CHAPTER – III
AN OVERVIEW OF STOCK MARKETS – THEORITICAL FRAMEWORK

3.1 INTRODUCTION

Stock market is an important part of the economy of a country. The stock market plays a pivotal role in the growth of the industry and commerce of the country that eventually affects the economy of the country to a great extent. That is reason why the government, industry and even the central banks of the country keep a close watch on the happenings of the stock market.

The primary function of the stock exchange is to support the growth of the industry and commerce in the country. Rising stock market is the sign of a developing industrial sector and a growing economy of the country. The secondary function of the stock market is that the market plays the role of a common platform for the buyers and sellers of the stocks that are listed in the stock market. It is the secondary market of the stock exchange where retail investors and institutional investors buy and sell the stocks. From the investor’s perspective, high volatility becomes a major challenge for making return out of the investment made in the stock market. Therefore the policy makers and the government should find out the driving factors behind the movement of stock market as well as formulate and implement a better policy that keeps a stable financial market. This chapter briefs the historical development of stock markets such as Morgan Stanley Capital International Index (MSCI), New York Stock Exchange (USA), London Stock Exchange (UK), Shanghai Stock Exchange (China) and Bombay Stock Exchange (India) and their performance of composite indices such as NYSE, FTSE100, SSE composite Index and SENSEX.

3.2 MORGAN STANLEY CAPITAL INTERNATIONAL INDEX (MSCI index)

In 1968, the Capital International Indices were published, the first set of global stock market indexes for non-U.S. markets. In 1986, Morgan Stanley licensed the rights to the indexes from Capital International. It branded the indexes as the Morgan Stanley Capital International (MSCI) indexes. In 2004, MSCI acquired Barra Inc. to form MSCI Barra. The company is headquartered in New York City.
The MSCI global equity indexes have been calculated since 1969. The company’s most known indexes include MSCI World and MSCI EAFE. MSCI indexes are widely used as the benchmark indexes by which the performance of global equity portfolios is measured. They are also used as the basis of passive investment products like index funds and exchange-traded funds (ETFs). Morgan Stanley sponsored the first iShares ETFs, known at launch as WEBS, which are designed to track various MSCI indexes. In mid-2007, parent company Morgan Stanley decided to divest from, and perhaps spin off MSCI. This was followed by an initial public offering of a minority of stock in November 2007. The divestment was completed in 2009 MSCI Inc, is a US-based provider of equity, fixed income, and hedge fund stock market indexes, and equity portfolio analysis tools.

MSCI Inc. is a leading provider of investment decision support tools to investors globally, including asset managers, banks, hedge funds and pension funds. MSCI products and services include indexes, portfolio risk and performance analytics, and environmental, social and governance tools. It is best known for publishing the MSCI World and MSCI Indexes. The company’s flagship product offerings are: the MSCI indexes with approximately USD 8 trillion estimated to be benchmarked to them on a worldwide basis. MSCI is headquartered in New York, with research and commercial offices around the world.

3.2.1 MSCI MARKET CLASSIFICATION FRAMEWORK

The classification of markets is a key input in the process of index construction as it drives the composition of the investment opportunity sets to be represented. The approach used by MSCI aims to reflect the views and practices of the international investment community by striking a balance between a country’s economic development and the accessibility of its market while preserving index stability. The MSCI Market Classification Framework consists of following three criteria: economic development, size and liquidity as well as market accessibility. In order to be classified in a given investment universe, a country must meet the requirements of all three criteria as described in the table below.
TABLE 3.1
BASES FOR STOCK MARKET CLASSIFICATION

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>EMERGING</th>
<th>DEVELOPED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Economic Development</strong></td>
<td>No Requirement</td>
<td>Country GNI per Capita 25% above the World Bank high Income threshold* for 3 consecutive years</td>
</tr>
<tr>
<td>Sustainability of Economic Development</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>B. Size and liquidity Requirement</strong></td>
<td>USD 1260 MM</td>
<td>USD 2519 MM</td>
</tr>
<tr>
<td>B.1 Number of companies meeting the following standards Company size ( Free float) Security Size Security Liquidity</td>
<td>USD 630 MM</td>
<td>USD 1260 MM</td>
</tr>
<tr>
<td><strong>C. Market Accessibility Criteria</strong></td>
<td>Significant</td>
<td>Very High</td>
</tr>
<tr>
<td>C.1 Openness to foreign ownership</td>
<td>Significant</td>
<td>Very High</td>
</tr>
<tr>
<td>C.2 Ease of Capital Inflows/Outflows</td>
<td>Good/ tested</td>
<td>Very High</td>
</tr>
<tr>
<td>C.3 Efficiency of the operational framework</td>
<td>Modest</td>
<td>Very High</td>
</tr>
<tr>
<td>C.4 Stability of the Institutional Framework</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: MSCI market classification framework

MSCI regularly reviews the market classification of all countries included in the MSCI Indexes to ensure that they remain reflective of the evolution of the different markets. In particular, changes in the assessments under the classification framework serve as the basis for determining the markets that will be reviewed for potential market reclassification as part of the Annual Market Classification Review. MSCI considers markets for upgrade if a change in classification status can be viewed as irreversible. As per the criteria, the MSCI has classified the countries into two broad categories such as
Developed markets and Emerging Markets. The countries classification are summarized and given in the table3.2.

**TABLE 3.2**

**MSCI MARKET CLASSIFICATION**

<table>
<thead>
<tr>
<th>MSCI ACWI INDEX</th>
<th>MSCI EMERGING MARKET INDEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSCI WORLD INDEX</td>
<td>EMERGING MARKETS</td>
</tr>
<tr>
<td>DEVELOPED MARKETS</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Americas</th>
<th>Europe &amp; Middle East</th>
<th>Pacific</th>
<th>Americas</th>
<th>Europe &amp; Middle East</th>
<th>Asia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>Austria</td>
<td>Australia</td>
<td>Brazil</td>
<td>Czech Republic</td>
<td>China</td>
</tr>
<tr>
<td>United States</td>
<td>Belgium</td>
<td>Hong Kong</td>
<td>Chile</td>
<td>Egypt</td>
<td>India</td>
</tr>
<tr>
<td>Denmark</td>
<td>China</td>
<td>Colombia</td>
<td>Greece</td>
<td>Indonesia</td>
<td></td>
</tr>
<tr>
<td>Finland</td>
<td>New Zealand</td>
<td>Mexico</td>
<td>Hungary</td>
<td>Korea</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>Singapore</td>
<td>Peru</td>
<td>Poland</td>
<td>Malaysia</td>
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<tr>
<td>Germany</td>
<td></td>
<td></td>
<td>Qatar</td>
<td>Philippines</td>
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<tr>
<td>Ireland</td>
<td></td>
<td></td>
<td>Russia</td>
<td>Taiwan</td>
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<tr>
<td>Israel</td>
<td></td>
<td></td>
<td>South Africa</td>
<td>Thailand</td>
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<tr>
<td>Italy</td>
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<td></td>
<td>Saud Arabia</td>
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<tr>
<td>Netherland</td>
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<td></td>
<td>Turkey</td>
<td></td>
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<tr>
<td>Norway</td>
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<td>United Arab Emirates</td>
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<td>Portugal</td>
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<td>Spain</td>
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<td>Sweden</td>
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<tr>
<td>Switzerland</td>
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<tr>
<td>United Kingdom</td>
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</table>

**3.2.2 MSCI ANNUAL MARKET CLASSIFICATION REVIEW**

During the Annual Market Classification Review, MSCI analyzes and seeks feedback on those markets it has placed under review for potential market reclassification. Every
June, MSCI communicates its conclusions from the discussions with the investment community on the list of countries under review and announces the new list of countries, if any, under review for potential market reclassification in the upcoming cycle.
1. The review is based on the criteria set forth in the MSCI Market Classification Framework.
2. There are no country indexes currently under review for a potential reclassification to Developed Markets as part of the 2016 Annual Market Classification Review.
3. MSCI may announce the decision to include China A-shares into Emerging Markets as soon as the issues it has outlined are resolved. This may happen outside the regular schedule of its Annual Market Classification Review.
4. MSCI will communicate its final conclusions on the potential inclusion of Pakistan into Emerging Markets in June 2016.

3.3 MAJOR STOCK EXCHANGES

There are many different stock exchanges located in the world. The world largest stock exchange in terms of market capitalization is actually based in the United States. Market capitalization or market cap is the total money market value of the shares outstanding of a publicly traded company; it is equal to the share price times the number of shares outstanding. As outstanding stock is bought and sold in public markets, capitalization could be used as a proxy for the public opinion of a company's net worth and is a determining factor in some forms of stock valuation. The investment community uses this figure to determine a company's size, as opposed to sales or total asset figures. The total capitalization of stock markets or economic regions may be compared to other economic indicators.

The New York Stock Exchanges has more capital than any other stock exchanges in the world. Some of the major stock exchanges are located in Asia and European regions as well. There are many more stock exchanges that make a huge impact on the world's stock market exchanges. As of 31 January 2015, the world federation exchanges have listed major stock exchanges in the world in terms of market capitalization. The world top major stock exchanges are listed below in the table 3.3.
<table>
<thead>
<tr>
<th>Rank</th>
<th>Exchange</th>
<th>Economy</th>
<th>Market capitalization (US $ billions)</th>
<th>Monthly trade volume (US $ billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Newyork Stock Exchange</td>
<td>United States</td>
<td>19.223</td>
<td>1.520</td>
</tr>
<tr>
<td>2</td>
<td>NASDAQ</td>
<td>United States</td>
<td>6.831</td>
<td>1.183</td>
</tr>
<tr>
<td>3</td>
<td>London Stock Exchange</td>
<td>United Kingdom</td>
<td>6.187</td>
<td>165</td>
</tr>
<tr>
<td>4</td>
<td>Tokyo Stock Exchange</td>
<td>China</td>
<td>4.485</td>
<td>402</td>
</tr>
<tr>
<td>5</td>
<td>Shanghai Stock Exchange</td>
<td>China</td>
<td>3.986</td>
<td>1278</td>
</tr>
<tr>
<td>6</td>
<td>Hong Kong Stock Exchange</td>
<td>Hong Kong</td>
<td>3.325</td>
<td>155</td>
</tr>
<tr>
<td>7</td>
<td>Euro next Exchange</td>
<td>European Union</td>
<td>3.321</td>
<td>184</td>
</tr>
<tr>
<td>8</td>
<td>Shenzhen Stock Exchange</td>
<td>China</td>
<td>2.285</td>
<td>800</td>
</tr>
<tr>
<td>9</td>
<td>TMX Group</td>
<td>Canada</td>
<td>1.939</td>
<td>120</td>
</tr>
<tr>
<td>10</td>
<td>Deutchebourse Exchange</td>
<td>Germany</td>
<td>1.762</td>
<td>142</td>
</tr>
<tr>
<td>11</td>
<td>Bombay Stock Exchange</td>
<td>India</td>
<td>1.682</td>
<td>11.8</td>
</tr>
<tr>
<td>12</td>
<td>National Stock Exchange</td>
<td>India</td>
<td>1.642</td>
<td>62.2</td>
</tr>
<tr>
<td>13</td>
<td>Six Swiss Exchange</td>
<td>Switzerland</td>
<td>1.516</td>
<td>126</td>
</tr>
<tr>
<td>14</td>
<td>Australia Stock Exchange</td>
<td>Australia</td>
<td>1.272</td>
<td>55.8</td>
</tr>
<tr>
<td>15</td>
<td>Korea Stock Exchange</td>
<td>South Korea</td>
<td>1.251</td>
<td>136</td>
</tr>
</tbody>
</table>

**SOURCE: World Federation Exchanges**

The table 3.3 shows the list of major stock exchanges in the world in terms of market capitalization. USA holds first and second position of world stock exchanges because it holds 19.223 and 6.831 billions of capital. Following the country of USA, London stock exchange stands at the second position with the capital of 6.187 billion. China takes the fifth and eighth position of major stock exchanges in the world. Hong Kong stock exchange holds the seventh rank in the world major stock exchanges with the
capitalization of 3.325 billion. TMX group stock exchange of Canada is ranked as the ninth among the world stock exchanges. Following the TMX group, one of the European countries of Germany holds 10th rank in the world stock exchanges. As MSCI classified, the emerging market of Bombay Stock Exchange and National Stock Exchange hold the 11 and 12 rank as of January 2015. Korea stock exchange holds the 15th position among the major stock exchanges in the world. Among the major stock exchanges, New York stock exchange, London stock exchange from the developed stock markets and Shanghai Stock exchange and Bombay Stock Exchanges from emerging stock markets are selected to find out the relationship between macroeconomic variables and stock market returns.

3.4 NEW YORK STOCK EXCHANGE

As on January 2015, New York Stock Exchange is selected as the world’s largest stock exchange in terms of Market capitalization of its listed companies with the US$16.6 million and it is sometimes known as the Big Board. It belongs to the United States of America. The NYSE is owned by Intercontinental Exchange, an American holding company. Previously, it was part of NYSE Euro next (NYX), which was formed by the NYSE's 2007 merger with the fully electronic stock exchange Euro next. NYSE and Euro next now operate as divisions of Intercontinental Exchange.

3.4.1 DEVELOPMENT OF NEW YORK STOCK EXCHANGE

The earliest recorded organization of securities trading in New York among brokers directly dealing with each other can be traced to the Buttonwood Agreement. Previously securities exchange had been intermediated by the auctioneers who also conducted more mundane auctions of commodities such as wheat and tobacco. On May 17, 1792 twenty four brokers signed the Buttonwood Agreement which set a floor commission rate charged to clients and bound the signers to give preference to the other signers in securities sales. The earliest securities traded were mostly governmental securities such as War Bonds from the Revolutionary War and First Bank of the United States stock, although Bank of New York stock was a non-governmental security traded in the early days.
In 1817 the stockbrokers of New York operating under the Buttonwood Agreement instituted new reforms and reorganized. After sending a delegation to Philadelphia to observe the organization of their board of brokers, restrictions on manipulative trading were adopted as well as formal organs of governance. After reforming as the New York Stock and Exchange Board the broker organization began renting out space exclusively for securities trading, which previously had been taking place at the Tontine Coffee House. Several locations were used between 1817 and 1865, when the present location was adopted.

The invention of the electrical telegraph consolidated markets, and New York's market rose to dominance over Philadelphia after weathering some market panics better than other alternatives. The Civil War greatly stimulated speculative securities trading in New York. By 1869 membership had to be capped, and has been sporadically increased since. The latter half of the nineteenth century saw rapid growth in securities trading.

Securities trade in the latter nineteenth and early twentieth century’s was prone to panics and crashes. Government regulation of securities trading was eventually seen as necessary, with arguably the most dramatic changes occurring in the 1930s after a major stock market crash precipitated an economic depression. The Stock Exchange Luncheon Club was situated on the seventh floor from 1898 until its closure in 2006.

3.4.2 NEW YORK STOCK EXCHANGE EURONEXT MERGER

The NYSE announced its plans to merge with Archipelago on April 21, 2005, in a deal intended to reorganize the NYSE as a publicly traded company. NYSE's governing board voted to merge with rival Archipelago on December 6, 2005, and become a for-profit, public company. It began trading under the name NYSE Group on March 8, 2006. A little over one year later, on April 4, 2007, the NYSE Group completed its merger with Euro next, the European combined stock market, thus forming the NYSE Euro next, the first transatlantic stock exchange. Wall Street is the leading US money centre for international financial activities and the foremost US location for the conduct of wholesale financial services. It comprises a matrix of wholesale financial sectors,
financial markets, financial institutions, and financial industry firms. The principal sectors are securities industry, commercial banking, asset management, and insurance.

3.4.3 NEW YORK STOCK EXCHANGE TRADING ACTIVITIES

The New York Stock Exchange provides a means for buyers and sellers to trade shares of stock in companies registered for public trading. The NYSE is open for trading Monday through Friday from 9:30 am – 4:00 pm, with the exception of holidays announced earlier. The NYSE trades in a continuous auction format, where traders can execute stock transactions on behalf of investors. The traders will gather around the appropriate post where a specialist broker, who is employed by a NYSE member, acts as an auctioneer in an open outcry auction market environment to bring buyers and sellers together and to manage the actual auction. The auction process moved toward automation in 1995 through the use of wireless hand held computers (HHC) that enabled traders to receive and execute orders electronically via wireless transmission.

As of January 24, 2007, all NYSE stocks can be traded via its electronic hybrid market. Customers can now send orders for immediate electronic execution or route orders to the floor for trade in the auction market. In the first three months of 2007, in excess of 82% of all order volume was delivered to the floor electronically. NYSE works with US regulators coordinate risk management measures in the electronic trading environment through the implementation of mechanisms like circuit breakers and liquidity replenishment points.

3.4.4 NYSE COMPOSITE INDEX

The NYSE Composite is a stock market index covering all common stock listed on the New York Stock Exchange, including American depositary receipts, real estate investment trusts, tracking stocks, and foreign listings. Over 2,000 stocks are covered in the index, of which over 1,600 are from United States corporations and over 360 are foreign listings; however foreign companies are very prevalent among the largest companies in the index: of the 100 companies in the index having the largest market capitalization more than half are non-U.S. issues.
It was originally given a value of 50 points, based on the market closing on December 31, 1965, and is weighted by the number of shares listed for each issue. It was re-introduced in January 2003 with a value of 5,000 points. The NYSE Composite outperformed the Dow Jones Industrial Average, the NASDAQ Composite, and the S&P 500 in 2004, 2005, and 2006 and crossed the 10,000 level for the first time on June 1, 2007. On September 29, 2008, continuing troubles in the financial sector culminated in a loss of more than 8%. On November 20, 2008, the index plummeted below 5,000 to a multi-year bear market low near 4,650. Its lifetime low (as currently calculated) stands at 347.77 points, reached in October 1974. After a gradual and volatile recovery since 2009, the index finally set fresh nominal records at the end of 2013, closing at an all-time high of 10,406.77 on December 31.

FIGURE 3.1
PERFORMANCE OF NYSE COMPOSITE INDEX.

The figure 3.1 shows the performance of New York Stock Exchange composite index from the month of April 1991 to till the month of December 2014. Following the September 11 attacks in 2001, the stock prices slid steadily till the year 2002. Another reason is that the ENRON power plant corporation showed a record loss of $591 million and had 628 million debts by the end of 2000. Lots of multinational companies had been
drawing profits by engaging in illegal means and frauds in the year 2000. The accounts that they maintained had serious loopholes and the debts were not shown. The stock options that the officers took worked towards diluting the companies. Another probable reason for the 2000 stock market crash was the overvaluation of the stocks and the dot com bubble burst. USA had experienced an upward trend from the year 2004 to the early period of 2007. But the financial crisis of 2007–08, also known as the Global Financial Crisis and 2008 financial crisis, threatened the collapse of large financial institutions, which was prevented by the bailout of banks by national governments, but stock markets still dropped worldwide. In many areas, the housing market also suffered, resulting in evictions, foreclosures and prolonged unemployment. However, the monthly closing index of New York Stock Exchange Composite index has recovered from the crisis slowly and steadily in the remaining study period.

3.5 LONDON STOCK EXCHANGE – AN OVERVIEW

The London Stock Exchange is a stock exchange located in the City of London in the United Kingdom. As of December 2014, the Exchange had a market capitalization of US$6.06 trillion, making it the third-largest stock exchange in the world and the largest stock exchange in Europe by this measurement. The Exchange was founded in 1801 and its current premises are situated in Paternoster Square close to St Paul's Cathedral in the City of London. The Exchange is part of the London Stock Exchange Group.

3.5.1 DEVELOPMENT OF LONDON STOCK EXCHANGE

The Royal Exchange had been founded by Thomas Gresham on the model of the Antwerp Bourse, as a stock exchange. It was opened by Elizabeth I of England in 1571. During the 17th century, stockbrokers were not allowed in the Royal Exchange due to their rude manners. They had to operate from other establishments in the vicinity, notably Jonathan's Coffee-House. At that coffee house, a broker named John Casting started listing the prices of a few commodities, exchange rates and certain key provisions such as salt, coal and paper in 1698. Originally, this was not a daily list and was only published a few days of the week.
This list and activity was later moved to Garraway’s coffee house. Public auctions were organized for the duration that a length of tallow candles could burn; these were known as by inch of candle auctions. As stocks grew, with new companies joining to raise capital, the royal court earned some monies. These are the earliest evidence of organized trading in London stock market.

3.5.2 ROYAL EXCHANGE

In the Great Fire of London, the Gresham’s Royal Exchange was totally destroyed, later; it was rebuilt and re-established in 1669. It had moved from coffee houses and a step towards the modern model of stock exchange. This was the birth of a regulated stock market, which had teething problems in the shape of unlicensed brokers and merchants. In order to regulate these, Parliament brought out an act in 1697 that levied heavy penalties and fines, both financial and physical to those brokering without a license. It also set a fixed number of brokers, which was later increased as the size of the trade grew. This invariably led to several problems of its own, one of which was that traders began leaving the Royal Exchange, either by their own decision or through expulsion. Later they started dealing in the streets of London. The street in which they were now dealing was known as Exchange Alley, or Change Alley which was adjacent to the Bank of England. Parliament tried to regulate this and ban the unofficial traders from the Change streets. Traders became weary of bubbles when companies rose quickly and fell, so they persuaded Parliament to pass a clause preventing unchartered companies from forming.

After the Seven Years War (1756–1763), trade at Jonathan's coffee house boomed again. In 1773, Jonathan, together with 150 other brokers, formed a club and opened a new and more formal Stock Exchange in Sweeting’s Alley. This had a set entrance fee, through which traders could enter the stock room and trade securities. It was, however, not an exclusive location for trading, as trading also occurred in the Rotunda of the Bank of England. Fraud was also rife during these times and in order to deter such dealings, it was suggested that users of the stock room pay an increased fee. This was not met well and ultimately, the solution came in the form of annual fees and turning the Exchange into a Subscription room.
3.5.3 LONDON STOCK EXCHANGE IN 1810

In the Exchange's first operating years, on several occasions there was a clear set of regulations or fundamental laws missing for the Capel Court trading. In February 1812, the General Purpose Committee confirmed a set of recommendations, which later became the foundation of the first codified rule book of the Exchange. Even though the document was not a complex one, topics such as settlement and default were, in fact, quite comprehensive.

With its new governmental commandments and increasing trading volume in place, the Exchange was progressively becoming an accepted part of the financial life in the City. In spite of continuous criticism from newspapers and the public, the government used the Exchange's organized market to raise the enormous amount of money required for the wars against Napoleon.

3.5.4 LONDON STOCK EXCHANGE IN THE POST-WAR PERIOD

After decades of uncertain if not turbulent times, business boomed for the stock market in the late 1950s. This pushed the officials to find a more suitable space for its new accommodation. The work on the new Stock Exchange Tower began in 1967. 1973 marked the year of changes for the Stock Exchange. Firstly, two trading prohibitions were to be abolished. A report from the Monopolies and Mergers Commission recommended the admittance of both women and foreign-born members on the floor. Secondly, in March the London Stock Exchange was to amalgamate with the 11 British and Irish regional exchanges, including the Scottish Stock Exchange. This expansion led to the creation of a new position of Chief Executive Officer; after an extensive search this post was given to Robert Fell. Governmental changes also continued in 1991, when the governing Council of the Exchange was replaced with a Board of Directors drawn from the Exchange’s executive, customer and user base. This also marked the first time the trading name became The London Stock Exchange.

The biggest happening of the 1980s was the sudden deregulation of the financial markets in the UK in 1986. The phrase Big Bang was coined to describe measures including abolition of fixed commission charges and of the distinction between

3.5.5 TRADING ACTIVITIES OF LONDON STOCK EXCHANGE

SETS is the London Stock Exchange’s flagship electronic order book, trading indexed securities (FTSE100, FTSE250, FTSE Small Cap Index constituents, Exchange Traded Funds, Exchange Trading Products as well as other liquid AIM, Irish, and London Standard listed securities)SETSqx is a trading platform for securities less liquid than those traded on SETS. This platform combines a periodic electronic auction book four times a day with standalone non-electronic quote driven market making.

3.5.6. FTSE 100 – AN OVERVIEW

The Financial Times Stock Exchange 100 Index, also called the FTSE 100 Index, FTSE 100, FTSE, or, informally, the Footsie is a share index of the 100 companies listed on the London Stock Exchange with the highest market capitalization. It is seen as a gauge of prosperity for businesses regulated by UK company law. The index is maintained by the FTSE Group, a subsidiary of the London Stock Exchange Group. FTSE stands for Financial Times Stock Exchange.

The FTSE 100 consists of the largest 100 qualifying UK companies by full market value. The constituents of the FTSE are determined quarterly, on the Wednesday after the first Friday of the month in March, June, September and December. The values used to make the changes to the indices are taken at the close of business the night before the review. FTSE 100 companies represent about 81% of the entire market capitalization of the London Stock Exchange. Even though the FTSE All-Share Index is more comprehensive, the FTSE 100 is by far the most widely used UK stock market indicator. The index began on 3 January 1984 at the base level of 1000; the highest closing value reached to date is 7103.98 (with an intra-day high of 7122.74). After falling during the financial crisis of 2007-2010 to below 3500 in March 2009, the index recovered to a peak
of 6091.33 on 8 February 2011, fell under the 5000 mark on the morning of 23 September 2011.

FIGURE 3.2
PERFORMANCE OF FTSE 100

The figure 3.2 depicts the picture of monthly closing index of Financial Times Stock Exchange 100 performance from the month of April 1991 to the month of December 2014. The increase in internet trading also led to the crash of 2000. The internet served an easy access to trading for a lot of traders who lacked the required experience. Their trial and error methods of trading lead to losses in the stock trading market.

Another supposed reason is that the research firms had a conflict of interest. The investment bankers had the research firms put not so honest ratings on the stocks, thus leading to an overall loss of wealth in the market. Though there was a gradual decrease in the 2002, an upward trend movement is witnessed from the year 2004 on. However, a decreasing trend was reappeared in the year 2008 due to US financial crisis. But, 2010 to 2014 shows an upward trend movement.
3.6 SHANGHAI STOCK EXCHANGE

The Shanghai Stock exchange is a stock exchange that is based in the city of Shanghai, China. It is one of the two stock exchanges operating independently in the People's Republic of China; the other is the Shenzhen Stock Exchange. Shanghai Stock Exchange is the world's 5th largest stock market by market capitalization at US$5.5 trillion as of January 2015. Unlike the Hong Kong Stock Exchange, the Shanghai Stock Exchange is still not entirely open to foreign investors due to tight capital account controls exercised by the Chinese mainland authorities and often manipulated by the decisions of the Central Government.

The current exchange was re-established on November 26, 1990 and was in operation on December 19 of the same year. It is a non-profit organization directly administered by the China Securities Regulatory Commission (CSRC). The Shanghai Clearing House provides security for financial market participants, and efficient clearing services development purposes, but also conductive to international peers inter-agency communication and cooperation. It provides central counterparty clearing of foreign currency in the interbank market, including clearing, settlement, margin management, collateral management, information services, consulting services, and related management department under other business.

3.6.1 DEVELOPMENT OF SHANGHAI STOCK EXCHANGE

The formation of the International Settlement in Shanghai was the result of the Treaty of Nanking of 1842 and subsequent agreements between the Chinese and foreign governments were crucial to the development of foreign trade in China and of the foreign community in Shanghai. The market for securities trading in Shanghai begins in the late 1860s. The first shares list appeared in June 1866 and by then Shanghai's International Settlement had developed the conditions conducive to the emergence of a share market: several banks, a legal framework for joint-stock companies, and an interest in diversification among the established trading houses.

In 1891 during the boom in mining shares, foreign businessmen founded the Shanghai Share brokers' Association headquartered in Shanghai as China's first stock
exchange. In 1904 the Association applied for registration in Hong Kong under the provision of the Companies ordinance and was renamed as the Shanghai Stock Exchange. The supply of securities came primarily from local companies. In the early days, banks dominated private shares but, by 1880, only the Hong Kong and Shanghai local banks remained.

Later in 1920 and 1921, Shanghai Securities and Commodities Exchange and Shanghai Chinese Merchant Exchange started operation respectively. An amalgamation eventually took place in 1929, and the combined markets operated thereafter as the Shanghai Stock Exchange. Shipping, insurance, and docks persisted to 1940 but were overshadowed by industrial shares after the Treaty of Shimonoseki of 1895, which permitted China, and by extension other nations which had treaties with China, to establish factories in Shanghai and other treaty ports. Rubber plantations became the staple of stock trading beginning in the second decade of the 20th century.

By the 1930s, Shanghai had emerged as the financial center of the Far East, where both Chinese and foreign investors could trade stocks, debentures, government bonds, and futures. The operation of Shanghai Stock Exchange came to an abrupt halt after Chinese troops occupied the Shanghai International Settlement on December 8, 1941.

After the Cultural Revolution ended and Deng Xiaoping rose to power, China was re-opened to the outside world in 1978. During the 1980s, China's securities market evolved in tandem with the country's economic reform and opening up and the development of socialist market economy. On 26 November 1990, Shanghai Stock Exchange was re-established and operations began a few weeks later on 19 December.

3.6.2 SSE COMPOSITE INDEX

The SSE Composite Index is the most commonly used indicator to reflect SSE's market performance. Constituents for the SSE Composite Index are all listed stocks (A shares and B shares) at the Shanghai Stock Exchange. The Base Day for the SSE Composite Index is December 19, 1990. The Base Period is the total market capitalization of all stocks of that day. The Base Value is 100. The index was launched on July 15, 1991.
At the end of 2006, the index reaches 2,675.47. Other important indexes used in the Shanghai Stock Exchanges include the SSE 50 Index and SSE 180 Index. The securities listed at the SSE include the three main categories of stocks, bonds, and funds. Bonds traded on SSE include treasury bonds (T-bond), corporate bonds, and convertible corporate bonds. SSE T-bond market is the most active of its kind in China. There are two types of stocks being issued in the Shanghai Stock Exchange: "A" shares and "B" shares.

‘A’ shares are priced in the local renminbi Yuan currency, while ‘B’ shares are quoted in U.S. dollars. Initially, trading in ‘A’ shares are restricted to domestic investors only while ‘B’ shares are available to both domestic (since 2001) and foreign investors. The performance of the SSE composite index during the sample period is depicted in the figure 3.3.

**FIGURE 3.3**

PERFORMANCE OF SSE COMPOSITE INDEX

The figure 3.3 highlights the closing price movement of Shanghai Stock exchange composite index for the study period. A significant growth is noticed in the period from
1991 to 1992 but later a gradual increase is shown from 1994 to 2000. The upward trend becomes a downward trend from the year 2000 to 2004. From the year 2006 to the early period of 2008, it is understood from the figure that there is a upward trend movement. Due to financial crisis in the period 2008, china is not an exception to face the heat of crisis. Therefore, in 2008, the closing price index has been decreased considerably. Following the downward trend in the 2008, the closing index shows a moderate upward trend in the year 2010 onwards.

3.7 BOMBAY STOCK EXCHANGE

The Bombay Stock Exchange (BSE) is an Indian stock exchange located at Dalal Street, Kala Ghoda, Mumbai, Maharashtra, India. Established in 1875 the BSE is considered to be one of Asia’s fastest stock exchanges, with a speed of 200 microseconds and one of India’s leading exchange groups and the oldest stock exchange in the South Asia region. Bombay Stock Exchange is the world's 11th largest stock market by market capitalization at $1.7 trillion as of 23 January 2015. More than 5,000 companies are listed on BSE.

3.7.1 DEVELOPMENT OF BOMBAY STOCK EXCHANGE

The Bombay Stock Exchange is the oldest exchange in Asia. It traces its history to 1855, when four Gujarati and one Parsi stockbroker would gather under banyan trees in front of Mumbai’s Town Hall. The location of these meetings changed many times as the number of brokers constantly increased. The group eventually moved to Dalal Street in 1874 and in 1875 became an official organization known as The Native Share & Stock Brokers Association.

On 31 August 1957, the BSE became the first stock exchange to be recognized by the Indian Government under the Securities Contracts Regulation Act. In 1980, the exchange moved to the Phiroze Jeejeebhoy Towers at Dalal Street, Fort area. In 1986, it developed the BSE SENSEX index, giving the BSE a means to measure overall performance of the exchange. In 2000, the BSE used this index to open its derivatives market, trading SENSEX futures contracts. The development of SENSEX options along
with equity derivatives followed in 2001 and 2002, expanding the BSE's trading platform.

Historically an open outcry floor trading exchange, the Bombay Stock Exchange switched to an electronic trading system developed by CMC Ltd in 1995. It took the exchange only fifty days to make this transition. This automated, screen-based trading platform called BSE On-line trading (BOLT) had a capacity of 8 million orders per day. The BSE has also introduced a centralized exchange-based internet trading system, BSEWEBx.co.in to enable investors anywhere in the world to trade on the BSE platform. The BSE is also a Partner Exchange of the United Nations Sustainable Stock Exchange initiative, joining in September 2012.

The launch of SENSEX in 1986 was later followed up in January 1989 by introduction of BSE National Index (Base: 1983-84 = 100). It comprised 100 stocks listed at five major stock exchanges in India - Mumbai, Calcutta, Delhi, Ahmedabad and Madras. The BSE National Index was renamed BSE-100 Index from 14 October 1996 and, since then, its calculations take into consideration only the prices of stocks listed at BSE.

BSE launched the dollar-linked version of BSE-100 index on 22 May 2006, the BSE-200 and the DOLLEX-200 on 27 May 1994, the BSE-500 Index and 5 sectoral indices in 1999, and the BSE-PSU Index, DOLLEX-300, and the BSE TEck Index (the country's first free-float based index) in 2001. Over the years, BSE shifted all its indices to the free-float methodology (except BSE-PSU index).

BSE disseminates information on the Price-Earnings Ratio, the Price to Book Value Ratio, and the Dividend Yield Percentage of all its major indices on day-to-day basis. The values of all BSE indices are updated on a real time basis during market hours and displayed through the BOLT system, the BSE website, and news wire agencies. All BSE Indices are reviewed periodically by the BSE Index Committee. This Committee, which comprises eminent independent finance professionals, frames the broad policy guidelines for the development and maintenance of all BSE indices. The BSE Index Cell carries out the day-to-day maintenance of all indices and conducts research on
development of new indices. SENSEX is significantly correlated with the stock indices of other emerging markets.

### 3.7.2 SENSEX (Sensitive Index)

S&P BSE SENSEX, first compiled in 1986, was calculated on a 'Market Capitalization-Weighted' methodology of 30 component stocks representing large, well-established and financially sound companies across key sectors. The base year of S&P BSE SENSEX was taken as 1978-79. S&P BSE SENSEX today is widely reported in both domestic and international markets through print as well as electronic media. It is scientifically designed and is based on globally accepted construction and review methodology.

Since September 1, 2003, S&P BSE SENSEX is being calculated on a free-float market capitalization methodology. The 'free-float market capitalization-weighted' methodology is a widely followed index construction methodology on which majority of global equity indices are based; all major index providers like MSCI, FTSE, STOXX, and Dow Jones use the free-float methodology. The growth of the equity market in India has been phenomenal in the present decade. Right from early nineties, the stock market witnessed heightened activity in terms of various bull and bear runs. More recently, real estate caught the fancy of the investors. S&P BSE SENSEX has captured all these happenings in the most judicious manner. One can identify the booms and busts of the Indian equity market through S&P BSE SENSEX. As the oldest index in the country, it provides the time series data over a fairly long period of time (from 1979 onwards). The S&P BSE SENSEX has become one of the most prominent brands in the country.
The figure 3.4 shows an upward trend of SENSEX from the month of April 1991 to December 2014. In 1992, a sudden downfall is witnessed in the closing index of Bombay Stock Exchange. It is due to the report appeared in the year 1992 that there was a sudden fall in the government securities held by the State Bank of India. In over the month, investigations revealed that there is a security scam by Harshad Medha involving misappropriation of fund worth of 3,500 crores. The immediate impact of the scam was a sharp fall in the share prices. The index fall from 4,500 to 2,500 representing a loss of 1,00,000 crores in market capitalization. The closing index of BSE SENSEX shows gradual ups and downs during the period 1994 to 2000. The dot-com bubble (also referred to as the dot-com boom, the Internet bubble, the dot-com collapse, and the information technology bubble) was a historic speculative bubble covering roughly 1997–2000 years. The closing index values in the year 2004 to 2008 shows an upward trend. India also witnessed gradual decrease in the year 2008 due to the global financial crisis. It is concluded from the figure that India has experienced gradual ups and downs during the study period.
3.8 CONCLUSION

In order to regulate the stock market, proper attention and significant efforts from the policy makers and government are required. The theoretical framework gives an overview about the behavior of stock markets over the study period. It is realized that two main crashes in the stock market was occurred in the world. In 2002, stock prices took a sharp downturn in stock markets across the United States, Asia, and Europe. The 2002 crisis is called dotcom bubble crash. Later, the stock markets have witnessed a sharp fall in the stock market prices due to global financial crisis in the year 2008.
REFERENCES