Chapter -1

Introduction

1. Introduction
   1.1 Economic significance of index movements
   1.2 Growth of securities market over the decade
      1.2.1 Regulatory Framework
      1.2.2 Capital Market Reforms
   1.3 Glimpses of the Indian Economy during last decade
   1.4 Securities Market & Economic Growth
   1.5 Need for the study
1. Introduction:

1.1 Economic significance of index movements

Of late increasing attention is being paid to the relationship between the stock market and the real economy both by economists and finance specialists. It is in fact hard to imagine a world without stock markets now. In the contemporary scenario, which can be described by increasing integration of the financial markets and implementation of various stock market reform measures in India, the activities in the stock markets and their relationships with the macro economy have assumed significant importance. The present work is an attempt to examine the impact of relationships between macroeconomic variables and the share price index. The purpose is to make a finer point with respect to the relationship between stock market and its determinants.

Financial theorists define share price as the present value of all future earnings expectations for the company, divided by its number of shares outstanding. What this means is that, the earning capacity of the company is what defines price. Often, companies can get significant value out of a relatively small investments in the assets because the ability for those assets to make money is significant. The price of the company’s share is based on the future earnings of the company. As long as there is a potential for the future revenue streams to shareholders, there will be a price that someone will pay for the shares.

FACTORS CAUSING MOVEMENTS IN STOCK PRICE

There are four factors that cause movements in stock price.

1. New information
2. Uncertainty
3. Psychological factors
   a) Fear b) Greed
4. Supply and Demand
In fact, the pricing of shares in the market is critical to how well the stock market performs its allocative role. In fundamental valuation sense, an efficient pricing process rewards well-managed and profitable firms by highly valuing their shares. It lowers the cost of capital for such firms. For this efficient capital allocation to materialise the market forces must be allowed to work without official interference and market players must be guaranteed all the information they need, without distortion, to take rational market decisions. Relative share prices of firms in an efficient pricing system should reflect their relative expected profitability. That is, relative share prices of companies always reflect their true long-term expected earnings, in the fundamental valuation of sense. According to the efficient pricing process in information arbitrage sense all new information is immediately reflected in share prices.

But how exactly do we interpret index movements? What do these movements mean? They reflect the changing expectations of the stock market about future dividends and capital gains. The index goes up if the stock market thinks that the prospective cash inflows in the future will be better than previously thought. When the prospects of returns become pessimistic, the index drops. The ideal index gives us instant readings about how the stock market perceives the future of corporate sector. In fact, every stock price moves for two possible reasons:

1. News about the company (e.g. Mergers, dividend etc.)
2. News about the country (e.g. GDP, inflation, etc.)

The response of stock markets to the release of economic data is based on how the figures compare to market expectations and not on their absolute levels. This fact explains why often the market appears to react perversely, rising on 'bad' news and falling on 'good' news.

- If good news is better than expected, the market will celebrate.
- If bad news is worse than expected, it will plunge.
So obviously there is a need to study that what are the various news about the economy which actually effects the stock market, and how the market has reacted to such happenings in the past. Instead of studying the effect of economic variables on the individual scrips, it makes sense to track a well diversified index, as it is more representative of the market and economy in general rather than individual news about the company. And because of this, in order to analyse the behaviour of stock price movements, the fluctuations in the index are under the microscopic view.
1.2 Growth of Securities market over the decade:

The growth of equity markets in India has been phenomenal in the decade gone by. Right from early nineties the stock market witnessed heightened activity in terms of various bull and bear runs. Realizing the multi-pronged benefits that could be derived from stock market, steps were taken to reform the Indian stock market. The financial liberalization added much-needed tempo to the development of the Indian stock market. It also brought about a series of changes, both quantitative and qualitative, in operational activities, which was not possible in the pre liberalisation period. All stock market indicators that financial economists favour to measure the growth and development of the market, e.g., market capitalisation, gross annual turnover, number of listed companies, P/E ratio, etc, started behaving well with the regime shift. The market capitalization on Sensex increased to Rs.12068.54Billion in January 2004, to Rs.68,930.83Billion in January 2014, which is a 471.17% growth; Average daily turnover on BSE since 2002 can be traced in the graph above. There was a very steep rise in scripts in 2010 to 2014. From Rs.0.61crore in 2010 the average daily turnover on BSE increased to Rs.88764.71 by December’2014.

Bombay Stock Exchange: The working of stock exchanges in India started in 1875. BSE is the oldest stock market in India and had 4781 companies listed on it as on December, 2006. The history of Indian stock trading starts with 318 persons taking membership in Native Share and Stock Brokers Association, which we now know by the name Bombay Stock Exchange or BSE in short. In 1965, BSE got permanent recognition from the Government of India. Till the decade of eighties, there was no measure or scale that could precisely measure the various ups and downs in the Indian stock market. Bombay Stock Exchange Limited (BSE) in 1986 came out with a Stock Index that subsequently became the barometer of the Indian Stock Market, well-known as SENSEX. It is a value-weighted index composed of 30 stocks with the base April 1979 = 100. It consists of the 30 largest and most actively traded stocks, representative of various sectors, on the Bombay Stock Exchange.
National Stock Exchange: comes second to BSE in terms of popularity. The National Stock Exchange of India (NSE) situated in Mumbai - is the largest and most advanced exchange with 1016 companies listed and 726 trading members. The NSE is owned by the group of leading financial institutions such as Indian Bank or Life Insurance Corporation of India. However, in the totally de-mutualized Exchange, the ownership as well as the management does not have a right to trade on the Exchange. Only qualified traders can be involved in the securities trading. Its stock Index is called S&P CNX Nifty (nicknamed Nifty 50 or simply Nifty) and is the leading index for large companies on the National Stock Exchange of India. S&P CNX Nifty is a well diversified 50 stock index accounting for 22 sectors of the economy.

BSE and NSE represent themselves as synonyms of Indian stock market.

1.2.1 Regulatory Framework

The four main legislations governing the securities market are 1) SEBI Act, 1992; b) the companies Act, 1956; c) the securities contracts (Regulation) Act, 1956, and d) the Depositories Act, 1996. A brief about these legislations are as given below:

1. **SEBI Act, 1992:** The SEBI Act, 1992 was enacted to empower SEBI with statutory powers for

   a) protecting the interests of investors in securities
   
   b) promoting the development of the securities market, and
   
   c) regulating the securities market.

   Its regulatory jurisdiction extends over corporates in the issuing capital and all intermediaries and persons associated with securities market. It can conduct enquiries, audits and inspection of all concerned participants and adjudicate offences under this Act. It has powers to register and regulate all the market intermediaries. Further it can also penalize them in case of violations of the provisions of the Act, Rules and Regulations.
made there under. SEBI has full autonomy and authority to regulate and
develop an orderly securities market.

2. Securities Contracts (Regulation) Act, 1956: It provides for direct
and indirect control of virtually all aspects of the securities trading
including the running of stock exchanges with a aim to prevent
undesirable transactions in securities. It gives the central government
regulatory jurisdiction over:

   a) stock exchanges through a process of recognition and continued
      supervision
   b) contracts in securities, and
   c) listing of securities on stock exchanges.

As a condition of recognition, a stock exchange complies with the
requirements prescribed by the central government. The stock exchanges
frame their own listing regulations in consonance with the minimum
listing criteria set out in the rules.

establishment of depositories for securities to endure transferability of
securities with speed, accuracy and security. For this, these provisions
have been made:

   a) making securities of public limited companies freely transferable
      subject to certain exceptions;
   b) dematerialising the securities in the depository mode; and
   c) providing for maintenance of ownership records in a book entry
      form.

In order to streamline the settlement process, the Act envisages transfer
of ownership of securities electronically by book entry without moving
the securities from persons to persons. The Act has made the securities of
all public limited companies freely transferable, restricting the
company’s right to use discretion in effecting the transfer of securities,
and the transfer deed and other procedural requirements under the companies Act have been dispensed with.

4. Companies Act, 1956: It deals with issue, allotment and transfer of securities and various aspects relating to company management. It provides for standards of disclosure in the public issues, particularly in the fields of company management and projects, information about other listed companies under the management, and management perception of risk factors. It also regulates underwriting, the use of premium and discounts on issues, rights and bonus issues, payment of interest and dividends, supply of annual report and other information.

1.2.2 Capital Market Reforms

Extensive Capital Market Reforms were undertaken during the 1990s encompassing legislative regulatory and institutional reforms. Statutory market regulator, which was created in 1992, was suitably empowered to regulate the collective investment schemes and plantation schemes through an amendment in 1999. Further, the organization strengthening of SEBI and suitable empowerment through compliance and enforcement powers including search and seizure powers were given through an amendment in SEBI Act in 2002.

- **Dematerialisation**: The earlier settlement system gave rise to settlement risk. This was due to the time taken for settlement and due to the physical movement of paper. Further, the transfer of shares in favour of purchaser by the company also consumed considerable amount of time. To obviate these problems, the Depositories Act, 1996 was passed to provide for the establishment of depositories in securities with the objective of ensuring free transferability of securities with speed and accuracy. Although dematerialisation started in 1997 after the legal foundations for electronic book keeping were provided and depositories created the regulator mandated gradually that trading in most of the stocks take place only in dematerialised form. This act brought in

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1Indian Securities Market- A Review; Volume IX, 2006; National Stock Exchange.
changes by a) making securities of public limited companies freely transferable subject to certain exceptions; b) dematerialising of securities in the depository mode. In order to promote dematerialisation, the regulator has been promoting settlement in demat form in a phased manner in an ever-increasing number of securities. The stamp duty on transfer of demat securities has been waived. There are two depositories in India viz. NSDL and CSDL. They have been set up to provide instantaneous electronic transfer of securities. To prevent physical certificates from sneaking into circulation, it has been mandatory for all new securities issued should be compulsorily traded in dematerialised form. The admission to a depository for dematerialisation of securities has been made a prerequisite for making a public or rights issue or an offer for sale. It has been made compulsory for public listed companies making IPO of any security for Rs. 10 crore or more only in a dematerialised form.

- **Screen Based Trading System**: India is one of the few countries to have started the screen based trading of government securities in January 2003. Prior to setting up of NSE, the trading on stock exchanges in India used to take place through an open outcry system. This system did not allow immediate matching or recording of trades. This was time consuming and imposed limits on trading. In order to provide efficiency, liquidity and transparency, NSE introduced a nation-wide on-line fully automatic screen based trading system (SBTS). In this system a member can punch into the computer, quantities of securities and the prices at which he desires to transact; and the transaction is executed as soon as it finds a matching sale or buy order from a counter party. It allows a large number of participants, irrespective of their geographical locations, to trade with one another simultaneously, improving the depth and liquidity of the market. Given the efficiency and cost effectiveness delivered by the NSE’s trading system, it became the leading stock exchange in the country in its very first year of operation. This forced the other stock exchanges to adopt SBTS. As a result, open out-cry system has disappeared from India. Today, India can boast of 100% trading taking place through electronic order matching. India is one of the few countries...
to have started the Straight Through Processing (STP), which will completely automate the process of order flow and clearing and settlement on the stock exchanges. In June 2003 the interest rate futures contracts on the screen based trading platform were introduced.

- **Rolling Settlement:** Initially, the trading cycle varied from 14 days for specified securities and up to 30 days for others and settlement took another fortnight. The exchanges, however, continued to have different weekly trading cycles, which disenabled shifting of positions from one exchange to another. Rolling settlement on T+5 basis was introduced in respect of specified scripts reducing the trading cycle to one day. It was made mandatory for all exchanges to follow a uniform weekly trading cycle in respect of scrips not under rolling settlement. All scrips moved to rolling settlement from December 2001. The settlement period has been reduced progressively from T+5 to T+3 days. Currently T+2 day settlement cycle is being followed. Till 2001 India was the only sophisticated market having account period settlement alongside the derivatives products. From middle of 2001 uniform rolling settlement and same settlement cycles were prescribed creating a true spot market.

- **Derivatives Trading:** After the legal framework for derivatives trading was provided by the amendment of SCRA in 1999 derivatives trading started in a gradual manner with stock index futures in June 2000. Later on options and single stock futures were introduced in 2000-2001 and now India’s derivatives market turnover is more than the cash market and India is one of the largest single stock futures markets in the world. The market presently offers index futures and index options on S & P CNX Nifty, CNX IT Index, CNX Bank Nifty, BSE 30 Index and stock options and stock futures on individual stocks (in NSE 122 as of October 2006) and futures in interest rate products like notional 91-day T-Bills and notional 10-year bonds.

- **Risk Management:** With a view to avoid any kind of market failures, the regulator has developed a comprehensive risk management system. This system is constantly monitored and upgraded; and is very modern and effective. It encompasses capital adequacy of members, adequate margin requirements, limits on exposure and turnover, indemnity insurance, on-
line position monitoring and automatic disablement, etc. They also administer an efficient market surveillance system to detect and prevent price manipulations. The clearing corporation has also put in place a system which tracks online real time client level portfolio based upfront margining. Exchanges have set up trade/ settlement guarantee funds for meeting shortages arising out of non-fulfilment of funds obligations by the members in a settlement. As a part of the risk management system, index based market wide circuit breakers have also been put in place. The Value at Risk(VaR) based margining system was introduced in mid 2001 and the risk management systems have withstood huge volatility experienced in May 2003 and May 2004. This included real time exposure monitoring, disablement of broker terminals, VaR based margining etc.

- **Demutualisation:** Historically, brokers owned, controlled and managed the stock exchanges. In case of disputes, integrity of the exchange suffered; therefore regulators focused in reducing the dominance of trading members in the management of stock exchanges and advised them to reconstitute their governing councils to provide for at least 50% non-broker representation. To improve the governance mechanism of stock exchanges by mandating demutualisation and corporatisation of stock exchanges and to protect the interest of investors in securities market the Securities Laws (Amendment) Ordinance was promulgated on 12th October 2004. The Ordinance has since been replaced by a Bill. As a result, management and trading membership will be segregated from one another. A few exchanges have already initiated demutualisation process. BSE, earlier an Association of Persons (AOP), the Exchange is now a demutualised and corporatised entity incorporated under the provisions of the Companies Act, 1956, pursuant to the BSE(Corporatisation and Demutualisation) Scheme, 2005 notified by the Securities and Exchange Board of India (SEBI). Bombay Stock Exchange Limited received its Certificate of Incorporation on 8th August, 2005 and Certificate of Commencement of Business on 12th August, 2005. The 'Due Date' for taking over the business and operations of the BSE, by the Exchange was fixed for 19th August, 2005, under the Scheme. The Exchange has succeeded the business and operations of BSE on going concern basis and
its recognition as an Exchange has been continued by SEBI. With demutualization, the trading rights and ownership rights have been de-linked effectively addressing concerns regarding perceived and real conflicts of interest. The Exchange is professionally managed under the overall direction of the Board of Directors. The Board comprises eminent professionals, representatives of Trading Members and the Managing Director of the Exchange. The Board is inclusive and is designed to benefit from the participation of market intermediaries. Similarly, NSE, adopted a pure demutualized governance structure where ownership, management and trading are with three different sets of people. This completely eliminates any conflict of interest and helped NSE to aggressively pursue policies.

- **Globalisation**: Indian securities market is getting increasingly integrated with the rest of the world. Indian companies have been permitted to raise resources from abroad through issue of ADRs, GDRs, FCCBs and ECBs. Further, foreign companies are allowed to tap the domestic stock markets. Indian companies are permitted to list their securities on foreign stock exchanges by sponsoring ADR/GDR issues against block shareholding. NRIs and OCBs are allowed to invest in Indian companies. FIIs have been permitted to invest in all types of securities, including government securities. The investments by FIIs enjoy full capital account convertibility. They can invest in a company under the portfolio investment route up to 24% of the paid up capital of the company. This can be increased up to sectoral cap/statutory ceiling, as applicable. The Indian stock exchanges have been permitted to set up trading terminals abroad. The trading platform of Indian exchanges in now accessed through the internet from anywhere in the world.

In light of all the reforms that have taken place, the Indian securities market has become very robust and mature. The bourses have been witnessing an increased activity in almost all the scrips because of more buying and selling by Qualified institutional Buyers, Foreign institutional investors and retail investors. There have been sharp seesaw movements with many rallies and plunges that took place during the decade and wiped the investors wealth in
cres from the market. On one hand, the Sensex touched an all-time high of 14000, while on the other hand; it also witnessed its single largest-ever fall of 826.38 on 18th May; 2006. S&P CNX Nifty touched its peak at 4224.25, in February, 2007 and was at its lowest at 808 in 1998 during the last one decade. The decade also witnessed one of the major capital market scam in the year 2001. The 176-point Sensex crash on March 1, 2001 came as a major shock for the Government of India, the stock markets and the investors alike. More so, as the Union budget tabled a day earlier had been acclaimed for its growth initiatives and had prompted a 177-point increase in the Sensex. This sudden crash in the stock markets prompted SEBI to launch immediate investigations into the volatility of stock markets. SEBI also decided to inspect the books of several brokers who were suspected of triggering the crash. Meanwhile, the Reserve Bank of India (RBI) ordered some banks to furnish data related to their capital market exposure. This was after media reports appeared regarding a private sector bank having exceeded its prudential norms of capital exposure, thereby contributing to the stock market volatility. The panic run on the bourses continued and the Bombay Stock Exchange (BSE) President Anand Rathi's (Rathi) resignation added to the downfall. Rathi had to resign following allegations that he had used some privileged information, which contributed to the crash. The scam shook the investor's confidence in the overall functioning of the stock markets.

However, since 2003 with Indian markets getting more globally aligned, year 2006 witnessed sharper reactions to global macro-economic changes and domestic policy measures. The ups and downs of the financial markets are always in the news. Wide price fluctuations are a daily occurrence on the world's stock markets, as investors react to economic, business, and political events.

\[\text{http://www.icmr.icfai.org/casestudies/ketan-parekh-scam1.htm}\]
1.3 Glimpses of the Indian Economy during last decade

A series of ambitious economic reforms aimed at deregulating the country and stimulating foreign investment has moved India firmly into the front ranks of the rapidly growing economy and unleashed the latent strengths of a complex and rapidly changing nation.

Today, India is one of the most exciting emerging markets in the world. Skilled managerial and technical manpower that match the best available in the world and a middle class whose size exceeds the population of the USA or the European Union, provide India with a distinct cutting edge in global competition.

With only 2.3 per cent of the world’s land area (seventh-largest country), India is the second most populous country in the world with a population of 1.252 billion, which is among the youngest in the world. The proportion of population in the working age group of 15-64 years is currently around 66.00 per cent and is expected to increase to close to 70 per cent by 2026. India is well endowed with natural resources, human resources and varied climatic regions, which is reflected in the institutional architecture: uniquely flexible federalism, democracy with universal adult suffrage, and coexistence of public and private sector.

A recent but positive feature of the Indian economy is the sustained high growth that has been experienced since the 1980s. Real GDP growth, which averaged 5.8 per cent in the 1980s and 1990s, has accelerated to 6.2 per cent in the period 2004. In 2007 real GDP growth was 9 per cent, which was one of the highest growth rates in the world in that year. However, since then it couldn’t maintain the same and fell down to 7.4% in 2009 made up for the fall, by increasing to 10.4% in 2010. 6.5% in 2011 fell to 4.5% in the following year. However, since then it made up for the fall, by increasing to a maximum of 7.5% in 2013 and 8.2 in mid-2014. And since then it has maintained the optimism in the Indian economy and is expected to be 6.72% by the year 2018.
If the current real GDP growth rate of around 9 per cent is maintained, a person can hope to see the standard of living multiplying by almost five times in his lifetime. Another noteworthy aspect of the evolution of the Indian economy is the structural transformation that has been underway. At the time of independence from British rule in 1947, India was predominantly an agrarian economy with traditional industrial base, mainly plantation and agro dependent.

Today, agriculture constitutes merely 17 per cent of GDP, although over 51 per cent of the population continues to depend on agriculture in some form for livelihood. While the performance of agriculture over the past few years has been unsatisfactory in terms of the expectations in view of the stagnation in output of key crops and the volatility in agricultural activity, some significant gains have been made in a few areas. Agriculture sector is the largest employer in India's economy but contributes a declining share of its GDP (13.7% in 2012-13). Its manufacturing industry has held a constant share of its economic contribution, while the fastest-growing part of the economy has been its services sector. The mainstay of the Indian economy is currently the services sector, which constituted 57 per cent of GDP in 2013, up from 15% in, India ranks twelfth in the world by nominal GDP in the services output and it provides employment to around 27% of the total workforce in the. The story of India’s information technology (IT) capacities is well known. The impulses of growth are now strengthening in other services as well such as engineering and consultancy, communication, entertainment, business, finance and information services as well as a host of personal services including tourism and hospitality. The Indian development experience is, in fact, regarded by economists as unique in terms of the mutation of growth from a primary economy directly to tertiary activity rather than the conventional path of primary to secondary and then to tertiary stages of growth.

In the industrial sector, there is a growing realisation of productivity and efficiency gains. In the face of free access to imports and foreign direct investment (FDI), Indian industry is increasingly becoming internationally
competitive and is aggressively securing access to international markets on the strength of dynamic competitive advantage. The policy environment has also played a role in this resurgence of Indian industry. Tariffs, on a weighted average basis, are comparable to ASEAN levels and taxes on business incomes are internationally comparable. In 2013, Industry accounts for 24.80% of GDP and employs 22% of the total workforce. According to the World Bank, India's industrial manufacturing GDP output in 2012 was 10th largest in the world on current US dollar basis ($239.5 billion).

![Fig. No.1](image_url)

*Source: Economic Survey 2013-14*

The Indian industrial sector underwent significant changes as a result of the economic liberalization in India economic reforms of 1991, which removed import restrictions, brought in foreign competition, led to the privatisation of certain government owned public sector industries, liberalised the FDI regime, improved infrastructure and led to an expansion in the production of fast moving consumer goods. Post-liberalisation, the Indian private sector was faced with increasing domestic as well as foreign competition, including the threat of cheaper Chinese imports. It has since handled the change by squeezing costs, revamping management, and relying
on cheap labour and new technology. However, this has also reduced employment generation even by smaller manufacturers who earlier relied on relatively labour-intensive processes.

The Indian economy has evolved from a virtually closed economy until early 1980s to one that is opening up and rapidly integrating into the global economy since the commencement of major reforms in early 1990s. In terms of a traditional measure of openness, the ratio of exports and imports (both goods and invisibles) to GDP has risen steadily from 21.1 per cent in 1991-92 to over 60 per cent in 2013 and is expected to have gone up further in 2014-15. Both exports and imports have been rising in recent years above the long-term trend.

Since the early 1990s, when India instituted structural reforms widely and deeply with a progressive liberalization of the economy, it has been receiving large capital inflows, reflecting international confidence in the underlying fundamentals of the performance of the Indian economy. The ratio of net FIIs investment on BSE to GDP has almost tripled from 0.34% in December;2000 to 1.04% in by the end of 2005-06. In recent years, the capital flows have become even larger, accounting for 15 per cent of global net private capital flows to emerging market economies in 2006. There has been a pick-up in the FDI into India as well as borrowings in international financial markets by Indian corporates. Portfolio flows into Indian stock exchanges have shown resilience in the face of two major sell-offs in global equity markets in May-June 2006 and February 2007. An important emerging element in the capital account of the balance of payments is the growing FDI from India (i.e., the overseas investments of the Indian corporates). With the financing requirement of the current account deficit being modest, the rising profile of net capital flows has resulted in steady accretions to the foreign exchange reserves, which have more than doubled from US$ 76 billion at the end of March 2003 to around US$ 200 billion at the end March 2007. While the level of foreign exchange reserves is extremely modest compared to that of Japan, our reserves exceed each – a full year’s imports as well as the entire external
debt. Since 2002, India has turned creditor to the IMF and has engaged in prepaying external debt.

While the RBI is invested with multiple objectives and is not mandated by law with target/instrument autonomy, the conduct of monetary policy has consistently evolved around the goals of sustained growth, price stability and financial stability, with a continuous rebalancing of weights assigned to each, depending on the evolving macroeconomic scenario. In the recent period, the objective of price stability and well-anchored inflation expectations has been accorded priority against the backdrop of global and domestic developments. It is heartening to note that high growth in the last four years has been associated with a moderation of inflation. The headline inflation rate, in terms of the wholesale price index, has declined from an average of 11.0 cent during 1990-95 to 5.3 per cent during 1995-2000 and to 4.9 per cent during 2002-07. The trending down of inflation has been associated with a significant reduction in inflation volatility, which is indicative of well-anchored inflation expectations, despite the visitations of adverse shocks, both domestic and external.

There is evidence that the widening and deepening of the financial sector, the diffusion of micro structural reforms along with improved regulatory and supervisory oversight have enabled the development of a robust, efficient and diversified financial system with sound and well-functioning financial markets. The combined effects of competition, regulatory measures, policy environment and motivation have imparted greater strength, efficiency and stability to the financial sector. The efficacy of financial sector reforms is also reflected in the significant improvement in the asset quality of the banking sector. Currently, all scheduled commercial banks are compliant with the minimum capital adequacy ratio of 9 per cent. The overhang of gross non-performing assets of scheduled commercial banks has declined from 8.80 per cent of advances in 2002-03 to 3.30 per cent in 2005-06. Operating expenses as a ratio of total assets has declined from 2.24 per cent in 2002-03 to 2.11 per cent in 2005-06.
Developments in Monetary Policy

A monetary targeting framework was in place in India since mid-1980s and till 1997-98 with broad money (M3) as an intermediate target. In practice, the monetary targeting framework was used in a flexible manner with feedback from developments in the real sector. The Reserve Bank formally switched over in 1998-99 to a multiple indicator approach. As per this approach, interest rates or rates of return in different markets (money, capital and government securities markets), along with data such as on currency in circulation, credit extended by banks and financial institutions, fiscal position, trade balance, capital flows, inflation rate, exchange rate, refinancing and transactions in foreign exchange, which are available with high-frequency, are juxtaposed with the trends in output, with a view to deriving policy perspectives. The multiple indicator approach made the monetary policy operation more broad-based on a large set of information and provided flexibility in the conduct of monetary management.

As regards the operating procedure of monetary policy in India, reliance on direct instruments has been reduced and a policy preference for indirect instruments has become the cornerstone of current monetary policy operations. However, recourse to direct instruments is taken when warranted by the circumstances. Liquidity management in the system is carried out through open market operations (OMO) in the form of outright purchases/sales of government securities and daily reverse repo and repo operations under a Liquidity Adjustment Facility (LAF).

The liquidity management was further refined in 2004 with the introduction of a market stabilisation scheme (MSS) under which the Reserve Bank was allowed to issue government securities as part of liquidity sterilisation operations in the wake of large capital inflows and surplus liquidity conditions. While these issuances do not provide budgetary support, interest costs are borne by the fisc; and as far as Government securities market is concerned, these securities are also traded in the secondary market, on par with the other government stock.
The Reserve Bank has been actively engaged in developing, widening and deepening of money, government securities and foreign exchange markets combined with a robust payments and settlement system in various markets. The medium-term framework is to keep developing the financial markets, preserving the integrity of financial markets and thereby, improving the transmission of monetary policy impulses.

Some of the important developments pertaining to the money market are: First, with a view to transforming the call/notice money market into a pure inter-bank market with participation of banks and primary dealers (PDs) only, non-bank participants have been completely phased out of the call money market. Second, several new financial instruments have been introduced. The traditional refinance support on fixed terms has been replaced by a full-fledged Liquidity Adjustment Facility with a view to modulating short-term liquidity under diverse market conditions. Third, measures have also been taken to make various other money market instruments (such as CDs, CPs, etc.) freely accessible to non-bank participants. These measures were intended to improve the depth of as well as the efficiency and transparency of operations in the money market. Fourth, as part of the development of new instruments, a major initiative pertains to Collateralised Borrowing and Lending Obligation (CBLO), which was operationalised as a money market instrument.

The RBI has undertaken various measures towards development of spot as well as forward segments of foreign exchange market. Market participants have also been provided with greater flexibility to undertake foreign exchange operations and manage their risks. This has been facilitated through simplification of procedures and availability of several new instruments, e.g., foreign currency-rupee options. Authorised dealers have been permitted to use innovative products like cross-currency options, interest rate swaps (IRS) and currency swaps, caps/collars and forward rate agreements (FRAs) in the international forex market. There has also been significant improvement in market infrastructure in terms of trading platform and settlement mechanisms.
Financial Sector Development

The banking sector reforms in India, initiated since 1992 have brought about structural changes in the financial sector by easing external constraints in the working of the banks. Major policy measures include phased reductions in statutory pre-emption like cash reserve and statutory liquidity requirements and deregulation of interest rates on deposits and lending, except for a select segment. The diversification of ownership of banking institutions is yet another feature which has enabled private shareholding in the public sector banks, through listing on the stock exchanges, arising from dilution of the Government ownership. On account of healthy market value of the banks’ shares, the capital infusion into the banks by the Government has turned out profitable for the Government. Foreign direct investment in the private sector banks is now allowed up to 74 per cent, subject to the prescribed guidelines.

The co-existence of the public sector, private sector and the foreign banks has generated competition in the banking sector leading to a significant improvement in efficiency and customer service. The share of private and foreign banks in total assets increased to 27.6 per cent at end-March 2006 from 24.7 per cent at end-March 2005 and less than 10.0 per cent at the inception of reforms.

The prudential regulatory norms for the banks for capital adequacy, income recognition, asset classification and provisioning have progressively moved towards convergence with the international best practices. The Basel – II capital adequacy framework is being implemented in a phased manner, and the RBI has issued the final guidelines recently. A three-track approach has been adopted for the three types of banks, i.e., commercial banks, cooperative banks and regional rural banks, to facilitate smooth transition. These norms have strengthened the financials of the banking sector, as evident from a decline in non-performing loans and improvement in capital adequacy ratio – despite progressive stringency of the norms. For instance, as on March 31, 2007, nine out of 25 public sector banks have reported zero net NPAs, as a proportion to the total advances. This has been possible also on account of certain legislative and institutional measures implemented to expedite and
facilitate the recovery of NPAs through special tribunals and restructuring mechanism. There is an increasing focus on governance aspects in the banks through adoption of 'fit and proper' criteria for the owners, directors and senior managers of the banks.

The Reserve Bank has also initiated a number of steps – institutional, procedural and operational – for making the payment systems safe, secure and efficient. For efficiency enhancements and risk reduction, usage of the Real Time Gross Settlement (RTGS) System and other electronic payment mechanisms have been encouraged in a big way. The Reserve Bank has also provided a significant thrust to implementation of information technology in the banking sector.

To strengthen the supervisory framework within the RBI, a Board for Financial Supervision (BFS) was constituted in 1994, comprising select members of the Reserve Bank’s Central Board with a variety of professional expertise to exercise 'undivided attention to supervision' and ensure an integrated approach to supervision of commercial banks and financial institutions. The Reserve Bank also instituted an Off-site Monitoring and Surveillance (OSMOS) system for banks in 1995, which provides for Early Warning System (EWS) as also a trigger for on-site inspections of the vulnerable institutions. The scope and coverage of off-site surveillance has since been widened to capture various facets of efficiency and risk management of banks.

As Indian economy progresses further in the reform process, the main focus would be to ensure that the pace of further deregulation and liberalisation remains consistent with the progress of reform in the real and fiscal sectors. In practice, within the given legal framework, priorities have to be appropriately set ensuring implementation of intended reforms in the economy sector in tune with the evolving domestic and external developments.
1.4 Securities Market & Economic Growth

It is said that the stock market is a critical cog in the wheel that smoothens the transfer of funds for economic growth (Agarwalla(2006)). Broadly speaking, stock exchanges are expected to accelerate economic growth by increasing liquidity of financial assets, making global risk diversification easier for investors, promoting wiser investment decisions by surplus spending units based on available information, forcing corporate managers to work harder for shareholders interests, and channelling more savings to corporations, usually to the more efficient ones. In principle, a well functioning stock market may help the economic growth and development process in an economy through the following means:

- Growth of savings
- Efficient allocation of investment resources
- Alluring foreign portfolio investment.

The stock market encourages savings by providing households having investible funds an additional financial instrument, which meets their risk preferences and liquidity needs better. It in fact provides individuals with relatively liquid means for risk sharing in investment projects. For instance, firms need long-term capital and investors usually hesitate to relinquish control over their money for a longer period. And the stock market brings a compromise between the liquidity needs of both the players providing the facility for trading of stocks. The stock market helps such transmutation of funds to take place through a range of complex financial products called ‘securities’. In fact, the stock market (i.e. the secondary market) deals in outstanding or existing securities, the securities that have already been issued to surplus spenders by the deficit spending real or financial sector units in the primary or new issues market. Thus, the stock market mobilizes and channels idle resources in the economy to most productive use leading to efficient allocation of savings.

The securities market fosters economic growth to the extent that it-
1 Augments the quantities of real savings and capital formation from any given level of national income,
2 Increases net capital inflow from abroad,
3 Raises the productivity of investment by improving allocation of investible funds, and
4 Reduces the cost of capital.

A well functioning securities market is conducive to sustained economic growth. Thus securities market converts a given stock of investible resources to a larger flow of goods and services.

Economies without a well-functioning stock market may suffer from three types of imperfections.

- First, if there is no stock market, or the stock market is not adequately liquid, opportunities for risk diversification are limited for investors and entrepreneurs. The high costs of diversification may induce firms to avoid the use of financial markets and may influence the firms’ investment decisions. Thus, firms may choose less capital-intensive production technologies that are subject to lower long-term risk, or they may invest less and remain smaller than if their shares were widely held.

- Second, in the absence of a well-functioning stock market, firms are unable to optimally structure their financing packages.

- Third, stock markets play an important informational role. Well-functioning stock markets collect information about the prospects of firms whose shares are traded, and make it available to creditors and investors. By improving the flow of information about firms and simplifying takeovers, well-functioning stock markets may contribute to corporate control and thus lead to greater managerial competence. Better corporate control and firm management will, in turn, promote investment and efficiency.

The stock market is thus in the focus of the economists and policy makers because of the perceived benefits it provides for the economy. The stock
market provides the fulcrum for capital market activities and it is often cited as a barometer of business direction. An active stock market may be relied upon to measure changes in general economic activities using the stock price index.

This phenomenal change in the fortunes of the secondary markets in India has come about by the introduction of online trading, rolling settlement, electronic shares, and increased Foreign Institutional Investors (FIIs) participation and many other macroeconomic factors which lent full support to this unparalleled shift. In fact, in the current environment, where increasing integration of the financial markets with capital market reform measures is taking place, the activities in the stock markets and their relationships with the macro economy have assumed significant importance.
1.5 Need for the study

The health of the global economy has a fundamental influence on share prices because it is ultimately responsible for driving company profits. Broadly speaking, if the economy is growing, company profits improve and shares will become more highly valued. If the economy is weakening, company profits will fall and share prices will go down. Investors look at a vast amount of data to try and work out what is going to happen to the economy and shift their portfolios before the events occur.

Investors and Economists have long been fascinated by what exactly influences aggregate stock market returns. Recent research has drawn attention to the possible influence of an exhaustive list of macroeconomic variables (e.g. Naka and Mukherjee, 1996; Sekhara and Radjeswari, 2000; Bhattacharya and Mukherjee, 2002; Ray, Prantik and Vani, 2003; Nath and Reddy, 2004). An increasing amount of empirical evidence noticed by several researchers, leads to the conclusion that a range of financial and macroeconomic variables can predict stock market returns e.g. Index of Industrial Production, Broad Money Supply, Bank’s Prime Lending Rate, Wholesale Price Index, fiscal deficit, Foreign Institutional Investment in Indian capital market, Rs./$ Exchange Rate etc.

However, since 2002, the Indian markets have been showing extremely erratic movements, which are in no way tandem with the information that is fed to the markets. Presently, the BSE-Index is hovering around 25000 points, reflecting the investor optimism at unexpected levels. Irrational exuberance has substituted financial prudence. Thus, chaos prevails in the markets, as to what are the various factors at the macro level that are making the share prices so volatile? What are various macroeconomic indicators determining stock price movements in India?

In light of the steep growth rate that has come to characterize the Indian stock market, it becomes imperative to study various factors behind the ‘India Shining story’ for three reasons:
• If the growth story is genuine and is accountable to the strong fundamentals, then in order to sustain the growth and the conducive environment;

• If it is a asset price bubble growth i.e. something like the pre-east Asian country crisis, then to cap it well in time as the policymakers can actually improve welfare by deflating asset price booms, especially if sudden asset price declines are likely to depress economic activity; and

• To study how long the unabated growth story will go on?

In fact, by studying the behavior of financial markets under a variety macroeconomic and policy environments, financial historians can provide much needed insights that help in devising policies that promote the efficient and stable operation of financial markets i.e. if academicians and practitioners know the precise macro variables that influence the stock prices and also the nature of the relationship, then understanding and predicting stock market behavior would be much simpler with the help of these economic variables. Using this knowledge the policy-makers may try to influence the stock market or the investors, managers may make appropriate investment or managerial decisions.