



# How to calculate the Sensex

- By Prof. Simply Simple™



- Till the decade of the 1980s, there was no scale to measure the ups and downs of the Indian stock market
- The Stock Exchange, Mumbai then came out with a stock index called the Sensex or Sensitive Index
- **The Sensex was first compiled in 1986**
- It is a basket of 30 stocks comprising a sample of large, liquid and representative companies
- The Sensex became the barometer of the Indian stock market
- **The base year of the Sensex is 1978-79 & the base value is 100**



Interestingly...

The Sensex is not only scientifically designed but also based on globally accepted construction and review methodology

The index is widely reported in both domestic and international markets through print as well as international media



So how is it calculated?

- The oldest stock market index in the country is calculated using the 'Free-Float Market Capitalization' methodology
- Market capitalization of a company is determined by multiplying the prevailing price per share with the number of shares issued by the company
- E.g. Company A has issued 1 lac shares having market price of Rs. 750/- per share. Therefore, market capitalization of Company A is 1,00,000 shares X Rs. 750/- per share = <u>Rs. 75,00,00,00</u>
- This market capitalization is further multiplied by free float factor to determine free-float market capitalization



What is Free-Float market capitalization?

- It is defined as that proportion of total shares issued by the company that are readily available for trading in the market
- It excludes promoters' holding, government holding, and other locked-in shares that do not come to the market for trading
- E.g. Suppose Company B has 1000 shares in total; out of which 200 are held by promoters. Now only 800 shares are available for trading, to the general public.

These 800 shares are called 'Free-Floating' shares



Sensex Calculation Methodology....

- Assume that the Index consists of only 2 stocks, <u>STOCK A</u> and <u>STOCK B</u>
- COMPANY A has 800 free-floating shares while COMPANY B has only 1000 free-floating shares
- Market price of STOCK A is Rs. 120/- per share. Hence its free-float market cap is Rs. 96000/- (800 shares X Rs. 120 per share)
- Similarly, market price of STOCK B is Rs. 200/- per share & its freefloat market cap is Rs. 2,00,000/- (1000 shares X Rs. 200 per share)





Thus...

The free-float market capitalization of the index (comprising of STOCK A & STOCK B in this case) is Rs. 2,96,000/-(Rs. 96,000 + Rs. 2,00,000)

Now...

- The year 1978-79 is considered the base year of the index with a base value set to 100, as explained earlier
- Suppose, at that time, the market cap of the stocks in the index was Rs.
  60,000
- Then, we logically presume that an <u>index market cap</u> of Rs. 60,000 is equal to an <u>index value</u> of 100
- **Thus, the value of the index today is:-**
- **Rs. 2,96,000 X 100/60,000 = 493.33**





Hope you have now understood

how the Sensex is calculated.

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