How the Sensex Works

The objective of the S&P BSE SENSEX is to measure the performance of the top 30 stocks in India by market cap and liquidity. The index has seen a few changes in its methodology as the Indian market has evolved over the past three decades, but none have affected the objective of the index. The most recent change was the consideration of differential voting right (DVR) shares as securities eligible for inclusion in the index, subject to fulfilling the size and liquidity criteria of the index methodology.

Index Construction

Constituents of the S&P BSE SENSEX are selected based on the following eligibility criteria.

- **Universe:** All common stocks and DVR shares that are part of the S&P BSE 100 are eligible for index inclusion.
- **Market Cap:** Constituents must be among the top 75 companies based on their average three-month float or total market cap.
- **Liquidity:** The cumulative weight of the three-month average daily value traded (ADVT) is calculated for companies that meet the eligibility requirements. Any prospective constituents with a cumulative weight of ADVT greater than 98% are excluded from the index.
- **Minimum Float Weight:** Constituents should have a minimum free-float market cap of 0.50% after market cap and liquidity criteria are met.
- **Sector Representation:** The stock selection generally attempts to maintain index sector weights that are broadly in line with the overall market.
- **Stock Selection:** During the periodic review, index constituents that no longer meet the free-float market cap, total market cap, ADVT, and minimum weight criteria are removed and replaced with candidates from the replacement pool.
- **Constituent Weighting:** Every stock in the index is weighted by its float-adjusted market cap.
- **Reconstitution Frequency:** The index undergoes a biannual reconstitution in June and December each year.

Index Calculation

The S&P BSE SENSEX seeks to measure the performance of 30 stocks. It employs a float-adjusted, market-cap-weighting scheme and uses divisor methodology.

**CALCULATION OF INDEX VALUE**

\[
\text{Index Value}_t = \frac{\sum Price_{i,t} \times Shares_{i,t} \times IWF_{i,t}}{\text{Divisor}_t}
\]
Where:

Price = Price of the underlying stocks in the index

Shares = Total number of shares of the underlying stock listed on the exchange

IWF = Investible weight factor, also known as the free-float factor of the underlying stock

The key to index maintenance is the adjustment of the divisor. Index maintenance—changes in shares outstanding, corporate actions, addition or deletion of stocks—should not change the level of the index. Any adjustment to the index that alters the market cap will require divisor adjustment. The divisor of the index is adjusted in the exact same proportion as the change in the market cap of the index.

In other words, if the S&P BSE SENSEX closes at 27,000 on a given day, and one stock is replaced by another after the market close, the index should open at 27,000 the following morning if all of the opening prices are the same as the previous day’s closing prices. This is accomplished with the adjustment to the divisor.

For example, if the market cap of the index increases by 10% due to a corporate action or a constituent being added or dropped, then the divisor must be increased by 10% so that the opening value of the index the following day will be the same as the previous day’s close.

**CALCULATION OF THE NEW DIVISOR**

\[
    \text{New Divisor} = \left( \text{Current Divisor} \right) \times \frac{\text{New Index Market Capitalization After Adjustment}}{\text{Index Close Market Capitalization as of Day}}
\]