Chapter Four

THE INDIAN CAPITAL MARKET AND RISK MANAGEMENT THEREIN

This chapter on the capital market and risk management is divided into sections A and B. Section A discusses the role of the Indian capital market and section B takes on risk management in the Indian Capital Market.

Section A

The Indian Capital Market

4.1 The Role of the Indian Capital Market

The capital market in India is a market for securities, where companies and governments can raise long term funds. It is a market designed for the selling and buying of stocks and bonds. Stocks and bonds are the two major ways to generate capital and long term funds. Thus, the bond markets and stock markets are considered as capital markets. The capital markets consist of the primary market, where new issues are distributed to investors, and the secondary market, where existing securities are traded. In addition, the Indian Equity Markets and the Indian Debt markets do form part of the Indian Capital market. The Indian Equity Market depends mainly on monsoons, global funds flowing into equities and the performance of various companies. The Indian Equity Market is almost wholly dominated by two major stock exchanges - National Stock Exchange of India Ltd. (NSE) and The Bombay Stock Exchange (BSE). The benchmark indices of the two exchanges - Nifty of NSE and Sensex of BSE are closely monitored by the investors. The two exchanges also have an F and O (Futures and options) segment for trading in equity derivatives including the indices. The major players in the Indian Equity Market are Mutual Funds, Financial Institutions and FIIs representing mainly Venture Capital Funds and Private Equity Funds. The Indian Equity Market at present is a lucrative field for investors. The Indian stocks are profitable not only for long and medium-term investors, but also for the position traders, short-term swing traders and also very short term intra-day traders and speculators. In India as on December 30 2007, market capitalisation (BSE 500) at US$ 1638 billion was 150 per cent of GDP,
matching well with other emerging economies and selected matured markets. In a developing economy like India, the debt markets are very important sources of raising capital funds. The debt markets in India are amongst the largest in Asia. Their dealings included government securities, public sector undertakings, other government bodies, financial institutions, banks and companies. The debt markets play a role of increasing funds for implementation of government development plans. This means that government can raise funds at lower costs by issuing government securities. They are very conducive for the proper implementation of government’s monetary policy. They provided a less risky investment environment compared to the equity markets, encouraging low-risk investments. This leads to foreign inflow of funds into the economy. They provide high liquidity and proper control over credit. They provided opportunity for investors to diversify their investment portfolio in a way to minimize risk. They promoted very stringent disclosure norms and auditing requirements, hence there was improved transparency and better implementation of corporate governance principles.

4.2 Members of the Indian Capital Markets

In order function properly the Indian capital markets operate through the following entities:

(a) India Capital Markets Pvt. Ltd.- Members NSE, BSE and NSDL,
    ICM Commodities Pvt Ltd. – Members MCX, NCDEX
(b) SEBI Registered PMS

The Functions and Main Institutions of the Indian Capital Market

(1) The functions of the Indian Capital Market are as follows:

(i) Disseminate information efficiently for enabling participants to develop an informed opinion about investment, disinvestments, reinvestment, or holding a particular financial asset.

(ii) Enabling quick valuation of financial instruments—both equity and debt.

(iii) Providing insurance against market risk or price risk through derivative trading and default risk through investment protection fund.

(iv) Enable wider participation by enhancing the width of the market by encouraging participation through networking institutions and associating individuals.
(v) Provide operational efficiency through:
   (a) simplified transaction procedure,
   (b) lowering settlement timings, and
   (c) lowering transaction costs.

(vi) Develop integration among:
   (a) Real sector and financial sector,
   (b) Equity and debt instruments,
   (c) Long-term and short-term funds,
   (d) Long-term and short-term interest costs,
   (e) Private sector and government sector, and
   (f) Domestic funds and external funds.

(vii) Direct the flow of funds into efficient channels through investment, disinvestments, and reinvestment

(2) The Main Members of the Indian Capital Market

The capital market aids economic growth by mobilizing the savings of the economic sectors and directing the same towards channels of productive uses. This is facilitated through the following:

(a) The Industrial Financial Corporation of India (IFC).
(b) The Industrial Credit and Investment Corporation of India (ICICI).
(c) The Refinance Corporation of India (RFC).
(d) The State Financial Development Corporations (SFCs).
(e) National Industrial Development Corporation (NIDC).
(f) The State Industrial Development Corporation (SIDCs).
(g) National Small Industries Corporation (NSIC).
(h) Industrial Development Bank of India (IDBI).
(i) Life Insurance Corporation of India (LIC).
(j) Nationalized Commercial Banks (NCBs).
(k) Merchant Banking Institutions (MBIs).
(l) National Industrial Reconstruction Corporation of India (NIRC).
(o) The Credit Guarantee Corporation of India (CGC).
Unit Trust of India (UTI). These members are mainly financial institutions which provide the liquidity that is needed to propel the machinery of the Capital Market. The financial power of the Capital Market is in their hands. SEBI has the responsibility to oversee their proper functioning as well as the other members.

(3) Products and Services of the Capital Market

(a) Equity Broking - BSE and NSE

(b) Derivatives Futures and Options

(c) Internet Broking - Online Trading

(d) Commodities Trading - NCDEX and MCX

(e) Mutual Fund Investment

(f) Initial Public Offerings (IPO)

(g) Institutional Broking

(h) Depository Services - NSDL and CDSL

(i) Portfolio Management Services

(j) NRI Investments

(k) Arbitrage

4.3 The Development in Indian Capital Market since 1992

Capital Issues (Control) Act of 1947 repealed and the office of Controller of Capital Issues abolished; control over price and premium of shares removed. Companies now free to raise funds from securities markets after filing prospectus with the Securities and Exchange Board of India (SEBI).

The power to regulate Stock Exchanges delegated to SEBI by the Government. This was for better implementation of all reforms formulated and implemented to enable the proper functioning of the Stock Exchanges.
SEBI introduces regulations for primary and other secondary market intermediaries, bringing them within the regulatory framework.

4.4 Regulatory Framework for the Primary Market
The regulatory framework for primary markets in Indian comprises of the SEBI Act, 1992. SEBI regulations and rules for various intermediaries, for the issue of capital by management tie up with certain provisions of the companies Act, 1956. The following are the important enactments relating to the primary market in India (Table 4.1):

Table 4.1: Enactments Relating to the Indian Primary Market

<table>
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<tr>
<th>Serial</th>
<th>Details</th>
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<tbody>
<tr>
<td>a</td>
<td>SEBI (Disclosure and Investor Protection) Guidelines, 2000</td>
</tr>
<tr>
<td>b</td>
<td>SEBI (Merchant Bankers) Rules and Regulations, 1992</td>
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<td>c</td>
<td>SEBI (Banker to the Issue) Rules and Regulations, 1994</td>
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<td>d</td>
<td>SEBI (Registrar to an Issue) Rules and Regulations, 1993</td>
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<td>e</td>
<td>SEBI (Underwriters) Rules and Regulations, 1993</td>
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4.5 Primary Market Reforms

For the fulfillment of the basic task of Securities Market to help in process of capital formation in the economy, this can only be possible by series of systematic measures which would build their confidence in the systems and processes and protect their interest fully. The raising of Capital Issues was controlled by the office of the Controller of Capital Issues (CCI) established under the Capital Issues Control Act-1947.

The Capital Issues Control Act-1947 was repealed and the office of the controller of Capital Issues abolished and the process of the initial share pricing decontrolled. In 1991-92 the Finance Ministry announced the repeal of the Act and transferred all powers from CCI to SEBI and from control to disclosure based regulations.
SEBI, the Capital Market Regulator, was established in 1992. The primary function of SEBI is to regulate the Capital Market and protect the interest of the investors. The other important functions of SEBI are:

1. Regulating the business in Stock Exchanges and any other Securities Markets.
2. Registering and regulating the working of collective investment schemes, including mutual funds.
3. Prohibiting fraudulent and unfair trade practices relating to Securities Markets.

Therefore SEBI formulated the following guidelines:

a. Disclosure and Investor Protection (DIP) guidelines: as per this regulation all the information pertaining to and available with an issuer is provided so as the investor takes an informed decision whether to invest or not to invest.

b. Eligibility Criteria for issuers (DIP-2000): Companies eligible to make an issue can decide on their standard denomination and price of a security. Some parameters that need to be in offer documents are minimum holding by promoters, size of public issue, issue expenses, information disclosure and advertisement etc.

c. Transparency: SEBI makes available all the offer documents filed with it on its website and also through process release. Companies are invited from the public within 21 days of filing.

d. Free Pricing of Securities: issuer is free to determine the level of security price. The process of Book-building helps discover price and assist small investor to take an investment decision.

e. Number of Financial Instruments: issuer would like to have an optimum capital structure that reduces cost of capital. Today Indian Capital Market consists of almost all financial products available in most of the developed Capital Market, thus the choice to both issuer and investor has become wider.

f. Issue process: the following process is used in the Indian Capital Market:

(i) Public issue – an invitation by a company to the public to subscribe to the securities offered through prospects. It is an Initial Public Offer (IPO).

(ii) Rights Issue - issue of capital under Sec-I (81) Companies Act 1956 to be offered to existing shareholders.
(iii) Offer for Sale - It is a public invitation by a sponsoring intermediary, such as bank or broker, to buy new or existing securities. It contrasts with an offer for subscription which is an invitation to subscribe direct from the issuer.

(iv) Book-building - it refers to a process of ascertaining demand for and price of securities through bids, before the Actual issue. Book building process is mandatory when the company does not have track record for three out of preceding five years. 60% allotment to qualified institutional buyers is mandatory under the book building process.

(v) Compulsory Demat - All Initial public offerings was compulsory traded in dematerialized form. But the investors have been allowed to exercise option of either subscribing to securities in its physical or dematerialized form.

(vi) Employee stock option – means option given to the whole time employee of a company right to purchase or subscribe securities at a future date.

(vii) Buy-back – section 77 (A) Companies Act and SEBI regulation allow companies to buy back shares to enhance the wealth of shareholder.

g. Prohibiting insider trading in securities, with the imposition of monetary penalties, on defaulter market intermediaries.

h. Foreign Institutional Investors are allowed to invest in Indian Capital Markets after registration with the SEBI.

i. Indian companies permitted to access international Capital Markets through Euro issues.

j. The National Stock Exchanges, (NSE) with nationwide stock trading and electronic display, clearing and settlement facilities, established several regional Stock Exchanges change over from floor based grading to screen based trading.

k. Private Mutual Funds permitted.

l. The practice of making preferential allotment of shares at prices unrelated to the prevailing market prices stopped and fresh guidelines are issued by SEBI.

m. Badla System was been abolished.

n. A system of rolling settlements introduced and SEBI is thinking about the introduction of T+1 settlement plan for the Capital Market
0. The SEBI (credit rating Agencies) Regulations, 1999 issued for regulating new credit rating agencies as well as introducing a code of conduct for all credit rating agencies operating in India.

4.6 Further Primary Market Reforms

(i) The improved disclosure standards, introduction of prudential norms, and simplification of issue procedures.
(ii) Companies required disclosing all material facts and specific risk factors associated with their projects while making public issues.
(iii) Listing agreements of stock exchanges amended to require listed companies to furnish annual statement to the exchanges showing variations between financial projections and projected utilization of funds in the offer document and actual figures. This is to enable shareholders to make comparisons between performance and promises.
(iv) SEBI introduces a code of advertisement for public issues to ensure fair and truthful disclosures.
(v) Disclosure norms further strengthened by introducing cash flow statements.
(vii) SEBI introduces regulations governing substantial acquisition of shares and takeovers and lays down conditions under which disclosures and mandatory public offers are to be made to the shareholders.

4.7 Regulations further revised and strengthened in 1996

(i) SEBI reconstitutes the governing boards of the stock exchanges and introduces capital adequacy norms for broker accounts.
(ii) Private mutual funds permitted and several such funds already set up. All mutual funds allowed to apply for firm allotment in public issues—also aimed at reducing issue costs.
4.8 Regulations for mutual funds revised in 1996

(a) The giving of more flexibility to fund managers while increasing transparency, disclosure, and accountability.

(b) Over-the-Counter Exchange of India formed.

(c) National Stock Exchange (NSE) establishment as a stock exchange with nationwide electronic trading.

(d) Bombay Stock Exchange (BSE) introduces screen-based trading; 15 stock exchanges now have screened-based trading. BSE granted permission to expand its trading network to other centres.

(e) The Capital adequacy requirements for brokers enforced.

(f) The System of mark-to-market margins introduced in the Stock Exchanges.

(g) The stock lending scheme introduced.

(h) Transparency brought out in short selling.

(i) National Securities Clearing Corporation, Ltd. set up by National Stock Exchange.

(j) Bombay Stock Exchange in the process of implementing a trade guarantee scheme.

(k) SEBI strengthens surveillance mechanisms and directs all stock exchanges to have separate surveillance departments.

4.9 Secondary Market Reforms

Several reforms were introduced into the Stock Exchange administration, security trading, settlement, delivery Vs Payment, security transfer, trading in derivatives, investor protection fund etc. are explained in the following paragraphs:

(a) Stock Exchanges:

Membership of governing boards of Stock Exchanges, were changed to include 50% outside (non-broker) representatives. SEBI had constituted a group which reviewed and examined the structure of Stock Exchanges and examined the legal and financial issues involved in demutualising Stock Exchanges.
(b) Depth and Breadth in the market:

India has a unique distinction of having highest number of companies listed on the Stock Exchanges. But all companies’ shares are not traded. Policy makers have to explore new options to increase depths and breadth in the Indian Stock Exchanges.

(c) Dematerialization

Power was granted to SEBI to register and regulate depositories and custodians through an amendment to SEBI Act in 1995. There has been substantial progress in dematerialization. Number of companies available for demat with NSDL has increased from 23 in 1997 to 4172 in 2002.

(d) Institutionalization

The Indian Capital Market was dominated by individual investors, till the early part of the 1990’s. Earlier institutional investors like LIC, GIC, DFIs, banks etc. used to take minor roles. SEBI permitted private funds, Non-resident Indians, NBFCs and overseas corporate bodies to trade in securities. Of the above mentioned, only three classes of investors are very active, individuals, mutual funds and FIIs.

(e) Development of Financial infrastructure

It involves the development of informed investor class, legal and regulatory environment, institutional investors, world class security trading and payment and settlement systems. It also includes promoting investor associations, self-regulatory organizations (SROs), and setting up of depository’s surveillance system. As another step towards this, SEBI has introduced new financial instruments (derivatives) into the Capital Market.

(f) Derivatives

Derivatives are financial contracts, or financial instruments, whose prices are derived from the price of something else (known as the underlying). The underlying price on which a derivative is based can be that of an asset (e.g., commodities, equities (stocks), residential mortgages, commercial real estate, loans, bonds), an index (e.g., interest rates, exchange rates, stock market indices, consumer price index (CPI), or other items. Credit derivatives are
based on loans, bonds or other forms of credit. Futures and options belong to the family of derivative financial products. The name is coined from the fact that the price of these products can be derived from the price of a so called underlying product. Derivative products of BSE are futures and options contracts. These can play a vital role in promoting market efficiency through better price discovery and risk transfer. SEBI granted approval to NSE and BSE to start trading in index futures contract in April 2000 and May 2000 respectively. SEBI also approved the proposal of NSE and BSE to start trading in index options contracts in June 2001.

4.10 The Birth of the Scam

During the late nineteen eighties, the share mania spread, so rapidly that a lot more Stock Exchanges came into existence and the Indian Capital Market witnessed a hectic boom in the primary market activities with a number of existing and new companies floating issues. The number of companies getting listed on the bourses increased steadily. Investment and trading got to such a feverish pace that it gave birth to a major scam in the secondary market in 1992, (the Harshad Mehta scam of the early 1990s). The Indian Stock Exchange Index (Sensex), which was hovering around the 800 mark in early 1990, flared up past 3500 by April 1992 and plummeted. The Securities and Exchange Board of India (SEBI) that was formed in 1988 to look after the interests of small investors and to monitor the functioning of the bourses was accorded more powers following the scam that shook the market and sent many investors and brokers out of the ring.

It is clear that the government, the RBI and the commercial banks are as much accountable as the brokers for the scam. The brokers were encouraged and abetted by the banks to divert funds from the banking system to the stock market. The banks received very high interest rates for doing so, putting the investors at risk. The RBI stands indicted, because despite knowledge about banks over-stepping the boundaries demarcating their arena of operations, it failed to apply the necessary controls required at the time to deter the scam. The undesirable charging of very high interest rate by banks was done with active connivance and sometimes the full knowledge of the very individuals who were supposed to guard against such a possibility. The major scams in India from 1990 to 2009 have many namely:
(a) Ramalinga Raju Scam

The biggest corporate scam (January 2009) in India comes from one of the most respected businessmen. Satyam founder Byrraju Ramalinga Raju resigned as its chairman after admitting to cooking up the accounting books. His efforts to fill the “fictitious assets with real ones” through Maytas acquisition failed, after which he decided to confess the crime. With a fraud involving about Rs 8,000 crore (Rs 80 billion), Satyam is heading for more trouble in the future. In the event of this information the company lost a staggering Rs 10,000 crore (Rs 100 billion) in market capitalisation as investors reacted sharply and dumped shares, pushing down the scrip by 78 per cent to Rs 39.95 on the Bombay Stock Exchange.

(b) Harshad Mehta Scam

He was known as the ‘Big Bull’. However, his bull run did not last too long. He triggered a rise in the Bombay Stock Exchange in the year 1992 by trading in shares at a premium across many segments. Taking advantages of the loopholes in the banking system, Harshad and his associates triggered a securities scam diverting funds to the tune of Rs 4000 crore (Rs 40 billion) from the banks to stockbrokers between April 1991 to May 1992. Harshad Mehta worked with the New India Assurance Company before he moved ahead to work in the stock markets. Mehta soon mastered the tricks of the trade and set out on dangerous game plan. Mehta has siphoned off huge sums of money from several banks and millions of investors were conned in the process. His scam was exposed, the markets crashed and he was arrested and banned for life from trading in the stock markets.

He was later charged with 72 criminal offences. A Special Court also sentenced Sudhir Mehta, Harshad Mehta’s brother, and six others, including four bank officials, to rigorous imprisonment (RI) ranging from 1 year to 10 years on the charge of duping State Bank of India to the tune of Rs 600 crore (Rs 6 billion) in connection with the securities scam that rocked the financial markets in 1992. He died in 2002 with many litigations still pending against him.
(c) Ketan Parekh Scam

Ketan Parekh followed Harshad Mehta’s footsteps to swindle crores of rupees from banks. A chartered accountant he used to run a family business, NH Securities. Ketan however had bigger plans in mind. He targeted smaller exchanges like the Allahabad Stock Exchange and the Calcutta Stock Exchange, and bought shares in fictitious names. His dealings revolved around shares of ten companies like Himachal Futuristic, Global Tele-Systems, SSI Ltd, DSQ Software, Zee Telefilms, Silverline, Pentamedia Graphics and Satyam Computer (K-10 scrips). Ketan borrowed Rs 250 crore from Global Trust Bank to fuel his ambitions. Ketan alongwith his associates also managed to get Rs 1,000 crore from the Madhavpura Mercantile Co-operative Bank.

According to RBI regulations, a broker was allowed a loan of only Rs 15 crore (Rs 150 million). There was evidence of price rigging in the scrips of Global Trust Bank, Zee Telefilms, HFCL, Lupin Laboratories, Aftek Infosys and Padmini Polymer.

(d) C R Bhansali Scam

The Bhansali scam resulted in a loss of over Rs 1,200 crore (Rs 12 billion). He first launched the finance company CRB Capital Markets, followed by CRB Mutual Fund and CRB Share Custodial Services. He ruled like a financial wizard 1992 to 1996 collecting money from the public through fixed deposits, bonds and debentures. The money was transferred to companies that never existed.

CRB Capital Markets raised a whopping Rs 176 crore in three years. In 1994 CRB Mutual Funds raised Rs 230 crore and Rs 180 crore came via fixed deposits. Bhansali also succeeded to raise about Rs 900 crore from the markets.

However, his good days did not last long, after 1995 he received several jolts. Bhansali tried borrowing more money from the market. This led to a financial crisis. It became difficult for Bhansali to sustain himself. The Reserve Bank of India (RBI) refused banking status to CRB and he was in the dock. SBI was one of the banks to be hit by his huge defaults.
There was a need to assess what had been the response of the government, and what needed to be done to ensure that such scams did not recur in the future. The response of any government to a scam of the kind that occurred in India would have had three main facets:

1. **Discover and punish the guilty**: This task was entrusted to the Central Bureau of Investigation (CBI) and to the Joint Parliamentary Committee (JPC). A special court was also been set up to facilitate speedy trial.

2. **Recover the money**: The draconian provisions of the Ordinance for attachment of property and voiding of transactions with the consequent creation of "tainted" shares were attempts in this direction.

3. **Reform the system**: The government's response so far has consisted of measures like banning of Ready Forward (RF) deals and going slow on liberalization. The Securities and Exchange Board of India (SEBI), in its capacity as overseer of the Indian Capital Market has witnessed eleven major scams. The Harshad Mehta scam of the early 1990s and the Ketan Parekh scam of the early 2000s are biggest. These scams were generated in the banking environment and they affected the investing community. When it happens, it degenerates into a dangerous force creating havoc in both the Money and Capital Markets. The scams bring lawlessness in the investment environment. The key perpetrators of the scam are the Stock Market intermediaries. The Securities and Exchange Board of India (SEBI), was formed in 1992 by the Government of India to oversee and regulate the Capital Market in the view of checking and stamping out the lawlessness that was growing and rendering the Capital Market unstable.

The Securities and Exchange Board of India (SEBI) is a Board (an autonomous body) created by the Government of India in 1988 and given statutory form in 1992 with the SEBI Act 1992. Its head office is in Mumbai, and other offices in Chennai, Kolkatta and Delhi. SEBI is the regulator of the Capital Markets in India. It is chaired by Mr. C.B. Bhave. The Board comprises of whole time members and outside members (representing the Finance Ministry, the Reserve Bank of India (RBI) and experts).

The term "securities scam" was defined as a skillful diversion of funds to the tune of over Rs. 3500 crores from the banking system to various stockbrokers in a series of transactions.
(primarily in Government securities). This plot took place during the period April 1991 to May 1992. In April 1992, the first press report appeared indicating that there was a shortfall in Government Securities held by the State Bank of India. In a little over a month, investigations revealed that the shortfall was just the tip of an iceberg which came to be called the securities scam. It involved the misappropriation of funds to the tune of over Rs. 3500 crores (about $ 1.2 billion). In an ever expanding ambit, the scam had engulfed top executives of large nationalized banks, foreign banks and financial institutions, brokers, bureaucrats and politicians. The functioning of the money market and the stock market had been thrown into disarray. The scam had generated such immense public interest that it had become a permanent feature on the front pages of national newspapers. A large number of agencies, namely, the Reserve Bank of India (RBI), the Central Bureau of Investigation (CBI), the Income Tax Department, the Directorate of Enforcement and the Joint Parliamentary Committee (JPC) all set out to investigate the various aspects of the scam, Barua and Varma (1993).

It was reported that the government responded to the scam with the promulgation of an ordinance and setting up of a special court to try those accused in the scam. The ordinance ordered attachment of property of all the accused and voided all transactions done by the accused brokers and their firms after April 1, 1991. These extraordinary measures were so harsh that even the purchases made by genuine investors were invalidated. All the shares that had been routed through the accused brokers were suspended from trading in the Capital Market, Barua and Varma (1993). This led to the creation of what came to be known as "tainted" shares. The tainted shares were worthless in the market as they could not be sold. This created a panic among investors and brokers and led to a prolonged closure of the Stock Exchanges along with a precipitous drop in the price of shares. In less than 2 months following the discovery of the scam, the stock prices dropped by over 40%, wiping out market value to the tune of Rs. 100,000 crores. The scam brought about a total "systems failure" which disrupted the Indian Capital Market.
4.11 The Impact of the Scam

The immediate impact of the scam was a sharp fall in the share prices. The index fell from 4500 to 2500, representing a loss of Rs. 100,000 crores in market capitalization. Besides the scam, there were other two major reasons for the fall: the first was the phenomenon of tainted shares which created panic in the market and second was the perceived slowdown of the reform process which destroyed the very foundation on which the boom was based. The government set up a special court and promulgated an ordinance with several draconian provisions to deal with the scam. Sections (3) and (4) of the ordinance attached the properties of all individuals accused in the scam and also voided all transactions that had at any stage been routed through them after March 31, 1991. Since the accused were Active brokers in the stock markets, the number of shares which had passed through their hands in the last one year was colossal. All these shares became "tainted" shares, and overnight they became worthless pieces of paper as they could not be delivered in the market. Genuine investors who had bought these shares well before the scam came to light and even got them registered in their names found themselves being robbed by the government. This resulted in a chaotic situation in the market, since no one was certain as to which shares were tainted and which were not.

The government's liberalization policies came under severe criticism after the scam, with Harshad Mehta and others being described as the products of these policies. Bowing to the political pressures and the bad press it received during the scam, the liberalization policies were put on hold for a while by the government. The Securities Exchange Board of India (SEBI) postponed sanctioning of private sector mutual funds. Implementation of some aspects of the Narasimham Committee recommendations on the banking system, were also delayed. Some question marks arose regarding privatization as the chairman of the committee looking into this ended up in jail on charges of involvement in the scam.

The much talked about entry of foreign pension funds and mutual funds became more remote than ever. The Euro-issues planned by several Indian companies were delayed, since the ability of Indian companies to raise equity capital in world markets was severely compromised.
The Harshad Mehta induced security scam, adversely affected at least 10 major commercial banks of India, a number of foreign banks operating in India, and the National Housing Bank, a subsidiary of the Reserve Bank of India, which is the central bank of India.

As an aftermath of the shockwaves which engulfed the Indian financial sector, a number of people holding key positions in the India's financial sector were adversely affected. However, some people were disciplined, amidst these things included the arrest and sacking of K. M. Margabandhu, the then CMD of the UCO Bank; the removal from office of V. Mahadevan, one of the Managing Directors of India’s largest bank.

4.12 Policy Responses Required

It is clear that the government, the RBI and the commercial banks are as much accountable as the brokers for the scam. The brokers were encouraged and abetted by the banks to divert funds from the banking system to the stock market. The RBI too stands indicted because despite knowledge about banks over-stepping the boundaries demarcating their arena of operations, it failed to reign them in. The looting was done with active connivance and sometimes full knowledge of the very individuals who were supposed to guard against such a possibility. What has been the response of the government so far and what needs to be done to ensure that such scams do not recur in the future? The response of any government to a scam of this kind would have three main facets:

1). Discover and punish the guilty - this task was entrusted to the Central Bureau of Investigation (CBI) and to the Joint Parliamentary Committee (JPC) for execution.

A special court was also set up to facilitate speedy trial of the accused.

2). Recover the money - the draconian provisions of the Ordinance for attachment of property and voiding of all transactions with the consequent creation of "tainted" shares were attempts in this direction.

3). Reform the system - the government's response, consisted of measures like banning of RF deals and going slow on liberalization. The market watchdog, Securities and Exchange Board of India, banned Harshad Mehta for life from stock market-related Activities.
There cannot be two opinions on the need for identifying and punishing the guilty. The principal objective behind punishing the offenders was more to deter future offenders and restore the confidence of the investors.

However, the government ensured that not only the obviously guilty (the brokers), but also the not so obviously guilty (the bank executives, the bureaucrats and perhaps the politicians) were identified and brought to book.

Investigations of this kind are necessarily time consuming and expensive, but they have to be gone through, so that the credibility of the system be restored. A rule of thumb which is often quoted throughout the world is that investigation of any fraud may cost as much as the magnitude of the fraud itself. One can, therefore, expect the real costs of the scam investigation to be of the order of a couple of thousand crores at least.

While recovery of the money swindled from the banks was important, the method employed by the government to do that was extremely ham handed and unfair. However, the government had to implore special powers to recover the siphoned money to enable the system back to normal. It was an attempt to redress the system failure situation. There was justification for such measures as the "tainted" shares law, though it harassed genuine innocent investors.

The most constructive response to the scam was in the arena of reforms of the financial system. This is because the origins of the scam resulted from the over-regulation of the markets.

The regulations in the money markets were such that thoroughly legitimate and essential transactions could not be put through openly, but had to be disguised and camouflaged.

4.13 Lessons from the Scam Activities

The role of the brokers and of some of the banks as market makers was not recognized and they could perform these important and useful functions only by subterfuge. The payment and clearance system was so antiquated and cumbersome that totally indefensible methods had to be adopted to achieve speedy funds transfers. The net result of all these was a total lack of transparency in the operations in the money market. Irregularities of all kinds were so
common that no suspicions were aroused even by highly irregular transactions. The situation was an ideal environment for a scam to germinate and grow to alarming proportions. Some of the control systems in the banks broke down, because they had been deliberately allowed to be weakened by both the commercial banks as well as the RBI in order to facilitate normal transactions in violation of the RBI guidelines.

The other lesson from the scam is that artificial insulation of closely related markets from each other is counterproductive in the long run. Just as water finds its own level, money also seeks out the highest levels of return after due adjustments for risk and liquidity. Even after twenty years of progressive liberalization of the Indian financial markets, artificial barriers still exist between the money market and the stock market, between the market for corporate securities and the market for government securities and between the formal money market and the informal one. It is necessary to allow for the integration of these markets to encourage the smooth flow of transactions and growth. This integration will allow a coherent yield curve to emerge covering the entire financial markets. The recommendations of the Nadkarni Committee set up in the wake of the scam, to examine the functioning of the money market, that RF deals were permitted and that the entire settlement and clearing system be carefully streamlined and computerized, and taken seriously by the various operators.

4.14 The Strategy of the Scam

The crucial mechanism through which the scam was perpetrated was the Ready Forward (RF) deal. The RF is in essence a secured short term (typically 15 day) loan from one bank to another bank. The lending is done against government securities, exactly the way a pawn broker lends against jewellery or other valuables. A ready forward deal is, in substance, a secured loan from one bank to another. To make the scam possible, the RF deal had to undergo a complete metamorphosis: it had to become an unsecured loan to a broker. The three crucial steps to the accomplishment of the metamorphosis were:

(i) The settlement process - the settlement process in the government Securities Market became broker intermediated, that is, delivery and payments started getting routed through a broker instead of being made directly between the transacting banks.
(ii) **The broker** - the broker through whom the payment passed on its way from one bank to another found a way of crediting the money into his account though the account payee cheque was drawn in favour of a bank. This was done by way of negotiation on interest basis.

(iii) **Security for the loan** - while the above two steps transformed an RF deal from a loan to a bank into a loan to a broker, it would still be a secured loan. However, the brokers soon found a way of persuading the lending bank to dispense with security for the loan or to accept worthless security. This was in contravention of banking rules and regulations, which yielded to the modus operandi used by the scam.

The modus operandi used in the scam, however, in form, was the Ready Forward (RF) deal, which was not a loan at all. The borrowing bank (Bank 2) actually sold the securities to the lending bank (Bank 1) and bought them back at the end of the period of the deal at (typically) a slightly higher price. The price difference represented the profit on the deal. The RF is what in other countries is known as a repurchase (or repo) agreement. It is a very safe and secure form of lending and is very common throughout the world. The US Repo Market, for example, is about a hundred times larger than the Indian RF market. However, in the Indian Capital Market, the brokers managed and got hold of the system and engineered it for their benefit.

The RF in India serves two main purposes:

Like repo markets around the world the RF deals provide much needed liquidity to the government Securities Markets.

The RF deals are an important tool in the hands of the banks to manage their Statutory Liquidity Ratio (SLR) requirements. Banks in India were required to maintain 38.5% of their demand and time liabilities (DTL) in government securities and certain approved securities which are collectively known as SLR securities. RF helps in managing this requirement in two ways:
a). A bank which has a temporary surge in DTL may not want to buy SLR securities outright and then sell them when the DTL comes back to normal. Instead it can do an RF deal, whereby it effectively borrows the securities from a bank which has surplus SLR securities. An RF in SLR securities can thus be seen either as lending of money or as borrowing of securities.

b). An RF deal is not legally a loan. The amount borrowed by a bank under RF is not regarded as a part of the bank's liabilities. Therefore it is not a part of its DTL, and does not attract the SLR requirement. Had the bank borrowed outright, it would have had to maintain 38.5% of the borrowing in SLR securities.

4.15 Settlement Process

The normal settlement process in government securities is that the transacting banks make payments and deliver the securities directly to each other. The broker's only function is to bring the buyer and seller together and help them negotiate the terms, for which he earns a commission from both the parties. The broker does not handle either the cash or the securities. During the scam, however, the banks or at least some banks adopted an alternative settlement process which was similar to the process used for settling transactions in the stock market. In this settlement process, deliveries of securities and payments are made through the broker. That is, the seller hands over the securities to the broker who passes them on to the buyer, while the buyer gives the cheque to the broker who then makes the payment to the seller. In this settlement process, the buyer and the seller may not even know whom they have traded with, both being known only to the broker.

There were two important reasons why the brokers’ intermediated settlement system began to be used in the government Securities Markets:

(i). The brokers instead of merely bringing buyers and sellers together started taking positions in the market. In other words, they started trading on their own account, and in a sense became market makers in some securities thereby imparting greater liquidity to the markets.
(ii). When a bank wanted to conceal the fact that it was doing an RF deal, the broker came in handy. The broker provided contract notes for this purpose with fictitious counterparties, but arranged for the Actual settlement to take place with the correct counterparty. A broker intermediated settlement allowed the broker to lay his hands on the cheque as it went from one bank to another through him. The hurdle now was to find a way of crediting the cheque to his account though it was drawn in favour of a bank and was crossed account payee.

As it happens, it is purely a matter of banking custom that an account payee cheque is paid only to the payee mentioned on the cheque. In fact, exceptions were being made to this norm, well before the scam came to light. Privileged (corporate) customers were routinely allowed to credit account payee cheques in favour of a bank into their own accounts to avoid clearing delays, thereby reducing the interest lost on the amount.

Normally, if a customer obtains a cheque in his own favour and deposits it into his own account, it may take a day or two for the cheque to be cleared and for the funds to become available to the customer. At 15% interest, the interest loss on a clearing delay of two days for a Rs. 100 crore cheque is about Rs. 8 lacs. On the other hand, when banks make payments to each other by writing cheques on their account with the RBI, these cheques are cleared on the same day. The practice which thus emerged was that a customer would obtain a cheque drawn on the RBI favouring not himself but his bank.

The bank would get the money and credit his account the same day. This was the practice which the brokers in the money market used and exploited the market to their benefit. The brokers thus found a way of getting hold of the cheques as they went from one bank to another and crediting the amounts to their accounts. This effectively transformed an RF into a loan to a broker rather than to a bank. But this, by itself, would not have led to the scam, because the RF after all is a secured loan, and a secured loan to a broker is still secured. What was necessary now was to find a way of eliminating the security itself. Some banks (or rather their officials) were persuaded to part with cheques without actually receiving securities in return. A simple explanation of this is that the officials concerned were bribed and/or negligent. A more intriguing possibility is that the banks' senior/top management were aware of this and turned a Nelson's eye to it, largely because of the benefit of the higher returns the brokers could offer by diverting the funds to the stock market.
One must recognize that as long as the scam lasted, the banks benefited from such an arrangement. The management of banks might have been sorely tempted to adopt this route to higher profitability.

The second route was to replace the Actual securities by a worthless piece of paper – a fake Bank Receipt (BR). This is discussed in greater detail in the next section.

The third method was simply to forge the securities themselves. In many cases, PSU bonds were represented only by allotment letters rather than certificates on security paper. And it is easier to forge an allotment letter for Rs. 100 crores worth of securities than it is to forge a 100 rupee note! Outright forgery of this kind however accounted for only a very small part of the total funds misappropriated.

4.16 Bank Receipt

In an RF deal, the borrowing bank delivers the Actual securities to the lender and takes them back on repayment of the loan. In practice, however, this is not usually done. Instead, the borrower gives a Bank Receipt (BR) which serves three functions:

The BR confirms the sale of securities. It Acts as a receipt for the money received by the selling bank, hence, Bank Receipt. It promised to deliver the securities to the buyer. It also stated that in the meantime the seller held the securities in trust for the buyer.

In short, a BR was something like an IOU (I owe you securities!), and the use of the BR de facto converted an RF deal into an unsecured loan. The lending bank no longer had the securities; it had only the borrower's assurance that the borrower had the securities which could/were delivered if/when the need arose. There were several reasons why BRs came to be used in lieu of the actual securities:

BRs were very convenient for RF deals because delivery was not needed. BRs could simply be cancelled and returned when the deals were reversed. In case of PSU bonds, actual delivery was almost impossible because of a variety of reasons, such as non-existence of certificates, or a single certificate for investment of several hundreds of crores of rupees.
In case of government securities, the RBI had issued a directive that BRs should not be used. The reason was that, for these securities, the RBI, through its Public Debt Office (PDO), Acts as the custodian. Physical securities are never issued, and the holding of these securities is represented by book entries at the PDO. The ledger in which the PDO maintains these accounts is called the Subsidiary General Ledger (SGL), and these securities are referred to as SGL securities. When the holder of these securities sold them and wished to transfer them to the buyer, he filled up an SGL transfer form and gave it to the buyer. This SGL form could be compared to a cheque: the buyer deposits it into his SGL account at the PDO, and the PDO made a book entry reducing the holding of the seller and increasing that of the buyer. Because of this facility, the RBI did not permit use of BRs for these securities. Had the PDO functioned efficiently and carried out its bookkeeping without delays, RBI would have been justified in not permitting the use of BRs for government securities. Unfortunately, the PDO was very inefficient and laggardly in its functioning. This was a very serious matter, because, like a cheque, an SGL form can also bounce, if the seller does not have sufficient holding of securities in his SGL account. The buyer needs to be informed about this promptly; else, he may resell the same securities by issuing his own SGL forms in the belief that he has sufficient balance in his account. The inefficiency of the PDO made the SGL form an inconvenient and unreliable instrument, and banks preferred to use BRs even for the SGL securities, in violation of the RBI's directive. As stated earlier, a BR was supposed to imply that the issuer actually got the securities and holds them in trust for the buyer. But in reality the issuer never got the securities at all.

There are two reasons why a bank issued a BR which was not backed by actual securities:

A bank may short sell securities, that is, it sells securities it does not have. This would be done if the bank thinks that the prices of these securities would decrease. Since this would be an outright sale (not an RF), the bank issues a BR. When the securities did fall in value, the bank bought them at lower prices and discharges the BR by delivering the securities sold. Short selling in some form was an integral part of most bond markets. It could be argued that some amount of short selling subject to some degree of regulation was a desirable feature of a bond market. An outright sale using a BR which was not backed by securities was not harmful per se though it violates the RBI guidelines.
The second reason was that the bank may simply wanted an unsecured loan. It then carried out an RF deal issuing a "fake" BR which is a BR without any securities to back them. The lending bank would be under a mistaken impression that it is making a secured loan when it is actually advancing an unsecured loan. Obviously, lenders should have taken measures to protect themselves from such a possibility.

During the scam, the brokers perfected the art of using fake BRs to obtain unsecured loans from the banking system. They persuaded some small and little known banks – the Bank of Karad (BOK) and the Metropolitan Cooperative Bank (MCB) - to issue BRs as and when required. These BRs could then be used to do RF deals with other banks. The cheques in favour of BOK were, of course, credited into the brokers' accounts. In effect, several large banks made huge unsecured loans to the BOK/MCB which in turn made the money available to the brokers.

4.17 Control Systems

The scam was made possible by a complete breakdown of the control system both within the commercial banks as well as the control system of the RBI itself. We shall examine these control systems to understand how these failed to function effectively and what lessons can be learnt to prevent failure of control systems in the future.

The internal control system of the commercial banks involves the following features:

(i) Separation of Functions: The different aspects of securities transactions of a bank, namely dealing, custody and accounting are carried out by different persons. Dealing refers to the decision about which transactions are to be entered into with which parties. Custody involves receiving and delivering securities/substitute instruments and cheques for the transactions done. Accounting involves maintenance of the investment account of the bank and its reconciliation with the SGL account of the bank maintained by the PDO of the RBI.

Closely related to separation of functions is the notion of double custody. Just as the currency chests in the banks are under double custody where two people have to collaborate to open it, the securities too are usually under double custody. The assumption underlying double custody is that two individuals are unlikely to have a criminal intent at the same time! In
many banks like the National Housing Bank, these controls did not exist. In others, such as the State Bank of India, they existed but broke down partially or wholly because of the negligence of one or more of the functionaries.

(ii) **Counterparty Limits:** The moment an RF deal is done on the basis of a BR rather than Actual securities, the lending bank has to contend with the possibility that the BR received may not be backed by any/adequate securities. In effect, therefore, it may be making an unsecured loan, and it must do the RF only if it is prepared to make an unsecured loan. This requires assessing the creditworthiness of the borrower and assigning him a "credit limit" up to which the bank is prepared to lend. Technically, this is known as a counterparty limit. Strictly, a counterparty limit is required even if an RF is done against Actual securities because the securities may decline in value and the RF may end up becoming only partly secured though it was fully secured to begin with. Most of the foreign banks with the exception of the Standard Chartered Bank had very strict counterparty limits and were thus protected from lending too much against fake BRs. For a bank like the Bank of Karad, a reasonable counterparty limit may have been Rs. 50 lakhs so that an RF for several hundred crores would be flatly refused. The Standard Chartered Bank either did not have or did not adhere to such limits and agreed to do these RFs.

(iii) **Control system of the RBI should ideally involve the following:**

The PDO keeps track of the aggregate of each type of government security claimed by all the banks and ensures that the figures tally with the aggregate value of the securities at the end of each day. If all BRs are backed by securities, the seller’s investment account would decrease and the buyer's account would increase by the transaction amount, leaving the aggregate unchanged.

A reconciliation of the SGL securities claimed by each bank through mandatory periodic statements with the total holding as recorded in the SGL account (of the bank) at the PDO, would help in pin-pointing the banks whose accounts need to be investigated.

These simple control mechanisms were not being operated by the PDO. What is more surprising is that even when discrepancies were discovered, such as when some SGL forms sent to the PDO bounced because of inadequate inventory of securities in the seller's account,
the intimation regarding the inadequacy of securities was communicated to the buyer leisurely, may be through a letter by ordinary post, which could take days to reach. In the meantime, if the buyer sells the same securities on the strength of the SGL sent to the PDO, it could start an ever expanding chain of bounced SGLs. It appears that the PDO was not particularly perturbed by such possibilities.

The RBI is expected to carry out site inspections and other audits of the investment accounts and procedures of the banks. These were not quite comprehensive and even when some irregularities were detected, the RBI did not Act decisively against the erring banks.

**4.18 Coupon Changes and Insider Trading**

During the period from September 1991 to June 1992, the government raised the interest (coupon) rate on its fresh borrowing three times. On each occasion the coupon rate was increased by 1/2%, thereby raising the coupon rate from 11.5% to 13% during this ten month period. The major implication of raising interest rate on new borrowings is that it would trigger a fall in the market prices of the old loans which are pegged at the old (lower) interest rates. The price of the 11.5% Government Loan 2010 dropped by 3% to 5% with each coupon rate hike.

If anyone has advance information about these changes in the coupon rates, he could make enormous amounts of riskless profit by short selling the old securities just before the announcement of rate hike and buying back (covering his position) after the prices have fallen. Somebody who took a short position of Rs. 500 crores before the coupon hike of September 1991 could have made a profit of Rs. 15 crores, practically overnight! Since several persons in the Finance Ministry and the RBI are likely to be aware of the impending hike in the coupon rate, the chance of leakage of this all important information is always there. There have been several allegations in this regard. However, it was probably very difficult to prove with any degree of certainty that there was insider trading based on information about coupon rate changes, because of the size of the market. With a daily trading volume of Rs. 3000 - 4000 crore, it was very easy for anyone to take a position (based on inside information) of Rs. 500 or even Rs. 1000 crore without anyone suspecting anything untoward.
Most banks carried investments in their books at their cost of acquisition and did not mark them down to market. This created serious distortions during a period when, the prices of securities were falling. If one assumed that the prices of government securities fell by about 5% over the last year, then on an aggregate holding of these securities by the banking system of Rs. 70,000 crores, the paper loss of the banks was going to be Rs. 3,500 crores. A 10% fall in the prices of PSU bonds implied a further paper loss of about Rs. 800 crores to the banks (based on the assessment that banks held about Rs. 8000 crores worth of PSU bonds). Under the current system of accounting, such losses are recognized only when the securities are sold. This meant that, a bank could be reluctant to sell the securities and show the loss in its books. It was in this context that the banks and the brokers resorted to innovative methods of window dressing the banks’ balance sheets. The basic idea was as follows:

a). The bank sold the securities trading at a discount to a broker at face value or at a price which was much higher than the prevailing market prices. The broker incurred a huge loss in this transaction as he in turn resold the securities to some other bank at market prices.

b). The bank then buys some other securities from the same broker at prices well above market prices. The broker therefore makes a huge profit in the second transaction which compensates him for the loss incurred in transaction (a).

Thus, the net result of the two transactions is that neither the bank nor the broker makes any profit or loss. Then why would these transactions done? The reason is that while the profit earned through transaction (a) would improve the bottom line (profit) for the bank, the loss suffered by the bank in transaction (b) would not be reflected in its profit and loss account at all. The securities bought would simply appear in the bank's balance sheet at inflated values! It is a most ingenious way of creating paper profits. As far the broker is concerned, the price in transaction (a) can be as high as the bank wants so long as he gets a correspondingly higher price in transaction (b). What the scam investigations revealed was that window dressing of this kind was rampant. Instances were recorded of the same broker selling the same security on the same day to different banks at vastly different prices. This made it very difficult to fathom the motives for a single transaction in isolation from other transactions done by a bank.
It demanded that one put together the entire series of transactions; otherwise, it was impossible to know whether the banks or the brokers had been the net gainers through all the manipulative transactions. It was conceivable that some brokers were willing to absorb a part of the losses as a quid pro quo for other "services" which the banks provided them. It was interesting to note that even the pure RF deal involved an element of window dressing. The lending bank showed the interest received as an income in its profit and loss account. The borrowing bank did not show the interest paid as an expense, because it simply carried the investment in its books at the higher repurchase price. It was, in fact, quite likely that the enormous increases in the profits that some of the banks reported in 1992 over the previous year, could at least in part be explained by the use of such "creative" accounting practices.

4.19 Where has all the money gone?

It was becoming increasingly clear that despite the intensive efforts by several investigating agencies, it was impossible to trace all the money swindled from the banks. Based on the result of investigations and reporting, the following were the possibilities:

A large amount of the money was perhaps invested in shares. However, since the share prices had dropped steeply from the peak they reached towards end of March 1992, the important question was what were the shares worth then? Till February 1992, the Bombay Sensitive Index was below 2000; thereafter, it rose sharply to peak at 4500 by end of March 1992. In the aftermath of the scam it fell to about 2500 before recovering to around 3000 by August 1992. Going by newspaper reports, it was that the bulk of Harshad Mehta's purchases were made at low prices, so that the average cost of his portfolio corresponded to an index well below 2500 or perhaps even below 2000. It was well known in the Indian Capital Market, that while Harshad Mehta was the "big bull" in the Stock Market, there was an equally powerful "bear cartel", represented by Hiten Dalal, A.D. Narottam and others, who operated in the market with money dupe out of the banking system. Since the stock prices rose steeply during the period of the scam, it was found out that a considerable part of the money swindled by this group had been spent on financing the losses in the stock markets. Part of the money was sent out of India through the Havala Racket, converted into dollars/pounds, and brought back as India Development Bonds. These bonds were redeemable in dollars/pounds and the holders cannot be asked to disclose the source of their holdings. Thus,
this money was beyond the reach of any of the investigating agencies. A part of the money must have been spent as bribes and kickbacks to the various accomplices in the banks and in the bureaucracy and in the political system. In all there are 77 reforms of both the primary and secondary capital markets (see Tables 4.2, 4.3 and 4.4)

Table 4.2: Major Reforms in the Primary Market

<table>
<thead>
<tr>
<th>S.N</th>
<th>Type of Reform</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Merit-based regime to disclosure-based regime. Disclosure and Investor Protection. <strong>Guidelines issued.</strong></td>
</tr>
<tr>
<td>2</td>
<td>Pricing of public issues determined by the market.</td>
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<tr>
<td>3</td>
<td>System of proportional allotment of shares introduced.</td>
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<td>4</td>
<td>Banks and public sector undertakings allowed to raise funds from the primary market.</td>
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<tr>
<td>5</td>
<td>Accounting standards close to international standards</td>
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<td>6</td>
<td>Corporate Governance Guidelines issued.</td>
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<tr>
<td>7</td>
<td>Discretionary allotment system to QIBs has been withdrawn</td>
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<tr>
<td>8</td>
<td>Mutual funds are encouraged in both the public and private sectors and have been given permission to invest overseas and Guidelines were issued for private placement of debt.</td>
</tr>
<tr>
<td>9</td>
<td>Securities and Exchange Board of India promotes Self-Regulatory Organizations.</td>
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<tr>
<td>10</td>
<td>Allocation to retail investors increased from 25 percent to 35 percent.</td>
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<tr>
<td>11</td>
<td>Separate allocation of 5 percent to domestic mutual funds within the QIB category.</td>
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<tr>
<td>12</td>
<td>Freedom to fix face value of shares below Rs. 10 per share only in cases where the issue price is Rs. 50 or more.</td>
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<tr>
<td>13</td>
<td>Shares allotted on a preferential basis as well as the pre-allotment holding are subjected to lock-in period of six months to prevent sale of shares.</td>
</tr>
</tbody>
</table>

**Source:** Securities and Exchange Board of India (SEBI).
Table 4.3: Major Reforms in the Secondary Market

<table>
<thead>
<tr>
<th>S.N</th>
<th>Type of Reform</th>
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<tbody>
<tr>
<td>1</td>
<td>Registration of market intermediaries made mandatory.</td>
</tr>
<tr>
<td>2</td>
<td>Capital adequacy norms specified for brokers and sub-brokers of Stock Exchanges.</td>
</tr>
<tr>
<td>3</td>
<td>Guidelines issued on Listing Agreement between Stock Exchanges and corporates.</td>
</tr>
<tr>
<td>4</td>
<td>Settlement cycle shortened to T+2.</td>
</tr>
<tr>
<td>5</td>
<td>Stock Exchanges and other intermediaries, including mutual funds, inspected.</td>
</tr>
<tr>
<td>6</td>
<td>Regulation of Substantial Acquisition of Shares and Takeovers, 1997.</td>
</tr>
<tr>
<td>7</td>
<td>Foreign institutional investors (FIIs) allowed to invest in Indian Capital Market, 1992.</td>
</tr>
<tr>
<td>8</td>
<td>Order-driven, fully automatic, anonymous screen-based trading introduced.</td>
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<tr>
<td>9</td>
<td>Depositories Act, 1996, enacted.</td>
</tr>
<tr>
<td>10</td>
<td>Guidelines issued on Corporate Governance.</td>
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<tr>
<td>11</td>
<td>Fraudulent and unfair trade practices, including insider trading, prohibited by Securities and Exchange Board of India.</td>
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<tr>
<td>12</td>
<td>Straight-through processing introduced and made mandatory for institutional trades.</td>
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<tr>
<td>13</td>
<td>Margin trading and securities lending and borrowing schemes introduced.</td>
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<td>14</td>
<td>Separate trading platform, Indonext, for small and medium-sized enterprises (SME) sector launched.</td>
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<td>15</td>
<td>Notification of corporatization and demutualization of Stock Exchanges.</td>
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<td>16</td>
<td>Settlement and trade guarantee fund and investor protection fund set up.</td>
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<tr>
<td>17</td>
<td>Comprehensive risk management system (capital adequacy, trading and exposure limit, margin requirement, index-based market-wide circuit breaker, online position monitoring, automatic disablement of terminals) put in place.</td>
</tr>
<tr>
<td>18</td>
<td>Comprehensive surveillance system put in place.</td>
</tr>
<tr>
<td>20</td>
<td>Mutual funds and FIIs to begin entering the unique client code (UCC) pertaining to the parent entity at the order-entry level and entered UCCs for individual schemes and sub-accounts for the post-closing session.</td>
</tr>
<tr>
<td>21</td>
<td>Introduction of exchange traded derivatives in India in June 2000.</td>
</tr>
</tbody>
</table>

Source: Securities and Exchange Board of India (SEBI).
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<tr>
<th>S.N</th>
<th>Type of Regulations and Guidelines</th>
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<tbody>
<tr>
<td>1</td>
<td>SEBI (Stockbrokers and Sub-Brokers) Regulations, 1992</td>
</tr>
<tr>
<td>2</td>
<td>SEBI (Prohibition of Insider Trading) Regulations, 1992</td>
</tr>
<tr>
<td>3</td>
<td>SEBI (Merchant Bankers) Regulations, 1992</td>
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<tr>
<td>4</td>
<td>SEBI (Portfolio Managers) Regulations, 1993</td>
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<td>5</td>
<td>SEBI (Registrars to an Issue and Share Transfer Agents) Regulations, 1993</td>
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<td>6</td>
<td>SEBI (Underwriters) Regulations, 1993</td>
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<td>7</td>
<td>SEBI (Debenture Trustees) Regulations, 1993</td>
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<td>8</td>
<td>SEBI (Bankers to an Issue) Regulations, 1994</td>
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<td>9</td>
<td>SEBI (Foreign Institutional Investors) Regulations, 1995</td>
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<td>10</td>
<td>SEBI (Custodian of Securities) Regulations, 1996</td>
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<td>11</td>
<td>SEBI (Depositories and Participants) Regulations, 1996</td>
</tr>
<tr>
<td>12</td>
<td>SEBI (Venture Capital Funds) Regulations, 1996</td>
</tr>
<tr>
<td>13</td>
<td>SEBI (Mutual Funds) Regulations, 1996</td>
</tr>
<tr>
<td>14</td>
<td>SEBI (Substantial Acquisition of Shares and Takeovers) Regulations, 1997</td>
</tr>
<tr>
<td>15</td>
<td>SEBI (Buyback of Securities) Regulations, 1998</td>
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<td>16</td>
<td>SEBI (Credit Rating Agencies) Regulations, 1999</td>
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<td>17</td>
<td>SEBI (Collective Investment Schemes) Regulations, 1999</td>
</tr>
<tr>
<td>18</td>
<td>SEBI (Foreign Venture Capital Investors) Regulations, 2000</td>
</tr>
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<td>19</td>
<td>SEBI (Procedure for Board Meeting) Regulations, 2001</td>
</tr>
<tr>
<td>20</td>
<td>SEBI (Issue of Sweat Equity) Regulations, 2002</td>
</tr>
<tr>
<td>21</td>
<td>SEBI (Procedure for Holding Inquiry by Inquiry Officer and Imposing Penalty)</td>
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<td>22</td>
<td>Regulations, 2002</td>
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<tr>
<td>SEBI (Prohibition of Fraudulent and Unfair Trade Practices Relating to Securities Markets)</td>
<td><strong>Regulations, 2003</strong></td>
</tr>
<tr>
<td>23</td>
<td>SEBI (Central Listing Authority) Regulations, 2003</td>
</tr>
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The Capital Market Regulator, SEBI has carefully developed good stability mechanisms to keep the Market functioning in a sustainable manner. There are difficulties, but the Capital Market Regulator devises careful working strategies to overcome them. Such strategies come in the form of rules, regulations and innovative market reforms. SEBI has been granted powers by the Law Courts and the Government of India which help it machinery to function as expected. SEBI is very much engaged in the education of investors and the careful training of all Capital Market participants. This is the source of stability and sustainability in the Indian Capital Market. The situation of the Indian Capital Market is evidence of the fact investors’ interest is well protected. They should have confidence in the market and invest without fear of or abnormal excess losses.

4.20 Why Bring in Capital Market Reforms

The Securities Market in India was underdeveloped, opaque, dominated by a handful of players, and concentrated in a few cities. Manipulation and unfair practices were perceived to be rampant, prompting an overseas researcher to describe the market as a “snake pit.” The transformation of the Indian Securities Market started with the establishment of the Securities and Exchange Board of India (SEBI) in 1989, initially as an informal body and in 1992 as a statutory autonomous regulator with the twin objectives of protecting the interests of investors and developing and regulating the Securities Market over a period of time. SEBI has been empowered to investigate, examine, visit company premises, summon records and persons, and inquire and impose penalties commensurate with misconduct. The first and foremost challenge for SEBI was to create a regulatory and supervisory framework for the market, a job that proved formidable, because vested interests resisted every new step.
However, with the designing and notification of regulations and guidelines, the apparatus steadily evolved and the Capital Market has adapted to the situation.

SEBI has instituted a consultative process of framing regulations. All reports, concept papers, and policy proposals are posted on SEBI’s website (www.sebi.gov.in) for comments from market participants and the public. The comments are compiled and taken into account before regulations are finalized. All draft regulations are put on the website, so that legal experts can comment on the law’s correspondence with the spirit of the initiatives. This openness has a profound impact not only in terms of valuable input and gauging public opinion before framing regulations and guidelines but also in terms of improving quality, acceptability, and ease of implementation. SEBI has formed a number of committees of eminent experts and market practitioners to support it in the design of reforms for different aspects of Securities Markets. The regulator posts all its orders, including those delivered on appeals against its orders, on its website. On request, it provides informal guidance on payments of nominal fees and issues an Action letter so that the participants can seek clarification on any aspect and adopt an appropriate business strategy that conforms to the applicable regulations.

SEBI has put timelines for performance of its various functions, such as registration and renewal, on the website. These measures work as a self-disciplining mechanism within SEBI and provide full transparency to its functioning.

4.21 Reforms in the Primary Market (Table 4.2)

The primary market, which at one time was flooded with a number of issues floated by dubious promoters, depriving gullible investors of their lifetime savings, has since been transformed. The changes in this area have been epic and include detailing of complete profiles of promoters; comprehensive disclosures, the existence of tangible assets, and a track record of profit as also reporting end uses of funds to the Board as a part of Corporate Governance. Recently, when the story of Google’s initial public offering (IPO) was being touted in the media worldwide as one of the greatest innovations of recent times for raising risk capital, the Financial Times, London, carried the following observation:
The World’s Biggest Democracy can show Google how to conduct an online IPO. In India you cannot apply on the web but investors can access one of the world’s largest financial networks with 7000 terminals scattered around 350 cities. And every step of the book building process is public. . . The Indian system is a refreshing example of a transparent IPO market but it is also a rare one, especially in the insider-friendly Asian markets.

All the IPOs, since the reforms started have been a success and barely a few exceptions are trading at a premium over the issue price. The regulatory framework has been modified to provide options to Indian firms for raising resources either domestically, globally, or both. These options help discover prices and reduce the cost of funds. A number of Indian firms have raised money through American depository receipts, global depository receipts, and external commercial borrowings. The two-way (internal and external) fundability was permitted to enhance liquidity.

During 2004–05, a sum of Rs. 282.56 billion, as opposed to Rs. 232.71 billion in 2003–04 (which was larger than the amount raised in the 10 years of the earlier primary market boom), was raised through the primary market. The corporate sector and central and state governments together raised a total of Rs. 3.75 trillion from the Securities Market during 2004–05. However, no major mishap has occurred recently, but how prepared is the Indian Capital Market for the 2011 Capital Market Scam?

The quality of the secondary market of India has been tremendously upgraded. The deafening noise of an outcry trading system has been replaced with the silence of the electronic consolidated anonymous limit order book, with price-time priority matching accessible through more than 10,000 terminals spread over 400 cities and towns across the Indian subcontinent. It is not an over evaluation to say that it is something perhaps without a parallel in the world. Transaction costs are lower, compared with those of the most developed markets.

4.22 The Indian Capital Market Settlement System

The Indian settlement system conforms to the Committee on Payment and Settlement—International Organization of Securities Commissions principles and G–30 committee (January 2003, under the chairmanship of Sir Andrew Large) recommendations, which even
the most developed markets of the world are proposing to implement. The institution of the central counterparty (CCP), which provides full innovation and guarantees settlement, has eliminated counterparty risk entirely. More than 99 percent of the dematerialization of market capitalization and straight-through processing, mandatory for all institutional trades, had enabled the Indian settlement system to function seamlessly, notwithstanding size and spread.

On a T+2 cycle, all securities are fully cleared electronically through a CCP on a rolling settlement. The CCP of the exchanges, which operates a tight risk management system and maintains a short (T+2) and consistent settlement cycle, is now financially able to meet the obligations for four to five consecutive settlements even if all the trading members default in their obligations. The dynamic risk management system comprises capital adequacy norms, trading and exposure limits, index-based market-wide circuit breakers, and margin (mark to market) requirements.

The encashability of the underlying liquidity of the margins, comprising cash, bank guarantees, and securities, is evaluated periodically. The real-time monitoring of broker positions and margins and automatic disablement of terminals with value-added risk margining, built on much higher sigma deviation than the best of the markets in the world, have reduced the operational risk to the lowest ebb. In a recent unfortunate, very sharp (more than 25 percent in two days) fall of the market in May 2004, the strength of the system’s risk management was tested. There was not a single broker failure or default, and on the third day (after the two consecutive days of decline) the market functioned as if nothing unusual had happened. Even the CCP was not required to fund any broker-dealer’s obligations.

4.23 The State of the Indian Capital Market Today

The state of the market today bears testimony to the role SEBI plays. A study by the Society for Capital Market Research and Development (October 2004) revealed that there has been great improvement in the general public’s perception of Capital Market regulation in India since 2001.

The Economic Survey 2003–04 by the government of India had the following to say: “The Securities Markets have made enormous progress in recent years. India’s equity market is
now being increasingly recognized as a success story on the world scale.” These reforms have boosted the confidence of investors (domestic and international) in the Indian securities market. There are four parameters to ascertain the level of investor confidence: (1) investments by foreign institutional investors (FIIs), (2) growth of the mutual funds industry, (3) subscriptions to IPOs, and (4) an increase in the number of accounts with the depositories. The figures from the 2003–04 financial year, mutual funds mobilized net resources of about Rs. 480 billion, equivalent to about one-fourth of incremental bank deposits. Mutual funds’ assets increased from Rs. 1.1 billion at the end of March 2003 to Rs. 2.0 billion at the end of October 2005. Indian companies raised about Rs. 33 billion through euro issues.

The year 2004 witnessed a net FII (portfolio money) inflow of US$10 billion. The volume of issuance in the primary market increased from Rs. 41 billion in 2002–03 to Rs. 282.56 billion in 2004–05. The two benchmark stock market indices, namely the SENSEX and S&P CNX NIFTY, generated astounding returns of 83 percent and 81 percent, respectively, during 2002–03 and 2003–04. Market capitalization grew from Rs. 7 trillion at the end of March 2003 to Rs. 14 trillion at the end of March 2004, and to Rs. 23 trillion as of August 2005, indicating that the equity market is bigger than the banking system. The primary issues in the last year added at least Rs. 2 trillion in market capitalization. The trading in cash segment of exchanges increased from Rs. 932,062 in 2002–03 to Rs. 1,658,787 in 2004–05. Trading in derivatives increased from Rs. 442,341 to Rs. 2,563,165 during the same period. The turnover in government securities increased from Rs. 1,941,621 to Rs. 2,639,897. The impact cost went down to 0.1 percent in 2003–04, reflecting substantial improvement in liquidity.

The number of demand accounts with depository participants has increased considerably during the past three years, from 3.8 million to 8 million, and is increasing on average at the rate of more than 100,000 per month. The number of investor complaints received by SEBI has been sharply decreasing over the years. The efficacy of the market, where entry and exit are possible at will and the liquidity has spread from being skewed to just about 100 to more than 500 securities, is a matter of substantial comfort. More than 2,500 securities (equities) are traded for more than 100 days in a year. Overseas investors are no longer glued to research and assessments of index stocks and have been observing keenly and investing in the mid-cap segment. The changes in the market have been very fast-paced; they have been
possible with the cooperation of all the market participants, other regulators, and the
government of India. The impression is not that in the Indian Securities Market everything
was fine and needed no improvement, polishing, or refurbishing. The dynamics of the global
environment dictates that those charged with the responsibility of bringing about changes
must always seek out learning by experience, criticism, and judgments. The market depth
needs to be supplemented with further product diversification— mortgage- and asset-backed
securities, warrants, and disinvestment in the public sector. The debt market of India, though
large and next in size only to Japan in Asia, lacked vibrancy and did not provide adequate
options for meeting medium- to long-term funds required for Greenfield projects, in
particular. Infrastructure funding (essential for continued high economic growth) has become
an issue in the absence of a vibrant debt market.

4.24 Important Views about the Indian Capital Market

The following views were expressed by writers and researchers about the Indian Capital
Market:

The Indian Capital Market in general and the trading systems in the Stock Exchanges in
particular were studied by Gupta (1992), and suggested that the systems therein were rather
antiquated and inefficient, and suffered from major weaknesses and malpractices. According
to the study, significant reforms were required if the Stock Exchanges were to be geared up
to the envisaged growth in the Indian Capital Market. The study concluded that, a) the
Indian stock market was highly speculative; b) the Indian investors were dissatisfied with the
service provided to them by the brokers; c) the margins levied by the Stock Exchanges were
inadequate and d) the liquidity in a large number of stocks in the Indian markets was very
low. While, evidently a painstaking work, the conclusions except `c' above seemed to be built
on wrong or questionable arguments. It was rather too soon to have been judging the success
or failure of SEBI.

In a doctoral dissertation, Dhillon (1993), examined the regulatory policies of Bombay Stock
Exchange (BSE) over a four year period (July 1986 - June 1990). The findings showed that
regulatory authorities decided changes in their margin policy on the basis of market activity.
It was found out that the margins were prompted by changes in settlement returns, price
volatility, trading volume and open positions. Granger causality results showed that there was limited causality in the reverse direction: margin changes did not affect returns, and had only a limited impact on price volatility, trading volume and open positions. Event study methodology applied to daily margins showed similar results, except that daily margin on sellers did not appear to be affected by market variables. Further, the study found out that there was also evidence of under margining leading to excessively levered positions, thereby increasing the insolvency risk. The results reveal that regulations through these instruments have had only a marginal impact on the dual objectives of controlling Capital Market Activities.

In a study, Pandya (1992), observed that as a regulatory and development body, SEBI's efforts in the direction of investor protection were varied and unlimited. The measures brought in by SEBI broadly cover measures for capital allocation efficiency in the primary market with a fair degree of transparency, reforms in the secondary market for securities and mutual funds, regulation of various market intermediaries and above all for the protection of the investing public. All of these measures were embarked upon in a bit to achieve Capital Market stability and sustainability.

4.25 Stability and Sustainability of the Indian Capital Market

The magic of stability and sustainability in the Indian Capital Market was attributed to the enormous efforts put in by the Indian Capital Market Overseer the Securities and Exchange Board of India (SEBI). The purpose of the SEBI Act was to provide for the establishment of a Board with powers to protect the interest of investors in the Capital Market, to promote the development of the Indian Capital Market and to carefully regulate its proper functioning. To play it role properly as the Indian Capital Market Overseer, SEBI has been granted powers by the Law Courts and the Government of India to:

(i) Carefully regulate the business in all the Stock Exchanges and other Capital Markets,
(ii) Properly registering and regulating the working of all stock brokers, sub-brokers, share transfer agents, bankers to the issue, trustees of trust deeds, registrar to an issue, merchant bankers and such other Capital Market intermediaries,

(iii) Properly registering and regulating the working of the depositories, the depository participants, foreign institutional investors, credit rating agencies and all other intermediaries as the Board may see necessary,

(iv) Properly registering and regulating the working of Venture Capital Funds, Collective Investment Organisations and Mutual Funds,

(v) Promoting and regulating self-regulating organizations

(vi) Checking and prohibiting fraudulent and unfair practices in the Capital Market,

(vii) Prohibiting insider trading in securities in the Capital Market,

(viii) Promoting investors’ education and training of Capital Market intermediaries,

(ix) Carefully regulating substantial share acquisitions,

(x) Demanding and examining information from, undertaking inspections, conducting inquiries and audits of Stock Exchanges, mutual funds and other persons associated with the Capital Market,

(xi) Demanding and examining information and records from any bank or any other authority or board or corporation established or constituted by Central, State or Local Authority Act in respect of any transaction in securities which may be under investigation or inquiry by SEBI.

The powers granted to SEBI by the Law Courts and the Government of India has enabled it to carefully bring in reforms to keep the Capital Market in a suitable and sustainable condition. Table 4.2 shows the various reforms carried in the primary market and Table 4.3 presents all the necessary reforms carried out in the secondary market. Table 4.4 provides the Securities Regulations and Guidelines for all Capital Market intermediaries.

4.26 The Set Backs of SEBI as a Capital Market Regulator

The Capital Market was very buoyant, initially, but following inducements from external forces things started going wrong. Such inducement started in the late 1980s and caused a lot of Capital Market panics in the early 1990s. To this effect, SEBI’s efforts to boost
investments in the Capital Markets faced a severe setback in 1992, when Mehta's illegal activities led to a Stock Market scam. Mehta had managed to obtain huge funds from top Indian Banks and other financial institutions in India, including State Bank of India, Standard chartered, National Housing Bank, Citibank and ANZ Grindlays, to manipulate stock prices. His activities forced Stock prices to rise significantly. Between September 1991 and April 1992, the BSE index went up by 143%. However, when the prices crashed, several small investors lost their hard-earned money. The amount involved in this crisis was approximately Rs.54 billion. SEBI's inefficiency in regulating the markets was brought to light for the first time. After the Harshad Mehta scam of 1992, SEBI's role as a regulator of the Indian Capital Markets was once again questioned on March 02, 2001, when the BSE index crashed by 176 points. This happened as the result of the large position taken by a stockbroker - Ketan Parekh (KP) in ten stocks, popularly known as K10 or tainted shares. The companies in which KP held high equity stakes included Amitabh Bachchan Corporation Limited, Mukta Arts, Tips, Pritish Nandy Communications, HFCL, Global Telesystems, Zee Telefilms, Crest Communications and PentaMedia Graphics. He had huge exposures in these stocks, which required a lot of money. Reportedly, KP borrowed from various companies and banks for this purpose. His borrowing power went against the legal regulation of the Banking Industry as set by the Reserve Bank of India (RBI).
Section B

Risk Management in the Indian Capital Market

This section presents the types of risk present in the Indian Capital Market and describes the role SEBI is playing in the proper management of the risk.

4.27 Risk Assessment and Awareness

The rules that have been introduced during the last few years to contain market risks seem to have operated reasonably well. Strict enforcement of these rules is as important as the rules themselves to effectively manage risk. In this regard, SEBI should more closely inspect intermediaries and the Stock Exchanges and, if necessary, strengthen punitive measures. SEBI introduced a Risk Management System which has taken several measures to improve the integrity of the secondary market. Legislative and regulatory changes have facilitated the corporatization of stockbrokers. Capital adequacy norms have been prescribed and are being enforced. A mark-to-market margin and intra-day trading limit have also been imposed. Further, the stock exchanges have put in place circuit breakers, which are applied in times of excessive volatility. The disclosure of short sales and long purchases is now required at the end of the day to reduce price volatility and further enhance the integrity of the secondary market. The research revealed that risk by nature has two components; uncertainty and exposure. Both these components are always present and need to be carefully managed.

Definition of Risk as per Guidelines on Risk Management issued by State Bank of Pakistan stated that, "Financial risk in a banking organization is the possibility that the outcome of an action or event could bring up adverse impacts. Such outcomes could either result in a direct loss of earnings/capital or may result in the imposition of constraints on the bank's ability to meet its business objectives. Such constraints pose a risk as these could hinder a bank's ability to conduct its ongoing business or to take benefit of opportunities to enhance its business." Risks are usually defined by the adverse impact they may bring about on the profitability of several distinct sources of uncertainty. More or less all financial institutions have to manage the following risks:

(a) Credit Risk
(b) Market Risk
(c) Liquidity Risk
(d) Operational Risk

The above four risks are as per Risk Management Guidelines the risk that surround the Financial Sector. These risks are elaborated here under:

i. Credit Risk

It is the risk incurred in the case of a counter-party default. It arises from lending activities, investing activities and from buying and selling financial assets on behalf of investors. This risk was found to be associated with financing transactions i.e.:

(a) Default in repayment by the borrower and
(b) Default in obliging the commitment by another Financial Institution in case of syndicated arrangements.

It was the most critical risk in banking and one that must be managed carefully. It was also found to be the type of risk that requires the most subjective judgment despite constant efforts to improve and quantify the credit decision process.

ii. Market Risk

Market risk was defined as the volatility of income or market value due to fluctuations in underlying market factors such as currency, interest rates, or credit spreads. For commercial banks, the market risk of the stable liquidity investment portfolio arose from the mismatch between the risk profile of the assets and their funding. This risk involved interest rate risk in all of its components: equity risk, exchange risk and commodity risk.

iii. Liquidity Risk

The liquidity risk was defined as the risk of a company not being able to meet its commitments or not being able to unwind or offset a position in a timely manner, because it could not liquidate assets at reasonable prices when required.
iv. Operational Risk

This risk resulted from inadequacies in the conception, organization, or implementation of procedures for recording any events concerning the company's operations in the accounting system/information systems.

In a study by Sidhu (2006), it was stated that the following risks are inherent in the Capital Market in the settlement system:

(i) **The counter-party risk** – it is a risk arising if parties do not discharge their obligations fully when they are due or any time thereafter. This has two components, namely replacement cost risk prior to settlement and the principal risk. The two risks are carefully examined hereunder:

(ii) **The replacement cost risk** – it arises from the failure of one of the parties to the transaction. While the non-defaulting party tries to replace the original transaction at current prices, he loses the profit that has accrued on the transaction between the date of the original transaction and the date of replacement transaction. This means that the buy/seller of the security loses the unrealized profit if the current price is below/above the transaction price. Both the parties face this risk as prices are uncertain. Such risk has been reduced by reducing the time gap between transaction and settlement and by legally binding netting systems.

(iii) **The principal risk** – the principal risk arises if the party discharges his obligation, but the counter-party defaults. This means that the seller/buyer of the security suffers this risk when he/she delivers/makes payment/delivery, but does not receive payment/delivery. This risk can be eliminated by a delivery/payment (DVP) mechanism that is ensuring that delivery is only made against cash payment. Such risk is being reduced by having a central counterparty which becomes the buyer. A variant of counterparty risk is liquidity risk which arises if one of the parties to the transaction does not settle on the due date, but settles at a future date. The dealer who does not receive payment/delivery when due, may have to borrow funds/securities to complete his/her payment/delivery obligations.
(iv). The system risk – it is a combination of three risks, namely: Operational risks, Legal risk, and Systemic risks. The three risks are carefully examined hereunder:

(a). The operational risks may arise from possible operational failures such as errors, fraud, outages etc.

(b). The Legal risk may arise if the laws or regulations do not support enforcement of settlement obligations or are uncertain.

(c). The systemic risks may arise when failure of one of the parties to discharge his obligations leads to failure by other parties. The chain reaction effect of successive failures can cause the failure of the settlement system. These risks have been contained by the enforcement of an elaborate risks management system. Managing and the implementation of capital adequacy standards to secure market integrity, settlement guarantee funds to provide counter party guarantee, legal backing for settlement activities and business continuity plan. This means that a very sound risk management system has been made integral to an efficient system of settlement. The clearing corporation has put in place a comprehensive risk management system to constantly monitor and upgrade participants’ actions. The system is constantly monitored and carefully maintained in order to pre-empt any market failures. It helps to monitor the track record and performance of members and their net worth. In order to carefully reduce the impact of risk in the market, the clearing corporation also undertakes online monitoring of members positions and exposure in the market and collects margins from members and automatically disables members, if the limits are in any way breached.

(d). Third party risk – third party risk arises, if the parties to a trade are permitted or required to use the services of a third party who fails to perform his own part of the contract. For example, the failure of a clearing bank which helps in payment can disrupt settlement. This risk is reduced by allowing parties to have accounts with multiple banks. In the same way the users of custodian services face risk, if the concerned custodian becomes insolvent, acts negligently, without reasonable care.
4.28 Risk Analysis

Risk assessment (RA) is a systematic and comprehensive methodology used for the evaluation of risk associated with an investment decision or project. Risk is a feasible detrimental outcome of an investment decision. Risk is characterized by two quantities:

(a) The magnitude (severity) of the possible adverse effect, measured by the standard deviation of the outcomes.

(b) The likelihood (probability) of the occurrence of each outcome.

The various outcomes are expressed numerically in the form of percentages for the calculation of standard deviation and the likelihoods of occurrence are expressed as probabilities or frequencies. Decision making under risky situations imply the degree of uncertainty and an inability to fully control the various outcomes. Risk management is the ability of a manager using reasonable efforts to carefully reduce the risk. It reasonable to mention that total risk is divided into two types:

(i) Systematic risk – it is risk which cannot be reduced by the manager’s efforts, and

(ii) Unsystematic risk – it is risk that the manager can help to reduce by making skillful decisions and the employment of risk management strategies.

Effective handling of risk requires its assessment and its subsequent impact on the decision making process. The decision making process must include a risk-adjusted component. The decision making process should allow the decision maker to carefully evaluate the various alternatives of action by including the risk component prior to making the final decision. The decision making process under risky conditions can be outlined as follows:

(1) A careful definition of the problem, making sure that it is the right problem. A problem identification process is not an easy task to decision makers.

(2) Consider and carefully evaluate all feasible alternative courses of action.

(3) Calculate all possible outcomes in a risk-adjusted manner.

(4) Select the best risk-adjusted outcome for implementation.

(5) Carefully implement it, using the best implementation method.

(6) Monitor and evaluate the progress.
4.29 Sources of Potential Banking Risk and the Need for Risk Management

The main sources of banking risk stems from the lack of good governance in the banking environment. For example, internal fraud and external fraud are highly likely, since cash/cash equivalents are closest in the grab-chain, poor employment practices/ workplace safety, inefficient product, process, business Practices, increased damages to physical assets, strikes, business disruptions and other major threats. The non-compliance (Intentionally or Otherwise) with Laws, Rules, Regulations may lead to Legal or Regulatory Sanctions and also to financial or reputational Loss. The attitude of less risk averse bank managers may lead to very risky deals. This action may degenerate into a scam, causing the bank billions of rupees as losses.

There are a number of reasons as to why Risk Management in the Financial Sector has become very necessary now a day. Some of them are listed below:

(i) Present structure of joint stock companies, wherein owners are not the mangers, hence risks increase; therefore proper tools are required to achieve the desired results by covering the risks.

(ii) The financial sector has come out of simple deposit and lending function.

(iii) The world has become very complex so the financial transactions and instruments.

(iv) Increase in the number of cross border transactions which carries its own risks.

(v) Emerging markets

(vi) Terrorism Remittances

(vii) Risk monitoring in the financial sector was very crucial and an inevitable part of risk management. Risk Monitoring was important in the financial sector due to the following reasons:

(viii) Deals in others’ money

(ix) Direct stake of deposit holder.
(x) Much riskier sector than trading and manufacturing.

(xi) Previous / Recent problems faced by banks i.e. stuck portfolio that is credit risk.

(xii) Bankruptcy of Barings Bank due to short selling / long position that is market risk.

(xiii) Operational risk does not have immediate impact, but important for continuity and progress of organization.

(xiv) Appetite of a financial institution to take risk is related with the capital base of the institute, so it carries a huge risk of overexposure.

(xv) Risk Watch - when you invest, you do so with certain expectation about the performance of the company, the prospects of income from and/or the capital growth of the securities that you now hold, the corporate benefits that may accrue to you etc. While making that investment decision you should have obviously taken note of and duly evaluated the attendant risks that go with such expectations. You would remember that one such risk is that your expectations on income and/or growth may not materialize. You would also recall that if you are an investor in the debt instruments, you can have recourse against the company besides the market, for redressing them. But, as an equity holder of a company in order to realize the value of such investment, you have recourse only to the market. And you would recollect that disinvestment may result in capital losses also. Further, you would have also noted that apart from the above mentioned investment risks, your also face the risk of running into problems with the trading and transfer of LSE securities.

The Risk Management Framework has six components. The first should be risk Identification, the second should be assessment and classification, the third - solutions should be sought for the management of the risk, the fourth - assessing quick response and implementation of the solutions, the fifth phase should be monitoring of the risk management progress and the sixth learning from the experience that such problem never occur again. The whole process should be well communicated during the entire process of risk management. This should help to manage the risk efficiently. The International Organization for Standardization (ISO) has defined risk management as the identification, analysis,
evaluation, treatment (control), monitoring, review and communication of risk. These activities should be applied in a systematic or ad hoc manner. The presumption was that the systematic application of these activities resulted in the improvement of decision-making and also improved outcomes. Depending upon the structure and operations of organizations, financial risk management could be implemented in different ways. Risk management structure reasonably defined the different layers of an organization at which risk was identified and managed. For managing risk, there are certain basic principles which are to be followed by every organization:

(i) Corporate level Policies

(ii) Risk management strategy

(iii) Well-defined policies and procedures by senior management

(iv) Dissemination, implementation and compliance of policies and procedures

(v) Accountability of individuals heading various functions/ business lines

(vi) Independent Risk review function

(vii) Contingency plans

(viii) Tools to monitor risks

It is clear that institutions could reduce some risks simply by researching them. A bank could reduce its credit risk by getting to know its borrowers’ creditworthiness well. A brokerage firm could reduce market risk by being knowledgeable about the markets it operates in. Functionally, there are four aspects of financial risk management. Success depends upon the following:

(a) A Positive Corporate Culture

No one can manage risk, if they are not prepared to take risk. While individual initiative was critical, it was the corporate culture which facilitates the process. A positive risk culture was one which promotes individual responsibility and was supportive of risk taking.
(b) Actively Observed Policies and Procedures

Used correctly, procedures are powerful tools for risk management. The purpose of policies and procedures was to empower people. They specify how people could accomplish what needed to be done. The success of policies and procedures depended critically upon a positive risk culture.

(c) Effective Use of Technology

To get the desired outcome from risk management, risk managers must be independent of risk taking functions within the organization. Enron's experience with risk management was instructive. The firm maintained a risk management function staffed with capable employees. Lines of reporting were reasonably independent in theory, but less in practice. The role technology plays in risk management was risk assessment and communication. Technology was employed to quantify or otherwise summarize risks as they were being taken. It then communicated this information to decision makers, as appropriate.

(d) Independence of Risk Management Professionals in Practice

The research found out that, in banks the day-to-day risk assessment and management was assigned to a specialized committee, such as an Asset-Liability Management Committee (ALCO). It revealed that, the duties pertaining to key elements of the risk management process were adequately separated to avoid potential conflicts of interest – this meant that, a financial institution's risk monitoring and control functions were sufficiently independent from its risk-taking functions. Larger or more complex institutions often had a designated, independent unit, responsible for the design and administration of balance sheet management, including interest rate risk. Given the widespread innovation in the banking industry and the dynamics of markets, banks should identify any risks inherent in new products or services before their introduction, and ensure that these risks are promptly considered in the assessment and management processes.
4.30 Risk Disclosure Documents

The Board members should be informed about the risk assessment and minimization procedures. These procedures shall be periodically reviewed to ensure that executive management controls risk through means of a properly defined framework. Management shall place a quarterly report certified by the compliance officer of the company, before the entire Board of Directors documenting the business risks faced by the company, measures to address and minimize such risks, and any limitations to the risk taking capacity of the corporation. This document shall be formally approved by the Board.

The National Stock Exchange (NSE) in co-ordination with SEBI designed a risk disclosure document. This includes the risks involved in trading on a Stock Exchange e.g. risk of higher volatility, risk of lower liquidity, risk of wider spreads, risk of reducing orders, risk of new announcements, risk of numeracy, systemic risk and also the rights and obligations of the investors. Based on it, the other Stock Exchanges were directed to prepare their own risk disclosure document. The Exchanges were given the liberty to prescribe any additional clauses as may be considered necessary by them. The risk disclosure document should contain important information on trading in the equities segment and should be comprehensive enough for any person to understand the basic risks involved in trading. A separate section of investors’ rights and obligations should also be included in the disclosure document.

The electronic contract note was advised by SEBI. SEBI advised the Stock Exchanges to prescribe a standard format for the electronic contract note in its bye-laws, rules and regulations. This will streamline the issuance of electronic contract notes as a legal document replacing the physical contract note. The modification/amendment should be with respect to signing of the electronic contract note with a digital signature so as to make the modified format a valid legal document. The mechanism of recording or record keeping of electronic notes in a soft non-temper able form should be prescribed in conformity with the Information Technology (IT) Act, 2000. To increase efficiency and reduce risk in the settlement system, SEBI has a vision to move towards Information Technology (IT) to help reduce the gap between the trading date and the settlement date, making both securities and funds quickly
convertible to each other. This will help to reduce the settlement risk in the market considerably and would go a long way in protecting the interest of the investors.

SEBI is working in collaboration with Reserve Bank of India (RBI) to help speed up the movement of funds in the Indian Securities Market. The RBI has already pushed forward the real time gross settlement (RTGS) in the banking system. This is a system which when implemented vigorously will lead to the introduction of T+1 (trading day plus one day) settlement system, in the Indian Securities Market. Cross margining between cash and derivatives markets can be used to optimize the use of capital and better risk management. Cross-margining means, adjustment of margins of members/clients across the exchanges and segments like cash and derivatives. This concept was under the consideration of SEBI. It was consulting various exchanges and market participants for implementing this innovative risk management system in the Indian Capital Market. A clearing corporation was entrusted with the responsibility of carrying out the clearing and settlement function of trades. It bears the counterparty risk in the trade to provide innovation and settlement guarantee. There was a general clearing corporation, thereby eliminating the chances of duplication. It was therefore not necessary that each Stock Exchange should have its own exclusive clearing corporation. It was therefore better for all the Stock Exchanges to use the services of one clearing corporation or a few clearing corporations as shared depository services. This was an aspect of risk management:

1. A model format of the risk disclosure document detailing the basic risks involved in trading on a Stock Exchange, highlighting the rights and obligations of the clients, etc, was enclosed. Based on these clauses the respective Stock Exchanges should prepare their own risk disclosure document. The exchanges were allowed the freedom to prescribe any additional clauses as may be considered necessary by them.

2. The Stock Exchanges were advised to inform their brokers/clearing members that they were required to bring the contents of the document to the notice of their clients and make them aware of the significance of the document. The members were required to obtain a copy of the risk disclosure document duly signed by their clients.

3. The Stock Exchanges were directed to:
(a) Make necessary amendments to the relevant rules and regulations for the implementation of the above decision immediately.

(b) Bring the provisions of this circular to the notice of the member brokers/clearing members of the exchanges and also to disseminate the same on the website.

(c) Communicate to SEBI, the status of the implementation of the provisions of this circular in Section II, Item No. 13 of the monthly development report for the month of October 2003.

(4) This circular was being issued in the exercise of powers conferred under section 11(1) of the Securities and Exchange Board of India (SEBI) Act of 1992, read with section 10 of the securities contracts (Regulation) Act 1956 to protect the interests of investors in securities and to promote the develop of and to regulate the Securities Market.

The Risk Disclosure Document was issued by the National Stock Exchange of India (NSE) in co-ordination with the Securities and Exchange Board of India (SEBI) and contains important information on trading in the equities segment of NSE. All constituents are urged to read it before making a purchase or a sale of any security being traded on NSE. NSE-SEBI did not neither expressly nor impliedly guarantee nor make any representation concerning the completeness, the adequacy or accuracy of the disclose document nor had NSE/SEBI endorsed or passed any merits of participating in this trading segment. However, this brief statement did not disclose all the risks and other significant aspects of trading.

In the right of the risks involved, the investor should undertake transactions only if the investor carefully understood the nature of the contractual relationship into which he/she was entering and the extent of the exposure to risk. The investor must know and appreciate that investment in equity shares or other instruments traded on the Stock Exchange, known as risk capital was generally not an appropriate venture for someone of limited resources/limited investment and/or trading experience and low risk tolerance. The investor should therefore carefully consider whether such trading was suitable for him/her in the right of his/her financial condition. In case the investor traded on NSE and suffered adverse consequences or loss, NSE and its clearing corporation and/or SEBI shall not be responsible in any manner, regarding the effect. The investor should not claim that the risks involved were not understood or that he/she was not explained the full risk involved. The investor shall be
solely responsible for the consequences and no contract can be prescribed on that account. The investor must acknowledge and accept that there can be no guarantee of profits, or no exception from losses, while executing orders for purchase and/or sale of a security being traded in NSE. It must be clearly understood by the investor that when dealing on NSE through a trading member, the he/she shall comply with certain formalities set out by the trading member, which may inter alia require the investor filling the “know the investor/client form”, the client registration form, executed by the government. These are subject to the rules, byelaws and regulations of NSE and its clearing corporations and in force from time to time. NSE did not provide or purport to provide any advice and shall not be liable to any person who entered into any business relationship with any trading members and/or sub-brokers of NSE and/or any third party based on any information contained in this document. Information contained in this document must not be construed as business advice/investment advice. No consideration to trade should be made without thoroughly understanding and reviewing the risks involved in such trading. If the investor is unsure, the investor must seek professional advice on the matter.

The above chapter has discussed the Indian capital market and risk management. It is evident that the Indian capital market has had a lot of reforms and risk management techniques implanted in the market environment. These reforms and risk management techniques have enabled the capital market to run smoothly over the recent years. The reforms and risk management techniques have been developed and implemented, with the necessary advisory services coming from SEBI. The next chapter proceeds with the discussions about the Securities and Exchange Board of India (SEBI)