SENSEX and NIFTY- A Firsthand Idea

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Abstract

The stock market is an important parameter of the economic trend of a country. The stock market value or index value of a country is calculated by the generally accepted mathematical formula using on some selected prices of stocks listed and traded in a specific stock exchange. In India there are broad two stock exchanges, namely, National Stock Exchange (NSE) at Delhi and Bombay Stock Exchange (BSE) at Bombay. The SENSEX is the index value or sensitivity value of BSE and calculated on the prices of selected 30 stocks from different industrial segment of the India. The SENSEX is calculated using Free Float Market Capitalization Methodology. On the other hand NIFTY is the stock market value of NSE. The NIFTY is determined on the share prices of fifty stocks listed and traded in NSE. The stocks prices used for calculating SENSEX and NIFTY are not fixed. The representing stocks are selected based on some performance criteria and vary time to time.

Key words: *Sensex, Nifty, Market Capitalisation, BSE, NSE*

Introduction

Stock Market indices of a county belonging to a close economy indicate industrial growth, economic development, inflation pressure, interest rate and market liquidity and political stability of the country. And in an open economy, stock market of a country indicates international industrial growth, sustainable development, inflation, interest, political stability and international liquidity. Stock market volatility or market sensitivity is reflected on the value of stock market indices.

In India there are two broad stock market indices- One is SENSEX and another is NIFTY. Besides these two, there are Large Cap, Mid Cap, Metal Index, Bank Index and FMGC Index etc.

SENSEX

The SENSEX is an "Index" or indicator of the Indian stocks belonging to the 30 listed stocks in the Bombay Stock Exchange (BSE). It is the formulated value of the prices of the listed

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thirty stocks in BSE. Normally, it gives us a general idea about whether most of the stocks have gone up or most of the stocks have gone down in BSE. If the SENSEX goes up, it means that the prices of the stocks of most of the major companies on the BSE have gone up. Similarly, if the SENSEX goes down, it indicates that the stock price of most of the major stocks on the BSE have gone down. Actually the SENSEX represents the weighted average value of the qualified stocks in the Bombay Stock Exchange

SENSEX Formulation

The BSE, pioneer stock market of India, started its broking activities in 1875 with 318 registered members. Since its inception, the Indian capital markets have passed through ups and downs. But there was no index to measure the average degree of ups or down or market volatility. Till the decade of eighties there was no scale to measure the pulses of the market.

The stock exchange introduced stock index namely, SENSEX in 1986 and which become the barometer of the Indian stock market. Due to its wide acceptance among the investors, SENSEX is regarded to be the pulse of the Indian stock market. The growth of the sock markets in India has been phenomenal in the decade gone by. Right from the early nineties the stock market witnessed heightened activities in terms of various bulls and bears run. The SENSEX captured all these events in the most judicial manner. One can identify the booms and bears of the Indian stock market through SENSEX.

SENSEX is scientifically designed by the globally accepted construction and review methodology. It is a formulated price of 30 constituent stocks representing a sample of large, liquid and representative companies.

For calculation of SENSEX, Fully Market Capitalization Method was used up to August, 2003. After that globally accepted Free-float Method is used while calculating SENSEX value.

Index Specification

Base Year- 1978-79
Base Index Value- 100
Date of Launch- 01-01-1986
Number of Scripts- 30
Index Calculation Frequency- Real Time

SENSEX Calculation Methodology

- ***Free- float Methodology:*** At the time of calculating SENSEX value under Fully Market Capitalization Method, the prices of all the 30 companies shares are taking into consideration. But in Free-float method only prices of marketable shares of the 30 companies are taken into account. As per this methodology, the level of index at any point of time reflects the free float market value of 30 component stocks relative to a base period. The capitalization of a company is determined by multiplying the price of its stock by the number of shares issued by the company. This market capitulation is further multiplied by the free-float factor to determine the free float market capitalization.

- ***SENSEX=Free-float Market Capitalisation/100(The base period index):*** The divisor is the only link to the original base period value of the SENSEX. It keeps the index comparable over time. During trading hours, prices of the index scrip, at which latest trades are executed, are used by the trading system to calculate SENSEX every 15 second and disseminated in real time.

- ***Calculating Free Float Market Capitalization of a Company:***
Step 1: Full Market Capitalization (FMC) = Market Price of Share x Number of Outstanding shares
Step 2: Free Float Percentage (FFP) = Number of shares readily available for trade on the market/ Total Number of Outstanding shares
Step 3: Free Float Market Capitalization (FFMC) = FMC x FFMC

  FFMC=Number of shares held by general public x Value per share in BSE

- ***Calculating the SENSEX:***
Step 4: Index Divisor (ID) =Previous Day's Total FFMC/Previous Day's SENSEX
Step 5: Total Free Float Market Capitalization (TFFMC) or Price Lifebuoy (PL) =Sum of individual FFMC for all 30 SENSEX companies
Step 6: SENSEX= TFFMC/ID

- ***SENSEX – Scrip Selection Criteria:*** Both quantitative and qualitative criteria are taken into consideration for selecting scrip for the SENSEX calculating

(1) Market Capitalization- The scrip should figure in top 100 companies listed by market capitalization. Also market capitalization of each scrip should be more than .5% of the total market capitalization of the Index.
(2) Liquidity:
  (i) Trading Frequency: The scrip should have been traded on each and every trading day for the last one year. Exceptions can be made for extreme reasons like scrip suspension etc.
  (ii) Number of Trades: The scrip should be among the top 150 companies listed by average number of trades per day for the last one year.
  (iii) Value of scrip traded: The scrip should be among the top 150 companies listed by average value of shares traded per day for the last one year.

(3) Continuity: Whenever the composition of the index is changed, the continuity of historical series of the index values is re-established by correlating the value of the revised index to the old index. The back calculation over the last one year period is carried out and correlation of the revised index to the old index should not be less than 0.98.
(4) Industry Representation: Scrip selection would take into account a balanced representation of the listed companies in the universe or BSE. The index companies should be leaders in their industry group.
(5) Listed History: The scrip should have a listing history of at least one year on BSE.
(6) Track Record: In the opinion of the Index Committee, the company should have an acceptable track record.

NIFTY

Like SENSEX in BSE, NIFTY is an index computed from performance of top stocks from different sectors listed on National Stock Exchange (NSE) at Delhi. NIFTY consisted with 50 companies from 24 different sectors. NIFTY stands for National Stock Exchange's Fifty. The companies which form index of NIFTY may vary from time to time based on many factors considered by NSE. India Index service and Products Ltd (IISL) owns NIFTY. IISL is a join venture of NSE and CRISL. CRISIL is a subsidiary of Standard and Poor(S&P). Alternatively, NIFTY is also called as S&P CNX NIFTY.

Conclusion

The SENSEX is the formulated value of 30 stocks' prices from different industrial segments under Free Float Market Capitalization Methodology, listed and traded in Bombay Stock Exchange at Mumbai. It represents the formulated average value of stock prices of the selected 30 stocks in BSE. If the prices of all selected stocks or most of the stocks used for index calculation are increased then, the SENSEX is increased and vice versa. Similarly, NIFTY is the calculated value of the 50 stocks prices listed and traded in National Stock Exchange at Delhi using the same methodology representing from different industrial segment. If prices of all the selected stocks or most of the stocks used for index calculation are increased then NIFTY will be increased and vice versa. So, SENSEX and NIFTY primarily represents the stocks prices movement of the selected stocks used for index calculation.

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