Appendix 1

Analysis of Questionnaire I for Regulators:

1. On query of whether the institutions monitor derivative trading, the institutions replied:
2. On query on the list of instruments allowed to trade in derivatives market,
3. How many audits do you perform in a year?
4. Do you train market participants in derivatives trading?
5. How do you train derivative traders?
6. How frequently?
7. How do you enforce regulation compliance?
8. How many times do you carry out periodic audits?
9. How many times in a year does a trader have to present a compliance report?
10. How many surprise checks do you carry out in a year?
11. How many periodic meeting do you conduct with the traders and institutional investors in a year?
12. What does the compliance report consist of?
13. Does a trader have to be qualified for derivatives trading?
14. How do you ensure compliance?
15. How do you incorporate new regulations?
16. How do you ensure compliance on information dissemination?
17. How do you make investors aware of the risk involved in derivatives trading?
18. How many companies approach SEBI for derivative trading?
19. How many listed companies (%) of the applied meet SEBI criteria in participating in derivatives trading?
20. Do you collaborate with SEC?
21. How much international exposure do you allow in derivatives trading
22. How is the red alert signaled?
23. How do you monitor mark to market investors’ positions?
24. How does SEBI monitor day to day trading pattern?
25. How do you penalize non-compliance?
26. Do you think a separate exchange for derivative trading should be established?
27. If yes, why do you think so?
28. How frequently do you introduce new products in the Derivatives Market?
29. Do you think Indian Financial System is matured enough to adapt to exotic products in Derivatives?
30. Why?
31. Has any trader/broker defaulted?
32. Have you taken any action on the defaulted trader/ broker?
33. If yes, then how many?
34. On what grounds have the traders/ brokers defaulted?
35. What actions do you normally take on the default by the traders/ brokers?
36. Do you have a mechanism to monitor high performance individuals/ traders/ brokers?
37. If yes, then how do you monitor high performance individuals/ traders / brokers?
38. Are there any regulatory concerns to be addressed in the near future?
39. If yes, then what?
Appendix 2

Questionnaire for professionals in banking and finance area

I am an Assistant Professor at Symbiosis Institute of Management Studies pursuing Doctoral programme under the aegis of Symbiosis International (Deemed) University, Pune, Maharashtra, India. The title of my thesis is ‘An Analytical study of the present regulatory structure for Indian Derivatives Market’. In this regard a questionnaire has been drafted to collect primary data from the stakeholders in the derivative market. I am reaching out to you for your help in collecting the same. You being an expert and knowledgeable in the above mentioned area of study, are hence requested to kindly fill the questionnaire for a more comprehensive analysis of the topic and to validate data collected through secondary research. I assure you that the data collected would be kept confidential and would be used for academic purposes only. This gesture of help on your part would be thankfully appreciated in the interest of academic research promotion. Please spare few minutes to complete the following questionnaire. Please tick the appropriate answer. Please rate the parameters between 1-5 for an appropriate answer, if the question desires. 5- Strongly Agree, 4- Agree, 3- Neither Agree nor Disagree, 2- Disagree, 1- Strongly Disagree. It is purely an academic exercise. Data would be kept confidential.

* Required

1. Do you trade in Financial Derivatives?
   - ☐ Yes
   - ☐ No

2. If yes, what is the approximate annual turnover of the financial derivative trading (in Rs.)?
   - ☐ Less than 100 crore
   - ☐ 100-200 crore
   - ☐ 200-300 crore
   - ☐ 300-400 crore
   - ☐ 400 and above

3. Trading in derivative instrument help meet you following objectives. *
   - ☐ Hedging
   - ☐ Wealth creation through speculation
   - ☐ Arbitrage
   - ☐ Operating in an Efficient Market
   - ☐ Appropriate Price Discovery

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•  Price Stability

4. The Indian Financial System is efficient and robust. 5- Strongly Agree, 1- Strongly Disagree
   1  2  3  4  5

5. Inefficient Derivative Markets would highly impact the Indian Financial System. 5- Strongly Agree, 1- Strongly Disagree
   1  2  3  4  5

6. Indian Derivative Markets are efficiently regulated. 5- Strongly Agree, 1- Strongly Disagree
   1  2  3  4  5

7. Derivative Trading is better than Badla Trading. 5- Strongly Agree, 1- Strongly Disagree
   1  2  3  4  5

8. Derivative Trading has resulted in exposure to high risk. 5- Strongly Agree, 1- Strongly Disagree
   1  2  3  4  5

9. Over The Counter (OTC) trades are risker than Exchange regulated trades. 5- Strongly Agree, 1- Strongly Disagree
   1  2  3  4  5
10. One of the factors contributing to the recent sub-prime crisis and financial meltdown was due to the Over The Counter (OTC) trades in derivative products. 5- Strongly Agree, 1- Strongly Disagree

1 2 3 4 5

☐ ☐ ☐ ☐ ☐

11. What could be the factors from the following which may lead to financial crisis? * You may choose multiple factors.

- ☐ Introduction of Exotic and complex derivatives products
- ☐ Lack of regulation in Derivative Markets.
- ☐ Lack of regulation in Cash Market
- ☐ Greed
- ☐ Improper use of derivative instruments
- ☐ Inadequate understanding on the use of derivative instruments
- ☐ Human Nature
- ☐ Lack of regulation in OTC derivatives market
- ☐ All of the above
- ☐ Other

12. What could be the factors from the following which may have lead the financial crisis due to derivatives trading in the past? * You may choose multiple factors.

- ☐ Introduction of Exotic and complex derivatives products
- ☐ Lack of regulation in Derivative Markets.
- ☐ Lack of regulation in Cash Market
- ☐ Greed
- ☐ Improper use of derivative instruments
- ☐ Inadequate understanding on the use of derivative instruments
- ☐ Human Nature
- ☐ Lack of regulation in OTC Derivatives Market
- ☐ All of the above
13. Which factors have helped India tide the recent financial crisis (2007) in the world? * You may choose multiple factors.

- [ ] Conservative Banking regulations
- [ ] Conservative Derivative Regulatory Structure
- [ ] Conservative Monetary and Fiscal Policies
- [ ] Our limited Exposure to World Markets
- [ ] All of the above
- [ ] Other
- [ ] Do not agree with the statement

14. Do you think Indian Derivative Markets are efficient?

- [ ] Yes
- [ ] No
- [ ] Maybe

15. Please state the factors in either case.

16. Following factors help regulate the derivatives market efficiently.

- [ ] HighMargins
- [ ] Maintenance of High Net worth by brokers/ traders
- [ ] Periodic Audits and Reporting
- [ ] Adequate awareness generation of dynamics of derivative trading
- [ ] Monitoring of high volume/ value trades
- [ ] Monitoring Speculative tendencies
- [ ] Ensuring basic compliance for competent Market Participants
- [ ] Periodic Training to Market Participants
- [ ] All of the above
- [ ] Other
17. Do you think a need to establish a separate Derivative Exchange?

- ☐ Yes
- ☐ No
- ☐ Maybe

18. Do you think a need to establish a centralized clearing corporation for all exchanges?

- ☐ Yes
- ☐ No
- ☐ Maybe

19. Derivative Trades under exchanges are well regulated. 5- Strongly Agree, 1- Strongly Disagree

1 2 3 4 5

20. Innovation in Derivative Products would lead to an efficient market. 5- Strongly Agree, 1- Strongly Disagree

1 2 3 4 5

Name of the Bank/ Institution (Optional)

THANK YOU
Appendix 3

Questionnaire for derivative stock brokers

I am an Assistant Professor at Symbiosis Institute of Management Studies pursuing Doctoral programme under the aegis of Symbiosis International (Deemed) University, Pune, Maharashtra, India. The title of my thesis is ‘An Analytical study of the present regulatory structure for Indian Derivatives Market’. In this regard a questionnaire has been drafted to collect primary data from the stakeholders in the derivative market. You being an expert and knowledgeable in the above mentioned area of study, are hence requested to kindly fill the questionnaire for a more comprehensive analysis of the topic and to validate data collected through secondary research. I assure you that the data collected would be kept confidential and would be used for academic purposes only. This gesture of help on your part would be thankfully appreciated in the interest of academic research promotion. Please spare few minutes to complete the following questionnaire. Please tick the appropriate answer. Please rate the parameters between 1-5 for an appropriate answer, if the question desires. 5- Strongly Agree, 4- Agree, 3- Neither Agree nor Disagree, 2- Disagree, 1- Strongly Disagree. It is purely an academic exercise. Data would be kept confidential.

1. Do you trade in derivatives?
   - [ ] Yes
   - [ ] No

2. If yes, please tick the appropriate response:
   - [ ] Stock Index Futures
   - [ ] Stock Index Options
   - [ ] Futures on Individual Stocks
   - [ ] Options on Individual Stocks
   - [ ] Interest Rate Futures
   - [ ] Currency Futures
   - [ ] Any Other

3. What is your turnover from derivatives trading?
   - [ ] Less than 1 crore
   - [ ] 1-2 Crores
• □ 2-3 Crores
• □ 3-10 Crores
• □ Above 10 Crores
• □ Any Other

4. Does derivative instruments form a major portion of your financial portfolio?

• □ Yes
• □ No

5. Which other instruments do you trade in?

• □ Shares
• □ Bonds
• □ Money Markets
• □ Commodities
• □ Currency
• □ Any other

6. Are you aware of the regulations governing derivatives trading?

• □ Yes
• □ No
• □ Maybe

7. Do you receive notifications or updates on derivative trading from Exchanges and SEBI frequently?

• □ Yes
• □ No
• □ Maybe

8. Do you have to be qualified in trading in derivative instruments?

• □ Yes
• □ No
• □ Maybe
9. Were you trained in trading of derivative instruments?
   - □ Yes
   - □ No
   - □ Maybe

10. Do you undergo training in derivatives trading from time to time?
    - □ Yes
    - □ No
    - □ Maybe

11. If yes, how frequently?
    - □ Quarterly
    - □ Semi Annually
    - □ Annually
    - □ More than a year

12. Who trains you in derivatives trading?
    - □ SEBI
    - □ NSE
    - □ BSE
    - □ MCX/ NCDEX
    - □ Any Other

13. Are you aware of broker's rights incase of default by Exchange or any other financial intermediary?
    - □ Yes
    - □ No

14. Do you sensitize your investors on the risk of derivatives trading?
    - □ Yes
    - □ No
15. If yes, then how?

16. Which are the statutory regulatory clauses are you concerned with closely and need to comply with without exception?

17. What percentage of your customers/ clients of yours, trade in derivative instruments?
   - □ Less than 10%
   - □ 10%-20%
   - □ 20%-30%
   - □ 30%-40%
   - □ Above 40%

18. How would you categorize them in terms of investment capacities?
   - □ High Net Worth
   - □ Medium
   - □ Small

19. How much do you charge your investors?
   - □ Less than 10%
   - □ 10%-20%
   - □ 20%-30%
   - □ 30%-40%

20. How much margin do you extend to your investors?
21. What interest do you charge for the money lent?
   - [ ] Less than 1%
   - [ ] 1%-2%
   - [ ] 2%-4%
   - [ ] Above 4%
   - [ ] Risk Free
   - [ ] LIBOR/ MIBOR

22. The above interest charged is:
   - [ ] Per day
   - [ ] Per week
   - [ ] Per month
   - [ ] Quarterly
   - [ ] Semi-annually
   - [ ] Annually

23. How many clients trade in futures?
   - [ ] Less than 10
   - [ ] 10-20
   - [ ] 20-30
   - [ ] 30-40
   - [ ] Above 40

24. How many clients trade in options?
   - [ ] Less than 10
   - [ ] 10-20
   - [ ] 20-30
   - [ ] 30-40
   - [ ] Above 40
25. Derivative instruments are fully useful to hedge risks. 5- Strongly agree, 1- Strongly Disagree

1  2  3  4  5

26. How are Derivative instruments useful/ not useful to hedge risks? Suggest changes, if required. Please state in brief.

27. Derivative Instruments help in earning wealth. 5- Strongly agree, 1- Strongly Disagree

1  2  3  4  5

28. How are Derivative Instruments useful/ not useful in earning wealth? Please state in brief.

29. Do you have an international exposure in trading in derivative instruments?

• ☐ Yes
• ☐ No

30. If yes, please tick the appropriate choice:

• ☐ Stock Index Futures
• ☐ Stock Index Options
• ☐ Futures on Individual Stocks
• ☐ Options on Individual Stocks
• ☐ Interest rate Futures
• ☐ Currency Futures
31. What is the percentage of exposure in terms of total portfolio?

- □ 5%-10%
- □ 10%-15%
- □ 15%-20%
- □ Above 20%

32. What percentage do you earn on trading in futures and options?

- □ 1%-2%
- □ 2%-4%
- □ 4%-6%
- □ 6%-8%
- □ Above 8%

33. What is the percentage of exposure in derivatives in terms of value (in Rs.)?

- □ Less than 50 Crores
- □ 50-100 Crores
- □ 100-150 Crores
- □ 150-200 Crores
- □ Above 200 Crores

34. Do you finance your requirement from Banks and other Financial Institutions?

- □ Yes
- □ No

35. If yes, what is the percentage of your borrowing vis-a-vis your own contribution?

- □ Less than 10%
- □ 10%-20%
- □ 20%-30%
- □ 30%-40%
- □ Above 40%
36. Investors usually trade in derivatives for:

- [ ] Hedging
- [ ] Speculating
- [ ] Arbitrage
- [ ] Loss covering

37. Indian Banks and Financial Institutions are efficient. 5- Strongly agree, 1- Strongly disagree

1 2 3 4 5

38. Indian Banks and Financial Institutions operational functions need overhauling. 5- Strongly agree, 1- Strongly disagree

1 2 3 4 5

39. Do you interact with international brokers?

- [ ] Yes
- [ ] No

40. Do you face any operational difficulties while executing derivative transactions?

- [ ] Yes
- [ ] No

41. Please mention difficulties, if any.

42. Indian derivative markets are transparent and investor friendly. 5- Strongly agree, 1- Strongly disagree

1 2 3 4 5
43. Indian derivative markets are operated differently from international derivative markets. 5- Strongly agree, 1- Strongly disagree

1 2 3 4 5

44. Indian derivative markets are influenced by international players. 5- Strongly agree, 1- Strongly disagree

1 2 3 4 5

45. Indian regulatory bodies are efficient. 5- Strongly agree, 1- Strongly disagree

1 2 3 4 5

46. How many new products were added in the last two years?

- [ ] None
- [ ] 1-2
- [ ] 2-4
- [ ] Above 4

47. How many products were innovated to their present structure?

- [ ] None
- [ ] 1-2
- [ ] 2-4
- [ ] Above 4

48. Technology in derivative markets is efficient and robust. 5- Strongly agree, 1- Strongly disagree

1 2 3 4 5

49. The periodicity of turnover reporting to exchange is:

- [ ] Daily
- [ ] Weekly
50. The periodicity of audit by regulatory authorities (Exchange and SEBI) is:

- [ ] Daily
- [ ] Weekly
- [ ] Fortnightly
- [ ] Monthly
- [ ] Quarterly
- [ ] Semi-annually
- [ ] Annually

51. The periodicity of submission of compliance reports to regulatory authorities (Exchange and SEBI) is:

- [ ] Daily
- [ ] Weekly
- [ ] Fortnightly
- [ ] Monthly
- [ ] Quarterly
- [ ] Semi-annually
- [ ] Annually

52. Do you have a mechanism to monitor an efficient/high achiever trader?

- [ ] Yes
- [ ] No

53. Do you have position limits?

- [ ] Yes
- [ ] No

54. Do you benchmark your actual gains and losses against strategic planned reports?

- [ ] Yes
- [ ] No
55. Do you speculate?

- □ Yes
- □ No

56. What is the success rate on your speculation?

- □ 90%-100%
- □ 75%-90%
- □ 50%-75%
- □ Below 50%

57. Does your front, middle and back offices operate separately by different individuals?

- □ Yes
- □ No

58. When do you recognize 'inception profits'?

- □ Immediately on occurrence
- □ During the life of the deal
- □ After the deal

59. Do you interact with your clients for 'risk awareness' before selling your products to them?

- □ Yes
- □ No

60. There is a need to establish a separate derivative exchange. 5- Strongly agree, 1- Strongly disagree

1 2 3 4 5

□ □ □ □ □

61. There is a need to establish a centralized clearing corporation for all exchanges. 5- Strongly agree, 1- Strongly disagree

1 2 3 4 5

□ □ □ □ □
62. Government role in derivative exchange could be enhanced. 5- Strongly agree, 1- Strongly disagree

1  2  3  4  5

63. Please suggest any measures to strengthen Indian Derivatives Market, if needed.

THANK YOU.
Appendix 4

L C Gupta Committee Report on Regulatory Compliance of Derivative Markets:

Constitution of the Committee on Derivatives

Chairman:

1. Dr. L.C. Gupta, Director Society for Capital Market Research and Development, 32 Raja Enclave Pitampura, DELHI-110 034.

Member-Secretary:

2. Mr. O.P. Gahrotra, Sr. Executive Director, Securities & Exchange Board of India Mittal Court, "B" Wing, Nariman Point, MUMBAI-400 021.

Other Members:


4. Mr. B.G. Daga, Chief General Manager, Unit Trust of India New Marine Lines, MUMBAI-400 020.

5. Mr. Balaji Srinivasan, Jardine Fleming, Amerchand Mansion 16, Madame Cama Road, MUMBAI-400 001.

6. Mr. D.C. Anjaria, Asian Capital Partners 38, Jolly Maker Chambers II 3rd Floor, Nariman Point, MUMBAI-400 021.

7. Ms. D.N. Raval, Executive Director (Legal), Securities & Exchange Board of India Mittal Court, "B" Wing, Nariman Point MUMBAI-400 021.


9. Mr. L.K. Singhvi, Sr. Executive Director, Securities & Exchange Board of India, Mittal Court, "B" Wing, Nariman Point, MUMBAI-400 021.

10. Mr. M.G. Damani, President, The Bombay Stock Exchange, Dalal Street, Fort, MUMBAI-400 001.

11 Mr. M.R. Mayya, 1/19 Kadri Park, Irla, S.V. Road, Vile Parle, MUMBAI-400 056.

12. Mr. Marti Subrahmanyam, Professor New York University, NYU, Saloman Centre, N.Y., 10012-1118, U.S.A.

13. Prof. P.G. Apte, Indian Instt. of Management, Bannerghatta Road, BANGALORE-560076.

15. Dr. Prasanna Chandra, Indian Institute of Management, Bannerghatta Road, BANGALORE-560 076.

16. Mr. Pratip Kar, Executive Director, Securities and Exchange Board of India, Mittal Court, "B" Wing, Nariman Point MUMBAI-400 021.

17. Prof. R. Vaidyanathan, Indian Instt. of Management, Bannerghatta Road, BANGALORE-560076.

18. Mr. R. Ravi Mohan, Credit Rating Information Services of India, 301 A, Neelam Centre, Worli, MUMBAI-400 025.


20. Mr. Ramachandra, Bangalore Stock Exchange Ltd., No. 51, 1st Cross, J.C. Road, BANGALORE-560 027.


22. Mr. Uday Kotak, Kotak Mahindra Finance Ltd., Bakhtawar, 2nd Fl., Nariman Point, MUMBAI-400 021.


24. Mr. Vallabh Bhansali, Enam Financial Services Ltd., Ambalal Doshi Marg, 24 BD Rajabahadur Compound, MUMBAI-400 023.
Executive Summary

The Committee strongly favours the introduction of financial derivatives in order to provide the facility for hedging in the most cost-efficient way against market risk. This is an important economic purpose. At the same time, it recognises that in order to make hedging possible, the market should also have speculators who are prepared to be counter-parties to hedgers. A derivatives market wholly or mostly consisting of speculators is unlikely to be a sound economic institution. A soundly based derivatives market requires the presence of both hedgers and speculators.

1. The Committee is of the opinion that there is need for equity derivatives, interest rate derivatives and currency derivatives. In the case of equity derivatives, while the Committee believes that the type of derivatives contracts to be introduced will be determined by market forces under the general oversight of SEBI and that both futures and options will be needed, the Committee suggests that a beginning may be made with stock index futures.

2. The Committee favours the introduction of equity derivatives in a phased manner so that the complex types are introduced after the market participants have acquired some degree of comfort and familiarity with the simpler types. This would be desirable from the regulatory angle too.

3. The Committee's recommendations on regulatory framework for derivatives trading envisage two-level regulation, i.e. exchange-level and SEBI-level. The Committee’s main emphasis is on exchange-level regulation by ensuring that the derivative exchanges operate as effective self-regulatory organizations under the overall supervision of SEBI.

Since the Committee has placed considerable emphasis on the self-regulatory competence of derivatives exchanges under the over-all supervision and guidance of SEBI, it is necessary that SEBI should review the working of the governance system of stock exchanges and strengthen it further. A much stricter governance system is needed for the derivative exchanges in order to ensure that a derivative exchange will be a totally disciplined market place.
4. The Committee is of the opinion that the entry requirements for brokers/dealers for derivatives market have to be more stringent than for the cash market. These include not only capital adequacy requirements but also knowledge requirements in the form of mandatory passing of a certification programme by the brokers/dealers and the sales persons. An important regulatory aspect of derivatives trading is the strict regulation of sales practices.

5. Many of the SEBI's important regulations relating to exchanges, brokers-dealers, prevention of fraud, investor protection, etc., are of general and over-riding nature and hence, these should be reviewed in detail in order to be applicable to derivatives exchanges and their members.

6. The Committee has recommended that the regulatory prohibition on the use of derivatives by mutual funds should go. At the same time, the Committee is of the opinion that the use of derivatives by mutual funds should be only for hedging and portfolio balancing and not for speculation. The responsibility for proper control in this regard should be cast on the trustees of mutual funds. The Committee does not favour framing of detailed SEBI regulations for this purpose in order to allow flexibility and development of ideas.

7. SEBI, as the overseeing authority, will have to ensure that the new futures market operates fairly, efficiently and on sound principles. The operation of the underlying cash markets, on which the derivatives market is based, needs improvement in many respects. The equity derivatives market and the equity cash market are parts of the equity market mechanism as a whole.

8. SEBI should create a Derivatives Cell, a Derivatives Advisory Committee, and Economic Research Wing. It would need to develop a competence among its personnel in order to be able to guide this new development along sound lines.

Regulatory Framework for Derivatives:

The Guiding Principles

Regulatory objectives

1. The Committee believes that regulation should be designed to achieve specific, well-defined goals. It is inclined towards positive regulation designed to encourage healthy activity and behaviour. It has been guided by the following objectives:
a. **Investor Protection**: Attention needs to be given to the following four aspects:

i. **Fairness and Transparency**: The trading rules should ensure that trading is conducted in a fair and transparent manner. Experience in other countries shows that in many cases, derivatives brokers/dealers failed to disclose potential risk to the clients. In this context, sales practices adopted by dealers for derivatives would require specific regulation. In some of the most widely reported mishaps in the derivatives market elsewhere, the underlying reason was inadequate internal control system at the user-firm itself so that overall exposure was not controlled and the use of derivatives was for speculation rather than for risk hedging. These experiences provide useful lessons for us for designing regulations.

ii. **Safeguard for clients' moneys**: Moneys and securities deposited by clients with the trading members should not only be kept in a separate clients' account but should also not be attachable for meeting the broker's own debts. It should be ensured that trading by dealers on own account is totally segregated from that for clients.

iii. **Competent and honest service**: The eligibility criteria for trading members should be designed to encourage competent and qualified personnel so that investors/clients are served well. This makes it necessary to prescribe qualification for derivatives brokers/dealers and the sales persons appointed by them in terms of a knowledge base.

iv. **Market integrity**: The trading system should ensure that the market's integrity is safeguarded by minimising the possibility of defaults. This requires framing appropriate rules about capital adequacy, margins, clearing corporation, etc.

a. **Quality of markets**: The concept of "Quality of Markets" goes well beyond market integrity and aims at enhancing important market qualities, such as cost-efficiency, price-continuity, and price-discovery. This is a much broader objective than market integrity.

b. **Innovation**: While curbing any undesirable tendencies, the regulatory framework should not stifle innovation which is the source of all economic
progress, more so because financial derivatives represent a new rapidly developing area, aided by advancements in information technology.

2. Of course, the ultimate objective of regulation of financial markets has to be to promote more efficient functioning of markets on the "real" side of the economy, i.e. economic efficiency.

3. Leaving aside those who use derivatives for hedging of risk to which they are exposed, the other participants in derivatives trading are attracted by the speculative opportunities which such trading offers due to inherently high leverage. For this reason, the risk involved for derivative traders and speculators is high. This is indicated by some of the widely publicized mishaps in other countries. Hence, the regulatory frame for derivative trading, in all its aspects, has to be much stricter than what exists for cash trading. The **scope of regulation** should cover derivative exchanges, derivative traders, brokers and sales-persons, derivative contracts or products, derivative trading rules and derivative clearing mechanism.

In the Committee's view, the regulatory responsibility for derivatives trading will have to be shared between the exchange conducting derivatives trading on the one hand and SEBI on the other. The committee envisages that this sharing of regulatory responsibility is so designed as to maximize regulatory effectiveness and to minimize regulatory costs.

**Major issues concerning regulatory framework**

a. The Committee's attention had been drawn to several important issues in connection with derivatives trading. The Committee has considered such issues, some of which have a direct bearing on the design of the regulatory framework. They are listed below:

   a. Should a derivatives exchange be organized as independent and separate from an existing stock exchange?
   b. What exactly should be the division of regulatory responsibility, including both framing and enforcing the regulations, between SEBI and the derivatives exchange?
c. How should we ensure that the derivatives exchange will effectively fulfill its regulatory responsibility.

d. What criteria should SEBI adopt for granting permission for derivatives trading to an exchange?

e. What conditions should the clearing mechanism for derivatives trading satisfy in view of high leverage involved?

f. What new regulations or changes in existing regulations will have to be introduced by SEBI for derivatives trading?

**Should derivatives trading be conducted in a separate exchange?**

4. A major issue raised before the Committee for its decision was whether regulations should mandate the creation of a separate exchange for derivatives trading, or allow an existing stock exchange to conduct such trading. The Committee has examined various aspects of the problem. It has also reviewed the position prevailing in other countries. Exchange-traded financial derivatives originated in USA and were subsequently introduced in many other countries. Organizational and regulatory arrangements are not the same in all countries. Interestingly, in U.S.A., for reasons of history and regulatory structure, futures trading in financial instruments, including currency, bonds and equities, was started in early 1970s, under the auspices of commodity futures markets rather than under securities exchanges where the underlying bonds and equities were being traded. This may have happened partly because currency futures, which had nothing to do with securities markets, were the first to emerge among financial derivatives in U.S.A. and partly because derivatives were not "securities" under U.S. laws. Cash trading in securities and options on securities were under the Securities and Exchange Commission (SEC) while futures trading was under the Commodities Futures Trading Commission (CFTC). In other countries, the arrangements have varied.

The Committee examined the relative merits of allowing derivatives trading to be conducted by an existing stock exchange vis-a-vis a separate exchange for derivatives. The arguments for each are summarised below.
Arguments for allowing existing stock exchanges to start futures trading:

a. The most weighty argument in this regard is the advantage of synergies arising from the pooling of costs of expensive information technology networks and the sharing of expertise required for running a modern exchange. Setting-up a separate derivatives exchange will involve high costs and require more time.

b. The recent trend in other countries seems to be towards bringing futures and cash trading under coordinated supervision. The lack of coordination was recognized as an important problem in U.S.A. in the aftermath of the October 1987 market crash. Exchange-level supervisory coordination between futures and cash markets is greatly facilitated if both are parts of the same exchange.

Arguments for setting-up separate futures exchange:

a. The trading rules and entry requirements for futures trading would have to be different from those for cash trading.

b. The possibility of collusion among traders for market manipulation seems to be greater if cash and futures trading are conducted in the same exchange.

c. A separate exchange will start with a clean slate and would not have to restrict the entry to the existing members only but the entry will be thrown open to all potential eligible players.

Recommendation

1. From the purely regulatory angle, a separate exchange for futures trading seems to be a neater arrangement. However, considering the constraints in infrastructure facilities, the existing stock exchanges having cash trading may also be permitted to trade derivatives provided they meet the minimum eligibility conditions as indicated below:

2. The trading should take place through an online screen-based trading system, which also has a disaster recovery site. 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. This shall be reviewed from time to time on the basis of experience.

3. The clearing of the derivatives market should be done by an independent clearing corporation, which satisfies the conditions listed in a later chapter of this report.
4. The exchange must have an online surveillance capability which monitors positions, prices and volumes in realtime so as to deter market manipulation. Price and position limits should be used for improving market quality.

5. Information about trades, quantities, and quotes should be disseminated by the exchange in realtime over at least two information vending networks which are accessible to investors in the country.

6. The Exchange should have at least 50 members to start derivatives trading.

7. If derivatives trading is to take place at an existing cash market, it should be done in a separate segment with a separate membership; i.e., all members of the existing cash market would not automatically become members of the derivatives market.

8. The derivatives market should have a separate governing council which shall not have representation of trading/clearing members of the derivatives Exchange beyond whatever percentage SEBI may prescribe after reviewing the working of the present governance system of exchanges.

9. The Chairman of the Governing Council of the Derivative Division/Exchange shall be a member of the Governing Council. If the Chairman is a Broker/Dealer, then, he shall not carry on any Broking or Dealing Business on any Exchange during his tenure as Chairman.

10. The exchange should have arbitration and investor grievances redressal mechanism operative from all the four areas/regions of the country.

11. The exchange should have an adequate inspection capability.

12. No trading/clearing member should be allowed simultaneously to be on the governing council of both the derivatives market and the cash market.

13. If already existing, the Exchange should have a satisfactory record of monitoring its members, handling investor complaints and preventing irregularities in trading.

3.9 The next section will elaborate how the regulatory responsibilities placed on the derivative exchange and the SEBI are to be carried out in a detailed manner.

Division of Regulatory Responsibility

Two levels of regulation

The task entrusted to the Committee is to develop the "regulatory framework for derivatives trading". Such regulatory framework really comprises two distinct levels, viz.(1) a derivatives
exchange's own operational rules and regulations and (2) SEBI rules and regulations with which the exchange and its members must comply. The Committee feels that since the Securities Contracts (Regulation) Act, 1956 and the Rules framed there under, SEBI Act and various Rules and Regulations regarding stock exchanges and brokers/dealers are of general and over-riding nature, they could be reviewed and designed to be applicable equally to derivatives exchanges also.

Emphasis on exchange-level regulation

A crucial pre-condition for the success of derivatives trading is that the derivatives exchange should be capable of acting as an effective self-regulator on its own. In the Committee's opinion, the derivatives exchange, being in day to day touch with the market, will be in a position to spot a problem and take prompt corrective action. As a statutory body, SEBI will first have to enquire, collect all the facts and go through a certain statutory procedure before acting. In addition, the regulatory costs can also be minimized by shifting the administrative and compliance costs as much as possible to the exchanges which are the beneficiaries from the business opportunity provided. These considerations have led the Committee to emphasize that a derivatives exchange should be designed, right from the start, as a competent and effective regulating organization in every possible way.

Governance of derivative exchange

The Committee was informed about the regulatory concerns regarding the working of governance system in many stock exchanges and took note of reported problems in this area. The Committee regards this as important matter in the context of introducing derivatives. The Committee recommends that SEBI should review its own experience of the present stock exchange governance system in terms of how far the system has been able to ensure the functioning of stock exchanges as effective self-regulatory organizations and what further improvements, if any, are needed. As most of the regulatory responsibility in regard to derivatives trading has to be carried out by the exchanges themselves and any slackness in this regard can be disastrous, it is necessary to ensure that a proper governance structure is in place. If necessary, SEBI may lay down a separate governance structure for exchanges which are allowed to have derivatives trading.
Most of the new regulations required for derivatives trading are exchange-level regulations. Such regulations have necessarily to be very detailed and highly technical. It will require the formulation of detailed rules, regulations and bye-laws and the creation of a really effective monitoring and enforcement mechanism, covering all aspects of the exchange's operation. The exchange-level regulations include entry requirements for derivatives traders/members, design of derivatives contracts, broker-client relationship including sales procedures and risk disclosure to clients, trading and reporting procedures, internal risk control systems, margining, clearing, settlement and dispute resolution. In the Committee's opinion, a derivatives exchange must necessarily be consciously designed to play the role of effective self-regulator. This is so important that if there is any doubt in the exchange's ability in this regard, SEBI should not allow it to conduct derivatives trading. The role of SEBI will be to provide over-all supervision and guidance to the exchange and to act as the regulator of last resort.

The Committee is of the view that all the above regulations have to be much stricter for derivatives trading than the existing regulations for cash trading. Another demanding requirement is that derivatives trading, clearing, settlement, margining, reporting and monitoring, all involve the application of most modern on-line screen-based systems which should be designed to be both fool-proof and fail-proof.

The Committee also feels that every derivative trader/member (not just 10 per cent of them) should be inspected by the derivative exchange annually, both to provide guidance in the initial years and to check compliance. This is particularly important at the initial stage of derivatives trading. The derivative exchange should be required to have a strong inspection department. Its staff should be given specialised training for the purpose.

SEBI's Regulatory Responsibility

SEBI should approve the rules, bye-laws and regulations of the derivative exchange and should also approve the proposed derivative contracts before commencement of trading. Any change in the rules, bye-laws and regulations of the Derivative Exchange would need prior approval of SEBI.

The Committee feels that SEBI need not be involved in framing exchange-level rules but it should evaluate them, identify deficiencies and suggest improvements. Its regulatory
staff should have a thorough understanding of the theory and practice of financial derivatives so that it can provide guidance and can evaluate various kinds of derivative products. SEBI's overseeing function cannot be delegated. SEBI will have to acquire the necessary expertise by training its own people and recruiting some specialised personnel. SEBI will function as an overseeing authority. It would have to be closely involved in guiding this new and complex development along right lines. It would have to ensure a successful launch of futures trading in India by providing appropriate guidance and over-all supervision of the process. Such success will be beneficial for the country's economy and will bring credit to SEBI.

SEBI's obligation to oversee the functioning of derivatives exchange is bound to be a demanding task in terms of new knowledge and understanding required by its staff.

**Regulatory review of Derivative Contract**

In most countries regulatory approval is required for new derivatives contracts to be traded. The regulatory authority has to determine whether such trading would be in public interest. In U.S.A., the Commodities Trading Futures Commission, before granting its approval to a new contract, has to be satisfied that the contract would serve an economic purpose, such as making fairer pricing possible or making hedging possible. Providing an arena for speculation is not regarded as enough to show that a futures contract would serve an economic function. According to the information provided to the Committee by courtesy of Price Waterhouse LLP under USAID's FIRE Project, more than 90 per cent of countries with established derivatives markets use a contract review procedure as a threshold test to permit a new derivatives contract to trade on an authorised derivative exchange.

The Committee suggests that before starting trading in a new derivatives product, the derivatives exchange should submit the proposal for SEBI's approval, giving (a) full details of the proposed derivatives contract to be traded (b) the economic purposes it is intended to serve (c) its likely contribution to the market's development and (d) the safeguards incorporated to ensure protection of investors/clients and fair trading. SEBI officers should be in a position to provide effective supervision and constructive guidance in this regard.

**SEBI Derivative Cell, Advisory Council and Economic Research Wing**

In view of what has been said above, the Committee recommends the following steps to be taken by SEBI:
a. SEBI should immediately create a special Derivatives Cell because derivatives demand special knowledge. It should encourage its staff members to undergo training in derivatives and also recruit some specialised personnel.
b. A Derivatives Advisory Council may also be created to tap the outside expertise for independent advice on many problems which are bound to arise from time to time in regard to derivatives.
c. SEBI should urgently consider the creation of an Economic Research Wing. Complex economic questions arise about derivatives, e.g. their effect on cash market volatility and price discovery. Many such questions have been raised from time to time in other countries. Administrative persons are unlikely to have the time to study and analyse data. They can be usefully assisted by the Economic Research Wing. SEBI, as the country's capital market authority, should be regularly conducting studies of critical problems affecting the market and collecting data.

4.12 The division of regulatory responsibility at two levels as suggested above by the Committee, is aimed at securing the triple advantages of (a) permitting desirable flexibility, (b) maximising regulatory effectiveness and (c) minimising regulatory cost.

SPECIAL ENTRY RULES FOR DERIVATIVES

BROKERS/DEALERS

No automatic entry for existing stock brokers

The Committee feels that the derivatives market will have to be subjected to more stringent requirements than is the case with present cash markets. This implies that when an existing exchange decides to start derivatives trading, the members of the existing cash market will not automatically become members of the derivatives market. Only those who satisfy the stricter eligibility conditions of the derivatives market will be admitted to derivatives trading.

Capital adequacy

The experience of Indian exchanges has been that the credibility of the broker firm’s balance sheet figures of networth is questionable and that, in any case, a broker’s or dealer’s stated networth is very often not available to meet the claims payable to the exchange. Hence, for
effectively ensuring capital adequacy, principal reliance has to be placed on the capital and margins actually deposited by the brokers/dealers with the exchange. Taking note of the above, the views of the Committee regarding capital adequacy requirements for derivatives brokers/dealers are presented below:

Guiding considerations

The absolute amount of minimum capital adequacy requirement for derivative brokers/dealers has to be much higher than for cash market. Further, if a broker/dealer is involved both in cash and futures segments, or in several exchanges, the capital adequacy requirement should be satisfied for each exchange/segment separately. A decision on minimum capital adequacy requirement involves balancing the need for ensuring market’s integrity against the need for having sufficient participation of brokers/dealers and sufficient competition. Too high a requirement may keep most Indian firms out of the derivatives market.

Clearing and Non-clearing members

In order to somewhat ease the constraint on participation in the derivatives market due to high capital adequacy requirements, the Committee recommends that consideration may be given to a two-level system of members, viz., Clearing Members and Non-Clearing Members, as found in several countries, an example being the Singapore International Monetary Exchange. Under such a system, networth requirement for the Clearing Members is higher than for the Non-Clearing members. The Non-Clearing members have to depend on the Clearing Members for settlement of trades. The Clearing Member has to take responsibility for the non-clearing member’s position so far as the Clearing Corporation is concerned. The Clearing Member thus becomes the guarantor for the Non-Clearing members. In a sense, a Clearing Member has a number of satellite traders for whom he takes financial responsibility towards the Clearing Corporation. The advantage of the two-level system is that it can help to bring in more traders into derivatives trading, thus enhancing the market’s liquidity.
Networth and initial margin

The Committee recommends that the Clearing Members of the derivatives exchange should have a minimum net worth of Rs. 300 lakh as per SEBI’s definition and shall make a deposit of Rs.50 lakh with the Exchange/Clearing Corporation in the form of liquid assets, such as Cash, Fixed Deposits pledged in the name of the Exchange, or other securities. Bank Guarantee in lieu of such deposit may also be accepted. The Clearing Corporation can permit clearing members to clear the trades of non-clearing trading members. The regulations for the non-clearing trading members shall be specified by the Derivatives Exchange/Division. The Committee further recommends that the requirement of minimum networth and deposit in case of Option writers will need to be still higher.

Certification Requirement

The broker-members, sales persons/dealers in the derivatives market must have passed a certification programme which is considered adequate by SEBI.

Registration with SEBI

Brokers/dealers of Derivatives Exchange/Division should be required to be registered as such with SEBI. This would be in addition to their registration as brokers/dealers of any stock exchange. SEBI may require registration of sales persons working at Derivatives brokerage firms.

CLEARING CORPORATION

Importance of separate Clearing Corporation

6.1 In the Committee’s view, the clearing mechanism should be organised as separate and independent entity, preferably in the form of a Clearing Corporation. Clearing Corporation should become a legal counterparty to all trades and be responsible for guaranteeing settlement for all open positions. Hence, if any Clearing Member defaults, settlement for other Clearing Members would not be affected. This would protect the reputation of the Exchange and would minimise the default risk of trading/clearing members as the risks arising from insolvency of any individual Clearing Member are shouldered effectively by the
Clearing Corporation. The credibility of the Clearing Corporation, therefore, will have to be assured.

6.2 The Clearing Corporation will collect initial (i.e. upfront) margin to which the exposure limits of the broker/dealer would be linked, as explained later. The Clearing Corporation will enforce the "mark-to-market margin" system. In case of failure of a clearing/trading member, the Clearing Corporation should have recourse to disable the Clearing/trading member from trading in order to stop further increase in his exposure.

6.3 The requirements for capital adequacy and upfront margin should be set taking into account the volatility of the underlying market. For this purpose, normally, daily volatility (as measured by standard deviation of average return from one-day holding periods) is taken into account. Such daily volatility in India for major stock indices is around 1.3-1.4 per cent compared to just around 1 per cent for the S&P 500 Index in U.S.A. In addition, we have to take into account two more facts, viz., first, the collection of daily mark-to-market margin may take more than one day because electronic funds transfer facility is not yet universal in India; and second, the worst scenario possibility, i.e. largest 1-day or 2-day fluctuation experienced over the last few years.

6.4 Since market volatility changes over time, the Committee feels that the Clearing Corporation should continuously analyse this problem and may modify the margin requirements to safeguard the market. The dual objective has to be guaranteeing its own solvency and avoiding unnecessary tying up of members’ capital.

6.5 The Committee recommends that the Clearing Corporation should be an independent corporation. Its Governing Board should be immune to any interference or direct/indirect pressure by trading interests. For this reason, there is no need to have the representation of trading interests on its Governing Board.

6.6 The Committee feels that ideally an independent centralised Clearing Corporation for the stock exchanges would be most effective arrangement. However, since this may be difficult to achieve in the immediate future, it should remain as the ultimate goal to be achieved. Efforts should continue to be made in this direction. Until such an independent centralised entity is created, the Committee recognises that existing Clearing Corporations/Houses may continue to be used by existing exchanges provided the following conditions are satisfied:
1. the Clearing Corporation/House becomes counterparty to all trades or provides unconditional guarantee for settlement of all trades; and

2. the Exchange agrees to participate in the Central Clearing Corporation as and when that entity comes up.

The Committee strongly urges SEBI to take the initiatives with potential promoters to set up a national-level Clearing Corporation.

**Maximum exposure limit**

6.7 Apart from the minimum networth requirement, there should be a maximum exposure limit computed on gross basis for each broker/dealer. Such exposure limit should be linked to the amount of deposits/margins kept by a broker/dealer as deposit with the Clearing House/Clearing Corporation in the prescribed liquid assets. It was strongly represented to the Committee, as mentioned earlier, that, in Indian context, the minimum networth requirement has not proved adequate.

**Mark-to-market margins**

6.8 The Committee feels that even the system of mark-to-market margins on daily basis will not be adequate for safeguarding the market’s integrity unless the margins are actually collected before the start of the next day’s trading. Even a day’s delay in actual collection of mark-to-market margin can pose a serious threat to the market’s integrity. The Committee noted that electronic funds transfer (EFT) was not yet pervasive in India. If the mark-to-market margins cannot be collected before the start of next day’s trading, the networth requirement and initial deposit with the exchange would have to be higher. The Committee recommends that the aim should be to collect mark-to-market margins before the next day’s trading starts. For this purpose all derivatives dealers/brokers should be required to be connected to Electronic Funds Transfer Facility. The capital adequacy requirement for derivatives trading should be finally decided after taking into account both the extent of volatility and the time taken for funds transfer from dealers/members to the exchange.
Cross-margining

6.9 At the initial stage of derivatives market in India, the Committee does not favour cross-margining which takes into account a dealer’s combined position in the cash and derivative segments and across all stock exchanges. The Committee recognises that cross-margining is logical and would economise the use of a trading member’s capital, but a conservative approach would be more advisable until the reliability of systems has been fully established. The systems capability has to emerge before adopting sophisticated systems.

Margin Collection from clients

6.10 In the Committee’s view, collection of initial and mark-to-market margins by brokers from their clients should be insisted upon in the case of derivatives trading. In other words, margin collection from clients should not be left to the discretion of brokers/dealers. SEBI should require derivatives exchanges to ensure, through systems of inspection, reporting, etc., that margins are actually collected from all clients without exception, including financial institutions. This is necessary because of the high leverage and consequently higher risk involved in derivatives trading. Two indirect methods of ensuring this should also be adopted, viz. (1) exposure limits for dealers/traders in relation to upfront initial margin deposited with the exchange should be fixed on gross basis and (2) brokers/dealers should be required to disclose to the exchange the trading done on their own behalf separately from trading on clients’ behalf at the time of order entry. The trading volume should also be divided into sales and purchases.

Safeguarding client’s money

The Committee further recommends that the Clearing Corporation should segregate the upfront/initial margins deposited by Clearing Members for trades on their own account from the margins deposited with it on client account. The Clearing Corporation shall not utilise the margins deposited with it on client account for fulfilling the dues which a Clearing Member may owe to the Clearing Corporation in respect of trades on the member’s own account. The principle which the Committee would like to advocate regarding client moneys is that these should be regarded as held in trust for client purpose only and should not be allowed to be diverted to any other purpose. Such moneys are sacrosanct as they usually represent the client’s hard earned savings.
The following process may be adopted by the Clearing Corporation for segregating the margin money held against a broker’s own position from that held against the client position. At the time of opening a position, the dealer/broker should indicate whether the position is for the client or for the broker himself. On all client positions, both buy or sell, margins should be collected on gross basis (i.e. on buy and sell positions separately without netting them). Similarly, when closing a position, the Clearing Corporation would have to be informed by the Clearing Member whether it was a client position or Member’s own position. In case of a Clearing Member default, the margin paid by such Member on his own account only would be allowed to be used by Clearing Corporation for realising its own dues from the Member. There should be an independent Investor Protection Fund for the Derivative Division/Exchange which should be available to compensate clients in case of Member default.

SEBI approval for clearing corporation

6.13 The Committee feels that a clearing corporation must have SEBI approval for functioning as such. To be eligible for such approval, it should satisfy the following conditions:

1. 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.
2. The clearing corporation should have the capacity to monitor the overall position of members across both cash and derivatives markets for those members who are participating in both.
3. The level of initial margin required on a position should be related to the risk of loss on the position. The concept of "value at risk" should be used in calculating required levels of initial margin. The initial margin should be large enough to cover the one-day loss that can be encountered on the position on 99% of the days. These capital adequacy norms should apply intra-day, so that there is no instant of time where the good funds deposited by the member to the clearing corporation are smaller than the value at risk of the position at that point in time. The clearing corporation should have intra-day monitoring software to ensure that this condition is met at every single instant within the day. "Good funds" here are
defined as the initial margin and the mark to market margin available with the clearing corporation.

4. In the event of unusual positions of a member, the clearing corporation should charge special margin over and above the normal margins.

5. 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 elapse in moving funds, then the value at risk should be calculated based on the prospective two-day loss.

6. In the event of a member default in meeting its liabilities, the Clearing Corporation/House 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.

6.14 The clearing mechanism is the centre-piece of a derivatives market, both for implementing the margin system and for providing trade guarantee. Hence, the arrangements must require SEBI approval. The policy should be to nudge the system towards a single national clearing corporation for all stock exchanges.

**REGULATION OF SALES PRACTICES AND DISCLOSURES FOR DERIVATIVES**

**Why derivatives sales practices need regulation**

The Committee has identified broker-client relationship and sales practices for derivatives as needing special regulatory focus. The potential risk involved in speculating (as opposed to hedging) with derivatives is not understood widely. In the case of pricing of complex derivatives contracts, there is a real danger of unethical **sales** practices. Clients may be fooled or induced to buy unsuitable derivatives contracts at unfair prices and without properly understanding the risks involved. Many widely reported legal disputes between broker-dealer and the client have arisen in U.S.A. on some such ground. That is why it has become a standard practice in other countries to require a "risk disclosure document" to be provided by broker/dealer to every client in respect of the particular type of derivatives contracts being sold.
Also, derivatives brokers/dealers are expected to know their clients and to exercise care to ensure that the derivative product being sold by them to a particular client is suitable to his understanding and financial capabilities. Derivatives may tempt many people because of high leverage, which is a double-edged instrument, having, at the same time, the potential of high profitability on the margin money invested and high risk. The concept of "know-your-client" needs to be implemented and every broker/trader should obtain a client identity form, as suggested in Model Rules for Derivatives Exchanges, being formulated by the Committee separately.

**Options and their complexity**

The risk and complexity vary among derivative products. While some derivatives are relatively simple, many others, specially options, could be highly complex and would require additional safeguards from investors’ viewpoint. In due course, a derivatives exchange may decide to introduce options on stock index or on individual stocks. Options are a more complex derivative product than index futures because evaluating the fairness of option premium is a complex matter, not being apparent. Regulations in the U.S.A. clearly recognise the greater complexity of options by requiring stricter supervision over sales of options contracts.

In order to give some idea in this regard, the Committee enquired into sales practice regulations relating to derivatives in U.S. in order to learn from the experiences of U.S. regulatory authorities. The U.S. authorities have recognised that derivatives, based on options trading strategies, could be highly complex. Hence, there is a special regulatory regime for options. This is instructive for Indian authorities. In order to give a concrete idea about what the regulation of sales practices, particularly for complex type of derivatives, may involve, some special features found in the U.S. are enumerated below:

- The options trading rules of a derivative exchange require heightened suitability standards. Such rules prohibit brokers-dealers from recommending to any client any options transaction unless they have reasonable grounds to believe that the entire recommended transaction is not unsuitable for the customer on the basis of information furnished after reasonable inquiry concerning the customer’s investment objectives.
b. In addition, the rules prohibit brokers-dealers from recommending opening options transaction unless they have a reasonable basis for believing that the customer has such knowledge and financial experience that he or she can be expected to be capable of evaluating, and financially able to bear, the risks of the transaction.

c. The broker-dealer must seek to obtain and verify specific categories of information about its customers including, but not limited to, their net worth, annual income and investment experience and knowledge. A separate approval also may be required for trading in particular types of options strategies and types of options contracts, such as foreign currencies.

d. In addition, the approval of account opening must be in writing and can be made only by a senior options supervisor who must ensure that investors are offered an explanation of the special characteristics and risks applicable to the trading of options.

e. The derivatives exchange also requires that all the supervisory and sales personnel pass a general securities examination that includes options materials. People selling or supervising the sale of options on debt securities or foreign currency also must pass a separate interest rate options or foreign currency examination.

f. The exchange also requires the brokers-dealers to keep a current customer complaint log for all options-related complaints which include: (a) the name of the complainant; (2) the date when the complaint was received; (3) the sales person servicing the account; (4) a description of the complaint; and (5) a record of the action taken.

g. In addition, the broker-dealer firm is required to submit all sales literature and educational material to the exchange for pre-use approval.

h. The disclosure document about options should contain information describing the mechanics and risks of options trading, transaction costs, margin requirements and tax consequences of margin trading. The broker-dealer must provide a copy of this document at or prior to the time such customer’s account is approved for standardized options trading.

i. There are also special trading rules applicable to the options markets. These rules include separate surveillance procedures, front-running prohibitions and position limits.
Exchange’s responsibility

The Committee recommends that attention be given to proper supervision of sales practices for derivatives from the very beginning. It should be the responsibility of the Derivatives Exchange, as a self-regulatory organisation, to take the necessary steps in this regard under the general oversight of SEBI. Risk Disclosure to the client is an important aspect of the regulation of sales practices. In connection with entry requirements for derivative brokers/dealer, the Committee has earlier recommended that, not only derivatives brokers/dealers, but also sales persons working for derivatives brokers should have passed a certification programme. If sufficient attention is not paid to this initially, we may have a situation analogous to a large number of ill-trained drivers whom it becomes difficult to control later.

Basically, the regulation of derivatives sales practices aims at enforcing strictly the "know your customer" rule and requires that every client trading in derivatives should be registered with the derivatives broker. Data base on clients should be available with the broker. Customers should be given a risk disclosure document prior to their registration by the derivatives broker.

Sales to corporate clients

In the case of corporate clients, banks, financial institutions and mutual funds, they should be allowed to trade derivatives only if and to the extent authorised by their Board of Directors/Trustees. Such authorisation should specify the scope of permissible derivative trading, i.e. the purposes or objectives for which derivatives trading may be undertaken, (e.g. hedging etc.), over-all limits for derivative exposure, the authority level for giving approval in this regard, the type of derivatives contracts (e.g. futures, forwards, options, swaps) and broad derivative category (e.g. derivatives on interest rate, exchange rate, equities and commodities). Derivatives broker/dealer may execute orders for such clients only if the orders are supported by the necessary authorisation of the client’s Board of Directors/Trustees.
Accounting and disclosure requirements

The accounting treatment and disclosure requirement about an organisation’s involvement in derivatives trading is important so that shareholders and investors can know how such involvement fits into the organisation’s objectives and affects its revenues, financial position and risk profile. The Committee was informed that a Study Group on Derivatives constituted by the Institute of Chartered Accountants of India is examining the accounting and disclosure norms for derivatives trading by corporate bodies.

Mutual Funds as clients

The SEBI (Mutual Fund) Regulations presently prohibit the use of derivatives by mutual funds. The Committee is of the opinion that mutual funds need hedging facility. They will be among the most important users of equity hedging through stock index derivatives. Hence, the regulatory prohibition should be removed. The soundness of the derivatives market depends on the presence of both hedgers and speculators. A derivatives market consisting wholly or mostly of speculators is unlikely to be a healthy market. It is, therefore, all the more important that the regulatory prohibition on the use of derivatives for hedging by mutual funds should be withdrawn immediately.

Mutual funds should be allowed to use financial derivatives for hedging purposes (including anticipated hedging) and portfolio re-balancing within a policy framework and rules laid down by their Board of Trustees who should specify what derivatives are allowed to be used, within what limits, for what purposes, for which schemes, and also the authorisation procedure. The responsibilities of the trustees of mutual funds as per SEBI regulations should be re-defined to cover this aspect.

At this stage, the Committee does not consider it advisable to frame detailed SEBI regulations about the use of derivatives by mutual funds as this would stifle the development of ideas. The Committee prefers that the responsibility for proper control in this regard should be placed on the trustees of mutual funds. This would help evolution of practices on sound lines without creating a strait jacket.

Further, what has been said earlier about internal control, accounting treatment and disclosure of derivatives trading by corporate clients should apply to mutual funds also. The offer
documents of mutual fund schemes should disclose whether the scheme permits the use of derivatives and the details in this regard. Also the income and balance sheet of each mutual fund scheme would have to disclose the impact of derivatives trading and of any open position in this regard.

**Concluding observations**

1. There is no doubt that equity derivatives and other financial derivatives have some definite positive uses and serve an economic purpose, as clearly recognised in economic literature. They represent a financial innovation of considerable significance. They can be helpful in making financial markets more efficient and enhancing economic efficiency in general.

2. At the same time, derivatives trading inherently involves high leverage. For this reason, it can be a temptation to inadequately capitalised traders or speculators. Also some users may not fully understand derivatives and use them inappropriately. The regulatory system has to be designed to minimise these possible dangers.

3. In drawing up a regulatory framework for derivatives, the Committee has kept in view not only the need for allowing adequate flexibility in order to permit the derivatives market to develop in India but also the need for strict watch so that the development is along sound lines.

**USES OF EQUITY DERIVATIVES**

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**Survey findings about potential for financial derivatives in India**

The Committee made an assessment of the nature of felt-need and interest in the various types of financial derivatives among potential market participants through a Questionnaire-based survey. The survey covered all types of potential players in the derivatives market,
such as mutual funds, other financial institutions, commercial banks, investment bankers and stockbrokers. Out of about 300 Questionnaires sent out by the Committee in May 1997, the number of replies received was 112, comprising 67 brokers and 45 others. The break-up of our sample is as follows:

In addition, the Committee held a full day session to interact with groups representing each of the above categories of interests. A total of about 35 persons attended the group-wise discussions.

The survey clearly revealed that there was wide recognition of the need for all the three major types of financial derivatives, viz., equity derivatives, interest rate derivatives and currency derivatives. The results of the survey are summarised in Table 2.1 given at the end of this chapter.

Interestingly, the survey findings showed that stock index futures ranked as the most popular and preferred type of equity derivative, the second being stock index options and the third being options on individual stocks. Considerable interest exists in all the three types of equity derivatives mentioned above. The fourth type, viz. individual stock futures, was favoured much less. It is pertinent to note that the U.S.A. does not permit individual stock futures. Only one or two countries in the world are known to have futures on individual stocks. Stock Index Futures are internationally the most popular forms of equity derivative.

The difference in relative preferences among the various financial derivative types is shown more sharply when we look at answers to the question: Which of the derivative products should be introduced first? The respondents who placed stock index futures as first represented 65% of the sample, compared to 39 per cent who placed stock index options as first (see Table 2.1).

The survey also showed that there exists widespread demand for hedging facility, as indicated by the finding that nearly 70% of the respondents in our sample indicated that they would like to use the various types of equity derivatives for hedging purpose. On the other hand, about 39% of respondents would like to participate in the derivatives market as dealer/speculator, 64% as broker and only about 36% as option writer. Many of the respondents would like to participate in more than one capacity.
In terms of contract duration of Stock Index futures and options, the 3 months duration was the most favoured, as may be expected. As regards the choice between the American and European types of options, the former was favoured overwhelmingly.

As regards expectations of growth of stock index futures and options trading in India, about 33% of respondents expected it to grow very fast, 41% expected it to grow moderately and the remaining 16% expected slow growth of trading. On the whole, the survey findings are very positive about the need and prospects of equity derivatives trading in India.

**Popularity of Stock Index Futures**

There are many reasons for the wide international acceptance of stock index futures and for the strong preference for this instrument in India too compared to other forms of equity derivatives. This is because of the following advantages of stock index futures:

Institutional and other large equityholders need *portfolio hedging* facility. Hence, index-based derivatives are more suited to them and more cost-effective than derivatives based on individual stocks. Even pension funds in U.S.A. are known to use stock index futures for risk hedging purposes.

Stock index is difficult to be manipulated as compared to individual stock prices, more so in India, and the possibility of cornering is reduced. This is partly because an individual stock has a limited supply which can be cornered. Of course, manipulation of stock index can be attempted by influencing the cash prices of its component securities. While the possibility of such manipulation is not ruled out, it is reduced by designing the index appropriately. There is need for minimising it further by undertaking cash market reforms, as suggested by the Committee later in this chapter.

Stock index futures enjoy distinctly greater popularity, and are, therefore, likely to be more liquid than all other types of equity derivatives, as shown both by responses to the Committee’s questionnaire and by international experience.

Stock index, being an average, is much less volatile than individual stock prices. This implies much lower capital adequacy and margin requirements in the case of index futures than in the case of derivatives on individual stocks. The lower margins will induce more players to join the market.
In the case of individual stocks, the positions which remain outstanding on the expiration date will have to be settled by physical delivery. This is an accepted principle everywhere. The futures and the cash market prices have to converge on the expiration date. Since Index futures do not represent a physically deliverable asset, they are cash settled all over the world on the premise that the index value is derived from the cash market. This, of course, implies that the cash market is functioning in a reasonably sound manner and the index values based on it can be safely accepted as the settlement price.

Regulatory complexity is likely to be less in the case of stock index futures than for other kinds of equity derivatives, such as stock index options, or individual stock options.

**Cash and futures market relationship**

The objective of SEBI is to make both derivatives market and cash market fair, efficient and transparent. Economically, it is important to realise that equity cash market and equity derivatives market are of one piece. Their sound development is inter-related closely. The Committee has kept this objective in view and would like to ensure that the new derivatives market is developed along sound lines. This objective can best be achieved by separating cash market and futures market and thereby regulating them effectively. At present, almost 90 per cent of the trading volume in the cash market does not settle in deliveries of the stock. The great bulk (over 85 per cent) of such trading is in 5 scrips only. The Committee noted that several earlier committees on stock exchange reforms, including the G.S. Patel Committee (1984-85), had expressed concern at the small percentage of deliveries in Indian exchanges. They had also lamented the illiquidity of a majority of listed shares and the practice of switching of positions from one exchange to another due to different exchanges having different settlement cycles.

The Committee hopes that some of the speculative transactions, which are presently conducted in the cash market, would be attracted towards the proposed derivatives market.

The Committee recognizes that an efficient cash market is required for an efficient futures market. The Committee also recognizes the danger that if the cash market behavior is erratic or does not reflect fundamentals, a futures market, based on such a cash market, will fail to give a correct indication of future spot prices and its usefulness for price discovery will be reduced.
The Committee is of the opinion that the following revisions could lead to a further strengthening of the underlying cash market:

a. uniform settlement cycle among all the stock exchanges moving towards rolling settlement cycles to prevent the cash market from effectively being used as an unregulated futures market;
b. strengthening of administrative machinery of the existing stock exchanges wherever necessary to tighten the exchange’s regulatory oversight; such tight supervision being essential for successful derivatives trading.
c. speeding up dematerialisation of securities without which options on individual securities should not be allowed as non-dematerialised securities involve settlement delays and problems; allowing options without dematerialisation is likely to make the options market manipulable; and
d. taking steps to encourage more delivery based transactions in a greater number of securities.

The Committee is of the view that arbitrage transactions between the index futures market and the cash market for equities is likely to have a beneficial effect on the functioning of the cash market in terms of price discovery, broadening of liquidity and over-all efficiency.

**Strengthening the influence of fundamental factors**

The Committee thought of ways to ensure that fundamental factors adequately enter into the price discovery process in the cash market and, through it, in the futures market. In this connection, the Committee noted that it was important in the case of futures markets, whether commodity futures or other futures, to assist the price discovery process by promoting the dissemination of all relevant market information about the "real" factors, such as supplies, demand, prospects, etc. In regard to stock index futures, the Committee feels that there are two important ways of promoting its linkage to fundamental factors. First, there must be a requirement that average P/E ratio of the index used for futures trading should be made available by the exchange concerned on daily basis as essential market information. Second, the arbitrage between the index futures market and the cash market for the shares composing the index should be facilitated by requiring such shares to be traded in the depository mode and also by making available the facility of stock borrowing so that short-selling is rendered possible.
Strategic uses of stock index futures

It was represented to the Committee by mutual funds and other financial institutions that they were handicapped in their investment strategy because of the non-availability of portfolio hedging facility in India. They need derivatives, not for generating speculative profits, but for strategic purposes of controlling risk or restructuring portfolios. Given below are some practical examples from a presentation made before the Committee by some institutional representatives:

i. **Reducing the equity exposure in a mutual fund scheme:** Suppose that a balanced mutual fund scheme decides to reduce its equity exposure from, say, 40% to 30% of the corpus. Presently, this can be achieved only by actual selling of equityholdings. Such selling entails three problems: first, it is likely to depress equity prices to the disadvantage of the Scheme and the whole market; second, it cannot be achieved speedily and may take some months, and third, it is a costly procedure because of brokerage, etc. The same objective can be achieved through index futures at once, at much less cost and with much less impact on the cash market. The scheme may immediately sell index futures. The actual sale of equityholdings may be done gradually depending on market conditions in order to realise the best possible prices. As unloading of holdings progresses, the index futures transaction may be unwound by an opposite transaction to the same extent.

ii. **Investing the funds raised by new schemes:** When a new scheme is floated, the money raised does not get fully invested for considerable time. Suitable securities at reasonable prices may not be immediately available in sufficient quantity. Rushing to invest the whole money is likely to drive up prices to the disadvantage of the scheme. Timing is important in the case of equity schemes. If the scheme is launched to take advantage of low equity prices, such advantage may be lost due to delay in acquiring suitable securities as the market situation may change. The availability of stock index futures can take care of this entire problem.

iii. **Partial liquidation of portfolio in case of open-ended fund:** In the case of an open-ended scheme, repurchases may sometimes necessitate liquidation of a part of the portfolio but there are problems in executing such liquidation. Selling each holding in proportion to its weight in the portfolio is often impracticable. Some of the holdings may be relatively illiquid. Rushing to the cash market to liquidate would drive down
prices. The price actually realised may be different from the price used in NAV computation for repurchase. The timing of liquidation may not be right because of market depression. Stock Index Futures can help to overcome these problems to the advantage of unitholders.

iv. **Preserving the value of portfolio during times of market stress:** There are times when the main worry is the possibility that the value of the entire equity portfolio may fall substantially if, say, event "X" occurs. Sale of Stock Index Futures can be used to insure against the risk. Such insurance is specially important if the accounts closing date is nearby because the yearly results will get affected if the risk materialises. Stock index futures can neutralise such risk.

v. **International investors:** The buying and selling operations of FIIs presently cause disproportionate price-effect on the Indian equities market because all transactions are through the cash market only. This is an important factor making the Indian equities market highly volatile from day to day. The FIIs' buying/selling is aimed at either increasing or reducing their exposure to the Indian equities market. In other words, what the FIIs buy/sell is a "piece" of the whole Indian equities market. If stock index futures are available, this can be carried out with greater speed and less cost and without adding too much to market volatility. The FII flows show sudden changes from time to time. While trying to maximise the net inflow of FII portfolio investment, its disturbing effects on the cash market for Indian equities can possibly be minimised if the facility of stock index futures is available. The availability of such a hedging device is likely to increase the international investors' appetite for Indian equities.

**Phasing needed**

The Committee believes that the types of equity derivatives to be introduced in India should ultimately be left to the market forces under over-all general supervision of SEBI. It is likely to be an evolutionary process, as has been the case in other countries. The experience in other countries also shows that only a small proportion of new futures contracts prove to be successful and survive for long. The market decides which ones will succeed.

The consensus in the Committee was that stock index futures would be the best **starting point** for equity derivatives in India. The Committee has arrived at this conclusion after careful examination of all aspects of the problem, including the survey findings and
regulatory preparedness. The Committee would favour the introduction of other types of equity derivatives also, as the derivatives market grows and the market players acquire familiarity with its operations. Other equity derivatives include options on stock index or on individual stocks. There may also be room for more than one stock index futures. It is bound to be a gradual process, shaped by market forces under the over-all supervision of SEBI. One member of the Committee, i.e. Mr. P.S. Mistry, formally dissociated himself from the consensus mentioned above by favouring the introduction of options contracts before the introduction of futures.

The enabling legal changes

It is understood that the Central Government is already considering the legal action required in order to enable the use of stock index derivatives by expanding the definition of "securities" under Section 2(h)(iia) of the Securities Contracts (Regulation) Act, 1956, by declaring derivatives contracts based on index of prices of securities and other derivatives contracts to be securities. The Committee recommends that this should be done expeditiously. The Committee also recommends that the notification issued by the Central Government in June 1969 under Section 16 of the SC(R) A be amended so as to enable trading in futures and options contracts. The prohibition of trading in options on securities has already been withdrawn by the Securities Laws Amendment Act with effect from January 25, 1995.

Table 2.1

ANALYSIS OF REPLIES TO THE COMMITTEE’S QUESTIONNAIRE

ADDRESSED TO POTENTIAL PLAYERS IN THE FINANCIAL DERIVATIVE MARKET IN INDIA

<table>
<thead>
<tr>
<th>Q. No.</th>
<th>Question</th>
<th>Number and percentage of affirmative replies</th>
<th>(Total respondents=112)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number</td>
<td>% to total</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1a.</td>
<td>Which risks are of most concern in your operations?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Systematic risk</td>
<td>96</td>
<td>85.71</td>
</tr>
<tr>
<td>Risk Type</td>
<td>Percentage</td>
<td>Importance</td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>------------</td>
<td>------------</td>
<td></td>
</tr>
<tr>
<td>Interest rate risk</td>
<td>35</td>
<td>32.25</td>
<td></td>
</tr>
<tr>
<td>Exchange rate risk</td>
<td>27</td>
<td>24.11</td>
<td></td>
</tr>
<tr>
<td>Default risk</td>
<td>71</td>
<td>63.39</td>
<td></td>
</tr>
<tr>
<td>Asset-liability mismatch</td>
<td>23</td>
<td>20.54</td>
<td></td>
</tr>
<tr>
<td>Any other</td>
<td>11</td>
<td>9.82</td>
<td></td>
</tr>
</tbody>
</table>

1c. Are you handicapped because index-based futures and options are not available in India?

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>85</td>
<td>75.89</td>
</tr>
</tbody>
</table>

2a. Is there a need for having

<table>
<thead>
<tr>
<th>Product</th>
<th>Percentage</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock Index Futures</td>
<td>98</td>
<td>87.50</td>
</tr>
<tr>
<td>Stock Index Options</td>
<td>92</td>
<td>82.14</td>
</tr>
<tr>
<td>Futures on Individual Stocks</td>
<td>71</td>
<td>63.39</td>
</tr>
<tr>
<td>Options on Individual Stocks</td>
<td>90</td>
<td>80.36</td>
</tr>
<tr>
<td>Interest rate futures</td>
<td>68</td>
<td>60.71</td>
</tr>
<tr>
<td>Currency futures</td>
<td>67</td>
<td>59.82</td>
</tr>
</tbody>
</table>

2b. Which of the above do you favour most?

<table>
<thead>
<tr>
<th>Product</th>
<th>Percentage</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock Index Futures</td>
<td>73</td>
<td>65.28</td>
</tr>
<tr>
<td>Stock Index Options</td>
<td>45</td>
<td>40.18</td>
</tr>
<tr>
<td>Futures on Individual Stocks</td>
<td>22</td>
<td>19.64</td>
</tr>
<tr>
<td>Options on Individual Stocks</td>
<td>32</td>
<td>28.57</td>
</tr>
<tr>
<td>Interest rate futures</td>
<td>21</td>
<td>18.75</td>
</tr>
<tr>
<td>Currency futures</td>
<td>14</td>
<td>12.5</td>
</tr>
</tbody>
</table>

3a. In which of the following would you like to participate?

<table>
<thead>
<tr>
<th>Product</th>
<th>Percentage</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock Index Futures</td>
<td>92</td>
<td>82.14</td>
</tr>
<tr>
<td>Stock Index Options</td>
<td>82</td>
<td>73.21</td>
</tr>
<tr>
<td>Futures on Individual Stocks</td>
<td>61</td>
<td>54.46</td>
</tr>
</tbody>
</table>
3b. Which of the derivative products mentioned above should be introduced first?

<table>
<thead>
<tr>
<th>Product</th>
<th>Votes</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock Index Futures</td>
<td>73</td>
<td>65.18</td>
</tr>
<tr>
<td>Stock Index Options</td>
<td>44</td>
<td>39.29</td>
</tr>
<tr>
<td>Futures on Individual Stocks</td>
<td>14</td>
<td>12.5</td>
</tr>
<tr>
<td>Options on Individual Stocks</td>
<td>15</td>
<td>13.39</td>
</tr>
<tr>
<td>Interest rate futures</td>
<td>13</td>
<td>11.61</td>
</tr>
<tr>
<td>Currency futures</td>
<td>7</td>
<td>6.25</td>
</tr>
</tbody>
</table>

4a. In the case of the first four products mentioned in the previous question will you like to participate as:

<table>
<thead>
<tr>
<th>Role</th>
<th>Votes</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>hedger</td>
<td>78</td>
<td>69.64</td>
</tr>
<tr>
<td>dealers/speculators</td>
<td>44</td>
<td>39.29</td>
</tr>
<tr>
<td>broker</td>
<td>72</td>
<td>64.29</td>
</tr>
<tr>
<td>option writer</td>
<td>40</td>
<td>35.71</td>
</tr>
<tr>
<td>any other</td>
<td>6</td>
<td>5.36</td>
</tr>
</tbody>
</table>

4b. Which derivative product is likely to be the most popular in India?

<table>
<thead>
<tr>
<th>Product</th>
<th>Votes</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock Index Futures</td>
<td>63</td>
<td>56.25</td>
</tr>
<tr>
<td>Stock Index Options</td>
<td>40</td>
<td>35.71</td>
</tr>
<tr>
<td>Futures on Individual Stocks</td>
<td>23</td>
<td>20.54</td>
</tr>
<tr>
<td>Options on Individual Stocks</td>
<td>38</td>
<td>33.93</td>
</tr>
<tr>
<td>Interest rate futures</td>
<td>8</td>
<td>7.14</td>
</tr>
<tr>
<td>Question</td>
<td>Options</td>
<td>Percentage</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>----------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>5a. Which derivative product are needed most in India for improving stock market efficiency?</td>
<td>Stock Index Futures</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td>Stock Index Options</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>Futures on Individual Stocks</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Options on Individual Stocks</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>Interest rate futures</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Currency futures</td>
<td>2</td>
</tr>
<tr>
<td>6a. Do you expect that the trading in Stock Index Futures and Options in India will</td>
<td>Grow very fast</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Grow moderately</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>Grow slowly</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Not grow much</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Can’t say anything</td>
<td>2</td>
</tr>
<tr>
<td>7a. What contract maturity period would interest you for trading in:</td>
<td>Stock Index Futures and Options</td>
<td>93</td>
</tr>
<tr>
<td></td>
<td>3 months</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6 months</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>9 months</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>12 months</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Futures and Options on Individual Stocks</td>
<td>88</td>
</tr>
<tr>
<td></td>
<td>3 months</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6 months</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>9 months</td>
<td>27</td>
</tr>
</tbody>
</table>
8a. In case of Options do you favour:

<table>
<thead>
<tr>
<th></th>
<th>12 months</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>31</td>
<td>27.68</td>
</tr>
</tbody>
</table>

- American 79  70.54
- European 30  26.79

**Note:** Questions 2b, 3b and 4c expected respondents to tick against one type only but some respondents ticked more than one, resulting in double counting. Hence, the percentages add to more than 100. This does not, however, vitiate the relative comparison among the derivative types.
**Appendix 5**

**List of Registered Custodian of Securities**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Custodian</th>
<th>Contact Address</th>
<th>Registration Valid Until</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The Royal Bank Of Scotland N.V. (Formerly ABN Amro Bank N.V.)</td>
<td>Custodian Services, 1st Floor, Brady House, 14 Veer Nariman Road, Fort, Mumbai - 400 001. Tel. 022 - 66585908 Fax.- 022 – 22812589</td>
<td>October 31, 2012</td>
</tr>
<tr>
<td>2.</td>
<td>Axis Bank Limited</td>
<td>Solaris ‘C’ Wing, 9th Floor, Saki Vihar Road, Opp. L &amp; T Gate No. 6, Powai, Mumbai – 400072. Tel No.: 022-40754264/83; Fax No.: 022-40754261/62</td>
<td>April 25, 2013</td>
</tr>
<tr>
<td>3.</td>
<td>BNP Paribas</td>
<td>62, Homji Street, Fort, Mumbai – 400 001 Phone: 022-66501300 Fax: 022-22642004</td>
<td>January 31, 2013</td>
</tr>
<tr>
<td>5.</td>
<td>DBS Bank Ltd. India</td>
<td>3rd Floor, Fort House 221, Dr. D.N.Road, Fort , Mumbai - 400 001. Tel.- 022- 5638 8888, Fax.- 022 – 56388899</td>
<td>October 31, 2012</td>
</tr>
<tr>
<td>7.</td>
<td>Edelweiss Custodial Services Limited</td>
<td>14th Floor, Express Towers, Nariman Point, Mumbai-400021 Phone: 022-22864400 Fax: 022-40040793</td>
<td>August 17, 2013</td>
</tr>
<tr>
<td>8.</td>
<td>HDFC Bank Ltd.</td>
<td>Custody Services, Lodha –I Think Techno Campus, Building -Alpha, 8th Floor, Opposite Crompton Greaves, Kanjur Marg (East),</td>
<td>October 31, 2012</td>
</tr>
<tr>
<td>No.</td>
<td>Name of the Company</td>
<td>Address</td>
<td>Contact Information</td>
</tr>
<tr>
<td>-----</td>
<td>----------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>9.</td>
<td>Hongkong and Shanghai Banking Corporation Limited</td>
<td>Custody and Clearing, Plot No. 139-140 B, Western Express Highway, Sahar Road Junction, Vile Parle (East), Mumbai – 400 057.</td>
<td>Tel.No. – 022 – 40357000, Fax.- 022 – 40357469</td>
</tr>
<tr>
<td>11.</td>
<td>IL&amp;FS Securities Services Ltd.</td>
<td>IL&amp;FS House, Plot No. 14, Raheja Vihar, Chandivli, Andheri East, Mumbai 400 072</td>
<td>Tel.No.: 022 – 2857 0965, Fax : 022- 2857 0948/49</td>
</tr>
<tr>
<td>12.</td>
<td>JPMorgan Chase Bank, N.A.</td>
<td>6th Floor, Paradigm Towers, Wing B, Mindspace, Malad, Mumbai - 400 064.</td>
<td>Tel.- 022- 66506000, Fax.- 022- 66492504/05</td>
</tr>
<tr>
<td>13.</td>
<td>Kotak Mahindra Bank Limited</td>
<td>Kotak Infiniti, 6th Floor, Zone IV, Custody Services Unit Building No. 21, Infinity Park, Off Western Express Highway, General A K Vaidya Marg, Malad (E), Mumbai 400 097</td>
<td>Tel.- 02266056825/66056933/66056898, Fax.- 022-67259060</td>
</tr>
<tr>
<td>14.</td>
<td>Orbis Financial Corporation Ltd.</td>
<td>4A Technopolis, Sector 54, Golf Club Road, Gurgaon - 122 002</td>
<td>Tel.-0124 –4546565, Fax.- 0124- 4546500</td>
</tr>
<tr>
<td>15.</td>
<td>SBI-SG Global Securities Services Pvt. Ltd (Formerly SBI Custodial Services Pvt. Ltd.)</td>
<td>12th Floor, State Bank Bhavan, Madam Cama Road, Mumbai 4000 21 Phone: 022-22833008/22855821 Fax: 022-22855822</td>
<td></td>
</tr>
<tr>
<td>Sr. no.</td>
<td>Name of Entity</td>
<td>Contact Address</td>
<td>Approval Valid Until</td>
</tr>
<tr>
<td>---------</td>
<td>----------------</td>
<td>-----------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>1.</td>
<td>India Infoline Ltd.</td>
<td>Building No. 75, Nirlon Complex, Off Western Express Highway, Goregaon (East), Mumbai 400 063 Phone:022-66775900 Fax: 022-66489000</td>
<td>June 04, 2010</td>
</tr>
<tr>
<td>2.</td>
<td>Globe Capital market Ltd.</td>
<td>609-Ansal Bhawan, 16-K.G.Marg, New Delhi – 110001</td>
<td>December 03, 2010</td>
</tr>
</tbody>
</table>
Note: The in–principle approval is valid upto one year within which the entities are required to satisfy the conditions mentioned in their respective approvals. Some of the general conditions inter–alia are as given below:

a. Confirm the fulfillment of networth criteria as per the Regulation on the basis of audited financials.

b. File documents evidencing presence of necessary vaults for safe custody of securities, computer systems capability, software to support custody operations required to effective discharge of your activities as custodian of securities.

c. Undergo a system audit prior to commencement of operations. (The scope of the audit to be defined in consultation with SEBI)

d. Confirm the presence of adequate and competent persons who have the experience, capacity and ability of managing the business of the custodian of securities before the commencement of business.
Appendix 6

List of Mutual Funds

<table>
<thead>
<tr>
<th>Name of the Asset Management Company</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axis Asset Management Company Ltd.</td>
<td><a href="http://www.axismf.com">www.axismf.com</a></td>
</tr>
<tr>
<td>Baroda Pioneer Asset Management Company Limited</td>
<td><a href="http://www.barodapioneer.in">www.barodapioneer.in</a></td>
</tr>
<tr>
<td>Birla Sun Life Asset Management Company Limited</td>
<td><a href="http://www.birlasunlife.com">www.birlasunlife.com</a></td>
</tr>
<tr>
<td>BNP Paribas Asset Management India Private Limited</td>
<td><a href="http://www.bnpparibasfm.in">www.bnpparibasfm.in</a></td>
</tr>
<tr>
<td>BOI AXA Investment Managers Private Limited</td>
<td><a href="http://www.boiaxa-im.com">www.boiaxa-im.com</a></td>
</tr>
<tr>
<td>Canara Robeco Asset Management Company Limited</td>
<td><a href="http://www.canararobeco.co">www.canararobeco.co</a></td>
</tr>
<tr>
<td>Daiwa Asset Management (India) Private Limited</td>
<td><a href="http://www.daiwafunds.in">www.daiwafunds.in</a></td>
</tr>
<tr>
<td>Deutsche Asset Management (India) Pvt. Ltd.</td>
<td><a href="http://www.dws-india.com">www.dws-india.com</a></td>
</tr>
<tr>
<td>DSP BlackRock Investment Managers Private Limited</td>
<td><a href="http://www.dspblackrock.com">www.dspblackrock.com</a></td>
</tr>
<tr>
<td>Edelweiss Asset Management Limited</td>
<td><a href="http://www.edelweissmf.com">www.edelweissmf.com</a></td>
</tr>
<tr>
<td>Escorts Asset Management Limited</td>
<td><a href="http://www.escortsmutual.com">www.escortsmutual.com</a></td>
</tr>
<tr>
<td>Franklin Templeton Asset Management (India) Private Limited</td>
<td><a href="http://www.franklintempletonindia.com">www.franklintempletonindia.com</a></td>
</tr>
<tr>
<td>Goldman Sachs Asset Management (India) Private Limited</td>
<td><a href="http://www.gsam.in">www.gsam.in</a></td>
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<tr>
<td>HDFC Asset Management Company Limited</td>
<td><a href="http://www.hdfcfund.com">www.hdfcfund.com</a></td>
</tr>
<tr>
<td>HSBC Asset Management (India) Private Ltd.</td>
<td><a href="http://www.assetmanagement.hsbc.com/in">www.assetmanagement.hsbc.com/in</a></td>
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<tr>
<td>ICICI Prudential Asset Mgmt. Company Limited</td>
<td><a href="http://www.icicipruamc.com">www.icicipruamc.com</a></td>
</tr>
<tr>
<td>IDBI Asset Management Ltd.</td>
<td><a href="http://www.idbimutual.co.in">www.idbimutual.co.in</a></td>
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<tr>
<td>IDFC Asset Management Company Limited</td>
<td><a href="http://www.idfcmf.com">www.idfcmf.com</a></td>
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<tr>
<td>India Infoline Asset Management Co. Ltd.</td>
<td><a href="http://www.iiflmf.com">www.iiflmf.com</a></td>
</tr>
<tr>
<td>Indiabulls Asset Management Company Ltd.</td>
<td><a href="http://www.indiabullsmf.com">www.indiabullsmf.com</a></td>
</tr>
<tr>
<td>ING Investment Management (India) Pvt. Ltd.</td>
<td><a href="http://www.ingim.co.in">www.ingim.co.in</a></td>
</tr>
<tr>
<td>Company Name</td>
<td>Website</td>
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<tr>
<td>JPMorgan Asset Management India Pvt. Ltd.</td>
<td><a href="http://www.jpmorganmf.com">www.jpmorganmf.com</a></td>
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<tr>
<td>Kotak Mahindra Asset Management Company Limited (KMAMCL)</td>
<td><a href="http://www.kotakmutual.com">www.kotakmutual.com</a></td>
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<tr>
<td>L&amp;T Investment Management Limited</td>
<td><a href="http://www.lntmf.com">www.lntmf.com</a></td>
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<tr>
<td>LIC NOMURA Mutual Fund Management Company Limited</td>
<td><a href="http://www.licnomuramf.com">www.licnomuramf.com</a></td>
</tr>
<tr>
<td>Mirae Asset Global Investments (India) Pvt. Ltd.</td>
<td><a href="http://www.miraemutualf.com">www.miraemutualf.com</a></td>
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<tr>
<td>Motilal Oswal Asset Management Company Limited</td>
<td><a href="http://www.motilaloswal.com/assetmanagement/">www.motilaloswal.com/assetmanagement/</a></td>
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<tr>
<td>Peerless Funds Management Co. Ltd.</td>
<td><a href="http://www.peerlessmf.co.in">www.peerlessmf.co.in</a></td>
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<td>PineBridge Investments Asset Management Company (India) Pvt. Ltd.</td>
<td><a href="http://www.aiginvestments.co.in">www.aiginvestments.co.in</a></td>
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<td>PPFAS Asset Management Pvt. Ltd.</td>
<td>amc.ppfas.com</td>
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<tr>
<td>Pramerica Asset Managers Private Limited</td>
<td><a href="http://www.pramericafm.com">www.pramericafm.com</a></td>
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<tr>
<td>Principal Pnb Asset Management Co. Pvt. Ltd.</td>
<td><a href="http://www.principalindia.com">www.principalindia.com</a></td>
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<tr>
<td>Quantum Asset Management Company Private Limited</td>
<td><a href="http://www.QuantumAMC.com">www.QuantumAMC.com</a></td>
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<td>Reliance Capital Asset Management Ltd.</td>
<td><a href="http://www.reliancemutual.com">www.reliancemutual.com</a></td>
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<tr>
<td>Religare Asset Management Company Private Limited</td>
<td><a href="http://www.religaremfi.com">www.religaremfi.com</a></td>
</tr>
<tr>
<td>Sahara Asset Management Company Private Limited</td>
<td><a href="http://www.saharamutual.com">www.saharamutual.com</a></td>
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<tr>
<td>SBI Funds Management Private Limited</td>
<td><a href="http://www.sbimf.com">www.sbimf.com</a></td>
</tr>
<tr>
<td>Sundaram Asset Management Company Limited</td>
<td><a href="http://www.sundarammutual.com">www.sundarammutual.com</a></td>
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<tr>
<td>Tata Asset Management Limited</td>
<td><a href="http://www.tatamutualfund.com">www.tatamutualfund.com</a></td>
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<tr>
<td>Taurus Asset Management Company Limited</td>
<td><a href="http://www.taurusmutualfund.com">www.taurusmutualfund.com</a></td>
</tr>
<tr>
<td>Union KBC Asset Management Company Private Limited</td>
<td><a href="http://www.unionkbc.com">www.unionkbc.com</a></td>
</tr>
<tr>
<td>UTI Asset Management Company Ltd</td>
<td><a href="http://www.utimf.com">www.utimf.com</a></td>
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</tbody>
</table>
Appendix 7

List of Merchant Bankers

A.K. Capital Services Ltd
Abans Securities Ltd.
Ajcon Global Services Ltd.
Akasam Consulting Pvt. Ltd.
Allbank Finance Ltd.
Almondz Global Securities Ltd (Formerly Allianz Securities Ltd)
Alpen Capital India Pvt. Ltd.
Altius Finserv Pvt. Ltd. (Formerly Upvan Securities Pvt., Ltd.
Anand Rathi Advisors Limited
Andhra Bank
Antique Capital Markets Pvt. Ltd.
Arihant Capital Markets Ltd
Aryaman Financial Services Limited
Ashika Capital Ltd
Asit C. Mehta Investment Intermediates Ltd
Atherstone Capital Markets Limited
Axis Bank Ltd.(Formerly Uti Bank Ltd.)
Bajaj Capital Ltd
Bank Of Maharashtra
Barclays Bank Plc
Barclays Securities (India) Pvt. Ltd.
Basan Financial Services Ltd.
Batlivala & Karani Securities India Pvt Ltd
Birla Capital And Financial Services Limited
Bnk Securities Pvt. Ltd.
Bnp Paribas
Bob Capital Markets Ltd
Brics Securities Ltd
Canara Bank
Centbank Financial Services Ltd.
Central Bank Of India
Centrum Capital Limited (Formerly Centrum Finance Ltd)
Choice Capital Advisors Pvt. Ltd.
Cil Securities Ltd
Citibank N A
Citigroup Global Markets India Pvt. Ltd.
Clsa India Ltd
Collins Stewart Inga Pvt Ltd.(Formerly Inga Advisors Pvt. Ltd.)
Comfort Securities Ltd
Corporate Professionals Capital Pvt. Ltd.
Corporate Strategic Allianz Pvt Ltd
Credit Agricole Corporate And Investment Bank (Formely Known As Calyon Bank)
Credit Suisse Securities (India) Pvt Ltd
D & A Financial Services Pvt. Ltd.
Daiwa Capital Markets India Private Limited
Dalmia Securities Pvt. Ltd.
Darashaw & Company Private Ltd (Formerly Badar Financ
Dbs Bank Ltd
Deutsche Bank
Deutsche Equities India Private Limited
Development Credit Bank Ltd.
Dolat Merchant Banking And Financial Services Pvt. Ltd.
Dsp Merril Lynch
Edelweiss Financial Services Ltd
Elara Capital (India) Private Limited
Emkay Global Financial Services Limited (Formerly Emkay Share And Stock Brokers Limited)
Enam Securities Pvt Ltd (Formerly Enam Financial Consultants Pvt Ltd)
Equirus Capital (P) Ltd
Ernst & Young Merchant Banking Services Pvt. Ltd.(Formerly Ind Global Corporate Finance Pvt Ltd)
Escorts Securities Ltd
Fedex Securities Ltd
Fiduciary Euromax Capital Markets Pvt. Lt.D (Formerly Known As Fiduciary Shares
And Stocks Pvt. Lt.D
First Global Finance Pvt Ltd
First Overseas Capital Ltd (Lloyds Capital Management Ltd)
Firstcall India Equity Advisors Pvt. Ltd.
Firstrand Bank Ltd.
Fortress Capital Management Services Pvt Ltd
Fortune Financial Services (India) Ltd
Global Trustcapital Finance Pvt. Ltd.
Goldman Sachs(India) Securities Pvt. Ltd.
Gsfs Capital & Securities Ltd
Guinness Merchant Bankers Pvt. Ltd.
Hdfc Bank Ltd
Hem Securities Ltd.(Formerly Hem Financial Services Ltd)
Hongkong And Shanghai Banking Corporatio
Hsbc Securities And Capital Markets (India) Pvt Ltd
Hdfc Bank Ltd
Hem Securities Ltd.(Formerly Hem Financial Services Ltd)
Hongkong And Shanghai Banking Corporatio
Hsbc Securities And Capital Markets (India) Pvt Ltd
Icici Bank Ltd
Icici Securities Ltd
Icici Securities Primary Dealership Limited
Idbi Bank Ltd.(Formerly Industrial Development Bank Of India)
Idbi Capital Market Services Ltd
Idfc Capital Limited (Formely Known As Idfc-Sski Ltd.)
Idfc Limited
Ifci Financial Services Ltd
Il&Fs Capital Advisors Ltd.
Imperial Corporate Finance & Services Pvt Ltd
Indbank Merchant Banking Services Ltd
India Capital Markets Private Limited
India Infoline Ltd.(Formerly India Infoline Securities Pvt Ltd)
Indiabulls Securities Limited (Formerly Orbis Sec Ltd And Gpf Securities Pvt Ltd)
Indian Overseas Bank
Ing Vysya Bank Ltd. (Erstwhile The Vysya Bank Ltd.)
Integrated Enterprises (India) Ltd (Integrated Advisory Serv
Intensive Fiscal Services Pvt Ltd
Inter Corporate Financiers & Consultants Ltd.
Inventure Merchant Banker Services Pvt. Ltd.
Investec Capital Services (I) Pvt. Ltd.
Jefferies India Private Limited
Karn Merchant Bankers Ltd.
Karur Vysya Bank Ltd, The
Karvy Investor Services Ltd
Keynote Corporate Services Ltd
Khabhatta Securities Limited
Kifs Securities Ltd (Formely Known As Kifs Securities Pvt. Ltd)
Kim Eng Securities India Pvt. Ltd.
Kjmc Corporate Advisors (India) Ltd (Formerly Known As Kjmc Global Markets (I) Ltd.)
Kkr Capital Markets India Pvt. Ltd.
Kotak Mahindra Capital Company Ltd
Ladderup Corporate Advisory Pvt. Ltd.
Lazard India Private Ltd ( Lazard Credit Capital Ltd.)
Lkp Securities Ltd (Formerly Lkp Shares And Securities Ltd)
Lodha Capital Markets Ltd
Lsi Financial Services Pvt. Ltd.
Macquarie India Advisory Services Pvt Ltd
Mape Advisory Group Pvt Ltd
Master Capital Services Ltd
Mata Securities India Private Ltd
Mefcom Capital Markets Ltd
Meghraj Capital Advisors Pvt. Ltd. (Formerly Meghraj Sp Corporate Finance Pvt. Ltd.)
Mehta Integrated Finance Ltd
Microsec Capital Ltd(Formerly Microsec India Ltd)
Morgan Stanley India Company Pvt Ltd
Mpa Financial Services Limited
Munoth Financial Services Ltd
Networth Stock Broking Ltd.
Nexgen Financial Solutions Pvt. Ltd.
Nirbhay Capital Services Pvt Ltd
Nomura Financial Advisory And Securities (India) Pvt. Ltd.
O3 Capital Global Advisory Pvt. Ltd.(Formerly Ozone Capital Advisory Pvt. Ltd.)
Onelife Capital Advisors Pvt. Ltd.
Oriental Bank Of Commerce
Peerless Securities Ltd.
Pioneer Investcorp Ltd.
Pioneer Money Management Limited
Pl Capital Markets Pvt Ltd
Pnb Investment Services Ltd.
Pnr Securities Ltd
Prime Securities Ltd
Pug Securities Pvt. Ltd.
Puneet Advisory Services Pvt Ltd
Punjab National Bank
Quant Investment Services Pvt. Ltd.
Quintessence Enterprise Pvt. Ltd.
R R Investors Capital Services Pvt. Ltd.(Formerly R R Financial Consultants Ltd)
Rabo India Securities Private Limited
Rbs Equities (India) Ltd.
Rbsa Capital Advisors Llp
Real Growth Securities Pvt. Ltd.
Reliance Investment Banking Services Ltd.(Formerly Reliance Securities Limited)
Religare Capital Markets Limited
Rothschild (India) Private Ltd, Formerly Rothschild (India) Private Ltd, Formerly N M Rothschild And Sons (India) Pvt Ltd
Saffron Capital Advisors Pvt Ltd
Sal Securities Pvt. Ltd.
Sbi Capital Markets Ltd
Sesi Ventures Advisors Pvt. Ltd.
Sicom Ltd
Smc Capitals Limited
Smifs Capital Markets Ltd
Sobhagya Capital Options Ltd.
Spa Capital Advisors Limited
Spark Capital Advisors (India) Pvt Ltd
Srei Capital Markets Ltd
Standard Chartered Securities (India) Ltd. (Formerly Known As Standard Chartered-
Stci Capital Markets Limited)
State Bank Of Bikaner And Jaipur
State Bank Of Hyderabad
Stellant Capital Advisory Services Pvt. Ltd.
Sumedha Fiscal Services Ltd
Syndicate Bank
Tamilnad Mercantile Bank Ltd
Tarragon Capital Advisors (India) Pvt. Ltd.
Tata Securities Limited (Formerly Tata Capital Markets Limited)
Taurus Corporate Advisory Services Ltd.
The Catholic Syrian Bank Ltd
The Dhanlakshmi Bank Limited
The Federal Bank Ltd
Tipsons Consultancy Services Pvt. Ltd.
Trust Investment Advisors Pvt Ltd
Ubs Securities India Pvt. Ltd.
Uljk Securities Pvt. Ltd.
Unicon Capital Services Pvt. Ltd.
Union Bank Of India
United Bank Of India
V.B. Desai Financial Services Ltd
Value Line Advisors Pvt Ltd.(Formerly S B & T Finance Private Ltd)
Vc Corporate Advisors Pvt. Ltd. (Formerly Eccentric Capital Pvt Ltd.)
Vertex Securities Ltd (Formerly Known As Transwarranty Capital Pvt Ltd)
Vijaya Bank
Violet Arch Capital Advisors Private Limited
Vivro Financial Services Pvt Ltd
Vls Securities Limited
Yes Bank Ltd.
Appendix 8

List of Portfolio Managers

A. K. Wealth Management Private Limited
ABN Amro Bank N.V.
Accuracap Consultancy Services Private Limited
Acumen Capital Market (India) Limited
ADA Sustainable Investment Services Private Limited
Aditya Birla Money Limited
Alankit Assignments Ltd.
Alchemy Capital Management Private Ltd
Alfaccurate Advisors Pvt. Ltd.
Allegro Capital Advisors Pvt Ltd
Almondz Global Securities Limited
Ambit Capital Private Ltd
AMJ Stock Brokers Private Limited
Anand Rathi Financial Services Ltd.
Angel Broking Ltd.
Antique Stock Broking Limited
Anvil Wealth Management Pvt Ltd
Aries Stocktrades Pvt. Ltd.
Ashika Stock Broking Limited
Ashwani Gujral Investment & Portfolio Management Pvt. Ltd.
Asit C Mehta Investment Intermediates Ltd.
Ask Investment Managers Private Limited
Aten Portfolio Managers Private Limited
Atlas Integrated Finance Ltd
Aum Capital Market Private Limited
Auroch Investment Managers Private Limited
Avant Garde Wealth Management Pvt. Ltd.
Avendus Capital Private Limited
Avendus Pe Investment Advisors Private Limited
Axis Asset Management Company Limited
Axis Bank Ltd (Uti Bank Ltd.)
Axis Equities Pvt. Ltd.
Banhem Securities Pvt. Ltd.
Banyan Capital Advisors Private Limited
Banyan Tree Advisors Private Limited
Barclays Bank plc
Barclays Securities (India) Private Limited
Bay Capital Investment Managers Private Limited
Bellwether Capital Private Limited
Benchmark Asset Management Company Private Limited
Birla Sun Life Asset Management Company Limited
Bma Wealth Creators Ltd
Bnp Paribas Asset Management India Private Limited
Bnp Paribas Investment Services India Pvt Ltd
Boi Axa Investment Managers Private Limited
Bonanza Portfolio Limited
Brics Securities Limited
Calibre Financial Services Ltd
Canara Robeco Asset Management Company Limited
Capstocks And Securities (India) Private
Care Portfolio Managers Private Limited
Cd Research (P) Ltd
Centrum Broking Limited
Centrum Broking Private Ltd
Cholamandalam Securities Limited
Chona Financial Services Private Ltd.
Concept Securities Private Limited
Consortium Securities Pvt. Ltd.
Convexity Solutions And Advisors Private Limited
Credit Suisse Securities (India) Private Limited ("Cs India")
Daiwa Asset Management (India) Private Limited
Dalal & Broach Stock Broking Pvt. Ltd.
Dalmia Securities Pvt Ltd
Derivium Tradition Securities (India) Pvt. Ltd.
Destimoney India Services Private Limited
Deutsche Asset Management India Private Limited
Deutsche Bank Ag
Deutsche Investments India Private Limited
Dhfl Venture Capital India Private Limited
Doha Brokerage And Financial Services Ltd
Dsp Blackrock Investment Managers Private Limited
Dsp Merrill Lynch Limited
Dutt Capital Advisors Private Limited
Dynamic Equities Private Limited
Edelweiss Asset Management Limited
Edelweiss Global Wealth Management Limited
Elite Wealth Advisors Limited
Enam Asset Management Co.Pvt.Ltd
Envision Capital Services Pvt.Ltd.
Equirus Securities Private Limited
Equity Intelligence India Pvt. Ltd.
Escorts Securities Limited
Estee Advisors Pvt Ltd.
Eureka Portfolio Management Services Pvt. Ltd.
Exclusive Securities Limited
Geojit Bnp Paribas Financial Services Limited
Gepl Capital Private Limited
Ghalla Bhansali Stock Brokers Private Limited
Globe Capital Market Ltd.
Goldmine Stocks Pvt. Ltd.
Harmony Wealth Advisory Services India Pvt Ltd
Hdfc Asset Management Company Ltd
Hdfc Bank Ltd.
Hedge Equities Ltd
Hornic Investments Private Limited
Hsbc Asset Management (India) Pvt. Ltd.
Icici Prudential Asset Management Company Ltd.
Icici Securities Limited
Icici Securities Primary Dealership Ltd.
Idbi Capital Market Services Ltd
Idfc Investment Advisors Ltd.
Iifl Wealth Management Limited
Il&Fs Portfolio Management Services Limited.
Il&Fs Investment Managers Limited
Impetus Wealth Managment Pvt Ltd
India Capital Markets Pvt. Ltd.
India Infoline Ltd
Indiabulls Securities Ltd.
Indianivesh Securities Private Limited
Indiareit Fund Advisors Private Limited
Indsec Securities And Finance Ltd.
Ing Investment Management (India) Pvt Lt
Ing Vysya Bank Limited
Inventure Growth & Securities Limited
J.J. Bhabhera Share Brokers Pvt. Ltd.
Janak Merchant Securities Pvt Ltd
Jasper Financial Services Private Limited
Jeetay Investments Pvt Ltd
Jm Financial Asset Management Pvt. Ltd.
Jm Financial Services Pvt Ltd
Karma Capital Advisors Pvt. Ltd.
Karvy Stock Broking Ltd.
Kb Capital Markets Pvt. Ltd.
Keynote Capitals Limited
Khandwala Securities Ltd
Kifs Securities Pvt. Ltd.
Kisan Ratilal Choksey Shares And Securities Pvt. Ltd.
Kkr India Financial Services Private Limited
Kotak Mahindra Asset Management Company Ltd
Kotak Mahindra Bank Limited
Kotak Securities Ltd
Kumar Share Brokers Limited
Kunvarji Finstock Pvt. Ltd
L&T Capital Company Ltd
L&T Investment Management Limited
Laburnum Capital Advisors Private Limited
Lic Nomura Mutual Fund Asset Management Company Ltd
M/S Jhp Securities Private Limited
Majortrend Capital Pvt Ltd
Mangal Keshav Securities Limited
Marwadi Shares & Finance Ltd.
Master Portfolio Services Ltd
Mf Global Sify Securities India Private Ltd
Microsec Capital Limited
Milestone Capital Advisors Private Limited
Millennium Finance Ltd.
Miv Investment Services Pvt. Ltd.
Moneybee Securities Private Limited
Morgan Stanley India Financial Services Private Limited
Motilal Oswal Asset Management Company Limited
Multi Act-Equity Consultancy Pvt Ltd
Munoth Financial Services Ltd
Narnolia Securities Ltd.
Neminath Portfolio Management Services Private Limited
New Horizon Wealth Management Private Limited
Nine Rivers Capital Holdings Private Limited
Nirmal Bang Securities Private Limited
Nj Advisory Services Private Limited
Novastar Fund Advisors Private Limited
Ohm Portfolio Equi Research Pvt Ltd.
Onelife Capital Advisors Pvt Ltd.
Oxus Investments Pvt Ltd
P N Vijay Financial Services Pvt Ltd
P.C.S Securities Limited
Pace Stock Broking Services Pvt Ltd
Parag Parikh Financial Advisory Services
Paterson Securities Limited
Peerless Securities Limited
Pioneer Wealth Management Services Limited
Pnb Gilt's Ltd.
Prabhudas Lilladher Pvt. Ltd.
Pramerica Asset Managers Private Limited
Prime Broking Company (India) Ltd.
Primus Investment Advisors Private Limited
Principal Pnb Asset Management Co Pvt Ltd
Quant Capital Advisors Private Limited
Quantum Advisors Pvt.Ltd.
Quantum Securities Pvt Ltd
Quest Investment Advisors Pvt. Ltd.
R. Wadiwala Securities Private Limited
Ratnabali Capital Markets Limited
Reliance Capital Asset Management Ltd
Reliance Wealth Management Limited
Religare Asset Management Company Ltd.
Revelation Portfolio Management Pvt. Ltd.
Rgam Corporation Pvt Ltd
Right Horizons Portfolio Management Private Limited
Sai Soft Securities Ltd
Satco Securities & Financial Services Ltd.
Sbi Funds Management Pvt Ltd
Sbicap Securities Limited
Securities Investment Management Private Limited
Shah Investor'S Home Ltd
Sharekhan Limited
Shcil Services Ltd

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Shriram Insight Share Brokers Limited
Shroff Securities Private Limited
Ski Capital Services Ltd.
Sks Capital & Research Pvt. Ltd.
Soldiers Field Investments Private Limited
Somayajulu & Co Ltd
Span Caplease Pvt. Ltd.
Spfl Securities Ltd.
Sskm Corporate Advisory Pvt. Ltd.
Standard Chartered - Stci Capital Markets Limited
Standard Chartered Bank
State Bank Of India
Stci Primary Dealer Limited
Sugal & Damani Share Brokers Ltd.
Sumedha Fiscal Services Limited
Sundaram Asset Management Company Ltd.
Sunidhi Securities & Finance Limited
Surefin Financial Consultants Pvt. Ltd
Suresh Rathi Securities Private Limited
Sushil Finance Consultants Ltd.
Sykes & Ray Equities (I) Ltd.
Systematix Shares And Stocks (India) Limited
Tata Asset Management Limited
Tata Capital Ltd.
Tata Securities Ltd.
Taurus Asset Management Co. Ltd.
Tcg Advisory Services Private Limited
The Hongkong And Shanghai Banking Corpor
Trustline Holding Pvt. Ltd.
Trustline Securities Limited
Twin Earth Securities Private Limited
Unicon Securities Private Limited
Unifi Capital Private Limited
Utii Asset Management Company Pvt Ltd
Value Prolific Investments & Consulting Private Limited
Valuequest Investment Advisors Pvt. Ltd.
Ventura Securities Limited
Vls Securities Limited
Way2Wealth Brokers Private Ltd.
Wealth Advisors (India) Private Limited
Wealth Management Advisory Services Ltd.
Wealth Managers (India) Private Limited
Wegmans Financial Services Ltd.
White Stone Financial Advisors Private Limited
Yes Bank Ltd.
Zen Wealth Management Services Limited
### List of Derivative Members at BSE

<table>
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<tr>
<th>Member</th>
<th>Name</th>
<th>Address</th>
<th>Contact Information</th>
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<tr>
<td>TM 278</td>
<td>ABN Amro Asia Equities (India) Ltd.</td>
<td>Dara Kapadia, Sanjay Dameja</td>
<td>2854363, Ext. 366/343 2027770 83/84, 8th Floor, Sakhar Bhawan, Behind Oberoi, Nariman Point, Mumbai TCM 754 Ajaya S.Jain Ajaya Jain Mr.Ajaya Jain 2677205/212 2677202 311, Gundecha Chambers, Nagindas Master Road, Fort, Mumbai-23 TCM 150 Alchemy Share &amp; Stockbrokers Pvt.Ltd.</td>
</tr>
<tr>
<td>TM 278</td>
<td>ABN Amro Asia Equities (India) Ltd.</td>
<td>Dara Kapadia, Sanjay Dameja</td>
<td>2854363, Ext. 366/343 2027770 83/84, 8th Floor, Sakhar Bhawan, Behind Oberoi, Nariman Point, Mumbai TCM 754 Ajaya S.Jain Ajaya Jain Mr.Ajaya Jain 2677205/212 2677202 311, Gundecha Chambers, Nagindas Master Road, Fort, Mumbai-23 TCM 150 Alchemy Share &amp; Stockbrokers Pvt.Ltd.</td>
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