Chapter – 1
INTRODUCTION

Stock market indices are the barometers of the stock market. They are mirror of the stock market behavior and the broad trends in the market. There are large number of companies listed on the National Stock Exchange (NSE) and Bombay Stock Exchange (BSE) and it is not possible to look at the prices of every stock to find out whether the market movement is upward or downward. The indices like BSE Sensex (Sensitivity Index) and S&P CNX Nifty (NSE 50 Index) give a broad outline of the market movement and represent the market. The main criteria for selection of scrips to be included in the indices are: market capitalization, liquidity and proper representation of all industries in the economy. The base year of BSE Sensex is 1978-79 while for S&P CNX Nifty it is November 1995.

Extensive capital market reforms were undertaken post 1990 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. Although dematerialization was 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 dematerialized form.

Till 2001, India was only sophisticated market having account period settlement alongside the derivatives products. From the middle of 2001, uniform rolling statement and same settlement cycles were introduced creating a true spot market. After the legal framework for derivatives trading was provided by the amendment of Securities Contract Regulation Act (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 2000-01 and now India’s derivatives market turnover is more than the cash market.

India is one of the largest single stock futures market in the world. India’s risk management systems have always been very modern and effective. The VAR based margining system was introduced in mid-2001, and the risk management systems have withstood the huge volatility experienced in May 2003 and May 2004. This included real time exposure monitoring, disablement of broker terminals, and VAR based margining. 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. The Reserve Bank of India (RBI) has introduced the Real Time Gross Settlement System (RTGS) in 2004 on experimental basis. The RTGS will allow real delivery versus payment, which is the international norm, recognized by Basle International Settlement (BSL) and International Organization of Securities Commissions (IOSCO).

To improve the governance mechanism of stock exchanges by mandating demutualization and corporatization of stock exchanges and to protect the interest of investors in securities market, the Securities Laws (Amendment) Ordinance was promulgated on October 12, 2004. A Bill has since replaced the Ordinance. Such a changing scenario has encouraged more meaningful research on the various fundamental factors having a significant bearing on Indian capital market in the post-reform era.

1.1 The Emerging Trends of Indian Stock Market

The capital market is a medium through which small and scattered savings of investors are directed into productive activities of corporate entities. It also provides the essential attributes of liquidity, marketability and safety of investments to the investors. A well-organized and well-regulated capital market facilitates sustainable development of the economy by
providing long-term funds in exchange for financial assets to investors. Hence, every government strives to develop and grow their capital market through various legislative and regulatory measures. In the context of globalization, to integrate Indian financial markets with the global markets, the Indian government has initiated so many reforms in both the markets, primary and secondary.

Capital market operations consist mainly of primary market operations or secondary market operations or stock market. The origin of stock market in India can be traced to the later part of the eighteenth century. The earliest security dealings were transactions in loan securities of the East India Company, the dominant institution in those days. Corporate shares came into the picture by 1830’s and assumed significance with the enactment of the Companies Act in 1850. The introduction of limited liability marked the beginning of the era of modern joint stock enterprises. The American Civil War followed this in 1860-65. However, the bubble burst with the end of the Civil War and a disastrous slump followed which lasted for long time and also resulted in complete ostracism of the broker community. The tremendous social pressure on the brokers led to their forming an informal association, “The Native Share and Stock Brokers’ Association” (now known as the Bombay Stock Exchange) in 1887.
This stock exchange played a major role during the phase of recovery from the seven year depression. It continued to grow in stature and size of operations and became the nerve center of all financial activity and the first to be recognized by the Government of India. This development also contributed to the development of the Ahmedabad Share and Stock Brokers’ Association in 1894 that was organized as a voluntary non-profit making association with Trust Deed and a Deed of Association on the same lines as the Stock Exchange in Mumbai by following the Mumbai rules and practices. The stock exchanges in Mumbai and Ahmedabad were well set up, properly organized associations at the commencement of the 20th century, but the Calcutta Stock Exchange was not so constituted despite the fact that stock business in an organized way had existed since 1830. In fact, as in Mumbai, it was a boom in coal followed by the crises that highlighted the need for an organized body for the mutual protection and safety of the brokers and the trade. Hence, an association was formed by some leading brokers on 15th June 1908 under the name and style of ‘the Calcutta Stock Exchange Association’.

On the eve of the World War I, the stock market in India consisted of the three stock exchanges at Mumbai, Calcutta and Ahmedabad. As the hostilities intensified, the import of manufactures into India stopped almost completely as Europe ceased to produce any manufactured articles except those required for the war. As a result, Indian manufacturers were
able to penetrate the home market. It was a period of phenomenal prosperity. The stock exchanges soon became the centre of attraction for all. However, the boom also led to the formation of many rival stock exchanges. The Second World War and its aftermath also resulted in a sharp boom and mushroom growth in the number of stock exchanges. Subsequently, in order to cater to the needs and regulate the stock exchanges, the government came out with a comprehensive legislation called the ‘Securities Contract (Regulation) Act’. This legislation made it mandatory on the part of the stock exchanges to secure recognition from the Central Government. Only the established stock exchanges were recognized subsequently. At present, there are twenty-three recognized stock exchanges in India, including the Over the Counter Exchange of India (OCTEI) and National Stock Exchange (NSE).

Most of the exchanges suffered almost a total eclipse during depression. Lahore Exchange was closed during the partition of the country and later migrated to Delhi and merged with the Delhi Stock Exchange. Most of the other exchanges languished till 1957 when they applied to the Central Government for recognition under the Securities Contracts (Regulation) Act, 1956. Only Bombay, Calcutta, Madras, Ahmedabad, Delhi, Hyderabad and Indore, the well-established exchanges, were recognized under the Act. Some of the members of the other Associations were required to be
admitted by the recognized stock exchanges on a concessional
basis, but acting on the principle of unitary control, all these
pseudo stock exchanges refused recognition by the
Government of India and they, thereupon ceased to function.

Thus, during early sixties, there were eight recognized
stock exchanges in India (mentioned above). The number
virtually remained unchanged, for nearly two decades. During
the eighties, however many stock exchanges were established:
Cochin Stock Exchange (1980), Uttar Pradesh Stock Exchange
Association Limited (at Kanpur 1982), and Pune Stock
Exchange Limited (1982), Ludhiana Stock Exchange
Association Limited (at Mangalore, 1985), Magadh Stock
Exchange Association (at Patna, 1986), Jaipur Stock Exchange
Limited (1989), Bhubaneshwar Stock Exchange Association
Limited (1989), Saurashtra Kutch Stock Exchange Limited (at
Rajkot, 1989), Vadodara Stock Exchange Limited (at Baroda,
1990) and recently established exchanges – Coimbatore and
Meerut.

Stock Markets in India have grown exponentially as
measured in terms of listed companies, market capitalization,
turnover on stock exchanges, price indices, etc. There were
7,811 companies listed in all the stock exchanges in India
during 1993-94. It rose to 9,871 in 1999-2000. The All India
Market Capitalization of listed companies amounted to Rs. 4,
00,077 crores in 1993-94. There was no significant increase in
it till 1998-99. However, during 1999-2000, it doubled to Rs. 11, 92,630 crores. Turnover on various stock exchanges in India was Rs. 2, 03,703 crores in 1993-94. Even though it declined in 1994-95 by 20%, it rose steadily thereafter. During 1996-97 and 1999-2000, there was a sharp increase in the turnover. The volume of market turnover amounted to Rs. 20, 67,031 crores in 1999-2000. Even though there are 23 Stock Exchanges in India, increase in turnover took place mostly at the large exchanges at the expense of smaller ones. Presently, 6 top exchanges account for 99% of turnover with BSE and NSE taking the leading role of stock operations in the country.

1.2 Stock Split

A stock split or stock divide increases the number of shares in a public company. The price is adjusted such that the before and after market capitalization of the company remains the same and dilution does not occur. Options and warrants are included.

Take, for example, a company with 100 shares of stock priced at $50 per share. The market capitalization is 100 × $50, or $5000. The company splits its stock 2-for-1. There are now 200 shares of stock and each shareholder holds twice as many shares. The price of each share is adjusted to $25. The market capitalization is 200 × $25 = $5000, the same as before the split.
Ratios of 2-for-1, 3-for-1, and 3-for-2 splits are the most common, but any ratio is possible. Splits of 4-for-3, 5-for-2, and 5-for-4 are used, though less frequently. Investors will sometimes receive cash payments in lieu of fractional shares.

It is often claimed that stock splits, in and of themselves, lead to higher stock prices; research, however, does not bear this out. What is true is that stock splits are usually initiated after a large run up in share price. Momentum investing would suggest that such a trend would continue regardless of the stock split. In any case, stock splits do increase the liquidity of a stock; there are more buyers and sellers for 10 shares at $10 than 1 share at $100. Some companies have the opposite strategy: by refusing to split the stock and keeping the price high, they reduce trading volume. Berkshire Hathaway is a notable example of this.

Other effects could be psychological. If many investors believe that a stock split will result in an increased share price and purchase the stock the share price will tend to increase. Others contend that the management of a company, by initiating a stock split, is implicitly signaling its confidence in the future prospects of the company.
In a market where there is a high minimum number of shares, or a penalty for trading in so-called odd lots (a non multiple of some arbitrary number of shares), a reduced share price may attract more attention from small investors. Small investors such as these, however, will have negligible impact on the overall price.

All publicly-traded companies have a set number of shares that are outstanding on the stock market. A stock split is a decision by the company's board of directors to increase the number of shares that are outstanding by issuing more shares to current shareholders. For example, in a 5-for-1 stock split, every shareholder with four stocks is given an additional share. So, if a company had 10 million shares outstanding before the split, it will have 50 million shares outstanding after a 5-for-1 split. But the face value of the share will also get reduce. So, if the face value of the stock is Rs.10/-, then the face value of the stock will be Rs.2/- after 5-for-1 stock split. A stock's price is also affected by a stock split. After a split, the stock price will be reduced since the number of shares outstanding has increased. In the example of a 5-for-1 split, the share price will be one-fifth. A stock split is usually done by companies that have seen their share price increase to levels that are either too high or are beyond the price levels of similar companies in their sector. The primary motive is to make shares seem more affordable to small investors even though the underlying value of the company has not changed.
When stock splits, many charts show it similarly to a dividend payout and therefore do not show a dramatic dip in price. Taking the same example as above, a company with 100 shares of stock priced at $50 per share. The company splits its stock 2-for-1. There are now 200 shares of stock and each shareholder holds twice as many shares.

The price of each share is adjusted to $25. Based on this example you might expect to see the stock dropping from $50 to $25. This would cause chaos in the market as investors would panic if they did not take time to realize that there was a stock split.

So what is done is something called adjusted close price. This adjusted close price will take all the closing prices before the split and divide them by the split ratio. So when you look at the charts it will seem as if the price was always $25. Both the Yahoo! historical price charts and the Google historical price charts show the adjusted close prices.

1.3 Reverse Stock Split

On a stock exchange, a reverse stock split or reverse split is a process by a company of issuing to each shareholder in that company a smaller number of new shares in proportion
to that shareholder's original shares that are subsequently canceled. A reverse stock split is also called a stock merge. The reduction in the number of issued shares is accompanied by a proportional increase in the share price. New shares are typically issued in a simple ratio, e.g. 1 new share for 2 old shares, 3 for 4, etc. A reverse split is the opposite of a stock split.

Typically, the stock will temporarily add a "D" to the end of its ticker during a reverse stock split. Sometimes a company may concurrently change its name. This is known as a name change and consolidation (i.e. using a different ticker for the new shares).

There is a stigma attached to doing a reverse stock split, so it is not initiated without very good reason and may take a shareholder or board meeting for consent. Many institutional investors and mutual funds, for example, have rules against purchasing a stock whose price is below some minimum, perhaps US$5. In an extreme case, a company whose share price has dropped so low that it is in danger of being delisted from its stock exchange, might use a reverse stock split to increase its share price. For these reasons, a reverse stock split is often an indication that a company is in financial trouble.
A reverse stock split may be used to reduce the number of shareholders. If a company completes reverse split in which 1 new share is issued for every 100 old shares, any investor holding less than 100 shares would simply receive a cash payment. If the number of shareholders drops, the company may be placed into different regulatory categories and may be governed by different law (i.e. whether company is regulated by SEC, in part, depends on the number of shareholders). From time to time, companies will issue a reverse split concurrently with a forward split. A forward split is rarely undertaken independently of a reverse split.

In reverse and forward splits, the shareholder's old shares are erased, as they receive a number of new shares in proportion to their original holdings. By contrast, in a simple stock split, the original shares remain on the exchange as shareholders receive additional shares based on their existing holdings. In both stock splits and reverse splits, the share price is adjusted in proportion to the increase in shares to maintain equal value.

As an example of how short splits work, ProShares UltraShort Silver (ZSL) underwent a 1-10 reverse split on April 15, 2010, which grouped every 10 shares into one share; accordingly, this multiplied the close price by 10, so the stock finished at $36.45 instead of $3.645. On February 25, 2011,
ZSL had a 1-4 reverse split (every 4 shares became one share, which multiplied the close price by 4, to $31.83). Because of these two actions, one share of ZSL as of February 26, 2011 represents 40 shares of ZSL before April 15, 2010. These splits were necessary to maintain the price of the fund, whose value fell 90.2% from April 15, 2010 to April 21, 2011, and over 98% since December 3, 2008. Had the reverse splits not taken place, ZSL's closing price on April 21, 2011 would have been $0.3685, rather than $14.74, or .3685*40.

1.4 Bonus Issue

A **bonus share** issue is very similar to a stock split. The only practical difference is that a bonus issue creates a change in the structure of the company's shareholders' equity (in accounting). Another difference between a bonus issue and a stock split is that while a stock split usually also splits the company's authorized share capital, the distribution of bonus shares only changes its issued share capital (or even only its outstanding shares). A bonus share is a free share of stock given to current/existing shareholders in a company, based upon the number of shares that the shareholder already owns. While the issue of bonus shares increases the total number of shares issued and owned, it does not increase the value of the company. Although the total number of issued shares increases, the ratio of number of shares held by each
Whenever a company announces a bonus issue, it also announces a "Book Closure Date" which is a date on which the company will ideally temporarily close its books for fresh transfers of stock. An issue of bonus shares is referred to as a bonus issue. Depending upon the constitutional documents of the company, only certain classes of shares may be entitled to bonus issues, or may be entitled to bonus issues in preference to other classes. In bonus shares, the face value does not get affected. Face value of the stock remains same before and after the bonus share is allotted to the shareholders. But the market price of the share gets changed after the bonus share is allotted. For Example: If a company gives the bonus share of 1:1, it means that the share holders will get one bonus share for every one share held.

There are few reasons why the companies announce to give bonus share and are as follows: Firstly, a bonus issue is a signal that the company is in a position to service its larger equity. So in order to increase its capital, company gives bonus shares to their share holders. Secondly, when the net profit of the company jumped up and company has huge cash balance, then it announces bonus shares. Thirdly, in order to make good reputation in the market that company is doing good business in the mind of the investors. Bonus shares are issued by
converting the reserves of the company into share capital. It is nothing but capitalization of the reserves of the company.

This study will be focused to examine the share price and liquidity effects associated with the stock split and bonus share surrounding its announcement and effective dates. Liquidity is associated with the trading volume of shares. There is generally change in the share price as well as in the trading volumes of shares i.e. daily number of trades due to stock splits and bonus announcements. The study proposes to use the event methodology for studying the impact of stock split and Bonus Issue announcements on the prices and liquidity of the stock market. As per Event Study Methodology, any event which does not contain any information should not affect prices and as stock split and bonus share see merely a cosmetic event it should not show any abnormal return on or surrounding either announcement date or effective date. Still sufficient evidence is available from US market which shows presence of abnormal positive return on an around announcement as well as effective day and increase in variance following ex-day. Though these evidences are less consistent and more confusing, several hypotheses have been presented to explain effect surrounding split and bonus announcement. Some of them are, the signaling hypothesis and the liquidity are quite popular, Apart from these several studies find that the neglected firm hypothesis providers some explanation power as well.
1.5 Event Study Methodology

An **Event study** is a statistical method to assess the impact of an event on the value of a firm. For example, the announcement of a merger between two business entities can be analyzed to see whether investors believe the merger will create or destroy value. The basic idea is to find the abnormal return attributable to the event being studied by adjusting for the return that stems from the price fluctuation of the market as a whole.

Event studies have been used in a large variety of studies, including mergers and acquisitions, earnings announcements, debt or equity issues, corporate reorganisations, investment decisions and corporate social responsibility (MacKinlay 1997; McWilliams & Siegel, 1997).

The logic behind the event study methodology (within the specific context of mergers) is explained in Warren-Boulton and Dalkir (2001):

Investors in financial markets bet their dollars on whether a merger will raise or lower prices. A merger that raises market prices will benefit both the merging parties and their rivals and thus raise the prices for all their shares. Conversely, the financial community may expect the efficiencies from the
merger to be sufficiently large to drive down prices. In this case, the share values of the merging firms’ rivals fall as the probability of the merger goes up. Thus, evidence from financial markets can be used to predict market price effects when significant merger-related events have taken place.

This research project proposes to study the price and liquidity effect associated with stock split and bonus share surrounding its effective date by using event study methodology which measures the significance of abnormal return and change in liquidity associated with an event. The study will be done on the selected stocks of the National Stock Exchange. Data for 30 days before and 30 days after the announcement date of stock split and bonus will be taken for studying the impact using Event Methodology. The approach used to achieve above mentioned objective known as “Event Study” which is a standard approach in the area of financial economics ever. Event study is the study to understand the market reaction to any event.