash Equivalents would not be regarded as part of Total Liquid Assets.

E. The exchanges shall lay down exposure limits either in rupee terms or as percentage of the Trade Guarantee Fund (TGF)/Settlement Guarantee Fund (SGF) that can be exposed to a single issuer directly or indirectly and in any case the exposure of the TGF/SGF to any single issuer shall not be more than 15% of the total liquid assets forming part of TGF/SGF of the exchange.

[2] Circular No. CIR/MRD/DRMNP/9/2013 dated March 20, 2013

F. As a transitional arrangement pending demutualization of stock exchanges, the value of the membership card in eligible stock exchanges may be included as part of the member's liquid assets only to cover Extreme Loss Margin. To be eligible for this treatment, the exchange shall maintain an amount equivalent to at least 50% of the aggregate card value of all members in the form of cash and liquid assets.

1.1.3 Liquidity Categorization of Securities

The securities shall be classified into three groups based on their liquidity:

Group	Trading Frequency (over the previous six months – see Note A)	Impact Cost (over the previous six months – see Note A
Liquid Securities (Group I)	At least 80% of the days	Less than or equal to 1%
Less Liquid Securities (Group II)	At least 80% of the days	More than 1%
Illiquid Securities (Group III)	Less than 80% of the days	N/A

Notes:

A. For securities that have been listed for less than six months, the trading frequency and the impact cost shall be computed using the entire trading history of the scrip.

1.1.4 Monthly Review

The trading frequency and impact cost shall be calculated on the 15th of each month on a rolling basis considering the previous six months for impact cost and previous six months for trading frequency. On the basis of the trading frequency and impact cost so calculated, the securities shall move from one group to another group from the 1st of the next month.

1.1.5 Categorisation of newly listed securities

For the first month and till the time of monthly review as mentioned in section 3.1, a newly listed stock shall be categorised in that Group where the market capitalization of the newly listed stock exceeds or equals the market capitalization of 80% of the stocks in that particular group. Subsequently, after one month, whenever the next monthly review is carried out, the actual trading frequency and impact cost of the security shall be computed, to determine the liquidity categorization of the security.

In case any corporate action results in a change in ISIN, then the securities bearing the new ISIN shall be treated as newly listed scrip for group categorization.

1.1.6 Calculation of mean impact cost

The mean impact cost shall be calculated in the following manner:

a. 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.
b. The impact cost shall be the percentage price movement caused by an order size of Rs.1 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.
c. The computation of the impact cost adopted by the Exchange shall be disseminated on the website of the exchange.
d. The exchanges shall use a common methodology for carrying out the calculations for mean impact cost. The stock exchanges which are unable to compute the mean impact cost calculations at their exchanges shall use the impact cost calculations of BSE/NSE. Such stock exchanges shall enter into a formal legal agreement with the relevant stock exchanges for liquidating the positions of their members if necessary, on that stock exchange. If a Stock Exchange is unable to compute the mean impact cost of the scrips traded at the Exchange, as well as not been able to enter into a formal arrangement for liquidation of positions, it shall levy margins on the scrips as applicable to Group II or Group III as explained above, as classification between scrips in Group I or Group II would not be possible at that Exchange.

e. The details of calculation methodology and relevant data shall be made available to the public at large through the website of the exchanges. Any change in the methodology for the computation of impact cost shall also be disseminated by the exchange.

1.1.7 Mark to Market Losses

Mark to Market Losses shall be collected in the following manner:

a. The Stock Exchanges shall collect the mark to market margin (MTM) from the member/broker before the start of the trading of the next day.
b. The MTM margin shall also be collected/adjusted from/against the cash/cash equivalent component of the liquid net worth deposited with the Exchange.

c. The MTM margin shall be collected on the gross open position of the member. The gross open position for this purpose would mean the gross of all net positions across all the clients of a member including his proprietary position. For this purpose, the position of a client would be netted across his various securities and the positions of all the clients of a broker would be grossed. Further, there would be no netting across two different settlements.
d. There would be no netting off the positions and setoff against MTM profits across 2 rolling settlements i.e. T day and T-1 day. However, for computation of MTM profits/losses for the day, netting or setoff against MTM profits would be permitted.
e. The methodology for computation of MTM margin is also illustrated by way of an example which is placed in Annexure II.
f. The margin so collected shall be released along with the pay-in, including early pay-in of securities.

VaR Margin

1.1.8 Computation of VaR Margin

The VaR Margin is a margin intended to cover the largest loss that can be encountered on 99% of the days (99% Value at Risk). For liquid stocks, the margin covers one-day losses while for illiquid stocks, it covers three-day losses so as to allow the clearing corporation to liquidate the position over three days. This leads to a scaling factor of square root of three for illiquid stocks.

For liquid stocks, the VaR margins are based only on the volatility of the stock while for other stocks, the volatility of the market index is also used in the computation. Computation of the VaR margin requires the following definitions:

- ***Scrip sigma*** means the volatility of the security computed as at the end of the previous trading day. The computation uses the exponentially weighted moving average method applied to daily returns in the same manner as in the derivatives market.
- ***Scrip VaR*** means the higher of 7.5% or 3.5 scrip sigmas.
- ***Index sigma*** means the daily volatility of the market index (S&P CNX Nifty or BSE Sensex) computed as at the end of the previous trading day. The computation uses the exponentially weighted moving average method applied to daily returns in the same manner as in the derivatives market.
- ***Index VaR*** means the higher of 5% or 3 index sigmas. The higher of the Sensex VaR or Nifty VaR would be used for this purpose.

The VaR Margins are specified as follows for different groups of stocks:

Liquidity Categorization	One-Day VaR	Scaling factor for illiquidity	VaR Margin
Liquid Securities (Group I)	Scrip VaR	1.00	Scrip VaR
Less Liquid Securities (Group II)	Higher of Scrip VaR and three times Index VaR	1.73 (square root of 3.00)	Higher of 1.73 times Scrip VaR and 5.20 times Index VaR
Illiquid Securities (Group III)	Five times Index VaR	1.73 (square root of 3.00)	8.66 times Index VaR

1.1.9 Collection of VaR Margin

a. The VaR margin shall be collected on an upfront basis by adjusting against the total liquid assets of the member at the time of trade. Collection on T+1 day is not acceptable.
b. The VaR margin shall be collected on the gross open position of the member. The gross open position for this purpose would mean the gross of all net positions across all the clients of a member including his proprietary position.
c. For this purpose, there would be no netting of positions across different settlements.
d. The VaR margin so collected shall be released along with the pay-in, including early pay-in of securities.

1.1.10 VaR Margin rate[3]

VaR margin rate was calculated at the end of the trading day and then applied to the open positions of the subsequent trading day. However, in the derivative market, the risk parameter files for computation of the margins were updated intra-day.

With a view to ensure market safety and protect the interest of investors and also to further align the risk management framework across the cash and derivative markets, it has been decided that the risk arrays should be updated intra-day in the cash market as has been done in the derivative market. **The applicable VaR margin rates shall be updated atleast 5 times in a 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.

[3] Circular no. MRD/DoP/SE/Cir- 6 /2006 dated June 16, 2006

1.1.11 Extreme Loss Margin

The term Extreme Loss Margin replaces the terms "exposure limits" and "second line of defence" that have been used hitherto. It covers the expected loss in situations that go beyond those envisaged in the 99% value at risk estimates used in the VaR margin.

a. The Extreme Loss Margin for any stock shall be higher of:
   - 5%, and
   - 1.5 times the standard deviation of daily logarithmic returns of the stock price in the last six months. This computation shall be done at the end of each month by taking the price data on a rolling basis for the past six months and the resulting value shall be applicable for the next month.
b. The Extreme Loss Margin shall be collected/ adjusted against the total liquid assets of the member on a real time basis.
c. The Extreme Loss Margin shall be collected on the gross open position of the member. The gross open position for this purpose would mean the gross of all net positions across all the clients of a member including his proprietary position.
d. For this purpose, there would be no netting of positions across different settlements.
e. The Extreme Loss Margin so collected shall be released along with the pay-in.

1.1.12 Margining Of Institutional Trades in Cash Market[4]

All Institutional trades in the cash market would be subject to payment of margins as applicable to transactions of other investors. For this purpose institutional investors shall include –

a. Foreign Institutional Investors registered with SEBI.
b. Mutual Funds registered with SEBI.
c. Public Financial Institutions as defined under section 4A of the Companies Act, 1956.
d. Banks, i.e., a banking company as defined under Section 5(1)(c) of the Banking Regulations Act, 1949.
e. Insurance companies registered with IRDA.
f. Pension Fund regulated by Pension Fund Regulatory and Development Authority (PFRDA)[5].

[4] Circular No. MRD/DoP/SE/Cir- 06 /2008 dated March 19 2008
[5] Included vide letter dated May 27, 2009 to Stock Exchanges

All institutional trades in the cash market would be margined on a T+1 basis with the margin being collected from the custodian upon confirmation of trade.

1.1.13 Shortfall of Margins / Pay-in of funds

a. Margin shortfall
In case of any shortfall in Margin, the terminals of the broker shall be immediately deactivated.

b. Pay-in shortfall
i. In cases where the amount of shortage in a settlement for a trading member is in excess of the base minimum capital (BMC) prescribed, the trading facility of the member shall be withdrawn and the securities pay-out due to the member shall be withheld.
ii. In cases where the amount of shortage exceeds 20% of the BMC but less than the BMC on six occasions within a period of three months, then also the trading facility of the member shall be withdrawn and the securities pay-out due to the member shall be withheld.
iii. Upon recovery of the complete shortages, the member shall be permitted to trade subject to his providing a deposit equivalent to his cumulative funds shortage as the 'funds shortage collateral'. Such deposit shall be kept with the Exchange for a period of ten rolling settlements and shall be released thereafter. Such deposit shall not be available for adjustment against margin liabilities and also not earn any interest. The deposit may be by way of cash, fixed deposit receipts or bank guarantee.
iv. The exchange may levy a penal interest of not less than 0.07% per day on the pay-in shortage of the member.

1.1.14 Margining with respect to Exchange Traded Funds (ETFs)[6]

A. Use of VaR Methodology with respect to Exchange Traded Funds

I. Index ETFs are based on a basket of securities. However, for computing margins on ETFs they are treated at par with stocks and margins that are applicable on stocks are being applied for ETFs.

II. In order to bring efficiency in margining of index ETFs, it has been decided that VaR margin computation for ETFs that track an index shall be computed as higher of 5% or three times sigma of the ETF.

[6] Circular No. CIR/MRD/DP/26/2012 dated September 26, 2012

III. The revised margin framework is applicable to ETFs that tracks broad based market indices and does not include ETFs which track sectoral indices.

B. Introduction of Cross-Margining facility in respect of offsetting positions in ETFs based on equity indices and constituent stocks.

I. SEBI vide its circular SEBI/DNPD/Cir-44/2008 dated December 02, 2008 allowed cross margining across cash segment and exchange traded derivatives segments.

II. In order to facilitate efficient use of margin capital by market participants, it has been decided to extend cross margining facility to ETFs based on equity index and its constituent stocks for following off-setting positions in cash market segment, as follows:

a. ETFs and constituent stocks (in the proportion specified for the ETF) to the extent they offset each other,

b. ETFs and constituent stocks futures (in the proportion specified for the ETF) to the extent they offset each other and

c. ETFs and relevant Index Futures to the extent they offset each other.

d. In the event of a suspension on creation / redemption of the ETF units, the cross-margining benefit shall be withdrawn.

1.1.15 Base Minimum Capital

A. Requirement of Base Minimum Capital for Stock Broker and Trading Member[7]

a. Stock Brokers in cash, derivative and debt segment and Proprietary Trading Members in debt segment shall maintain BMC based on their risk profiles as prescribed in table below: -[8]

Categories	BMC Deposit
Only Proprietary trading without Algorithmic trading (Algo)	Rs 10 Lacs

[7] Circular No. MRD/DRMNP/36/2012 dated December 19, 2012
[8] Circular No. CIR/MRD/DRMNP/37/2013 dated December 19, 2013

Trading only on behalf of Client (without proprietary trading) and without Algo	Rs 15 Lacs
Proprietary trading and trading on behalf of Client without Algo	Rs 25 Lacs
All Brokers with Algo	Rs 50 Lacs

Explanation: The profiling of members may be explained with the following example – A scenario may arise, wherein, a "stock broker" in cash segment and derivative segment 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 Rs 25 Lacs.

b. This BMC deposit requirement stipulated in the table above is applicable to all stock brokers of exchanges having nation-wide trading terminals.
c. For stock brokers 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 brokers 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.

B. BMC requirement for stock exchanges having average daily turnover of less than Rs 1 crore

Stock Exchanges shall maintain the BMC at Rs. 1 lakh if the average daily turnover is less than Rs.1 crore for any three consecutive months.

C. Refund of excess BMC over Rs. 1 lakh

The excess of the BMC over Rs 1 lakh may be refunded to the members of the exchange subject to the following conditions:

a. The member has been inactive at the stock exchange for the past 12 months, i.e. he has not carried out any transaction on that stock exchange during the past 12 months.
b. There are no investor complaints pending against the member.
c. There are no arbitration cases pending against the member.
d. The exchange shall retain/deduct/debit from the BMC to be refunded, the amount of any complaints/claims of the investors against the member and for dues crystallized and contingent to the exchange/SEBI arising out of pending arbitration cases, appealed arbitration awards, administrative expenses, SEBI turnover fees, e.t.c.
e. The exchange shall ensure that the member has paid the SEBI turnover fees and has obtained a No-Objection Certificate (NoC) from SEBI in this regard.

D. Re-enhancement of BMC

If the average daily turnover of the exchange exceeds the prescribed level of Rs.1 crore for a period of one month at any time, the exchange shall enhance the requirement of the BMC of the members back to the level as prescribed in Para A above and shall obtain undertaking to this effect from the members.

1.1.16 Additional Margins

Exchanges/clearing corporations have the right to impose additional risk containment measures over and above the risk containment system mandated by SEBI. However, the Stock Exchanges should keep the following three factors in mind while taking such action:

a. Additional risk management measures (like ad-hoc margins) would normally be required only to deal with circumstances that cannot be anticipated or were not anticipated while designing the risk management system. If ad-hoc margins are imposed with any degree of regularity, exchanges should examine whether the circumstances that give rise to such margins can be reasonably anticipated and can therefore be incorporated into the risk management system mandated by SEBI. Exchanges are encouraged to analyse these situations and bring the matter to the attention of SEBI for further action.
b. Any additional margins that the exchanges may impose shall be based on objective criteria and shall not discriminate between members on the basis of subjective criteria.

c. Transparency is an important regulatory goal and therefore every effort must be made to make the risk management systems fully transparent by disclosing their details to the public.

1.1.17 Margins from the Client

Members should have a prudent system of risk management to protect themselves from client default. Margins are likely to be an important element of such a system. The same shall be well documented and be made accessible to the clients and the Stock Exchanges. However, the quantum of these margins and the form and mode of collection are left to the discretion of the members.

1.1.18 Provision of early pay-in.[9]

i. As regards the transactions executed on behalf of institutional clients in the cash market, it shall be permissible to maintain their entire margin in the form of approved securities with appropriate haircuts as specified in the SEBI circular dated February 23, 2005.
ii. Necessary systems shall be put in place to enable early pay-in of funds. In cases where early pay-in of funds is made by the members, the outstanding position to that extent of early pay-in shall not be considered for computing the margin obligations.
iii. Necessary systems shall be put in place so as to enable adjustment of the pay-in obligations of the members from the cash component of the liquid assets deposited by them.

Exemptions

i. In cases where early pay-in of securities is made, the outstanding position to the extent of early pay-in shall not be considered for margin purpose.

1.2 Risk Management Framework for Dedicated Debt Segment on StockExchanges[10]

1. The term "corporate bonds" in this section refers to debt securities as defined in the SEBI (Issue and Listing of Debt Securities) Regulations, 2008.
2. **Clearing and Settlement**

[9] Circular No. MRD/DoP/SE/Cir-10/2008 dated April 17, 2008

[10] Circular No. SEBI/MRD/DP/27/2013 dated September 12, 2013

2.1 **Settlement Cycle**: The trades settled on DVP-3 basis in debt segment shall have settlement cycle of T+1 . In case of trades settled on DVP-1 basis, Stock exchanges shall have flexibility to settle trades on T+0 or T+1.

2.2 **Settlement Basis**

2.2.1 Retail Market: The Stock Exchanges shall continue to settle trades on DVP-3 basis in retail market of debt segment for publically issued corporate bonds.

2.2.2 Institutional market: The Stock exchanges may provide settlement on DVP-3 basis for publicly issued corporate bonds and for such privately placed corporate bonds which meet certain selection/eligibility criteria to be specified by the exchanges.

2.2.2.1 The minimum selection/eligibility criteria for privately issued corporate bonds to be eligible for DVP-3 settlement shall include the following:

a. The corporate bonds shall have a minimum rating of AA+ (or similar nomenclature).
b. The yield spread of corporate bonds over similar residual tenure government securities shall not exceed 150 basis points.
c. New corporate bonds listed during the month shall also be eligible for DVP-3 settlement if they meet the rating and yield spread criteria stated at (a) and (b) above.
d. In case of existing corporate bonds, only liquid bonds shall be permitted. The stock exchanges may consider one or more following factors while defining liquid bonds:

i. Bonds to have traded for at least 5 trading days in every month (including both exchange trades and reported trades).
ii. Bonds to have minimum trading volumes of Rs 25 crores in every month (including both exchange trades and reported trades).

2.2.2.2 The list of eligible bonds may be reviewed on monthly basis and made applicable from 15th of subsequent month.

2.2.2.3 In all other cases, privately issued corporate bonds shall continue to settle on DVP-1 basis.

3. **Risk Management**

3.1 The Clearing Corporation shall provide settlement guarantee for trades settled on DVP-3 basis. For this purpose, the Clearing Corporation shall create a Settlement Guarantee Fund on similar lines as in other segments.

3.2 For the purpose of risk management in respect of trades settled on DVP-3 basis, the Clearing Corporation shall impose the following margins:

3.2.1 **Initial Margin (IM)**: Initial margin shall be based on a worst case loss of a portfolio of an individual client across various scenarios of price changes so as to cover a 99% VaR over one day horizon.

3.2.1.1 The minimum initial margin shall be 2% for residual maturity upto three years, 2.5% for residual maturity above three years and up to five years; and 3% for maturity above five years. The margin shall be calculated as percentage of traded price of the bond expressed in terms of clean price i.e. without taking accrued interest into account.

3.2.1.2 Stock Exchanges may follow a VaR estimation model similar to Interest Rate Futures as prescribed in SEBI circular SEBI/DNPD/Cir-46/2009 dated August 28, 2009.

3.2.1.3 The Initial Margin shall be deducted upfront from the liquid assets of the member taking into account gross open positions.

3.2.2 **Extreme Loss Margin (ELM):** The ELM shall cover the expected loss in situations that go beyond those envisaged in risk estimates used in the initial margins. The ELM for any bond shall be 2% of the traded price expressed in terms of clean price. It would be deducted upfront from the total liquid assets of the member.

3.3 **Liquid Assets**: The liquid assets for meeting margin requirements may be deposited in the following form:

a. At least 50% in cash or cash equivalents i.e. government securities, bank guarantee, fixed deposits or units of liquid mutual funds or government securities mutual funds;

b. Not more than 50% in the form of corporate bonds / liquid equity shares/ mutual fund units other than units of liquid mutual funds or government securities mutual funds;

as specified in SEBI circular No. MRD/DoP/SE/Cir-07/2005 dated February 23, 2005.

4. **Auction/financial close-out**: In case of shortages, stock exchanges may conduct auction and/or financial close-out with a mark up of 4% on traded price of such corporate bonds

5. **Reporting**: The reporting platform made available by stock exchanges under the earlier SEBI circulars shall be merged with the negotiated window or facility for RFQ or other such similar facility provided by debt segment of exchanges for enabling reporting of OTC trades or facilitating OTC trades. This platform shall be available for reporting of trades by both members and non-members.

1.3 Deposit Requirements for Clearing Member (CM)/ Self Clearing Member (SCM) in Debt Segment[11]

i. **Clearing Member (CM) / Self Clearing Member (SCM)**: The deposit shall be INR 10 lacs. No exposure shall be granted against such deposit requirement of the Clearing Member/ Self Clearing Member.

ii. **Provided** no deposit shall be payable by entity desirous of being CM /SCM in debt segment, in case, it is already a CM or SCM or stock broker of any other segment of the stock exchange / clearing corporation.

iii. **Provided further that** no deposit shall be payable in case a CM / SCM clears and settles trades only on gross basis for both securities and funds, and where no settlement guarantee is provided by the clearing corporation.

1.4 Risk management framework for Foreign Portfolio Investors (FPI) under the SEBI (Foreign Portfolio Investors) Regulations, 2014[12]

To effect a smooth transition to the FPI regime, stock exchanges and clearing corporations are directed to take following measures with regard to trading and risk management of FPI trades:

1. Margining of trades undertaken by FPIs in the Cash Market:
   a) The trades of FPIs in Category I, II & III shall be margined on a T+1 basis in accordance with SEBI circular MRD/DoP/SE/Cir-18/2008 dated May 22, 2008.

   b) However, the trades of FPIs who are Corporate bodies, Individuals or Family offices shall be margined on an upfront basis as per the extant margining framework for the non-institutional trades.

[11] Circular No. MRD/DRMNP/37/2013 dated December 19, 2013
[12] Circular No. CIR/MRD/DP/15/2014 dated May 15, 2014

2. Position limit of an FPI in the Equity Derivatives Segment and for Interest Rate Futures: Category I & II FPIs shall have position limits as presently available to FIIs. Category III FPIs shall have position limits as applicable to the clients.
3. Facility for allocation of trades: In modification to the SEBI circular MRD/DoP/SE/Cir-35/2004 dated October 26, 2004, the following framework shall be implemented to facilitate allocation of trades of a FPI to other FPIs:

   a) Entities who trade on behalf of FPIs shall inform the stock brokers of the details of FPIs on whose behalf the trades would be undertaken.

   b) The stock broker, in turn, shall inform the stock exchanges the details of such related FPIs.

   c) Stock exchanges shall put-in place suitable mechanism to ensure that allocation of trade by a FPI is permitted only within such related FPIs.

4. Custodians / DDPs shall provide necessary details related to FPIs, including categorisation of FPIs, to the stock exchanges for the purpose of implementing the aforementioned provisions.

1.5 Methodology for computation of MTM Margin

For a Client A, his MTM profit/ loss would be calculated separately for his positions on T-1 and T day (two different rolling settlements). For the same day positions of the client, his losses in some scrips can be set off/netted against profits of some other scrips. Thus, we would arrive at the MTM loss/profit figures of the two different days T and T-1. These two figures cannot be netted. Any loss will have to be collected and same will not be setoff against profit arising out of positions of the other day.

Thus, as stated above MTM profits / losses would be computed for each of the clients Client A, Client B, Client C etc. As regards collection of margin from the broker, the MTM would be grossed across all the clients i.e. no setoff of loss of one client with the profit of another client. In other words, only the losses will be added to give the total MTM loss that the broker has to deposit with the exchange.

		T-1 day	T day		Total profit/lloss of Client		MTM for broker
Client A	Security X	800	300				

	Security Y	-500	-1200				
	Total	300	-900		-900		
Client B	Security Z	700	-400				
	Security W	-1000	800				
	Total	-300	400		-300		
Client C	Security X	1000	500				
	Security Z	-1500	-800				
	Total	-500	-300		-800		
Client D	Security Y	700	-200				
	Security R	-300	800				
	Total	400	600		1000		
BROKER							-2000

In this example, the broker has to deposit MTM Margin of Rs 2000.

1.6 Margins not to exceed the purchase value of a buy transaction[13]

In case of a buy transaction in cash market, VaR margins, Extreme loss margins and mark to market losses together shall not exceed the purchase value of the transaction. Further, in case of a sale transaction in cash market, the existing practice shall continue viz., VaR margins and Extreme loss margins together

[13] Circular No. MRD/DoP/SE/Cir-08/2009 datad July 27, 2009

shall not exceed the sale value of the transaction and mark to market losses shall also be levied.

1.7 Collateral deposited by Clients with brokers[14]

For brokers to maintain proper records of client collateral and to prevent misuse of client collateral, it is advised that:-

1. Brokers should have adequate systems and procedures in place to ensure that client collateral is not used for any purposes other than meeting the respective client's margin requirements / pay-ins. Brokers should also maintain records to ensure proper audit trail of use of client collateral.

2. Brokers should further be able to produce the aforesaid records during inspection. The records should include details of :-
   a. Receipt of collateral from client and acknowledgement issued to client on receipt of collateral.

   b. Client authorization for deposit of collateral with the exchange / clearing corporation / clearing house towards margin

   c. Record of deposit of collateral with exchange / clearing corporation / clearing house.

   d. Record of return of collateral to client.

   e. Credit of corporate action benefits to clients.

3. The records should be periodically reconciled with the actual collateral deposited with the broker.

4. Brokers should issue a daily statement of collateral utilization to clients which shall include, inter-alia, details of collateral deposited, collateral utilised and collateral status (available balance / due from client) with break up in terms of cash, Fixed Deposit Receipts (FDRs), Bank Guarantee and securities.

5. In case of complaints against brokers related to misuse of collateral deposited by clients, exchanges should look into the allegations, conduct inspection of broker if required and based on its findings take necessary action.

[14] Circular No. MRD/DoP/SE/Cir- 11/2008 dated April 17, 2008

6. In case client collateral is found to be mis-utilised, the broker would attract appropriate deterrent penalty for violation of norms provided under Securities Contract Regulation Act, SEBI Act, SEBI Regulations and circulars, Exchange Byelaws, Rules, Regulations and circulars.

1.8 Securities as collateral for foreign institutional trades in cash market[15]

Reserve Bank of India (RBI) vide A. P. (DIR Series) Circular no. 47 dated April 12, 2010 has permitted FIIs to offer domestic Government Securities (acquired by the FIIs in accordance with the provisions of Schedule 5 to Notification No. FEMA 20/2000-RB dated May 3, 2000, as amended from time to time and subject to the overall limits specified by the SEBI from time to time; the current limit being USD 5 billion), and foreign sovereign securities with AAA rating, as collateral to the recognized Stock Exchanges in India, in addition to cash, for their transactions in the cash segment of the market. However, cross-margining of Government Securities (placed as margins by the FIIs for their transactions in the cash segment of the market) shall not be allowed between the cash and the derivative segments of the market.

Corporate bonds as collateral in cash market[16]

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 corporate bonds as collateral in the cash segment. FIIs are permitted to offer the following collaterals - government securities, corporate bonds, cash and foreign sovereign securities with AAA ratings, for their transactions in cash segment.

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

a. The bonds shall have a rating of AA or above (or with similar rating nomenclature) by recognised credit rating agencies.
b. The bonds shall be in dematerialized form.
c. 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.

[15] Circular No. CIR/MRD/DP/15/2010 dated April 28, 2010
[16] Circular No. CIR/MRD/DRMNP/9/2013 dated March 20, 2013

d. 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%.

1.9 Pre-trade Risk Controls[17]

1. It has been decided to prescribe a framework of dynamic trade based price checks to prevent aberrant orders or uncontrolled trades. As an initial measure, it has been decided that stock exchanges shall implement the measures as given below.

Order-level checks

2. Minimum pre-trade risk controls for all categories of orders placed on Stocks, Exchange Traded Funds (ETFs), Index Futures and Stock futures shall be as follows:

2.1 <u>Value/Quantity Limit per order:</u>

a. Any order with value exceeding Rs. 10 crore per order shall not be accepted by the stock exchange for execution in the normal market.

b. In addition, stock exchange shall ensure that appropriate checks for value and / or quantity are implemented by the stock brokers based on the respective risk profile of their clients.

2.2 <u>Cumulative limit on value of unexecuted orders of a stock broker:</u>

a. Vide SEBI circular CIR/MRD/DP/09/2012 dated March 30, 2012, stock exchanges have been directed to ensure that the trading algorithms of the stock brokers have a 'client level cumulative open order value check'.

b. In continuation to the above, stock exchange are directed to ensure that stock brokers put-in place a mechanism to limit the cumulative value of all unexecuted orders placed from their terminals to below a threshold limit set by the stock brokers. Stock exchanges shall ensure that such limits are effective.

[17] Circular No. CIR/MRD/DP/34/2012 dated December 13, 2012

2.3 Stock exchanges shall enhance monitoring of the operating controls of the stock brokers to ensure implementation of the checks mentioned at point 2.1(b) and 2.2(b) above; and levy deterrent penalty in case any failure is observed at the end of stockbroker in implementing such checks.

Dynamic Price Bands (earlier called Dummy Filters or Operating Range)

3. Vide circular no. SMDRPD/Policy/Cir-37/2001 dated June 28, 2001, stock exchanges had been advised to implement appropriate individual scrip wise price bands in either direction, for all scrips in the compulsory rolling settlement except for the scrips on which derivatives products are available or scrips included in indices on which derivatives products are available.

   For scrips excluded from the requirement of price bands, stock exchanges have implemented a mechanism of dynamic price bands (commonly known as dummy filters or operating range) which prevents acceptance of orders for execution that are placed beyond the price limits set by the stock exchanges. Such dynamic price bands are relaxed by the stock exchanges as and when a market-wide trend is observed in either direction.

   3.1 It has been decided to tighten the initial price threshold of the dynamic price bands. Stock exchange shall set the dynamic price bands at 10% of the previous closing price for the following securities:

      (a) Stocks on which derivatives products are available,
      (b) Stocks included in indices on which derivatives products are available,
      (c) Index futures,
      (d) Stock futures.

   3.2 Further, in the event of a market trend in either direction, the dynamic price bands shall be relaxed by the stock exchanges in increments of 5%. Stock exchanges shall frame suitable rules with mutual consultation for such relaxation of dynamic price bands and shall make it known to the market.

Risk Reduction Mode

4. Stock exchanges shall ensure that the stock brokers are mandatorily put in risk-reduction mode when 90% of the stock broker's collateral available for adjustment against margins gets utilized on account of trades that fall under a margin system. Such risk reduction mode shall include the following:

a. All unexecuted orders shall be cancelled once stock broker breaches 90% collateral utilization level.
b. Only orders with Immediate or Cancel attribute shall be permitted in this mode.
c. All new orders shall be checked for sufficiency of margins.
d. Non-margined orders shall not be accepted from the stock broker in risk reduction mode.
e. The stock broker shall be moved back to the normal risk management mode as and when the collateral of the stock broker is lower than 90% utilization level.

5. Stock exchanges may prescribe more stringent norms based on their assessment, if desired.

REFERENCE - List of Circulars

1. *Circular no. MRD/DoP/SE/Cir-07/2005 dated February 23, 2005.*
2. *Circular no. MRD/DoP/SE/Cir- 6 /2006 dated June 16, 2006.*
3. *Circular no. MRD/DoP/SE/Cir- 06 /2008 dated March 19 2008.*
4. *Circular no. MRD/DoP/SE/Cir-10/2008 dated April 17, 2008.*
5. *Circular No. MRD/DoP/SE/Cir- 11/2008 dated April 17, 2008.*
6. *Circular no. MRD/DoP/SE/Cir-13/2008 dated May 05, 2008.*
7. *Circular no. MRD/DoP/SE/Cir-18/2008 dated May 22, 2008.*
8. *Circular No. MRD/DoP/SE/Cir-08/2009 datad July 27, 2009.*
9. *Circular No. CIR/MRD/DP/15/2010 dated April 28, 2010.*
10. *Circular No CIR/MRD/DP/26/2012 dated September 26, 2012.*
11. *Circular No CIR/MRD/DP/34/2012 dated December 13, 2012.*
12. *Circular No. MRD/DRMNP/36/2012 dated December 19, 2012.*
13. *Circular No. CIR/MRD/DRMNP/9/2013 dated March 20, 2013.*
14. *Circular No. SEBI/MRD/DP/27/2013 dated September 12, 2013*
15. *Circular No. MRD/DRMNP/37/2013 dated December19, 2013.*
16. *Circular No. CIR/MRD/DP/15/2014 dated May 15, 2014*

**Circular No. MRD/DoP/SE/Cir-13/2008 dated May 05, 2008 on Cross margining across cash and derivatives market issued by MRD-DoP, a final circular on the same has been issued by DNPD vide Circular No. SEBI/DNPD/Cir- 44/2008 dated December 02, 2008.*