



## Technical and Fundamental Analyses of Sensex Representative Companies

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### **Abstract**

*Investing in various types of financial assets is an interesting activity that attracts people from all walks of life irrespective of their occupation, economic status, education and family background. When a person has more money than he requires for current consumption, he would be coined as a potential investor. The investor who is having extra cash could invest it in securities or in any other assets like gold, silver, or real estate or could simply deposit it in his bank account. The companies that have extra income may like to invest their money in the extension of existing firm or undertake new venture. All of other activities in a broader sense mean investment. Investment is the employment of the funds on assets with the aim of earning income or capital appreciation. Investment has two attributes namely time and risk. Present consumption is sacrificed to get a return in the future. The sacrifice that has to be born is certain but the return in the future may be uncertain. This attribute of investment indicates that risk factor. The risk is undertaken with a view to reap some return from the investment. For a layman, investment means some monetary commitment. Economic factors play a major role in any investment decision, which is made for making a gain and better return. Economic analysis and forecasting company performance and return is necessary for making investments. The performance of a company depends on the state of the economy. If the economy is in recession the performance of companies will be bad. If the economy is booming, incomes are rising and demand is increasing, the company's performance in general may be prosperous.*

**Keywords:** *Indian Economy, Economy Analysis, Monetary Policy, Industrial Growth*

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### **Introduction**

India has mixed economy the public sector plays a vital role in the economy. The central government is the biggest investor and spender. The investment made in the public sector and expenditure level is the performance of the Indian economy. The Indian economy has been influenced by many factors such as government budgets, taxation external debt of the government etc. These factors will influence increased demand and income levels of the public. The changes in taxation policies have an impact on the industry and the corporate sector. The

monetary policy of the government depends on the government's budget policy. The central government borrows money from the public; credit policy of the RBI shows a major impact on the industrial growth. The growth of the industry mainly depends upon the demand and supply for goods in the country. The monetary and budget policy will influence the price level and interest rates. Investing in various types of financial assets is an interesting activity that attracts people from all India has mixed economy the public sector plays a vital role in the economy. The central government is the biggest investor and spender. The investment made in the public sector and expenditure level is the performance of the Indian economy. The Indian economy has been influenced by many factors such as government budgets, taxation external debt of the government etc. These factors will influence increased demand and income levels of the public. The changes in taxation policies have an impact on the industry and the corporate sector. The monetary policy of the government depends on the government's budget policy. The central government borrows money from the public; credit policy of the RBI shows a major impact on the industrial growth. The growth of the industry mainly depends upon the demand and supply for goods in the country. The monetary and budget policy will influence the price level and interest rates walks of life irrespective of their occupation, economic status, education and family background. When a person has more money than he requires for current consumption, he would be coined as a potential investor. The investor who is having extra cash could invest it in securities or in any other assets like gold, silver, or real estate or could simply deposit it in his bank account. The companies that have extra income may like to invest their money in the extension of existing firm or undertake new venture. All of other activities in a broader sense mean investment. Investment is the employment of the funds on assets with the aim of earning income or capital appreciation. Investment has two attributes namely time and risk. Present consumption is sacrificed to get a return in the future. The sacrifice that has to be born is certain but the return in the future may be uncertain. This attribute of investment indicates that risk factor. The risk is undertaken with a view to reap some return from the investment. For a layman, investment means some monetary commitment.

- A person's commitment to buy a flat or house or car for his personal use may be an investment from his point of view.
- To the economist, investment is the net addition made to the nation's capital stock that consists of goods and services used in the production process.
- Financial investment is the allocation of money to assets that are expected to yield some gain over a period of time. It is an exchange of financial claims such as stocks and bond for money.

"In very simple words, when an individual, a company, any institution or a group of these park money to earn yield in future it is called investment."

#### **Classification of Investment**

An investment is classified into three categories:

- (a) Investment in Real Assets
- (b) Investment in Financial Assets
- (c) Investment in Commodity Assets

**Investment in Real Assets:** Real assets refer to tangible assets, which are in the form of land, building, furniture, gold, silver, diamonds etc. These assets have a physical value appearance. They may be marketable or non- marketable. They may also have the feature of being movable or non-movable. These assets are used to produce goods and services.

**Investment in Financial Assets:** Shares, bonds, bills, debentures, derivatives are some of the financial assets. These assets represent claim on the income generated by real assets of some other parties. These can be easily traded, as they are marketable and transferable. These are popularly called paper securities.

**Investment in Commodity Assets:** Commodities are new form of investment in India. Commodity assets consist of wheat, sugar, potatoes, rubber, coffee, and other grains. Importers and exporters invest in commodities to diversify their portfolios. Trader's hedge or transact in commodities to make gains. A National Commodity and Derivatives Exchange Ltd. (NCDEX) has been set up in India in 2003 as a public limited company to transact in commodities.

#### **Investment Process:**

Investment process involves a series of activities leading to purchase securities or other investment alternatives. Investment process is generally described in five stages. These stages are investment policy, security analysis, valuation of securities, construction of portfolio and, evaluation.

- **Investment Policy:** The investor before proceeding into investment formulates the policy for the systematic functioning. The essential ingredients of the policy are: (a) Investible Fund (b) Investment Objectives (c) Knowledge about the alternatives and markets.
- **Security Analysis:** The process of analyzing the individual securities and market as a whole and estimating the risk and return expected from each of the investments with a view to identifying undervalued securities for buying and overvalued securities for selling is both an art and a science and is what is called security analysis. After formulating the investment policy, the securities to be bought have to scrutinize through: (a) Fundamental Analysis (b) Technical Analysis (c) Risk and Return Analysis (d) Efficient Market Hypothesis.
- **Valuation of Securities:** The third step is perhaps much consideration of the valuation of investments. Investment value, in general, is taken to be the present worth to the owners of benefits from investments. The investor has to bear in mind the value of these investments. An appropriate set of weights has to be applied with use of forecasted benefits to estimate the value of the investment assets.

Comparison of the value with the current market price of the assets allows a determination of the relative attractiveness of the asset. Each asset must be valued on its individual merit.

- **Construction of Portfolio:** A portfolio is a combination of securities. The portfolio is constructed in such a manner as to meet the investor's goals and objectives. The investors should decide how best to reach the goals with the securities available. The investors try to attain maximum return with minimum risk. Towards this end he diversifies his portfolio and allocates funds among the securities.

- **Valuation:** The portfolio has to be managed efficiently. The efficient management calls for evaluation of the portfolio. This process consists of appraisal and revision.

### Literature Review

**Basu (1977)** found that stocks with low price-earnings ratios (P/Es) have been higher average returns than stocks with high P/Es, even after controlling for data.

**Daigler and Fielitz (1981)** employed multiple discriminant analysis to examine the ability of daily technical indicators to predict future movements of the stock market. The study investigates the ability of daily technical indicators to predict future change in the Standard and Poor's 500 index (as measured by price relatives). Daily observations for the predictors? variables and the Standard and Poor's 500 stock price index were determined for the period January 1961 to December 1973. The notable features of this research included the use of a multivariate approach, a nonlinear discriminant function, the Lachenbruch holdout method, test- space and reduced- space procedure, the complete stepwise method, and consideration of the characteristics of the data such as stationarity, the discreteness of the criteria variable, and the use of the two- group largest and smallest price relatives.

**Treynor and Forguson (1985)** showed that past prices, when combined with other valuable information, can indeed be helpful in achieving unusual profits. Adherents of technical analysis claim that unusual profits can be achieved using only past security prices. Many investors occasionally receive that what they believe to be nonpublic information about a security. Others feel that by applying superior analytical skills to public information, they are able to arrive at valuable insights that are not generally appreciated. The investor must be correct on two counts. First, the estimate of the worth of the information must be reasonably accurate in terms of its impact on the price of the stock, and second, the investors must make a realistic assessment of the likelihood that the market already has received the information or insight in question. This paper is concerned only with the later problem. The probability distribution of the date on which the market receives information already in the hands of the investors is calculated for a simple model of information propagation. It is then shown how this probability distribution can be brought to bear on management of a portfolio.

However, it is the non-price information that creates opportunity. The past prices serve only to permit its efficient exploitation.

**Chen, Roll, and Ross (1986)** found that innovations in the spread between short and long interest rates, expected inflation and unexpected inflation, industrial production and the spread between high and low grade bonds were significant determinants of stock price movements, and concluded that this worked through the way in which risk was priced by the market in particular that microeconomics risks were all significantly priced and seemed to replace other variables which might be expected to influence the price such as the movements of a market portfolio.

**Lee (1987)** examined the role of fundamental analysis in the stock market. Specifically, market responses to Abelson's fundamental analyses in Barro's were explored. The analyses in Abelson's column were classified, according to their contents, into four categories. Market reactions to those different contents to analyses were measured. Univariate t-test, binomial Z-test, ANOVA F-test and Chi-square independence tests, were applied to check the significance

and the uniformity of market reactions to various fundamental analyses. It was found that the market reacted discriminately to the contents of fundamental analyses and that investors did not make significant monetary gains from the use of Abelson's analyses.

**Brown (1989)** examined a particular "exact" k-factor economy where each of the factors was priced and contributes equally on an average to the variance of returns. Both factor analysis of security return and the analysis of each value seemed to indicate that a market factor explain the major part of security returns. Authors found that such evidence was consistent with an economy where there were in fact k "equally important" priced factors, each value analysis in all context of such an economy will lead an investigator to the false inference that the one important "factor" is the returns on an equally weighted marketing index.

**Cochrane (1994)** examined the causes of variation between GDP growth and stock returns using the conventional VAR identification approach. In his analysis, he showed that substantial amount of variation is due to transitory stocks. He defined the transitory shock from two perspectives - in relation to the consumption GDP ratio and in relation to the dividend/Price ratio. Transitory shock to consumption GDP ratio is a shock to GDP holding consumption constant so that the shock does not affect consumption contemporaneously. The facts that the consumption (GDP ratio) did not forecast consumption growth and that consumption was nearly a random walk this definition. Similarly, he defined transitory shocks to the dividend-price system as shocks to stock prices holding dividends constant so that the shock did not affect dividends contemporaneously. The fact that the dividend (price ratio) may not forecast dividend growth and that dividend was nearly a random walk can justify this definition.

**Blume, Easley, and Ohara (1994)** investigated the information role of volume and its applicability for technical analysis. The authors developed a new equilibrium model in which aggregate supply is fixed and traders receive signals with differing quality. The paper shows that volume provides information on information quality that cannot be deduced from the price's statistic. The paper showed how volume, information precision, and price movements relate, and demonstrate how sequences of volume and price can be information. The authors also showed that traders who use information contained in market statistics do better than traders, who do not. Technical analysis thus arises as a natural component agent learning process. As the analysis suggests, introducing volume unrelated to the underlying information structure would survey weakly the ability of uninformed traders to interpret market information accurately.

**King, Sentana, and Wadhvani (1994)** set out to explain the time - variation in the international covariance between stock indices. They specified a model with both observable factors (economic variables) and unobservable factors. They also allowed for time varying conditional variance of the factors by specifying GARCH type processes. The economic variables they used include: short and long- term interest rates, exchange rates, industrial production, money supply, real oil price, real commodity price index, although they found these variables to be rather insignificant in explaining linkage between stock markets compared to two unobservable factors.

**Barbee, Mukherji, and Raines (1996)** suggested that the sales-price ratio (SIP) may be a more reliable indicator of firm's relative market valuation than PIE or B/M because different

accounting methods for depreciation and inventory affect earning and book value of equity but not sales. Unlike P/E and B/M, S/P was also a meaningful measure of value for all stocks because it cannot be negative. Barbee et al. found that S/P absorbs the rules of B/M, MYE, and P/E in explaining U.S. stock returns during the 1979-91 periods.

**Mukherji, Dhatt, and Kim (1997)** found that fundamental analysis of stock returns in Korea revealed that annual stock returns during the 1982-93 periods were positively related to B/M, S/P, and D/E and negatively related to firm size but not significantly related to E/P or Beta. The findings of the study also suggest that for Korean stocks, B/M, and S/P were more consistent indicators of fundamental value than E/P. Furthermore, D/E was a more reliable proxy for risk than that of beta.

**Antoniou et al. (1997)** the study was aimed to examine whether seemingly efficient can, in fact, be predicted by the use of technical analysis of both past volume and part returns data. The study used daily closing prices for 63 stocks traded in the Istanbul Stock Exchange (ISE) in the period from January, 1988 to December, 1993. This paper investigated the extent to which past volume, in conjunction with past returns, can predict returns from seemingly efficient prices.

#### **Objectives of the Study**

- To identify the reasons of inclusion and exclusion (Replacement) of Sensex Companies
- To identify market trends shown by Companies Scrips on the basis of Oscillators
- To find out the application of Ralph's wave theory on the stock prices of the companies
- To examine the profitability of companies on the basis of fundamental analysis's tools
- To suggest a model/import workable suggestions on the basis of results of technical & fundamental analyses.

#### **Methodology**

Capital market has always been susceptible to the variety of variables pertaining the prices, trading, behavior, settlement, liquidity, economy and listed companies. Every time one kind of formula or principle does not work that's why the researcher plans to dwell upon research work on the present topic. Technical and fundamental analyses are the important tools for the security analysis. If we think about security analysis then it is easy to predict the future stock price trend on the basis of technical analysis and show the profitability position on the basis of fundamental analysis. All stake holders (investors, brokers, management, merchant bankers, regulatory agencies, Government and researchers etc.) of the 77-stock market have benefited by taking the use of technical and fundamental analyses. That is why the researcher has decided to conduct a study on "technical and fundamental analyses of Sensex Representative Companies".

There are thousands of companies listed on the Bombay Stock Exchange. There are many indices in the Bombay Stock Exchange i.e., BSE-30/Sensex, BSE-100, BSE200, BSE-500, BSE-IT and BSE-FMCG etc. It is very difficult to conduct technical and fundamental analyses of all listed companies on BSE or all indices of BSE. So, the researcher decided to study the BSE-Sensex because BSE-Sensex is the barometer of Indian Capital Market and all the companies

of Sensex are well established and financially sound, and dominant company in their respective industry.

### Results

Fundamental analysis involves looking at any numbers that can show something about a company's worth. That includes the financial statements and ratios derived from those numbers that can give you more insight into whether the company is performing well, indifferently or badly. Profitability and valuation ratios are the most comprehensive means of a company as they reflect the corroborated influence of risk and profitability financial ratios. These ratios are more important because they reflect the general confidence and trust of the market in a company's management, but said confidence and trust depends upon many economic, social, and political factors. When investors fundament their decisions, they take into consideration a variety of indicators, such as internal performances achieved by a company, and established by analyzing the information reflected in its financial statements. The researcher has selected those ratios which are generally used by investment market players.

The performance of a company depends on the state of the economy. If the economy is in recession the performance of companies will be bad. If the economy is booming, incomes are rising and demand is increasing, the company's performance in general may be prosperous. The Indian economy is depending upon the agriculture. Agriculture is the profession for 70% of the population and it contributes nearly 35% of the output to the economy Therefore it is most important for the assessment and forecast of industrial performance. If the monsoon is favorable and agricultural income is good the demand for industrial goods and ser ices will be favorable and industry may get increased sales revenue and profits. India has mixed economy. The public sector plays a vital role in the economy. The central government is the biggest investor and spender. The investment made in the public sector and expenditure level is the performance of the Indian economy. The Indian economy has been influenced by many factors such as government budgets, taxation external debt of the government etc. These factors will influence increased demand and income levels of the public. The changes in taxation policies have an impact on the industry and the corporate sector

The monetary policy of the government depends on the government's budget policy. The central government borrows money from the public; credit policy of the RBI shows a major impact on the industrial growth. The growth of the industry mainly depends upon the demand and supply for goods in the country. The monetary and budget policy will influence the price level and interest rates. The interest rates in the free market and the degree of inflation do have a major influence on the economy and the performance of tire industries. A low level of inflation is very useful for business sector but higher degree of inflation will dismantle the business plans, lead to escalations and squeeze profit margins. All these factors adversely affect the performance of industry and companies. The general level of business conditions influences the demand for industrial products and the performance of the industry. The business cycles in the economy may cause fluctuations depending upon the state of the economy.

Performance of agriculture sector, availability of energy and other infrastructure outputs, imported inputs and other factors do influence the costs and profit margins of the corporate sector.

The economic policies of the government is the most important factor for the Indian economy. The stability of the policies, good performance of the economy in general will influence the company's performance in particular. The stability of the government is the basic foundation for economic policies of the country. The uncertainties in the political system of the country will show greater impact on the economic system. The political uncertainties will show adverse changes in the government policy and also affect the industrial development. The central government policies relating to various projects, foreign direct investment, foreign collaborations; foreign investment, price and controls, listing requirements on stock exchanges and other factors do affect the performance of companies. The balance of payment position, the foreign exchange rate may show an impact on the economy and the securities market. All the above factors may influence the economy, which in turn show impact on the corporate sector's performance.

### Discussion

#### Classification of Investment

An investment is classified into three categories:

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- **Construction of Portfolio:** A portfolio is a combination of securities. The portfolio is constructed in such a manner as to meet the investor's goals and objectives. The investors should decide how best to reach the goals with the securities available. The investors try to attain maximum return with minimum risk. Towards this end he diversifies his portfolio and allocates funds among the securities.
- **Valuation:** The portfolio has to be managed efficiently. The efficient management calls for evaluation of the portfolio. This process consists of appraisal and revision.

### Technical Analysis

The word "Technical" implies a study of market itself and not of the various external factors which affect the market. According to technical analysis, all relevant factors, whatever that may be, get reflected in the volume of the stock exchange transaction and the level of share prices, or more generally by the market. Technical analysis is the study of market information. Technical analysis attempts to predict future stock prices by analyzing past stock prices. In effect, it asserts that tomorrow's stock prices are influenced by today's price. Technical analysis is very appealing ascertain, because it eliminates the need to perform fundamental analysis. It is the analysis of share prices and the traded volume to predict the near future price movement. It is 90 percent psychological and 10 percent logical, which means market is driven by psychology of investors in 90 percent times and, 10 percent of the times logical factors affect the market. Technical analysis is based on the belief that history repeats itself, which means price patterns and traded volume again and again over a period of time. This repetition of price and volume helps in predicting near future price movements. Technical analysis refers the process of identifying trend reversals at an earlier stage to formulate the buying and selling strategy. With the help of several indicators they analyse the relationship between price volume and supply demand for the overall market and the individual stock. Volume is favorable on the upswing i.e. the number of shares traded is greater than before and on the downside the number of shares traded dwindles. If it is the other way round, trend reversals can be expected.

### **Assumptions of Technical Analysis**

The technical analysis is based on the following assumptions:

- The individual scrip act like a barometer. A small event is usually discounted in advance with price movements.
- The market price is determined mainly by interaction of demand and supply of security.
- There are both rational and irrational factors, which surround the share supply and demand.
- Change in trends is caused by shifts in the demand and supply position shares.
- An upward trend in prices of scrip denotes a balance buying, a downward trend is an indicative of extreme supply, and analysis is the technician's main challenge.
- The upward or downward trend of prices of stocks in the market depends up on the sentiment, psychology and emotions of operators or traders.
- Some chart patterns trend to repeat them.
- The present trends are influenced by the past trends.

### **Fundamental Analysis**

A fundamental analysis is a time honored, value-based approach depending upon a careful assessment of the fundamentals of an economy, industry and company. The fundamental analysis studies the general economic situation, makes an evaluation of an industry and finally does an in-depth analysis, both financial and non-financial of the company. In the fundamental analysis an attempt is made to analyse various fundamentals or basic factors that affect the risk-return of the securities. In the fundamental analysis the security analyst or prospective investor is primarily interested in analyzing factors such as economic influences, industry factors and pertinent company information -such as product demand, earnings, dividends and management in order to calculate an intrinsic value for the firm's securities. The investor makes an investment by comparing the intrinsic value with the current market price of a security. The intrinsic value is the present value of future dividends and capital appreciation computed at an appropriate discount rate to reflect the riskiness of the share. The intrinsic value is also known as the fundamental value. Based on the fundamental value the investor will make a decision to buy or sell a share, by comparing the market price of the shares. If the intrinsic value of a share is higher than- the market price the share is to be bought before the market corrects its mistake by increasing the price of the security. On the other hand, if the market price is higher than the intrinsic value, sell that security This is because the price may be reduced once investors realize and start selling such share.

### **Reasons of Replacement of the Sensex Companies and Profitability Analysis of Sensex Representative Companies.**

As per the objective of study, the researcher examined and studied the causes of replacement (Inclusion and Exclusion) of a company in the list of 30 constituents that made the SENSEX of the Bombay Stock Exchange. The causes of Inclusion and Exclusion were gleaned out after discussing the issue with brokers at Delhi, site of Bombay Stock Exchange, and by studying the reports of the companies which were included and excluded in the fabric of SENSEX.

Table 1 and 2 portrays those companies which were replaced (included and excluded) in the SENSEX 30 list by the Bombay Stock Exchange (with reasons) during the study period

**Table 1: Reasons for the Inclusion of Companies in SENSEX-30**

<i>Sl.No</i>	<i>Name of the Company</i>	<i>Script Code</i>	<i>Inclusion Date</i>	<i>Reasons</i>
1	National Thermal Power Corporation Ltd.	532555	6 June, 2005	Listed History, Liquidity (Trading Frequency, Number of Trades and Value of Shares traded), Market Capitalization, Track Record and Industry Representation
2	Tata Consultancy Services Ltd.	532540	6 June, 2005	Listed History, Liquidity (Trading Frequency, Number of Trades and Value of Shares traded), Market Capitalization, Track Record and Industry Representation
3	Reliance Communication Ltd.	532712	12 June, 2006	Listed History, Liquidity (Trading Frequency, Number of Trades and Value of Shares traded), Market Capitalization, Track Record and Industry Representation
4	Mahindra & Mahindra Ltd.	500520	09 July	Listed History, Liquidity (Trading Frequency, Number of Trades and Value of Shares traded), Market Capitalization, Track Record and Industry Representation
5	DLF Ltd.	532868	19 November, 2007	Listed History, Liquidity (Trading Frequency, Number of Trades and Value of Shares traded), Market Capitalization, Track Record and Industry Representation
6	Jaiprakash Associates Ltd	532532	14 March, 2008	Listed History, Liquidity (Trading Frequency, Number of Trades and Value of Shares traded), Market Capitalization, Track Record and Industry Representation
7	Sterlite Industries Ltd	500900	28 July, 2008	Listed History, Liquidity (Trading Frequency, Number of Trades and Value of Shares traded), Market Capitalization, Track Record and Industry Representation
8	Tata Power Co. Ltd	500400	28 July, 2008	Listed History, Liquidity (Trading Frequency, Number of Trades and Value of Shares traded), Market Capitalization, Track Record and Industry Representation
9	Sun Pharmaceutical Industries Ltd	524715	12 January, 2009	Listed History, Liquidity (Trading Frequency, Number of Trades and Value of Shares traded), Market Capitalization, Track Record and Industry Representation

<i>Sl.No</i>	<i>Name of the Company</i>	<i>Script Code</i>	<i>Inclusion Date</i>	<i>Reasons</i>
10	Hero Honda Motors Ltd.	500182	29 June,2009	Listed History, Liquidity (Trading Frequency, Number of Trades and Value of Shares traded), Market Capitalization, Track Record and Industry Representation
11	Cipla ltd.	500087	03 May,2010	Listed History, Liquidity (Trading Frequency, Number of Trades and Value of Shares traded), Market Capitalization, Track Record and Industry Representation
12	Jindal Steel & Power Ltd.	532286	26 May,2010	Listed History, Liquidity (Trading Frequency, Number of Trades and Value of Shares traded), Market Capitalization, Track Record and Industry Representation
13	Bajaj Auto Ltd.	532977	06 December, 2010	Listed History, Liquidity (Trading Frequency, Number of Trades and Value of Shares traded), Market Capitalization, Track Record and Industry Representation
14	Coal India Ltd.	533278	08 August,2011	Listed History, Liquidity (Trading Frequency, Number of Trades and Value of Shares traded), Market Capitalization, Track Record and Industry Representation
15	Sun Pharmaceutical Industries Ltd	524715	08 August,2011	Listed History, Liquidity (Trading Frequency, Number of Trades and Value of Shares traded), Market Capitalization, Track Record and Industry Representation
16	Gail India Ltd	532155	09 January,2012	Listed History, Liquidity (Trading Frequency, Number of Trades and Value of Shares traded), Market Capitalization, Track Record and Industry Representation
17	Dr. Reddy's Laboratories Ltd	500124	11 June,2012	Listed History, Liquidity (Trading Frequency, Number of Trades and Value of Shares traded), Market Capitalization, Track Record and Industry Representation

Table 2: Reasons for the Exclusion of Companies from SENSEX-30

<i>Sl.No</i>	<i>Name of Company</i>	<i>Script Code</i>	<i>Inclusion Date</i>	<i>Reasons</i>
1	Hindustan Petroleum Corp	500104	06 June 2005	
2	Zee Film Ltd	505537	06 June 2005	
3	Tata Power Ltd	500400	12 June 2006	
4	Hero Honda Motors Ltd	500182	09 July 2007	
5	Dr Reddys Laboratory Ltd	500124	19 November 2007	

Sl.No	Name of Company	Script Code	Inclusion Date	Reasons
6	Bajaj Auto Ltd	500490	14 March 2008	
7	Ambuja Cement Ltd	500425	28 July 2008	
8	Cipla Ltd	500087	28 July 2008	
9	Sathyam Computers Ltd	500376	12 January 2009	
10	Ranbaxy Laboratory Ltd	500359	29 June 2009	
11	SunPharmaceutical Ltd	524715	03 May 2010	
12	Grasim Ltd	500300	26 May 2010	
13	Acc Ltd	500410	06 December 2010	Liquidity (Trading Frequency, Number of Trades and Value of Shares traded) and Market Capitalization
14	Reliance Infrastructure Ltd	500390	08 August 2011	
15	Reliance Communication Ltd	532712	08 August 2011	
16	Jayaprakash Associates Ltd	532532	09 January 2012	
17	DLF Ltd	532868	11 June 2012	

### Ralph Nelson Elliott Wave Theory

The cycles of the secondary capital market are used by investors as well as traders of shares and bonds. Highs and lows are graphed in the form of Elliott wave. The Elliott Waves - gyrations provide rhythm of waves which facilitate the market players to project the trends to arrive. The Elliott waves, when were applied on the share- prices (from April 2005 to June 2012) of the "Sensex representative companies" under study, it was observed that as compared to originally developed waves patterns of some decades? The present waves patterns show their presence now in short- duration. The market prices gyrated between an impulsive or motive phase, and a corrective phase during the study period

Figure 1

Application of Ralph Nelson Elliott Wave Theory on the Share Prices of State Bank of India



MACP - Monthly Average Closing Prices.

EW - Elliott Waves.

The result based on waves and trends thereof showed that gyrations could be subdivided into set of ups and downs in the form of trends. After putting the data on graphical-figure, it was observed/found that the bull as well as bear position were there. The Graph No. 1 shows that Waves 1, 3 and 5 were motive (dominant). Wave 2 corrects wave 1 and wave 4 corrects wave 3. After wave 5 the corrective trends start. Wave A (Bear Market) corrects wave 5 and wave B prices reverse higher and now Bull Market. In wave C prices move to lower side. In case of State Bank of India, the five-wave pattern (dominant trend) and three wave pattern (corrective trend) have been completed. So, the Elliott wave theory was fully implemented.

### Conclusion

All the seventeen companies under study were found as the constituents of the BSE- Sensex on the basis of five reasons (Listed History, Liquidity, Market Capitalization, Industry Representation and Track Record) during the study period. Some companies were also the constituents of BSE- Sensex by virtue of merger/demerger/amalgamation. All the seventeen companies were excluded from the BSE- Sensex due to the reasons of Liquidity and Market Capitalization during the study period. Some companies were also excluded from BSE-Sensex by virtue of merger/demerger/amalgamation, delisted by SEBI, delisted by BSE, and a company voluntarily got delisted. Hence, it may be suggested that the companies already as the constituents of BSE-30 should take care of their Liquidity position with parental supervision and efforts should be made to increase the Trading Frequency, Number of Trades and Value of Shares trades. The Market Capitalization increases automatically when the Trading Frequency, Number of Trades and Value of Shares trades increase.

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